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# ***Staff Paper***

## **1999 Business Analysis Summary for Dairy Farms**

**Sherrill B. Nott**

**Staff Paper #00-24**

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# 1999 BUSINESS ANALYSIS SUMMARY FOR DAIRY FARMS

## 1999 Michigan Telfarm/MicroTel Data

Staff Paper No. 2000-24, 59 pages

by

Sherrill B. Nott<sup>1</sup>

### Introduction

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## Data Source

Farm types were assigned using the 1992 Census of Agriculture's Standard Industrial Classification (SIC) definitions. Basically, any farm with 50 percent or more of value of farm sales from one item becomes a farm of that type. Dairy farms have 50 percent or more of value of combined sales from milk and cull dairy animals.

This report is a summary of the financial and production records kept by dairy farmers enrolled in the Telfarm/MicroTel record program through Michigan State University Extension., or were accounting clients of AgriSolutions in Michigan, or of Farm Credit Services of Escanaba. Farm records were included if a Finan<sup>2</sup> summary was completed on 1999 data including beginning and ending balance sheets, plus income and expenses. The summary was included if cash discrepancy was less than 10% of gross cash inflow, and if the debt discrepancy was less than \$1,000. The averages are reported in the tables below; it should be recognized that considerable variability exist in the data. The unweighted mean of the net farm income for the 153 farms was \$124,062; the standard deviation of the mean was \$153,338 and the median was \$101,695. The unweighted mean of cows was 187 cows; the standard deviation of the mean was 213 cows and the median was 134 cows. The unweighted mean of pounds of milk sold per cow was 19,602 pounds; the standard deviation of the mean was 3,738 pounds and the median was 19,584 pounds.

This report has three purposes: 1)to provide statistical information about the financial results on dairy farms during 1999; 2)to provide production costs for comparative analysis and forward planning; and 3)to provide information on the trends in resource use, income and costs during the last few years. For dairy farm averages for 1995, see Staff Paper No. 96-86, Michigan Farm Database, New Directions for 1995; it contains averages of 106 dairy farms calculated with Finansum. Staff Paper No. 97-31, Business Analysis Summary for Dairy Farms, contains averages of 146 dairy farms for 1996. Staff Paper No. 98-29, 1997 Business Analysis Summary for Dairy Farms, contains averages of 132 dairy farms for 1997. Staff Paper No. 99-37, 1998 Business Analysis Summary for Dairy Farms, contains averages of 154 dairy farms for 1998. These earlier staff papers are available from the author and at:

<http://www.msu.edu/user/nott>

Finansum allows rapid analysis of group averages with some degree of choice over how the results are presented. The farm was accepted in the average regardless of whether the farm was a proprietorship, partnership, limited liability company, or corporation. Finansum will produce a variety of report options; I included a subset in this publication.

The farms included in the averages below are not a random sample. They kept their financial records with Michigan State University's Telfarm/MicroTel accounting project, or had their accounting supervised by AgriSolutions, or Wisconsin Farm Credit Services' Escanaba office. A higher percentage of these farms use debt capital than do all farms in the state. The averages may be representative of bigger and better managed dairy farms.

This document may be found and downloaded from the following:

<http://www.msu.edu/user/nott>

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<sup>2</sup> Finan = financial analysis, one of the parts of Finpack, a financial software package from the Center for Farm Financial Management at the University of Minnesota.

Table 1.

**LIVESTOCK AND CROP PRODUCTION SUMMARY, 1999****Michigan Dairy Farms, All Sizes**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
<hr/>			
DAIRY			
Number of farms	153	38	38
Avg. number of Cows	183.3	129.7	303.8
Milk produced per Cow, lbs.	20,917	18,579	22,385
Percent of barn capacity	98.2	90.5	98.1
Avg. milk price per cwt.	15.57	15.38	15.65
ACREAGE SUMMARY			
Total Acres Owned	415	332	595
Total Crop Acres	561	493	818
Crop Acres Owned	325	255	515
Crop Acres Cash Rented	235	235	303
AVERAGE PRICE RECEIVED (Cash Sales Only)			
Corn per bu.	1.79	-	1.71
Soybeans per bu.	4.12	-	3.83
Wheat, Winter per bu.	1.94	1.89	1.92
AVERAGE YIELD PER ACRE			
Hay, Alfalfa (ton)	4.57	4.34	4.42
Corn (bu.)	123.97	114.62	122.74
Corn Silage (ton)	16.05	16.40	15.85
Haylage, Alfalfa (ton)	6.65	3.24	7.85
Soybeans (bu.)	40.82	-	42.55
Wheat, Winter (bu.)	61.48	-	60.58

Table 2

**FARM INCOME STATEMENT, 1999****Michigan Dairy Farms, All Sizes**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	153	38	38
CASH FARM INCOME			
Asparagus	67	-	-
Barley	28	-	111
Black Turtle Beans	89	-	-
Green Beans	11	-	42
Navy Beans	85	-	-
Cordwood	219	145	265
Corn	5831	4052	6688
Corn Silage	327	606	180
Alfalfa Hay	605	1	1
Mixed Hay	384	473	183
Alfalfa Haylage	61	-	-
Mixed Haylage	186	-	750
Oats	73	105	50
Soybeans	6155	6674	9055
Straw	132	183	192
Sugar Beets	1294	1947	2801
Sunflowers	23	-	-
Winter Wheat	1709	1634	2100
Other crops	269	947	77
Beef Calves	13	-	28
Background Beef	520	1969	78
Milk	597081	370571	1062038
Dairy Calves	2843	1903	4121
Dairy Replacement Heifers	598	591	918
Dairy Steers	4897	1930	6958
Cull breeding livestock	21459	14619	35170
Misc. livestock income	172	19	-
Transition payments	2341	1140	4556
CRP payments	405	1474	-
Other government payments	36482	25484	52626
Custom work income	3882	4546	5266
Patronage dividends, cash	3763	2553	5999
Insurance income	1083	557	1329
Other farm income	10559	9843	17551
Gross Cash Farm Income	703,646	453,966	1,219,137

Table 3

**FARM INCOME STATEMENT, 1999 (Continued)****Michigan Dairy Farms, All Sizes**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	153	38	38
CASH FARM EXPENSE			
Seed	12085	9011	17164
Fertilizer	23846	19941	35641
Crop chemicals	10224	5936	16188
Crop insurance	350	217	159
Drying fuel	159	63	213
Crop marketing	92	213	60
Crop miscellaneous	1875	1836	3409
Feeder livestock purchase	1658	3969	2653
Purchased feed	152566	86500	297672
Breeding fees	4662	2179	8634
Veterinary	20082	13608	34671
Livestock supplies	27342	16142	50207
Livestock leases	1342	850	1529
Livestock marketing	21875	15290	35456
Interest	34319	35706	51783
Fuel & oil	11521	8307	17723
Repairs	41249	26160	61904
Custom hire	15116	13549	24332
Hired labor	86372	55177	145703
Land rent	19850	17029	23660
Machinery & bldg leases	11679	8596	18545
Real estate taxes	7429	7075	10987
Farm insurance	8448	7359	10978
Utilities	13429	10194	21419
Dues & professional fees	4657	5079	5828
Hedging account deposits	242	-	-
Miscellaneous	16972	12295	30559
Total cash expense	549442	382281	927078
Net cash farm income	154204	71684	292059
INVENTORY CHANGES			
Crops and feed	11563	3185	22581
Market livestock	933	1718	1738
Accounts receivable	-1999	-4168	-2121
Prepaid expenses and supplies	9457	-206	19087
Accounts payable	540	1875	-4897
Total inventory change	20494	2404	36389
Net operating profit	174698	74088	328448
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS			
Breeding livestock	9792	-11487	23726
Machinery and equipment	-44790	-42119	-63782
Buildings and improvements	-17902	-16045	-22399
Other farm capital	-2491	366	7438
Total depr. and other capital adj	-55391	-69284	-55018
Net farm income	119,307	4,804	273,430

Table 4

**INVENTORY CHANGES, 1999****Michigan Dairy Farms, All Sizes**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	153	38	38
Net cash farm income	154204	71684	292059
CROPS AND FEED			
Ending inventory	127459	97339	189708
Beginning inventory	115896	94154	167127
Inventory change	11563	3185	22581
MARKET LIVESTOCK			
Ending inventory	8279	10547	9998
Beginning inventory	7347	8829	8260
Inventory change	933	1718	1738
ACCTS RECEIVABLE & OTHER CURRENT ASSETS			
Ending inventory	30774	30007	50753
Beginning inventory	32772	34176	52874
Inventory change	-1999	-4168	-2121
PREPAID EXPENSES AND SUPPLIES			
Ending inventory	30650	4914	74622
Beginning inventory	21192	5120	55535
Inventory change	9457	-206	19087
ACCOUNTS PAYABLE			
Beginning inventory	14839	21716	13964
Ending inventory	14298	19840	18860
Inventory change	540	1875	-4897
Total inventory change	20494	2404	36389
Net operating profit	174698	74088	328448



Table 5

**DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999**  
**Michigan Dairy Farms, All Sizes**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	153	38	38
Net operating profit	174698	74088	328448
BREEDING LIVESTOCK			
Ending inventory	346189	224806	583802
Capital sales	4974	5114	12336
Beginning inventory	306316	215405	499371
Capital purchases	35055	26003	73042
Depreciation, capital adj.	9792	-11487	23726
MACHINERY AND EQUIPMENT			
Ending inventory	156978	100048	284813
Capital sales	4812	1209	10347
Beginning inventory	137362	96803	233919
Capital purchases	69219	46573	125023
Depreciation, capital adj.	-44790	-42119	-63782
BUILDINGS AND IMPROVEMENTS			
Ending inventory	130387	79245	229523
Capital sales	34	-	-
Beginning inventory	122902	86549	202458
Capital purchases	25421	8741	49464
Depreciation, capital adj.	-17902	-16045	-22399
OTHER CAPITAL ASSETS			
Ending inventory	42910	14139	122960
Capital sales	7309	2092	14799
Beginning inventory	20848	14771	31877
Capital purchases	31861	1093	98444
Depreciation, capital adj.	-2491	366	7438
Total depreciation, capital adj.	-55391	-69284	-55018
Net farm income	119307	4804	273430

Table 6

# **PROFITABILITY AND LIQUIDITY ANALYSIS, 1999**

## **Michigan Dairy Farms, All Sizes**

(Farms sorted by Net Farm Income)

	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%
Number of Farms	153	38	38	153	38	38
PROFITABILITY	----- Cost -----			----- Market -----		
Net farm income	119307	4804	273430	175671	70357	326252
Labor and management earnings	87609	-9100	214445	117931	33754	231672
Rate of return on assets	9.7 %	0.0 %	14.6 %	10.6 %	6.0 %	13.1 %
Rate of return on equity	12.3 %	-15.9 %	20.3 %	12.6 %	4.7 %	16.0 %
Operating profit margin	17.5 %	0.1 %	26.1 %	27.4 %	18.7 %	31.6 %
Asset turnover rate	55.4 %	49.8 %	56.0 %	38.7 %	32.4 %	41.3 %
Interest on farm net worth	31698	13904	58985	57740	36603	94580
Farm interest expense	35020	36928	53293	35020	36928	53293
Value of operator lbr and mgmt.	54802	41476	74759	54802	41476	74759
Return on farm assets	99526	256	251964	155889	65809	304786
Average farm assets	1027462	707929	1724130	1470304	1090335	2334298
Return on farm equity	64505	-36672	198671	120869	28881	251493
Average farm equity	525483	230611	979580	962330	610048	1576341
Value of farm production	569711	352744	964736	569711	352744	964736
		Average Of All Farms	Average Of Low 25%	Average Of High 25%		
Number of Farms		153	38	38		
LIQUIDITY (Cash)						
Net cash farm income		154204	71684	292059		
Net nonfarm income		6497	8391	5772		
Family living and taxes		58389	32561	101256		
Real estate principal payments		14449	13687	23869		
Cash available for interm. debt		87863	33828	172705		
Average intermediate debt		186302	159810	247985		
Years to turnover interm. debt		2.1	4.7	1.4		
Expense as a % of income		78 %	84 %	76 %		
Interest as a % of income		5 %	8 %	4 %		
LIQUIDITY (Accrual)						
Total accrual farm income		714143	454700	1241335		
Total accrual farm expense		539445	380612	912887		
Net accrual operating income		174698	74088	328448		
Net nonfarm income		6497	8391	5772		
Family living and taxes		58389	32561	101256		
Real estate principal payments		14449	13687	23869		
Available for intermediate debt		108357	36232	209094		
Average intermediate debt		186302	159810	247985		
Years to turnover interm. debt		1.7	4.4	1.2		
Expense as a % of income		76 %	84 %	74 %		
Interest as a % of income		5 %	8 %	4 %		

