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Staff Paper

2000 Business Analysis Summary For General Livestock Farms

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2000 BUSINESS ANALYSIS SUMMARY FOR GENERAL LIVESTOCK FARMS

2000 Michigan Telfarm/MicroTel Data

Staff Paper No. 2001-39, 14 pages

by

Sherrill B. Nott¹

Introduction

The body of this report is organized as follows:

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- A. List of Tables
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II. List & Sequence of Tables

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B. 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. General livestock farms have 50 percent or more of value of combined sales from livestock and livestock products, such as milk, beef animals, hogs, and wool.

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. Farm records were included if a Finan² summary was completed on 2000 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 that follow; it should be recognized that considerable variability exists in the data. The unweighted mean of the net farm income for the 8 farms was \$2,465, the standard deviation of the mean was \$37,670 and

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² 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.

the median was \$4,765. The unweighted mean of the acres cropped was 1,063; the standard deviation of the mean was 760, and the median was 688.

This report has three purposes: 1)to provide statistical information about the financial results on general livestock farms during 2000; 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. Following long term trends may be a problem, as Telfarm/MicroTel and the Department of Agricultural Economics in 1995 adopted Finansum³ and a different software package for doing annual analysis. For general livestock farm averages of 1995, see Staff Paper No. 96-86, Michigan Farm Database, New Directions for 1995, which contains averages of 12 general livestock farms calculated with Finansum. During 1996 and 1997, there were not enough general livestock records in the system to publish averages. Staff Paper No. 99-33, 1998 Business Analysis Summary for General Livestock Farms, contains averages of 13 general livestock farms calculated with Finansum. Staff Paper No. 2000-31, 1999 Business Analysis Summary for General Livestock Farms, contains averages of 7 general livestock farms calculated with Finansum. These staff papers are available from the author at <http://www.msu.edu/user/nott>

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 on Michigan State University's Telfarm/MicroTel accounting project. The averages may be representative of bigger and better managed general livestock farms.

This document may be found and downloaded from the following:

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

³ **Finansum**: provides summarized calculations for data files generated by Finan. It also comes from the Center for Farm Financial Management.

Table 1**CROP PRODUCTION AND MARKETING SUMMARY, 2000**

General Livestock Farms in Michigan
(Farms sorted by Net Farm Income)

	Average of All Farms
	<hr/>
Number of Farms	8
ACREAGE SUMMARY	
Total Acres Owned	731
Total Crop Acres	1,165
Crop Acres Owned	605
Crop Acres Cash Rented	529
Crop Acres Share Rented	31

Table 2

FARM INCOME STATEMENT, 2000

General Livestock Farms in Michigan
(Farms sorted by Net Farm Income)

	<u>Average of All Farms</u>
Number of Farms	8
CASH FARM INCOME	
Corn	50,602
Corn Silage	4,285
Mixed Hay	621
Alfalfa Hay	1,132
Haylage, Mixed	440
Soybeans	41,647
Straw	1,060
Winter Wheat	11,231
Other Crops	11,494
Beef Bulls	11,753
Beef Calves	14,255
Beef Replacement Heifers	2,250
Beef, Custom Fed	4,125
Beef, Background Beef	8,502
Beef, Finish Yrlg Steers	15,873
Milk	167,160
Dairy Calves	208
Dairy Replacement Heifers	188
Dairy Steers	11,386
Finish Feeder Pigs	7,101
Other farm income	226,698
Gross Cash Farm Income	592,006

Table 3

FARM INCOME STATEMENT, 2000 (Continued)
 General Livestock Farms in Michigan
 (Farms sorted by Net Farm Income)

