### Staff Paper

### 1999 Business Analysis Summary for Fruit Farms

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### 1999 BUSINESS ANALYSIS SUMMARY FOR FRUIT FARMS

### 1999 Michigan Telfarm/MicroTel Data Staff Paper No. 2000-18, 14 pages

by

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### Introduction

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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. Fruit farms have 50 percent or more of value of combined sales from cherries, apples, and other fruits.

This report is a summary of the financial and production records kept by fruit farmers 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 1999 data including beginning and ending balance sheets,

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Professor and Farm Management Specialist. 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, and C. Wolf with the assistance of Michigan State University Extension Agents.

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.

income and expenses plus crop acres and yields. 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. The unweighted mean of the net farm income for the 20 farms was \$49,877; the standard deviation of the mean was \$87,514 and the median was \$24,495. The unweighted mean of acres cropped (owned plus rented) on the 20 farms was 209 acres; the standard deviation of the mean was 121 acres and the median was 319 acres.

This report has three purposes: 1)to provide statistical information about the financial results on fruit 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 fruit farm averages for 1995, see Staff Paper No. 96-86, Michigan Farm Database, New Directions for 1995; it contains averages of 23 fruit farms calculated with Finansum. Staff Paper No. 97-26, Business Analysis Summary for Fruit Farms, contains averages of 18 fruit farms for 1996. Staff Paper No. 98-14, 1997 Business Analysis Summary for Fruit Farms, contains averages of 18 fruit farms for 1997. Staff Paper No. 99-31, 1998 Business Analysis Summary for Fruit Farms contains averages of 16 fruit farms for 1998. These staff papers are available from the author.

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 net income, but only if the 25 percent means 6 or more farms. In order to get at least 6 farms, we increased the percentage to 30 for the fruit farms. 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 with Michigan State University's Telfarm/MicroTel accounting project. The averages may be representative of bigger and better managed fruit farms.

This document may be found and downloaded from the following: http://www.msu.edu/user/nott

### Table 1. CROP PRODUCTION AND MARKETING SUMMARY, 1999 Michigan Specialized Fruit Farms (Average of All Farms)

	_	Average Of Low 30%	Average Of High 30%
Number of Farms	20	6	6
ACREAGE SUMMARY Total Acres Owned Total Crop Acres Crop Acres Owned Crop Acres Cash Rented	185	114	203
	202	70	385
	102	53	120
	100	17	265
AVERAGE PRICE RECEIVED (Cash Sale Cherries, Tart per lb. Cherries, Sweet per lb. Apples per bu.	0.10	-	-
	0.22	-	-
	2.88	-	-
AVERAGE YIELD PER ACRE Apples (bu.) Cherries, Tart (lb.) Cherries, Sweet (lb.)	560.99	-	-
	8457.14	-	-
	10018.33	-	-

## Table 2. FARM INCOME STATEMENT, 1999 Michigan Specialized Fruit Farms (Average of All Farms)

	Average Of All Farms	Average Of Low 30%	Average Of High 30%
Number of Farms	20	6	б
CASH FARM INCOME Apples Asparagus Cherries Sweet Cherries Tart Cherries Corn Grapes Mixed Hay Peaches Pears Plums Pumpkins Rye Squash Tomatoes Nursery Stock Other crops Miscellaneous crop income Finish Yrlg Steers Transition payments Other government payments Custom work income Patronage dividends, cash Insurance income	134324 2103 26865 28532 50105 875 1149 25 7404 30 4163 525 8 2438 200 11 1423 4 8054 1461 6837 1195 79 253	30561 2525 14220 1532 22966 - - - - - - - - - - - - - - - - - -	379212 - 54589 52757 84512 - - 24679 - 9125 1751 26 - 667 38 3255 - 5642 730 11024 47 237 791
Other farm income	1970	1585	1886
Gross Cash Farm Income	280032	73649	630968