Table 7

**BALANCE SHEET AT COST VALUES, 1999**  
**Michigan Dairy Farms, All Sizes**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	153		38		38	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	14448	13332	7599	5612	28340	29751
Prepaid expenses & supplies	21192	30650	5120	4914	55535	74622
Growing crops	8195	8343	5949	5658	9847	9450
Accounts receivable	20639	19128	17861	16451	41335	39535
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	115237	126798	94154	97339	165730	188106
Crops under government loan	659	661	-	-	1397	1602
Market livestock held for sale	7347	8279	8829	10547	8260	9998
Other current assets	3939	3302	10365	7898	1692	1767
Total current farm assets	191656	210493	149877	148420	312136	354832
Intermediate Farm Assets						
Breeding livestock	306316	346189	215405	224806	499371	583802
Machinery and equipment	137362	156978	96803	100048	233919	284813
Other intermediate assets	16883	39606	12223	11974	28993	118207
Total intermediate farm assets	460561	542774	324431	336828	762284	986823
Long-Term Farm Assets						
Farm land	184106	204778	135164	150633	271800	320768
Buildings and improvements	122902	130387	86549	79245	202458	229523
Other long-term assets	3965	3303	2547	2165	2884	4753
Total long-term farm assets	310973	338468	224260	232043	477142	555044
Total Farm Assets	963189	1091734	698567	717290	1551561	1896698
Total Nonfarm Assets	44818	58931	21554	24125	91617	122529
Total Assets	1008007	1150665	720122	741415	1643179	2019227
LIABILITIES						
Current Farm Liabilities						
Accrued interest	720	1421	650	1873	557	2067
Accounts payable	14119	12878	21065	17968	13407	16793
Current notes	44820	45499	62205	54534	52573	61907
Government crop loans	616	656	-	-	1278	1602
Principal due on term debt	43072	48713	40944	43596	56420	66360
Total current farm liabilities	103347	109166	124864	117971	124235	148729
Intermediate Farm Liabilities	158572	151180	135558	129314	221969	198826
Long-term Farm Liabilities	209049	272643	195813	251117	310902	484439
Total Farm Liabilities	470968	532990	456235	498401	657106	831995
Total Nonfarm Liabilities	2336	2321	541	859	337	-
Total Liabilities	473304	535311	456776	499259	657443	831995
Net Worth (farm and nonfarm)	534703	615354	263346	242156	985736	1187233
Net Worth Change	80651		-21190		201497	
RATIO ANALYSIS						
Current Farm Liabilities / Assets	54 %	52 %	83 %	79 %	40 %	42 %
Curr. & Interm Farm Liab / Assets	40 %	35 %	55 %	51 %	32 %	26 %
Long Term Farm Liab. / Assets	67 %	81 %	87 %	108 %	65 %	87 %
Total Liabilities / Assets	47 %	47 %	63 %	67 %	40 %	41 %

Table 8

**BALANCE SHEET AT MARKET VALUES, 1999**  
**Michigan Dairy Farms, All Sizes**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	153		38		38	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	14448	13332	7599	5612	28340	29751
Prepaid expenses & supplies	21192	30650	5120	4914	55535	74622
Growing crops	8195	8343	5949	5658	9847	9450
Accounts receivable	20639	19128	17861	16451	41335	39535
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	115237	126798	94154	97339	165730	188106
Crops under government loan	659	661	-	-	1397	1602
Market livestock held for sale	7347	8279	8829	10547	8260	9998
Other current assets	3939	3302	10365	7898	1692	1767
Total current farm assets	191656	210493	149877	148420	312136	354832
Intermediate Farm Assets						
Breeding livestock	322796	363357	216541	226027	534209	626776
Machinery and equipment	275296	309737	214949	241773	394135	466257
Other intermediate assets	18964	41522	13160	12707	28993	118207
Total intermediate farm assets	617056	714617	444650	480507	957338	1211240
Long-Term Farm Assets						
Farm land	414778	467050	349973	407267	585851	664735
Buildings and improvements	148949	168266	97917	96820	274338	300528
Other long-term assets	4113	3629	2811	2428	2846	4753
Total long-term farm assets	567841	638945	450701	506515	863035	970016
Total Farm Assets	1376553	1564054	1045228	1135442	2132509	2536088
Total Nonfarm Assets	80018	100794	55141	93435	109454	135477
Total Assets	1456571	1664848	1100369	1228877	2241963	2671565
LIABILITIES						
Current Farm Liabilities						
Accrued interest	720	1421	650	1873	557	2067
Accounts payable	14119	12878	21065	17968	13407	16793
Current notes	44820	45499	62205	54534	52573	61907
Government crop loans	616	656	-	-	1278	1602
Principal due on term debt	43072	48713	40944	43596	56420	66360
Total current farm liabilities	103347	109166	124864	117971	124235	148729
Intermediate Farm Liabilities	158572	151180	135558	129314	221969	198826
Long-term Farm Liabilities	209049	272643	195813	251117	310902	484439
Total Farm Liabilities	470968	532990	456235	498401	657106	831995
Total Nonfarm Liabilities	2336	2321	541	859	337	-
Total Deferred Liabilities	4721	7632	-	7228	10583	16205
Total Liabilities	478025	542943	456776	506487	668026	848199
Net Worth (farm and nonfarm)	978546	1121906	643593	722390	1573938	1823366
Net Worth Change	143360		78797		249428	
RATIO ANALYSIS						
Current Farm Liabilities / Assets	54 %	52 %	83 %	79 %	40 %	42 %
Curr. & Interm Farm Liab. / Assets	32 %	28 %	44 %	39 %	27 %	22 %
Long Term Farm Liabilities / Assets	37 %	43 %	43 %	50 %	36 %	50 %
Total Liabilities / Assets	33 %	33 %	42 %	41 %	30 %	32 %

Table 9

**STATEMENT OF CASH FLOWS, 1999**  
**Michigan Dairy Farms, All Sizes**  
(Farms sorted by Net Farm Income)

		Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms		153	38	38
(a) Beginning cash balance (farm & nonfarm)		14793	7599	28867
CASH FROM OPERATING ACTIVITIES				
Gross cash farm income		703646	453966	1219137
Net nonfarm income	(+)	6497	8391	5772
Total cash farm expense	(-)	549442	382281	927078
Apparent family living expense	(-)	52914	30616	90924
Income and social security tax	(-)	5475	1945	10332
(b) Cash from operations	(=)	102312	47514	196574
CASH FROM INVESTING ACTIVITIES				
Sale of breeding livestock		4974	5114	12336
Sale of machinery & equipment	(+)	4812	1209	10347
Sale of farm land	(+)	1080	-	-
Sale of farm buildings	(+)	34	-	-
Sale of other farm assets	(+)	7309	2092	14799
Sale of nonfarm assets	(+)	1599	1493	1521
Purchase of breeding livestock	(-)	35055	26003	73042
Purchase of machinery & equip.	(-)	69219	46573	125023
Purchase of farm land	(-)	21423	19317	48105
Purchase of farm buildings	(-)	25421	8741	49464
Purchase of other farm assets	(-)	31861	1093	98444
Purchase of nonfarm assets	(-)	4460	1823	10348
(c) Cash from investing activities	(=)	-167632	-93641	-365422
CASH FROM FINANCING ACTIVITIES				
Money borrowed		180037	156315	346567
Cash gifts and inheritances	(+)	3317	864	4642
Principal payments	(-)	117357	111957	176908
Dividends paid	(-)	-	-	-
Gifts given	(-)	1302	652	3254
(d) Cash from financing activities	(=)	64695	44570	171048
(e) Net change in cash balance (b+c+d)		-625	-1557	2200
Ending cash balance (farm & nonfarm)		14168	6042	31067

Table 10

**FINANCIAL GUIDELINES MEASURES, 1999**  
**Michigan Dairy Farms, All Sizes**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	153		38		38	
<b>LIQUIDITY</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current ratio	1.85	1.93	1.20	1.26	2.51	2.39
Working capital	88309	101326	25012	30449	187901	206102
<b>SOLVENCY (Market)</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Farm debt to asset ratio	35 %	34 %	44 %	44 %	31 %	33 %
Farm equity to asset ratio	65 %	66 %	56 %	56 %	69 %	67 %
Farm debt to equity ratio	53 %	52 %	77 %	78 %	46 %	50 %
<b>PROFITABILITY</b>	Cost	Market	Cost	Market	Cost	Market
Rate of return on farm assets	9.7 %	10.6 %	0.0 %	6.0 %	14.6 %	13.1 %
Rate of return on farm equity	12.3 %	12.6 %	-15.9 %	4.7 %	20.3 %	16.0 %
Operating profit margin	17.5 %	27.4 %	0.1 %	18.7 %	26.1 %	31.6 %
Net farm income	119307	175671	4804	70357	273430	326252
<b>REPAYMENT CAPACITY</b>	Cash	Accrual	Cash	Accrual	Cash	Accrual
Term debt coverage ratio	199 %	233 %	111 %	115 %	283 %	331 %
Capital replacement margin	58699	79193	6386	8790	138559	174948
<b>EFFICIENCY</b>						
Asset turnover rate (market)	38.7 %		32.4 %		41.3 %	
Operating expense ratio	70.6 %		75.6 %		69.2 %	
Depreciation expense ratio	7.8 %		15.2 %		4.4 %	
Interest expense ratio	4.9 %		8.1 %		4.3 %	
Net farm income ratio	16.7 %		1.1 %		22.0 %	

**LABOR ANALYSIS**

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
Number of Farms	148	36	38
Total unpaid labor hours	5013	4366	5968
Total hired labor hours	7496	3464	13462
Total labor hours per farm	12509	7830	19430
Value of farm production / hour	45.01	43.15	49.65
Net farm income / unpaid hour	24.57	2.55	45.82

Table 11

**OPERATOR INFORMATION & NONFARM SUMMARY, 1999****Michigan Dairy Farms, All Sizes**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	153	38	38
OPERATOR INFORMATION			
Average number of operators	1.6	1.4	2.0
Average age of operators	49.8	51.1	49.4
Average number of years farming	25.0	25.7	25.8
NONFARM INCOME			
Nonfarm wages & salary	2731	5588	181
Nonfarm business income	83	332	1
Nonfarm rental income	1118	76	923
Nonfarm interest income	544	104	1130
Nonfarm cash dividends	69	1	181
Tax refunds	159	258	16
Nontaxable non-farm income	26	26	80
Gifts and inheritances	3317	864	4642
Other non-farm income	1767	2005	3259
Total non-farm income	9814	9254	10414
NONFARM ASSETS (Mkt)			
	Average Of Beginning	All Farms Ending	
Checking & savings	345	837	
Stocks & bonds	3178	3361	
Other current assets	7001	2647	
Furniture & appliances	3521	3657	
Nonfarm vehicles	2857	3243	
Cash value of life ins.	10840	12648	
Retirement accounts	13920	20238	
Other intermediate assets	5043	6489	
Nonfarm real estate	30531	43529	
Other long term assets	2784	4145	
Total non-farm assets	80018	100794	

Table 12

**LIVESTOCK AND CROPS PRODUCTION SUMMARY, 1999****Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
-----			
DAIRY			
Number of farms	29	7	7
Avg. number of Cows	56.4	57.1	60.0
Milk produced per Cow, lbs	17,909	15,065	20,636
Percent of barn capacity	95.1	97.6	95.7
Avg. milk price per cwt.	15.47	15.46	15.62
ACREAGE SUMMARY			
Total Acres Owned	272	278	376
Total Crop Acres	295	353	399
Crop Acres Owned	177	176	292
Crop Acres Cash Rented	116	177	102
AVERAGE PRICE RECEIVED (Cash Sales Only)			
Wheat, Winter per bu.	2.04	-	-
AVERAGE YIELD PER ACRE			
Hay, Alfalfa (ton)	4.44	-	5.67
Corn (bu.)	135.40	-	-
Hay, Mixed (ton)	2.45	-	-
Corn Silage (ton)	13.55	-	-
Hay, Native Grass (ton)	3.23	-	-
Soybeans (bu.)	46.92	-	-
Wheat, Winter (bu.)	68.74	-	-



Table 13

**FARM INCOME STATEMENT, 1999****Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	29	7	7
CASH FARM INCOME			
Black Turtle Beans	272	-	1126
Navy Beans	448	-	1857
Cordwood	190	786	-
Corn	4001	7691	6175
Alfalfa Hay	1764	-	7310
Mixed Hay	68	-	-
Oats	172	571	141
Soybeans	3513	7300	4080
Straw	107	-	221
Sugar Beets	3158	-	2511
Winter Wheat	2250	3598	5232
Miscellaneous crop income	364	-	248
Background Beef	61	-	251
Milk	156443	133090	193356
Dairy Calves	552	504	813
Dairy Replacement Heifers	667	-	261
Dairy Steers	2208	1521	413
Cull breeding livestock	7399	7494	7053
Misc. livestock income	191	-	208
Transition payments	2078	-	7846
CRP payments	1931	2288	-
Other government payments	9931	12665	15787
Custom work income	859	110	2939
Patronage dividends, cash	887	934	1314
Insurance income	115	478	-
Other farm income	3833	2223	9091
Gross Cash Farm Income	203,462	181,253	268,233

