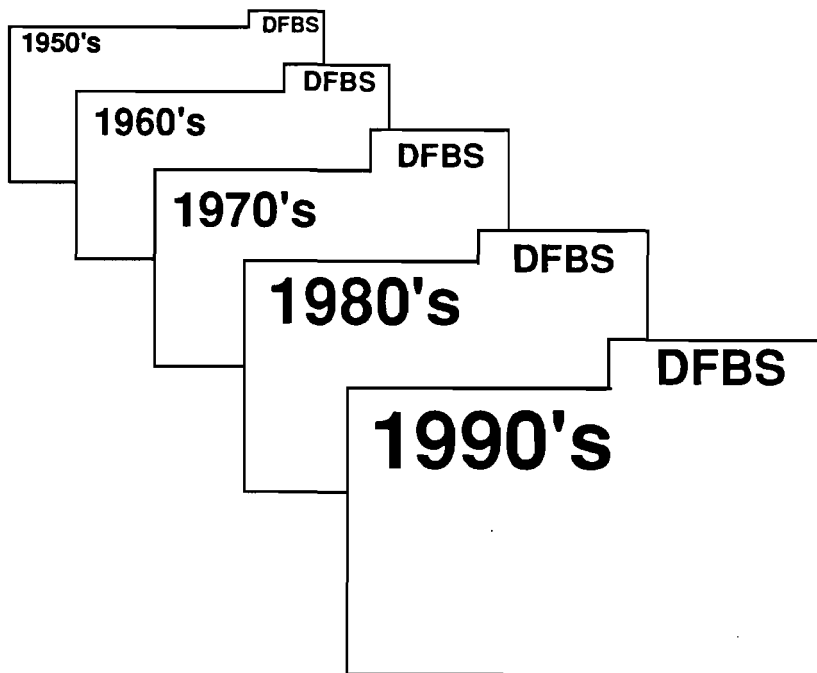


# DAIRY FARM BUSINESS SUMMARY

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## EASTERN NEW YORK RENTER SUMMARY 1990



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## 1990 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 eight regional summaries and in one statewide summary.<sup>1</sup>

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 3-5. Four measures of farm profits are calculated on pages 6 and 7. The balance sheet and cash flow statement are featured on pages 8-13. The dairy program analysis includes data on the costs of producing milk (pages 16 and 17).

This special Eastern New York Dairy Summary is an average of 26 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 138 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 26 farms in Albany, Columbia, Delaware, Montgomery, Orange, Otsego, Rensselaer, Schoharie, Sullivan, and Washington Counties are summarized in this publication. The Eastern New York region consists of these counties plus Dutchess, Fulton, Greene, Herkimer, Saratoga, Schenectady, and Ulster Counties which do not have dairy farm business summary participants that classify as renters. The 138 owned dairy farms summarized in this publication include farms from the entire region.

#### Use Comparative Profitability Data With Caution

The profitability analysis on page 7 where labor and management income is calculated implies that renting a dairy farm is more profitable than owning one. 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 equity capital averaged \$163 per tillable acre on the owned dairy farms compared to only \$108 on the rented farms. This accounts for a \$21,499 difference in costs between owned and rented farms.

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<sup>1</sup>Smith, Stuart F., Wayne A. Knoblauch, and Linda D. Putnam, Dairy Farm Management Business Summary, New York, 1990, A.E. Res. 91-5, August 1991.

## 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  
26 Eastern New York Dairy Farm Renters, 1990

| <u>Type of Business</u>       | <u>Number</u> | <u>Labor Force</u>    | <u>My Farm</u> | <u>Average</u> |
|-------------------------------|---------------|-----------------------|----------------|----------------|
| Single proprietorship         | 23            | Operator 1.           | _____ mo.      | 12.00          |
| Partnership                   | 2             | Operator 2.           | _____ mo.      | 2.50           |
| Corporation                   | 1             | Operator 3.           | _____ mo.      | 0.92           |
|                               |               | Family paid           | _____ mo.      | 2.08           |
| <u>Milking System</u>         | <u>Number</u> | Family unpaid         | _____ mo.      | 3.58           |
| Dumping station               | 2             | Hired                 | _____ mo.      | 5.92           |
| Pipeline                      | 23            | Total                 | _____ mo.      | 27.00          |
| Herringbone parlor            | 0             |                       |                |                |
| Other parlor                  | 1             | Worker equivalent     |                |                |
|                               |               | (total + 12)          | _____          | 2.25           |
| <u>Type of Barn</u>           | <u>Number</u> | Operator/Manager      |                |                |
| Stanchion                     | 25            | Equivalent            |                |                |
| Freestall                     | 1             | (Oper. mo. + 12)      | _____          | 1.29           |
| <u>Dairy Records Service</u>  | <u>Number</u> | <u>Land Use</u>       | <u>My Farm</u> | <u>Average</u> |
| DHIC                          | 21            | Total acres rented    | _____          | 373            |
| DHIC Owner-Sampler            | 3             | Tillable acres rented | _____          | 206            |
| Other                         | 1             |                       |                |                |
| None                          | 1             |                       |                |                |
| <u>Business Record System</u> | <u>Number</u> | <u>Number of Cows</u> | <u>My Farm</u> | <u>Average</u> |
| Account Book                  | 10            | Beg. year (owned)     | _____          | 60             |
| Agrifax (mail-in only)        | 4             | End year (owned &     |                |                |
| ELFAC                         | 1             | leased)               | _____          | 61             |
| Other                         | 7             | Average for year      |                |                |
| On-farm computer              | 4             | (owned & leased)      | _____          | 61             |

Predominate business characteristics of the 26 rented farms include the single proprietorship, pipeline milking system, stanchion or conventional stall barn, DHIC herd records and an account book record system. They are very similar to owned dairy farms in this respect.

