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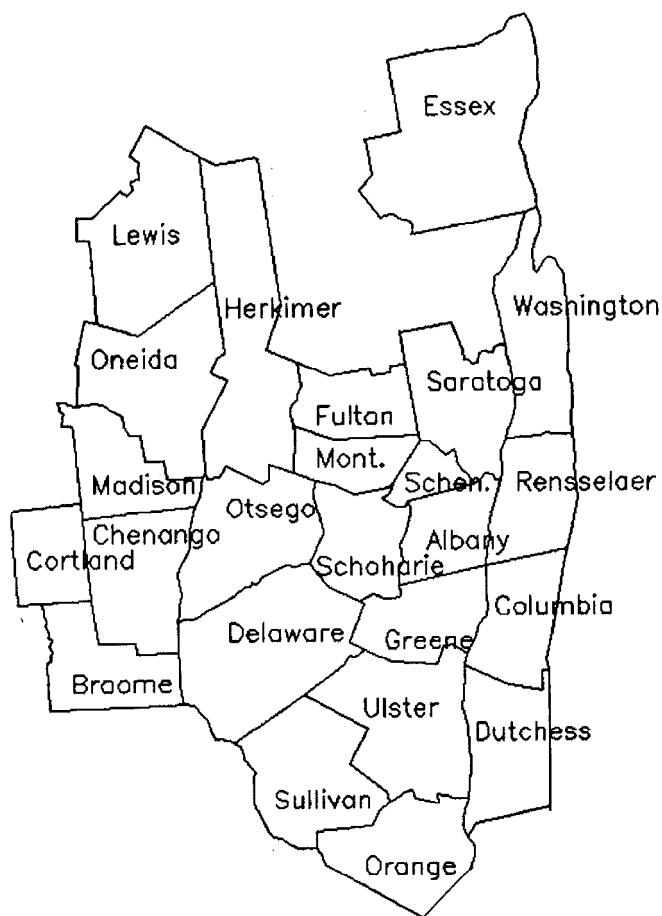
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EASTERN NEW YORK RENTER SUMMARY 2001



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DAIRY FARM BUSINESS SUMMARY

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2001 DAIRY FARM BUSINESS SUMMARY
EASTERN NEW YORK RENTERS
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Dairy Farm Business Summary
Eastern New York Renter Summary 2001

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2001 EASTERN NEW YORK DAIRY FARM RENTER BUSINESS SUMMARY

INTRODUCTION

Dairy farmers throughout New York State submit business records for summarization and analysis through Cornell Cooperative Extension's Farm Business Management Program. Averages from a compilation of the individual farm reports are published in six regional summaries and in one statewide summary.¹

Accrual procedures have been used to provide the most accurate accounting of farm receipts and farm expenses for measuring farm profits. An explanation of these procedures is found on pages 4-6. Three measures of farm profits are calculated on pages 7 and 8. The balance sheet, statement of owner equity, and cash flow statement are featured on pages 9-16. The dairy program analysis includes data on the costs of producing milk (pages 19 and 20).

This Eastern New York Dairy Farm Renter Business Summary is an average of 17 businesses that are renting substantially all of the farm real estate. The farm income, financial summary, and business analysis sections of this report include comparisons with average data on 108 owned dairy farms in the region. This report is prepared in workbook form for farm renters to use in the systematic study of their farm business operations.

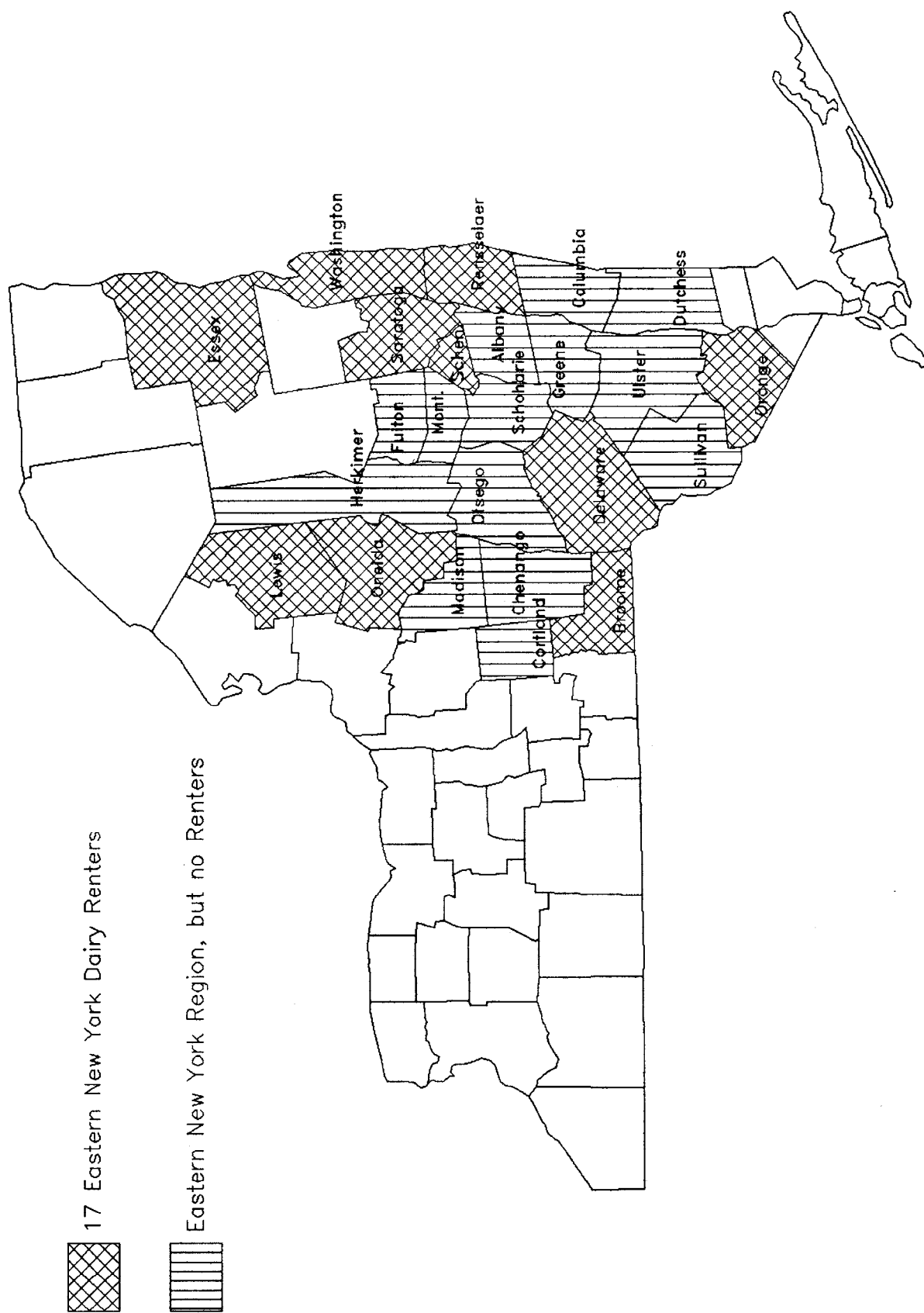
Business records for 17 farms in Broome, Delaware, Essex, Lewis, Oneida, Orange, Rensselaer, Saratoga, Schenectady, and Washington Counties are summarized in this publication. The Eastern New York region consists of these counties plus Albany, Chenango, Columbia, Cortland, Dutchess, Fulton, Greene, Herkimer, Madison, Montgomery, Otsego, Schoharie, Sullivan and Ulster Counties which do not have dairy farm business summary participants that classify as renters (see Figure 1 on page 2). The 108 owned dairy farms summarized in this publication include farms from the entire region.

Use Comparative Profitability Data With Caution

The profitability analysis on page 8 implies that renting a dairy farm provides a similar return to the operator's labor and management as does owning the farm. Concessionary rental rates set by some land owners is a major factor. The farm owners are often father and mother and other landlords who are willing to accept a very low return for their investment. Total real estate costs including depreciation and interest on real estate investment averaged \$159 per tillable acre on the owned dairy farms compared to \$131 on the rented farms. This accounts for a \$47,799 difference in costs between owned and rented farms. With this difference in cost structure, the renters had higher rates of return on equity and all capital.

¹Wayne A. Knoblauch, Linda D. Putnam and Jason Karszes, Dairy Farm Management Business Summary, New York, 2001, R.B. 2002-11, October 2002.

Figure 1. Location of Eastern New York Dairy Farm Renters, 2001.



SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics and Resources Used

Recognition of important business characteristics and identification of the farm resources used are necessary for evaluating management performance. The combination of resources and management practices is known as farm organization. Important farm business characteristics, the number of farms reporting these characteristics, and a listing of the average labor, land, and dairy cattle resources used are presented in the following table.

BUSINESS CHARACTERISTICS AND RESOURCES USED 17 Eastern New York Dairy Farm Renters, 2001

| <u>Type of Business</u> | <u>Number</u> | <u>bST Usage</u> | <u>Number</u> | |
|-------------------------------|---------------|-----------------------------------|----------------|----------------|
| Single proprietorship | 13 | Used on <25% of herd | 0 | |
| Partnership | 3 | Used on 25-75% of herd | 4 | |
| Subchapter S corporation | 0 | Used on >75% of herd | 1 | |
| Subchapter C corporation | 1 | Stopped using in 2001 | 0 | |
| | | Not used in 2001 | 12 | |
| <u>Milking System</u> | <u>Number</u> | | | |
| Dumping station | 0 | <u>Labor Force*</u> | <u>My Farm</u> | <u>Average</u> |
| Pipeline | 11 | Operator 1 | _____mo. | 14.1 |
| Herringbone parlor | 5 | Operator 2 | _____mo. | 4.5 |
| Other parlor | 1 | Family paid | _____mo. | 2.9 |
| | | Family unpaid | _____mo. | 3.4 |
| <u>Type of Barn</u> | <u>Number</u> | Hired | _____mo. | 6.2 |
| Stanchion | 11 | Total | _____mo. | 31.1 |
| Freestall | 6 | Worker equivalent | | |
| Combination | 0 | (total ÷ 12) | _____ | 2.59 |
| <u>Dairy Records Service</u> | <u>Number</u> | Operator/Manager Equiv. | _____ | 1.38 |
| Testing service | 15 | | | |
| On-farm system | 0 | <u>Land Use</u> | <u>My Farm</u> | <u>Average</u> |
| Other | 0 | Total acres rented | _____ | 280 |
| None | 2 | Tillable acres rented | _____ | 188 |
| <u>Business Record System</u> | <u>Number</u> | <u>Number of Cows</u> | <u>My Farm</u> | <u>Average</u> |
| Account book | 5 | Beg. year (owned) | _____ | 80 |
| Accounting service | 1 | End year (owned & leased) | _____ | 82 |
| On-farm computer | 10 | Average for year (owned & leased) | _____ | 81 |
| Other | 1 | | | |

*Based on hours actually worked by owner/operator, instead of standard 12 months per full-time owner/operator. The standard 12 months is used for operator/manager equivalent when calculating labor and management income per operator.