Table 14

**FARM INCOME STATEMENT, 1999 (Continued)****Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	29	7	7
CASH FARM EXPENSE			
Seed	5109	4705	7284
Fertilizer	12575	13436	21577
Crop chemicals	3387	1815	6637
Crop insurance	16	17	-
Drying fuel	24	-	-
Crop marketing	22	-	-
Crop miscellaneous	213	167	376
Feeder livestock purchase	152	-	-
Purchased feed	32867	30576	37657
Breeding fees	1299	1704	1481
Veterinary	4239	2704	7823
Livestock supplies	5978	6402	4235
Livestock leases	10	-	-
Livestock marketing	7134	6258	8544
Interest	10834	14474	7488
Fuel & oil	4370	3820	5484
Repairs	15846	16642	17343
Custom hire	3496	6639	3013
Hired labor	16091	9330	25390
Land rent	7940	8239	4627
Machinery & bldg leases	2441	3791	2072
Real estate taxes	2690	3298	2243
Farm insurance	3872	4041	4689
Utilities	4767	4288	5315
Dues & professional fees	1636	1727	1094
Hedging account deposits	5	-	21
Miscellaneous	5823	3905	13404
Total cash expense	152834	147977	187796
Net cash farm income	50628	33276	80436
INVENTORY CHANGES			
Crops and feed	10156	2436	21226
Market livestock	418	47	2542
Accounts receivable	412	-12	1843
Prepaid expenses and supplies	1555	-	4919
Accounts payable	-173	-2803	333
Total inventory change	12368	-333	30863
Net operating profit	62996	32943	111299
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS			
Breeding livestock	3015	-4726	6840
Machinery and equipment	-21910	-20638	-29485
Buildings and improvements	-1492	-6249	6904
Other farm capital	646	-1533	2074
Total depr. and other capital adj	-19741	-33147	-13667
Net farm income	43,254	-203	97,632

Table 15

**INVENTORY CHANGES, 1999**  
**Michigan Dairy Farms, 20 - 75.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	29	7	7
Net cash farm income	50628	33276	80436
CROPS AND FEED			
Ending inventory	50860	36463	84036
Beginning inventory	40704	34027	62810
Inventory change	10156	2436	21226
MARKET LIVESTOCK			
Ending inventory	4604	2479	8018
Beginning inventory	4186	2431	5476
Inventory change	418	47	2542
ACCTS RECEIVABLE & OTHER CURRENT ASSETS			
Ending inventory	10615	3875	19274
Beginning inventory	10203	3887	17431
Inventory change	412	-12	1843
PREPAID EXPENSES AND SUPPLIES			
Ending inventory	5866	4240	16423
Beginning inventory	4311	4240	11504
Inventory change	1555	-	4919
ACCOUNTS PAYABLE			
Beginning inventory	4267	2019	2509
Ending inventory	4440	4822	2175
Inventory change	-173	-2803	333
Total inventory change	12368	-333	30863
Net operating profit	62996	32943	111299

Table 16

**DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999****Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	29	7	7
Net operating profit	62996	32943	111299
BREEDING LIVESTOCK			
Ending inventory	101307	100618	102863
Capital sales	840	102	455
Beginning inventory	95435	94789	95979
Capital purchases	3697	10657	500
Depreciation, capital adj.	3015	-4726	6840
MACHINERY AND EQUIPMENT			
Ending inventory	38759	44621	36775
Capital sales	473	581	750
Beginning inventory	37888	45462	34806
Capital purchases	23254	20379	32203
Depreciation, capital adj.	-21910	-20638	-29485
BUILDINGS AND IMPROVEMENTS			
Ending inventory	34865	18738	49428
Capital sales	-	-	-
Beginning inventory	32541	22279	30805
Capital purchases	3816	2709	11719
Depreciation, capital adj.	-1492	-6249	6904
OTHER CAPITAL ASSETS			
Ending inventory	3126	6779	838
Capital sales	3504	-	7860
Beginning inventory	3063	8215	1054
Capital purchases	2921	98	5570
Depreciation, capital adj.	646	-1533	2074
Total depreciation, capital adj.	-19741	-33147	-13667
Net farm income	43,254	-203	97,632

Table 17

# **PROFITABILITY AND LIQUIDITY ANALYSIS, 1999**

## **Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%
Number of Farms	29	7	7	29	7	7
PROFITABILITY	-----	Cost	-----	-----	Market	-----
Net farm income	43254	-203	97632	74174	35241	110925
Labor and management earnings	32656	-6738	82466	47232	9718	73367
Rate of return on assets	6.5 %	-6.8 %	19.6 %	8.5 %	2.1 %	11.3 %
Rate of return on equity	6.1 %	-36.3 %	26.4 %	9.3 %	-1.0 %	12.8 %
Operating profit margin	12.0 %	-14.9 %	28.2 %	28.8 %	9.0 %	33.3 %
Asset turnover rate	53.8 %	45.6 %	69.4 %	29.7 %	23.1 %	34.0 %
Interest on farm net worth	10598	6535	15167	26942	25523	37558
Farm interest expense	11354	17371	7477	11354	17371	7477
Value of operator lbr and mgmt.	32466	39328	30838	32466	39328	30838
Return on farm assets	22142	-22160	74271	53063	13284	87564
Average farm assets	343089	325459	378979	621430	641919	774092
Return on farm equity	10788	-39531	66794	41709	-4087	80087
Average farm equity	175987	108917	252781	449035	425377	625966
Value of farm production	184445	148421	263026	184445	148421	263026
				Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms				29	7	7
LIQUIDITY (Cash)						
Net cash farm income				50628	33276	80436
Net non-farm income				5167	12007	1229
Family living and taxes				28926	23985	34466
Real estate principal payments				6184	8078	6372
Cash available for interm. debt				20685	13220	40828
Average intermediate debt				48072	44960	37388
Years to turnover interm. debt				2.3	3.4	0.9
Expense as a % of income				75 %	82 %	70 %
Interest as a % of income				5 %	8 %	3 %
LIQUIDITY (Accrual)						
Total accrual farm income				214448	183724	293843
Total accrual farm expense				151453	150780	182544
Net accrual operating income				62996	32943	111299
Net non-farm income				5167	12007	1229
Family living and taxes				28926	23985	34466
Real estate principal payments				6184	8078	6372
Available for intermediate debt				33053	12887	71691
Average intermediate debt				48072	44960	37388
Years to turnover interm. debt				1.5	3.5	0.5
Expense as a % of income				71 %	82 %	62 %
Interest as a % of income				5 %	9 %	3 %

Table 18

**BALANCE SHEET AT COST VALUES, 1999**  
**Michigan Dairy Farms, 20 - 75.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	29		7		7	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	4221	4402	3393	3498	3237	3864
Prepaid expenses & supplies	4311	5866	4240	4240	11504	16423
Growing crops	5423	5637	1650	1412	12460	13189
Accounts receivable	4273	4572	1731	2029	4075	5473
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	39524	50030	34027	36463	57924	80600
Crops under government loan	1179	829	-	-	4886	3436
Market livestock held for sale	4186	4604	2431	2479	5476	8018
Other current assets	507	406	506	434	896	612
Total current farm assets	63625	76346	47979	50554	100457	131614
Intermediate Farm Assets						
Breeding livestock	95435	101307	94789	100618	95979	102863
Machinery and equipment	37888	38759	45462	44621	34806	36775
Other intermediate assets	1802	2230	4769	4672	1054	838
Total intermediate farm assets	135125	142296	145020	149911	131839	140476
Long-Term Farm Assets						
Farm land	99291	99933	105442	105442	85058	88282
Buildings and improvements	32541	34865	22279	18738	30805	49428
Other long-term assets	1261	896	3446	2108	-	-
Total long-term farm assets	133093	135693	131167	126288	115862	137710
Total Farm Assets	331843	354335	324166	326753	348159	409800
Total Nonfarm Assets	26549	31619	1429	2943	56415	64916
Total Assets	358392	385954	325594	329695	404574	474716
LIABILITIES						
Current Farm Liabilities						
Accrued interest	455	975	333	3230	161	150
Accounts payable	3812	3465	1686	1592	2348	2026
Current notes	18482	17608	48525	28104	4237	13447
Government crop loans	1161	811	-	-	4809	3361
Principal due on term debt	15172	16225	13976	17966	13074	13471
Total current farm liabilities	39082	39085	64521	50892	24629	32455
Intermediate Farm Liabilities	37516	39123	30019	43688	35672	23803
Long-term Farm Liabilities	89228	90172	113853	130111	70537	65301
Total Farm Liabilities	165825	168380	208393	224692	130838	121559
Total Nonfarm Liabilities	555	1102	633	633	720	534
Total Liabilities	166381	169482	209026	225325	131558	122093
Net Worth (farm and nonfarm)	192011	216473	116569	104371	273016	352624
Net Worth Change	24462		-12198		79608	
RATIO ANALYSIS						
Current Farm Liabilities / Assets	61 %	51 %	134 %	101 %	25 %	25 %
Curr. & Interm Farm Liab / Assets	39 %	36 %	49 %	47 %	26 %	21 %
Long Term Farm Liab. / Assets	67 %	66 %	87 %	103 %	61 %	47 %
Total Liabilities / Assets	46 %	44 %	64 %	68 %	33 %	26 %

Table 19

**BALANCE SHEET AT MARKET VALUES, 1999**  
**Michigan Dairy Farms, 20 - 75.9 Cows**  
(Farms sorted by Net Farm Income)

Number of Farms	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
	29		7		7	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>ASSETS</b>						
Current Farm Assets						
Cash and checking balance	4221	4402	3393	3498	3237	3864
Prepaid expenses & supplies	4311	5866	4240	4240	11504	16423
Growing crops	5423	5637	1650	1412	12460	13189
Accounts receivable	4273	4572	1731	2029	4075	5473
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	39524	50030	34027	36463	57924	80600
Crops under government loan	1179	829	-	-	4886	3436
Market livestock held for sale	4186	4604	2431	2479	5476	8018
Other current assets	507	406	506	434	896	612
Total current farm assets	63625	76346	47979	50554	100457	131614
Intermediate Farm Assets						
Breeding livestock	99657	103428	94789	100618	107300	107034
Machinery and equipment	133578	146434	149471	151676	175054	189694
Other intermediate assets	1802	2299	4769	4672	1054	838
Total intermediate farm assets	235037	252160	249029	256965	283408	297567
Long-Term Farm Assets						
Farm land	249268	268262	261363	290220	312257	330736
Buildings and improvements	45008	50308	61087	61088	39759	52386
Other long-term assets	1606	1241	3446	2108	-	-
Total long-term farm assets	295882	319810	325897	353415	352016	383121
Total Farm Assets	594544	648316	622904	660935	735881	812302
Total Nonfarm Assets	59635	65660	25892	30185	106665	117573
Total Assets	654179	713975	648795	691120	842547	929876
<b>LIABILITIES</b>						
Current Farm Liabilities						
Accrued interest	455	975	333	3230	161	150
Accounts payable	3812	3465	1686	1592	2348	2026
Current notes	18482	17608	48525	28104	4237	13447
Government crop loans	1161	811	-	-	4809	3361
Principal due on term debt	15172	16225	13976	17966	13074	13471
Total current farm liabilities	39082	39085	64521	50892	24629	32455
Intermediate Farm Liabilities	37516	39123	30019	43688	35672	23803
Long-term Farm Liabilities	89228	90172	113853	130111	70537	65301
Total Farm Liabilities	165825	168380	208393	224692	130838	121559
Total Nonfarm Liabilities	555	1102	633	633	720	534
Total Deferred Liabilities	5421	5762	-	-	22458	23870
Total Liabilities	171802	175243	209026	225325	154016	145963
Net Worth (farm and nonfarm)	482378	538732	439770	465796	688530	783913
Net Worth Change	56354		26026		95382	
<b>RATIO ANALYSIS</b>						
Current Farm Liabilities / Assets	61 %	51 %	134 %	101 %	25 %	25 %
Curr. & Interm Farm Liab. / Assets	26 %	24 %	32 %	31 %	16 %	13 %
Long Term Farm Liabilities / Assets	30 %	28 %	35 %	37 %	20 %	17 %
Total Liabilities / Assets	26 %	25 %	32 %	33 %	18 %	16 %

Table 20

**STATEMENT OF CASH FLOWS, 1999****Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

		Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms		29	7	7
(a) Beginning cash balance (farm & nonfarm)		4314	3393	3476
CASH FROM OPERATING ACTIVITIES				
Gross cash farm income		203462	181253	268233
Net nonfarm income	(+)	5167	12007	1229
Total cash farm expense	(-)	152834	147977	187796
Apparent family living expense	(-)	26640	20109	31465
Income and social security tax	(-)	2286	3876	3001
(b) Cash from operations	(=)	26869	21298	47200
CASH FROM INVESTING ACTIVITIES				
Sale of breeding livestock		840	102	455
Sale of machinery & equipment	(+)	473	581	750
Sale of farm land	(+)	-	-	-
Sale of farm buildings	(+)	-	-	-
Sale of other farm assets	(+)	3504	-	7860
Sale of nonfarm assets	(+)	3	-	13
Purchase of breeding livestock	(-)	3697	10657	500
Purchase of machinery & equip.	(-)	23254	20379	32203
Purchase of farm land	(-)	-	-	-
Purchase of farm buildings	(-)	3816	2709	11719
Purchase of other farm assets	(-)	2921	98	5570
Purchase of nonfarm assets	(-)	1431	1357	-
(c) Cash from investing activities	(=)	-30299	-34515	-40914
CASH FROM FINANCING ACTIVITIES				
Money borrowed		41500	95139	26305
Cash gifts and inheritances	(+)	2062	-	6114
Principal payments	(-)	38573	81645	35433
Dividends paid	(-)	-	-	-
Gifts given	(-)	244	171	669
(d) Cash from financing activities	(=)	4745	13322	-3684
(e) Net change in cash balance (b+c+d)		1316	105	2603
Ending cash balance (farm & nonfarm)		5629	3498	6079