	<u>Average of All Farms</u>
Number of Farms	8
CASH FARM EXPENSE	
Seed	30,126
Fertilizer	47,301
Crop chemicals	18,090
Crop insurance	1,235
Drying fuel	1,018
Crop marketing	281
Crop miscellaneous	89
Feeder livestock purchase	28,488
Purchased feed	49,719
Breeding fees	1,180
Veterinary	7,809
BST	1,409
Livestock supplies	15,893
DHIA	425
Livestock leases	256
Livestock marketing	9,200
Interest	58,845
Fuel & oil	18,421
Repairs	40,115
Custom hire	9,703
Hired labor	57,818
Land rent	28,348
Machinery & bldg leases	29,128
Real estate taxes	10,847
Farm insurance	12,585
Utilities	11,004
Dues & professional fees	5,915
Miscellaneous	19,640
Total cash expense	514,886
Net cash farm income	77,121
INVENTORY CHANGES	
Crops and feed	5,507
Market livestock	-46,633
Accounts receivable	-4,583
Prepaid expenses and supplies	1,909
Accounts payable	45,329
Total inventory change	1,528
Net operating profit	78,649
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS	
Breeding livestock	-14,255
Machinery and equipment	-44,395
Buildings and improvements	-17,191
Other farm capital	-343
Total depreciation & other capital adjstmnts	-76,184
Net farm income	2,464

Table 4

INVENTORY CHANGES, 2000
 General Livestock Farms in Michigan
 (Farms sorted by Net Farm Income)

	Average Of All Farms
	<hr/>
Number of Farms	8
Net cash farm income	77,121
CROPS AND FEED	
Ending inventory	248,528
Beginning inventory	243,021
Inventory change	5,507
MARKET LIVESTOCK	
Ending inventory	91,080
Beginning inventory	137,713
Inventory change	-46,633
ACCTS RECEIVABLE & OTHER CURRENT ASSETS	
Ending inventory	63,131
Beginning inventory	67,713
Inventory change	-4,583
PREPAID EXPENSES AND SUPPLIES	
Ending inventory	15,316
Beginning inventory	13,407
Inventory change	1,909
ACCOUNTS PAYABLE	
Beginning inventory	66,632
Ending inventory	21,303
Inventory change	45,329
Total inventory change	1,528
Net operating profit	78,649

Table 5 **DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 2000**
General Livestock Farms in Michigan
(Farms sorted by Net Farm Income)

	Average of All Farms -----
Number of Farms	8
Net operating profit	78,649
BREEDING LIVESTOCK	
Ending inventory	151,640
Capital sales	1,080
Beginning inventory	157,044
Capital purchases	9,931
Depreciation, capital adj.	-14,255
MACHINERY AND EQUIPMENT	
Ending inventory	160,257
Capital sales	5,450
Beginning inventory	159,072
Capital purchases	51,031
Depreciation, capital adj.	-44,395
BUILDINGS AND IMPROVEMENTS	
Ending inventory	176,504
Capital sales	-
Beginning inventory	173,445
Capital purchases	20,250
Depreciation, capital adj.	-17,191
OTHER CAPITAL ASSETS	
Ending inventory	33,346
Capital sales	6,745
Beginning inventory	39,674
Capital purchases	760
Depreciation, capital adj.	-343
Total depreciation, capital adj.	-76,184
Net farm income	2,464

Table 6

PROFITABILITY AND LIQUIDITY ANALYSIS, 2000

General Livestock Farms in Michigan

(Farms sorted by Net Farm Income)

	Average of All Farms	Average Of All Farms
Number of Farms	8	8
PROFITABILITY	-- Cost --	-- Market --
Net farm income	2,464	102,027
Labor and management earnings	-10,133	26,605
Rate of return on assets	0.4 %	4.4 %
Rate of return on equity	-54.3 %	3.3 %
Operating profit margin	1.1 %	23.1 %
Asset turnover rate	37.7 %	19.3 %
Interest on farm net worth	12,597	75,422
Farm interest expense	62,616	62,616
Value of operator lbr and mgmt.	60,017	60,017
Return on farm assets	5,063	104,626
Average farm assets	1,205,314	2,356,417
Return on farm equity	-57,552	42,010
Average farm equity	105,935	1,257,038
Value of farm production	453,836	453,836
		Average Of All Farms
Number of Farms		8
LIQUIDITY (Cash)		
Net cash farm income		77,121
Net nonfarm income		15,437
Family living and taxes		59,217
Real estate principal payments		42,898
Cash available for interm. debt		-9,557
Average intermediate debt		313,147
Years to turnover interm. debt		**
Expense as a % of income		87 %
Interest as a % of income		10 %
LIQUIDITY (Accrual)		
Total accrual farm income		546,297
Total accrual farm expense		467,648
Net accrual operating income		78,649
Net nonfarm income		15,437
Family living and taxes		59,217
Real estate principal payments		42,898
Available for intermediate debt		-8,029
Average intermediate debt		313,147
Years to turnover interm. debt		**
Expense as a % of income		86 %
Interest as a % of income		11 %

