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Staff Paper

1999 Business Analysis Summary for Beef Farms

by

Sherrill B. Nott

Staff Paper 2000-30

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1999 BUSINESS ANALYSIS SUMMARY FOR BEEF FARMS

Michigan Data
Staff Paper No. 2000-30, 14 pages

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Introduction

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II. **List and sequence of Tables**

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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. Beef farms have 50 percent or more of value of combined sales from calves, feeders, stockers and cull breeding stock.

This report is a summary of the financial and production records kept by beef 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

¹Professor and Farm Management Specialist; phone 517-353-4522 or nott@msu.edu Co-workers in the Telfarm/MicroTel project were R. Betz, L. Borton, R. Clark, B. Dartt, 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. AgriSolutions co-workers were Kelly Tobin, Steven Eshelman, Jan Raymond, Tiffany Cockcroft, and Ann Gerke. Farm Credit Services of Wisconsin co-worker was Steve Zimmerman.

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Escanaba. Farm records were included if a Finan² 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. All farms grew crops in addition to growing or feeding beef. The unweighted mean of acres cropped was 548 acres; the standard deviation of the mean was 338 acres and the median was 492. The unweighted mean of the net farm income for all eight (8) farms was \$67,532. The standard deviation of the mean was \$51,674 and the median was \$54,935 for net farm income.

This report has three purposes: 1) to provide statistical information about the financial results on beef 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. However, the only other recent beef report is Staff Paper 97-33, Business Analysis Summary for Beef Farms, which contains averages of 8 beef farms for 1996. This staff paper is 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, or limited liability company. Farm record keepers classified their beef animal sales mostly as background beef, finish beef calves, or finish yearling steers. Two of the farms reported selling beef breeding cows. Finansum will produce a variety of report options; a subset is included in this publication.

The farms included in the averages below are not a random sample. Most of them kept their financial records with Michigan State University's Telfarm/MicroTel accounting project. Some were supervised by AgriSolutions of East Lansing or by Farm Credit Services of Escanaba. The averages may be representative of bigger and better managed beef operations. The eight (8) farms were spread across 8 Michigan counties north of I-96.

This document may be found and downloaded from the following:

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

²Finan = 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

Crop Production Summaries, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms

Number of Farms	8
ACREAGE SUMMARY	
Total Acres Owned	353
Total Crop Acres	448
Crop Acres Owned	220
Crop Acres Cash Rented	227
AVERAGE YIELD PER ACRE	
Corn (bu.)	140.47
Soybeans (bu.)	41.27
Hay, Alfalfa (ton)	5.09
Corn Silage (ton)	18.39
Hay, Grass (ton)	1.24
Wheat, Winter (bu.)	62.56

Table 2

FARM INCOME STATEMENT, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms

Number of Farms	8
 CASH FARM INCOME	
Corn	8865
Seed Corn	56
Alfalfa Hay	3940
Alfalfa Haylage	15
Soybeans	19201
Straw	197
Timber	1437
Winter Wheat	2457
Background Beef	141241
Finish Beef Calves	44699
Finish Yrlg Steers	53900
Lambs	10
Wool	3
Lamb Finishing	29
Mkt Lambs	553
Other livestock income	13179
Cull breeding livestock	612
Transition payments	15995
Other government payments	19447
Custom work income	12039
Patronage dividends, cash	65
Other farm income	7484
 Gross Cash Farm Income	 345,425

