

# **FRUIT FARM BUSINESS SUMMARY**

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## **LAKE ONTARIO REGION NEW YORK 1991**

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## **ABSTRACT**

This report is a summary of 1991 farm business data collected from 24 fruit farm businesses located, except for one, in Western New York State. Apples are the predominant fruit crop. The data are presented as averages for all 24 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.

## **ACKNOWLEDGEMENTS**

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# **1991 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 year. 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 1991.

The primary objective of the fruit farm business summary (FFBS) program is to help farm managers improve the financial management of their business through 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 farms in this study are primarily apple farms. An average of 74 percent of the receipts in 1991 was from the sale of apples. The data were not obtained from a random sample of all fruit farms in Western New York. Therefore, the analysis should not be used to represent 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 24 farms.

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 Three Year Comparison of selected business factors.

### Apple Production and Prices in Recent Years

Apple production for the State was 25.0 million bushels in 1991. Western New York growers produced 17.1 million bushels or about 68 percent of the total State crop. Statewide, production was up six percent and in Western New York it was up about 13 percent compared to 1990.

Twenty-five percent of the 1991 apple crop produced in Western New York was sold fresh. This was down from 36 percent of the crop for 1990. The 1991 fresh crop was 4.3 million bushels - down 22 percent from 1990. Processing apple production in Western New York increased 32 percent from 1990 to 12.9 million bushels for 1991. Seventy-five percent of the Western New York crop was processing apples.

Net Freight-On-Board (F.O.B.) prices received per bushel for fresh apples in Western New York averaged \$8.61 per bushel, slightly lower than in 1990. The bulk price for fresh apples was \$4.90 per bushel. Western New York processing apple prices averaged \$3.27 per bushel or 7.7 cents per pound in 1991, about the same as in 1990.

Statewide, fresh apple prices received by growers averaged \$8.44 per bushel net F.O.B., 96¢ per bushel higher than the average 1990 price. Processing apples, produced mostly in Western counties, averaged \$3.19 per bushel or 7.6¢ per pound for 1991.

Table 1. Apple Production and Prices, New York State, 1987-1991

| Item   | 1987 | 1988 | 1989 | 1990 | 1991 |
|--|------|------|------|------|------|
| <b>Production</b> ----- million bushels -----                          |      |      |      |      |      |
| Fresh Apples   |      |      |      |      |      |
| Western New York   | 4.5  | 3.5  | 5.2  | 5.5  | 4.3  |
| New York State   | 9.0  | 9.6  | 10.5 | 12.4 | 10.0 |
| Processing Apples  |      |      |      |      |      |
| Western New York   | 10.0 | 10.1 | 11.0 | 9.8  | 12.9 |
| New York State   | 11.9 | 12.0 | 12.4 | 11.2 | 15.0 |
| All Varieties  |      |      |      |      |      |
| Western New York   | 14.5 | 13.6 | 16.2 | 15.2 | 17.1 |
| New York State   | 21.0 | 21.7 | 22.9 | 23.6 | 25.0 |
| <b>Average Price Received</b> ----- dollars -----<br><b>Per Bushel</b> |      |      |      |      |      |
| Fresh Apples   |      |      |      |      |      |
| Western New York   |      |      |      |      |      |
| F.O.B. less pkg.,  |      |      |      |      |      |
| stg., etc.   | 5.92 | 6.09 | 6.03 | 8.65 | 8.61 |
| Bulk price   | 4.37 | 4.62 | 4.83 | 4.83 | 4.90 |
| Fruit Farm Business Sum.   | n.a. | 5.07 | 4.96 | 5.50 | 6.07 |
| New York State   |      |      |      |      |      |
| F.O.B. less pkg.,  |      |      |      |      |      |
| stg., etc.   | 6.19 | 6.43 | 6.22 | 7.48 | 8.44 |
| Bulk price   | 4.37 | 4.62 | 4.83 | 4.83 | 4.90 |
| Processing Apples  |      |      |      |      |      |
| Western New York   | 2.42 | 3.15 | 2.87 | 3.25 | 3.27 |
| Fruit Farm Business Sum.   | n.a. | 2.86 | 2.93 | 3.34 | 3.01 |
| New York State   | 2.39 | 3.02 | 2.81 | 3.15 | 3.19 |

Source: New York Agricultural Statistics Service, FRUIT series, Seasonal releases for July 1988, 1989, 1990, 1991, and 1992 and the annual Fruit Farm Business Summaries.

## SUMMARY AND ANALYSIS OF THE FARM BUSINESS

### Business Characteristics

Finding the right management strategies is an important part of operating a successful farm business. Various combinations of farm resources, enterprises, business arrangements, and management techniques are used by the fruit farmers in Western New York. The following table shows important farm business characteristics and the number of farmers reporting these characteristics.

Table 2. Business Characteristics, 24 Western New York Fruit Farms, 1991

| <u>Type of Business</u> | <u>Number</u> | <u>Business Record System</u> | <u>Number</u> |
|-------------------------|---------------|-------------------------------|---------------|
| Proprietors             | 6             | Account Book                  | 4             |
| Partnerships            | 8             | AgriFax (mail-in)             | 0             |
| Corporations            | 10            | On-Farm Computer              | 20            |
|                         |               | Other                         | 0             |

---

| <u>Business Composition</u>            | <u>Number</u> |
|--|---------------|
| Fruit production only                  | 8             |
| Fruit with storage                     | 3             |
| Fruit & other enterprises              | 4             |
| Fruit with storage & other enterprises | 9             |

### 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 3 presents the balance sheet data for the 24 fruit farm cooperators. It lists the average value of assets and liabilities for December 31, 1990 and December 31, 1991 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 4 provides a format for the reader to use to develop a balance sheet for an individual farm business.

