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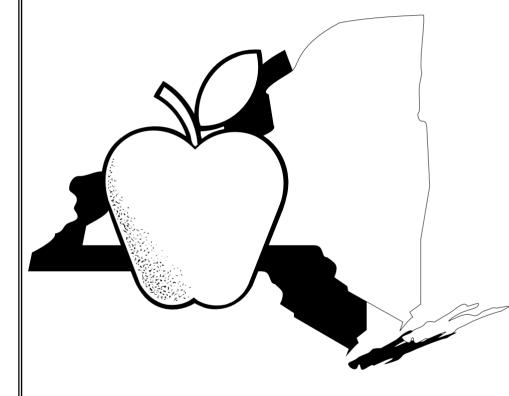
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LAKE ONTARIO REGION NEW YORK 2006



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ABSTRACT

This report is a summary of 2006 farm business data collected from 22 fruit farm businesses located in Western New York State. Apples are the predominant fruit crop. The data are presented as averages for all 22 farms. The business analysis includes a balance sheet, income statement, cash flow statement, and several financial and production analyses for the farms. Also included are blank columns for the user to enter his or her own farm data for comparison purposes.

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2006 FRUIT FARM BUSINESS SUMMARY LAKE ONTARIO REGION

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2006 LAKE ONTARIO FRUIT FARM BUSINESS SUMMARY

INTRODUCTION

Western New York fruit farmers, whose major crop is apples, are invited to participate in Cornell Cooperative Extension's fruit farm business summary program. Each participating farmer receives a comprehensive business summary and analysis of his or her farm business. This report presents averages for the data submitted by participating farmers for 2006. The analysis was supported by a grant from the New York Farm Viability Institute, and marks the second consecutive comprehensive annual report since the 1998 crop year.

The primary objective of the fruit farm business summary (FFBS) program is to help farm managers improve the financial management of their businesses through the appropriate use of historical farm data and the application of modern farm business analysis techniques. The FFBS identifies the business and financial information farmers need and provides a framework for use in identifying and evaluating the strengths and weaknesses of the farm business.

A computer program is used to process the data collected from fruit farmers. This program enables an analysis to be produced on the farm as soon as the farmers' data are entered. This provides rapid processing of the information for timely use in the management of the farm business. The grant from the New York Farm Viability Institute made possible the development of a new program in Access and Excel for analyzing these fruit farms, with some new measures of financial performance added for 2005 and 2006.

The farms in this study are primarily apple farms. An average of 78 percent of the accrual receipts in 2006 was from the sale of apples. (This percentage is down from 84 percent in 1998, and is virtually identical to the 77 percent for apple receipts in 2005). The data were not obtained from a random sample of all fruit farms in Western New York; however, the analysis is useful for fruit farmers to compare their own farm financial factors with benchmarks from typical farms in the Western New York fruit industry.

Format Features

This report provides a set of tables which comprise a comprehensive analysis of the participating fruit farms. Worksheets are included to give fruit farmers an opportunity to summarize their business. The analysis tables have a blank column or section labeled "My Farm". It may be used to compare an individual farm business with the average performance of the farms in this study.

This report features:

1) A complete Balance Sheet and analysis including financial ratios.

- 2) An Income Statement including accrual accounting adjustments for farm business expenses and receipts, as well as measures of profitability with and without appreciation.
- 3) Forms for a Cash Flow Statement and Repayment Analysis Worksheets.
- 4) Analyses of Capital Efficiency, Equipment, and Labor.
- 5) A Cropping Program Analysis with Cost Control Factors.
- 6) A Summary of Selected Business Factors.

Apple Production, Prices, and Returns in Recent Years

The 22 farms in this summary produced a total of 3.17 million bushels, or about 10.6 percent of the state's total production in 2006. The average price of apples (both fresh and processing) for the Fruit Farm Business Summary farms was \$4.65 per bushel. The return on equity was 9.0 % (including appreciation of assets), and is the highest return on equity since the 19.1 % realized in 1991! The value of the New York apple crop was estimated at \$248 million (National Agricultural Statistics Service) and was the first time the estimated value had exceeded \$200 million.

As a comparison with the last five years that the summary was published (1994-1998), prices for fresh apples on the FFBS ranged from \$2.81 per bushel in 1994 to a high of \$4.29 per bushel in 1996. Return on Equity (with appreciation) was -12.9 % in 1998, the last year the FFBS was published; this had been the second worst year in the previous 20 years.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Farm Financial Status

The first step in evaluating the financial status of the farm business is to construct a balance sheet which identifies all the assets and liabilities of the business. The second step is to evaluate the relationships between assets, liabilities, and net worth at the end of the year and the changes that occurred during the year.

Financial lease obligations are included in the balance sheet. The present value of all future payments is listed as a liability since the farmer is committed to make the payments by signing the lease. The present value is also listed as an asset, representing the future value the item has to the business.

Table 1 presents the balance sheet data for the 22 fruit farm cooperators. It lists the average value of assets and liabilities for December 31, 2005 and December 31, 2006 and, therefore, shows the changes that occurred for each category during the year. Asset values that are estimated each year should reflect changes in quantity or quality of the asset and conservative adjustments for price changes. Careful attention to asset values is important for a meaningful calculation of change in net worth, a measure of financial progress.