The average size of the labor force on the rented farms was 21 percent less than the 2.84 worker equivalent on owned farms. The rented farms averaged 206 tillable acres and 61 cows compared to 269 tillable acres and 87 cows on the 138 owned dairy farms in the same region. The owned farms averaged 31 cows per worker compared to 27 on the rented farms. Land resources were being used more efficiently by dairy farm owners when measured as tillable acres per cow.

Income Statement

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

CASH AND ACCRUAL FARM EXPENSES  
26 Eastern New York Dairy Farm Renters, 1990

| <u>Expense Item</u>           | Cash<br>Paid + | Change in<br>Inventory<br>or Prepaid<br>Expense + | Change in<br>Accounts Payable | Accrual<br>Expenses - |
|-------------------------------|----------------|---|-------------------------------|-----------------------|
| <u>Hired Labor</u>            | \$ 9,305       | \$ 0 «  | \$170                         | \$ 9,475              |
| <u>Feed</u>                   |                |   |                               |                       |
| Dairy grain & conc.           | 39,615         | -1,960  | 296                           | 37,951                |
| Dairy roughage                | 1,854          | -218  | 307                           | 1,943                 |
| Other livestock               | 96             | -4  | 0                             | 92                    |
| <u>Machinery</u>              |                |   |                               |                       |
| Mach. hire, rent/lease        | 2,084          | 0 «   | 0                             | 2,084                 |
| Machinery repairs/parts       | 7,834          | -260  | 78                            | 7,652                 |
| Auto expense (farm share)     | 531            | 0 «   | 0                             | 531                   |
| Fuel, oil & grease            | 4,697          | -153  | -19                           | 4,525                 |
| <u>Livestock</u>              |                |   |                               |                       |
| Replacement livestock         | 2,908          | 0 «   | 0                             | 2,908                 |
| Breeding                      | 2,415          | -62   | 30                            | 2,383                 |
| Vet & medicine                | 3,237          | -46   | 3                             | 3,194                 |
| Milk marketing                | 9,869          | 0 «   | 6                             | 9,875                 |
| Cattle lease/rent             | 219            | 0 «   | 0                             | 219                   |
| Other livestock expense       | 7,812          | 171   | 12                            | 7,995                 |
| <u>Crops</u>                  |                |   |                               |                       |
| Fertilizer & lime             | 5,843          | -450  | 5                             | 5,398                 |
| Seeds & plants                | 2,132          | -24   | 0                             | 2,108                 |
| Spray, other crop exp.        | 2,206          | -244  | 16                            | 1,978                 |
| <u>Real Estate</u>            |                |   |                               |                       |
| Land/bldg./fence repair       | 2,674          | -37   | -4                            | 2,633                 |
| Taxes                         | 1,940          | 0 «   | 0                             | 1,940                 |
| Rent & lease                  | 10,234         | 0 «   | 0                             | 10,234                |
| <u>Other</u>                  |                |   |                               |                       |
| Insurance                     | 2,558          | 0 «   | 0                             | 2,558                 |
| Telephone (farm share)        | 608            | 0 «   | 2                             | 610                   |
| Electricity (farm share)      | 4,183          | 0 «   | 0                             | 4,183                 |
| Interest paid                 | 6,280          | 0 «   | 0                             | 6,280                 |
| Miscellaneous                 | 1,810          | 0   | 0                             | 1,810                 |
| Total Operating               | \$132,944      | \$-3,287  | \$902                         | \$130,559             |
| Expansion livestock           | \$182          | \$0 «   | \$0                           | \$182                 |
| Machinery depreciation        |                |   |                               | \$9,533               |
| Building depreciation         |                |   |                               | \$206                 |
| <b>TOTAL ACCRUAL EXPENSES</b> |                |   |                               | <b>\$140,480</b>      |

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.

Changes in prepaid expenses apply to non-inventory categories (noted by \* in the tables). Include any expenses that have been paid for in advance of their use, for example, 1991 rent paid in 1990. A positive change is the amount the prepayment account declined from beginning to end year, a negative change indicates an increase in the account.

Change in accounts payable: An increase in payables is added and a decrease is subtracted when calculating accrual expenses.

Accrual expenses are the costs of inputs actually used in this year's production.

Worksheets are provided to enable any dairy farmer to compute his or her accrual farm expenses and compare them with the averages on the previous page.

