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Staff Paper

2001 Business Analysis Summary for General Livestock Farms

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2001 BUSINESS ANALYSIS SUMMARY FOR GENERAL LIVESTOCK FARMS

Michigan Data from Telfarm Staff Paper No. 2002-29, 16 pages

by

Sherrill B. Nott¹

Abstract

During 2001, the 7 panel general livestock farms had an average net farm income of \$10,552.

Introduction

The body of this report is organized as follows:

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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.

¹ Professor and extension specialist, phone 517-353-4522 or nott@msu.edu Co-workers in the Telfarm/MicroTel project were R. Betz, L. Borton, R. Clark, S. Harsh, M. Kelsey, G. Kole, T. Purdy, W. Schauer, G. Schwab, D. Stein, V. Varner, and C. Wolf with the assistance of Michigan State University Extension Agents.

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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 2001 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 7 farms was \$10,552, the standard deviation of the mean was \$36,752 and the median was \$-4,986. The unweighted mean of the acres cropped was 940; the standard deviation of the mean was 685, and the median was 794.

This report has three purposes: 1)to provide statistical information about the financial results on general livestock farms during 2001; 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. Staff Paper No. 2001-39, 2000 Business Analysis Summary for General Livestock Farms, contains averages of 8 general livestock farms calculated with Finansum's replacement, RankEm. 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. RankEm 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>

² **Finan**: financial analysis, one of the parts of Finpack, a financial software package from the Center of Farm Financial Management at the University of Minnesota.

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 Summary**
 Michigan General Livestock Farms, 2001
 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Acreage Summary	
Total acres owned	732
Total crop acres	940
Crop acres owned	624
Crop acres cash rented	302
Crop acres share rented	14

Table 2. **Farm Income Statement**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Cash Farm Income	
Corn	39,968
Corn Silage	6,440
Corn, Seed	22,331
Hay, Alfalfa	316
Hay, Mixed	214
Haylage, Alfalfa	143
Haylage, Mixed	163
Oats	415
Soybeans	47,983
Sugar Beets	685
Wheat, Soft Red Winter	731
Wheat, Spring	658
Wheat, Winter	5,040
Other crops	12,545
Beef Bulls	6,952
Beef Cow-Calf, Beef Calves	1,517
Beef, Background Beef	934
Beef, Finish Beef Calves	48,813
Beef, Finish Yrlg Steers	21,109
Dairy, Milk	16,124
Dairy Steers	6,798
Hogs, Finish Feeder Pigs	40,438
Horses, Breed Horses, Foals	10,874
Sheep, Market Lambs, Mkt Lambs	2,910
Other farm income	144,451
Gross Cash Farm Income	\$ 438,552

Table 3. **Farm Income Statement, continued**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Cash Farm Expense	
Seed	12,071
Fertilizer	28,183
Crop chemicals	16,579
Crop insurance	1,400
Drying fuel	547
Crop marketing	280
Crop miscellaneous	1,726
Feeder livestock purchase	105,195
Purchased feed	39,613
Breeding fees	2,068
Veterinary	7,477
Livestock supplies	2,632
Livestock marketing	2,019
Interest	25,337
Fuel & oil	13,046
Repairs	34,075
Custom hire	6,856
Hired labor	34,958
Land rent	29,232
Machinery & bldg leases	630
Real estate taxes	5,732
Farm insurance	6,364
Utilities	10,367
Dues & professional fees	2,767
Hedging account deposits	1,022
Miscellaneous	26,172
Total cash expense	416,348
Net cash farm income	22,204
Inventory Changes	
Crops and feed	-39,505
Market livestock	62,095
Accounts receivable	5,734
Prepaid expenses and supplies	-18,784
Accounts payable	2,078
Total inventory change	11,617
Net operating profit	33,821
Depreciation and Other Capital Adjustments	
Breeding livestock	5,701
Machinery and equipment	-26,121
Buildings and improvements	-2,680
Other farm capital	-169
Total depr. and other capital adj	-23,269
Net farm income	\$ 10,552