Table 1
Farm Balance Sheet, 22 Western New York Fruit Farms, 2006

Farm Assets	Beginning of Year	End of Year	Farm Liabilities	Beginning of Year	End of Year
Current Assets	Oi i cai	Oi i Cai	Current Liabilities	Oi i Edi	Oi i Cai
Farm cash, checking & savings	- \$39,252	\$27,287	Accounts payable	\$24,769	\$26,444
Notes receivable	\$16,326	\$15,584	Operating lines	\$200,429	\$211,595
Accounts receivable	\$209,145	\$242,311	Other short-term	\$11,960	\$12,072
Production and packing supplies	Ψ203,143	ΨΖ-ΨΖ,ΟΤΤ	other short term	Ψ11,500	Ψ12,012
& prepaid exp.	\$15,565	\$15,657	Current portion intermediate	\$28,354	\$36,572
Fruit & other crops in inventory	\$186,034	\$259,566	Current portion long-term	\$20,828	\$22,608
Farm market inventory	\$909	\$682			
Other current assets:	\$3,692	\$6,513			
Total Current Assets	\$470,923	\$568,600	Total Current Liabilities	\$286,340	\$309,291
Intermediate Assets	_		Intermediate Liabilities	_	
Livestock	\$0	\$0	Structured debt	\$85,955	\$89,259
Livestock leased	\$0	\$0	Equipment and capital lines	\$52,396	\$48,029
Equipment owned	\$415,100	\$443,281	FLB/PCA stock	\$6,631	\$4,033
Equipment leased	\$0	\$0			
FLB / PCA stock	\$6,631	\$4,033			
Co-op delivery stock	\$11,398	\$9,584			
Co-op retains	\$5,166	\$7,558			
Other stock & investments	\$30,700	\$20,958			
Other:	\$36,310	\$56,122			
Total Intermediate Assets	\$505,305	\$541,536	Total Intermediate Liabilities	\$144,982	\$141,321
Long term assets			Long Term Liabilities		
Land & buildings:	_		Mortgage #1	\$94,608	\$101,449
Owned	\$702,485	\$716,494	Other long term	\$103,666	\$101,438
Structures leased	\$0	\$0	-		
Leasehold Improvements	\$28,691	\$32,615			
Other:	\$341	\$3,449			
Total Long Term Assets	\$731,517	\$752,558	Total Long Term Liabilities	\$198,274	\$202,887
Total Farm Assets	\$1,707,745	\$1,862,694			
			Total Farm:		
			Liabilities	\$629,596	\$653,499
			Net Worth	\$1,078,149	\$1,209,195
			Liabilities & Net Worth	\$1,707,745	\$1,862,694
			Percent equity	63.0%	65.0%
			Debt per bearing fruit acre	\$2,970	\$3,083
			Debt per acre operated	\$2,141	\$2,223

Table 2 provides a format for the reader to use to develop a balance sheet for an individual farm business.

Table 2.
Farm Balance Sheet-My Farm. 2006

Farm Balance Sheet-My Farm, 200	Beginning	End		Beginning	End
Farm Assets	of Year	of Year	Farm Liabilities	of Year	of Year
Current Assets			Current Liabilities	_	
Farm cash, checking & savings			Accounts payable		
Notes receivable			Operating lines		
Accounts receivable			Other short-term		
Prdtn, packing supplies & prepaid					
exp.			Current portion intermediate		
Fruit & other crops in inventory			Current portion long-term		
Farm market inventory					
Other current assets:					
Total Current Assets			Total Current Liabilities		
Total Gallont Addition			Total Garront Liabilities		
Intermediate Assets	<u> </u>		Intermediate Liabilities	_	
Livestock			Structured debt		-
Livestock leased			Equipment and capital lines		-
Equipment owned			FLB/PCA stock		
Equipment leased					
FLB / PCA stock					
Co-op delivery stock					
Co-op retains					
Other stock & investments					
Other:					
Total Intermediate Access			Total Internacional Set 1991		
Total Intermediate Assets			Total Intermediate Liabilities		
Long term assets			Long Term Liabilities		
Land & buildings:	<u> </u>		Mortgage #1		
Owned			Other long term		
Structures leased			.		
Leasehold Improvements					
Other:					
Total Long Term Assets			Total Long Term Liabilities		
Total Farm Assets			Total Farm Liabilities		
I Otal I allii Assets			Total Lanii Liabilities		

Balance sheet analysis involves an examination of financial and debt ratios. Percent equity is calculated by dividing end of year net worth by end of year assets. The debt to asset ratio is compiled by dividing liabilities by assets. Low debt to asset ratios reflect strength in solvency and the potential capacity to borrow. The change in farm net worth without appreciation is an excellent indicator of financial progress from operating the business.

The current ratio and working capital are measures of liquidity, or the ability of the farm business to meet its financial obligations as they come due. The business needs to generate enough cash to pay family living expenses, taxes, and to make debt payments on time. The current ratio is measured by end of year current assets divided by current liabilities.

Working capital indicates the operating capital available in the short term. The working capital expense ratio is computed by subtracting current liabilities from current assets, and dividing the result by total accrual expenses (end of year values).

The leverage ratio indicates the dollar amount of debt in relation to the dollar amount of net worth. As long as the rate of return on new investment exceeds the interest rate (marginal), the farm business can increase the level of net income with increased leverage. If some of the funds are reinvested, saved, or used to pay off debt, net worth will increase. Investing a portion of earnings back into the farm business results in growth under these conditions. Leverage is computed by dividing total liabilities by total farm net worth (end of the year values).

Table 3.
Farm Business Balance Sheet Analysis, 22 Western New York Fruit Farms, Dec. 31, 2006

I aim business balance sheet And	lysis, 22 Western New York Fruit Fari	113, Dec. 31, 2000
Item	Average 22 Farms	My Farm
Financial Ratios - end of year		
Percent Equity	65.00%	%
Debt to Asset Ratio		
Total Debt	0.35	
Long-term	0.11	
Current and intermediate	0.24	
Intermediate and long-term	0.18	
Leverage Ratio	0.54	
Current Ratio	1.84	
Working Capital as % total		
expenses	32.00%	
Change in Net Worth		
With appreciation	\$131,046	\$
Without appreciation	\$ 93,823	\$
Debt Analysis		
Percent of total farm debt that is:		
Long term	31.00%	%
Current and intermediate	69.00%	%
Accounts payable only	4.00%	%
Debt Levels		
Per bearing fruit acre		
Total farm debt	\$3,083	\$
Long-term	\$957	\$
Current and intermediate	\$2,126	\$ \$
Carront and intermediate	ΨΣ, 120	Ψ

The farm inventory balance is an accounting of the value of assets used on the balance sheet and the changes that occur from the beginning to end of year. Net investment indicates whether the capital stock is being expanded (positive) or depleted (negative).

Table 4.

Farm Inventory Balance 22 Western New York Fruit Farms 2006

	Average	Average 22 Farms		Му	Farm
	Real			Real	
Inventory Balance	Estate	Equipment		Estate	Equipment
Beginning of year (1)	\$702,485	\$414,954	\$		
Purchases	\$14,150	\$51,043			
+ Noncash transfer to farm	\$0	\$0			
- Lost capital	\$81	\$0			
- Sales	\$1,276	\$4,412			
- Depreciation	\$4,118	\$42,385			
= Net Investment (2)	\$8,675	\$4,246			
Appreciation (3-1-2)	\$5,334	\$23,838			
End of year (3)	\$716,494	\$443,038			

Income Statement

On the following pages the accrual adjusted income statement begins with an accounting of all farm business expenses.