## CASH AND ACCRUAL FARM EXPENSES WORKSHEET

| Expense Item              | Cash<br>Paid + | Change in<br>Inventory<br>or Prepaid<br>Expense + | Change in<br>Accounts Payable | Accrual<br>- Expenses |
|---------------------------|----------------|---|-------------------------------|-----------------------|
| <u>Hired Labor</u>        | \$ _____       | \$ _____  | \$ _____                      | \$ _____              |
| <u>Feed</u>               |                |   |                               |                       |
| Dairy grain & conc.       | _____          | _____   | _____                         | _____                 |
| Dairy roughage            | _____          | _____   | _____                         | _____                 |
| Other livestock           | _____          | _____   | _____                         | _____                 |
| <u>Machinery</u>          |                |   |                               |                       |
| Mach. hire, rent/lease    | _____          | _____   | _____                         | _____                 |
| Machinery repairs/parts   | _____          | _____   | _____                         | _____                 |
| Auto expense (farm share) | _____          | _____   | _____                         | _____                 |
| Fuel, oil & grease        | _____          | _____   | _____                         | _____                 |
| <u>Livestock</u>          |                |   |                               |                       |
| Replacement livestock     | _____          | _____   | _____                         | _____                 |
| Breeding                  | _____          | _____   | _____                         | _____                 |
| Vet & medicine            | _____          | _____   | _____                         | _____                 |
| Milk marketing            | _____          | _____   | _____                         | _____                 |
| Cattle lease/rent         | _____          | _____   | _____                         | _____                 |
| Other livestock expense   | _____          | _____   | _____                         | _____                 |
| <u>Crops</u>              |                |   |                               |                       |
| Fertilizer & lime         | _____          | _____   | _____                         | _____                 |
| Seeds & plants            | _____          | _____   | _____                         | _____                 |
| Spray, other crop exp.    | _____          | _____   | _____                         | _____                 |
| <u>Real Estate</u>        |                |   |                               |                       |
| Land/bldg./fence repair   | _____          | _____   | _____                         | _____                 |
| Taxes                     | _____          | _____   | _____                         | _____                 |
| Rent & lease              | _____          | _____   | _____                         | _____                 |
| <u>Other</u>              |                |   |                               |                       |
| Insurance                 | _____          | _____   | _____                         | _____                 |
| Telephone (farm share)    | _____          | _____   | _____                         | _____                 |
| Electricity (farm share)  | _____          | _____   | _____                         | _____                 |
| Interest paid             | _____          | _____   | _____                         | _____                 |
| Miscellaneous             | _____          | _____   | _____                         | _____                 |
| Total Operating           | \$ _____       | \$ _____  | \$ _____                      | \$ _____              |
| Expansion livestock       | _____          | _____   | _____                         | _____                 |
| Machinery depreciation    |                |   |                               | _____                 |
| Building depreciation     |                |   |                               | _____                 |
| TOTAL ACCRUAL EXPENSES    |                |   |                               | \$ _____              |

**CASH AND ACCRUAL FARM RECEIPTS**  
**26 Eastern New York Dairy Farm Renters, 1990**

| <u>Receipt Item</u>           | <u>Cash</u><br><u>Receipts</u> | <u>Change in</u><br><u>Inventory</u> | <u>Change in</u><br><u>Accounts</u><br><u>Receivable</u> | <u>Accrual</u><br><u>Receipts</u> |
|-------------------------------|--------------------------------|--------------------------------------|--|-----------------------------------|
| Milk sales                    | \$153,306                      |                                      | \$-2,187   | \$151,119                         |
| Dairy cattle                  | 8,463                          | \$2,710                              | 393  | 11,566                            |
| Dairy calves                  | 2,395                          |                                      | -22  | 2,373                             |
| Other livestock               | 23                             | 12                                   | 0  | 35                                |
| Crops                         | 1,451                          | 4,154                                | 0  | 5,605                             |
| Government receipts           | 1,582                          | 0*                                   | 0  | 1,582                             |
| Custom machine work           | 263                            |                                      | 0  | 263                               |
| Gas tax refund                | 126                            |                                      | 0  | 126                               |
| Other                         | 651                            |                                      | 0  | 651                               |
| - Nonfarm noncash capital     |                                | (-) 706                              |  | (-) 706                           |
| <b>Total Accrual Receipts</b> | <b>\$168,260</b>               | <b>\$6,170</b>                       | <b>\$-1,816</b>  | <b>\$172,614</b>                  |

\*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**

| <u>Receipt Item</u>           | <u>Cash</u><br><u>Receipts</u> | <u>Change in</u><br><u>Inventory</u> | <u>Change in</u><br><u>Accounts</u><br><u>Receivable</u> | <u>Accrual</u><br><u>Receipts</u> |
|-------------------------------|--------------------------------|--------------------------------------|--|-----------------------------------|
| Milk sales                    | \$ _____                       |                                      | \$ _____   | \$ _____                          |
| Dairy cattle                  | _____                          | \$ _____                             | _____  | _____                             |
| Dairy calves                  | _____                          | _____                                | _____  | _____                             |
| Other livestock               | _____                          | _____                                | _____  | _____                             |
| Crops                         | _____                          | _____                                | _____  | _____                             |
| Government receipts           | _____                          | _____                                | _____  | _____                             |
| Custom machine work           | _____                          |                                      | _____  | _____                             |
| Gas tax refund                | _____                          |                                      | _____  | _____                             |
| Other                         | _____                          |                                      | _____  | _____                             |
| Less gifts of cattle & crops  |                                | (-) _____                            |  | (-) _____                         |
| <b>Total Accrual Receipts</b> | <b>\$ _____</b>                | <b>\$ _____</b>                      | <b>\$ _____</b>  | <b>\$ _____</b>                   |

## 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 FLB and PCA). 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, 1990

| Item                                   | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm  |
|--|--------------------------|--------------------------|----------|
| Total accrual receipts                 | \$172,614                | \$258,648                | \$ _____ |
| + Appreciation: Livestock              | -389                     | -1,187                   | _____    |
| Machinery                              | 2,247                    | 1,544                    | _____    |
| Real Estate                            | -149                     | 6,644                    | _____    |
| Other Stock/Cert.                      | 16                       | 156                      | _____    |
| - Total Including Appreciation         | \$174,339                | \$265,805                | \$ _____ |
| - Total accrual expenses               | 140,480                  | 224,604                  | _____    |
| - Net Farm Income (with appreciation)  | \$ 33,859                | \$ 41,201                | \$ _____ |
| Net Farm Income (without appreciation) | \$ 32,134                | \$ 34,044                | \$ _____ |

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 with and without appreciation. Appreciation is considered an important part of the return to ownership of farm assets.