Table 4. **Inventory Changes**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Net cash farm income	22,204
Crops and Feed	
Ending inventory	116,686
Beginning inventory	156,191
Inventory change	-39,505
Market Livestock	
Ending inventory	140,145
Beginning inventory	78,050
Inventory change	62,095
Accts Receivable & Other Current Assets	
Ending inventory	18,093
Beginning inventory	12,359
Inventory change	5,734
Prepaid Expenses and Supplies	
Ending inventory	15,795
Beginning inventory	34,579
Inventory change	-18,784
Accounts Payable & Accrued Expenses	
Beginning inventory	10,905
Ending inventory	8,828
Inventory change	2,078
Total inventory change	11,617
Net operating profit	33,821

Table 5. **Depreciation and Other Capital Adjustments**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Net operating profit	33,821
Breeding Livestock	
Ending inventory	49,594
Capital sales	945
Beginning inventory	42,417
Capital purchases	2,421
Depreciation, capital adjust.	5,701
Machinery and Equipment	
Ending inventory	119,969
Capital sales	5,501
Beginning inventory	87,303
Capital purchases	64,288
Depreciation, capital adjust.	-26,121
Buildings and Improvements	
Ending inventory	53,632
Capital sales	-
Beginning inventory	52,530
Capital purchases	3,782
Depreciation, capital adjust.	-2,680
Other Capital Assets	
Ending inventory	6,800
Capital sales	1,524
Beginning inventory	7,937
Capital purchases	556
Depreciation, capital adjust.	-169
Total depreciation, capital adj.	-23,269
Net farm income	10,552

Table 6. **Profitability Measures**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Profitability (assets valued at cost)	
Net farm income	10,552
Labor and management earnings	-11,677
Rate of return on assets	-1.7 %
Rate of return on equity	-9.6 %
Operating profit margin	-3.6 %
Asset turnover rate	46.4 %
Interest on farm net worth	22,229
Farm interest expense	22,642
Value of operator lbr and mgmt.	45,007
Return on farm assets	-11,813
Average farm assets	706,209
Return on farm equity	-34,455
Average farm equity	360,268
Value of farm production	327,768

	Avg. Of All Farms
Number of farms	7
Profitability (assets valued at market)	
Net farm income	43,959
Labor and management earnings	-24,252
Rate of return on assets	1.5 %
Rate of return on equity	-0.1 %
Operating profit margin	6.6 %
Asset turnover rate	22.1 %
Interest on farm net worth	68,212
Farm interest expense	22,642
Value of operator lbr and mgmt.	45,007
Return on farm assets	21,595
Average farm assets	1,482,803
Return on farm equity	-1,048
Average farm equity	1,136,862
Value of farm production	327,768

Table 7. **Liquidity Measures**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Liquidity (cash)	
Net cash farm income	22,204
Net nonfarm income	4,232
Family living and taxes	31,331
Real estate principal payments	13,474
Cash available for interm. debt	-18,368
Average intermediate debt	66,500
Years to turnover interm. debt	**
Expense as a % of income	95 %
Interest as a % of income	6 %
Liquidity (accrual)	
Total accrual farm income	466,876
Total accrual operating expense	433,054
Net accrual operating income	33,821
Net nonfarm income	4,232
Family living and taxes	31,331
Real estate principal payments	13,474
Available for intermediate debt	-6,751
Average intermediate debt	66,500
Years to turnover interm. debt	**
Expense as a % of income	93 %
Interest as a % of income	5 %
** Income insufficient to meet debt servicing requirements	

Table 8. **Balance Sheet at Cost Values**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