Cash Paid is the actual amount of money paid out during the year and does not necessarily represent the cost of goods and services actually used.

Change in Inventory: An increase in inventory is subtracted in computing accrual expenses; it represents inputs that were purchased but not actually used during the year. A decrease in inventory is added to expenses because it represents the cost of inputs purchased in a prior year and used this year.

Changes in Prepaid Expenses apply to non-inventory categories. Included are expenses that have been paid in advance of their use, for example, next year's rent paid this year. An increase in a prepaid expense is an amount paid this year that is an expense for a future year and, thus, is subtracted from expenses; a decrease in a prepaid expense indicates an amount paid in a prior year that is an expense for this year and added to cash expenses.

Change in Accounts Payable: An increase in payables is an expense chargeable to this year but not paid by the end of the year. A decrease in payables is an expense for a previous year that was paid this year.

Accrual Expenses are the costs of inputs actually used for this year's production.

The worksheet on page 9 (Table 6) is provided to enable any fruit farmer to compare his or her expenses with the group averages in the corresponding table.

Table 5. Farm Expenses, 22 Western New York Fruit Farms, 2006

Table 5. Farm Expenses, 22 \	vvestern N		uit Farms, 2	000	
	Change in				
	Cash	inventory	Change in	Accrual	
Evnenses	amount paid	or prepaid	accounts	Expense	
Expenses Lirod Labor	paid	expenses	payable	S	
Hired Labor					
Wages:	¢404 E02	Φ0	(\$4,000)	¢400 E0E	
Regular	\$181,593	\$0 \$0	(\$1,008)	\$180,585	
Picking Other part time accepted	\$78,066	\$0 (\$206)	\$89	\$78,155	
Other part-time, seasonal	\$16,370 \$54,400	(\$206)	\$0 \$440	\$16,164 \$55,248	
Other labor costs	\$54,109	\$821	\$418	\$55,348	
Picker travel	\$3,328	\$0 \$0	\$634	\$3,962	
Labor camp expenses	\$866	\$0	\$0	\$866	
Equipment	A- 22	A -	4.0 5	00.000	
Machine hire, rent, lease	\$7,900	\$0	\$136	\$8,036	
Repairs and parts	\$27,500	\$97	\$279	\$27,876	
Trucking expense	\$9,882	\$0	\$324	\$10,206	
Fuel, oil, and grease	\$33,952	\$432	\$457	\$34,841	
<u>Livestock</u>					
All livestock expense	\$0	\$0	\$0	\$0	
Crops					
Fertilizer and lime	\$11,692	\$1,058	\$2,293	\$15,043	
Replace trees and plants	\$7,476	\$987	\$2,159	\$10,622	
Spray	\$101,543	\$127	\$7,412	\$109,082	
Supplies, other	\$20,805	\$1,191	\$729	\$22,725	
Processing package supplies	\$2,726	\$175	\$0	\$2,901	
Storage	\$29,575	\$0	\$598	\$30,173	
Marketing, selling expenses	\$3,386	\$0	\$0	\$3,386	
Real Estate					
Repair-Land, building, fence	\$5,965	\$0	\$482	\$6,447	
Taxes	\$10,028	\$338	\$614	\$10,980	
Rent & lease	\$14,591	\$79	\$701	\$15,371	
Other Expenses	•		•	•	
Fire, liability expenses	\$15,171	\$0	\$0	\$15,171	
Crop and revenue Insurance	\$8,979	\$0	\$178	\$9,157	
All utilities	\$18,100	\$0	\$176	\$18,276	
Legal/office expense	\$9,095	\$8	\$0	\$9,103	
Fruit purchased for resale	\$7,771	\$0	\$2,730	\$10,501	
Interest paid	\$35,701	\$0	\$1,812	\$37,513	
Misc.	\$16,864	\$4 7 9	\$1,787	\$19,130	
TOTAL OPERATING EXPENSES	\$733,034	\$5,58 6	\$23,000	\$761,620	
Depreciation:	ψ. 55,00 ⁻ T	40,000	4_0,000	Ţ. U.,UZU	
Equipment				\$42,385	
Buildings				\$4,118	
Bearing trees and vines				\$3,017	
bearing nees and villes				φυ,υ ι τ	
TOTAL ACCRUAL EXPENSES				\$811,140	
TOTAL ACCITOR LAFEINGES				ψυ ι ι , ι 40	

Table 6.

Income Statement - Farm Expenses, My Farm, 2006

Income Statement - Farm Expenses, My Farm, 2006						
		Change in	<u>.</u>			
		inventory or	Change in			
_	Cash amount	prepaid	accounts	_Accrual		
Expenses	paid	expenses	payable	Expenses		
Hired Labor						
Wages:						
Regular	\$	\$	\$	\$		
Picking						
Other part-time, seasonal						
Other labor costs						
Picker travel						
Labor camp expenses						
<u>Equipment</u>						
Machine hire, rent, lease		- -				
Repairs and parts						
Trucking expense						
Fuel, oil, and grease						
Livestock						
All livestock expense						
Crops						
Fertilizer and lime						
Replace trees and plants						
Spray						
Supplies, other		-		-		
Processing package supplies						
Storage						
Marketing, selling expenses						
Real Estate						
Repair-Land, building, fence						
Taxes						
Rent & lease						
Other Expenses						
Fire, liability expenses						
Crop and revenue Insurance						
All utilities						
Legal/office expense						
Fruit purchased for resale						
Interest paid						
Misc.						
Total Operating Expenses						
Depreciation:						
Equipment						
Buildings				- -		
Bearing trees and vines						
Total Accrual Expenses						
·						

Table 7. Income Statement-Farm Receipts, 22 Western New York Fruit Farms, 2006

Desciate	Cash	Change in	Change in accounts	Accrual
Receipts	Receipts	inventory	receivable	Receipts
<u>Apples:</u>				
Fresh	\$423,883	\$81,091	\$4,899	\$509,873
Peelers	\$191,304	(\$6,241)	\$25,750	\$210,813
Juice	\$17,311	(\$1,318)	\$1,002	\$16,995
Cherries:				
Sweet	\$28,600	\$0	(\$120)	\$28,480
Tart	\$13,060	\$0	(\$1,421)	\$11,639
Grapes	\$0	\$0	\$0	\$0
Peaches	\$40,394	\$0	\$424	\$40,818
Plums and Prunes	\$1,156	\$0	\$0	\$1,156
Pears	\$12,263	\$0	\$218	\$12,481
Other Crops, Livestock, & Prod	\$11,222	\$0	(\$1,453)	\$9,769
Custom Work, Storage, Rent	\$34,633	\$0	\$2,930	\$37,563
Other	\$68,667	\$0	\$937	\$69,604
Total Operating Receipts	\$842,493	\$73,532	\$33,166	\$949,191

Cash Receipts include the amount received during the year from the sale of farm products and services, and government programs.