Table 3. Farm Business Balance Sheet, 24 Western New York Fruit Farms,  
December 31, 1990 & 1991

| Farm Assets          | 1990          | 1991          | Farm Liabilities<br>& Net Worth               | 1990         | 1991         |
|----------------------|---------------|---------------|---|--------------|--------------|
| <u>Current</u>       | \$            | \$            | <u>Current = &lt; 1 year</u>                  | \$           | \$           |
| Cash, checking, sav. | 16,532        | 20,948        | Accounts payable                              | 14,878       | 7,289        |
| Accounts receivable  | 82,817        | 148,907       | Operating debt                                | 44,618       | 56,933       |
| Prepaid expenses     | 2,178         | 8,052         | Short-term                                    | 13,460       | 1,338        |
| Fruit, other crops   | 106,880       | 98,047        | Advanced gov't receipts                       | 0            | 0            |
| Production supplies  | 5,785         | 9,136         | Accrued interest                              | <u>0</u>     | <u>0</u>     |
| Packing supplies     | <u>816</u>    | <u>1,138</u>  |   |              |              |
| Total Current        | 215,007       | 286,227       | Total Current                                 | 72,955       | 65,558       |
| <u>Intermediate</u>  |               |               | <u>Intermediate = &gt; 1 to &lt; 10 years</u> |              |              |
| Livestock            | 0             | 0             | Structured debt                               | 28,555       | 39,287       |
| Livestock leased     | 0             | 0             | Financial lease-livestock                     |              |              |
| Equipment owned      | 149,588       | 169,322       | equipment                                     | 3,749        | 3,142        |
| Equipment leased     | 3,749         | 3,142         | Farm Credit                                   | <u>4,780</u> | <u>4,756</u> |
| Farm Credit stock    | 4,780         | 4,756         |   |              |              |
| Other stock, cert.   | <u>42,305</u> | <u>48,315</u> |   |              |              |
| Total Intermediate   | 200,422       | 225,535       | Total Intermediate                            | 37,085       | 47,184       |
| <u>Long-Term</u>     |               |               | <u>Long-Term = &gt; 10 years</u>              |              |              |
| Land/Buildings:      |               |               | Structured debt                               | 104,411      | 108,239      |
| Owned                | 364,541       | 381,903       | Financial lease -                             |              |              |
| Structures leased    | <u>0</u>      | <u>0</u>      | structures                                    | <u>0</u>     | <u>0</u>     |
| Total Long-Term      | 364,541       | 381,903       | Total Long-Term                               | 104,411      | 108,239      |
| Total Farm:          |               |               | Total Farm:                                   |              |              |
| Assets               | 779,971       | 893,665       | Liabilities                                   | 214,451      | 220,981      |
|                      |               |               | Net Worth                                     | 565,520      | 672,684      |
|                      |               |               | Liabilities &                                 |              |              |
|                      |               |               | Net Worth                                     | 779,971      | 893,665      |



Table 4. Farm Business Balance Sheet, My Farm, December 31, 1990 &amp; 1991

| Farm Assets             | 1990  | 1991  | Farm Liabilities<br>& Net Worth                   | 1990  | 1991  |
|-------------------------|-------|-------|---|-------|-------|
| <b>Current</b>          | \$    | \$    | <b>Current = &lt; 1 year</b>                      | \$    | \$    |
| Cash, checking, sav.    | _____ | _____ | Accounts payable                                  | _____ | _____ |
| Accounts receivable     | _____ | _____ | Operating debt                                    | _____ | _____ |
| Prepaid expenses        | _____ | _____ | Short-term  | _____ | _____ |
| Fruit, other crops      | _____ | _____ |   | _____ | _____ |
| Production supplies     | _____ | _____ |   | _____ | _____ |
| Packing supplies        | _____ | _____ | Advanced gov't receipts                           | _____ | _____ |
|                         |       |       | Accrual interest                                  | _____ | _____ |
| Total Current           |       |       | Total Current                                     | _____ | _____ |
| <br><b>Intermediate</b> |       |       | <br><b>Intermediate = &gt; 1 to &lt; 10 years</b> |       |       |
| Livestock               | _____ | _____ | Structured debt                                   | _____ | _____ |
| Livestock leased        | _____ | _____ |   | _____ | _____ |
| Equipment owned         | _____ | _____ |   | _____ | _____ |
| Equipment leased        | _____ | _____ |   | _____ | _____ |
| Farm Credit stock       | _____ | _____ |   | _____ | _____ |
| Other stock, cert.      | _____ | _____ | Financial lease-livestock,<br>equipment           | _____ | _____ |
|                         |       |       | Farm Credit stock                                 | _____ | _____ |
| Total Intermediate      | _____ | _____ | Total Intermediate                                | _____ | _____ |
| <b>Long-Term</b>        |       |       | <b>Long-Term = &gt; 10 years</b>                  |       |       |
| Land/Buildings:         |       |       | Structured debt                                   | _____ | _____ |
| Owned                   | _____ | _____ |   | _____ | _____ |
| Structures leased       | _____ | _____ |   | _____ | _____ |
|                         |       |       | Financial lease-struct.                           | _____ | _____ |
| Total Long-Term         | _____ | _____ | Total Long-Term                                   | _____ | _____ |
|                         |       |       | Total Farm:                                       |       |       |
|                         |       |       | Liabilities                                       | _____ | _____ |
|                         |       |       | Net Worth   | _____ | _____ |
| Total Farm<br>Assets    | _____ | _____ | Liabilities &<br>Net Worth                        | _____ | _____ |

The 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. Debt levels per unit of production include some old standards that are still useful if used with measures of cash flow and repayment ability. The change in farm net worth without appreciation is an excellent indicator of financial progress from operating the business.

Table 5. Farm Business Balance Sheet Analysis, 24 Western New York Fruit Farms, December 31, 1991

| Item   | 24 Farms 1991 | My Farm  |
|--|---------------|----------|
| ----- For the Farm Business Only -----       |               |          |
| <b><u>Financial Ratios</u></b> - end of year |               |          |
| Percent equity                               | 75%           | _____ %  |
| Debt to asset ratios:                        |               |          |
| Total debt                                   | 0.25          | _____    |
| Long-term                                    | 0.28          | _____    |
| Current & intermediate                       | 0.22          | _____    |
| <b><u>Change in Net Worth</u></b>            |               |          |
| Without appreciation                         | \$87,206      | \$ _____ |
| With appreciation                            | \$107,164     | \$ _____ |
| <b><u>Debt Analysis</u></b> - end of year    |               |          |
| Percent of total farm debt that is:          |               |          |
| Long-term                                    | 49%           | _____ %  |
| Current & intermediate                       | 51%           | _____ %  |
| Accounts payable only                        | 3%            | _____ %  |
| <b><u>Debt Levels</u></b> - end of year      |               |          |
| Per bearing fruit acre:                      |               |          |
| Total farm debt                              | \$1,059       | \$ _____ |
| Long-term                                    | \$519         | \$ _____ |
| Current & intermediate                       | \$540         | \$ _____ |

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 6. Farm Inventory Balance, 24 Western New York Fruit Farms, 1991

| Inventory Balance          | 24 Fruit Farms      |           | My Farm     |           |
|----------------------------|---------------------|-----------|-------------|-----------|
|                            | Real Estate         | Equipment | Real Estate | Equipment |
| Beginning of year (1)      | \$364,541           | \$149,588 | \$_____     | \$_____   |
| Purchases                  | 19,642 <sup>1</sup> | \$29,610  | _____       | _____     |
| + Noncash transfer to farm | 0                   | 0         | _____       | _____     |
| - Lost capital             | 2,102               | 0         | _____       | _____     |
| - Sales                    | 0                   | 1,629     | _____       | _____     |
| - Depreciation             | 9,949               | 16,474    | _____       | _____     |
| = Net investment (2)       | \$7,591             | \$11,506  | _____       | _____     |
| Appreciation (3 - 1 - 2)   | 9,770 <sup>2</sup>  | 8,229     | _____       | _____     |
| End of year (3)            | \$381,903           | \$169,322 | _____       | _____     |

<sup>1</sup>Purchase includes \$9,250 for land and \$10,392 for buildings.