Predominate business characteristics of the 17 rented farms include the single proprietorship, pipeline milking system, stanchion or conventional stall barn, herd records with a testing service and an account book or on-farm computer record system. Fifty-nine percent of the renters were using on-farm computers compared to 45 percent of the owners.

The average size of the labor force on the rented farms was 48 percent less than the 4.94 worker equivalent on owned farms. The rented farms averaged 188 tillable acres and 81 cows compared to 454 tillable acres and 171 cows on the 108 owned dairy farms in the same region. The owned farms averaged 35 cows per worker, compared to 31 cows per worker on the rented farms. In 2001, the owned farms used land and labor resources more efficiently than the rented farms.

Income Statement

The accrual income statement begins with an accounting of all farm business expenses.

CASH AND ACCRUAL FARM EXPENSES
17 Eastern New York Dairy Farm Renters, 2001

| Expense Item | Cash Paid | - | Change in Inventory or Prepaid Expense | + | Change in Accounts Payable | = | Accrual Expenses | Percent of Total |
|-----------------------------------|--------------|---|---|----|----------------------------------|---|---------------------|---------------------|
| <u>Hired Labor</u> | \$ 15,798 | | \$ 0 | << | \$ 0 | | \$ 15,798 | 8 |
| <u>Feed</u> | | | | | | | | |
| Dairy grain & concentrate | 65,110 | | 4,296 | | 247 | | 61,061 | 30 |
| Dairy roughage | 8,751 | | 235 | | 637 | | 9,153 | 5 |
| Other livestock | 0 | | -2 | | 0 | | 2 | <1 |
| <u>Machinery</u> | | | | | | | | |
| Machinery, hire, rent & lease | 2,852 | | 0 | << | 0 | | 2,852 | 1 |
| Machinery repair & farm veh. exp. | 13,462 | | 35 | | 44 | | 13,471 | 7 |
| Fuel, oil & grease | 6,900 | | 106 | | 32 | | 6,826 | 3 |
| <u>Livestock</u> | | | | | | | | |
| Replacement livestock | 3,397 | | 0 | << | 0 | | 3,397 | 2 |
| Breeding | 4,469 | | 178 | | 97 | | 4,387 | 2 |
| Vet & medicine | 6,087 | | 30 | | 74 | | 6,130 | 3 |
| Milk marketing | 11,862 | | 0 | << | 0 | | 11,862 | 6 |
| Bedding | 1,538 | | 3 | | 33 | | 1,568 | 1 |
| Milking supplies | 6,824 | | -5 | | 226 | | 7,055 | 3 |
| Cattle lease & rent | 0 | | 0 | << | 0 | | 0 | 0 |
| Custom boarding | 2,508 | | 0 | << | 0 | | 2,508 | 1 |
| bST expense | 1,647 | | -12 | | 24 | | 1,683 | 1 |
| Other livestock expense | 4,137 | | -7 | | 9 | | 4,153 | 2 |
| <u>Crops</u> | | | | | | | | |
| Fertilizer & lime | 6,559 | | 2 | | -557 | | 5,999 | 3 |
| Seeds & plants | 2,832 | | 5 | | 0 | | 2,828 | 1 |
| Spray, other crop expense | 4,649 | | -93 | | 55 | | 4,796 | 2 |
| <u>Real Estate</u> | | | | | | | | |
| Land, building & fence repair | 5,597 | | 118 | | 0 | | 5,479 | 3 |
| Taxes | 1,402 | | 0 | << | 0 | | 1,402 | 1 |
| Rent & lease | 14,962 | | 0 | << | 0 | | 14,962 | 7 |
| <u>Other</u> | | | | | | | | |
| Insurance | 3,667 | | 0 | << | 19 | | 3,686 | 2 |
| Utilities (farm share) | 7,424 | | 0 | << | 24 | | 7,448 | 4 |
| Interest paid | 3,980 | | 0 | << | 0 | | 3,980 | 2 |
| Miscellaneous | <u>2,621</u> | | <u>0</u> | | <u>-10</u> | | <u>2,611</u> | <u>1</u> |
| Total Operating | \$ 209,035 | | \$ 4,890 | | \$ 952 | | \$ 205,097 | 100 |
| Expansion livestock | \$ 521 | | \$ 0 | << | \$ 0 | | \$ 521 | |
| Machinery depreciation | | | | | | | 14,480 | |
| Building depreciation | | | | | | | <u>1,635</u> | |
| TOTAL ACCRUAL EXPENSES | | | | | | | \$ 221,733 | |

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 because it represents purchased inputs 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.

CASH AND ACCRUAL FARM RECEIPTS
17 Eastern New York Dairy Farm Renters, 2001

| Receipt Item | Cash Receipts | + | Change in Inventory | + | Change in Accounts Receivable | = | Accrual Expenses |
|-----------------------------|---------------|---|---------------------|---|-------------------------------|---|------------------|
| Milk Sales | \$ 244,477 | | | | \$ 1,365 | | \$ 245,843 |
| Dairy cattle | 11,041 | | \$ 5,212 | | 0 | | 16,252 |
| Dairy calves | 4,697 | | | | 0 | | 4,697 |
| Other livestock | 0 | | 391 | | 0 | | 391 |
| Crops | 833 | | 2,895 | | 0 | | 3,728 |
| Government receipts | 9,183 | | 0* | | 0 | | 9,183 |
| Custom machine work | 1,885 | | | | 0 | | 1,885 |
| Gas tax refund | 164 | | | | 0 | | 164 |
| Other | 1,919 | | | | 0 | | 1,919 |
| - Nonfarm noncash capital** | | | (-) 0 | | | | (-) 0 |
| Total Accrual Receipts | \$ 274,198 | | \$ 8,498 | | \$ 1,365 | | \$ 284,062 |

*Change in advanced government receipts.

**Gifts or inheritances of cattle or crops included in inventory.

Cash receipts include the gross value of milk checks received during the year plus all other payments received from the sale of farm products, services, and government programs. Nonfarm income is not included in calculating farm profitability.

Changes in inventory are calculated by subtracting beginning of year values from end of year values excluding appreciation. Increases in livestock inventory caused by herd growth and/or quality are added and decreases caused by herd reduction and for quality are subtracted. Changes in inventories of crops grown are also calculated. Changes in advanced government receipts are calculated by subtracting the end year balance from the beginning year balance (balances are listed with the current liabilities on the Balance Sheet).

Changes in accounts receivable are calculated by subtracting beginning year balances from end year balances. The January milk check for this December's marketings compared with the previous January's check is included as a change in accounts receivable.

Accrual receipts represent the value of all farm commodities produced and services actually generated by the farmer during the year.

CASH AND ACCRUAL FARM RECEIPT WORKSHEET

| Receipt Item | Cash Receipts | + | Change in Inventory | + | Change in Accounts Receivable | = | Accrual Expenses |
|-----------------------------|---------------|---|---------------------|---|-------------------------------|---|------------------|
| Milk Sales | \$ _____ | | | | \$ _____ | | \$ _____ |
| Dairy cattle | _____ | | \$ _____ | | _____ | | _____ |
| Dairy calves | _____ | | _____ | | _____ | | _____ |
| Other livestock | _____ | | _____ | | _____ | | _____ |
| Crops | _____ | | _____ | | _____ | | _____ |
| Government receipts | _____ | | _____ | | _____ | | _____ |
| Custom machine work | _____ | | | | _____ | | _____ |
| Gas tax refund | _____ | | | | _____ | | _____ |
| Other | _____ | | | | _____ | | _____ |
| - Nonfarm noncash capital** | | | (-) _____ | | | | (-) _____ |
| Total Accrual Receipts | \$ _____ | | \$ _____ | | \$ _____ | | \$ _____ |

Profitability Analysis

Farm owners/operators contribute labor, management, and capital to their businesses and the best combination of these resources maximizes income. 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 operator(s) and other unpaid family members for their labor, management, and equity capital. It is the farm family's net annual 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 evaluated later in this report.

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

NET FARM INCOME Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|--|--------------------------|--------------------------|----------|
| Total accrual receipts | \$ 284,062 | \$ 670,803 | \$ _____ |
| + Appreciation: Livestock | 14,162 | 39,872 | _____ |
| Machinery | 4,361 | 5,037 | _____ |
| Real Estate | 2,235 | 12,212 | _____ |
| Other Stock & Certificates | <u>18</u> | <u>-159</u> | _____ |
| = Total Including Appreciation | \$ 304,838 | \$ 727,765 | \$ _____ |
| - Total accrual expenses | <u>221,733</u> | <u>566,817</u> | _____ |
| = Net Farm Income (with appreciation) | \$ 83,105 | \$ 160,948 | \$ _____ |
| Per cow | \$ 1,026 | \$ 941 | \$ _____ |
| Net Farm Income (without appreciation) | \$ 62,329 | \$ 103,986 | \$ _____ |
| Per cow | \$ 769 | \$ 608 | \$ _____ |

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 from net farm income excluding appreciation a charge for unpaid family labor and the opportunity cost of using equity capital at a 5 percent interest rate. The interest charge of 5 percent reflects the long-term average rate of return that a farmer might expect to earn in comparable risk investments in a low inflation economy.

LABOR AND MANAGEMENT INCOME
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|---|--------------------------|--------------------------|----------|
| Net farm income without appreciation | \$ 62,329 | \$ 103,986 | \$ _____ |
| - Family labor unpaid @ \$2,000 per month | - 6,800 | - 7,000 | - _____ |
| - Interest on average equity capital @ 5% real rate | - 14,624 | - 41,330 | - _____ |
| = Labor & Management Income | \$ 40,905 | \$ 55,656 | \$ _____ |
| Labor & Management Income per Operator/Manager | \$ 29,641 | \$ 31,623 | \$ _____ |

Return to equity capital measures the net return remaining for the farmer's equity or owned capital after a charge has been made for unpaid family labor and the owner-operator's 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 to 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. Return to all capital is calculated by adding interest paid to the return to equity capital and then dividing by average farm assets to calculate the rate of return on average total capital. Net farm income from operations ratio is net farm income (without appreciation) divided by total accrual receipts.