Changes in Inventory are calculated by subtracting beginning of year values from end of year values excluding appreciation. Changes in crop and livestock inventories are calculated. Changes in advanced government receipts are calculated by subtracting the end of year balance from the beginning year balance.

Changes in Accounts Receivable are calculated by subtracting beginning year balances from end year balances.

Accrual Receipts represent the value of all farm commodities and services generated by the farm business during the year.

Table 8.
Income Statement - Farm Receipts, My Farm 2006

Receipts	Cash Receipts	Change in inventory	Change in accounts receivable	Accrual Receipts
Apples:	recoupts	inventory	receivable	receipts
Fresh	\$	\$	\$	\$
Peelers	Ψ	Ψ	Ψ	Ψ
Juice				
Cherries:				
Sweet				
Tart				
Grapes				
Peaches				
Plums and Prunes				
Pears				
Other Crops, Livestock, & Prod				
Custom Work, Storage, Rent				
Other				
Total Operating Receipts			=	

Profitability Analysis

Farm owner-operators contribute labor, management, and capital to their businesses and the best combination of these resources maximizes profits. Farm profitability can be measured as the return to all family resources or as the return to one or more individual resources such as labor and management.

Net Farm Income is the total combined return to the farm operators and other unpaid family members for their labor, management, and equity capital. It is the farm family's annual net return from working, managing, financing, and owning the farm business. This is not a measure of cash available from the year's business operation. Cash flow is measured later in this report.

Net farm income is computed both with and without appreciation. Appreciation represents the change in values caused by annual changes in prices of livestock, equipment, real estate inventory, and stocks and certificates (other than Farm Credit). Appreciation is a major factor contributing to changes in farm net worth and must be included for a complete profitability analysis.

Table 9.

Net Farm Income, 22 Western New York Fruit Farms, 2006						
ITEM	AVERAGE	My Farm				
Total Accrual Receipt	\$949,191	\$				
+ Appreciation:						
Livestock	\$0					
Equipment	\$23,838					
Real estate	\$5,334					
Other stocks and certificates	\$8,051					
= Total Accrual Receipts with						
Appreciation	\$986,414					
- Total Accrual Expenses	\$811,140					
= Net Farm Income						
with appreciation	\$175,274					
without appreciation	\$138,051					

Return to Operators' Labor, Management, and Equity Capital measures the total business profits for the farm operator(s). It is calculated by deducting a charge for unpaid family labor from net farm income. Operators' labor is not included in unpaid family labor. Return to operators' labor, management, and equity capital has been calculated both with and without appreciation. Appreciation is considered an important part of the return to ownership of farm assets.

Table 10.

Return to Operators' Labor, Management, and Equity Capital

22 Western New York Fruit Farms, 2006

ZZ Western tew Tork Franc	1 a	
Item	Average	My Farm
With appreciation: Net farm income - Family unpaid labor @ \$2,300/mo = Return to operators' labor management and equity	\$175,274 \$0 \$175,274	\$
Without appreciation: Net farm income - Family unpaid labor @ \$2,300/mo = Return to operators' labor management and equity	\$138,051 \$0 \$138,051	

Labor and Management Income is the return which farm operators receive for their labor and management used in operating the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. Labor and management income is calculated by deducting the opportunity cost of using equity capital, at a real interest rate of five percent, from the return to operators' labor, management, and equity capital excluding appreciation. The interest charge of five percent reflects the long-term average rate of return above inflation that a farmer might expect to earn in an investment of comparable risk.

Table 11.

Labor & Management Income
22 Western New York Fruit Farms, 2006

Item	Average	My Farm
Net Farm Income with Appreciation	\$175,274	\$
Net Farm Income without Appreciation	\$138,051	*
- Family Labor @ \$2,300 per month	\$0	
- Real interest @ 5% on Equity Capital	\$60,460	
= Labor and management income with appreciation (1.4 operators)	\$114,814	
Labor and management income with appreciation per Operator	\$81,477	
= Labor and management income without appreciation (1.4 operators)	\$77,591	
Labor and management income without appreciation per Operator	\$55,062	

Return on Equity Capital measures the net return remaining for the farmer's equity or owned capital after a charge has been made for the owner-operators' labor and management. The earnings or amount of net farm income allocated to labor and management is the opportunity cost of operators' labor and management estimated by the cooperators. Return on equity capital is calculated with and without appreciation. The rate of return on equity capital is determined by dividing the amount returned by the average farm net worth or equity capital. Net farm income from operations ratio is net farm income (without appreciation) divided by total accrual receipts. It is a general measure of returns to equity and labor and management as a percent of what the farm produced.

Table 12.

Return on Equity Capital and Return on Total Capital

22 Western New York Fruit Farms, 2006

22 Western New Tork Fruit I	Average 22	
Item	Farms	My Farm
		Ž
Net farm income with appreciation	\$175,274	\$
- Unpaid family labor @ \$2,000 per month	\$0	
- Values of operator labor and management	<u>\$66,013</u>	
= Return to equity capital with appreciation	\$109,261	
+ Interest Paid	<u>\$37,513</u>	
= Return to all capital with appreciation	\$146,774	
Return to equity capital without appreciation	\$72,038	
Return to all capital without appreciation	\$109,551	
Rate of return on average equity capital		
with appreciation	9.00%	%
without appreciation	6.00%	%
Rate of return on all capital		
with appreciation	7.90%	%
without appreciation	5.90%	%
Net farm income from operations ratio	\$14.50	

Cash Flow Statement

Completing an annual cash flow statement is an important step in understanding the sources and uses of funds for the business. Understanding last year's cash flow is the first step toward planning and managing cash flow for the current and future years.