<sup>2</sup>Real estate appreciation excludes \$208 of appreciation on assets sold during the year.

### 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 is provided to enable any fruit farmer to compare his or her expenses with the group averages in the corresponding table.

**Table 7. Income Statement - Farm Expenses, 24 Western New York Fruit Farms, 1991**

| <b>Expenses</b>               | <b>Cash<br/>amount<br/>paid +</b> | <b>Change in<br/>inventory<br/>or prepaid<br/>expenses +</b> | <b>Change in<br/>accounts<br/>payable =</b> | <b>Accrual<br/>expenses</b> |
|-------------------------------|-----------------------------------|--|---|-----------------------------|
| <b>Hired Labor</b>            |                                   |  |   |                             |
| Wages: regular                | \$36,196                          | \$ 0   | \$ 318                                      | \$ 36,515                   |
| picking                       | 60,784                            | 0  | 0   | 60,784                      |
| other part-time,              |                                   |  |   |                             |
| seasonal                      | 28,191                            | 0  | 0   | 28,191                      |
| Other labor costs             | 28,492                            | (391)  | 22  | 28,123                      |
| Picker travel                 | 1,045                             | 0  | 0   | 1,045                       |
| Labor camp expenses           | 2,947                             | 0  | 14  | 2,961                       |
| <b>Equipment</b>              |                                   |  |   |                             |
| Machine hire, rent, lease     | 13,624                            | 0  | 37  | 13,661                      |
| Repairs & parts               | 23,823                            | (713)  | (89)  | 23,021                      |
| Auto expense - farm share     | 1,029                             | (26)   | 0   | 1,002                       |
| Fuel, oil & grease            | 11,703                            | (500)  | (3)   | 11,200                      |
| <b>Livestock</b>              |                                   |  |   |                             |
| All livestock expenses        | 0                                 | 0  | 0   | 0                           |
| <b>Crops</b>                  |                                   |  |   |                             |
| Fertilizer & lime             | 12,521                            | (80)   | 0   | 12,441                      |
| Replacement trees & plants    | 1,851                             | 0  | 0   | 1,851                       |
| Spray                         | 61,764                            | (1,811)  | (3,208)                                     | 56,745                      |
| Supplies, other prod. expense | 10,046                            | (285)  | 0   | 9,761                       |
| Processing & packing supplies | 2,379                             | (322)  | 919   | 2,976                       |
| Storage                       | 10,395                            | (1,042)  | 1,383                                       | 10,736                      |
| Marketing, selling expenses   | 799                               | 0  | 0   | 799                         |
| <b>Real Estate</b>            |                                   |  |   |                             |
| Repair - land, bldg., fences  | 6,348                             | 38   | 1   | 6,386                       |
| Taxes                         | 7,960                             | (27)   | (69)  | 7,864                       |
| Rent & lease                  | 7,843                             | (63)   | (33)  | 7,747                       |
| <b>Other Expenses</b>         |                                   |  |   |                             |
| <b>Insurance:</b>             |                                   |  |   |                             |
| fire, liability               | 5,442                             | (54)   | 0   | 5,388                       |
| crop                          | 326                               | 0  | 0   | 326                         |
| Telephone - farm share        | 931                               | 0  | (1)   | 930                         |
| Electricity - farm share      | 6,187                             | 0  | 40  | 6,227                       |
| Fruit purchased for resale    | 16,193                            | 0  | (6,924)                                     | 9,269                       |
| Interest paid                 | 15,973                            | 0  | 0   | 15,973                      |
| Miscellaneous                 | 9,529                             | 0  | 3   | 9,532                       |
| <b>TOTAL OPERATING EXP.</b>   | <b>\$384,319</b>                  | <b>\$(5,275)</b>   | <b>\$(7,589)</b>                            | <b>\$371,455</b>            |
| Expansion orchard             | \$10,404                          | \$226  | \$0   | 10,630                      |
| <b>Depreciation:</b>          |                                   |  |   |                             |
| equipment                     |                                   |  |   | 16,474                      |
| buildings                     |                                   |  |   | 4,439                       |
| bearing trees & vines         |                                   |  |   | <u>5,510</u>                |
| <b>TOTAL ACCRUAL EXPENSES</b> |                                   |  |   | <b>\$408,509</b>            |



Table 9. Income Statement, Farm Receipts, 24 Western New York Fruit Farms, 1991

| Receipts                                       | Cash receipts +  | Change in inventory <sup>1</sup> + | Change in accounts receivable + | Accrual receipts = |
|--|------------------|------------------------------------|---------------------------------|--------------------|
| Apples: fresh                                  | \$199,561        | \$ 741                             | \$25,644                        | \$225,946          |
| processing                                     | 176,999          | (9,987)                            | 19,225                          | 186,236            |
| Cherries: sweet                                | 9,647            |                                    | 0                               | 9,647              |
| tart   | 65,544           |                                    | 21,849                          | 87,393             |
| Grapes   | 353              |                                    | 0                               | 353                |
| Peaches  | 3,705            |                                    | 188                             | 3,892              |
| Pears  | 6,207            |                                    | 1,188                           | 7,395              |
| Plums & prunes                                 | 3,416            |                                    | 298                             | 3,714              |
| All other fruit                                | 2,082            | 0                                  | 0                               | 2,082              |
| Other crops, livestock & prod.                 | 535              | 413                                | 0                               | 948                |
| Custom work, storage, rent                     | 20,239           |                                    | 953                             | 21,193             |
| Other - including government receipts, refunds | 8,354            | 0 <sup>2</sup>                     | 64                              | 8,418              |
| - Non-farm non-cash capital                    |                  | 0 <sup>3</sup>                     |                                 | 0                  |
| <b>TOTAL OPERATING RECEIPTS</b>                | <b>\$496,642</b> | <b>\$(8,833)</b>                   | <b>\$69,408</b>                 | <b>\$557,217</b>   |

<sup>1</sup>Change in crop and livestock products inventory.<sup>2</sup>Change in advanced government receipts.<sup>3</sup>Gifts and inheritances of livestock and crops to the farm business.