Table 21

**FINANCIAL GUIDELINES MEASURES, 1999**  
**Michigan Dairy Farms, 20 - 75.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	29		7		7	
<b>LIQUIDITY</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current ratio	1.63	1.95	0.74	0.99	4.08	4.06
Working capital	24543	37261	-16542	-338	75828	99160
<b>SOLVENCY (Market)</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Farm debt to asset ratio	29 %	27 %	33 %	34 %	21 %	18 %
Farm equity to asset ratio	71 %	73 %	67 %	66 %	79 %	82 %
Farm debt to equity ratio	40 %	37 %	50 %	52 %	26 %	21 %
<b>PROFITABILITY</b>	Cost	Market	Cost	Market	Cost	Market
Rate of return on farm assets	6.5 %	8.5 %	-6.8 %	2.1 %	19.6 %	11.3 %
Rate of return on farm equity	6.1 %	9.3 %	-36.3 %	-1.0 %	26.4 %	12.8 %
Operating profit margin	12.0 %	28.8 %	-14.9 %	9.0 %	28.2 %	33.3 %
Net farm income	43254	74174	-203	35241	97632	110925
<b>REPAYMENT CAPACITY</b>	Cash	Accrual	Cash	Accrual	Cash	Accrual
Term debt coverage ratio	154 %	213 %	129 %	128 %	349 %	576 %
Capital replacement margin	11411	23779	6688	6356	33943	64806
<b>EFFICIENCY</b>						
Asset turnover rate (market)	29.7 %		23.1 %		34.0 %	
Operating expense ratio	65.3 %		72.6 %		59.6 %	
Depreciation expense ratio	9.2 %		18.0 %		4.7 %	
Interest expense ratio	5.3 %		9.5 %		2.5 %	
Net farm income ratio	20.2 %		-0.1 %		33.2 %	

**LABOR ANALYSIS**

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
Number of Farms	29	7	7
Total unpaid labor hours	4367	4464	4794
Total hired labor hours	1873	1094	2311
Total labor hours per farm	6240	5559	7105
Value of farm production / hour	29.56	26.70	37.02
Net farm income / unpaid hour	9.90	-0.05	20.37

Table 22

**OPERATOR INFORMATION & NONFARM SUMMARY, 1999****Michigan Dairy Farms, 20 - 75.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	29	7	7
OPERATOR INFORMATION			
Average number of operators	1.2	1.3	1.3
Average age of operators	49.2	49.3	
Average number of years farming	21.5	20.3	
NONFARM INCOME			
Nonfarm wages & salary	4409	10350	818
Nonfarm business income	178	-	-
Nonfarm rental income	10	-	159
Nonfarm interest income	22	22	36
Nonfarm cash dividends	-	-	-
Tax refunds	219	271	217
Nontaxable nonfarm income	-	-	-
Gifts and inheritances	2062	-	6114
Other nonfarm income	329	1364	-
Total nonfarm income	7229	12007	7343
NONFARM ASSETS (Mkt)			
	Average Of Beginning	All Farms Ending	
Checking & savings	92	1228	
Stocks & bonds	1052	1009	
Other current assets	69	4	
Furniture & appliances	9126	9378	
Nonfarm vehicles	2690	3422	
Cash value of life ins.	5110	6145	
Retirement accounts	3831	4690	
Other intermediate assets	1793	1862	
Nonfarm real estate	34362	36412	
Other long term assets	1510	1510	
Total nonfarm assets	59635	65660	

Table 23

**LIVESTOCK AND CROP PRODUCTION SUMMARY, 1999**  
**Michigan Dairy Farms, 76 - 120.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
<hr/>			
DAIRY			
Number of farms	37	9	9
Avg. number of Cows	98.5	89.9	103.3
Milk produced per Cow, lbs.	18,998	17,512	22,016
Percent of barn capacity	93.5	93.2	98.0
Avg. milk price per cwt.	15.53	14.90	15.57
ACREAGE SUMMARY			
Total Acres Owned	350	361	420
Total Crop Acres	310	338	277
Crop Acres Owned	187	173	268
Crop Acres Cash Rented	123	165	9
AVERAGE PRICE RECEIVED (Cash Sales Only)			
Corn per bu.	1.86	-	-
Soybeans per bu.	3.51	-	-
Wheat, Winter per bu.	1.90	-	-
AVERAGE YIELD PER ACRE			
Corn (bu.)	121.45	-	130.83
Hay, Alfalfa (ton)	4.73	-	-
Corn Silage (ton)	17.38	-	18.57
Haylage, Alfalfa (ton)	6.65	-	-
Soybeans (bu.)	39.18	-	-
Haylage, Mixed (ton)	6.32	-	-
Wheat, Winter (bu.)	59.93	-	-
Hay, Native Grass (ton)	4.01	-	-

Table 24

**FARM INCOME STATEMENT, 1999****Michigan Dairy Farms, 76 - 120.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	37	9	9
CASH FARM INCOME			
Black Turtle Beans	154	-	631
Corn	6050	2976	11229
Mixed Hay	851	1902	8
Oats	29	-	-
Soybeans	4474	4042	6533
Straw	82	103	213
Sunflowers	94	-	-
Winter Wheat	982	1257	707
Other crops	730	3000	-
Miscellaneous crop income	82	24	287
Beef Bulls	53	-	118
Milk	290678	234602	354316
Dairy Calves	1808	1790	1444
Dairy Replacement Heifers	179	-	-
Dairy Steers	3045	6255	2411
Raised Hogs	289	-	-
Feeder Pigs	207	-	-
Cull breeding livestock	12579	14117	16752
Transition payments	4395	4592	10273
Other government payments	22633	14067	26930
Custom work income	588	980	457
Patronage dividends, cash	1720	856	1895
Insurance income	202	102	-
Other farm income	5356	3256	9270
Gross Cash Farm Income	357,260	293,921	443,474

Table 25

**FARM INCOME STATEMENT, 1999 (Continued)****Michigan Dairy Farms, 76 - 120.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	37	9	9
CASH FARM EXPENSE			
Seed	8983	6596	10759
Fertilizer	14574	15755	17394
Crop chemicals	6548	4076	8638
Crop insurance	82	216	13
Drying fuel	487	1172	652
Crop marketing	3	9	-
Crop miscellaneous	655	1397	466
Feeder livestock purchase	54	223	-
Purchased feed	57497	52950	55745
Breeding fees	2419	2422	3735
Veterinary	7557	5812	12023
Livestock supplies	12480	10416	11699
Livestock leases	444	1667	159
Livestock marketing	10777	6790	10703
Interest	17460	16195	6739
Fuel & oil	6980	6417	6976
Repairs	22821	21368	26731
Custom hire	6411	5443	6172
Hired labor	30308	25530	31925
Land rent	9160	7001	10072
Machinery & bldg leases	4451	6081	4615
Real estate taxes	4809	4956	6697
Farm insurance	5491	5995	4970
Utilities	7397	7601	7303
Dues & professional fees	3615	3873	4589
Miscellaneous	9202	6442	13330
Total cash expense	250666	226404	262107
Net cash farm income	106593	67517	181368
INVENTORY CHANGES			
Crops and feed	8060	3805	16066
Market livestock	-35	-1800	1872
Accounts receivable	-750	-3422	-2234
Prepaid expenses and supplies	2324	-2584	4499
Accounts payable	739	-4164	-202
Total inventory change	10338	-8165	20001
Net operating profit	116931	59352	201369
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS			
Breeding livestock	13332	-2464	9873
Machinery and equipment	-25414	-30333	-24384
Buildings and improvements	-12707	-9231	-6820
Other farm capital	-516	918	-775
Total depr. and other capital adj	-25306	-41110	-22105
Net farm income	91,625	18,242	179,263

Table 26

**INVENTORY CHANGES, 1999**  
**Michigan Dairy Farms, 76 - 120.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	37	9	9
Net cash farm income	106593	67517	181368
CROPS AND FEED			
Ending inventory	77815	67064	82690
Beginning inventory	69755	63259	66624
Inventory change	8060	3805	16066
MARKET LIVESTOCK			
Ending inventory	5589	14758	3000
Beginning inventory	5624	16558	1128
Inventory change	-35	-1800	1872
ACCTS RECEIVABLE & OTHER CURRENT ASSETS			
Ending inventory	16041	19850	7845
Beginning inventory	16790	23272	10078
Inventory change	-750	-3422	-2234
PREPAID EXPENSES AND SUPPLIES			
Ending inventory	12673	6260	25701
Beginning inventory	10349	8844	21203
Inventory change	2324	-2584	4499
ACCOUNTS PAYABLE			
Beginning inventory	4205	5258	660
Ending inventory	3466	9423	863
Inventory change	739	-4164	-202
Total inventory change	10338	-8165	20001
Net operating profit	116931	59352	201369

Table 27

**DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999****Michigan Dairy Farms, 76 - 120.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	37	9	9
Net operating profit	116931	59352	201369
BREEDING LIVESTOCK			
Ending inventory	192559	189867	183050
Capital sales	1370	923	2553
Beginning inventory	179210	193144	175124
Capital purchases	1387	111	606
Depreciation, capital adj.	13332	-2464	9873
MACHINERY AND EQUIPMENT			
Ending inventory	88186	70775	101035
Capital sales	1861	956	2933
Beginning inventory	79280	86043	83811
Capital purchases	36180	16020	44541
Depreciation, capital adj.	-25414	-30333	-24384
BUILDINGS AND IMPROVEMENTS			
Ending inventory	65211	47068	59704
Capital sales	-	-	-
Beginning inventory	67317	48893	59223
Capital purchases	10602	7406	7301
Depreciation, capital adj.	-12707	-9231	-6820
OTHER CAPITAL ASSETS			
Ending inventory	9133	10795	5601
Capital sales	3330	10006	363
Beginning inventory	12184	19585	5763
Capital purchases	795	299	976
Depreciation, capital adj.	-516	918	-775
Total depreciation, capital adj.	-25306	-41110	-22105
Net farm income	91,625	18,242	179,263

Table 28

**PROFITABILITY AND LIQUIDITY ANALYSIS, 1999****Michigan Dairy Farms, 76 - 120.9 Cows**

(Farms sorted by Net Farm Income)

	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%
Number of Farms	37	9	9	37	9	9
PROFITABILITY	----- Cost -----			----- Market -----		
Net farm income	91625	18242	179263	150277	122626	218487
Labor and management earnings	68964	-2048	146368	106921	79950	162538
Rate of return on assets	9.7 %	-1.2 %	19.6 %	12.3 %	10.3 %	16.1 %
Rate of return on equity	11.5 %	-6.9 %	22.2 %	14.1 %	11.4 %	17.3 %
Operating profit margin	18.9 %	-2.9 %	31.2 %	37.2 %	41.2 %	40.6 %
Asset turnover rate	51.5 %	41.0 %	62.9 %	32.9 %	24.9 %	39.7 %
Interest on farm net worth	22661	20290	32895	43357	42676	55949
Farm interest expense	17442	16338	6812	17442	16338	6812
Value of operator lbr and mgmt.	48475	41427	57306	48475	41427	57306
Return on farm assets	60592	-6847	128769	119244	97537	167993
Average farm assets	622569	577117	657231	973183	950225	1041463
Return on farm equity	43149	-23186	121957	101802	81199	161181
Average farm equity	375819	338167	548248	722611	711274	932479
Value of farm production	320316	236867	413307	320316	236867	413307

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	37	9	9
LIQUIDITY (Cash)			
Net cash farm income	106593	67517	181368
Net nonfarm income	6353	9547	6910
Family living and taxes	54960	40266	91726
Real estate principal payments	7458	9025	2300
Cash available for interm. debt	50528	27774	94251
Average intermediate debt	84199	60261	28989
Years to turnover interm. debt	1.7	2.2	0.3
Expense as a % of income	70 %	77 %	59 %
Interest as a % of income	5 %	6 %	2 %
LIQUIDITY (Accrual)			
Total accrual farm income	364535	292504	459179
Total accrual farm expense	247604	233152	257810
Net accrual operating income	116931	59352	201369
Net nonfarm income	6353	9547	6910
Family living and taxes	54960	40266	91726
Real estate principal payments	7458	9025	2300
Available for intermediate debt	60865	19608	114252
Average intermediate debt	84199	60261	28989
Years to turnover interm. debt	1.4	3.1	0.3
Expense as a % of income	68 %	80 %	56 %
Interest as a % of income	5 %	6 %	1 %



Table 29

**BALANCE SHEET AT COST VALUES, 1999**  
**Michigan Dairy Farms, 76 - 120.9 Cows**  
**(Farms sorted by Net Farm Income)**