The **Annual Cash Flow Statement** is structured to compare all the cash inflows with all the cash outflows for the year. A complete list of cash inflows and cash outflows is included in Table 13. By definition, total cash inflows must equal total cash outflows when beginning and ending balances are included. Any imbalance is, therefore, the error from incorrect accounting of cash inflows and cash outflows. A cash flow sheet is available for growers to use to reconcile cash flow on their own operations (Table 14).

Table 13.

Annual Cash Flow Statement, 22 West	tern New York Fruit Farn	ns 2006	
Cash Flow from Operating Activities			
Cash farm receipts	\$842,493		
- Cash farm expenses	\$733,034		
= Net Cash Farm Income		\$109,459	
Personal withdrawals & family expenses			
including nonfarm debt payments	\$65,112		
- Nonfarm income	\$13,312		
- Net cash withdrawals from farm		\$51,800	
= Net Provided by Operating Activities		\$57,659	-
Cash Flow from Investing Activities			
Sale of assets: machinery	\$4,412		
real estate	\$1,276		
other stock & certificates	\$3,892		
= Total asset sales		\$9,580	
Capital Purchases: expansion orchard	\$25,723		
+ machinery	\$51,043		
+ real estate	\$14,150		
+ other stock & certificates	\$10,282		
- Total invested in farm assets	<u></u>	\$101,198	
+ Net Provided by Investment		,	(\$91,618
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	\$52,747		
+ Money borrowed (short term)	\$4,989		
+ Increase in operating debt	\$25,795		
+ Cash from nonfarm capital used in business	\$0		
+ Money borrowed - nonfarm	\$0		
= Cash flow from financing	<u> </u>	\$83,531	
Principal payments (intermediate & long term)	\$39,061		
+ Principal payments (short term)	\$4,766		
+ Decrease in operating debt	\$14,795		
- Cash outflow for financing	<u> </u>	\$58,622	
= Net Provided by Financing Activities			\$24,909
Cash Flow from Reserves			
Beginning farm cash, checking & savings		\$39,252	
- Ending farm cash, checking & savings		\$27,287	
= Net Provided from Reserves		. , -	\$11,965
Imbalance			\$2,915

Table 14.

Annual Cash Flow Statement, My Farm 2006			
Cash Flow from Operating Activities			
Cash farm receipts	\$		
- Cash farm expenses	¥ <u></u>		
= Net Cash Farm Income			
Personal Withdrawals & family expenses			
including nonfarm debt payments			
- Nonfarm income			
- Net cash withdrawals from farm			
= Net Provided by Operating Activities			
Cash Flow from Investing Activities			
Sale of assets: machinery			
real estate			
other stock & certificates			
= Total asset sales			
0.715			
Capital Purchases: expansion orchard			
+ machinery			
+ real estate			
+ other stock & certificates			
- Total invested in farm assets			
+ Net Provided by Investment			
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)			
+ Money borrowed (short term)			
+ Increase in operating debt			
+ Cash from nonfarm capital used in business			
+ Money borrowed - nonfarm			
= Cash flow from financing			
•			
Principal payments (intermediate & long term)			
+ Principal payments (short term)			
+ Decrease in operating debt			
- Cash outflow for financing			
= Net Provided by Financing Activities			
Cook Flow from December			
Cash Flow from Reserves			
Beginning farm cash, checking & savings			
- Ending farm cash, checking & savings			
= Net Provided from Reserves			
Imbalance			

Repayment Analysis

The second step in cash flow analysis is to compare the debt payments planned for this year with the amount actually paid. The measures listed below provide a number of different perspectives on the repayment performance of the business.

Table 15.

Farm Debt Payments Planned
22 Western New York Fruit Farms, 2006

	Average 22 Farms		
	Actual Payments	Planned Payments	
Item	2006	2007	
Current/Short Term (net reduction)	\$13,041	\$9,113	
Intermediate Term (net reduction)	\$7,288	\$36,573	
Long Term (net reduction)	\$6,398	\$22,608	
Total Debt Payments	\$26,727	\$68,294	
Payments as a percent of:			
Total accrual receipts	2.80%	7.20%	
Total accrual fruit receipts	2.90%	7.50%	
Payments per bearing fruit acre	\$126	\$322	
Payments per acre operated	\$91	\$232	
Payments per bushel of apples sold	\$0.19	\$0.48	

	My Farm		
	Actual Payments	Planned Payments	
Item	2006	2007	
Current/Short Term (net reduction)	\$	\$	
Intermediate Term (net reduction)			
Long Term (net reduction)	·	·	
Total Debt Payments			
Payments as a percent of:			
Total accrual receipts	%	%	
Total accrual fruit receipts	%	%	
Payments per bearing fruit acre	\$	\$	
Payments per acre operated			
Payments per bushel of apples sold			

The **Cash Flow Coverage Ratio** measures the ability of the farm business to meet its planned debt payment schedule. The ratio shows the percentage of planned payments that could have been made with this year's available cash flow. However, the critical question for many farmers and lenders is whether planned payments can be made in 2006. The worksheet provided in Table 17 and 18 can be used to estimate repayment ability which can then be compared to planned 2006 debt payments shown in Table 16.

Table 16.

Cash Flow Coverage Ratio
22 Western New York Fruit Farms, 2006

Item	Average	My Farm		
Cash Farm Receipts - Cash Farm Expenses + Interest Paid	\$842,493 \$733,034 \$35,701	\$		
= Amount Available for debt service	\$145,160			
Debt Payments Planned	\$68,294			
Cash Flow Coverage Ratio	2.13			

Table 17.

Annual Cash Flow Worksheet
22 Western New York Fruit Farms, 2006

My Farm per bearing acre
\$
\$
\$
Ψ
- <u></u> -
- <u></u> -
- <u></u> -

Table 18.

Annual Cash Flow Worksheet
22 Western New York Fruit Farms, 2006

	Average	My Farm	My Farm
Item	22 Farms	Total	per bearing acre
Accrual Operating Expenses			
Wages:			
Regular	\$852	\$	\$
Harvest	\$369		
Other part-time seasonal	\$76		
Other labor costs	\$261		
Picker travel	\$19		
Labor camp expenses	\$4	- <u></u> -	
Machine rent, hire, lease	\$38		
Repairs and parts	\$131		
Trucking expense	\$48		
Fuel, oil, and grease	\$164		
All livestock expense	\$0		
Fertilizer and lime	\$71		
Replacement trees and plants	\$50		
Spray	\$515		
Supplies, other	\$107		
Processing package supplies	\$14		
Storage	\$142		
Marketing, selling expenses	\$16		
Repair-land, build, fence	\$30		
Taxes	\$52		
Rent & lease	\$73		
Fire, liability expenses	\$72		
Crop and revenue insurance	\$43		
All utilities	\$86		
Legal/office expense	\$43		
Fruit purchased for resale	\$50		
Miscellaneous	\$90		
TOTAL Operating Expenses			
Excluding Interest Paid	\$3,416		

Table 19.

