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# *Staff Paper*

## **1998 Business Analysis Summary for General Crops Farms**

by

**Sherrill B. Nott**

Staff Paper #99-38

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Department of Agricultural Economics  
MICHIGAN STATE UNIVERSITY  
East Lansing, Michigan 48824

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# 1998 BUSINESS ANALYSIS SUMMARY FOR GENERAL CROPS FARMS

## Michigan Data from Telfarm/MicroTel Staff Paper No. 99-38, 13 pages

by

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

### **Introduction**

- I. This report is organized as follows:
  - A. List and sequence of Tables
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- II. **List and sequence of Tables**
  - A. Averages of 16 General Crops 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. However, the general crops category is where no one defined group of commodities makes up 50 % or more of gross sales. For these farms, the crops are a bigger portion of gross sales than are livestock sales. Note the variety of income producing items in Table 2, the income statement.

This report is a summary of the financial and production records kept by general crops farmers, who were enrolled in the Telfarm/MicroTel record program through Michigan State University Extension. Farm records were included if a Finan<sup>2</sup> summary was completed on 1998 data including beginning and ending

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<sup>1</sup> Professor and extension specialist, phone 517-353-4522 or [nott@msu.edu](mailto:nott@msu.edu); in the department of Agricultural Economics. 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, and V. Varner with the assistance of Michigan State University Extension Agents.

<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.

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. Averages are reported in the tables below. Variability exists in the data. The unweighted mean of net farm income for the 16 farms was \$(22,565); the standard deviation of the mean was \$45,035 and the median was \$(18,361). The unweighted mean of acres cropped, both owned plus rented, for the 15 farms that reported acreage was 860 acres; the standard deviation of the mean was 775 acres and the median was 589 acres.

This report has three purposes: 1) to provide statistical information about the financial results on general crops farms during 1998; 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 general crop farm averages for 1995, see Staff Paper No. 96-86, Michigan Farm Database, New Directions for 1995; it contains averages of 11 general crops farms calculated with Finansum. Staff Paper No. 97-32, Business Analysis Summary for General Crops Farms, contains averages of 7 general crops farms for 1996. Staff Paper No. 98-18, 1997 Business Analysis Summary for General Crop Farms contains averages for 14 farms. These staff papers are available from us.

Finansum allows rapid analysis of group averages with some degree of choice over how the results are presented. We prefer to show the average of the high or low 25 percent by rate of return on farm assets, but only if the 25 percent means 6 or more farms. In order to get at least 6 farms, we increased the percentage to 38 for the general crops farms. A 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 general crops farms. The 16 farms were spread across the 9 counties of Alpena, Arenac, Barry, Benzie, Calhoun, Gratiot, Ionia, Kalamazoo, and St. Joseph. Nine of the farms were in the area south of the I-96 road system.

This document may be found and downloaded from the following:

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

Table 1      **CROP PRODUCTION AND MARKETING SUMMARY, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

	Average Of All Farms )))))))))	Average Of Low 38% )))))))))	Average Of High 38% )))))))))
Number of Farms	16	6	6

ACREAGE SUMMARY

Total Crop Acres	806	540	533
Crop Acres Owned	279	198	261
Crop Acres Cash Rented	356	342	272
Crop Acres Share Rented	172	-	-

AVERAGE PRICE RECEIVED (Cash Sales Only)

Corn per bu.	2.08	-	-
Soybeans per bu.	5.66	-	-
Wheat, Winter per bu.	2.40	-	-

AVERAGE YIELD PER ACRE

Soybeans (bu.)	40.74	-	-
Corn (bu.)	94.15	-	-
Hay, Alfalfa (ton)	3.47	-	-
Sugar Beets (ton)	13.19	-	-
Beans, Green (cwt.)	1479.00	-	-
Wheat, Winter (bu.)	53.31	-	-
Cucumbers, Pickling (cwt.)	116.63	-	-
Cucumbers (cwt.)	143.23	-	-