RETURN TO EQUITY CAPITAL AND RETURN TO ALL CAPITAL
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|---|--------------------------|--------------------------|----------|
| Net farm income with appreciation | \$ 83,105 | \$ 160,948 | \$ _____ |
| - Family labor unpaid @ \$2,000 per month | \$ 6,800 | \$ 7,000 | \$ _____ |
| - Value of operators' labor & management | 35,806 | 47,518 | _____ |
| = Return to equity capital with appreciation | \$ 40,499 | \$ 106,430 | \$ _____ |
| + Interest paid | 3,980 | 26,371 | _____ |
| = Return to all capital with appreciation | \$ 44,479 | \$ 132,801 | \$ _____ |
| Return to equity capital without appreciation | \$ 19,723 | \$ 49,468 | \$ _____ |
| Return to all capital without appreciation | \$ 23,703 | \$ 75,839 | \$ _____ |
| Rate of return on average equity capital: | | | |
| with appreciation | 13.9% | 12.9% | _____ % |
| without appreciation | 6.7% | 6.0% | _____ % |
| Rate of return on all capital: | | | |
| with appreciation | 12.4% | 10.7% | _____ % |
| without appreciation | 6.6% | 6.1% | _____ % |
| Net farm income from operations ratio | 0.22 | 0.16 | _____ |

Farm and Family Financial Status

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

2001 FARM BUSINESS & NONFARM BALANCE SHEET 17 Eastern New York Dairy Farm Renters

| Farm Assets | | | Farm Liabilities & Net Worth | | |
|-----------------------------------|------------|------------|---|------------|------------|
| | Jan. 1 | Dec. 31 | | Jan. 1 | Dec. 31 |
| <u>Current</u> | | | <u>Current</u> | | |
| Farm cash, checking & savings | \$ 21,585 | \$ 28,778 | Accounts payable | \$ 2,080 | \$ 3,033 |
| Accounts receivable | 14,584 | 15,950 | Operating debt | 307 | 452 |
| Prepaid expenses | 0 | 0 | Short term | 2,765 | 0 |
| Feed & supplies | 37,502 | 45,288 | Advanced gov't. receipt | 0 | 0 |
| Total Current | \$ 73,671 | \$ 90,016 | Current portion: | | |
| | | | Intermediate | 10,179 | 12,200 |
| | | | Long term | 214 | 492 |
| | | | Total Current | \$ 15,545 | \$ 16,177 |
| <u>Intermediate</u> | | | <u>Intermediate</u> | | |
| Dairy Cows: | | | Structured debt | | |
| owned | \$ 87,879 | \$ 96,053 | 1-10 years | \$ 32,438 | \$ 25,298 |
| leased | 0 | 0 | Financial lease | | |
| Heifers | 38,129 | 49,321 | (cattle & machinery) | 0 | 0 |
| Bulls & other livestock | 679 | 1,079 | Farm Credit stock | 376 | 279 |
| Mach. & equip. owned | 108,003 | 116,057 | Total Intermediate | \$ 32,814 | \$ 25,577 |
| Mach. & equip. leased | 0 | 0 | | | |
| Farm Credit stock | 376 | 279 | <u>Long Term</u> | | |
| Other stock & cert. | 4,636 | 4,664 | Structured debt | | |
| Total Intermediate | \$ 239,702 | \$ 267,453 | ≥ 10 years | \$ 20,977 | \$ 19,710 |
| <u>Long Term</u> | | | Financial lease | | |
| Land & buildings: | | | (structures) | 0 | 0 |
| owned | \$ 21,568 | \$ 23,366 | Total Long Term | \$ 20,977 | \$ 19,710 |
| leased | 0 | 0 | | | |
| Total Long Term | \$ 21,568 | \$ 23,366 | Total Farm Liabilities | \$ 69,336 | \$ 61,464 |
| Total Farm Assets | \$ 334,941 | \$ 380,835 | FARM NET WORTH | \$ 265,605 | \$ 319,371 |
| (Average for 6 farms reporting) | | | | | |
| <u>Nonfarm Assets*</u> | Jan.1 | Dec. 31 | <u>Nonfarm Liabilities* & Net Worth</u> | Jan. 1 | Dec. 31 |
| Personal cash, checking & savings | \$ 14,592 | \$ 29,808 | Nonfarm Liabilities | \$ 8,411 | \$ 10,622 |
| Cash value life ins. | 0 | 0 | NONFARM NET WORTH | \$ 49,098 | \$ 66,019 |
| Nonfarm real estate | 16,667 | 18,333 | | | |
| Auto (personal share) | 5,167 | 6,250 | <u>FARM & NONFARM**</u> | Jan. 1 | Dec. 21 |
| Stocks & bonds | 15,333 | 16,500 | Total Assets | \$ 392,450 | \$ 457,476 |
| Household furn. | 5,583 | 5,583 | Total Liabilities | 77,747 | 72,086 |
| All other | 167 | 167 | | | |
| Total Nonfarm | \$ 57,509 | \$ 76,641 | TOTAL FARM & NON-FARM NET WORTH | \$ 314,703 | \$ 385,390 |

*Assumes that average nonfarm assets and liabilities for the nonreporting farms were the same as for those reporting.

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.

2001 FARM BUSINESS & NONFARM BALANCE SHEET

| Farm Assets | Jan. 1 | Dec. 31 | Farm Liabilities & Net Worth | Jan. 1 | Dec. 31 |
|---------------------------------------|--------|---------|---------------------------------|--------|---------|
| <u>Current</u> | | | <u>Current</u> | | |
| Farm cash, checking & savings | _____ | _____ | Accounts payable | _____ | _____ |
| | | | Operating debt | _____ | _____ |
| Accounts receivable | _____ | _____ | | _____ | _____ |
| Prepaid expenses | _____ | _____ | <u>Short term</u> | | |
| Feed & supplies | _____ | _____ | Advanced gov't. receipt | _____ | _____ |
| Total Current | _____ | _____ | Current portion: | | |
| | | | Intermediate | _____ | _____ |
| | | | Long term | _____ | _____ |
| | | | Total Current | _____ | _____ |
| <u>Intermediate</u> | | | <u>Intermediate</u> | | |
| Dairy Cows: | | | | _____ | _____ |
| owned | _____ | _____ | | _____ | _____ |
| leased | _____ | _____ | Financial lease | | |
| Heifers | _____ | _____ | (cattle & machinery) | _____ | _____ |
| Bulls & other livestock | _____ | _____ | Farm Credit stock | _____ | _____ |
| Mach. & equip. owned | _____ | _____ | Total Intermediate | _____ | _____ |
| Mach. & equip. leased | _____ | _____ | | | |
| Farm Credit stock | _____ | _____ | <u>Long Term</u> | | |
| Other stock & cert. | _____ | _____ | | _____ | _____ |
| Total Intermediate | _____ | _____ | | _____ | _____ |
| <u>Long Term</u> | | | Financial lease | | |
| Land & buildings: | | | (structures) | _____ | _____ |
| owned | _____ | _____ | Total Long Term | _____ | _____ |
| leased | _____ | _____ | | | |
| Total Long Term | _____ | _____ | Total Farm Liabilities | _____ | _____ |
| Total Farm Assets | _____ | _____ | FARM NET WORTH | _____ | _____ |
| | | | | | |
| Nonfarm Assets | Jan.1 | Dec. 31 | Nonfarm Liabilities & Net Worth | Jan. 1 | Dec. 31 |
| Personal cash, checking & savings | _____ | _____ | Nonfarm Liabilities | _____ | _____ |
| Cash value life ins. | _____ | _____ | | _____ | _____ |
| Nonfarm real estate | _____ | _____ | | _____ | _____ |
| Auto (personal share) | _____ | _____ | | _____ | _____ |
| Stocks & bonds | _____ | _____ | Total Nonfarm Liabilities | _____ | _____ |
| Household furn. | _____ | _____ | | | |
| All other | _____ | _____ | Nonfarm Net Worth | _____ | _____ |
| Total Nonfarm | _____ | _____ | | | |
| | | | | | |
| TOTAL FARM & NONFARM | | | | Jan. 1 | Dec. 31 |
| Total Farm and Nonfarm Assets | | | | _____ | _____ |
| Less Total Farm & Nonfarm Liabilities | | | | _____ | _____ |
| Farm & Nonfarm Net Worth | | | | _____ | _____ |

Balance sheet analysis involves examination of relative asset and debt levels for the business. 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 business solvency and the potential capacity to borrow. The leverage ratio is the dollars of debt per dollar of equity, computed by dividing total farm liabilities by farm net worth. Debt levels per productive unit represent old standards that are still useful if used with measures of cash flow and repayment ability. A current ratio of less than 1.5 or that has been falling warrants additional evaluation. The amount of working capital that is adequate must be related to the size of the farm business.

BALANCE SHEET ANALYSIS
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|---|--------------------------|--------------------------|----------|
| <u>Financial Ratios - Farm:</u> | | | |
| Percent equity | 84% | 68% | _____ % |
| Debt/asset ratio: total | 0.16 | 0.32 | _____ |
| long term | 0.84 | 0.36 | _____ |
| intermediate & current | 0.12 | 0.30 | _____ |
| Leverage ratio | 0.19 | 0.47 | _____ |
| Current ratio | 5.56 | 1.97 | _____ |
| Working capital \$73,839 as % of total expenses | 33% | (\$88,976) 16% | _____ % |
| <u>Farm Debt Analysis:</u> | | | |
| Accounts payable as % of total debt | 5% | 2% | _____ % |
| Long term liabilities as a % of total debt | 32% | 45% | _____ % |
| Current & intermediate liabilities as a % of total debt | 68% | 55% | _____ % |
| Cost of term debt (weighted average) | 5.2% | 5.7% | _____ % |
| <u>Farm Debt Levels Per Cow:</u> | | | |
| Total farm debt | \$ 750 | \$ 2,345 | \$ _____ |
| Long term debt | \$ 240 | \$ 1,058 | \$ _____ |
| Intermediate & long term debt | \$ 552 | \$ 1,829 | \$ _____ |
| Intermediate & current debt | \$ 509 | \$ 1,287 | \$ _____ |

Farm inventory balance is an accounting of the value of machinery and equipment used on the balance sheet and the changes that occur from the beginning to end of year. Changes in the livestock inventory are included in the dairy analysis. Net investment indicates whether the capital stock is being expanded (positive) or depleted (negative).