Annual Cash Flow Worksheet- Repayment Analysis

22 Western New York Fruit Farms, 2006

	Average	My Farm
Item	22 Farms	Total
Repayment Analysis (Total)		
Net Accrual Operating Income (excluding interest paid)	\$225,084	\$
- Change in livestock and crop inventory	\$62,806	
- Change in accounts receivable	\$ 23,932	
- Change in supply inventory	\$0	
Net operating cash flow	\$140,770	
- Net personal withdrawals	\$65,112	
Available for debt payments and investment	\$75,658	
- Farm debt payments (principle and interest)	\$96,135	
Available for farm investment	(\$22,901)	
	·	·
Capital purchases	\$101,198	
Additional capital needed	\$124,099	

Capital Efficiency Analysis

Capital efficiency factors measure how intensively capital is being used in the farm business. As capital needs grow, capital management becomes more important.

Capital turnover is a measure of capital efficiency as it shows the number of years of farm receipts required to equal or "turnover" the capital investment. It is computed by dividing the average farm asset value by the year's total farm accrual receipts and appreciation. Summing the next three ratios (operating expense, interest expense, and depreciation expense) gives total expenses per dollar of accrual receipts. In Table 20, total expenses per dollar of receipts is \$.82.

Table 20.

Capital Efficiency Analysis 22 Western New York Fruit Farms, 2006

		Average 22 Farms	
Item	Per worker equiv	Per bearing fruit acre	Per acre operated
Assets			
Total Farm Capital	\$138,739	\$8,421	\$6,072
Real estate	\$57,520	\$3,491	\$2,517
All Equipment	\$33,355	\$2,024	\$1,460
Ratios:			5 5
Capital turnover	Operating Expense	Interest Expense	Depreciation Expense
0.55	0.73	0.04	0.05
=1.8 yrs.			
My Farm Total Farm Capital Real estate All Equipment			
Ratios:		_	
Capital turnover	Operating Expense	Interest Expense	Depreciation Expense
			

Equipment Analysis

Equipment costs comprised nearly 18 percent of the cost of fruit production in 2006. Total equipment expenses include the major fixed costs (interest and depreciation) as well as the accrual operating costs.

Table 21.

Accrual Equipment Expenses
22 Western New York Fruit Farms, 2006

	Western New Tork Fre	a	
	ı	Average 22 Farms	
		Equipment cost per fru	it acre operated
Item	Total	bearing	all fruit
Machine Hire,			
Equipment Rent, Lease	\$8,036	\$38	\$33
Repair and parts	\$27,876	\$131	\$115
Trucking	\$10,206	\$48	\$42
Fuel, oil, and grease	\$34,841	\$160	\$140
Interest on avg equipment			
capital at 5%	\$21,460	\$96	\$84
Depreciation	<u>\$42,385</u>	<u>\$171</u>	<u>\$150</u>
Total Equipment Cost	\$144,804	\$644	\$565

_	My Farm		
	Equipment cost per fruit acre operated		
Item	Total	bearing	all fruit
Machine Hire,			
Equipment Rent, Lease	\$	\$	\$
Repair and parts		-	-
Trucking			
Fuel, oil, and grease			
Interest on avg.equipment			
capital at 5%			
Depreciation			
Total Equipment Cost			

Labor Analysis

The efficient use of labor is closely related to farm profitability. Measures of labor efficiency or productivity are key indicators of management's success. Labor is the largest single cost category on fruit farms, accounting for 41 % of total accrual expenses.

Table 22.

Labor Inventory Analysis, 22 Western New York Fruit Farms, 2006

	Full-time	Age,	Educatio	n,	Value of Labor
Labor force	Months	Years	Years		and Management
Average					
Operator 1	11.11	54	13		\$42,784
Operator 2	4.50	51	15		\$16,070
Operator 3	1.23	55	15		\$6,801
Operator 4	0.07	64	16		\$359
Family Paid	0.00			Total	\$66,014
Family Unpaid	0.00			Avg. per Operator	\$46,845
Hired					
Regular	85.1				
Harvest	42.4				
Other PT/Seasonal	10.0				
-					
Total Hired	137.5				
Total	154.4	mo./12 =	12.9	worker equivalent	
Total	101.1	1110.712 =	1.41	oper./manager equiva	lent
			11.5	hired worker equiv	
			11.0	Timed Worker equiv	
My Farm:					
Total	- -	mo./12 =		_ worker equivalent	
				_ operator./manager	
Operators		mo./12 =	equivaler	nt	

Table 23.

Labor Efficiency Analysis, 22 Western New York Fruit Farms, 2006

Labor Efficiency	Average 2	22 Farms	My Farm
	Total	Per Worker	Total Per Worker
Bearing fruit acres	212	16.5	
Total acres operated	294	22.8	
Apples sold, bu.	143,700	11,168	
Accrual receipts	\$949,191	\$73,767	

Labor Cost or Value	Ave	rage 22 Farms	<u></u>		My Farm	
		Per Worker	Per Bearing		Per Worker	Per Bearing
	Total	Equivalent	Fruit Acre	Total	Equivalent	Fruit Acre
Value of operators' labor						
@ \$2,400/mo.	\$40,584	\$3,154	\$191	\$	\$	\$
Family unpaid						
@ \$2,400 per mo.	\$0	\$0	\$0			
Hired						
Regular	\$180,585	\$14,034	\$852			
Harvest	\$78,155	\$6,074	\$369			
Other PT/Seasonal	\$16,164	\$1,256	\$76	- <u></u>	· 	- -
Total Hired	\$274,904	\$21,364	\$1,297			
Indirect Labor Costs	\$55,348	\$4,301	\$261			
Total Labor	\$330,252	\$25,666	\$1,558			
Machinery Costs Total Labor and	\$144,804	\$11,253	\$683			
Machinery	\$475,056	\$36,919	\$2,241			
Hired Labor as Percent of						
Crop Sales Total Labor as Percent of	32.60%			\$		
Crop Sales	39.20%			\$		

Cropping Program Analysis

The cropping program is the central part of a fruit farm business. A complete evaluation of available land resources, how they are being used, how well crops are producing, and what it costs to produce them, is required to evaluate alternative cropping choices. In the table below, average crop acres and yields are presented for the number of farms reporting each crop. A worksheet is shown

(Table 25) to develop comparable figures for your own operation. The nonbearing acreage is 12.4 percent of total fruit acres.