Table 3

FARM INCOME STATEMENT, 1999 (Continued)
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms
Number of Farms	8
CASH FARM EXPENSE	
Seed	14698
Fertilizer	17807
Crop chemicals	12987
Crop insurance	15
Crop marketing	148
Crop miscellaneous	228
Feeder livestock purchase	156951
Purchased feed	23931
Veterinary	6168
Livestock supplies	1103
Livestock leases	19
Livestock marketing	426
Interest	18301
Fuel & oil	9708
Repairs	13333
Custom hire	3264
Hired labor	4626
Land rent	19097
Machinery & bldg leases	2757
Real estate taxes	3538
Personal property taxes	31
Farm insurance	4874
Utilities	3305
Dues & professional fees	938
Hedging account deposits	102
Miscellaneous	7497
Total cash expense	325853
Net cash farm income	19572
INVENTORY CHANGES	
Crops and feed	9928
Market livestock	15741
Accounts receivable	6125
Prepaid expenses and supplies	15364
Accounts payable	13442
Total inventory change	60599
Net operating profit	80172
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS	
Breeding livestock	3005
Machinery and equipment	-14775
Buildings and improvements	-3121
Other farm capital	2252
Total depr. and other capital adj	-12640
Net farm income	67,532

Table 4

INVENTORY CHANGES, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms -----
Number of Farms	8
Net cash farm income	19572
CROPS AND FEED	
Ending inventory	66009
Beginning inventory	56081
Inventory change	9928
MARKET LIVESTOCK	
Ending inventory	145932
Beginning inventory	130191
Inventory change	15741
ACCTS RECEIVABLE & OTHER CURRENT ASSETS	
Ending inventory	11291
Beginning inventory	5166
Inventory change	6125
PREPAID EXPENSES AND SUPPLIES	
Ending inventory	22595
Beginning inventory	7232
Inventory change	15364
ACCOUNTS PAYABLE	
Beginning inventory	15574
Ending inventory	2132
Inventory change	13442
Total inventory change	60599
Net operating profit	80172

Table 5

DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms <hr style="width: 100%; border: 0.5px solid black;"/>
Number of Farms	8
Net operating profit	80172
BREEDING LIVESTOCK	
Ending inventory	13035
Capital sales	-
Beginning inventory	9995
Capital purchases	35
Depreciation, capital adj.	3005
MACHINERY AND EQUIPMENT	
Ending inventory	72214
Capital sales	4887
Beginning inventory	59564
Capital purchases	32311
Depreciation, capital adj.	-14775
BUILDINGS AND IMPROVEMENTS	
Ending inventory	29244
Capital sales	-
Beginning inventory	31100
Capital purchases	1266
Depreciation, capital adj.	-3121
OTHER CAPITAL ASSETS	
Ending inventory	5407
Capital sales	7568
Beginning inventory	9148
Capital purchases	1575
Depreciation, capital adj.	2252
Total depreciation, capital adj.	-12640
Net farm income	67532

Table 6

PROFITABILITY AND LIQUIDITY ANALYSIS, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of all farms reporting)

	Average Of All Farms	Average Of All Farms
	-----	-----
Number of Farms	8	8
PROFITABILITY	--- Cost ---	-- Market --
Net farm income	67532	93532
Labor and management earnings	48739	47138
Rate of return on assets	7.4 %	6.6 %
Rate of return on equity	11.1 %	7.9 %
Operating profit margin	20.3 %	33.3 %
Asset turnover rate	36.6 %	19.9 %
Interest on farm net worth	18793	46395
Farm interest expense	5651	5651
Value of operator lbr and mgmt.	32722	32722
Return on farm assets	40461	66461
Average farm assets	544146	1004170
Return on farm equity	34810	60810
Average farm equity	313219	773243
Value of farm production	199341	199341
	Average Of All Farms	

Number of Farms	8	
LIQUIDITY (Cash)		
Net cash farm income	19572	
Net nonfarm income	17020	
Family living and taxes	26001	
Real estate principal payments	3251	
Cash available for interm. debt	7340	
Average intermediate debt	44244	
Years to turnover interm. debt	6.0	
Expense as a % of income	94 %	
Interest as a % of income	5 %	
LIQUIDITY (Accrual)		
Total accrual farm income	377218	
Total accrual farm expense	297047	
Net accrual operating income	80172	
Net nonfarm income	17020	
Family living and taxes	26001	
Real estate principal payments	3251	
Available for intermediate debt	67939	
Average intermediate debt	44244	
Years to turnover interm. debt	0.7	
Expense as a % of income	79 %	
Interest as a % of income	1 %	