Table 2

**FARM INCOME STATEMENT, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

	Average Of All Farms )))))))))	Average Of Low 38% )))))))))	Average Of High 38% )))))))))
Number of Farms	16	6	6
<b>CASH FARM INCOME</b>			
Green Beans	21938	6921	37995
Navy Beans	8063	8774	433
Pinto Beans	1828	938	-
Corn	20291	25207	15394
Corn Silage	127	340	-
Seed Corn	75724	18877	105560
Cucumbers	20552	13735	24255
Alfalfa Hay	463	1235	-
Mixed Hay	7209	8069	4861
Popcorn	1894	-	5050
Potatoes	12432	-	-
Pumpkins	701	-	1870
Soybeans	40620	33231	37491
Straw	948	371	2156
Sugar Beets	15920	15493	-
Sunflowers	101	-	270
Sweet Corn	971	-	2589
Tomatoes	202	-	539
Winter Wheat	5881	3119	3661
Other crops	1625	-	-
Beef Calves	467	1245	-
Finish Beef Calves	14056	8251	10869
Milk	1840	-	4906
Dairy Replacement Heifers	549	-	1463
Raised Hogs	31005	2711	-
Feeder Pigs	102	58	-
Finish Feeder Pigs	4240	11307	-
Mkt Lambs	689	1838	-
Cull breeding livestock	609	62	169
Transition payments	144	384	-
Other government payments	33330	16114	34734
Custom work income	17380	11308	21348
Patronage dividends, cash	145	144	149
Insurance income	4192	771	10386
Cash from hedging accts	544	951	500
Other farm income	10536	10519	15220
<b>Gross Cash Farm Income</b>	<b>357318</b>	<b>201974</b>	<b>341868</b>

Table 3

## FARM INCOME STATEMENT, 1998 (Continued)

## General Crops Farms in Michigan

(Farms sorted by Rate of Return on Farm Assets)

	Average Of All Farms )))))))))	Average Of Low 38% )))))))))	Average Of High 38% )))))))))
Number of Farms	16	6	6
<b>CASH FARM EXPENSE</b>			
Seed	20876	10381	17626
Fertilizer	32103	22136	32151
Crop chemicals	25075	13906	25708
Crop insurance	3243	2172	4920
Drying fuel	420	74	247
Irrigation energy	3842	-	5507
Crop marketing	285	50	142
Crop miscellaneous	648	1275	273
Feeder livestock purchase	10475	14955	2265
Purchased feed	7356	6037	2491
Breeding fees	743	-	99
Veterinary	3133	984	389
Livestock supplies	1045	180	289
Livestock leases	31	-	83
Livestock marketing	899	360	644
Interest	41683	19399	43616
Fuel & oil	7949	5336	7811
Repairs	29409	17916	29332
Custom hire	16051	7620	26803
Hired labor	36266	25279	22843
Land rent	32315	15057	24485
Machinery & bldg leases	7334	3314	11679
Real estate taxes	4887	3123	5094
Personal property taxes	7	19	-
Farm insurance	5895	6442	4717
Utilities	6857	5007	5455
Dues & professional fees	5665	4659	4681
Hedging account deposits	1125	-	-
Miscellaneous	33112	20832	11921
Total cash expense	338731	206512	291269
Net cash farm income	18587	-4538	50599
<b>INVENTORY CHANGES</b>			
Crops and feed	-7071	-10752	4596
Market livestock	-3679	-7815	-285
Accounts receivable	-9504	1962	1880
Prepaid expenses and supplies	-3011	967	6023
Accounts payable	12758	-682	-8126
Total inventory change	-10508	-16320	4087
Net operating profit	8079	-20858	54686
<b>DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS</b>			
Breeding livestock	896	-1222	-1710
Machinery and equipment	-30400	-16946	-36098
Buildings and improvements	-1388	-1814	-2273
Other farm capital	249	3	-110
Total depr. and other capital adj	-30644	-19979	-40190
Net farm income	-22565	-40837	14496

Table 4

**INVENTORY CHANGES, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

	Average Of All Farms )))))))))	Average Of Low 38% )))))))))	Average Of High 38% )))))))))
Number of Farms	16	6	6
Net cash farm income	18587	-4538	50599
<b>CROPS AND FEED</b>			
Ending inventory	91490	57370	137286
Beginning inventory	98562	68121	132690
Inventory change	-7071	-10752	4596
<b>MARKET LIVESTOCK</b>			
Ending inventory	23728	3823	6256
Beginning inventory	27408	11638	6541
Inventory change	-3679	-7815	-285
<b>ACCTS RECEIVABLE &amp; OTHER CURRENT ASSETS</b>			
Ending inventory	12815	14984	5405
Beginning inventory	22319	13022	3526
Inventory change	-9504	1962	1880
<b>PREPAID EXPENSES AND SUPPLIES</b>			
Ending inventory	12460	9645	15502
Beginning inventory	15470	8678	9479
Inventory change	-3011	967	6023
<b>ACCOUNTS PAYABLE</b>			
Beginning inventory	34886	11213	20226
Ending inventory	22128	11895	28352
Inventory change	12758	-682	-8126
Total inventory change	-10508	-16320	4087
Net operating profit	8079	-20858	54686