Table 24.

Land Resources and Crop Production, 22 Western New York Fruit Farms, 2006

Item	Average 22 Farms	
Land Class (end of year)		
Bearing fruit acres	212.0	
Non-bearing fruit acres	30.0	
Other crops and open acres	42.0	
Non-tillable acres	53.0	
Total land operated	294.0	
Rented land included above	59.2	

		For farms ha	ving the fruit:	
				Percent of
Crop Production	No. of farms	Average acres	Yield per acre	Total Apples
Bearing Fruit:				
Apples : fresh	22	112.1	650.5 bu.	46.00%
: Peelers	21	67.3	959.7 bu.	49.00%
: Juice	16	-	-	7.00%
Total Apples	22	176.3	827.3 bu.	
Cherries : sweet	10	11.0	6067.0 lb.	
: tart	5	38.0	7500.0 lb.	
Grapes	0	0.0	0.0 ton	
Peaches	14	17.8	5.5 ton	
Plums/Prunes	5	4.0	3.5 ton	
Pears	5	14.9	8.0 ton	
Non-Bearing Fruit:				
Apples : fresh	20	19.0		
: Peeler	6	7.1		
Cherries: sweet	6	3.2		
: tart	7	21.9		
Grapes	1	1.0		
Peaches	6	3.7		
Plums/Prunes	1	2.0		
Pears	3	5.0		
Other Orang Orang				
Other Crops, Open:	-	0.4		
Other	5	9.1		

Table 25.

Land Resources and Crop Production, My Farm, 2006

Item		Total acres		
Land Class (end of year)				
Bearing fruit acres				
Non-bearing fruit acres				
Other crops and open acres				
Non-tillable acres				
Total land operated				
Rented land included above				
		My Farm		
			Percent of	
Crop Production	Total acres	Yield per acre	total apples	
Bearing Fruit:				
Apples:				
Fresh		bu.	%	
Peelers		bu.	%	
Juice			%	
Total Apples		bu.		
Cherries:		lb.		
Sweet		lb.		
Tart		lb.		
Grapes		ton		
Peaches		ton		
Plums/prunes		ton		
Pears				
Non-Bearing Fruit:				
Apples:				
Fresh				
Peeler				
Cherries:				
Sweet				
Tart				
Grapes				
Peaches				
Plums/prunes				
Pears				
Other Crops, Open:				
Other				

Cost Control Factors

The control of costs is an important factor in the success of modern commercial fruit farm businesses. But before they can be controlled, they must be known. A major reason for farm business analysis is to identify the most significant cost items so cost control decisions can be encouraged as warranted. However, the optimum level of input items used to obtain the greatest net return is difficult to determine.

Farm managers have substituted power and equipment for labor to a large degree. With labor and equipment costs comprising about 60 percent of total production costs on fruit farms, it is important to know and control these and other costs on a production unit basis.

Table 26.

Cost Control Factors
22 Western New York Fruit Farms, 2006

	Average 22 Farms		My Farm		
	Cost Per F	Cost Per Fruit Acre Operated		it Acre Operated	
	Bearing		Bearing		
Item	Acres	All Fruit Acres	Acres	All Fruit Acres	
All labor including					
operators' labor	\$1,558	\$1,365	·		
Harvest labor	\$369	\$323			
Other hired labor	\$261	\$229			
All equipment cost	\$683	\$598			
Spray	\$515	\$451			

PROGRESS OF THE FARM BUSINESS

Comparing your business with average data from other fruit farms can be a helpful part of a business checkup. While a wide variation in business size and composition exists in this group of fruit farms, many of the factors will provide a meaningful indication of how you compare with other fruit farms. It is, perhaps, even more important for you to determine the progress your business has made over the past two or three years and to set goals for the future. See the last table in this publication for the progress chart for the farms in this year's study.

The tables on the following pages provide the opportunity for you to compare your business factors with averages for the participating farms for the current year. It also encourages you to set some goals toward which to strive as you measure the progress of your farm business over the years.

Table 27.

Analyzing the Fruit Farm Business, 22 Western New York Fruit Farms, 2006

Selected Factors
Number of Farms Size of Business Total acres 294 All fruit acres (incl non-bearing) 242 Bearing fruit acres 212 Fresh- percent of all apple acres 58.00% Apples produced (bushels) 144,156 Apples sold (bushels) 143,700 Worker Equivalent 12.9 Rates of Production 827.30 All apples, bushels per bearing acre 827.30 Fresh - percent of apples harvested 46% Cherries - tart, pounds per bearing acre 7,500.00 Cherries - sweet, pounds per bearing acre 6,067.00 Peaches - tons per bearing acre 5.50 Plums/Prunes - tons per bearing acre 8.00 Labor Efficiency 8.00 Bearing fruit acres per worker 16.5 All fruit acres per worker 18.8 Accrual Receipts per worker \$73,767 Cost Control - Accrual Costs per bearing fruit acre \$1,558 All equipment \$683 Spray \$515 Expansion orchard expense \$25,723
Total acres 294
All fruit acres (incl non-bearing) Bearing fruit acres 212 Fresh- percent of all apple acres Apples produced (bushels) Apples sold (bushels) Worker Equivalent Rates of Production All apples, bushels per bearing acre Fresh - percent of apples harvested Cherries - tart, pounds per bearing acre Peaches - tons per bearing acre Peaches - tons per bearing acre Baring fruit acres per worker All labor All lequipment Spray Spray Hired labor as percent of operating expense Capital Efficiency Total farm capital per bearing fruit acre \$8,421 Total farm capital per fruit acre 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 144,156 142,20 143,700 143,700 143,700 143,700 143,700 143,700 143,700 143,700 143,700 143,700 144,156 144,16 144,16 146,0 14,10 144,156 146,0 14,10 14,10 14,10 14,10 14,10
Bearing fruit acres 212 Fresh- percent of all apple acres 58.00% Apples produced (bushels) 144,156 Apples sold (bushels) 143,700 Worker Equivalent 12.9 Rates of Production 827.30 All apples, bushels per bearing acre 827.30 Fresh - percent of apples harvested 46% Cherries - tart, pounds per bearing acre 7,500.00 Cherries - sweet, pounds per bearing acre 6,067.00 Peaches - tons per bearing acre 5.50 Plums/Prunes - tons per bearing acre 3.50 Pears - tons per bearing acre 8.00 Labor Efficiency 8.00 Bearing fruit acres per worker 16.5 All fruit acres per worker 18.8 Accrual Receipts per worker \$73,767 Cost Control - Accrual Cost Control - Accrual Cost per bearing fruit acre All equipment \$683 Spray \$515 Expansion orchard expense \$25,723 Hired labor as percent of operating expense \$3.00% Capital E
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Costs per bearing fruit acre All labor \$1,558 All equipment \$683 Spray \$515 Expansion orchard expense \$25,723 Hired labor as percent of operating expense 38.00% Capital Efficiency Total farm capital per bearing fruit acre \$8,421 Total farm capital per fruit acre \$6,072
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Capital EfficiencyTotal farm capital per bearing fruit acre\$8,421Total farm capital per fruit acre\$6,072
Total farm capital per bearing fruit acre \$8,421 Total farm capital per fruit acre \$6,072
Total farm capital per fruit acre \$6,072
·
Capital Turnover Ratio 0.55
Profitability
Net farm income without appreciation \$138,051
Net farm income with appreciation \$175,274
Labor and management income per operator \$55,062
Rate of return on:
Equity capital with appreciation 9.00%
All capital with appreciation 7.90%
Financial Summary, End of Year
Farm net worth \$1,209,195
Debt to asset ratio 0.35
Farm debt per bearing fruit acre \$3,083
Cash flow coverage ratio 2.13