FARM MACHINERY AND EQUIPMENT INVENTORY BALANCE
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|----------------------------|--------------------------|--------------------------|----------|
| Value beginning of year | \$ 108,003 | \$ 220,999 | \$ _____ |
| Purchases | \$ 19,457 | \$ 42,634 | \$ _____ |
| + Nonfarm noncash transfer | 0 | 75 | _____ |
| - Net Sales | 1,284 | 2,481 | _____ |
| - Depreciation | <u>14,480</u> | <u>28,590</u> | _____ |
| = Net investment | 3,693 | 11,637 | _____ |
| + Appreciation | <u>4,361</u> | <u>5,037</u> | _____ |
| = Value end of year | \$ 116,057 | \$ 237,673 | \$ _____ |

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are interrelated and consistent (in accountants' terms, they reconcile) and (2) identification of the causes of change in equity that occurred on the farm during the year. The Statement of Owner Equity allows the farmer to determine to what degree the change in equity was caused by (1) earnings from the business, and nonfarm income, in excess of withdrawals being retained in the business (called retained earnings), (2) outside capital being invested in the business or farm capital being removed from the business (called contributed/withdrawn capital) and (3) increases or decreases in the value (price) of assets owned by the business (called change in valuation equity).

The change in farm net worth without appreciation is an excellent indicator of farm generated financial progress.

STATEMENT OF OWNER EQUITY (RECONCILIATION)
17 Eastern New York Dairy Farm Renters, 2001

| Item | Average | My Farm |
|--|--------------|------------|
| Beginning of year farm net worth | \$ 265,605 | \$ _____ |
| Net farm income without appreciation | \$ 62,329 | \$ _____ |
| + Nonfarm cash income | + 6,930 | + _____ |
| - Personal withdrawals & family expenditures excluding nonfarm borrowings | - 37,693 | - _____ |
| RETAINED EARNINGS | + \$ 31,566 | + \$ _____ |
| Nonfarm noncash transfers to farm | \$ 0 | \$ _____ |
| + Cash used in business from nonfarm capital | + 897 | + _____ |
| - Note/mortgage from farm real estate sold (nonfarm) | - 0 | - _____ |
| CONTRIBUTED/WITHDRAWN CAPITAL | + \$ 897 | + \$ _____ |
| Appreciation | \$ 20,776 | \$ _____ |
| - Lost capital | - 129 | - _____ |
| CHANGE IN VALUATION EQUITY | + \$ 20,647 | + \$ _____ |
| IMBALANCE/ERROR | - \$ -656 | - \$ _____ |
| End of year farm net worth* | = \$ 319,371 | = \$ _____ |
| Change in net worth with appreciation. | \$ 53,766 | \$ _____ |

Change in Net Worth

| | | |
|----------------------|-----------|----------|
| Without appreciation | \$ 32,990 | \$ _____ |
| With appreciation | \$ 53,766 | \$ _____ |

*May not add due to rounding.

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 show net cash provided by operating activities, investing activities, financing activities and from reserves. All cash inflows and outflows including beginning and end balances are included. Therefore, the sum of net cash provided from all four activities should be zero. Any imbalance is the error from incorrect accounting of cash inflows/outflows.

ANNUAL CASH FLOW STATEMENT
17 Eastern New York Dairy Farm Renters, 2001

| Item | Average | |
|--|----------------|------------------|
| <u>Cash Flow from Operating Activities</u> | | |
| Cash farm receipts | \$ 274,198 | |
| - Cash farm expenses | <u>209,035</u> | |
| = Net cash farm income | | \$ 65,163 |
| Personal withdrawals & family expenses including nonfarm debt payments | \$ 39,516 | |
| - Nonfarm income | <u>6,930</u> | |
| - Net cash withdrawals from the farm | | \$ <u>32,586</u> |
| = Net Provided by Operating Activities | | \$ 32,577 |
| <u>Cash Flow From Investing Activities</u> | | |
| Sale of assets: Machinery | \$ 1,284 | |
| + real estate | 0 | |
| + other stock & certificates | <u>0</u> | |
| = Total asset sales | | \$ 1,284 |
| Capital purchases: expansion livestock | \$ 521 | |
| + machinery | 19,457 | |
| + real estate | 1,327 | |
| + other stock & certificates | <u>10</u> | |
| - Total invested in farm assets | | \$ <u>21,315</u> |
| = Net Provided by Investment Activities | | \$ -20,031 |
| <u>Cash Flow From Financing Activities</u> | | |
| Money borrowed (intermediate & long term) | \$ 9,051 | |
| + Money borrowed (short term) | 0 | |
| + Increase in operating debt | 145 | |
| + Cash from nonfarm capital used in business | 897 | |
| + Money borrowed - nonfarm | <u>1,823</u> | |
| = Cash inflow from financing | | \$ 11,916 |
| Principal payments (intermediate & long term) | \$ 15,160 | |
| + Principal payments (short term) | 2,765 | |
| + Decrease in operating debt | <u>0</u> | |
| - Cash outflow for financing | | \$ <u>17,925</u> |
| = Net Provided by Financing Activities | | \$ -6,009 |
| <u>Cash Flow From Reserves</u> | | |
| Beginning farm cash, checking & savings | \$ 21,585 | |
| - Ending farm cash, checking & savings | <u>28,778</u> | |
| = Net Provided from Reserves | | \$ <u>-7,193</u> |
| <u>Imbalance (error)</u> | | \$ -656 |

ANNUAL CASH FLOW STATEMENT

| Item | | My Farm |
|--|----------|----------|
| <u>Cash Flow from Operating Activities</u> | | |
| Cash farm receipts | \$ _____ | |
| - Cash farm expenses | _____ | |
| = Net cash farm income | | \$ _____ |
| Personal withdrawals & family expenses including nonfarm debt payments | \$ _____ | |
| - Nonfarm income | _____ | |
| - Net cash withdrawals from the farm | | \$ _____ |
| = Net Provided by Operating Activities | | \$ _____ |
| <u>Cash Flow From Investing Activities</u> | | |
| Sale of assets: Machinery | \$ _____ | |
| + real estate | _____ | |
| + other stock & certificates | _____ | |
| = Total asset sales | | \$ _____ |
| Capital purchases: expansion livestock | \$ _____ | |
| + machinery | _____ | |
| + real estate | _____ | |
| + other stock & certificates | _____ | |
| - Total invested in farm assets | | \$ _____ |
| = Net Provided by Investment Activities | | \$ _____ |
| <u>Cash Flow From Financing Activities</u> | | |
| Money borrowed (intermediate & long term) | \$ _____ | |
| + Money borrowed (short term) | _____ | |
| + Increase in operating debt | _____ | |
| + Cash from nonfarm capital used in business | _____ | |
| + Money borrowed - nonfarm | _____ | |
| = Cash inflow from financing | | \$ _____ |
| Principal payments (intermediate & long term) | \$ _____ | |
| + Principal payments (short term) | _____ | |
| + Decrease in operating debt | _____ | |
| - Cash outflow for financing | | \$ _____ |
| = Net Provided by Financing Activities | | \$ _____ |
| <u>Cash Flow From Reserves</u> | | |
| Beginning farm cash, checking & savings | | \$ _____ |
| - Ending farm cash, checking & savings | | _____ |
| = Net Provided from Reserves | | \$ _____ |
| <u>Imbalance (error)</u> | | \$ _____ |

Repayment Analysis

The second step in cash flow analysis is to compare the debt payments planned for the last year with the amount actually paid. The measures listed below provide a number of different perspectives on the repayment performance of the business. However, the critical question to many farmers and lenders is whether planned payments can be made in 2002. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 2002 debt payments shown below.

FARM DEBT PAYMENTS PLANNED Same 11 Eastern New York Dairy Farm Renters, 2001*

| Debt Payments | Average | | | My Farm | | |
|-------------------------------------|---------------|-----------|-----------------|---------------|----------|-----------------|
| | 2001 Payments | | Planned 2002 | 2001 Payments | | Planned 2002 |
| | Planned | Made | | Planned | Made | |
| Long-term | \$ 661 | \$ 661 | \$ 661 | \$ _____ | \$ _____ | \$ _____ |
| Intermediate-term | 12,658 | 14,073 | 13,085 | _____ | _____ | _____ |
| Short-term | 3,636 | 3,636 | 0 | _____ | _____ | _____ |
| Operating (net red.) | 318 | 0 | 0 | _____ | _____ | _____ |
| Accounts payable (net reduction) | 0 | 391 | 0 | _____ | _____ | _____ |
| Total | \$ 17,273 | \$ 18,761 | \$ 13,746 | \$ _____ | \$ _____ | \$ _____ |
| Per cow | \$ 194 | \$ 211 | | \$ _____ | \$ _____ | |
| Per cwt. 2001 milk | \$ 1.03 | \$ 1.12 | | \$ _____ | \$ _____ | |
| Percent of total 2001 receipts | 5% | 6% | | _____ | _____ | |
| Percent of 2001 milk receipts | 6% | 7% | | _____ | _____ | |

*Farms that completed Dairy Farm Business Summaries for both 2000 and 2001.

The cash flow coverage ratio and debt coverage ratio measure the ability of the farm business to meet its planned debt payment schedule. The ratios show the percentage of planned payments (as of December 31, 2000) that could have been made with the amount available for debt service in 2001. Farmers that did not participate in DFBS last year will find in their report coverage ratios based on planned debt payments for 2002.

COVERAGE RATIOS Same 11 New York Dairy Farm Renters 2000 & 2001

| Item | Average | Item | My Farm |
|---|------------|---|------------|
| <u>Cash Flow Coverage Ratio</u> | | <u>Debt Coverage Ratio</u> | |
| Cash farm receipts | \$ 305,775 | Net farm income (w/o appreciation) | \$ 79,194 |
| - Cash farm expenses | 229,838 | + Depreciation | 14,534 |
| + Interest paid (cash) | 2,305 | + Interest paid (accrual) | 2,305 |
| - Net personal withdrawals from farm* | 40,035 | - Net personal withdrawals from farm* | 40,035 |
| (A) = Amount Available for Debt Service | \$ 38,207 | (A') = Repayment Capacity | \$ 55,998 |
| (B) = Debt Payments Planned for 2001 (as of December 31, 2000) | \$ 17,273 | (B) = Debt Payments Planned for 2001 (as of December 31, 2000) | \$ 17,273 |
| (A/B)=Cash Flow Coverage Ratio for 2001 | 2.21 | (A'/B)=Debt Coverage Ratio for 2001 | 3.24 |
| Same 90 Eastern New York Dairy Farm Owners, 2000 & 2001 | | | |
| (A) = Amount Available for Debt Service | \$ 95,215 | (A') = Repayment Capacity | \$ 137,794 |
| (B) = Debt Payments Planned for 2001 | 82,684 | (B) = Debt Payments Planned for 2001 | 82,684 |
| (A/B)=Cash Flow Coverage Ratio for 2001 | 1.15 | (A'/B)=Debt Coverage Ratio for 2001 | 1.67 |

*Personal withdrawals and family expenditures less nonfarm income and nonfarm money borrowed. If family withdrawals are excluded, or inaccurately included, the coverage ratios will be incorrect.