Number of farms	Avg. Of All Farms	
	Beginning	Ending
Assets		
Current Farm Assets		
Cash and checking balance	10,948	27,849
Prepaid expenses & supplies	34,579	15,795
Growing crops	7,446	5,678
Accounts receivable	4,853	12,414
Hedging accounts	60	0
Crops held for sale or feed	156,191	116,686
Crops under government loan	0	0
Market livestock held for sale	78,050	140,145
Other current assets	0	0
Total current farm assets	292,126	318,567
Intermediate Farm Assets		
Breeding livestock	42,417	49,594
Machinery and equipment	87,303	119,969
Other intermediate assets	2,304	1,462
Total intermediate farm assets	132,024	171,026
Long Term Farm Assets		
Farm land	181,285	200,257
Buildings and improvements	52,530	53,632
Other long-term assets	5,633	5,338
Total long-term farm assets	239,449	259,227
Total Farm Assets	663,599	748,820
Total Nonfarm Assets	36,060	35,041
Total Assets	699,659	783,861
Liabilities		
Current Farm Liabilities		
Accrued interest	7,269	4,574
Accounts payable	3,637	4,254
Current notes	105,431	172,850
Government crop loans	0	0
Principal due on term debt	23,559	30,422
Total current farm liabilities	139,895	212,099
Total intermediate farm liabs	46,822	60,240
Total long term farm liabilities	115,522	117,303
Total farm liabilities	302,239	389,643
Total nonfarm liabilities	518	2,118
Total liabilities	302,757	391,761
Net worth (farm and nonfarm)	396,902	392,100
Net worth change		-4,802
Ratio Analysis		
Current farm liabilities / assets	48 %	67 %
Curr. & interm farm liab. / assets	44 %	56 %
Long term farm liab. / assets	48 %	45 %
Total debt to asset ratio	43 %	50 %

Table 9. Balance Sheet at Market Values
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms 7	
Number of farms	Beginning	Ending
Assets		
Current Farm Assets		
Cash and checking balance	10,948	27,849
Prepaid expenses & supplies	34,579	15,795
Growing crops	7,446	5,678
Accounts receivable	4,853	12,414
Hedging accounts	60	0
Crops held for sale or feed	156,191	116,686
Crops under government loan	0	0
Market livestock held for sale	78,050	140,145
Other current assets	0	0
Total current farm assets	292,126	318,567
Intermediate Farm Assets		
Breeding livestock	42,534	49,709
Machinery and equipment	291,854	321,790
Other intermediate assets	2,304	1,448
Total intermediate farm assets	336,692	372,946
Long Term Farm Assets		
Farm land	676,953	731,039
Buildings and improvements	112,084	114,227
Other long-term assets	5,633	5,338
Total long-term farm assets	794,670	850,604
Total Farm Assets	1,423,489	1,542,117
Total Nonfarm Assets	56,153	56,169
Total Assets	1,479,642	1,598,287
Liabilities		
Current Farm Liabilities		
Accrued interest	7,269	4,574
Accounts payable	3,637	4,254
Current notes	105,431	172,850
Government crop loans	0	0
Principal due on term debt	23,559	30,422
Total current farm liabilities	139,895	212,099
Total intermediate farm liabs	46,822	60,240
Total long term farm liabilities	115,522	117,303
Total farm liabilities	302,239	389,643
Total nonfarm liabilities	518	2,118
Total liabs excluding deferreds	302,757	391,761
Total deferred liabilities	0	0
Total liabilities	302,757	391,761
Retained earnings	396,902	392,100
Market valuation equity	779,984	814,426
Net worth (farm and nonfarm)	1,176,885	1,206,525
Net worth excluding deferreds	1,176,885	1,206,525
Net worth change	29,640	
Ratio Analysis		
Current farm liabilities / assets	48 %	67 %
Curr. & interm farm liab. / assets	30 %	39 %
Long term farm liab. / assets	15 %	14 %
Total debt to asset ratio	20 %	25 %
Debt to assets excl deferreds	20 %	25 %