Number of Farms	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
	37		9		9	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>ASSETS</b>						
Current Farm Assets						
Cash and checking balance	12902	13006	8726	14941	27336	27548
Prepaid expenses & supplies	10349	12673	8844	6260	21203	25701
Growing crops	5692	6134	6233	6233	2353	2336
Accounts receivable	10339	9270	14269	11172	7556	5340
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	69755	77815	63259	67064	66624	82690
Crops under government loan	-	-	-	-	-	-
Market livestock held for sale	5624	5589	16558	14758	1128	3000
Other current assets	759	636	2769	2444	169	169
Total current farm assets	115420	125123	120659	122874	126368	146783
Intermediate Farm Assets						
Breeding livestock	179210	192559	193144	189867	175124	183050
Machinery and equipment	79280	88186	86043	70775	83811	101035
Other intermediate assets	5219	4818	4165	4619	4761	4599
Total intermediate farm assets	263709	285563	283352	265262	263696	288684
Long-Term Farm Assets						
Farm land	150615	160902	116155	128377	183897	184103
Buildings and improvements	67317	65211	48893	47068	59223	59704
Other long-term assets	6965	4315	15420	6176	1002	1002
Total long-term farm assets	224897	230428	180467	181621	244123	244809
Total Farm Assets	604025	641114	584478	569756	634186	680277
Total Nonfarm Assets	32075	36939	21449	24520	74452	89180
Total Assets	636100	678052	605928	594276	708638	769457
<b>LIABILITIES</b>						
Current Farm Liabilities						
Accrued interest	435	418	191	334	128	201
Accounts payable	3770	3049	5067	9089	532	662
Current notes	19341	11776	13737	15439	30290	6078
Government crop loans	-	-	-	-	-	-
Principal due on term debt	20972	22554	20512	21201	9509	4854
Total current farm liabilities	44518	37796	39506	46063	40459	11795
Intermediate Farm Liabilities	77559	63309	62504	37740	28806	19853
Long-term Farm Liabilities	129424	140895	138640	153447	61785	55269
Total Farm Liabilities	251500	242000	240651	237250	131051	86916
Total Nonfarm Liabilities	1069	903	1056	489	-	-
Total Liabilities	252570	242904	241706	237739	131051	86916
Net Worth (farm and nonfarm)	383530	435149	364222	356537	577587	682540
Net Worth Change		51618		-7685		104953
<b>RATIO ANALYSIS</b>						
Current Farm Liabilities / Assets	39 %	30 %	33 %	37 %	32 %	8 %
Curr. & Interm Farm Liab / Assets	32 %	25 %	25 %	22 %	18 %	7 %
Long Term Farm Liab. / Assets	58 %	61 %	77 %	84 %	25 %	23 %
Total Liabilities / Assets	40 %	36 %	40 %	40 %	18 %	11 %

Table 30

**BALANCE SHEET AT MARKET VALUES, 1999**  
**Michigan Dairy Farms, 76 - 120.9 Cows**  
**(Farms sorted by Net Farm Income)**

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	37		9		9	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	12902	13006	8726	14941	27336	27548
Prepaid expenses & supplies	10349	12673	8844	6260	21203	25701
Growing crops	5692	6134	6233	6233	2353	2336
Accounts receivable	10339	9270	14269	11172	7556	5340
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	69755	77815	63259	67064	66624	82690
Crops under government loan	-	-	-	-	-	-
Market livestock held for sale	5624	5589	16558	14758	1128	3000
Other current assets	759	636	2769	2444	169	169
Total current farm assets	115420	125123	120659	122874	126368	146783
Intermediate Farm Assets						
Breeding livestock	180584	193759	193144	189867	180774	187439
Machinery and equipment	202922	218586	201017	219849	210852	238620
Other intermediate assets	12322	11852	4165	4619	5072	4632
Total intermediate farm assets	395828	424197	398326	414336	396698	430691
Long-Term Farm Assets						
Farm land	333847	382047	326967	406222	409027	433387
Buildings and improvements	73625	83630	44021	45448	65712	71928
Other long-term assets	7306	5342	15420	6176	1002	1331
Total long-term farm assets	414779	471019	386408	457846	475740	506646
Total Farm Assets	926027	1020339	905393	995056	998806	1084120
Total Nonfarm Assets	73208	79195	55322	57412	103813	120762
Total Assets	999234	1099534	960716	1052468	1102620	1204882
LIABILITIES						
Current Farm Liabilities						
Accrued interest	435	418	191	334	128	201
Accounts payable	3770	3049	5067	9089	532	662
Current notes	19341	11776	13737	15439	30290	6078
Government crop loans	-	-	-	-	-	-
Principal due on term debt	20972	22554	20512	21201	9509	4854
Total current farm liabilities	44518	37796	39506	46063	40459	11795
Intermediate Farm Liabilities	77559	63309	62504	37740	28806	19853
Long-term Farm Liabilities	129424	140895	138640	153447	61785	55269
Total Farm Liabilities	251500	242000	240651	237250	131051	86916
Total Nonfarm Liabilities	1069	903	1056	489	-	-
Total Deferred Liabilities	4404	2976	-	-	-	-
Total Liabilities	256974	245879	241706	237739	131051	86916
Net Worth (farm and nonfarm)	742260	853654	719010	814729	971569	1117966
Net Worth Change	111394		95720		146397	
RATIO ANALYSIS						
Current Farm Liabilities / Assets	39 %	30 %	33 %	37 %	32 %	8 %
Curr. & Interm Farm Liab. / Assets	24 %	18 %	20 %	16 %	13 %	5 %
Long Term Farm Liabilities / Assets	31 %	30 %	36 %	34 %	13 %	11 %
Total Liabilities / Assets	26 %	22 %	25 %	23 %	12 %	7 %

Table 31

**STATEMENT OF CASH FLOWS, 1999**  
**Michigan Dairy Farms, 76 - 120.9 Cows**  
(Farms sorted by Net Farm Income)

		Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms		37	9	9
(a) Beginning cash balance (farm & nonfarm)		12930	8726	27336
CASH FROM OPERATING ACTIVITIES				
Gross cash farm income		357260	293921	443474
Net nonfarm income	(+)	6353	9547	6910
Total cash farm expense	(-)	250666	226404	262107
Apparent family living expense	(-)	51695	38410	89153
Income and social security tax	(-)	3265	1857	2573
(b) Cash from operations	(=)	57986	36798	96551
CASH FROM INVESTING ACTIVITIES				
Sale of breeding livestock		1370	923	2553
Sale of machinery & equipment	(+)	1861	956	2933
Sale of farm land	(+)	-	-	-
Sale of farm buildings	(+)	-	-	-
Sale of other farm assets	(+)	3330	10006	363
Sale of nonfarm assets	(+)	496	227	799
Purchase of breeding livestock	(-)	1387	111	606
Purchase of machinery & equip.	(-)	36180	16020	44541
Purchase of farm land	(-)	8047	10000	-
Purchase of farm buildings	(-)	10602	7406	7301
Purchase of other farm assets	(-)	795	299	976
Purchase of nonfarm assets	(-)	1678	727	5189
(c) Cash from investing activities	(=)	-51634	-22452	-51964
CASH FROM FINANCING ACTIVITIES				
Money borrowed		56586	34924	9953
Cash gifts and inheritances	(+)	3093	-	-
Principal payments	(-)	65044	43056	54328
Dividends paid	(-)	-	-	-
Gifts given	(-)	726	-	-
(d) Cash from financing activities	(=)	-6091	-8132	-44375
(e) Net change in cash balance (b+c+d)		261	6215	212
Ending cash balance (farm & nonfarm)		13191	14941	27548

Table 32

**FINANCIAL GUIDELINES MEASURES, 1999**  
**Michigan Dairy Farms, 76 - 120.9 Cows**  
 (Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	37		9		9	
<b>LIQUIDITY</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current ratio	2.59	3.31	3.05	2.67	3.12	12.44
Working capital	70902	87326	81153	76811	85909	134989
<b>SOLVENCY (Market)</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Farm debt to asset ratio	28 %	24 %	27 %	24 %	13 %	8 %
Farm equity to asset ratio	72 %	76 %	73 %	76 %	87 %	92 %
Farm debt to equity ratio	38 %	32 %	36 %	31 %	15 %	9 %
<b>PROFITABILITY</b>	Cost	Market	Cost	Market	Cost	Market
Rate of return on farm assets	9.7 %	12.3 %	-1.2 %	10.3 %	19.6 %	16.1 %
Rate of return on farm equity	11.5 %	14.1 %	-6.9 %	11.4 %	22.2 %	17.3 %
Operating profit margin	18.9 %	37.2 %	-2.9 %	41.2 %	31.2 %	40.6 %
Net farm income	91625	150277	18242	122626	179263	218487
<b>REPAYMENT CAPACITY</b>	Cash	Accrual	Cash	Accrual	Cash	Accrual
Term debt coverage ratio	226 %	261 %	157 %	129 %	729 %	873 %
Capital replacement margin	36908	47246	16286	8121	87042	107043
<b>EFFICIENCY</b>						
Asset turnover rate (market)	32.9 %		24.9 %		39.7 %	
Operating expense ratio	63.1 %		74.1 %		54.7 %	
Depreciation expense ratio	6.9 %		14.1 %		4.8 %	
Interest expense ratio	4.8 %		5.6 %		1.5 %	
Net farm income ratio	25.1 %		6.2 %		39.0 %	

**LABOR ANALYSIS**

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
Number of Farms	36	8	9
Total unpaid labor hours	5108	4929	5554
Total hired labor hours	3158	2743	4135
Total labor hours per farm	8267	7671	9688
Value of farm production / hour	39.16	31.53	42.66
Net farm income / unpaid hour	18.71	5.43	32.28

Table 33

**OPERATOR INFORMATION & NONFARM SUMMARY, 1999****Michigan Dairy Farms, 76 - 120.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	37	9	9
OPERATOR INFORMATION			
Average number of operators	1.5	1.6	1.7
Average age of operators	49.7	52.2	
Average number of years farming	25.6	32.5	
NONFARM INCOME			
Nonfarm wages & salary	3713	6696	3999
Nonfarm business income	202	830	-
Nonfarm rental income	1434	1178	1264
Nonfarm interest income	285	198	650
Nonfarm cash dividends	1	2	-
Tax refunds	165	554	102
Nontaxable nonfarm income	-	-	-
Gifts and inheritances	3093	-	-
Other nonfarm income	554	90	895
Total nonfarm income	9446	9547	6910

	Average Of Beginning	All Farms Ending
NONFARM ASSETS (Mkt)		
Checking & savings	28	185
Stocks & bonds	259	-
Other current assets	123	254
Furniture & appliances	2568	2703
Nonfarm vehicles	3516	3328
Cash value of life ins.	3518	2986
Retirement accounts	9849	13715
Other intermediate assets	13227	14369
Nonfarm real estate	40120	41654
Other long term assets	-	-
Total nonfarm assets	73208	79195

Table 34

# LIVESTOCK AND CROP PRODUCTION SUMMARY, 1999

## Michigan Dairy Farms, 121 - 200.9 Cows

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
DAIRY			
Number of farms	49	12	12
Avg. number of Cows	154.3	154.2	156.5
Milk produced per Cow, lbs.	19,731	18,672	20,431
Percent of barn capacity	100.5	91.1	106.8
Avg. milk price per cwt.	15.52	15.27	15.29
ACREAGE SUMMARY			
Total Acres Owned	377	344	461
Total Crop Acres	546	592	777
Crop Acres Owned	271	249	314
Crop Acres Cash Rented	273	335	463
AVERAGE PRICE RECEIVED (Cash Sales Only)			
Wheat, Winter per bu.	1.72	-	-
AVERAGE YIELD PER ACRE			
Hay, Alfalfa (ton)	4.21	-	-
Corn (bu.)	123.85	-	132.22
Corn Silage (ton)	16.83	16.78	17.95
Haylage, Alfalfa (ton)	8.09	-	-
Hay, Mixed (ton)	2.55	-	-
Hay, Native Grass (ton)	1.39	-	-
Soybeans (bu.)	41.65	-	-
Wheat, Winter (bu.)	58.42	-	-

Table 35

**FARM INCOME STATEMENT, 1999**  
**Michigan Dairy Farms, 121 - 200.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	49	12	12
CASH FARM INCOME			
Asparagus	208	-	-
Barley	14	-	-
Cordwood	205	-	838
Corn	2868	6222	1553
Corn Silage	29	120	-
Alfalfa Hay	845	-	-
Mixed Hay	131	206	255
Mixed Haylage	483	-	333
Oats	106	-	153
Soybeans	7545	11272	14216
Straw	109	-	440
Winter Wheat	1118	945	2253
Milk	472250	439424	488853
Dairy Calves	2194	2272	1152
Dairy Replacement Heifers	1073	936	2074
Dairy Steers	6551	2031	15296
Cull breeding livestock	19146	18712	17626
Misc. livestock income	47	8	-
Transition payments	1590	-	5660
Other government payments	43652	45450	52258
Custom work income	1099	2590	504
Patronage dividends, cash	3428	4051	2519
Insurance income	2223	3809	1931
Other farm income	6448	16273	1718
Gross Cash Farm Income	573,362	554,321	609,633

Table 36

**FARM INCOME STATEMENT, 1999 (Continued)****Michigan Dairy Farms, 121 - 200.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	49	12	12
CASH FARM EXPENSE			
Seed	9959	10068	11221
Fertilizer	19956	28600	18297
Crop chemicals	8047	5701	11832
Crop insurance	333	491	460
Drying fuel	42	144	-
Crop marketing	207	615	105
Crop miscellaneous	1858	2798	1685
Purchased feed	114398	117463	125754
Breeding fees	3991	3162	4120
Veterinary	15392	16062	15278
Livestock supplies	21456	19472	18844
Livestock leases	901	3484	-
Livestock marketing	19513	16451	20611
Interest	25730	31458	21604
Fuel & oil	11778	10507	14128
Repairs	40540	36198	44951
Custom hire	10146	10180	12102
Hired labor	69175	63378	68049
Land rent	18148	16268	17041
Machinery & bldg leases	4931	7924	6721
Real estate taxes	7465	8143	6438
Farm insurance	8442	8480	6457
Utilities	11781	12710	12468
Dues & professional fees	4220	4065	2143
Miscellaneous	14237	25353	13456
Total cash expense	442648	459174	453763
Net cash farm income	130714	95147	155870
INVENTORY CHANGES			
Crops and feed	16970	-1040	27205
Market livestock	1537	918	4725
Accounts receivable	-2291	-3088	-1765
Prepaid expenses and supplies	5353	7124	9333
Accounts payable	43	-4678	-734
Total inventory change	21612	-763	38765
Net operating profit	152326	94384	194635
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS			
Breeding livestock	19695	-1720	53110
Machinery and equipment	-37895	-39954	-25308
Buildings and improvements	-11783	-13476	-4352
Other farm capital	-181	-360	1862
Total depr. and other capital adj	-30163	-55510	25312
Net farm income	122,163	38,874	219,947