ANNUAL CASH FLOW WORKSHEET

| Item | 17 Dairy Farm Renters (per cow) | My Farm | | Expected Change | 2002 Projection |
|--|---------------------------------------|----------|----------|--------------------|--------------------|
| | | Total | Per Cow | | |
| Average number of cows | 81 | _____ | _____ | | _____ |
| <u>Accrual Operating Receipts</u> | | | | | |
| Milk | \$ 3,035 | \$ _____ | \$ _____ | _____ | \$ _____ |
| Dairy cattle | 201 | _____ | _____ | _____ | _____ |
| Dairy calves | 58 | _____ | _____ | _____ | _____ |
| Other livestock | 5 | _____ | _____ | _____ | _____ |
| Crops | 46 | _____ | _____ | _____ | _____ |
| Misc. receipts | 162 | _____ | _____ | _____ | _____ |
| Total | \$ 3,507 | \$ _____ | \$ _____ | _____ | \$ _____ |
| <u>Accrual Operating Expenses</u> | | | | | |
| Hired labor | \$ 195 | \$ _____ | \$ _____ | _____ | \$ _____ |
| Dairy grain & concentrate | 754 | _____ | _____ | _____ | _____ |
| Dairy roughage | 113 | _____ | _____ | _____ | _____ |
| Other livestock feed | 0 | _____ | _____ | _____ | _____ |
| Machinery hire, rent & lease | 35 | _____ | _____ | _____ | _____ |
| Machinery repair & vehicle exp. | 166 | _____ | _____ | _____ | _____ |
| Fuel, oil & grease | 84 | _____ | _____ | _____ | _____ |
| Replacement livestock | 42 | _____ | _____ | _____ | _____ |
| Breeding | 54 | _____ | _____ | _____ | _____ |
| Vet & medicine | 76 | _____ | _____ | _____ | _____ |
| Milk marketing | 146 | _____ | _____ | _____ | _____ |
| Bedding | 19 | _____ | _____ | _____ | _____ |
| Milking supplies | 87 | _____ | _____ | _____ | _____ |
| Cattle lease | 0 | _____ | _____ | _____ | _____ |
| Custom boarding | 31 | _____ | _____ | _____ | _____ |
| bST expense | 21 | _____ | _____ | _____ | _____ |
| Other livestock expense | 51 | _____ | _____ | _____ | _____ |
| Fertilizer & lime | 74 | _____ | _____ | _____ | _____ |
| Seeds & plants | 35 | _____ | _____ | _____ | _____ |
| Spray & other crop expense | 59 | _____ | _____ | _____ | _____ |
| Land, building & fence repair | 68 | _____ | _____ | _____ | _____ |
| Taxes | 17 | _____ | _____ | _____ | _____ |
| Real estate rent & lease | 185 | _____ | _____ | _____ | _____ |
| Insurance | 46 | _____ | _____ | _____ | _____ |
| Utilities | 92 | _____ | _____ | _____ | _____ |
| Miscellaneous | 32 | _____ | _____ | _____ | _____ |
| Total Less Interest Paid | \$ 2,483 | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| <u>Net Accrual Operating Income</u> | (Total) | | | | |
| (without interest paid) | \$ 82,945 | \$ _____ | | | \$ _____ |
| - Change in livestock & crop inv. | 8,498 | _____ | | _____ | _____ |
| - Change in accounts receivable | 1,365 | _____ | | _____ | _____ |
| - Change in feed & supply inv.* | 4,890 | _____ | | _____ | _____ |
| + Change in accounts payable** | 952 | _____ | | _____ | _____ |
| NET CASH FLOW | \$ 69,143 | \$ _____ | | | \$ _____ |
| - Net family withdrawals | 30,763 | _____ | | _____ | _____ |
| Available for Farm Debt Payments & Investments | \$ 38,380 | \$ _____ | | | \$ _____ |
| - Farm debt payments | 21,681 | _____ | | _____ | _____ |
| Available for Farm Investments | \$ 16,699 | \$ _____ | | | \$ _____ |
| - Capital purchases: cattle, machinery & improvements | \$ 21,315 | \$ _____ | | \$ _____ | \$ _____ |
| Additional Capital Needed | \$ 4,616 | \$ _____ | | | \$ _____ |

*Includes change in prepaid expenses.

**Excludes change in interest account payable.

Cropping Program Analysis

The cropping program is an important part of the dairy farm business and sometimes it is overlooked and neglected. 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 and feed purchasing choices.

LAND RESOURCES AND CROP PRODUCTION Eastern New York Dairy Farm Renters Reporting, 2001

| Item | Average of Farms Reporting | | | My Farm | |
|----------------------|----------------------------|--------------|-------------------|--------------|------------------|
| <u>Crop Yields</u> | <u>Farms</u> | <u>Acres</u> | <u>Prod/Acre*</u> | <u>Acres</u> | <u>Prod/Acre</u> |
| Hay crop | 12 | 136 | 2.26 tn DM | _____ | _____ tn DM |
| Corn silage | 10 | 76 | 15.16 tn | _____ | _____ tn |
| | | | 4.87 tn DM | _____ | _____ tn DM |
| Other forage | 1 | 35 | 0.40 tn DM | _____ | _____ tn DM |
| Total forage | 12 | 202 | 3.05 tn DM | _____ | _____ tn DM |
| Corn grain | 3 | 125 | 84 bu | _____ | _____ bu |
| Oats | 1 | 25 | 4 bu | _____ | _____ bu |
| Wheat | 0 | 0 | 0 bu | _____ | _____ bu |
| Other crops | 0 | 0 | | _____ | |
| Tillable pasture | 6 | 55 | | _____ | |
| Idle | 2 | 21 | | _____ | |
| Total Tillable Acres | 17 | 188 | | _____ | |

*2001 average yields for 108 dairy farm owners in Eastern New York included: all hay crops, 2.5 tons dry matter per acre; corn silage, 17.7 tons per acre.

Average crop acres and yields compiled for the region are for the number of farms reporting each crop. Yields of forage crops have been converted to tons of dry matter using dry matter coefficients reported by the farmers. Grain production has been converted to bushels of dry grain equivalent based on dry matter information provided.

The following measures of crop management indicate how efficiently the land resource is being used and how well total forage requirements are being met.

CROP MANAGEMENT FACTORS Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|---|--------------------------|--------------------------|---------|
| Total tillable acres per cow | 2.32 | 2.65 | _____ |
| Total forage acres per cow | 1.77 | 2.28 | _____ |
| Harvested forage dry matter, tons per cow | 5.38 | 8.24 | _____ |

Average fertilizer and lime, seeds and plants, and spray and other crop expenses have been computed per tillable acre for all farms in the first column of the table below. Average hay crop and corn crop related expenses are from the limited number of farms allocating crop expenses. Additional expense items such as fuels, labor, and machinery repairs are not included. Rotational grazing was used on 4 rented farms and 21 owned farms in the region.

CROP RELATED ACCRUAL EXPENSES
Eastern New York Dairy Farm Renters and Owners, 2001

| Expense | Total Per Tillable Acre | Hay Crop | | All Corn Per Acre | Corn Silage Per Ton DM | Corn Grain Per Dry Shell Bu. |
|-------------------------------|-------------------------------|--|---------------|-------------------------|------------------------------|------------------------------------|
| | | Per Acre | Per Ton DM | | | |
| <u>17 Dairy Farm Renters:</u> | | | | | | |
| Fertilizer & lime | \$31.91 | -----NONE REPORTED----- | | | | |
| Seeds & plants | 15.04 | | | | | |
| Spray & other crop expense | <u>25.51</u> | | | | | |
| Total | \$72.46 | | | | | |
| <u>108 Dairy Farm Owners:</u> | | | | | | |
| | | Average 15 Farms Reporting Individual Crop Costs | | | | |
| Fertilizer & lime | \$36.42 | \$41.31 | \$16.20 | \$35.20 | \$5.93 | \$0.32 |
| Seeds & plants | 15.10 | 11.39 | 4.47 | 34.22 | 5.76 | 0.32 |
| Spray & other crop expense | <u>17.34</u> | <u>7.27</u> | <u>2.85</u> | <u>47.65</u> | <u>8.02</u> | <u>0.44</u> |
| Total | \$68.86 | \$59.97 | \$23.52 | \$117.07 | \$19.71 | \$1.08 |
| <u>My Farm:</u> | | | | | | |
| Fertilizer & lime | \$ _____ | \$ _____ | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Seeds & plants | _____ | _____ | _____ | _____ | _____ | _____ |
| Spray & other crop expense | _____ | _____ | _____ | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ | \$ _____ | \$ _____ | \$ _____ |

Most machinery costs are associated with crop production and should be analyzed with the crop enterprise. Total machinery expenses include the major fixed costs (interest and depreciation), as well as the accrual operating costs. Although machinery costs have not been allocated to individual crops, they are shown below per total tillable acre.

ACCRUAL MACHINERY EXPENSES
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | Average Per Tillable Acre | | My Farm | |
|---------------------------------|---------------------------|--------------------------|-------------------|----------------------|
| | 17 Dairy Farm Renters | 108 Dairy Farm Owners | Total Expenses | Per Tillable Acre |
| Fuel, oil & grease | \$ 36.31 | \$ 30.30 | \$ _____ | \$ _____ |
| Machine repair & farm veh. exp. | 71.65 | 75.45 | _____ | _____ |
| Machine hire, rent & lease | 15.17 | 33.05 | _____ | _____ |
| Interest (5%) | 29.80 | 25.98 | _____ | _____ |
| Depreciation | <u>77.02</u> | <u>62.97</u> | _____ | _____ |
| Total | \$229.95 | \$227.76 | \$ _____ | \$ _____ |

Dairy Program Analysis

Analysis of the dairy enterprise can tell a great deal about the strengths and weaknesses of the dairy farm business. Information on the following page should be used in conjunction with DHI and other dairy production information. Changes in dairy herd size and market values that occur during the year are identified in the table below. The change in inventory value without appreciation is attributed to physical changes in herd size and quality. This increase in inventory is included as an accrual farm receipt when calculating profitability without appreciation impacts.