**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 10. Income Statement, Farm Receipts, My Farm, 1991

| Receipts                                       | Cash receipts + | Change in inventory + | Change in accounts receivable + | Accrual receipts = |
|--|-----------------|-----------------------|---------------------------------|--------------------|
| Apples: fresh                                  | \$ _____        | \$ _____              | \$ _____                        | \$ _____           |
| processing                                     | _____           | _____                 | _____                           | _____              |
| Cherries: sweet                                | _____           | _____                 | _____                           | _____              |
| tart   | _____           | _____                 | _____                           | _____              |
| Grapes   | _____           | _____                 | _____                           | _____              |
| Peaches  | _____           | _____                 | _____                           | _____              |
| Pears  | _____           | _____                 | _____                           | _____              |
| Plums & prunes                                 | _____           | _____                 | _____                           | _____              |
| All other fruit                                | _____           | _____                 | _____                           | _____              |
| Other crops, livestock & prod.                 | _____           | _____                 | _____                           | _____              |
| Custom work, storage, rent                     | _____           | _____                 | _____                           | _____              |
| Other - including government receipts, refunds | _____           | _____                 | _____                           | _____              |
| - Non-farm non-cash capital                    |                 | (-) _____             |                                 | (-) _____          |
| <b>TOTAL OPER. RECEIPTS</b>                    | <b>\$ _____</b> | <b>\$ _____</b>       | <b>\$ _____</b>                 | <b>\$ _____</b>    |

### 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 11. Net Farm Income, 24 Western New York Fruit Farms, 1991

| Item                                       | 24 Farms 1991   | My Farm  |
|--|-----------------|----------|
| Total accrual receipts                     | \$557,217       | \$ _____ |
| + Appreciation:                            |                 |          |
| Livestock                                  | (413)           | _____    |
| Equipment                                  | 8,229           | _____    |
| Real estate                                | 9,979           | _____    |
| Other - Stocks & certificates              | <u>+2,164</u>   | + _____  |
| = Total accrual receipts with appreciation | \$577,175       | \$ _____ |
| - Total accrual expenses                   | <u>-408,509</u> | - _____  |
| = Net farm income with appreciation        | \$168,666       | \$ _____ |
| Net farm income without appreciation       | \$148,708       | \$ _____ |

**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 12. Return to Operators' Labor, Management, and Equity Capital  
24 Western New York Fruit Farms, 1991

| Item   | 24 Farms 1991 | My Farm  |
|--|---------------|----------|
| With appreciation:                                 |               |          |
| Net farm income                                    | \$168,666     | \$ _____ |
| - Family unpaid labor @ \$1,300 per month          | <u>-1,235</u> | - _____  |
| = Return to operators' labor, management, & equity | \$167,431     | \$ _____ |
| Without appreciation:                              |               |          |
| Net farm income                                    | \$148,708     | \$ _____ |
| - Family unpaid labor @ \$1,300 per month          | <u>-1,235</u> | - _____  |
| = Return to operators' labor, management, & equity | \$147,473     | \$ _____ |

**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 13. Labor & Management Income, 24 Western New York Fruit Farms, 1991

| Item   | 24 Farms 1991  | My Farm  |
|--|----------------|----------|
| Without appreciation:                            |                |          |
| Return to operators' labor, management, & equity | \$147,473      | \$ _____ |
| - Real interest @ 5% on average equity capital   | <u>-30,955</u> | _____    |
| = Labor & management income per farm             | \$116,518      | \$ _____ |
| Labor & management income per operator           | \$70,454       | \$ _____ |

**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.



Table 14. Return on Equity Capital and Return on Total Capital,  
24 Western New York Fruit Farms, 1991

| Item   | 24 Farms 1991  | My Farm  |
|--|----------------|----------|
| Average number of bearing acres                            | 209            | _____    |
| Average equity capital                                     | \$619,102      | \$ _____ |
| Average total capital                                      | \$836,818      | \$ _____ |
| Returns with appreciation:                                 |                |          |
| Return to operators' labor, management<br>& equity capital | \$167,431      | \$ _____ |
| - Value of operators' labor & management                   | <u>-47,540</u> | - _____  |
| = Return on average equity capital                         | \$119,891      | \$ _____ |
| + Interest paid  | <u>+15,973</u> | + _____  |
| = Return on average total capital                          | \$135,864      | \$ _____ |
| Rates of return on:  |                |          |
| Average equity capital                                     | 19.4%          | _____ %  |
| Average total capital                                      | 16.2%          | _____ %  |
| Returns without appreciation:                              |                |          |
| Return on average equity capital<br>with appreciation      | \$119,891      | \$ _____ |
| - Total appreciation                                       | <u>-19,958</u> | - _____  |
| = Return on average equity capital                         | \$ 99,933      | \$ _____ |
| + Interest paid  | <u>+15,973</u> | + _____  |
| = Return on average total capital                          | \$115,906      | \$ _____ |
| Rates of return on:  |                |          |
| Average equity capital                                     | 16.1%          | _____ %  |
| Average total capital                                      | 13.9%          | _____ %  |

### 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 15. By definition, total cash inflows must equal total cash outflows when beginning and end balances are included. Any imbalance is, therefore, the error from incorrect accounting of cash inflows and cash outflows.

