

Staff Paper

1999 Business Analysis Summary for Swine Farms

by

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1999 BUSINESS ANALYSIS SUMMARY FOR SWINE FARMS

Michigan Data from Telfarm/MicroTel
Staff Paper No. 2000-28, 14 pages

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Introduction

I. This report is organized as follows:

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II. **List and sequence of Tables**

A. Averages of 9 Swine Farms, All Sizes

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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. Swine farms have 50 percent or more of value of combined sales from fat hogs, feeder pigs and cull breeding hogs.

This report is a summary of the financial and production records kept by swine farmers enrolled in the Telfarm/MicroTel record program through Michigan State University Extension. Farm records were included if a Finan² summary was completed on 1999 data including

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.

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.

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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. Six (6) of the nine (9) farms grew crops in addition to hogs. The unweighted mean of acres cropped was 1,047 acres; the standard deviation of the mean was 583 acres and the median was 1,074. The unweighted mean of the net farm income for all nine (9) farms was \$(38,306). The standard deviation of the mean was \$130,884 and the median was \$3,008 of the net farm income.

This report has three purposes: 1) to provide statistical information about the financial results on swine 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 swine farm averages in 1995, see Staff Paper 96-86, Michigan Farm Database, New Directions for 1995; it contains averages of 19 swine farms calculated with Finansum. Staff Paper 97-30, Business Analysis Summary for Swine Farms, contains averages of 17 swine farms for 1996. Staff Paper 98-23, 1997 Business Analysis Summary for Swine Farms, contains averages of 20 swine farms for 1997. Staff Paper 99-34, 1998 Business Analysis Summary for Swine Farms, contains averages of 14 swine farms for 1998. These staff papers are available from the author at <http://www.msu.edu/user/nott>

Only those farms indicating they were farrow to finish operations were included. 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; 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. The averages may be representative of bigger and better managed swine farms. The nine (9) farms were spread across the seven (7) counties of Allegan, Benzie, Berrien, Branch, Eaton, Hillsdale, and Kalamazoo.

This document may be found and downloaded from the following:

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

Table 1

Livestock and Crop Production Summaries, 1999
Farrow to Finish Swine Farms in Michigan

	Average Of All Farms
Hogs, Farrow To Finish	
Number of farms	8
Average number of sows	1222.8
Litters farrowed	2768
Litters per sow	2.26
Litters per crate	14.96
Pigs born per litter	9.63
Pigs weaned per litter	8.04
Pigs weaned per sow	17.56
Number sold per litter	5.83
Avg lbs. / Raised Hog sold	76

CROP PRODUCTION AND MARKETING SUMMARY, 1999

	Average Of All Farms
Number of Farms	9
ACREAGE SUMMARY	
Total Acres Owned	556
Total Crop Acres ³	698
Crop Acres Owned	267
Crop Acres Cash Rented	390
Crop Acres Share Rented	42
AVERAGE PRICE RECEIVED (Cash Sales Only)	
Soybeans per bu.	6.04
AVERAGE YIELD PER ACRE	
Corn (bu.)	120.68
Soybeans (bu.)	41.06
Wheat, Winter (bu.)	49.26

³Three farms either did not grow crops or chose not to report them. The unweighted average of reported crop acres, owned plus rented, was 1,047 on the other 6 farms.

Table 2

FARM INCOME STATEMENT, 1999
Farrow to Finish Swine Farms in Michigan

	Average Of All Farms
	<hr/>
Number of Farms	9
 CASH FARM INCOME	
Corn	8804
Mixed Hay	134
Soybeans	25864
Straw	335
Winter Wheat	1786
Background Beef	3313
Raised Hogs	1334609
Feeder Pigs	77306
Finish Feeder Pigs	58748
Cull breeding livestock	47176
Misc. livestock income	204
CRP payments	553
Other government payments	49010
Custom work income	4352
Patronage dividends, cash	1159
Insurance income	6144
Cash from hedging accts	-5262
Other farm income	9261
 Gross Cash Farm Income	 1623496