DAIRY HERD INVENTORY
 Eastern New York Dairy Farm Renters and Owners, 2001

| Item | Dairy Cows | | Bred | | Heifers | | Calves | |
|-------------------------------|------------|---------------|------|------------------|---------|--------------|--------|--------------|
| | No. | Value | No. | Value | No. | Value | No. | Value |
| <u>17 Dairy Farm Renters:</u> | | | | | | | | |
| Beginning year (owned) | 80 | \$ 87,879 | 19 | \$ 18,568 | 25 | \$ 15,265 | 15 | \$ 4,297 |
| + Change w/o apprec. | | 1,953 | | 3,408 | | -400 | | 250 |
| + Appreciation | | <u>6,221</u> | | <u>3,506</u> | | <u>2,579</u> | | <u>1,847</u> |
| End year (owned) | 82 | \$ 96,053 | 22 | \$ 25,482 | 24 | \$ 17,444 | 16 | \$ 6,394 |
| End including leased | 82 | | | | | | | |
| Average number | 81 | | 60 | (all age groups) | | | | |
| <u>108 Dairy Farm Owners:</u> | | | | | | | | |
| Beginning year (owned) | 167 | \$ 188,770 | 43 | \$ 43,917 | 42 | \$ 26,758 | 35 | \$ 12,162 |
| + Change w/o apprec. | | 10,853 | | 3,953 | | 4,055 | | 220 |
| + Appreciation | | <u>24,890</u> | | <u>7,067</u> | | <u>4,680</u> | | <u>3,220</u> |
| End year (owned) | 177 | \$ 224,513 | 47 | \$ 54,937 | 48 | \$ 35,493 | 37 | \$ 15,602 |
| End including leased | 178 | | | | | | | |
| Average number | 171 | | 126 | (all age groups) | | | | |
| <u>My Farm:</u> | | | | | | | | |
| Beginning year (owned) | — | \$ _____ | — | \$ _____ | — | \$ _____ | — | \$ _____ |
| + Change w/o apprec. | | _____ | | _____ | | _____ | | _____ |
| + Appreciation | | _____ | | _____ | | _____ | | _____ |
| End year (owned) | — | \$ _____ | — | \$ _____ | — | \$ _____ | — | \$ _____ |
| End including leased | — | | | | | | | |
| Average number | — | | — | (all age groups) | | | | |

Total milk sold and milk sold per cow are extremely valuable measures of productivity on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year.

MILK PRODUCTION
 Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Dairy Farm Renters | 108 Dairy Farm Owners | My Farm |
|--------------------------------------|--------------------------|--------------------------|---------|
| Total milk sold, lbs. | 1,495,520 | 3,597,347 | _____ |
| Milk sold per cow, lbs. | 18,571 | 20,991 | _____ |
| Average milk plant test, % butterfat | 3.79% | 3.71% | _____ |

Monitoring and evaluating culling practices and experiences on an annual basis are important herd management tools. Culling rate can have an affect on both milk per cow and profitability.

ANIMALS LEAVING THE HERD
 Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Renters | | 108 Owners | | My Farm | |
|---------------------|------------|----------|------------|----------|---------|----------|
| | Number | Percent* | Number | Percent* | Number | Percent* |
| Cows sold for beef | 19 | 23.5 | 42 | 24.6 | _____ | _____ |
| Cows sold for dairy | 2 | 2.5 | 2 | 1.2 | _____ | _____ |
| Cows died | 3 | 3.7 | 8 | 4.7 | _____ | _____ |
| Culling rate** | | 27.2 | | 29.2 | _____ | _____ |

*Percent of average number of cows in the herd. ** Cows sold for beef plus cows died.

The cost of producing milk has been compiled using the whole farm method, and is featured in the following table. Accrual receipts from milk sales are compared with the accrual costs of producing milk per hundredweight of milk. Using the whole farm method, operating cost of producing milk is estimated by deducting nonmilk accrual receipts from total accrual operating expenses plus expansion livestock purchased. Purchased input cost of producing milk is the operating cost plus depreciation. Total cost of producing milk includes the operating cost plus depreciation on machinery and buildings, the value of unpaid family labor, the value of operator(s') labor and management, and an interest charge for using equity capital.

COST OF PRODUCING MILK AND ACCRUAL RECEIPTS FROM MILK
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | 17 Renters | | 108 Owners | | My Farm | |
|---------------------------------------|------------|----------|------------|----------|----------|----------|
| | Total | Per Cwt. | Total | Per Cwt. | Total | Per Cwt. |
| <u>Accrual Cost of Producing Milk</u> | | | | | | |
| Operating cost | \$167,399 | \$11.19 | \$436,525 | \$12.13 | \$ _____ | \$ _____ |
| Purchased input cost | \$183,514 | \$12.27 | \$482,398 | \$13.41 | \$ _____ | \$ _____ |
| Total cost | \$240,744 | \$16.10 | \$578,246 | \$16.07 | \$ _____ | \$ _____ |
| <u>Accrual Receipts from Milk</u> | \$245,843 | \$16.44 | \$586,384 | \$16.30 | \$ _____ | \$ _____ |
| Net Milk Receipts | \$233,981 | \$15.65 | \$558,705 | \$15.53 | \$ _____ | \$ _____ |

The accrual operating expenses most commonly associated with the dairy enterprise are listed in the table below. Evaluating these costs per unit of production enables the comparison of different size dairy farms for strengths and areas for improvement.

DAIRY RELATED ACCRUAL EXPENSES
Eastern New York Dairy Farm Renters and Owners, 2001

| Item | Average Per Cwt. Milk | | Per Cwt. |
|---|-----------------------|------------|----------|
| | 17 Renters | 108 Owners | |
| Purchased dairy grain & concentrate | \$4.08 | \$3.94 | \$ _____ |
| Purchased dairy roughage | 0.61 | 0.22 | _____ |
| Total Purchased Dairy Feed | \$4.70 | \$4.16 | \$ _____ |
| Purchased grain & concentrate as % of milk receipts | 25% | 24% | _____ % |
| Purchased feed & crop expense | \$5.61 | \$5.02 | \$ _____ |
| Purchased feed & crop expense as % of milk receipts | 34% | 31% | _____ % |
| Breeding | \$0.29 | \$0.22 | \$ _____ |
| Veterinary & medicine | 0.41 | 0.53 | _____ |
| Milk marketing | 0.79 | 0.77 | _____ |
| Bedding | 0.10 | 0.18 | _____ |
| Milking supplies | 0.47 | 0.33 | _____ |
| Cattle lease | 0.00 | 0.00 | _____ |
| Custom boarding | 0.17 | 0.26 | _____ |
| bST expense | 0.11 | 0.22 | _____ |
| Other livestock expense | 0.28 | 0.19 | _____ |

Capital and Labor Efficiency Analysis

Capital efficiency factors measure how intensively the capital is being used in the farm business. The asset turnover ratio is the ratio of total farm income to total farm assets. It is calculated by dividing total accrual operating receipts plus appreciation by average total farm assets. Measures of labor efficiency are key indicators of management's success in generating products per unit of labor input.

CAPITAL EFFICIENCY Eastern New York Dairy Farm Renters and Owners, 2001

| Item | Per Worker | Per Cow | Per Tillable Acre |
|-------------------------------|-------------------|------------------|----------------------|
| <u>17 Dairy Farm Renters:</u> | | | |
| Farm capital | \$ 138,181 | \$ 4,418 | \$ 1,904 |
| Machinery & equipment | 43,255 | 1,383 | 596 |
| <u>Ratios</u> | | | |
| Asset turnover | Operating expense | Interest expense | Depreciation expense |
| 0.85 | 0.71 | 0.01 | 0.06 |
| <u>108 Dairy Farm Owners:</u> | | | |
| Farm capital | \$ 251,395 | \$ 7,263 | \$ 2,735 |
| Machinery & equipment | 47,756 | 1,380 | 520 |
| <u>Ratios</u> | | | |
| Asset turnover | Operating expense | Interest expense | Depreciation expense |
| 0.59 | 0.74 | 0.04 | 0.07 |
| <u>My Farm:</u> | | | |
| Farm capital | \$ _____ | \$ _____ | \$ _____ |
| Machinery & equipment | _____ | _____ | _____ |
| <u>Ratios</u> | | | |
| Asset turnover | Operating expense | Interest expense | Depreciation expense |
| _____ | _____ | _____ | _____ |

LABOR FORCE ANALYSIS Eastern New York Dairy Farm Renters and Owners, 2001

| Efficiency | 17 Renters | | 108 Owners | | My Farm | |
|---|------------|------------|------------|------------|----------|------------|
| | Total | Per Worker | Total | Per Worker | Total | Per Worker |
| Cows, average number | 81 | 31 | 171 | 35 | _____ | _____ |
| Milk sold, pounds | 1,495,520 | 577,421 | 3,597,347 | 728,208 | _____ | _____ |
| Tillable acres | 188 | 73 | 454 | 92 | _____ | _____ |
| Work units | 798 | 308 | 1,737 | 352 | _____ | _____ |
| Labor Costs | 17 Renters | | 108 Owners | | My Farm | |
| | Total | Per Cow | Total | Per Cow | Total | Per Cow |
| Value of operator(s) labor* | \$ 37,200 | \$ 459 | \$ 44,400 | \$ 260 | \$ _____ | \$ _____ |
| Family unpaid* | 6,800 | 84 | 7,000 | 41 | _____ | _____ |
| Hired | 15,798 | 195 | 77,635 | 454 | _____ | _____ |
| Total Labor | \$ 59,798 | \$ 738 | \$ 129,035 | \$ 755 | \$ _____ | \$ _____ |
| Machinery Cost | \$ 43,231 | \$ 534 | \$ 103,403 | \$ 605 | \$ _____ | \$ _____ |
| Total Labor & Machinery | \$ 103,029 | \$ 1,272 | \$ 232,438 | \$ 1,359 | \$ _____ | \$ _____ |
| Hired labor expense per hired worker equivalent | \$ 20,833 | | \$ 27,645 | | \$ _____ | |
| Hired labor expense as % of milk sales | 6.4% | | 13.2% | | _____% | |

*\$2,000 per month.

COMPARATIVE ANALYSIS OF THE FARM BUSINESS

Progress of the Farm Business

Comparing your business with average data from regional DFBS cooperators that participated in both of the last two years is one part of a business checkup. It is equally important for you to determine the progress your business has made over the past two or three years and to set targets or goals for the future.