### RETURN TO OPERATOR(S') LABOR, MANAGEMENT, AND EQUITY

Eastern New York Dairy Farm Renters and Owners, 1990

| Item   | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm  |
|--|--------------------------|--------------------------|----------|
| Net farm income (with appreciation)  | \$33,859                 | \$41,201                 | \$ _____ |
| - Family labor unpaid @ \$1,250 per month                                    | 4,475                    | 3,675                    | _____    |
| - Return to operators' labor, management,<br>& equity (with appreciation)    | \$29,384                 | \$37,526                 | \$ _____ |
| - Appreciation   | 1,725                    | 7,157                    | _____    |
| - Return to operators' labor, management,<br>& equity (without appreciation) | \$27,659                 | \$30,369                 | \$ _____ |



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 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, 1990

| Item  | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm |
|---|--------------------------|--------------------------|---------|
| Return to operators' labor, mgmt.,<br>& equity without appreciation | \$27,659                 | \$30,369                 | \$_____ |
| - Real interest @ 5% on average<br>equity capital                   | <u>7,316</u>             | <u>22,052</u>            | -_____  |
| = Labor & Management Income   | \$20,343                 | \$ 8,317                 | \$_____ |
| Labor & Management Income per<br>Operator/Manager                   | \$15,770                 | \$ 6,207                 | \$_____ |

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-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 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. Return on total capital is calculated by adding interest paid to the return on equity capital and then dividing by average farm assets to calculate the rate of return on total capital.

RETURN ON EQUITY CAPITAL AND RETURN ON TOTAL CAPITAL  
Eastern New York Dairy Farm Renters and Owners, 1990

| Item  | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm |
|---|--------------------------|--------------------------|---------|
| Return to operators' labor, mgmt.,<br>& equity capital with apprec. | \$29,384                 | \$37,526                 | \$_____ |
| - Value of operators' labor & mgmt.                                 | <u>26,038</u>            | <u>27,357</u>            | _____   |
| = Return on equity capital with apprec.                             | \$ 3,346                 | \$10,169                 | \$_____ |
| + Interest paid   | <u>6,280</u>             | <u>15,908</u>            | _____   |
| = Return on total capital with apprec.                              | \$ 9,626                 | \$26,077                 | \$_____ |
| Return on equity capital without apprec.                            | \$ 1,621                 | \$ 3,012                 | \$_____ |
| Return on total capital without apprec.                             | \$ 7,901                 | \$18,920                 | \$_____ |
| Rate of return on average equity capital:                           |                          |                          |         |
| with appreciation   | 2.3%                     | 2.3%                     | _____%  |
| without appreciation  | 1.1%                     | 0.7%                     | _____%  |
| Rate of return on average total capital:                            |                          |                          |         |
| with appreciation   | 4.3%                     | 4.2%                     | _____%  |
| without appreciation  | 3.5%                     | 3.0%                     | _____%  |

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.