Table 7

BALANCE SHEET AT COST VALUES, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of all farms reporting)

Number of Farms	Average For All Farms	
	Beginning	Ending
	8	
ASSETS		
Current Farm Assets		
Cash and checking balance	22825	17542
Prepaid expenses & supplies	7232	22595
Growing crops	3275	3941
Accounts receivable	1891	7350
Hedging accounts	-	-
Crops held for sale or feed	56081	66009
Crops under government loan	-	-
Market livestock held for sale	130191	145932
Other current assets	-	-
Total current farm assets	221495	263369
Intermediate Farm Assets		
Breeding livestock	9995	13035
Machinery and equipment	59564	72214
Other intermediate assets	7145	3522
Total intermediate farm assets	76704	88771
Long-Term Farm Assets		
Farm land	186860	186860
Buildings and improvements	31100	29244
Other long-term assets	2003	1885
Total long-term farm assets	219963	217989
Total Farm Assets	518162	570129
Total Nonfarm Assets	6984	7138
Total Assets	525146	577267
LIABILITIES		
Current Farm Liabilities		
Accrued interest	13896	1246
Accounts payable	1678	886
Current notes	95328	101792
Government crop loans	-	-
Principal due on term debt	8491	18620
Total current farm liabilities	119392	122543
Intermediate Farm Liabilities	36811	33418
Long-term Farm Liabilities	79250	70438
Total Farm Liabilities	235453	226400
Total Nonfarm Liabilities	-	-
Total Liabilities	235453	226400
Net Worth (farm and nonfarm)	289693	350867
Net Worth Change		61175
RATIO ANALYSIS		
Current Farm Liabilities / Assets	54 %	47 %
Curr. & Interm Farm Liab / Assets	52 %	44 %
Long Term Farm Liab. / Assets	36 %	32 %
Total Liabilities / Assets	45 %	39 %

Table 8

BALANCE SHEET AT MARKET VALUES, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of all farms reporting)

Number of Farms	Average For All Farms	
	Beginning	Ending
	8	
ASSETS		
Current Farm Assets		
Cash and checking balance	22825	17542
Prepaid expenses & supplies	7232	22595
Growing crops	3275	3941
Accounts receivable	1891	7350
Hedging accounts	-	-
Crops held for sale or feed	56081	66009
Crops under government loan	-	-
Market livestock held for sale	130191	145932
Other current assets	-	-
Total current farm assets	221495	263369
Intermediate Farm Assets		
Breeding livestock	10092	13454
Machinery and equipment	227307	245905
Other intermediate assets	7176	2772
Total intermediate farm assets	244575	262131
Long-Term Farm Assets		
Farm land	434187	445208
Buildings and improvements	62925	63685
Other long-term assets	2003	8760
Total long-term farm assets	499116	517653
Total Farm Assets	965186	1043153
Total Nonfarm Assets	73366	76113
Total Assets	1038552	1119266
LIABILITIES		
Current Farm Liabilities		
Accrued interest	13896	1246
Accounts payable	1678	886
Current notes	95328	101792
Government crop loans	-	-
Principal due on term debt	8491	18620
Total current farm liabilities	119392	122543
Intermediate Farm Liabilities	36811	33418
Long-term Farm Liabilities	79250	70438
Total Farm Liabilities	235453	226400
Total Nonfarm Liabilities	-	-
Total Deferred Liabilities	-	-
Total Liabilities	235453	226400
Net Worth (farm and nonfarm)	803098	892866
Net Worth Change		89768
RATIO ANALYSIS		
Current Farm Liabilities / Assets	54 %	47 %
Curr. & Interm Farm Liab. / Assets	34 %	30 %
Long Term Farm Liabilities / Assets	16 %	14 %
Total Liabilities / Assets	23 %	20 %