### Table 3. FARM INCOME STATEMENT, 1999 (Continued) Michigan Specialized Fruit Farms (Average of All Farms)

	Average Of	Average Of	Average Of
	All Farms	Low 30%	High 30%
Number of Farms	20	6	6
CASH FARM EXPENSE Seed Fertilizer Crop chemicals Crop insurance Crop marketing Crop miscellaneous	1914	625	2556
	4687	704	8526
	35772	14044	74698
	404	593	266
	719	1815	52
	4701	5146	5813
Feeder livestock purchase Purchased feed Veterinary Livestock supplies Livestock leases Livestock marketing	4481 627 153 92 60 243	- - - -	3992 551 104 - 200
Interest Fuel & oil Repairs Custom hire Hired labor Land rent	12924	11941	17800
	6240	2879	11201
	15821	7761	26293
	6570	5676	10027
	84282	20717	221559
	7207	2309	20908
Machinery & bldg leases Real estate taxes Personal property taxes Farm insurance Utilities Dues & professional fees Miscellaneous	4195	2835	4054
	3506	1670	4006
	146	125	181
	3921	2163	5710
	5647	1398	13114
	1859	940	2736
	16119	3259	45305
Total cash expense Net cash farm income	222290	86600	479652
	57742	-12951	151316
INVENTORY CHANGES Crops and feed Market livestock Accounts receivable Prepaid expenses and supplies Accounts payable Total inventory change Net operating profit	4032	-2133	12247
	1405	-	1500
	1841	1200	9547
	-293	-67	-884
	-1505	-4593	4513
	5482	-5543	26923
	63223	-18494	178239
DEPRECIATION AND OTHER CAPITAL AND Breeding livestock Machinery and equipment Buildings and improvements Other farm capital Total depr. and other capital add Net farm income	-12346 -3934 11	- -2673 -2396 -707 -5776 -24270	- -21307 -10245 743 -30809 147430

# Table 4. <u>INVENTORY CHANGES, 1999</u> Michigan Specialized Fruit Farms (Average of All Farms)

	Average Of	Average Of	Average Of
	All Farms	Low 30%	High 30%
Number of Farms	20	6	6
Net cash farm income	57742	-12951	151316
CROPS AND FEED Ending inventory Beginning inventory Inventory change	100708	23304	248839
	96676	25437	236592
	4032	-2133	12247
MARKET LIVESTOCK Ending inventory Beginning inventory Inventory change	6101	-	4500
	4696	-	3000
	1405	-	1500
ACCTS RECEIVABLE & OTHER CURRENT Ending inventory Beginning inventory Inventory change	ASSETS 39238 37397 1841	1200 - 1200	120389 110843 9547
PREPAID EXPENSES AND SUPPLIES Ending inventory Beginning inventory Inventory change	1164	457	1021
	1457	523	1905
	-293	-67	-884
ACCOUNTS PAYABLE Beginning inventory Ending inventory Inventory change	10043	18517	7301
	11548	23060	2788
	-1505	-4543	4513
Total inventory change	5482	-5543	26923
Net operating profit	63223	-18494	178239

Table 5. <u>DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1999</u>

Michigan Specialized Fruit Farms

(Average of All Farms)

	Average Of All Farms	Average Of Low 30%	Average Of High 30%
Number of Farms	20	6	6
Net operating profit	63223	-18494	178239
MACHINERY AND EQUIPMENT Ending inventory Capital sales Beginning inventory Capital purchases Depreciation, capital adj.	45956 375 44839 13838 -12346	14400	79755 - 86222 14840 -21307
BUILDINGS AND IMPROVEMENTS Ending inventory Capital sales Beginning inventory Capital purchases Depreciation, capital adj.	81533 1500 81372 5595 -3934	5000 67039 161	151809 - 155162 6892 -10245
OTHER CAPITAL ASSETS Ending inventory Capital sales Beginning inventory Capital purchases Depreciation, capital adj.	43359 5323 31397 17275 11	56655 - 25823 31538 -707	66161 13888 62537 16769 743
Total depreciation, capital ad	j. –16270	-5776	-30809
Net farm income	46954	-24270	147430

Table 6. PROFITABILITY AND LIQUIDITY ANALYSIS, 1999

Michigan Specialized Fruit Farms
(Average of All Farms Reporting)