1990 FARM BUSINESS & NONFARM BALANCE SHEET  
26 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    | \$ 3,557      | \$ 2,806      | Accounts payable                | \$ 2,423      | \$ 3,324      |
| Accounts rec.                    | 12,906        | 11,090        | Operating debt                  | 772           | 965           |
| Prepaid exp.                     | 56            | 56            | Short-term                      | 2,293         | 2,297         |
| Feed & supplies                  | <u>27,035</u> | <u>34,474</u> | Advanced govt. rec.             | <u>0</u>      | <u>0</u>      |
| Total                            | \$ 43,554     | \$ 48,426     | Total                           | \$ 5,488      | \$ 6,586      |
| <u>Intermediate</u>              |               |               | <u>Intermediate</u>             |               |               |
| Dairy cows: owned                | \$ 64,080     | \$ 63,694     | Structured debt                 |               |               |
| leased                           | 770           | 645           | 1-10 years                      | \$ 61,022     | \$ 64,460     |
| Heifers                          | 22,759        | 25,472        | Financial lease                 |               |               |
| Bulls/other lvstk.               | 287           | 290           | (cattle/mach.)                  | 3,533         | 3,212         |
| Mach./eq. owned                  | 73,415        | 84,450        | FLB/PCA stock                   | <u>761</u>    | <u>490</u>    |
| Mach./eq. leased                 | 2,763         | 2,567         | Total                           | \$ 65,316     | \$ 68,162     |
| FLB/PCA stock                    | 761           | 490           |                                 |               |               |
| Other stock/cert.                | <u>1,829</u>  | <u>2,011</u>  | <u>Long Term</u>                |               |               |
| Total                            | \$166,664     | \$179,619     | Structured debt                 |               |               |
| <u>Long-Term</u>                 |               |               | ≥10 years                       | \$ 7,100      | \$ 6,908      |
| Land/buildings:                  |               |               | Financial lease                 |               |               |
| owned                            | \$ 4,925      | \$ 9,008      | (structures)                    | <u>0</u>      | <u>0</u>      |
| leased                           | <u>0</u>      | <u>0</u>      | Total                           | \$ 7,100      | \$ 6,908      |
| Total                            | \$ 4,925      | \$ 9,008      | Total Farm Liab.                | \$ 77,904     | \$ 81,656     |
| Total Farm Assets                | \$215,143     | \$237,053     | FARM NET WORTH                  | \$137,239     | \$155,397     |
| (Average for 17 farms reporting) |               |               | Nonfarm Liabilities*            |               |               |
| <u>Nonfarm Assets*</u>           |               |               | <u>&amp; Net Worth</u>          |               |               |
|                                  | Jan. 1        | Dec. 31       |                                 | Jan. 1        | Dec. 31       |
| Personal cash, chkg. & savings   | \$ 2,048      | \$ 1,767      | Nonfarm Liab.                   | \$4,875       | \$4,125       |
| Cash value life ins.             | 4,429         | 4,905         | NONFARM NET WORTH               | \$31,570      | \$33,618      |
| Nonfarm real estate              | 14,565        | 14,712        |                                 |               |               |
| Auto (personal sh.)              | 3,424         | 3,750         | <u>FARM &amp; NONFARM*</u>      |               |               |
| Stocks & bonds                   | 1,786         | 2,045         | Total Assets                    | \$251,588     | \$274,796     |
| Household furn.                  | 8,347         | 8,788         | Total Liabilities               | <u>82,779</u> | <u>85,781</u> |
| All other                        | <u>1,847</u>  | <u>1,776</u>  |                                 |               |               |
| Total Nonfarm                    | \$36,445      | \$37,743      | TOTAL FARM & NON-FARM NET WORTH | \$168,809     | \$189,015     |

\*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.

Advanced government receipts are included as current liabilities. Government payments received in 1990 that are for participation in the 1991 program are the end year balance and payments received in 1989 for participation in the 1990 program are the beginning year balance.

Date \_\_\_\_\_

## 1990 FARM BUSINESS & NONFARM BALANCE SHEET

[illegible]

Balance sheet analysis requires an examination of financial and debt ratios measuring levels of debt. 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.

#### BALANCE SHEET ANALYSIS

Eastern New York Dairy Farm Renters and Owners, 1990

| Item  | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm  |
|---|--------------------------|--------------------------|----------|
| <u>Financial Ratios - Farm:</u>             |                          |                          |          |
| Percent equity                              | 66%                      | 70%                      | _____ %  |
| Debt/asset ratio: total                     | 0.34                     | 0.30                     | _____    |
| long-term                                   | 0.77                     | 0.31                     | _____    |
| intermediate/current                        | 0.33                     | 0.29                     | _____    |
| <u>Change in Net Worth:</u>                 |                          |                          |          |
| Without appreciation                        | \$16,433                 | \$2,281                  | \$ _____ |
| With appreciation                           | \$18,158                 | \$9,438                  | _____    |
| <u>Farm Debt Analysis:</u>                  |                          |                          |          |
| Accounts payable as % of total debt         | 4%                       | 3%                       | _____ %  |
| Long-term liabilities as a % of total debt  | 8%                       | 52%                      | _____ %  |
| Current & inter. liab. as a % of total debt | 92%                      | 48%                      | _____ %  |
| <u>Farm Debt Levels Per Cow:</u>            |                          |                          |          |
| Total farm debt                             | \$1,339                  | \$2,174                  | \$ _____ |
| Long-term debt                              | 113                      | 1,122                    | _____    |
| Intermediate & current debt                 | 1,225                    | 1,052                    | _____    |

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, 1990

| Item                       | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm  |
|----------------------------|--------------------------|--------------------------|----------|
| Value beg. of year         | \$73,415                 | \$101,323                | \$ _____ |
| Purchases                  | \$17,209                 | \$20,282                 | \$ _____ |
| + Nonfarm noncash transfer | 1,577                    | 0                        | + _____  |
| - Sales                    | 466                      | 1,544                    | - _____  |
| - Depreciation             | <u>9,533</u>             | <u>12,060</u>            | - _____  |
| = Net investment           | 8,787                    | 6,678                    | -+ _____ |
| + Appreciation             | <u>2,247</u>             | <u>1,544</u>             | + _____  |
| = Value end of year        | \$84,450                 | \$109,545                | \$ _____ |

## 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 are identified in the following table. By definition, total cash inflows must equal total cash outflows when beginning and ending balances are included. Any imbalance is, therefore, the error from incorrect accounting of cash inflows and cash outflows.