Table 15. Annual Cash Flow Statement, 24 Western New York Fruit Farms, 1991

| Item  | 24 Farms 1991 | My Farm  |
|---|---------------|----------|
| <b><u>Cash Inflows</u></b>  |               |          |
| Beginning farm cash, checking, & savings  | \$ 16,532     | \$ _____ |
| Cash farm receipts  | 497,280       | _____    |
| Sale of assets:   |               |          |
| Equipment   | 1,629         | _____    |
| Real estate   | 183           | _____    |
| Other stocks & certificates   | 1,020         | _____    |
| Money borrowed:   |               |          |
| Increase in operating debt  | 12,315        | _____    |
| Short-term  | 4,937         | _____    |
| Intermediate  | 17,635        | _____    |
| Long-term   | 13,740        | _____    |
| Refinanced debt   | 0             | _____    |
| Non-farm:   |               |          |
| Income  | 2,065         | _____    |
| Capital used in business  | 791           | _____    |
| Money borrowed  | <u>38</u>     | _____    |
| Total Cash Inflows  | \$568,164     | \$ _____ |
| <b><u>Cash Outflows</u></b>   |               |          |
| Cash farm expenses (excluding interest paid)  | \$368,347     | \$ _____ |
| Capital purchases:  |               |          |
| Expansion orchard   | 10,404        | _____    |
| Equipment   | 29,610        | _____    |
| Real estate   | 19,642        | _____    |
| Other stocks & certificates   | 4,867         | _____    |
| Debt payments:  |               |          |
| Principal payments for -  |               |          |
| Decrease in operating debt  | 0             | _____    |
| Short-term  | 17,058        | _____    |
| Intermediate  | 6,904         | _____    |
| Long-term   | 9,890         | _____    |
| Refinanced  | 0             | _____    |
| Interest paid   | 15,973        | _____    |
| Personal withdrawals & family expenditures including non-farm debt payments & crop operator labor costs | 63,619        | _____    |
| Ending farm cash, checking & savings  | <u>20,948</u> | _____    |
| Total Cash Outflows   | \$567,260     | \$ _____ |
| Imbalance (error)   | \$904         | \$ _____ |

### 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 16. Farm Debt Payments Planned, 24 Western New York Fruit Farms, 1991

| Debt Payments                   | 24 Fruit Farms                      |  |                        | My Farm                |                            |                        |
|---------------------------------|-------------------------------------|--|------------------------|------------------------|----------------------------|------------------------|
|                                 | Planned<br>for<br>1991 <sup>1</sup> | Actual<br>Payments<br>in 1991 <sup>2</sup> | Planned<br>for<br>1992 | Planned<br>for<br>1991 | Actual<br>payments<br>1991 | Planned<br>for<br>1992 |
| Accts. payable (net reduction)  | \$ 1,667                            | \$ 7,589                                   | \$ 1,454               | \$ _____               | \$ _____                   | \$ _____               |
| Operating (net reduction)       | 8,784                               | 0  | 19,835                 | _____                  | _____                      | _____                  |
| Short-term (principal & int.)   | 17                                  | 17,255                                     | 686                    | _____                  | _____                      | _____                  |
| Intermediate (principal & int.) | 8,620                               | 10,463                                     | 6,498                  | _____                  | _____                      | _____                  |
| Long-term (principal & int.)    | <u>16,203</u>                       | <u>16,897</u>                              | <u>15,815</u>          | _____                  | _____                      | _____                  |
| Total debt payments             | \$35,290                            | \$52,205                                   | \$44,288               | \$ _____               | \$ _____                   | \$ _____               |
| Payments as a percent of:       |                                     |  |                        |                        |                            |                        |
| Total accrual receipts          | 6%                                  | 9%   |                        | _____ %                | _____ %                    |                        |
| Total accrual fruit receipts    | 7%                                  | 10%  |                        |                        |                            |                        |
| Payments per acre of:           |                                     |  |                        |                        |                            |                        |
| bearing fruit                   | \$169                               | \$250                                      |                        | \$ _____               | \$ _____                   |                        |
| all fruit                       | \$152                               | \$224                                      |                        | \$ _____               | \$ _____                   |                        |
| Payments/bushel of apples sold  | \$0.36                              | \$0.53                                     |                        | \$ _____               | \$ _____                   |                        |

<sup>1</sup>If on the Fruit Farm Business Summary the previous year.

<sup>2</sup>Actual payments excluding refinanced debt.

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 to many farmers and lenders is whether planned payments can be made in 1992. The worksheet provided in Table 18 can be used to estimate repayment ability which can then be compared to planned 1992 debt payments shown in Table 16.

Table 17. Cash Flow Coverage Ratio, 24 Western New York Fruit Farms, 1991

| Item  | 24 Farms 1991 | My Farm  |
|---|---------------|----------|
| Cash farm receipts                                | \$497,280     | \$ _____ |
| - Cash farm expenses                              | 384,319       | _____    |
| + Interest paid                                   | 15,973        | _____    |
| - Net personal withdrawals from farm <sup>1</sup> | <u>61,516</u> | _____    |
| = Amount available for debt service (1)           | \$67,417      | \$ _____ |
| Debt payments planned (2)                         | \$35,290      | \$ _____ |
| Cash Flow Coverage Ratio (1 ÷ 2)                  | 1.91          | _____    |

<sup>1</sup>Personal withdrawals and family expenditures less non-farm income and non-farm money borrowed.