	Avg. Of All Farms	Avg. Of Low 30%	Avg. Of High 30%	Avg. All Fa			g. Of gh 30%
Number of Farms	20	6	6		20	6	6
PROFITABILITY Net farm income Labor and management earnings Rate of return on assets Rate of return on equity Operating profit margin Asset turnover rate	46954 33876 6.1 % 6.7 % 9.4 % 65.0 %	Cost -24270 -27518 -9.2 % -105.8 % -36.0 % 25.6 %	147430 117353 14.0 % 19.4 % 17.3 % 81.0 %		167 -2043 126 -3790 0 % -4.1 3 % -11.8 2 % -30.7	)8 24 % 19 % 24 % 41	3435 0976 .9 % .1 % .3 %
Interest on farm net worth Farm interest expense Value of operator lbr & mgmt. Return on farm assets Average farm assets Return on farm equity Average farm equity Value of farm production	13077 14041 34548 26447 434424 12406 184751 282204	3248 12024 13939 -26184 284520 -38208 36115 72716	30077 17135 52236 112329 802342 95194 491900 649718	14 34 93 850 79	619 -3437 682 29117	24       1         39       5         53       26         77       135         76       25         72       104	2460 7135 2236 8334 1436 1200 0995 9718
			Average All Fa		Average Low 30		verage Of High 30%
Number of Farms				20	6		6
LIQUIDITY (Cash Net cash farm Net nonfarm i Family living Real estate p Cash availabl Average inter	income ncome and taxe rincipal e for int	payments term. debt	15 49 8 15	7742 5694 9025 3897 5514 4396	-12951 24029 14713 8983 -12618 44216	1	.51316 16922 .15834 9460 42944 72491
Years to turn Expense as a Interest as a	% of inco	ome	,	2.9 79 % 5 %	** 118 % 16 %		1.7 76 % 3 %
LIQUIDITY (Accrual)  Total accrual farm income  Total accrual farm expense  Net accrual operating income  Net nonfarm income  Family living and taxes  Real estate principal payments  Available for intermediate debt  Average intermediate debt			224 63 15 49 8 20	7311 4088 3223 5694 9025 3897 0995 4396	72716 91210 -18494 24029 14713 8983 -18161 44216	4 1 1	554261 176022 178239 16922 15834 9460 69867 72491
Years to turn Expense as a Interest as a	% of inco	ome	,	2.1 78 % 5 %	** 125		1.0 73 % 3 %

<sup>\*\*</sup> Income insufficient to meet debt servicing requirements

Table 7.

### BALANCE SHEET AT COST VALUES, 1999

Michigan Specialized Fruit Farms (Average of All Farms Reporting)

		age Of Farms	Averag Low 3		Averag High	
Number of Farms	2	0	6		<u></u>	6
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	17783	21886	8771	12089	47944	57397
Prepaid expenses & supplies	1457	1164	523	457	1905	1021
Growing crops	_	-	_	-	_	_
Accounts receivable	37107	38948	=	1200	110843	120389
Hedging accounts	=	_	=	_	-	-
Crops held for sale or feed	96676	100708	25437	23304	236592	248839
Crops under government loan	=	-	=	=	-	=
Market livestock held for sale	4696	6101	=	=	3000	4500
Other current assets	290	290	=	-	_	_
Total current farm assets	158009	169098	34731	37049	400284	432146
Intermediate Farm Assets						
Breeding livestock	_		_			
Machinery and equipment	44839	45956	21519	32413	86222	79755
Other intermediate assets	13730	25629	16118	47280	17812	20895
Total intermediate farm assets	58569	71585	37638	79693	104033	100650
Long-Term Farm Assets	106000	100004	115004	115004	05204	05204
Farm land	106203	107084	117004	117004	85304	85304
Buildings and improvements	81372	81533	67039	59803	155162	151809
Other long-term assets	17667	17730	9705	9375	44725	45266
Total long-term farm assets	205242	206346	193747	186182	285191	282379
Total Farm Assets	421819	447029	266117	302924	789509	815174
Total Nonfarm Assets	19236	22777	4469	4908	24557	33989
Total Assets	441055	469806	270586	307832	814066	849164
10tal fibbetb	111033	103000	270300	307032	011000	019101
LIABILITIES						
Current Farm Liabilities						
Accrued interest	4860	5978	6894	6977	3301	2636
Accounts payable	5183	5570	11623	16083	4000	152
Current notes	20137	19560	23732	17705	30868	33925
Government crop loans	_	-	_	-	_	_
Principal due on term debt	12616	12255	12651	16545	11964	8387
Total current farm liabilities	42797	43363	54900	57311	50134	45099
Intermediate Farm Liabilities	23950	56075	37019	39796	11674	126180
Long-term Farm Liabilities	182223	150939	149808	157977	253747	134048
Total Farm Liabilities	248970	250377	241727	255083	315555	305327
Total Nonfarm Liabilities	14973	15064	23167	24917	26745	25296
Total Liabilities	263943	265440	264894	280000	342300	330623
Total Biabilities	203943	203440	204094	280000	342300	330023
Net Worth (farm and nonfarm)	177112	204366	5692	27832	471766	518541
Net Worth Change	1,,112	27253	3092	22140	171700	46775
-						
RATIO ANALYSIS						
Current Farm Liabilities / Assets	27 %	26 %	158 %	155 %	13 %	10 %
Curr. & Interm Farm Liab / Assets	31 %	41 %	127 %	83 %	12 %	32 %
Long Term Farm Liab. / Assets	89 %	73 %	77 %	85 %	89 %	47 %
Total Liabilities / Assets	60 %	57 %	98 %	91 %	42 %	39 %

Table 8.