Table 3

FARM INCOME STATEMENT, 1999 (Continued)
Farrow to Finish Swine Farms in Michigan

	Average Of All Farms
Number of Farms	9
CASH FARM EXPENSE	
Seed	18554
Fertilizer	14755
Crop chemicals	20742
Crop insurance	1726
Drying fuel	2412
Crop miscellaneous	505
Feeder livestock purchase	41072
Purchased feed	714398
Breeding fees	45911
Veterinary	58472
Livestock supplies	9817
Livestock marketing	3702
Interest	121995
Fuel & oil	11912
Repairs	26291
Custom hire	262164
Hired labor	199986
Land rent	29768
Machinery & bldg leases	14291
Real estate taxes	7442
Personal property taxes	27
Farm insurance	11824
Utilities	41928
Dues & professional fees	7573
Hedging account deposits	1575
Miscellaneous	18258
Total cash expense	1687311
Net cash farm income	-63814
INVENTORY CHANGES	
Crops and feed	-8176
Market livestock	162508
Accounts receivable	1474
Prepaid expenses and supplies	-4678
Accounts payable	54
Total inventory change	151182
Net operating profit	87368
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS	
Breeding livestock	7085
Machinery and equipment	-29871
Buildings and improvements	-90781
Other farm capital	276
Total depr. and other capital adj	-113291
Net farm income	\$-25,923

Table 4

INVENTORY CHANGES, 1999
Farrow to Finish Swine Farms in Michigan

	Average Of All Farms
	<hr/>
Number of Farms	9
Net cash farm income	-63814
CROPS AND FEED	
Ending inventory	107337
Beginning inventory	115513
Inventory change	-8176
MARKET LIVESTOCK	
Ending inventory	592724
Beginning inventory	430215
Inventory change	162508
ACCTS RECEIVABLE & OTHER CURRENT ASSETS	
Ending inventory	7114
Beginning inventory	5641
Inventory change	1474
PREPAID EXPENSES AND SUPPLIES	
Ending inventory	21216
Beginning inventory	25894
Inventory change	-4678
ACCOUNTS PAYABLE	
Beginning inventory	75709
Ending inventory	75655
Inventory change	54
Total inventory change	151182
Net operating profit	87368

Table 5

DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999
Farrow to Finish Swine Farms in Michigan

	Average Of All Farms
	<hr/>
Number of Farms	9
Net operating profit	87368
BREEDING LIVESTOCK	
Ending inventory	280013
Capital sales	8656
Beginning inventory	268732
Capital purchases	12853
Depreciation, capital adj.	7085
MACHINERY AND EQUIPMENT	
Ending inventory	153684
Capital sales	7176
Beginning inventory	177391
Capital purchases	13341
Depreciation, capital adj.	-29871
BUILDINGS AND IMPROVEMENTS	
Ending inventory	513185
Capital sales	254
Beginning inventory	579242
Capital purchases	24977
Depreciation, capital adj.	-90781
OTHER CAPITAL ASSETS	
Ending inventory	71558
Capital sales	12376
Beginning inventory	69235
Capital purchases	14422
Depreciation, capital adj.	276
Total depreciation, capital adj.	-113291
Net farm income	-25923

Table 6

PROFITABILITY AND LIQUIDITY ANALYSIS, 1999
Farrow to Finish Swine Farms in Michigan

	Average Of All Farms	Average Of All Farms
	9	9
Number of Farms	9	9
PROFITABILITY	-- Cost --	-- Market --
Net farm income	-25923	-68229
Labor & mgmt earnings	-50058	-2275
Rate of return on assets	2.1 %	4.8 %
Rate of return on equity	-20.1 %	1.4 %
Operating profit margin	4.3 %	13.5 %
Asset turnover rate	49.7 %	35.5 %
Interest on farm net worth	24134	70504
Farm interest expense	122411	122411
Value of operator lbr & mgmt.	51919	51919
Return on farm assets	44569	138721
Average farm assets	2075675	2902958
Return on farm equity	-77842	16310
Average farm equity	387731	1175059
Value of farm production	1030918	1030918
		Average Of All Farms
Number of Farms		9
LIQUIDITY (Cash)		
Net cash farm income		-63814
Net nonfarm income		12571
Family living and taxes		31291
Real estate principal payments		58387
Cash available for interm. debt		-140921
Average intermediate debt		323167
Years to turnover interm. debt		**
Expense as a % of income		104 %
Interest as a % of income		8 %
LIQUIDITY (Accrual)		
Total accrual farm income		1779302
Total accrual farm expense		1691934
Net accrual operating income		87368
Net nonfarm income		12571
Family living and taxes		31291
Real estate principal payments		58387
Available for intermediate debt		10261
Average intermediate debt		323167
Years to turnover interm. debt		31.5
Expense as a % of income		95 %
Interest as a % of income		7 %