Table 18. Annual Cash Flow Worksheet, 1991 and 1992 Projection

| Item   | Average<br>24 Farms | My Farm, 1991 |                       | Expected<br>change | 1992<br>projection |
|--|---------------------|---------------|-----------------------|--------------------|--------------------|
|  |                     | Total         | Per bear-<br>ing acre |                    |                    |
| Average bearing acres of fruit                     | 209                 |               |                       |                    |                    |
| <b>Accrual Operating Receipts</b>                  |                     |               |                       |                    |                    |
| Apples: Fresh                                      | \$1,082             | \$            | \$                    | \$                 | \$                 |
| Processing   | 892                 |               |                       |                    |                    |
| All other fruit                                    | 548                 |               |                       |                    |                    |
| Other crops, livestock & products                  | 5                   |               |                       |                    |                    |
| Custom work, storage & rent                        | 102                 |               |                       |                    |                    |
| Other - including government<br>receipts, refunds  | 40                  |               |                       |                    |                    |
| Total Operating Receipts                           | \$2,669             | \$            | \$                    | \$                 | \$                 |
| <b>Accrual Operating Expenses</b>                  |                     |               |                       |                    |                    |
| Labor: Wages --                                    |                     |               |                       |                    |                    |
| regular  | 175                 |               |                       |                    |                    |
| picking  | 291                 |               |                       |                    |                    |
| other part-time, seasonal                          | 135                 |               |                       |                    |                    |
| Other labor costs                                  | 135                 |               |                       |                    |                    |
| Picker travel, labor camp exp.                     | 19                  |               |                       |                    |                    |
| Equip: Machine hire, rent, lease                   | 65                  |               |                       |                    |                    |
| Repairs, parts & auto exp.                         | 115                 |               |                       |                    |                    |
| Fuel, oil & grease                                 | 54                  |               |                       |                    |                    |
| Livestock: All livestock expense                   | 0                   |               |                       |                    |                    |
| Crops: Fertilizer & lime                           | 60                  |               |                       |                    |                    |
| Replacement trees & plants                         | 9                   |               |                       |                    |                    |
| Spray  | 272                 |               |                       |                    |                    |
| Supplies, other prod. exp.                         | 47                  |               |                       |                    |                    |
| Storage  | 51                  |               |                       |                    |                    |
| Packing supplies, marketing,<br>selling exp.       | 18                  |               |                       |                    |                    |
| Real Est.: Repair - land, bldg., fences            | 31                  |               |                       |                    |                    |
| Taxes  | 38                  |               |                       |                    |                    |
| Rent & lease                                       | 37                  |               |                       |                    |                    |
| Other: Insurance - fire, liab., crop               | 27                  |               |                       |                    |                    |
| Utilities - phone, elec.                           | 34                  |               |                       |                    |                    |
| Resale items - fruit, etc.                         | 44                  |               |                       |                    |                    |
| Miscellaneous                                      | 46                  |               |                       |                    |                    |
| Total Operating Expenses<br>Excluding Interest     | \$1,703             | \$            | \$                    | \$                 | \$                 |
| <b>Repayment Analysis</b>                          |                     |               |                       |                    |                    |
| Net accrual operating income<br>excluding interest | \$207,735           | \$            |                       |                    | \$                 |
| - Change in livestock & crop inv.                  | -8,833              |               |                       |                    |                    |
| - Change in accounts receivable                    | 69,408              |               |                       |                    |                    |
| + Change in crop & supply inv.                     | -5,275              |               |                       |                    |                    |
| + Change in accounts payable<br>excluding interest | -7,589              |               |                       |                    |                    |
| Net Operating Cash Flow                            | \$128,295           | \$            |                       |                    | \$                 |
| - Net personal withdrawals                         | -61,516             |               |                       |                    |                    |
| Available for debt payments, invest.               | \$66,779            | \$            |                       |                    | \$                 |
| - Farm debt payments: principal<br>& interest      | 52,205              |               |                       |                    |                    |
| Available for farm investment                      | \$14,575            | \$            |                       |                    | \$                 |
| Capital purchases                                  | \$64,523            | \$            |                       |                    | \$                 |
| Additional capital needed                          | \$49,948            | \$            |                       |                    | \$                 |

### Capital Efficiency Analysis

Capital efficiency factor 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.

Table 19. Capital Efficiency Analysis, 24 Western New York Fruit Farms, 1991

| Item | Per worker<br>equivalent | Average Capital Investment |          |                        |
|------|--------------------------|----------------------------|----------|------------------------|
|      |                          | Per Bearing Acre:          |          | Per all<br>fruit acres |
|      |                          | Owned                      | Operated |                        |

#### Assets

|                    |          |         |         |         |
|--------------------|----------|---------|---------|---------|
| Total farm capital | \$88,793 | \$5,741 | \$4,009 | \$3,596 |
| Real estate        | 39,602   | 2,561   | n/a     | 1,604   |
| All equipment      | 8,103    | n/a     | 366     | 328     |

Capital turnover, years 1.45

#### My Farm:

|                    |          |          |          |          |
|--------------------|----------|----------|----------|----------|
| Total farm capital | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Real estate        | _____    | _____    | _____    | _____    |
| All equipment      | _____    | _____    | _____    | _____    |

Capital turnover, years \_\_\_\_\_

### Equipment Analysis

Equipment costs comprise nearly 20 percent of the cost of fruit production. Total equipment expenses include the major fixed costs (interest and depreciation) as well as the accrual operating costs.

Table 20. Accrual Equipment Expenses, 24 Western New York Fruit Farms, 1991

| Item | Average 24 Fruit Farms  |  |           | My Farm                 |  |           |
|------|-------------------------|--|-----------|-------------------------|--|-----------|
|      | Total<br>equip.<br>cost | Equipment cost per<br>fruit acre operated: |           | Total<br>equip.<br>cost | Equipment cost per<br>fruit acre operated: |           |
|      |                         | Bearing                                    | All fruit |                         | Bearing                                    | All fruit |

#### Annual Accrual Cost

|                                     |               |           |           |          |          |          |
|-------------------------------------|---------------|-----------|-----------|----------|----------|----------|
| Machine hire, equip.<br>rent, lease | \$13,661      | \$ 65     | \$ 59     | \$ _____ | \$ _____ | \$ _____ |
| Repair & parts                      | 23,021        | 110       | 99        | _____    | _____    | _____    |
| Auto exp. - farm share              | 1,002         | 5         | 4         | _____    | _____    | _____    |
| Fuel, oil & grease                  | 11,200        | 54        | 48        | _____    | _____    | _____    |
| Interest - avg. cap. @5%            | 7,973         | 38        | 34        | _____    | _____    | _____    |
| Depreciation                        | <u>16,474</u> | <u>79</u> | <u>71</u> | _____    | _____    | _____    |
| Total Equipment Cost                | \$73,331      | \$351     | \$315     | \$ _____ | \$ _____ | \$ _____ |

### 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.

Table 21. Labor Force Inventory and Analysis, 24 Western New York Fruit Farms, 1991

| Labor Force               | Full-time months | Age, years                      | Years of Education | Value of labor/mgmt. |
|---------------------------|------------------|---------------------------------|--------------------|----------------------|
| <b>Average:</b>           |                  |                                 |                    |                      |
| Operator -                |                  |                                 |                    |                      |
| number 1                  | 10.8             | 45                              | 15                 | \$26,003             |
| number 2                  | 5.4              | 40                              | 14                 | 12,658               |
| number 3                  | 3.4              | 37                              | 14                 | 8,149                |
| number 4                  | 0.3              | 50                              | 14                 | 730                  |
| Family unpaid             | 1.0              |                                 |                    | Total \$47,540       |
| Family paid               | 2.8              |                                 |                    | Avg./oper. \$28,812  |
| Hired -                   |                  |                                 |                    |                      |
| regular                   | 24.1             |                                 |                    |                      |
| picking                   | 38.1             |                                 |                    |                      |
| other part-time, seasonal | <u>27.3</u>      |                                 |                    |                      |
| Total                     | 113.1            | mo./12 = 9.42 worker equivalent |                    |                      |
|                           |                  | 1.65 oper./manager equiv.       |                    |                      |

### My Farm:

Total \_\_\_\_\_ mo./12 = \_\_\_\_\_ worker equivalent  
 Operators \_\_\_\_\_ mo./12 = \_\_\_\_\_ oper./manager equiv.