### ANNUAL CASH FLOW STATEMENT Eastern New York Dairy Farm Renters and Owners, 1990

| Item  | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm  |
|---|--------------------------|--------------------------|----------|
| <u>Cash Inflows</u>                         |                          |                          |          |
| Beg. farm cash, checking & savings          | \$ 3,557                 | \$ 7,714                 | \$ _____ |
| Cash farm receipts                          | 168,260                  | 253,764                  | _____    |
| Sale of assets: Machinery                   | 466                      | 1,544                    | _____    |
| Real estate                                 | 0                        | 3,614                    | _____    |
| Other stock & cert.                         | 1                        | 187                      | _____    |
| Money borrowed (inter. & long-term)         | 22,229                   | 35,808                   | _____    |
| Money borrowed (short-term)                 | 1,894                    | 2,911                    | _____    |
| Increase in operating debt                  | 193                      | 1,047                    | _____    |
| Nonfarm income                              | 3,489                    | 4,345                    | _____    |
| Cash from nonfarm cap. used in the business | 3,209                    | 2,893                    | _____    |
| Money borrowed - nonfarm                    | <u>0</u>                 | <u>239</u>               | _____    |
| Total                                       | \$203,298                | \$314,066                | \$ _____ |
| <u>Cash Outflows</u>                        |                          |                          |          |
| Cash farm expenses                          | \$132,944                | \$206,001                | \$ _____ |
| Capital purchases: Expansion livestock      | 182                      | 1,943                    | _____    |
| Machinery                                   | 17,209                   | 20,282                   | _____    |
| Real estate                                 | 4,481                    | 20,105                   | _____    |
| Other stock & cert.                         | 167                      | 256                      | _____    |
| Principal payments (inter. & long-term)     | 18,983                   | 22,896                   | _____    |
| Principal payments (short-term)             | 1,890                    | 1,662                    | _____    |
| Decrease in operating debt                  | 0                        | 0                        | _____    |
| Personal withdrawals & family expenditures, |                          |                          | _____    |
| including nonfarm debt payments             | 24,696                   | 35,164                   | _____    |
| Ending farm cash, checking & savings        | <u>2,806</u>             | <u>4,949</u>             | _____    |
| Total                                       | \$203,357                | \$313,258                | \$ _____ |
| Imbalance (error)                           | \$-59                    | \$808                    | \$ _____ |

### 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 1991. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 1991 debt payments shown below.

#### FARM DEBT PAYMENTS PLANNED Same 19 Eastern New York Dairy Farm Renters, 1990\*

| Debt Payments                       | Average       |          |                 | My Farm       |          |                 |
|-------------------------------------|---------------|----------|-----------------|---------------|----------|-----------------|
|                                     | 1990 Payments |          | Planned<br>1991 | 1990 Payments |          | Planned<br>1991 |
|                                     | Planned       | Made     |                 | Planned       | Made     |                 |
| Long-term                           | \$ 1,600      | \$ 0     | \$ 853          | \$ _____      | \$ _____ | \$ _____        |
| Intermediate-term                   | 18,714        | 27,758   | 19,606          | _____         | _____    | _____           |
| Short-term                          | 884           | 1,013    | 2,076           | _____         | _____    | _____           |
| Operating (net red.)                | 457           | 329      | 166             | _____         | _____    | _____           |
| Accounts payable<br>(net reduction) | 321           | 0        | 0               | _____         | _____    | _____           |
| Total                               | \$21,977      | \$29,100 | \$22,700        | \$ _____      | \$ _____ | \$ _____        |
| Per cow                             | \$349         | \$462    |                 | \$ _____      | \$ _____ |                 |
| Per cwt. 1990 milk                  | \$2.20        | \$2.92   |                 | \$ _____      | \$ _____ |                 |
| Percent of total<br>1990 receipts   | 12%           | 16%      |                 | _____         | _____    |                 |
| Percent of 1990<br>milk receipts    | 14%           | 19%      |                 | _____         | _____    |                 |

\*Farms that completed Dairy Farm Business Summaries for both 1989 and 1990.

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 last year's available cash flow. Farmers that did not participate in DFBS last year will find in their report a cash flow coverage ratio based on planned debt payments for 1990.

#### CASH FLOW COVERAGE RATIO Eastern New York Dairy Farm Renters and Owners, 1990

| Item  | Same 19<br>Farm Renters | Same 101<br>Farm Owners | My Farm  |
|---|-------------------------|-------------------------|----------|
| Cash farm receipts  | \$174,509               | \$258,578               | \$ _____ |
| - Cash farm expenses  | 135,479                 | 208,642                 | _____    |
| + Interest paid   | 6,393                   | 14,825                  | _____    |
| - Net personal withdrawals from farm*                             | 23,366                  | 31,223                  | _____    |
| (A) = Amount Available for Debt Service                           | \$22,057                | \$33,538                | \$ _____ |
| (B) = Debt Payments Planned for 1990<br>(as of December 31, 1989) | \$21,977                | \$35,071                | \$ _____ |
| (A + B) = Cash Flow Coverage Ratio for 1990                       | 1.00                    | 0.96                    | _____    |

\*Personal withdrawals and family expenditures less nonfarm income and nonfarm money borrowed. If family withdrawals are excluded the cash flow coverage ratio will be incorrect.