### BALANCE SHEET AT MARKET VALUES, 1999

Michigan Specialized Fruit Farms (Average of All Farms Reporting)

		age Of Farms	Avera Low		Averag High	
Number of Farms		20		6		6
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	17783	21886	8771	12089	47944	57397
Prepaid expenses & supplies	1457	1164	523	457	1905	1021
Growing crops	-	_	_	_	_	-
Accounts receivable	37107	38948	_	1200	110843	120389
Hedging accounts	-	_	_	_	_	_
Crops held for sale or feed	96676	100708	25437	23304	236592	248839
Crops under government loan	-	_	_	_	_	_
Market livestock held for sale	4696	6101	_	-	3000	4500
Other current assets	290	290	_	-	_	-
Total current farm assets	158009	169098	34731	37049	400284	432146
Intermediate Farm Assets						
Breeding livestock	-	-	_	-	_	-
Machinery and equipment	130976	133186	58250	67281	209336	199005
Other intermediate assets	15303	28375	24670	55748	14503	17526
Total intermediate farm assets	146279	161561	82920	123029	223839	216531
Long-Term Farm Assets						
Farm land	351752	418022	343500	343000	334612	489167
Buildings and improvements	129827	130998	50417	46975	257141	259163
Other long-term assets	18278	16888	7690	9843	44725	45266
Total long-term farm assets	499857	565908	401606	399819	636478	793595
Total Farm Assets	804144	896567	519258	559897	1260601	1442272
Total Nonfarm Assets	148472	165288	115650	127305	173709	185306
Total Assets	952616	1061855	634908	687203	1434309	1627578
LIABILITIES						
Current Farm Liabilities						
Accrued interest	4860	5978	6894	6977	3301	2636
Accounts payable	5183	5570	11623	16083	4000	152
Current notes	20137	19560	23732	17705	30868	33925
Government crop loans	-	-	_	_	_	_
Principal due on term debt	12616	12255	12651	16545	11964	8387
Total current farm liabilities	42797	43363	54900	57311	50134	45099
Intermediate Farm Liabilities	23950	56075	37019	39796	11674	126180
Long-term Farm Liabilities	182223	150939	149808	157977	253747	134048
Total Farm Liabilities	248970	250377	241727	255083	315555	305327
Total Nonfarm Liabilities	14973	15064	23167	24917	26745	25296
Total Deferred Liabilities	_	-	_	_	_	_
Total Liabilities	263943	265440	264894	280000	342300	330623
Net Worth (farm and nonfarm)	688673	796415	370013	407202	1092009	1296956
Net Worth Change		107742	0.0020	37189		204947
RATIO ANALYSIS						
Current Farm Liabilities / Assets	27 %	26 %	158 %	155 %	13 %	10 %
Curr. & Interm Farm Liab. / Assets	22 %	30 %	78 %	61 %	10 %	26 %
Long Term Farm Liabilities / Assets	36 %	27 %	37 %	40 %	40 %	17 %
Total Liabilities / Assets	28 %	25 %	42 %	41 %	24 %	20 %