| Labor Efficiency       | Average   |            | My Farm  |            |
|------------------------|-----------|------------|----------|------------|
|                        | Total     | Per Worker | Total    | Per worker |
| Bearing fruit, acres   | 208.7     | 22.1       | _____    | _____      |
| Total fruit, acres     | 232.7     | 24.7       | _____    | _____      |
| Apples sold, bushels   | 99,713    | 10,580     | _____    | _____      |
| Accrual receipts       | \$557,217 | \$59,125   | \$ _____ | \$ _____   |
| Accrual fruit receipts | \$526,658 | \$55,883   | \$ _____ | \$ _____   |

### Labor Cost or Value

| Type                                     | Annual Accrual Cost |                   |                  |          |                   |                  |
|--|---------------------|-------------------|------------------|----------|-------------------|------------------|
|  | Average 24 Farms    |                   |                  | My Farm  |                   |                  |
|  | Total               | Per worker equiv. | Per bearing acre | Total    | Per worker equiv. | Per bearing acre |
| Value of operator(s) labor @ \$1,300/mo. | \$ 25,800           | \$ 15,600         | \$ 124           | \$ _____ | \$ _____          | \$ _____         |
| Family unpaid @ \$1,300/mo.              | 1,235               | 15,600            | 6                | _____    | _____             | _____            |
| Family paid (excl. operator)             | 3,630               | 15,488            | 17               | _____    | _____             | _____            |
| Hired -                                  |                     |                   |                  |          |                   |                  |
| regular (excluding operator)             | 43,819              | 21,777            | 210              | _____    | _____             | _____            |
| picking                                  | 77,984              | 24,572            | 374              | _____    | _____             | _____            |
| other part-time, seasonal                | <u>32,966</u>       | <u>14,515</u>     | <u>588</u>       | _____    | _____             | _____            |
| All labor (incl. non-cash)               | \$185,433           | \$19,676          | \$ 888           | \$ _____ | \$ _____          | \$ _____         |
| All equipment cost                       | <u>73,331</u>       | <u>7,781</u>      | <u>351</u>       | _____    | _____             | _____            |
| Total labor & equip. cost                | \$258,764           | \$27,457          | \$1,240          | \$ _____ | \$ _____          | \$ _____         |

### 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.

Table 22. Land Resources and Crop Production, 24 Western New York Fruit Farms, 1991

| Item                            | Average 24 Farms            |                  |                   | My Farm        |                   |       |
|---------------------------------|-----------------------------|------------------|-------------------|----------------|-------------------|-------|
|                                 | Owned                       | Rented           | Total             | Owned          | Rented            | Total |
| <b>Land Class (end of year)</b> |                             |                  |                   |                |                   |       |
| Bearing fruit, acres            | 145.8                       | 63.0             | 208.7             | _____          | _____             | _____ |
| Non-bearing fruit, acres        | 17.7                        | 6.2              | 23.9              | _____          | _____             | _____ |
| Other crops, open, acres        | 19.2                        | 4.8              | 24.0              | _____          | _____             | _____ |
| Non-tillable pasture, acres     | 6.4                         | 0.5              | 6.9               | _____          | _____             | _____ |
| Other non-tillable, acres       | 35.7                        | 7.8              | 43.5              | _____          | _____             | _____ |
| Total land operated             | 224.8                       | 82.3             | 307.1             | _____          | _____             | _____ |
|                                 |                             |                  |                   |                |                   |       |
| <b>Crop Production</b>          | For farms having the fruit: |                  |                   | Total<br>acres | Yield<br>per acre |       |
|                                 | No. of<br>farms             | Average<br>acres | Yield<br>per acre |                |                   |       |
| <b>Bearing Fruit:</b>           |                             |                  |                   |                |                   |       |
| Apples -                        |                             |                  |                   |                |                   |       |
| fresh                           | 23                          | 85.1             | 447 bu.           | _____          | _____             | bu.   |
| processing                      | 22                          | 97.6             | 691 bu.           | _____          | _____             | bu.   |
| all apples                      | 24                          | 171.0            | 575 bu.           | _____          | _____             | bu.   |
| Cherries                        |                             |                  |                   |                |                   |       |
| sweet                           | 7                           | 9.0              | 5,830 lb.         | _____          | _____             | lb.   |
| tart                            | 15                          | 36.5             | 8,867 lb.         | _____          | _____             | lb.   |
| Grapes                          | 2                           | 9.9              | 1.3 tn.           | _____          | _____             | tn.   |
| Peaches                         | 9                           | 7.3              | 166 bu.           | _____          | _____             | bu.   |
| Pears                           | 13                          | 10.8             | 237 bu.           | _____          | _____             | bu.   |
| Plums, prunes                   | 7                           | 5.0              | 202 bu.           | _____          | _____             | bu.   |
| Other fruit                     | 3                           | 7.8              |                   | _____          | _____             |       |
| Total bearing fruit             | 24                          | 208.7            |                   | _____          |                   |       |
| <b>Non-Bearing Fruit:</b>       |                             |                  |                   |                |                   |       |
| Apples                          |                             |                  |                   |                |                   |       |
| fresh                           | 22                          | 18.5             |                   | _____          |                   |       |
| processing                      | 1                           | 50.0             |                   | _____          |                   |       |
| Cherries                        |                             |                  |                   |                |                   |       |
| sweet                           | 3                           | 2.8              |                   | _____          |                   |       |
| tart                            | 3                           | 27.1             |                   | _____          |                   |       |
| Other non-bearing               | 7                           | 4.1              |                   | _____          |                   |       |
| Total non-bearing fruit acres   | 24                          | 23.9             |                   | _____          |                   |       |
| <b>Other Crops, Open:</b>       |                             |                  |                   |                |                   |       |
| Other                           | 15                          | 38.3             |                   | _____          |                   |       |

### 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 in excess of 50 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 23. Cost Control Factors, 24 Western New York Fruit Farms, 1991

| Item                                   | Cost Per Fruit Acre Operated |                 |
|--|------------------------------|-----------------|
|  | Bearing acres                | All fruit acres |
| All labor - including operators' labor | \$888                        | \$797           |
| Picking labor                          | 374                          | 335             |
| Other hired labor                      | 385                          | 346             |
| All equipment cost                     | 351                          | 315             |
| Spray                                  | 272                          | 244             |