** Income insufficient to meet debt servicing requirements

Table 7

BALANCE SHEET AT COST VALUES, 2000

General Livestock Farms in Michigan
(Farms sorted by Net Farm Income)

Number of Farms	Average Of All Farms	
	Beginning	Ending
	8	
ASSETS		
Current Farm Assets		
Cash and checking balance	11,310	197
Prepaid expenses & supplies	13,407	15,316
Growing crops	13,706	12,669
Accounts receivable	20,079	15,432
Hedging accounts	-	-
Crops held for sale or feed	229,155	230,219
Crops under government loan	13,866	18,309
Market livestock held for sale	137,713	91,080
Other current assets	33,928	35,030
Total current farm assets	473,164	418,251
Intermediate Farm Assets		
Breeding livestock	157,044	151,640
Machinery and equipment	159,072	160,257
Other intermediate assets	31,080	25,049
Total intermediate farm assets	347,196	336,946
Long-Term Farm Assets		
Farm land	225,439	242,794
Buildings and improvements	173,445	176,504
Other long-term assets	8,594	8,297
Total long-term farm assets	407,477	427,594
Total Farm Assets	1,227,837	1,182,791
Total Nonfarm Assets	87,751	106,657
Total Assets	1,315,588	1,289,448
LIABILITIES		
Current Farm Liabilities		
Accrued interest	2,406	6,177
Accounts payable	64,226	15,126
Current notes	138,154	151,702
Government crop loans	13,801	18,269
Principal due on term debt	78,040	99,374
Total current farm liabilities	296,628	290,648
Intermediate Farm Liabilities	260,965	275,366
Long-term Farm Liabilities	544,367	530,786
Total Farm Liabilities	1,101,959	1,096,799
Total Nonfarm Liabilities	633	369
Total Liabilities	1,102,592	1,097,168
Net Worth (farm and nonfarm)	212,995	192,281
Net Worth Change		-20,715
RATIO ANALYSIS		
Current Farm Liabilities / Assets	63 %	69 %
Curr. & Interm Farm Liab / Assets	68 %	75 %
Long Term Farm Liab. / Assets	134 %	124 %
Total Liabilities / Assets	84 %	85 %

Table 8

BALANCE SHEET AT MARKET VALUES, 2000

General Livestock Farms in Michigan

(Farms sorted by Net Farm Income)

Number of Farms	Average of All Farms	
	Beginning	Ending
	8	
ASSETS		
Current Farm Assets		
Cash and checking balance	11,310	197
Prepaid expenses & supplies	13,407	15,316
Growing crops	13,706	12,669
Accounts receivable	20,079	15,432
Hedging accounts	-	-
Crops held for sale or feed	229,155	230,219
Crops under government loan	13,866	18,309
Market livestock held for sale	137,713	91,080
Other current assets	33,928	35,030
Total current farm assets	473,164	418,251
Intermediate Farm Assets		
Breeding livestock	157,044	151,640
Machinery and equipment	409,521	428,072
Other intermediate assets	32,330	26,299
Total intermediate farm assets	598,895	606,011
Long-Term Farm Assets		
Farm land	1,036,064	1,113,443
Buildings and improvements	212,442	237,673
Other long-term assets	8,594	8,297
Total long-term farm assets	1,257,099	1,359,414
Total Farm Assets	2,329,159	2,383,676
Total Nonfarm Assets	97,793	135,173
Total Assets	2,426,952	2,518,849
LIABILITIES		
Current Farm Liabilities		
Accrued interest	2,406	6,177
Accounts payable	64,226	15,126
Current notes	138,154	151,702
Government crop loans	13,801	18,269
Principal due on term debt	78,040	99,374
Total current farm liabilities	296,628	290,648
Intermediate Farm Liabilities	260,965	275,366
Long-term Farm Liabilities	544,367	530,786
Total Farm Liabilities	1,101,959	1,096,799
Total Nonfarm Liabilities	633	369
Total Deferred Liabilities	-	-
Total Liabilities	1,102,592	1,097,168
Net Worth (farm and nonfarm)	1,324,360	1,421,681
Net Worth Change		97,321
RATIO ANALYSIS		
Current Farm Liabilities / Assets	63 %	69 %
Curr. & Interm Farm Liab. / Assets	52 %	55 %
Long Term Farm Liabilities / Assets	43 %	39 %
Total Liabilities / Assets	45 %	44 %