## ANNUAL CASH FLOW WORKSHEET

| Item  | 26 Dairy                  | My Farm |         | Expected | 1991       |
|---|---------------------------|---------|---------|----------|------------|
|   | Farm Renters<br>(per cow) | Total   | Per Cow | Change   | Projection |
| Average number of cows                                | 61                        |         |         |          |            |
| <u>Accrual Oper. Receipts</u>                         |                           |         |         |          |            |
| Milk  | \$2,486                   | \$      | \$      |          | \$         |
| Dairy cattle  | 190                       |         |         |          |            |
| Dairy calves  | 39                        |         |         |          |            |
| Other livestock                                       | 1                         |         |         |          |            |
| Crops   | 92                        |         |         |          |            |
| Misc. receipts  | 43                        |         |         |          |            |
| Total   | \$2,851                   | \$      | \$      |          | \$         |
| <u>Accrual Oper. Expenses</u>                         |                           |         |         |          |            |
| Hired labor   | \$ 156                    | \$      | \$      |          | \$         |
| Dairy grain & conc.                                   | 624                       |         |         |          |            |
| Dairy roughage  | 32                        |         |         |          |            |
| Other lvstk. feed                                     | 2                         |         |         |          |            |
| Mach. hire/rent/lease                                 | 34                        |         |         |          |            |
| Mach. repair/parts & auto                             | 135                       |         |         |          |            |
| Fuel, oil & grease                                    | 74                        |         |         |          |            |
| Replacement lvstk.                                    | 48                        |         |         |          |            |
| Breeding  | 39                        |         |         |          |            |
| Vet & medicine  | 53                        |         |         |          |            |
| Milk marketing  | 162                       |         |         |          |            |
| Cattle lease  | 4                         |         |         |          |            |
| Other lvstk. exp.                                     | 132                       |         |         |          |            |
| Fertilizer & lime                                     | 89                        |         |         |          |            |
| Seeds & plants  | 35                        |         |         |          |            |
| Spray/other crop exp.                                 | 33                        |         |         |          |            |
| Land, bldg., fence repair                             | 43                        |         |         |          |            |
| Taxes   | 32                        |         |         |          |            |
| Real est. rent/lease                                  | 168                       |         |         |          |            |
| Insurance   | 42                        |         |         |          |            |
| Utilities   | 79                        |         |         |          |            |
| Miscellaneous   | 30                        |         |         |          |            |
| Total Less Int. Paid                                  | \$2,044                   | \$      | \$      | \$       | \$         |
| <u>Net Accrual Operating Income</u>                   | (total)                   |         |         |          |            |
| (without interest paid)                               | \$49,040                  | \$      |         |          | \$         |
| - Change in lvstk./crop inv.                          | 6,170                     |         |         |          |            |
| - Change in accts. rec.                               | -1,816                    |         |         |          |            |
| + Change in feed/supply inv.*                         | -3,287                    |         |         |          |            |
| + Change in accts. payable**                          | 902                       |         |         |          |            |
| NET CASH FLOW   | \$42,301                  | \$      |         |          | \$         |
| - Net personal withdrawals & family expenditures      | 21,207                    |         |         |          |            |
| Available for Farm Debt Payments & Investments        | \$21,094                  | \$      |         |          | \$         |
| - Farm debt payments                                  | 27,051                    |         |         |          |            |
| Available for Farm Investments                        | \$-5,957                  | \$      |         |          | \$         |
| - Capital purchases: cattle, machinery & improvements | \$22,039                  | \$      |         | \$       | \$         |
| Additional Capital Needed                             |                           | \$      |         |          | \$         |

\*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 26 Eastern New York Dairy Farm Renters, 1990

| Item                 | Average of Farms Reporting |       |            | My Farm |             |
|----------------------|----------------------------|-------|------------|---------|-------------|
| Crop Yields          | Farms                      | Acres | Prod/Acre* | Acres   | Prod/Acre   |
| Hay crop             | 25                         | 130   | 2.50 tn DM | _____   | _____ tn DM |
| Corn silage          | 21                         | 49    | 13.36 tn   | _____   | _____ tn    |
|                      |                            |       | 4.41 tn DM | _____   | _____ tn DM |
| Other forage         | 1                          | 18    | 2.17 tn DM | _____   | _____ tn DM |
| Total forage         | 25                         | 172   | 2.88 tn DM | _____   | _____ tn DM |
| Corn grain           | 8                          | 56    | 93.79 bu   | _____   | _____ bu    |
| Oats                 | 2                          | 35    | 60.00 bu   | _____   | _____ bu    |
| Wheat                | 1                          | 15    | 60.00 bu   | _____   | _____ bu    |
| Other crops          | 3                          | 24    |            | _____   |             |
| Tillable pasture     | 7                          | 25    |            | _____   |             |
| Idle                 | 5                          | 29    |            | _____   |             |
| Total Tillable Acres | 26                         | 206   |            | _____   |             |

\*1990 average yields for 138 dairy farm owners in Eastern New York included: all hay crops, 2.5 tons dry matter per acre; corn silage, 14.5 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, 1990

| Item                                      | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm |
|---|--------------------------|--------------------------|---------|
| Total tillable acres per cow              | 3.31                     | 3.11                     | _____   |
| Total forage acres per cow                | 2.73                     | 2.67                     | _____   |
| Harvested forage dry matter, tons per cow | 7.85                     | 8.24                     | _____   |



A substantial number of cooperators have allocated crop expenses to hay crop, corn, and other crop production. Fertilizer and lime, seeds and plants, and spray and other crop expenses have been computed per acre and per production unit for hay and corn. Additional expense items such as fuels, labor, and machinery repairs are not included.