Table 9

STATEMENT OF CASH FLOWS, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms
Number of Farms	8
(a) Beginning cash balance (farm & nonfarm)	22887
CASH FROM OPERATING ACTIVITIES	
Gross cash farm income	345425
Net nonfarm income	(+) 17020
Total cash farm expense	(-) 325853
Apparent family living expense	(-) 24887
Income and social security tax	(-) 1114
(b) Cash from operations	(= 10591
CASH FROM INVESTING ACTIVITIES	
Sale of breeding livestock	-
Sale of machinery & equipment	(+) 4887
Sale of farm land	(+) -
Sale of farm buildings	(+) -
Sale of other farm assets	(+) 7568
Sale of nonfarm assets	(+) 125
Purchase of breeding livestock	(-) 35
Purchase of machinery & equip.	(-) 32311
Purchase of farm land	(-) -
Purchase of farm buildings	(-) 1266
Purchase of other farm assets	(-) 1575
Purchase of nonfarm assets	(-) 1375
(c) Cash from investing activities	(= -23983
CASH FROM FINANCING ACTIVITIES	
Money borrowed	53251
Cash gifts and inheritances	(+) 3720
Principal payments	(-) 48863
Dividends paid	(-) -
Gifts given	(-) -
(d) Cash from financing activities	(= 8109
(e) Net change in cash balance	(b+c+d) -5283
Ending cash balance (farm & nonfarm)	17604

Table 10

FINANCIAL GUIDELINES MEASURES, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of all farms reporting)

	Average Of All Farms	
Number of Farms	8	
LIQUIDITY	Beginning	Ending
Current ratio	1.86	2.15
Working capital	102103	140826
SOLVENCY (Market)	Beginning	Ending
Farm debt to asset ratio	24 %	22 %
Farm equity to asset ratio	76 %	78 %
Farm debt to equity ratio	32 %	28 %
PROFITABILITY (Cost)		
Rate of return on farm assets	7.4 %	
Rate of return on farm equity	11.1 %	
Operating profit margin	20.3 %	
Net farm income	67532	
REPAYMENT CAPACITY	Cash	Accrual
Term debt coverage ratio	113 %	482 %
Capital replacement margin	2101	62700
EFFICIENCY		
Asset turnover rate (market)	19.9 %	
Operating expense ratio	77.2 %	
Depreciation expense ratio	3.4 %	
Interest expense ratio	1.5 %	
Net farm income ratio	17.9 %	

LABOR ANALYSIS

	Average Of All Farms	
Number of Farms	8	
Total unpaid labor hours	3310	
Total hired labor hours	661	
Total labor hours per farm	3971	
Value of farm production / hour	50.20	
Net farm income / unpaid hour	20.40	

Table 11

OPERATOR INFORMATION & NONFARM SUMMARY, 1999
Michigan Beef Operations, Calves and Feeders Sold
(Average of All Farms)

	Average Of All Farms	
Number of Farms	8	
 OPERATOR INFORMATION		
Average number of operators	1.0	
Average age of operators	51.3	
Average number of years farming	26.7	
 NONFARM INCOME		
Nonfarm wages & salary	12963	
Nonfarm business income	-	
Nonfarm rental income	188	
Nonfarm interest income	1094	
Nonfarm cash dividends	42	
Tax refunds	65	
Nontaxable nonfarm income	-	
Gifts and inheritances	3720	
Other nonfarm income	2668	
Total nonfarm income	20740	
	Average Of All Farms	
	Beginning	Ending
 NONFARM ASSETS (Mkt)		
Checking & savings	63	63
Stocks & bonds	4736	6952
Other current assets	-	-
Furniture & appliances	2500	2500
Nonfarm vehicles	-	-
Cash value of life ins.	2016	1519
Retirement accounts	43301	43704
Other intermediate assets	3250	3250
Nonfarm real estate	17500	18125
Other long term assets	-	-
Total nonfarm assets	73366	76113