Table 37

**INVENTORY CHANGES, 1999**  
**Michigan Dairy Farms, 121 - 200.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	49	12	12
Net cash farm income	130714	95147	155870
CROPS AND FEED			
Ending inventory	108661	105883	128388
Beginning inventory	91691	106923	101183
Inventory change	16970	-1040	27205
MARKET LIVESTOCK			
Ending inventory	8498	10871	15227
Beginning inventory	6961	9953	10502
Inventory change	1537	918	4725
ACCTS RECEIVABLE & OTHER CURRENT ASSETS			
Ending inventory	16510	20910	15923
Beginning inventory	18801	23998	17688
Inventory change	-2291	-3088	-1765
PREPAID EXPENSES AND SUPPLIES			
Ending inventory	15128	17900	25599
Beginning inventory	9775	10775	16266
Inventory change	5353	7124	9333
ACCOUNTS PAYABLE			
Beginning inventory	13078	10232	6076
Ending inventory	13035	14910	6810
Inventory change	43	-4678	-734
Total inventory change	21612	-763	38765
Net operating profit	152326	94384	194635

Table 38

**DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999****Michigan Dairy Farms, 121 - 200.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
	-----	-----	-----
Number of Farms	49	12	12
Net operating profit	152326	94384	194635
BREEDING LIVESTOCK			
Ending inventory	295094	291183	317307
Capital sales	1468	2922	750
Beginning inventory	261343	259065	263424
Capital purchases	15524	36760	1523
Depreciation, capital adj.	19695	-1720	53110
MACHINERY AND EQUIPMENT			
Ending inventory	125704	110944	117900
Capital sales	5153	846	4510
Beginning inventory	110862	93241	102103
Capital purchases	57891	58503	45615
Depreciation, capital adj.	-37895	-39954	-25308
BUILDINGS AND IMPROVEMENTS			
Ending inventory	109931	107141	76624
Capital sales	78	-	-
Beginning inventory	99611	107314	66318
Capital purchases	22181	13303	14659
Depreciation, capital adj.	-11783	-13476	-4352
OTHER CAPITAL ASSETS			
Ending inventory	13642	18053	17646
Capital sales	4754	8027	9428
Beginning inventory	14256	23558	13722
Capital purchases	4321	2882	11490
Depreciation, capital adj.	-181	-360	1862
Total depreciation, capital adj.	-30163	-55510	25312
Net farm income	122163	38874	219947

Table 39

# **PROFITABILITY AND LIQUIDITY ANALYSIS, 1999**

## **Michigan Dairy Farms, 121 - 200.9 Cows**

(Farms sorted by Net Farm Income)

	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%
Number of Farms	49	12	12	49	12	12
<b>PROFITABILITY</b>						
	-----	Cost -----		-----	Market -----	
Net farm income	122163	38874	219947	186324	98464	278404
Labor and management earnings	95410	15765	188863	134875	51731	220362
Rate of return on assets	10.8 %	1.5 %	20.8 %	12.3 %	5.7 %	18.1 %
Rate of return on equity	14.7 %	-5.3 %	29.8 %	15.1 %	5.0 %	22.0 %
Operating profit margin	18.4 %	2.9 %	31.1 %	31.4 %	16.7 %	41.4 %
Asset turnover rate	58.6 %	50.2 %	66.8 %	39.2 %	34.2 %	43.7 %
Interest on farm net worth	26753	23109	31084	51449	46734	58042
Farm interest expense	26232	33014	21831	26232	33014	21831
Value of operator lbr and mgmt.	57167	59254	65448	57167	59254	65448
Return on farm assets	91228	12634	176329	155389	72224	234787
Average farm assets	844393	860635	848988	1262103	1263785	1298288
Return on farm equity	64996	-20380	154499	129157	39210	212956
Average farm equity	442081	385147	518065	857488	778894	967365
Value of farm production	494875	431928	567154	494875	431928	567154
		Average Of	Average Of	Average Of		
		All Farms	Low 25%	High 25%		
Number of Farms		49	12	12		
<b>LIQUIDITY (Cash)</b>						
Net cash farm income		130714	95147	155870		
Net nonfarm income		5107	9039	3686		
Family living and taxes		58045	49062	90089		
Real estate principal payments		14650	13658	21687		
Cash available for interm. debt		63127	41466	47780		
Average intermediate debt		144950	167692	124350		
Years to turnover interm. debt		2.3	4.0	2.6		
Expense as a % of income		77 %	83 %	74 %		
Interest as a % of income		4 %	6 %	4 %		
<b>LIQUIDITY (Accrual)</b>						
Total accrual farm income		589578	551112	639798		
Total accrual farm expense		437252	456727	445164		
Net accrual operating income		152326	94384	194635		
Net nonfarm income		5107	9039	3686		
Family living and taxes		58045	49062	90089		
Real estate principal payments		14650	13658	21687		
Available for intermediate debt		84739	40703	86545		
Average intermediate debt		144950	167692	124350		
Years to turnover interm. debt		1.7	4.1	1.4		
Expense as a % of income		74 %	83 %	70 %		
Interest as a % of income		4 %	6 %	3 %		

Table 40

**BALANCE SHEET AT COST VALUES, 1999**  
**Michigan Dairy Farms, 121 - 200.9 Cows**  
(Farms sorted by Net Farm Income)

Number of Farms	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
	49		12		12	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>ASSETS</b>						
Current Farm Assets						
Cash and checking balance	14259	15240	21117	6716	4790	7821
Prepaid expenses & supplies	9775	15128	10775	17900	16266	25599
Growing crops	8736	8441	7580	7593	9798	9228
Accounts receivable	9543	7647	16000	13317	7841	6641
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	91691	108661	106923	105883	101183	128388
Crops under government loan	-	-	-	-	-	-
Market livestock held for sale	6961	8498	9953	10871	10502	15227
Other current assets	522	421	417	-	49	53
Total current farm assets	141487	164037	172766	162280	150427	192957
Intermediate Farm Assets						
Breeding livestock	261343	295094	259065	291183	263424	317307
Machinery and equipment	110862	125704	93241	110944	102103	117900
Other intermediate assets	11562	10769	20197	14587	10747	13885
Total intermediate farm assets	383767	431568	372503	416714	376274	449093
Long-Term Farm Assets						
Farm land	172679	180140	182388	193338	186253	193293
Buildings and improvements	99611	109931	107314	107141	66318	76624
Other long-term assets	2694	2873	3360	3466	2975	3761
Total long-term farm assets	274983	292944	293063	303945	255546	273679
Total Farm Assets	800238	888548	838332	882939	782247	915729
Total Nonfarm Assets	28933	37644	28288	32963	8046	40949
Total Assets	829170	926193	866620	915902	790293	956678
<b>LIABILITIES</b>						
Current Farm Liabilities						
Accrued interest	803	1305	1295	2851	370	598
Accounts payable	12275	11731	8938	12059	5706	6213
Current notes	38300	40157	45553	65028	22654	23490
Government crop loans	-	-	-	-	-	-
Principal due on term debt	37401	41521	36071	32952	40456	45331
Total current farm liabilities	88779	94713	91856	112890	69187	75631
Intermediate Farm Liabilities	125099	114732	147756	143844	104352	102150
Long-term Farm Liabilities	177942	203360	206217	248414	153316	157210
Total Farm Liabilities	391819	412805	445829	505148	326855	334992
Total Nonfarm Liabilities	1011	1027	3172	3693	-	-
Total Liabilities	392830	413832	449001	508841	326855	334992
Net Worth (farm and nonfarm)	436340	512361	417619	407061	463439	621686
Net Worth Change	76020		-10558		158248	
<b>RATIO ANALYSIS</b>						
Current Farm Liabilities / Assets	63 %	58 %	53 %	70 %	46 %	39 %
Curr. & Interm Farm Liab / Assets	41 %	35 %	44 %	44 %	33 %	28 %
Long Term Farm Liab. / Assets	65 %	69 %	70 %	82 %	60 %	57 %
Total Liabilities / Assets	47 %	45 %	52 %	56 %	41 %	35 %

Table 41

**BALANCE SHEET AT MARKET VALUES, 1999**  
**Michigan Dairy Farms, 121 - 200.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	49		12		12	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	14259	15240	21117	6716	4790	7821
Prepaid expenses & supplies	9775	15128	10775	17900	16266	25599
Growing crops	8736	8441	7580	7593	9798	9228
Accounts receivable	9543	7647	16000	13317	7841	6641
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	91691	108661	106923	105883	101183	128388
Crops under government loan	-	-	-	-	-	-
Market livestock held for sale	6961	8498	9953	10871	10502	15227
Other current assets	522	421	417	-	49	53
Total current farm assets	141487	164037	172766	162280	150427	192957
Intermediate Farm Assets						
Breeding livestock	261343	295569	259065	292358	263424	318240
Machinery and equipment	263843	292916	232760	278965	270038	300589
Other intermediate assets	12141	11297	22562	16743	10747	13885
Total intermediate farm assets	537327	599783	514386	588065	544208	632714
Long-Term Farm Assets						
Farm land	395495	443119	391522	445387	443738	481163
Buildings and improvements	106591	130830	120250	126088	61090	83662
Other long-term assets	2665	2873	3360	3466	2856	3761
Total long-term farm assets	504750	576822	515132	574940	507683	568586
Total Farm Assets	1183564	1340641	1202283	1325286	1202319	1394258
Total Nonfarm Assets	64411	76036	83583	89442	38006	52085
Total Assets	1247975	1416677	1285867	1414727	1240325	1446343
LIABILITIES						
Current Farm Liabilities						
Accrued interest	803	1305	1295	2851	370	598
Accounts payable	12275	11731	8938	12059	5706	6213
Current notes	38300	40157	45553	65028	22654	23490
Government crop loans	-	-	-	-	-	-
Principal due on term debt	37401	41521	36071	32952	40456	45331
Total current farm liabilities	88779	94713	91856	112890	69187	75631
Intermediate Farm Liabilities	125099	114732	147756	143844	104352	102150
Long-term Farm Liabilities	177942	203360	206217	248414	153316	157210
Total Farm Liabilities	391819	412805	445829	505148	326855	334992
Total Nonfarm Liabilities	1011	1027	3172	3693	-	-
Total Deferred Liabilities	-	5605	-	22888	-	-
Total Liabilities	392830	419437	449001	531729	326855	334992
Net Worth (farm and nonfarm)	855145	997241	836866	882998	913471	1111351
Net Worth Change	142095		46132		197881	
RATIO ANALYSIS						
Current Farm Liabilities / Assets	63 %	58 %	53 %	70 %	46 %	39 %
Curr. & Interm Farm Liab. / Assets	32 %	27 %	35 %	34 %	25 %	22 %
Long Term Farm Liabilities / Assets	35 %	35 %	40 %	43 %	30 %	28 %
Total Liabilities / Assets	31 %	30 %	35 %	38 %	26 %	23 %

Table 42

**STATEMENT OF CASH FLOWS, 1999**  
**Michigan Dairy Farms, 121 - 200.9 Cows**  
(Farms sorted by Net Farm Income)

		Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms		49	12	12
(a) Beginning cash balance (farm & nonfarm)		15259	22284	6456
CASH FROM OPERATING ACTIVITIES				
Gross cash farm income		573362	554321	609633
Net nonfarm income	(+)	5107	9039	3686
Total cash farm expense	(-)	442648	459174	453763
Apparent family living expense	(-)	52355	47129	78735
Income and social security tax	(-)	5690	1933	11354
(b) Cash from operations	(=)	77777	55124	69466
CASH FROM INVESTING ACTIVITIES				
Sale of breeding livestock		1468	2922	750
Sale of machinery & equipment	(+)	5153	846	4510
Sale of farm land	(+)	2296	-	-
Sale of farm buildings	(+)	78	-	-
Sale of other farm assets	(+)	4754	8027	9428
Sale of nonfarm assets	(+)	2192	-	-
Purchase of breeding livestock	(-)	15524	36760	1523
Purchase of machinery & equip.	(-)	57891	58503	45615
Purchase of farm land	(-)	12316	24797	11665
Purchase of farm buildings	(-)	22181	13303	14659
Purchase of other farm assets	(-)	4321	2882	11490
Purchase of nonfarm assets	(-)	2617	-	-
(c) Cash from investing activities	(=)	-98908	-124451	-70264
CASH FROM FINANCING ACTIVITIES				
Money borrowed		98575	129189	75184
Cash gifts and inheritances	(+)	2458	937	188
Principal payments	(-)	77481	73898	67783
Dividends paid	(-)	-	-	-
Gifts given	(-)	694	-	1260
(d) Cash from financing activities	(=)	22858	56227	6329
(e) Net change in cash balance (b+c+d)		1727	-13100	5532
Ending cash balance (farm & nonfarm)		16986	9184	11988