Table 10. **Statement Of Cash Flows**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Beginning cash (farm & nonfarm)	19,846
Cash From Operating Activities	
Gross cash farm income	438,552
Net nonfarm income	4,232
Total cash farm expense	-416,348
Apparent family living expense	-30,695
Income and social security tax	-636
Cash from operations	-4,894
Cash From Investing Activities	
Sale of breeding livestock	945
Sale of machinery & equipment	5,501
Sale of farm land	-
Sale of farm buildings	-
Sale of other farm assets	1,524
Sale of nonfarm assets	-
Purchase of breeding livestock	-2,421
Purchase of machinery & equip.	-64,288
Purchase of farm land	-18,972
Purchase of farm buildings	-3,782
Purchase of other farm assets	-556
Purchase of nonfarm assets	-
Cash from investing activities	-82,050
Cash From Financing Activities	
Money borrowed	307,009
Cash gifts and inheritances	9,618
Principal payments	-215,928
Dividends paid	-
Gifts given	-
Cash from financing activities	100,699
Net change in cash balance	13,755
Ending cash (farm & nonfarm)	33,602

Table 11. **Financial Standards Measures**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Liquidity	
Current ratio	1.50
Working capital	106,468
Solvency (market)	
Farm debt to asset ratio	25 %
Farm equity to asset ratio	75 %
Farm debt to equity ratio	34 %
Profitability (cost)	
Rate of return on farm assets	-1.7 %
Rate of return on farm equity	-9.6 %
Operating profit margin	-3.6 %
Net farm income	10,552
Repayment Capacity	
Term debt coverage ratio	50 %
Capital replacement margin	-17,353
Efficiency	
Asset turnover rate (cost)	46.4 %
Operating expense ratio	87.9 %
Depreciation expense ratio	5.0 %
Interest expense ratio	4.8 %
Net farm income ratio	2.3 %

Table 12. **Operator and Labor Information**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Operator Information	
Average number of operators	1.7
Results Per Operator	
Working capital	62,106
Total assets (market)	932,334
Total liabilities	228,527
Net worth (market)	703,807
Net worth excl deferred liabs	703,807
Gross farm income	272,344
Total farm expense	266,189
Net farm income	6,155
Net nonfarm income	2,469
Family living withdrawals	18,276
Total acres owned	426.8
Total crop acres	548.0
Crop acres owned	363.9
Crop acres cash rented	176.0
Crop acres share rented	8.1
Labor Analysis	
Number of farms	7
Total unpaid labor hours	3,368
Total hired labor hours	2,997
Total labor hours per farm	6,365
Unpaid hours per operator	1,965
Value of farm production / hour	51.50
Net farm income / unpaid hour	3.13

Table 13. **Financial Summary**
Michigan General Livestock Farms, 2001
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	7
Income Statement	
Gross cash farm income	438,552
Total cash farm expense	416,348
Net cash farm income	22,204
Inventory change	11,617
Depreciation and capital adjust	-23,269
Net farm income	10,552
Profitability (cost)	
Labor and management earnings	-11,677
Rate of return on assets	-1.7 %
Rate of return on equity	-9.6 %
Operating profit margin	-3.6 %
Asset turnover rate	46.4 %
Profitability (market)	
Labor and management earnings	-24,252
Rate of return on assets	1.5 %
Rate of return on equity	-0.1 %
Operating profit margin	6.6 %
Asset turnover rate	22.1 %
Liquidity	
Term debt coverage ratio	49.8 %
Expense as a percent of income	92.8 %
Interest as a percent of income	4.8 %
Solvency (cost)	
Number of farms	7
Ending farm assets	748,820
Ending farm liabilities	389,643
Ending total assets	783,861
Ending total liabilities	391,761
Ending net worth	392,100
Net worth change	-4,802
Ending farm debt to asset ratio	52 %
Beg total debt to asset ratio	43 %
End total debt to asset ratio	50 %
Solvency (market)	
Number of farms	7
Ending farm assets	1,542,117
Ending farm liabilities	389,643
Ending total assets	1,598,287
Ending total liabilities	391,761
Ending net worth	1,206,525
Net worth change	29,640
Ending farm debt to asset ratio	25 %
Beg total debt to asset ratio	20 %
End total debt to asset ratio	25 %
Nonfarm Information	
Net nonfarm income	4,232