PROGRESS OF THE FARM BUSINESS
Same 11 Eastern New York Dairy Farm Renters, 2000 & 2001

| Selected Factors | Average | | My Farm | | Goal |
|---|-----------|-----------|----------|----------|----------|
| | 2000 | 2001 | 2000 | 2001 | |
| <u>Size of Business</u> | | | | | |
| Average number of cows | 89 | 89 | _____ | _____ | _____ |
| Average number of heifers | 73 | 76 | _____ | _____ | _____ |
| Milk sold, lbs. | 1,696,688 | 1,681,085 | _____ | _____ | _____ |
| Worker equivalent | 2.64 | 2.82 | _____ | _____ | _____ |
| Total tillable acres | 236 | 237 | _____ | _____ | _____ |
| <u>Rates of Production</u> | | | | | |
| Milk sold per cow, lbs. | 19,162 | 18,869 | _____ | _____ | _____ |
| Hay DM per acre, tons | 2.4 | 2.2 | _____ | _____ | _____ |
| Corn silage per acre, tons | 8.5 | 14.2 | _____ | _____ | _____ |
| <u>Labor Efficiency</u> | | | | | |
| Cows per worker | 34 | 32 | _____ | _____ | _____ |
| Milk sold per worker, lbs. | 642,685 | 596,129 | _____ | _____ | _____ |
| <u>Cost Control</u> | | | | | |
| Grain & concentrate purchased as % of milk sales | 27% | 24% | _____ % | _____ % | _____ % |
| Dairy feed & crop expense per cwt. milk | \$5.00 | \$5.42 | \$ _____ | \$ _____ | \$ _____ |
| Labor & machinery costs/cow | \$1,164 | \$1,301 | \$ _____ | \$ _____ | \$ _____ |
| Operating cost of producing cwt. milk | \$10.36 | \$10.54 | \$ _____ | \$ _____ | \$ _____ |
| <u>Capital Efficiency*</u> | | | | | |
| Farm capital per cow | \$4,563 | \$4,617 | \$ _____ | \$ _____ | \$ _____ |
| Machinery & equipment per cow | \$1,334 | \$1,413 | \$ _____ | \$ _____ | \$ _____ |
| Asset turnover ratio | 0.65 | 0.82 | _____ | _____ | _____ |
| <u>Profitability</u> | | | | | |
| Net farm income without apprec. | \$39,231 | \$79,194 | \$ _____ | \$ _____ | \$ _____ |
| Net farm income with apprec. | \$45,862 | \$99,140 | \$ _____ | \$ _____ | \$ _____ |
| Labor & management income per operator/manager | \$10,716 | \$34,277 | \$ _____ | \$ _____ | \$ _____ |
| Rate of return on equity capital with appreciation | 0.3% | 13.9% | _____ % | _____ % | _____ % |
| Rate of return on all capital with appreciation | 0.9% | 13.2% | _____ % | _____ % | _____ % |
| <u>Financial Summary</u> | | | | | |
| Farm net worth | \$366,390 | \$403,179 | \$ _____ | \$ _____ | \$ _____ |
| Debt to asset ratio | 0.10 | 0.08 | _____ | _____ | _____ |
| Farm debt per cow | \$474 | \$380 | \$ _____ | \$ _____ | \$ _____ |

*Average for the year.

RECEIPTS AND EXPENSES PER COW AND PER CWT.

Same 11 Eastern New York Dairy Farm Renters, 2000 & 2001

| Item | 2000 | | 2001 | |
|--|----------|----------|----------|----------|
| | Per Cow | Per Cwt. | Per Cow | Per Cwt. |
| Average Number of Cows | 89 | | 89 | |
| Cwt. Of Milk Sold | | 16,967 | | 16,811 |
| <u>ACCRUAL OPERATING RECEIPTS</u> | | | | |
| Milk | \$ 2,563 | \$ 13.44 | \$ 3,045 | \$ 16.12 |
| Dairy cattle | 134 | 0.71 | 231 | 1.22 |
| Dairy calves | 67 | 0.35 | 62 | 0.33 |
| Other livestock | 3 | 0.02 | 5 | 0.03 |
| Crops | -71 | -0.37 | 49 | 0.26 |
| Miscellaneous receipts | 214 | 1.12 | 176 | 0.93 |
| Total Receipts | \$ 2,911 | \$ 15.27 | \$ 3,569 | \$ 18.89 |
| <u>ACCRUAL OPERATING EXPENSES</u> | | | | |
| Hired labor | \$ 196 | \$ 1.03 | \$ 219 | \$ 1.16 |
| Dairy grain & concentrate | 688 | 3.61 | 722 | 3.82 |
| Dairy roughage | 112 | 0.59 | 106 | 0.56 |
| Nondairy feed | 0 | 0.00 | 0 | 0.00 |
| Machine hire/rent/lease | 40 | 0.21 | 37 | 0.20 |
| Mach. repair & vehicle exp. | 137 | 0.72 | 177 | 0.93 |
| Fuel, oil & grease | 90 | 0.47 | 94 | 0.50 |
| Replacement livestock | 13 | 0.07 | 12 | 0.06 |
| Breeding | 48 | 0.25 | 60 | 0.32 |
| Veterinary & medicine | 66 | 0.35 | 77 | 0.41 |
| Milk marketing | 151 | 0.79 | 140 | 0.74 |
| Bedding | 18 | 0.10 | 14 | 0.07 |
| Milking supplies | 81 | 0.43 | 92 | 0.49 |
| Cattle lease | 0 | 0.00 | 0 | 0.00 |
| Custom boarding | 22 | 0.11 | 37 | 0.20 |
| bST expense | 21 | 0.11 | 22 | 0.12 |
| Other livestock expense | 50 | 0.26 | 51 | 0.27 |
| Fertilizer & lime | 72 | 0.38 | 82 | 0.43 |
| Seeds & plants | 28 | 0.15 | 41 | 0.22 |
| Spray/other crop expense | 52 | 0.27 | 74 | 0.39 |
| Land, building, fence repair | 28 | 0.15 | 34 | 0.18 |
| Taxes | 36 | 0.19 | 23 | 0.12 |
| Real estate rent/lease | 185 | 0.97 | 197 | 1.04 |
| Insurance | 46 | 0.24 | 51 | 0.27 |
| Utilities | 78 | 0.41 | 89 | 0.47 |
| Interest paid | 31 | 0.16 | 26 | 0.14 |
| Miscellaneous | 25 | 0.13 | 33 | 0.17 |
| Total Operating Expenses | \$ 2,315 | \$ 12.15 | \$ 2,506 | \$ 13.27 |
| Expansion Livestock | 8 | 0.04 | 9 | 0.05 |
| Machinery Depreciation | 134 | 0.70 | 158 | 0.84 |
| Real Estate Depreciation | 13 | 0.07 | 6 | 0.03 |
| Total Expenses | \$ 2,470 | \$ 12.96 | \$ 2,679 | \$ 14.18 |
| Net Farm Income Without Appreciation | \$ 441 | \$ 2.31 | \$ 890 | \$ 4.71 |

Regional Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing your business. Compare your business by drawing a line through or near the figure in each column which represents your current level of performance. The four figures in each column represent the average of each 25 percent or quartile of farms included in the regional summary.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS

17 Eastern New York Dairy Farm Renters, 2001

| Size of Business | | | Rates of Production | | | Labor Efficiency | |
|---------------------------|-------------------|------------------------|--------------------------------|-----------------------------|---------------------------------|-----------------------|-----------------------------------|
| Worker Equiv- alent | No. of Cows | Pounds Milk Sold | Pounds Milk Sold Per Cow | Tons Hay Crop DM/Acre | Tons Corn Silage Per Acre | Cows Per Worker | Pounds Milk Sold Per Worker |
| (11)* | (10) | (10) | (10) | (9) | (9) | (11) | (11) |
| 5.0 | 160 | 3,121,458 | 21,755 | 3.6 | 22 | 52 | 944,293 |
| 2.3 | 69 | 1,234,104 | 19,642 | 2.9 | 19 | 35 | 657,566 |
| 1.9 | 57 | 1,021,521 | 17,870 | 2.0 | 17 | 28 | 532,807 |
| 1.5 | 45 | 783,101 | 14,912 | 1.0 | 13 | 20 | 327,749 |

Cost Control

| Grain Bought Per Cow | % Grain is of Milk Receipts | Machinery Costs Per Cow | Labor & Machinery Costs Per Cow | Feed & Crop Expenses Per Cow | Feed & Crop Expenses Per Cwt. Milk |
|----------------------------|-----------------------------------|-------------------------------|---------------------------------------|------------------------------------|--|
| (10) | (10) | (11) | (11) | (10) | (10) |
| \$526 | 18% | \$264 | \$956 | \$723 | \$3.92 |
| 650 | 24 | 454 | 1,183 | 930 | 4.67 |
| 841 | 26 | 587 | 1,454 | 1,053 | 6.29 |
| 948 | 31 | 911 | 1,845 | 1,380 | 7.83 |

| Value and Cost of Production | | | Profitability | | |
|------------------------------|--------------------------------|--------------------------------------|---------------------------------|-----------------------------------|--------------------------------------|
| Milk Receipts Per Cow | Oper. Cost Milk Per Cwt. | Total Cost Production Per Cwt. | Net Farm Income w/Apprec. | Net Farm Income w/o Apprec. | Labor & Mgmt. Income Per Oper. |
| (10) | (10) | (10) | (3) | (3) | (3) |
| \$3,570 | \$9.15 | \$14.35 | \$192,803 | \$151,214 | \$71,342 |
| 3,185 | 10.39 | 16.33 | 73,736 | 58,912 | 30,014 |
| 2,881 | 11.50 | 17.43 | 53,462 | 38,556 | 16,105 |
| 2,528 | 15.31 | 20.81 | 26,559 | 12,975 | 869 |

*Page number of the participant's DFBS where the factor is located.