Table 43

**FINANCIAL GUIDELINES MEASURES, 1999**  
**Michigan Dairy Farms, 121 - 200.9 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	49		12		12	
<b>LIQUIDITY</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current ratio	1.59	1.73	1.88	1.44	2.17	2.55
Working capital	52708	69323	80910	49390	81241	117326
<b>SOLVENCY (Market)</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Farm debt to asset ratio	33 %	31 %	37 %	38 %	27 %	24 %
Farm equity to asset ratio	67 %	69 %	63 %	62 %	73 %	76 %
Farm debt to equity ratio	49 %	44 %	59 %	62 %	37 %	32 %
<b>PROFITABILITY</b>	Cost	Market	Cost	Market	Cost	Market
Rate of return on farm assets	10.8 %	12.3 %	1.5 %	5.7 %	20.8 %	18.1 %
Rate of return on farm equity	14.7 %	15.1 %	-5.3 %	5.0 %	29.8 %	22.0 %
Operating profit margin	18.4 %	31.4 %	2.9 %	16.7 %	31.1 %	41.4 %
Net farm income	122163	186324	38874	98464	219947	278404
<b>REPAYMENT CAPACITY</b>	Cash	Accrual	Cash	Accrual	Cash	Accrual
Term debt coverage ratio	178 %	220 %	137 %	135 %	163 %	248 %
Capital replacement margin	40172	61784	18509	17747	29010	67775
<b>EFFICIENCY</b>						
Asset turnover rate (market)	39.2 %		34.2 %		43.7 %	
Operating expense ratio	69.7 %		76.9 %		66.2 %	
Depreciation expense ratio	5.1 %		10.1 %		-4.0 %	
Interest expense ratio	4.4 %		6.0 %		3.4 %	
Net farm income ratio	20.7 %		7.1 %		34.4 %	

**LABOR ANALYSIS**

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
Number of Farms	48	11	12
Total unpaid labor hours	5317	5353	6084
Total hired labor hours	6912	5395	7349
Total labor hours per farm	12229	10747	13433
Value of farm production / hour	40.64	40.53	42.22
Net farm income / unpaid hour	23.24	6.99	36.15

Table 44

**OPERATOR INFORMATION & NONFARM SUMMARY, 1999****Michigan Dairy Farms, 121 - 200.9 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	49	12	12
OPERATOR INFORMATION			
Average number of operators	1.6	1.7	1.8
Average age of operators	53.0	53.3	53.4
Average number of years farming	27.7	31.1	24.4
NONFARM INCOME			
Nonfarm wages & salary	2114	4930	469
Nonfarm business income	-	-	-
Nonfarm rental income	276	50	658
Nonfarm interest income	551	676	1117
Nonfarm cash dividends	175	-	-
Tax refunds	169	293	51
Nontaxable nonfarm income	83	83	254
Gifts and inheritances	2458	937	188
Other nonfarm income	1740	3006	1137
Total nonfarm income	7565	9976	3873
NONFARM ASSETS (Mkt)			
	Average Of All Farms Beginning	Ending	
Checking & savings	1000	1746	
Stocks & bonds	8662	9455	
Other current assets	7330	4882	
Furniture & appliances	1694	1694	
Nonfarm vehicles	3031	3884	
Cash value of life ins.	4367	4670	
Retirement accounts	6608	9834	
Other intermediate assets	3643	4937	
Nonfarm real estate	27465	34322	
Other long term assets	612	612	
Total nonfarm assets	64411	76036	



Table 45

**LIVESTOCK AND CROP PRODUCTION SUMMARY, 1999****Michigan Dairy Farms, 201 - 2,000 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
<hr/>			
DAIRY			
Number of farms	38	10	10
Avg. number of Cows	400.1	399.6	654.1
Milk produced per Cow, lbs.	22,291	214,16	22,529
Percent of barn capacity	98.6	96.4	95.6
Avg. milk price per cwt.	15.62	15.69	15.81
ACREAGE SUMMARY			
Total Acres Owned	637	476	855
Total Crop Acres	1031	1209	1226
Crop Acres Owned	645	690	923
Crop Acres Cash Rented	386	519	303
AVERAGE PRICE RECEIVED (Cash Sales Only)			
Corn per bu.	1.82	-	-
Soybeans per bu.	4.25	-	-
Wheat, Winter per bu.	1.97	-	-
AVERAGE YIELD PER ACRE			
Corn Silage (ton)	15.72	-	15.07
Hay, Alfalfa (ton)	4.88	-	4.70
Corn (bu.)	123.17	-	131.88
Haylage, Alfalfa (ton)	5.60	-	-
Soybeans (bu.)	39.50	-	-
Wheat, Winter (bu.)	60.21	-	-
Sugar Beets (ton)	18.18	-	-

Table 46

**FARM INCOME STATEMENT, 1999**  
**Michigan Dairy Farms, 201 - 2,000 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	38	10	10
<b>CASH FARM INCOME</b>			
Barley	94	-	-
Green Beans	42	-	-
Cordwood	472	-	-
Corn	10836	19865	2528
Corn Silage	1274	2159	-
Mixed Hay	497	1598	-
Alfalfa Haylage	244	-	-
Mixed Haylage	127	-	-
Soybeans	8015	9123	1144
Straw	228	660	-
Sugar Beets	2801	-	10644
Winter Wheat	2767	4693	3962
Background Beef	2047	7481	298
Milk	1392664	1343017	2329841
Dairy Calves	6434	6437	9720
Dairy Replacement Heifers	343	-	724
Dairy Steers	6618	11662	601
Cull breeding livestock	43820	37466	78494
Transition payments	1510	-	5738
CRP payments	158	-	-
Other government payments	60985	68209	63679
Custom work income	12984	27728	8476
Patronage dividends, cash	8381	6023	12594
Insurance income	1208	1134	2388
Other farm income	26086	27378	39743
Gross Cash Farm Income	1,590,635	1,574,633	2,570,574

Table 47

**FARM INCOME STATEMENT, 1999 (Continued)****Michigan Dairy Farms, 201 - 2,000 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	38	10	10
CASH FARM EXPENSE			
Seed	23170	28596	25240
Fertilizer	46490	52988	56634
Crop chemicals	21828	26217	28966
Crop insurance	888	3078	6
Drying fuel	92	-	224
Crop marketing	85	224	0
Crop miscellaneous	4352	3950	8621
Feeder livestock purchase	6506	14643	-
Purchased feed	385699	332449	714502
Breeding fees	10278	7105	19666
Veterinary	50418	51949	86275
Livestock supplies	65708	57213	116404
Livestock leases	3800	1720	5371
Livestock marketing	46977	49715	64680
Interest	79734	111222	131954
Fuel & oil	21068	21029	27812
Repairs	79494	78499	92559
Custom hire	38869	48457	58068
Hired labor	216773	236767	327680
Land rent	41541	76093	41600
Machinery & bldg leases	34469	46047	42759
Real estate taxes	13552	15512	22467
Farm insurance	14829	15755	18629
Utilities	28035	25842	41990
Dues & professional fees	8539	13041	11284
Hedging account deposits	969	3682	-
Miscellaneous	36574	28881	51800
Total cash expense	1280738	1350675	1995189
Net cash farm income	309897	223958	575385
INVENTORY CHANGES			
Crops and feed	9074	-6729	23478
Market livestock	1489	9188	-1300
Accounts receivable	-4678	-5925	-18682
Prepaid expenses and supplies	27726	46399	45372
Accounts payable	1533	22782	-30166
Total inventory change	35144	65714	18703
Net operating profit	345041	289672	594088
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS			
Breeding livestock	-1254	-58075	9726
Machinery and equipment	-90008	-97590	-135029
Buildings and improvements	-43374	-67368	-49646
Other farm capital	-9786	-69655	35104
Total depr. and other capital adj	-144423	-292687	-139846
Net farm income	200,618	-3,015	454,242

Table 48

**INVENTORY CHANGES, 1999**  
**Michigan Dairy Farms, 201 - 2,000 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	38	10	10
Net cash farm income	309897	223958	575385
CROPS AND FEED			
Ending inventory	258492	315703	340164
Beginning inventory	249418	322431	316686
Inventory change	9074	-6729	23478
MARKET LIVESTOCK			
Ending inventory	13423	29664	4074
Beginning inventory	11934	20476	5374
Inventory change	1489	9188	-1300
ACCTS RECEIVABLE & OTHER CURRENT ASSETS			
Ending inventory	78896	96824	95176
Beginning inventory	83574	102749	113858
Inventory change	-4678	-5925	-18682
PREPAID EXPENSES AND SUPPLIES			
Ending inventory	87082	57420	182120
Beginning inventory	59356	11022	136748
Inventory change	27726	46399	45372
ACCOUNTS PAYABLE			
Beginning inventory	35531	74417	22442
Ending inventory	33997	51635	52608
Inventory change	1533	22782	-30166
Total inventory change	35144	65714	18703
Net operating profit	345041	289672	594088

Table 49

**DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999****Michigan Dairy Farms, 201 - 2,000 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
	-----	-----	-----
Number of Farms	38	10	10
Net operating profit	345041	289672	594088
BREEDING LIVESTOCK			
Ending inventory	748544	651017	1281504
Capital sales	16158	14899	30263
Beginning inventory	649004	586507	1061147
Capital purchases	116952	137484	240894
Depreciation, capital adj.	-1254	-58075	9726
MACHINERY AND EQUIPMENT			
Ending inventory	354508	306439	662403
Capital sales	10559	3188	29107
Beginning inventory	304000	283352	520462
Capital purchases	151074	123864	306077
Depreciation, capital adj.	-90008	-97590	-135029
BUILDINGS AND IMPROVEMENTS			
Ending inventory	293123	232626	550205
Capital sales	37	-	-
Beginning inventory	276017	259515	467567
Capital purchases	60517	40479	132285
Depreciation, capital adj.	-43374	-67368	-49646
OTHER CAPITAL ASSETS			
Ending inventory	143898	60727	421220
Capital sales	17380	8384	39541
Beginning inventory	51356	61025	78514
Capital purchases	119708	77742	347143
Depreciation, capital adj.	-9786	-69655	35104
Total depreciation, capital adj.	-144423	-292687	-139846
Net farm income	200,618	-3,015	454,242

Table 50

# **PROFITABILITY AND LIQUIDITY ANALYSIS, 1999**

## **Michigan Dairy Farms, 201 - 2,000 Cows**

(Farms sorted by Net Farm Income)

	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%	Avg. Of All Farms	Avg. Of Low 25%	Avg. Of High 25%
Number of Farms	38	10	10	38	10	10
PROFITABILITY	----- Cost -----			----- Market -----		
Net farm income	200618	-3015	454242	264117	62746	537458
Labor and management earnings	137642	-32528	347498	160757	-9682	369856
Rate of return on assets	9.5 %	2.8 %	14.1 %	9.4 %	4.6 %	12.8 %
Rate of return on equity	12.0 %	-12.0 %	21.0 %	11.0 %	0.6 %	16.4 %
Operating profit margin	17.2 %	4.7 %	27.4 %	22.5 %	10.3 %	31.8 %
Asset turnover rate	55.2 %	61.0 %	51.6 %	41.9 %	44.3 %	40.3 %
Interest on farm net worth	62977	29513	106744	103359	72428	167601
Farm interest expense	81530	112885	137781	81530	112885	137781
Value of operator lbr and mgmt.	74958	55637	80538	74958	55637	80538
Return on farm assets	207191	54233	511485	270689	119994	594700
Average farm assets	2180046	1912974	3623107	2870636	2630623	4637400
Return on farm equity	125661	-58652	373704	189159	7110	456919
Average farm equity	1045474	489490	1779064	1722658	1207138	2793357
Value of farm production	1203061	1166000	1869294	1203061	1166000	1869294
		Average Of All Farms	Average Of Low 25%	Average Of High 25%		
Number of Farms		38	10	10		
LIQUIDITY (Cash)						
Net cash farm income		309897	223958	575385		
Net nonfarm income		9444	12271	1874		
Family living and taxes		84656	30648	128394		
Real estate principal payments		27306	30742	48080		
Cash available for interm. debt		207379	174838	400786		
Average intermediate debt		444531	736089	498467		
Years to turnover interm. debt		2.1	4.2	1.2		
Expense as a % of income		81 %	86 %	78 %		
Interest as a % of income		5 %	7 %	5 %		
LIQUIDITY (Accrual)						
Total accrual farm income		1596519	1571167	2574070		
Total accrual farm expense		1251478	1281495	1979982		
Net accrual operating income		345041	289672	594088		
Net nonfarm income		9444	12271	1874		
Family living and taxes		84656	30648	128394		
Real estate principal payments		27306	30742	48080		
Available for intermediate debt		242523	240552	419488		
Average intermediate debt		444531	736089	498467		
Years to turnover interm. debt		1.8	3.1	1.2		
Expense as a % of income		78 %	82 %	77 %		
Interest as a % of income		5 %	7 %	5 %		