Table 5

**DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

	Average Of All Farms )))))))))	Average Of Low 38% )))))))))	Average Of High 38% )))))))))
Number of Farms	16	6	6
Net operating profit	8079	-20858	54686
<b>BREEDING LIVESTOCK</b>			
Ending inventory	10834	2367	324
Capital sales	2761	1878	2349
Beginning inventory	12371	5467	4383
Capital purchases	328	-	-
Depreciation, capital adj.	896	-1222	-1710
<b>MACHINERY AND EQUIPMENT</b>			
Ending inventory	109132	66996	125382
Capital sales	3022	833	1983
Beginning inventory	113393	60423	134750
Capital purchases	29161	24352	28713
Depreciation, capital adj.	-30400	-16946	-36098
<b>BUILDINGS AND IMPROVEMENTS</b>			
Ending inventory	37157	13468	32840
Capital sales	21	-	55
Beginning inventory	32722	14430	30892
Capital purchases	5844	851	4276
Depreciation, capital adj.	-1388	-1814	-2273
<b>OTHER CAPITAL ASSETS</b>			
Ending inventory	7323	2136	16312
Capital sales	9498	445	7020
Beginning inventory	7680	1052	19312
Capital purchases	8891	1525	4130
Depreciation, capital adj.	249	3	-110
Total depreciation, capital adj.	-30644	-19979	-40190
Net farm income	-22565	-40837	14496

Table 6

**PROFITABILITY AND LIQUIDITY ANALYSIS, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

	Avg. Of All Farms	Avg. Of Low 38%	Avg. Of High 38%	Avg. Of All Farms	Avg. Of Low 38%	Avg. Of High
38%	)))))))))	)))))))))	)))))))))	)))))))))	)))))))))	
)))))))))						
Number of Farms	16	6	6	16	6	6
<b>PROFITABILITY</b>	-----	Cost	-----	-----	Market	-----
Net farm income	-22565	-40837	14496	7515	-17978	50247
Labor and management earnings	-32026	-45911	4570	-21604	-39828	20090
Rate of return on assets	-2.5 %	-17.0 %	3.6 %	1.5 %	-3.5 %	5.6 %
Rate of return on equity	-51.2 %	-534.0 %	-15.2 %	-5.4 %	-11.6 %	3.2 %
Operating profit margin	-4.8 %	-28.2 %	7.3 %	4.6 %	-14.2 %	17.8 %
Asset turnover rate	53.6 %	60.2 %	48.8 %	32.3 %	24.7 %	31.8 %
Interest on farm net worth	9460	5074	9926	29118	21851	30157
Farm interest expense	41063	19009	44445	41063	19009	44445
Value of operator lbr & mgmt.	33720	24198	34047	33720	24198	34047
Return on farm assets	-15222	-46026	24895	14858	-23167	60646
Average farm assets	597525	271228	699758	992284	660951	1073774
Return on farm equity	-56285	-65036	-19551	-26205	-42176	16200
Average farm equity	109985	12180	128604	485307	364177	502620
Value of farm production	320126	163155	341593	320126	163155	341593
		Average Of All Farms	Average Of Low 38%	Average Of High 38%		
		)))))))))	)))))))))	)))))))))		
Number of Farms		16	6	6		
<b>LIQUIDITY (Cash)</b>						
Net cash farm income		18587	-4538	50599		
Net nonfarm income		12645	17682	9572		
Family living and taxes		37844	22679	31132		
Real estate principal payments		12959	4000	9418		
Cash available for interm. debt		-19571	-13536	19621		
Average intermediate debt		138922	120232	131047		
Years to turnover interm. debt		**	**	6.7		
Expense as a % of income		95 %	102 %	85 %		
Interest as a % of income		12 %	10 %	13 %		
<b>LIQUIDITY (Accrual)</b>						
Total accrual farm income		337063	185369	348059		
Total accrual farm expense		328984	206228	293373		
Net accrual operating income		8079	-20858	54686		
Net nonfarm income		12645	17682	9572		
Family living and taxes		37844	22679	31132		
Real estate principal payments		12959	4000	9418		
Available for intermediate debt		-30079	-29856	23708		
Average intermediate debt		138922	120232	131047		
Years to turnover interm. debt		**	**	5.5		
Expense as a % of income		98 %	111 %	84 %		
Interest as a % of income		12 %	10 %	13 %		