Table 9

STATEMENT OF CASH FLOWS, 2000

General Livestock Farms in Michigan
(Farms sorted by Net Farm Income)

	Average of All Farms
Number of Farms	8
(a) Beginning cash balance (farm & nonfarm)	17,060
CASH FROM OPERATING ACTIVITIES	
Gross cash farm income	592,006
Net nonfarm income	(+) 15,437
Total cash farm expense	(-) -514,886
Apparent family living expense	(-) -56,290
Income and social security tax	(-) -2,926
(b) Cash from operations	(=) 33,341
CASH FROM INVESTING ACTIVITIES	
Sale of breeding livestock	1,080
Sale of machinery & equipment	(+) 5,450
Sale of farm land	(+) -
Sale of farm buildings	(+) -
Sale of other farm assets	(+) 6,745
Sale of nonfarm assets	(+) -
Purchase of breeding livestock	(-) -9,931
Purchase of machinery & equip.	(-) -51,031
Purchase of farm land	(-) -17,256
Purchase of farm buildings	(-) -20,250
Purchase of other farm assets	(-) -760
Purchase of nonfarm assets	(-) -215
(c) Cash from investing activities	(=) -86,168
CASH FROM FINANCING ACTIVITIES	
Money borrowed	236,267
Cash gifts and inheritances	(+) 10,625
Principal payments	(-) -196,365
Dividends paid	(-) -
Gifts given	(-) -1,250
(d) Cash from financing activities	(=) 49,277
(e) Net change in cash balance	(b+c+d) -3,550
Ending cash balance (farm & nonfarm)	13,510

Table 10

FINANCIAL GUIDELINES MEASURES, 2000

General Livestock Farms in Michigan
(Farms sorted by Net Farm Income)

	Average Of All Farms

Number of Farms	8
LIQUIDITY	
Current ratio	1.44
Working capital	127,604
SOLVENCY (Market)	
Farm debt to asset ratio	46 %
Farm equity to asset ratio	54 %
Farm debt to equity ratio	85 %
PROFITABILITY (cost)	
Rate of return on farm assets	0.4 %
Rate of return on farm equity	-54.3 %
Operating profit margin	1.1 %
Net farm income	2,464
REPAYMENT CAPACITY	
Term debt coverage ratio	59 %
Capital replacement margin	-43,171
EFFICIENCY	
Asset turnover rate (cost)	37.7 %
Operating expense ratio	74.1 %
Depreciation expense ratio	13.9 %
Interest expense ratio	11.5 %
Net farm income ratio	0.5 %
LABOR ANALYSIS	
	Average Of All Farms

Number of Farms	8
Total unpaid labor hours	4,661
Total hired labor hours	4,713
Total labor hours per farm	9,374
Value of farm production / hour	48.41
Net farm income / unpaid hour	0.53

Table 11 OPERATOR INFORMATION & NONFARM SUMMARY, 2000
 General Livestock Farms in Michigan
 (Farms sorted by Net Farm Income)

	Average Of All Farms
	<hr/>
Number of Farms	8
OPERATOR INFORMATION	
Average number of operators	1.5
Average age of operators	49.4
Average number of years farming	28.3
RESULTS PER OPERATOR	
Working capital	85,069
Total assets (market)	1,679,233
Total liabilities	731,445
Net worth (market)	947,787
Net worth excl deferred liabs	947,787
Gross farm income	364,198
Total farm expense	362,555
Net farm income	1,643
Net nonfarm income	10,291
Family living withdrawals	39,478
Total acres owned	487.4
Total crop acres	777.0
Crop acres owned	403.4
Crop acres cash rented	353.0
Crop acres share rented	20.6
Total pasture acres	-