** Income insufficient to meet debt servicing requirements

Table 7

BALANCE SHEET AT COST VALUES, 1999
Swine Farms in Michigan

Number of Farms	Average Of All Farms	
	Beginning	Ending
	-----	-----
	9	
ASSETS		
Current Farm Assets		
Cash and checking balance	55051	70093
Prepaid expenses & supplies	25894	21216
Growing crops	1442	2027
Accounts receivable	2670	3734
Hedging accounts	1062	708
Crops held for sale or feed	115513	107337
Crops under government loan	-	-
Market livestock held for sale	430215	592724
Other current assets	467	646
Total current farm assets	632314	798484
Intermediate Farm Assets		
Breeding livestock	268732	280013
Machinery and equipment	177391	153684
Other intermediate assets	49065	53091
Total intermediate farm assets	495188	486789
Long-Term Farm Assets		
Farm land	304868	302643
Buildings and improvements	579242	513185
Other long-term assets	20170	18467
Total long-term farm assets	904280	834295
Total Farm Assets	2031782	2119568
Total Nonfarm Assets	83283	100817
Total Assets	2115065	2220385
LIABILITIES		
Current Farm Liabilities		
Accrued interest	19964	20380
Accounts payable	55744	55274
Current notes	445066	579548
Government crop loans	-	-
Principal due on term debt	128564	139161
Total current farm liabilities	649338	794364
Intermediate Farm Liabilities	258472	241283
Long-term Farm Liabilities	714682	717748
Total Farm Liabilities	1622492	1753395
Total Nonfarm Liabilities	1288	2398
Total Liabilities	1623780	1755793
Net Worth (farm and nonfarm)	491284	464592
Net Worth Change	-26692	
RATIO ANALYSIS		
Current Farm Liabilities / Assets	103 %	99 %
Curr. & Interm Farm Liab / Assets	81 %	81 %
Long Term Farm Liab. / Assets	79 %	86 %
Total Liabilities / Assets	77 %	79 %

Table 8

BALANCE SHEET AT MARKET VALUES, 1999
Swine Farms in Michigan

Number of Farms	Average Of All Farms	
	Beginning	Ending
ASSETS		
Current Farm Assets		
Cash and checking balance	55051	70093
Prepaid expenses & supplies	25894	21216
Growing crops	1442	2027
Accounts receivable	2670	3734
Hedging accounts	1062	708
Crops held for sale or feed	115513	107337
Crops under government loan	-	-
Market livestock held for sale	430215	592724
Other current assets	467	646
Total current farm assets	632314	798484
Intermediate Farm Assets		
Breeding livestock	271121	281887
Machinery and equipment	380368	379352
Other intermediate assets	49065	54419
Total intermediate farm assets	700555	715658
Long-Term Farm Assets		
Farm land	601581	638269
Buildings and improvements	851510	828909
Other long-term assets	20170	18467
Total long-term farm assets	1473261	1485645
Total Farm Assets	2806130	2999787
Total Nonfarm Assets	91707	116377
Total Assets	2897836	3116165
LIABILITIES		
Current Farm Liabilities		
Accrued interest	19964	20380
Accounts payable	55744	55274
Current notes	445066	579548
Government crop loans	-	-
Principal due on term debt	128564	139161
Total current farm liabilities	649338	794364
Intermediate Farm Liabilities	258472	241283
Long-term Farm Liabilities	714682	717748
Total Farm Liabilities	1622492	1753395
Total Nonfarm Liabilities	1288	2398
Total Deferred Liabilities	34096	52936
Total Liabilities	1657876	1808729
Net Worth (farm and nonfarm)	1239960	1307436
Net Worth Change	67476	
RATIO ANALYSIS		
Current Farm Liabilities / Assets	103 %	99 %
Curr. & Interm Farm Liab. / Assets	68 %	68 %
Long Term Farm Liabilities / Assets	49 %	48 %
Total Liabilities / Assets	57 %	58 %