\*\* Income insufficient to meet debt servicing requirements



Table 8

**BALANCE SHEET AT MARKET VALUES, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

Number of Farms )))))))))	Average Of All Farms )))))))))		Average Of Low 38 % )))))))))		Average Of High 38 % )))))))))	
	16		6		6	
	Beginning )))))))))	Ending )))))))))	Beginning )))))))))	Ending )))))))))	Beginning )))))))))	Ending )))))))))
<b>ASSETS</b> )))))))))						
Current Farm Assets						
Cash and checking balance	10311	20625	2678	9468	14030	27359
Prepaid expenses & supplies	15470	12460	8678	9645	9479	15502
Growing crops	4915	4911	9303	9283	1755	1562
Accounts receivable	14091	4970	3194	5702	743	2962
Hedging accounts	14	31	-	-	-	-
Crops held for sale or feed	98147	86668	68121	56259	131585	135804
Crops under government loan	414	4822	-	1111	1105	1483
Market livestock held for sale	27408	23728	11638	3823	6541	6256
Other current assets	3298	2903	525	-	1028	882
Total current farm assets	174069	161118	104137	95290	166266	191809
Intermediate Farm Assets						
Breeding livestock	13584	12362	5467	2533	7617	4233
Machinery and equipment	267424	278034	201698	215979	322809	339126
Other intermediate assets	8025	5743	1246	2104	19187	12130
Total intermediate farm assets	289033	296140	208411	220617	349612	355490
Long-Term Farm Assets						
Farm land	484286	533570	302175	314548	493633	571129
Buildings and improvements	22182	22082	38000	38000	7517	7250
Other long-term assets	1117	970	558	167	2421	2421
Total long-term farm assets	507585	556622	340733	352715	503571	580800
Total Farm Assets	970687	1013880	653281	668621	1019449	1128099
Total Nonfarm Assets	130119	146339	128432	142436	140045	162469
Total Assets	1100806	1160219	781714	811058	1159494	1290568
<b>LIABILITIES</b>						
Current Farm Liabilities						
Accrued interest	12420	11801	10435	10045	12579	13409
Accounts payable	22466	10328	778	1849	7647	14943
Current notes	48779	61572	9840	42968	93736	103723
Government crop loans	414	4157	-	1111	1105	1483
Principal due on term debt	44471	54416	12621	43711	35083	44056
Total current farm liabilities	128625	142273	33674	99684	150350	177614
Intermediate Farm Liabilities	110455	94660	106580	89322	109209	92931
Long-term Farm Liabilities	216846	282222	103614	85222	271663	340541
Total Farm Liabilities	455926	519155	243868	274229	531222	611086
Total Nonfarm Liabilities	3544	2895	-	-	9450	7719
Total Deferred Liabilities	22927	22420	45130	43003	-	-
Total Liabilities	482397	544469	288998	317231	540673	618805
Net Worth (farm and nonfarm)	618409	615750	492716	493826	618822	671763
Net Worth Change		-2659		1111		52941
<b>RATIO ANALYSIS</b>						
Current Farm Liabilities / Assets	74 %	88 %	32 %	105 %	90 %	93 %
Curr. & Interm Farm Liab. / Assets	52 %	52 %	45 %	60 %	50 %	49 %
Long Term Farm Liabilities / Assets	43 %	51 %	30 %	24 %	54 %	59 %
Total Liabilities / Assets	44 %	47 %	37 %	39 %	47 %	48 %

Table 9

**STATEMENT OF CASH FLOWS, 1998**  
**General Crops Farms in Michigan**  
(Farms sorted by Rate of Return on Farm Assets)

	Average Of All Farms )))))))))	Average Of Low 38% )))))))))	Average Of High 38% )))))))))
Number of Farms	16	6	6
(a) Beginning cash balance (farm & nonfarm)	10748	2678	15197
<b>CASH FROM OPERATING ACTIVITIES</b>			
Gross cash farm income	357318	201974	341868
Net nonfarm income (+)	12645	17682	9572
Total cash farm expense (-)	338731	206512	291269
Apparent family living expense (-)	35981	20975	28594
Income and social security tax (-)	1864	1704	2538
(b) Cash from operations (=)	-6612	-9536	29039
<b>CASH FROM INVESTING ACTIVITIES</b>			
Sale of breeding livestock	2761	1878	2349
Sale of machinery & equipment (+)	3022	833	1983
Sale of farm land (+)	2375	6333	-
Sale of farm buildings (+)	21	-	55
Sale of other farm assets (+)	9498	445	7020
Sale of nonfarm assets (+)	-	-	-
Purchase of breeding livestock (-)	328	-	-
Purchase of machinery & equip. (-)	29161	24352	28713
Purchase of farm land (-)	34565	-	63613
Purchase of farm buildings (-)	5844	851	4276
Purchase of other farm assets (-)	8891	1525	4130
Purchase of nonfarm assets (-)	138	-	33
(c) Cash from investing activities (=)	-61251	-17239	-89358
<b>CASH FROM FINANCING ACTIVITIES</b>			
Money borrowed	274813	140468	323449
Cash gifts and inheritances (+)	10655	3887	22860
Principal payments (-)	199503	110790	253444
Dividends paid (-)	-	-	-
Gifts given (-)	8225	-	20383
(d) Cash from financing activities (=)	77740	33566	72483
(e) Net change in cash balance (b+c+d)	9877	6791	12163
Ending cash balance (farm & nonfarm)	20625	9468	27359