Table 28. Progress of the Farm Business, 17 Farms, 2005 and 2006.

Table 28. Progress of the Farm Business, 17 Farms, 2005 and 2006.					
	2005	2006			
Selected Factors	Average 17 Farms	Average 17 Farms	My Farm		
Size of Business					
Total acres	333	310			
All fruit acres (incl non-bearing)	276	267			
Bearing fruit acres	243	234			
Fresh- percent of all apple acres	57.65%	59.00%			
Apples produced (bushels)	144,698	158,637			
Apples sold (bushels)	144,698	158,637			
Worker Equivalent	14.45	14.7			
Rates of Production					
All apples, bushels per bearing acre	692.19	823.90			
Fresh - percent of apples harvested	44%	46%			
Cherries - tart, pounds per bearing acre	5273.78	7,500.00			
Cherries - sweet, pounds per bearing acre	3946.04	5,877.00			
Peaches - tons per bearing acre	3.42	5.50			
Plums/Prunes - tons per bearing acre	0.58	3.50			
Pears - tons per bearing acre	5.63	5.80			
Labor Efficiency					
Bearing fruit acres per worker	16.81	15.90			
All fruit acres per worker	19.08	18.20			
Accrual Receipts per worker	\$60,796	\$69,918			
Cost Control - Accrual					
Costs per bearing fruit acre					
All labor	\$1,454	\$1,599			
All equipment	\$594	\$675			
Spray	\$403	\$532			
Expansion orchard expense	\$25,289	\$30,241			
Hired labor as percent of operating expense	39.77%	38.00%			
Capital Efficiency					
Total farm capital per bearing fruit acre	\$7,782	\$8,435			
Total farm capital per fruit acre	\$6,855	\$6,667			
Capital Turnover Ratio	0.47	0.54			
Profitability					
Net farm income without appreciation	\$71,068	\$113,879			
Net farm income with appreciation	\$78,206	\$148,006			
Labor and management income per operator	\$6,520	\$27,195			
Rate of return on:					
Equity capital with appreciation	-1.68%	5.80%			
All capital with appreciation	0.69%	5.80%			
Financial Summary, End of Year					
Farm net worth	\$1,153,546	\$1,209,402			
Debt to asset ratio	0.38	0.37			
Farm debt per bearing fruit acre	\$2,865	\$3,196			
Cash flow coverage ratio	2.59	2.20			

NOTES

OTHER A.E.M. EXTENSION BULLETINS

EB No	Title	Fee (if applicable)	Author(s)
2007-14	Dairy Farm Business Summary, Central Valleys Region, 2006	(\$12.00)	Knoblauch, W., Karszes, J., Radick, C., Wickswat, C., Manning, J., Balbian, D., Allhusen, G., Buxton, S. and L. Putnam
2007-13	Dairy Farm Business Summary, Intensive Grazing Farms, New York, 2006	(\$16.00)	Conneman, G., Grace, J., Karszes, J., Degni, J., Munsee, D., Putnam, L., Staehr, A. and C. Kyle
2007-12	Quantifying the Contributions to Dairy Farm Business Risk: Implications for Producer's Risk Management Strategies		Schmit, T., Chang, H., Boisvert, R. and L. Tauer
2007-11	Dairy Farm Business Summary, Northern New York Region, 2006	(\$12.00)	Knoblauch, W., Putnam, L., Karszes, J., Murray, P., Vokey, F., Ames, M., Van Loo, W., Deming, A. and J. Prosper
2007-10	Dairy Farm Business Summary, Western and Central Plateau Region, 2006	(\$12.00)	Knoblauch, W., Putnam, L., Karszes, J., Grace, J., Munsee, D. and J.Petzen
2007-09	Dairy Farm Business Summary, New York Small Herd Farms, 80 Cows or Fewer, 2006	(\$16.00)	Knoblauch, W., Putnam, L., Kiraly, M. and J. Karszes
2007-08	Producing a Business Plan for Value-Added Agriculture		Streeter, D.
2007-07	Dairy Farm Business Summary, Northern Hudson Region, 2006	(\$12.00)	Conneman, G., Putnam, L., Wickswat, C., Buxton, S., Smith, R. and J. Karszes
2007-06	Dairy Farm Business Summary, Western and Central Plain Region, 2006	(\$12.00)	Knoblauch, W., Putnam, L., Karszes, J., Hanchar, J., Moag, G., Getty, K. and Z. Waite
2007-05	Dairy Farm Business Summary, New York Large Herd Farms, 300 Cows or Larger, 2006	(\$16.00)	Karszes, J., Knoblauch, W. and L. Putnam

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