Regional Financial Analysis Chart

The farm financial analysis chart is designed just like the Farm Business Chart and may be used to assess the financial health of the farm business. Most of the financial measures used in the chart are defined on pages 7, 8, 11, and 15 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART 17 Eastern New York Dairy Farm Renters, 2001

| Liquidity (repayment) | | | | |
|-------------------------------|------------------------------------|---------------------------|--|------------------------------------|
| Planned Debt Payments Per Cow | Available for Debt Service Per Cow | Cash Flow Coverage Ratio | Debt Payments as Percent of Milk Sales | Debt Per Cow |
| (8)* | (optional page 12) | (8) | (8) | (5) |
| \$ 79 | \$903 | 8.27 | 2% | \$110 |
| 208 | 554 | 2.39 | 7 | 428 |
| 376 | 459 | 1.30 | 12 | 968 |
| 587 | 246 | 0.43 | 22 | 2,771 |
| Solvency | | | Profitability | |
| Leverage Ratio** | Percent Equity | Debt/Asset Ratio | Percent Rate of Return with appreciation on: | |
| | | Current & Intermediate | Equity | Investment*** |
| | (5) | (5) | (3) | (3) |
| .02 | 99% | 0.01 | 24% | 21% |
| .07 | 94 | 0.09 | 16 | 12 |
| .29 | 78 | 0.27 | 6 | 6 |
| .98 | 21 | 0.62 | -1 | -1 |
| Efficiency (Capital) | | | | Change in Net Worth w/Appreciation |
| Asset Turnover Ratio | Machinery Investment Per Cow | Total Farm Assets Per Cow | | |
| (11) | (11) | (11) | | (6) |
| 1.36 | \$500 | \$6,331 | | \$131,289 |
| 1.03 | 1,116 | 4,623 | | 47,412 |
| 0.81 | 1,476 | 3,848 | | 29,871 |
| 0.62 | 3,108 | 2,665 | | 15,943 |

*Page number of the participant's DFBS where the factor is located.

**Dollars of debt per dollar of equity, computed by dividing total liabilities by total equity.

***Return on all farm capital (no deduction for interest paid) divided by total farm assets.

IDENTIFY AND SET GOALS

If businesses are to be successful, they must have direction. Written goals help provide businesses with an identifiable direction over both the long and the short term. Goal setting is as important on a dairy farm as it is in other businesses. Written goals are a tool which farm operators can use to ensure that the business continues to move in the proper direction. Goals should be **SMART**:

1. Goals should be Specific.
2. Goals should be Measurable.
3. Goals should be Achievable but challenging.
4. Goals should be Rewarding.
5. You should designate a Time when each goal will be achieved.

Goal setting on a dairy farm does not have to be a complex process. In many cases it provides a process for writing down and agreeing on goals that you have already given some thought to. It is also important to remember that once you write out your goals they are not cast in concrete. If a change takes place which has a major impact on the farm business, the goals should be reworked to accommodate that change. Refer to your goals as often as necessary to keep the farm business progressing.

It is important to identify both objectives (long-range) and goals (short-range) when looking at the future of your farm business.

A suggested format for writing out your goals is as follows:

- a. Begin with a mission statement which describes why the business exists based on the preferences and values of the owners.
- b. Identify 4-6 objectives.
- c. Identify SMART goals.

Worksheet for Setting Goals

I. Mission and Objectives

Worksheet for Setting Goals (continued)

II. Goals

[illegible]

Summarize Your Business Performance

The Farm Business and Financial Analysis Charts on pages 24 and 25 can be used to help identify strengths and weaknesses of your farm business. Identify three major strengths and three areas of your farm business that need improvement.

| | |
|--|--|
| Strengths: _____ _____ _____ _____ _____ _____ | Need Improvements: _____ _____ _____ _____ _____ _____ |
|--|--|

GLOSSARY AND LOCATION OF COMMON TERMS

Accounts Payable - Open accounts or bills owed to feed and supply firms, cattle dealers, veterinarians and other providers of farm services and supplies.

Accounts Receivable - Outstanding receipts from items sold or sales proceeds not yet received such as the payment for December milk sales received in January.

Accrual Expenses - (defined on page 5)

Accrual Receipts - (defined on page 6)

Annual Cash Flow Statement - (defined on page 13)

Appreciation - (defined on page 7)

Asset Turnover Ratio - (defined on page 21)

Balance Sheet - A "snapshot" of the business financial position at a given point in time, usually December 31. The balance sheet equates the value of assets to liabilities plus net worth.

bST Usage - An estimate of percentage of herd that was injected with bovine somatotropin during the year.

Capital Efficiency - The amount of capital invested per production unit. Relatively high investments per worker with low to moderate investments per cow imply efficient use of capital.

Cash From Nonfarm Capital Used in the Business - Transfers of money from nonfarm savings or investments to the farm business where it is used to pay operating expenses, make debt payments and/or capital purchases.

Cash Flow Coverage Ratio - (defined on page 15)

Cash Paid - (defined on page 4)

Cash Receipts - (defined on page 6)

Change in Accounts Payable - (defined on page 5)

Change in Accounts Receivable - (defined on page 6)

Change in Inventory - (defined on page 4)

Cost of Term Debt - A weighted average of the cost of borrowed capital to the farm. Calculate by multiplying end of year principal of each loan that is borrowed by the interest rate for each loan at that time. Add up each amount that is calculated for each loan and then divide by total amount of borrowed funds. Do not include accounts payable, operating debt or advanced government receipts. This information is found on pages 8 and 9 of the data entry form.

Culling Rate - (defined on page 19)

Current Portion - Principal due in the next year for intermediate and long term debt.

Current Ratio - Measures the extent to which current farm assets, if liquidated, would cover current farm liabilities. Calculated as current farm assets at end year divided by current farm liabilities at end year.

Dairy (farm) - A farm business where dairy farming is the primary enterprise, operating and managing this farm is a full-time occupation for one or more people and cropland is owned.

Dairy Cash-Crop (farm) - Operating and managing this farm is the full-time occupation of one or more people, cropland is owned but crop sales exceed 10 percent of accrual milk receipts.

Debt Per Cow - Total end-of-year debt divided by end-of-year number of cows.

Debt to Asset Ratios - (defined on page 11)

Depreciation Expense Ratio - Machinery and building depreciation divided by total accrual receipts.

Dry Matter - The amount or proportion of dry material that remains after all water is removed. Commonly used to measure dry matter percent and tons of dry matter in feed.

Equity Capital - The farm operator/manager's owned capital or farm net worth.

Expansion Livestock - Purchased dairy cattle and other livestock that cause an increase in herd size from the beginning to the end of the year.

Farm Debt Payments as Percent of Milk Sales - Amount of milk income committed to debt repayment, calculated by dividing planned debt payments by total milk receipts. A reliable measure of repayment ability, see page 15.

Farm Debt Payments Per Cow - Planned or scheduled debt payments per cow represent the repayment plan scheduled at the beginning of the year divided by the average number of cows for the year. This measure of repayment ability is used in the Financial Analysis Chart.

Financial Lease - A long-term non-cancelable contract giving the lessee use of an asset in exchange for a series of lease payments. The term of a financial lease usually covers a major portion of the economic life of the asset. The lease is a substitute for purchase. The lessor retains ownership of the asset.

Hired Labor Expense per Hired Worker Equivalent - The total cost to the farm per hired worker equivalent. Divide accrual hired labor expense by number of hired plus family paid worker equivalent.

Hired Labor Expense as % of Milk Sales - The percentage of the gross milk receipts that is used for labor expense. Divide accrual hired labor expense by accrual milk sales.

Income Statement - A complete and accurate account of farm business receipts and expenses used to measure profitability over a period of time such as one year or one month.

Interest Expense Ratio - Accrual interest expense divided by total accrual receipts.

Labor and Management Income - (defined on page 8)

Labor and Management Income Per Operator - The return to the owner/manager's labor and management per full-time operator.

Labor Efficiency - Production capacity and output per worker.

Leverage Ratio - (defined on page 11)

Liquidity - Ability of business to generate cash to make debt payments or to convert assets to cash.

Net Farm Income - (defined on page 7)

Net Farm Income from Operations Ratio - (defined on page 8)

Net Worth - The value of assets less liabilities equal net worth. It is the equity the owner has in owned assets.

Operating Costs of Producing Milk - (defined on page 20)

Operating Expense Ratio - Total accrual expenses less interest and machinery and building depreciation divided by total accrual receipts.

Opportunity Cost - The cost or charge made for using a resource based on its value in its most likely alternative use. The opportunity cost of a farmer's labor and management is the value he/she would receive if employed in his/her most qualified alternative position.

Other Livestock Expenses - All other dairy herd and livestock expenses not included in more specific categories. Other livestock expenses include; bedding, DHIC, milk house and parlor supplies, livestock board, registration fees and transfers.

Part-Time Cash-Crop Dairy (farm) - Operating and managing this farm is not a full-time occupation, crop sales exceed 10 percent of accrual milk receipts and cropland is owned.

Part-Time Dairy (farm) - Dairy farming is the primary enterprise, cropland is owned but operating and managing this farm is not a full-time occupation for one or more people.

Personal Withdrawals and Family Expenditures Including Nonfarm Debt Payments - All the money removed from the farm business for personal or nonfarm use including family living expenses, health and life insurance, income taxes, nonfarm debt payments, and investments.

Profitability - The return or net income the owner/manager receives for using one or more of his or her resources in the farm business. True "economic profit" is what remains after deducting all costs including the opportunity costs of the owner/manager's labor, management, and equity capital.

Purchased Inputs Cost of Producing Milk - (defined on page 20)

Repayment Analysis - An evaluation of the business' ability to make planned debt payments.

Replacement Livestock - Dairy cattle and other livestock purchased to replace those that were culled or sold from the herd during the year.

Return on Equity Capital - (defined on page 8)

Return on Total Capital - (defined on page 8)

Return to Operators' Labor, Management, and Equity Capital - (defined on page 7)

Rotational Grazing - The dairy herd is on pasture at least three months of the year, changing paddock at least every three days.

Solvency - The extent or ability of assets to cover or pay liabilities. Debt/asset and leverage ratios are common measures of solvency.

Total Costs of Producing Milk - (defined on page 20)

Whole Farm Method - A procedure used to calculate costs of producing milk on dairy farms without using enterprise cost accounts. All non-milk receipts are assigned a cost equal to their sale value and deducted from total farm expenses to determine the costs of producing milk.

Working Capital - A theoretical measure of the amount of funds available to purchase inputs and inventory items after the sale of current farm assets and payment of all current farm liabilities. Calculate as current farm assets at end year less current farm liabilities at end year.

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OTHER A.E.M. EXTENSION BULLETINS

| EB No | Title | Fee (if applicable) | Author(s) |
|---------|--|------------------------|--|
| 2002-18 | DFBS: New York Small Herd Farms, 70 Cows or Fewer, 2001 | (\$15.00) | W. A. Knoblauch, L. D. Putnam, M. Kiraly, and J. Karszes |
| 2002-17 | Income Tax Management and Reporting for Small Businesses and Farms | (\$15.00) | C. H. Cuykendall, and G. J. Bouchard |
| 2002-16 | DFBS: Central Valleys Region, 2001 | (\$10.00) | E. L. LaDue, J. Karszes, J. Hilts, J. Barry, A. E. Staehr, Z. Kurdieh, C. Z. Radick, and L. D. Putnam |
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