## Table 9. <u>STATEMENT OF CASH FLOWS, 1999</u> Michigan Specialized Fruit Farms (Average of All Farms)

	Average Of All Farms	Average Of Low 30 %	Average Of High 30%
Number of Farms	20	6	6
(a) Beginning cash balance (farm & nor	nfarm) 19953	10171	49061
Total cash farm expense Apparent family living expense Income and social security tax		73649 24029 86600 12863 1850 -3635	630968 16922 479652 112167 3667 52404
Sale of farm land Sale of farm buildings Sale of other farm assets Sale of nonfarm assets Purchase of breeding livestock Purchase of machinery & equip. Purchase of farm land Purchase of farm buildings Purchase of other farm assets Purchase of nonfarm assets	(+) 375 (+) 10050 (+) 1500 (+) 5323 (+) 2842 (-) - (-) 13838 (-) - (-) 5595 (-) 17275 (-) 5380 (-) -21547	- 833 35000 5000 - - - 14400 - 161 31538 3833 -9099	- - - 13888 - - 14840 - 6892 16769 4000 -28613
Principal payments Dividends paid Gifts given	57411 (+) 9168 (-) 58908 (-) - (-) 3765 (=) 3905	65828 6323 55259 - 924 15968	65137 6 72597 - 701 -8155
(e) Net change in cash balance (Barm & nonfar	b+c+d) 6768 rm) 26721	3234 13406	15636 64697

### Table 10.

### FINANCIAL GUIDELINES MEASURES, 1999

Michigan Specialized Fruit Farms (Average of All Farms Reporting)

	Average Of		Average Of		Average Of		
	All Farms		Low 30 %		High 30 %		
Number of Farms	20	20		6		6	
LIQUIDITY	Beginning	Ending	Beginning	Ending	Beginning	Ending	
Current ratio	3.69	3.90	0.63	0.65	7.98	9.58	
Working capital	115212	125735	-20169	-20262	350150	387047	
SOLVENCY (Market) Farm debt to asset ratio Farm equity to asset ratio Farm debt to equity ratio	Beginning	Ending	Beginning	Ending	Beginning	Ending	
	31 %	28 %	47%	46%	25%	21%	
	69 %	72 %	53%	54%	75%	79%	
	45 %	39 %	87%	84%	33%	27%	
PROFITABILITY Rate of return on farm assets Rate of return on farm equity Operating profit margin Net farm income	Cost 6.1 % 6.7 % 9.4 % 46954	Market 11.0 % 13.3 % 33.2 % 114167		Market -4.1 % -11.8 % -30.7 % -20438	Cost 14.0 % 19.4 % 17.3 % 147430	Market 19.9 % 24.1 % 41.3 % 303435	
REPAYMENT CAPACITY Term debt coverage ratio Capital replacement margin	Cash	Accrual	Cash	Accrual	Cash	Accrual	
	140 %	160 %	40 %	21 %	220 %	304 %	
	10813	16294	-18051	-23594	38934	65857	
EFFICIENCY Asset turnover rate (market) Operating expense ratio Depreciation expense ratio Interest expense ratio Net farm income ratio	73 5 4	.2 % .1 % .7 % .9 %	10	3.5 % 3.9 % 7.9 % 5.5 % 3.4 %	70 4 2	3.1 % ).1 % 4.7 % 2.6 %	

### LABOR ANALYSIS

	Average Of	Average Of	Average Of
	All Farms	Low 30 %	High 30 %
Number of Farms	20	6	6
Total unpaid labor hours	2138	852	2617
Total hired labor hours	9170	2306	24781
Total labor hours per farm	11308	3158	27398
Value of farm production / hour		23.03	23.71
Net farm income / unpaid hour		-28.50	56.34

Table 11. OPERATOR INFORMATION & NONFARM SUMMARY, 1999

Michigan Specialized Fruit Farms

(Average of All Farms)

	Average Of All Farms	Average Of Low 30 %	Average Of High 30 %
Number of Farms	20	6	6
OPERATOR INFORMATION			
Average number of operators	1.5	1.3	2.2
Average age of operators	49.1	45.8	49.0
Average number of years farmin	ıg 22.3	13.5	26.3
NONFARM INCOME			
Nonfarm wages & salary	7010	16985	5957
Nonfarm business income	56	186	-
Nonfarm rental income	4365	4331	8203
Nonfarm interest income	2992	1303	2433
Nonfarm cash dividends	207	-	121
Tax refunds	466	1226	208
Nontaxable nonfarm income	_	-	-
Gifts and inheritances	9168	6323	6
Other nonfarm income	598	-	-
Total nonfarm income	24861	30353	16928

	Average Of . Beginning	All Farms Ending
NONFARM ASSETS (Mkt)		
Checking & savings	2170	4835
Stocks & bonds	21171	25136
Other current assets	150	700
Furniture & appliances	2165	2165
Nonfarm vehicles	6420	7660
Cash value of life ins.	4088	3524
Retirement accounts	34892	43247
Other intermediate assets	6990	6990
Nonfarm real estate	70425	70925
Other long term assets	_	106
Total nonfarm assets	148472	165288