Table 9

STATEMENT OF CASH FLOWS, 1999
Swine Farms in Michigan

Number of Farms	Average Of All Farms
	9
(a) Beginning cash balance (farm & nonfarm)	55051
CASH FROM OPERATING ACTIVITIES	
Gross cash farm income	1623496
Net nonfarm income (+)	12571
Total cash farm expense (-)	1687311
Apparent family living expense (-)	31291
Income and social security tax (-)	-
(b) Cash from operations (=)	-82534
CASH FROM INVESTING ACTIVITIES	
Sale of breeding livestock	8656
Sale of machinery & equipment (+)	7176
Sale of farm land (+)	356
Sale of farm buildings (+)	254
Sale of other farm assets (+)	12376
Sale of nonfarm assets (+)	-
Purchase of breeding livestock (-)	12853
Purchase of machinery & equip. (-)	13341
Purchase of farm land (-)	4444
Purchase of farm buildings (-)	24977
Purchase of other farm assets (-)	14422
Purchase of nonfarm assets (-)	-
(c) Cash from investing activities (=)	-41220
CASH FROM FINANCING ACTIVITIES	
Money borrowed	593668
Cash gifts and inheritances (+)	8832
Principal payments (-)	463423
Dividends paid (-)	-
Gifts given (-)	281
(d) Cash from financing activities (=)	138796
(e) Net change in cash balance (b+c+d)	15042
Ending cash balance (farm & nonfarm)	70093

Table 10

FINANCIAL GUIDELINES MEASURES, 1999
Swine Farms in Michigan

	Average Of All Farms	
	<hr/>	
Number of Farms	9	
LIQUIDITY	Beginning	Ending
Current ratio	0.97	1.01
Working capital	-17025	4121
SOLVENCY (Market)	Beginning	Ending
Farm debt to asset ratio	59 %	60 %
Farm equity to asset ratio	41 %	40 %
Farm debt to equity ratio	144 %	147 %
PROFITABILITY		
Rate of return on farm assets	2.1 %	
Rate of return on farm equity	-20.1 %	
Operating profit margin	4.3 %	
Net farm income	-25923	
REPAYMENT CAPACITY	Cash	Accrual
Term debt coverage ratio	-5 %	70 %
Capital replacement margin	-211097	-59915
EFFICIENCY		
Asset turnover rate(mrkt)		35.5 %
Operating expense ratio		88.2 %
Depreciation expense ratio		6.4 %
Interest expense ratio		6.9 %
Net farm income ratio		-1.5 %

LABOR ANALYSIS

	Average Of All Farms
	<hr/>
Number of Farms	9
Total unpaid labor hours	3655
Total hired labor hours	11603
Total labor hours per farm	15258
Value of farm production/hour	67.57
Net farm income/unpaid hour	-7.09

Table 11

OPERATOR INFORMATION & NONFARM SUMMARY, 1999
Swine Farms in Michigan

	Average Of All Farms		
	<u> </u>		
Number of Farms	9		
OPERATOR INFORMATION			
Average number of operators	1.7		
Average age of operators	53.1		
Average number of years farming	29.9		
NONFARM INCOME			
Nonfarm wages & salary	1650		
Nonfarm business income	6412		
Nonfarm rental income	3957		
Nonfarm interest income	502		
Nonfarm cash dividends	-		
Tax refunds	-		
Nontaxable nonfarm income	-		
Gifts and inheritances	8832		
Other nonfarm income	50		
Total nonfarm income	21403		
		Average Of	All Farms
		<u>Beginning</u>	<u>Ending</u>
NONFARM ASSETS (Mkt)			
Checking & savings		-	-
Stocks & bonds		13269	7819
Other current assets		911	789
Furniture & appliances		5778	5778
Nonfarm vehicles		3056	3056
Cash value of life ins.		12962	16018
Retirement accounts		23278	37645
Other intermediate assets		176	10218
Nonfarm real estate		32278	35056
Other long term assets		-	-
Total nonfarm assets		91707	116377