Table 51

**BALANCE SHEET AT COST VALUES, 1999**  
**Michigan Dairy Farms, 201 - 2,000 Cows**  
(Farms sorted by Net Farm Income)

Number of Farms	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
	38		10		10	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>ASSETS</b>						
Current Farm Assets						
Cash and checking balance	24002	18002	4064	-9016	40775	25368
Prepaid expenses & supplies	59356	87082	11022	57420	136748	182120
Growing crops	12049	12434	17502	19684	11019	11499
Accounts receivable	57467	54640	49446	49829	99106	80056
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	247665	256464	322431	315703	316686	340164
Crops under government loan	1753	2028	-	-	-	-
Market livestock held for sale	11934	13423	20476	29664	5374	4074
Other current assets	14058	11822	35801	27311	3734	3621
Total current farm assets	428284	455895	460742	490595	613442	646903
Intermediate Farm Assets						
Breeding livestock	649004	748544	586507	651017	1061147	1281504
Machinery and equipment	304000	354508	283352	306439	520462	662403
Other intermediate assets	46610	139188	51314	57276	71359	407912
Total intermediate farm assets	999614	1242240	921172	1014732	1652968	2351818
Long-Term Farm Assets						
Farm land	296179	359282	192781	240623	403453	539394
Buildings and improvements	276017	293123	259515	232626	467567	550205
Other long-term assets	4746	4710	9711	3451	7155	13308
Total long-term farm assets	576942	657115	462008	476701	878175	1102908
Total Farm Assets	2004841	2355251	1843922	1982027	3144585	4101629
Total Nonfarm Assets	91650	128635	27346	98954	244126	293591
Total Assets	2096491	2483886	1871268	2080981	3388711	4395220
<b>LIABILITIES</b>						
Current Farm Liabilities						
Accrued interest	1092	2888	1213	2875	255	6082
Accounts payable	34439	31110	73204	48760	22188	46526
Current notes	98137	106508	173500	134866	123808	152716
Government crop loans	1595	2024	-	-	-	-
Principal due on term debt	93194	108250	150085	176248	83500	125835
Total current farm liabilities	228457	250779	398002	362749	229750	331160
Intermediate Farm Liabilities	373002	369254	580242	627712	495164	387597
Long-term Farm Liabilities	418133	629518	367515	510748	794990	1449426
Total Farm Liabilities	1019591	1249552	1345759	1501210	1519904	2168183
Total Nonfarm Liabilities	6638	6301	23945	23945	1281	-
Total Liabilities	1026230	1255853	1369704	1525155	1521185	2168183
Net Worth (farm and nonfarm)	1070261	1228033	501564	55826	1867526	2227037
Net Worth Change	157771		54262		359511	
<b>RATIO ANALYSIS</b>						
Current Farm Liabilities / Assets	53 %	55 %	86 %	74 %	37 %	51 %
Curr. & Interm Farm Liab / Assets	42 %	37 %	71 %	66 %	32 %	24 %
Long Term Farm Liab. / Assets	72 %	96 %	80 %	107 %	91 %	131 %
Total Liabilities / Assets	49 %	51 %	73 %	73 %	45 %	49 %

Table 52

**BALANCE SHEET AT MARKET VALUES, 1999**  
**Michigan Dairy Farms, 201 - 2,000 Cows**  
**(Farms sorted by Net Farm Income)**

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	38		10		10	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	24002	18002	4064	-9016	40775	25368
Prepaid expenses & supplies	59356	87082	11022	57420	136748	182120
Growing crops	12049	12434	17502	19684	11019	11499
Accounts receivable	57467	54640	49446	49829	99106	80056
Hedging accounts	-	-	-	-	-	-
Crops held for sale or feed	247665	256464	322431	315703	316686	340164
Crops under government loan	1753	2028	-	-	-	-
Market livestock held for sale	11934	13423	20476	29664	5374	4074
Other current assets	14058	11822	35801	27311	3734	3621
Total current farm assets	428284	455895	460742	490595	613442	646903
Intermediate Farm Assets						
Breeding livestock	710798	814269	694027	742242	1188448	1440415
Machinery and equipment	468686	544807	475976	522146	693834	877062
Other intermediate assets	47328	139320	52037	57276	71359	407912
Total intermediate farm assets	1226813	1498396	1222039	1321664	1953640	2725389
Long-Term Farm Assets						
Farm land	644756	732382	594315	630481	820797	1002925
Buildings and improvements	356234	388969	241882	286365	722236	769005
Other long-term assets	4785	4758	9711	3451	7155	13308
Total long-term farm assets	1005775	1126109	845908	920297	1550188	1785238
Total Farm Assets	2660872	3080400	2528689	2732556	4117270	5157529
Total Nonfarm Assets	122331	180562	95431	243235	281931	335283
Total Assets	2783203	3260962	2624120	2975791	4399201	5492812
LIABILITIES						
Current Farm Liabilities						
Accrued interest	1092	2888	1213	2875	255	6082
Accounts payable	34439	31110	73204	48760	22188	46526
Current notes	98137	106508	173500	134866	123808	152716
Government crop loans	1595	2024	-	-	-	-
Principal due on term debt	93194	108250	150085	176248	83500	125835
Total current farm liabilities	228457	250779	398002	362749	229750	331160
Intermediate Farm Liabilities	373002	369254	580242	627712	495164	387597
Long-term Farm Liabilities	418133	629518	367515	510748	794990	1449426
Total Farm Liabilities	1019591	1249552	1345759	1501210	1519904	2168183
Total Nonfarm Liabilities	6638	6301	23945	23945	1281	-
Total Deferred Liabilities	10583	16205	-	-	-	-
Total Liabilities	1036812	1272058	1369704	1525155	1521185	2168183
Net Worth (farm and nonfarm)	1746391	1988904	1254416	1450637	2878017	3324629
Net Worth Change	242513		196221		446613	
RATIO ANALYSIS						
Current Farm Liabilities / Assets	53 %	55 %	86 %	74 %	37 %	51 %
Curr. & Interm Farm Liab. / Assets	36 %	32 %	58 %	55 %	28 %	21 %
Long Term Farm Liabilities / Assets	42 %	56 %	43 %	55 %	51 %	81 %
Total Liabilities / Assets	37 %	39 %	52 %	51 %	35 %	39 %



Table 53

**STATEMENT OF CASH FLOWS, 1999**  
**Michigan Dairy Farms, 201 - 2,000 Cows**  
(Farms sorted by Net Farm Income)

		Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms		38	10	10
(a) Beginning cash balance (farm & nonfarm)		24002	4064	40775
CASH FROM OPERATING ACTIVITIES				
Gross cash farm income		1590635	1574633	2570574
Net nonfarm income	(+)	9444	12271	1874
Total cash farm expense	(-)	1280738	1350675	1995189
Apparent family living expense	(-)	74872	29615	115998
Income and social security tax	(-)	9784	1033	12396
(b) Cash from operations	(=)	234685	205581	448865
CASH FROM INVESTING ACTIVITIES				
Sale of breeding livestock		16158	14899	30263
Sale of machinery & equipment	(+)	10559	3188	29107
Sale of farm land	(+)	1390	2680	-
Sale of farm buildings	(+)	37	-	-
Sale of other farm assets	(+)	17380	8384	39541
Sale of nonfarm assets	(+)	3124	6073	-
Purchase of breeding livestock	(-)	116952	137484	240894
Purchase of machinery & equip.	(-)	151074	123864	306077
Purchase of farm land	(-)	62540	47842	155633
Purchase of farm buildings	(-)	60517	40479	132285
Purchase of other farm assets	(-)	119708	77742	347143
Purchase of nonfarm assets	(-)	11856	5117	6138
(c) Cash from investing activities	(=)	-474001	-397304	-1089259
CASH FROM FINANCING ACTIVITIES				
Money borrowed		511008	596992	988546
Cash gifts and inheritances	(+)	5601	2647	8310
Principal payments	(-)	279838	418760	371677
Dividends paid	(-)	-	-	-
Gifts given	(-)	3456	2236	192
(d) Cash from financing activities	(=)	233316	178643	624986
(e) Net change in cash balance (b+c+d)		-6000	-13080	-15408
Ending cash balance (farm & nonfarm)		18002	-9016	25368

Table 54

**FINANCIAL GUIDELINES MEASURES, 1999**  
**Michigan Dairy Farms, 201 - 2,000 Cows**  
(Farms sorted by Net Farm Income)

	Average Of All Farms		Average Of Low 25 %		Average Of High 25 %	
Number of Farms	38		10		10	
<b>LIQUIDITY</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current ratio	1.87	1.82	1.16	1.35	2.67	1.95
Working capital	199827	205116	62740	127845	383692	315743
<b>SOLVENCY (Market)</b>	Beginning	Ending	Beginning	Ending	Beginning	Ending
Farm debt to asset ratio	39 %	41 %	53 %	55 %	37 %	42 %
Farm equity to asset ratio	61 %	59 %	47 %	45 %	63 %	58 %
Farm debt to equity ratio	63 %	69 %	114 %	122 %	59 %	73 %
<b>PROFITABILITY</b>	Cost	Market	Cost	Market	Cost	Market
Rate of return on farm assets	9.5 %	9.4 %	2.8 %	4.6 %	14.1 %	12.8 %
Rate of return on farm equity	12.0 %	11.0 %	-12.0 %	0.6 %	21.0 %	16.4 %
Operating profit margin	17.2 %	22.5 %	4.7 %	10.3 %	27.4 %	31.8 %
Net farm income	200618	264117	-3015	62746	454242	537458
<b>REPAYMENT CAPACITY</b>	Cash	Accrual	Cash	Accrual	Cash	Accrual
Term debt coverage ratio	209 %	237 %	128 %	161 %	383 %	398 %
Capital replacement margin	139896	175040	55496	121210	359305	378007
<b>EFFICIENCY</b>						
Asset turnover rate (market)	41.9 %		44.3 %		40.3 %	
Operating expense ratio	73.3 %		74.4 %		71.6 %	
Depreciation expense ratio	9.0 %		18.6 %		5.4 %	
Interest expense ratio	5.1 %		7.2 %		5.4 %	
Net farm income ratio	12.6 %		-0.2 %		17.6 %	

**LABOR ANALYSIS**

	Average Of All Farms	Average Of Low 25 %	Average Of High 25 %
Number of Farms	35	8	10
Total unpaid labor hours	5032	2760	4585
Total hired labor hours	17419	13885	28453
Total labor hours per farm	22451	16645	33038
Value of farm production / hour	54.05	68.69	56.58
Net farm income / unpaid hour	43.18	3.89	99.08

Table 55

**OPERATOR INFORMATION & NONFARM SUMMARY, 1999****Michigan Dairy Farms, 201 - 2,000 Cows**

(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 25%	Average Of High 25%
Number of Farms	38	10	10
OPERATOR INFORMATION			
Average number of operators	1.9	1.6	1.8
Average age of operators	46.4	54.0	44.9
Average number of years farming	23.6	31.0	21.7
NONFARM INCOME			
Nonfarm wages & salary	1290	4492	75
Nonfarm business income	1	-	3
Nonfarm rental income	2741	2678	-
Nonfarm interest income	1188	265	1670
Nonfarm cash dividends	51	-	-
Tax refunds	94	358	-
Nontaxable nonfarm income	-	-	-
Gifts and inheritances	5601	2647	8310
Other nonfarm income	4078	4477	127
Total nonfarm income	15046	14918	10184
NONFARM ASSETS (Mkt)			
	Average Of All Farms Beginning	Ending	
Checking & savings	-	-	
Stocks & bonds	572	572	
Other current assets	18563	4113	
Furniture & appliances	2526	2750	
Nonfarm vehicles	2118	2197	
Cash value of life ins.	30689	37307	
Retirement accounts	35013	51870	
Other intermediate assets	1358	4347	
Nonfarm real estate	22223	62658	
Other long term assets	9268	14749	
Total nonfarm assets	122331	180562	

## Per Unit Income and Expense

Table 56 gives the per acre cash income, cash expense and depreciation for 120 of the 153 dairy farms. The other 33 farms either did not report any crop acres harvested, or purchased all their feed. The 120 farms had an unweighted average of 695.7 acres. These included owned acres plus land cash and share rented. Table 1 shows most leased ground was cash rented in 1999.

Table 56. **Average Income and Expense Items, Michigan, 1999**

Per Cow and Per Acre, Dairy Farms		
Number of Cows	195.28	Your
Total Crop Acres	<u>695.70</u>	<u>Farm</u>
<b>Income Items per Cow:</b>		
Milk sold	\$3,257	_____
Cull cows, bulls	117	_____
Dairy steers	30	_____
Dairy calves	16	_____
Government	214	_____
Other cash income	205	_____
<b>Expense Items per Cow:</b>		
Purchased feed	\$826	_____
Breeding fees	25	_____
Veterinary	115	_____
Livestock supplies	140	_____
Livestock leases	8	_____
Livestock marketing	118	_____
Interest	192	_____
Fuel and oil	59	_____
Repairs	228	_____
Custom hire	84	_____
Hired labor	471	_____
Leases	66	_____
Real estate taxes	39	_____
Farm insurance	44	_____
Utilities	73	_____
Dues, prof. fees	22	_____
Miscellaneous	99	_____
Machinery depreciation	243	_____
Building depreciation	105	_____
<b>Expense Items per Crop Acre:</b>		
Seed	\$17.93	_____
Fertilizer	34.93	_____
Crop chemicals	16.12	_____
Crop insurance	0.64	_____
Crop marketing	0.06	_____
Crop miscellaneous	3.38	_____
Land rent	27.48	_____