### 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.

The tables on the following pages provide the opportunity for you to compare your business factors with averages for the participating farms for the past three years. 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 24. Progress of the Fruit Farm Business, Western New York Fruit Farms, 1989-1991

| Selected Factors                                     | 1989      | 1990      | 1991      |
|--|-----------|-----------|-----------|
| Number of farms                                      | 19        | 22        | 24        |
| <b>Size of Business</b>                              |           |           |           |
| All cropland including fruit, acres                  | 268       | 257       | 257       |
| All fruit including non-bearing, acres               | 239       | 222       | 233       |
| Bearing fruit, acres                                 | 215       | 199       | 209       |
| Bearing apples, acres                                | 178       | 163       | 171       |
| Fresh - percent of all apple acres                   | 47%       | 47%       | 48%       |
| Apples produced, bushels                             | 74,602    | 80,510    | 98,244    |
| Apples sold, bushels                                 | 78,341    | 77,045    | 99,713    |
| Worker equivalent                                    | 8.81      | 8.50      | 9.42      |
| Total accrual operating receipts                     | \$359,861 | \$409,840 | \$557,217 |
| <b>Rates of Production</b>                           |           |           |           |
| All apples, bushels per bearing acre                 | 418       | 495       | 575       |
| Fresh - percent of apples harvested                  | 39%       | 43%       | 37%       |
| Cherries - tart, pounds per bearing acre             | 4,544     | 3,987     | 8,867     |
| Pears, bushels per bearing acre                      | 300       | 259       | 237       |
| Non-bearing to bearing acre ratio                    | 11%       | 11%       | 11%       |
| <b>Labor Efficiency</b>                              |           |           |           |
| Bearing fruit, acres per worker                      | 24        | 23        | 22        |
| All fruit, acres per worker                          | 27        | 26        | 25        |
| Accrual receipts per worker                          | \$40,828  | \$48,231  | \$59,125  |
| <b>Cost Control - Accrual</b>                        |           |           |           |
| Cost per bearing acre:                               |           |           |           |
| All labor  | \$648     | \$756     | \$888     |
| All equipment  | \$268     | \$288     | \$351     |
| Spray  | \$177     | \$230     | \$272     |
| Hired labor as percent of operating expenses         | 40%       | 41%       | 42%       |
| <b>Capital Efficiency - Average for the Year</b>     |           |           |           |
| Total farm capital per bearing acre                  | \$3,412   | \$3,735   | \$4,009   |
| Total farm capital per fruit acre                    | \$3,071   | \$3,350   | \$3,596   |
| Capital turnover, years                              | 1.9       | 1.7       | 1.4       |
| <b>Profitability</b>                                 |           |           |           |
| Net farm income:                                     |           |           |           |
| Without appreciation                                 | \$34,124  | \$81,153  | \$148,708 |
| With appreciation                                    | \$54,906  | \$97,817  | \$168,666 |
| Labor & management income per operator               | \$4,341   | \$30,349  | \$70,454  |
| Rate of return to average capital with appreciation: |           |           |           |
| Equity capital                                       | 1.6%      | 10.0%     | 19.4%     |
| Total capital  | 3.8%      | 9.4%      | 16.2%     |
| <b>Financial Summary - End of Year</b>               |           |           |           |
| Farm:  |           |           |           |
| Net worth  | \$496,972 | \$538,101 | \$672,684 |
| Debt to asset ratio                                  | 0.33      | 0.31      | 0.25      |
| Debt per bearing acre                                | \$1,117   | \$1,220   | \$1,059   |
| Cash flow coverage ratio                             | 1.15      | 0.93      | 1.91      |

Table 25. Progress of the Fruit Farm Business, My Farm, 1989-1991

| Selected Factors                                 | 1989     | 1990     | 1991     | Goal     |
|--|----------|----------|----------|----------|
| <b>Size of Business</b>                          |          |          |          |          |
| All cropland incl. fruit, acres                  | _____    | _____    | _____    | _____    |
| All fruit incl. non-bearing, acres               | _____    | _____    | _____    | _____    |
| Bearing fruit, acres                             | _____    | _____    | _____    | _____    |
| Bearing apples, acres                            | _____    | _____    | _____    | _____    |
| Fresh - % of all apple acres                     | _____ %  | _____ %  | _____ %  | _____ %  |
| Apples produced, bushels                         | _____    | _____    | _____    | _____    |
| Apples sold, bushels                             | _____    | _____    | _____    | _____    |
| Worker equivalents                               | _____    | _____    | _____    | _____    |
| Total accrual oper. receipts                     | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| <b>Rates of Production</b>                       |          |          |          |          |
| All apples, bushels/bearing acre                 | _____    | _____    | _____    | _____    |
| Fresh - % of apples harvested                    | _____ %  | _____ %  | _____ %  | _____ %  |
| Cherries - tart, lbs./bearing acre               | _____    | _____    | _____    | _____    |
| Pears, bushels/bearing acre                      | _____    | _____    | _____    | _____    |
| Non-bearing to bearing acre ratio                | _____ %  | _____ %  | _____ %  | _____ %  |
| <b>Labor Efficiency</b>                          |          |          |          |          |
| Bearing fruit, acres/worker                      | _____    | _____    | _____    | _____    |
| All fruit, acres/worker                          | _____    | _____    | _____    | _____    |
| Accrual receipts/worker                          | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| <b>Cost Control - Accrual</b>                    |          |          |          |          |
| Cost/bearing acre:                               | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| All labor  | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| All equipment                                    | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Spray  | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Hired labor as % of oper. exp.                   | _____ %  | _____ %  | _____ %  | _____ %  |
| <b>Capital Efficiency - Average for the Year</b> |          |          |          |          |
| Total farm capital/bearing acre                  | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Total farm capital/fruit acre                    | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Capital turnover, years                          | _____    | _____    | _____    | _____    |
| <b>Profitability</b>                             |          |          |          |          |
| Net farm income:                                 |          |          |          |          |
| Without appreciation                             | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| With appreciation                                | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Labor & mgmt. income/oper.                       | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Rate of return to average capital w/apprec.:     |          |          |          |          |
| Equity capital                                   | _____ %  | _____ %  | _____ %  | _____ %  |
| Total capital                                    | _____ %  | _____ %  | _____ %  | _____ %  |
| <b>Financial Summary - End of Year</b>           |          |          |          |          |
| Farm:  |          |          |          |          |
| Net worth  | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Debt to asset ratio                              | _____    | _____    | _____    | _____    |
| Debt/bearing acre                                | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Cash flow coverage ratio                         | _____    | _____    | _____    | _____    |

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