**CROP RELATED ACCRUAL EXPENSES**  
Eastern New York Dairy Farm Renters and Owners, 1990

|                               | Total/<br>Till. | Hay Crop         |               | All<br>Corn          | Corn Sil.<br>Per Ton | Corn Grain<br>Per Dry |
|-------------------------------|-----------------|------------------|---------------|----------------------|----------------------|-----------------------|
| Expense                       | Acre            | Per<br>Acre      | Per<br>Ton DM | Per Acre             | DM                   | Shell Bu.             |
| <b>26 Dairy Farm Renters:</b> |                 |                  |               |                      |                      |                       |
|                               |                 | Average 7 Farms  |               | Reporting Individual | Crop                 | Costs                 |
| Fertilizer & lime             | \$26.86         | \$13.78          | \$5.90        | \$39.01              | \$11.09              | \$0.41                |
| Seeds & plants                | 10.49           | 6.00             | 2.57          | 20.58                | 5.85                 | 0.22                  |
| Spray & other crop<br>expense | 9.84            | 4.53             | 1.94          | 28.04                | 7.97                 | 0.30                  |
| Total                         | \$47.19         | \$24.31          | \$10.41       | \$87.63              | \$24.91              | \$0.93                |
| <b>138 Dairy Farm Owners:</b> |                 |                  |               |                      |                      |                       |
|                               |                 | Average 40 Farms |               | Reporting Individual | Crop                 | Costs                 |
| Fertilizer & lime             | \$28.01         | \$16.31          | \$7.29        | \$ 55.53             | \$11.79              | \$0.49                |
| Seeds & plants                | 11.58           | 6.45             | 2.88          | 22.87                | 4.86                 | 0.20                  |
| Spray & other crop<br>expense | 11.54           | 2.63             | 1.17          | 32.55                | 6.91                 | 0.29                  |
| Total                         | \$51.13         | \$25.39          | \$11.34       | \$110.95             | \$23.56              | \$0.98                |
| <b>My Farm:</b>               |                 |                  |               |                      |                      |                       |
| Fertilizer & lime             | \$_____         | \$_____          | \$_____       | \$_____              | \$_____              | \$_____               |
| Seeds & plants                | _____           | _____            | _____         | _____                | _____                | _____                 |
| Spray & other crop<br>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, 1990

| Item                       | Average Per Tillable Acre |                          | My Farm           |                   |
|----------------------------|---------------------------|--------------------------|-------------------|-------------------|
|                            | 26 Dairy<br>Farm Renters  | 138 Dairy<br>Farm Owners | Total<br>Expenses | Per Til.<br>Acres |
| Fuel, oil & grease         | \$ 22.51                  | \$ 24.62                 | \$_____           | \$_____           |
| Machinery repairs & parts  | 38.07                     | 44.71                    | _____             | _____             |
| Machine hire, rent & lease | 10.37                     | 13.01                    | _____             | _____             |
| Auto expense (farm share)  | 2.64                      | 2.99                     | _____             | _____             |
| Interest (5%)              | 19.63                     | 19.60                    | _____             | _____             |
| Depreciation               | 47.43                     | 44.83                    | _____             | _____             |
| Total                      | \$140.65                  | \$149.77                 | \$_____           | \$_____           |

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 this 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, 1990

|                               | <u>Dairy Cows</u> |               | <u>Heifers</u>       |              |             |              |               |              |
|-------------------------------|-------------------|---------------|----------------------|--------------|-------------|--------------|---------------|--------------|
|                               |                   |               | <u>Bred</u>          |              | <u>Open</u> |              | <u>Calves</u> |              |
| <u>Item</u>                   | <u>No.</u>        | <u>Value</u>  | <u>No.</u>           | <u>Value</u> | <u>No.</u>  | <u>Value</u> | <u>No.</u>    | <u>Value</u> |
| <u>26 Dairy Farm Renters:</u> |                   |               |                      |              |             |              |               |              |
| Beg. year (owned)             | 60                | \$64,080      | 14                   | \$12,048     | 14          | \$7,038      | 16            | \$3,672      |
| + Change w/o apprec.          |                   | -41           |                      | 2,105        |             | 22           |               | 624          |
| + Appreciation                |                   | <u>-345</u>   |                      | <u>-59</u>   |             | <u>57</u>    |               | <u>-35</u>   |
| End year (owned)              | 60                | \$63,694      | 16                   | \$14,094     | 14          | \$7,117      | 17            | \$4,261      |
| End incl. leased              | 61                |               |                      |              |             |              |               |              |
| Average number                | 61                |               | 46 (all age groups)  |              |             |              |               |              |
| <u>138 Dairy Farm Owners:</u> |                   |               |                      |              |             |              |               |              |
| Beg. year (owned)             | 86                | \$88,222      | 22                   | \$18,344     | 21          | \$11,097     | 21            | \$5,341      |
| + Change w/o apprec.          |                   | 3,361         |                      | 708          |             | 598          |               | 396          |
| + Appreciation                |                   | <u>-1,150</u> |                      | <u>-100</u>  |             | <u>86</u>    |               | <u>-74</u>   |
| End year (owned)              | 89                | \$90,433      | 23                   | \$18,952     | 23          | \$11,781     | 22            | \$5,663      |
| End incl. leased              | 89                |               |                      |              |             |              |               |              |
| Average number                | 87                |               | 66 (all age groups)  |              |             |              |               |              |
| <u>My Farm:</u>               |                   |               |                      |              |             |              |               |              |
| Beg. of year (owned)          | ___               | \$___         | ___                  | \$___        | ___         | \$___        | ___           | \$___        |
| + Change w/o apprec.          |                   | ___           |                      | ___          |             | ___          |               | ___          |
| + Appreciation                |                   | ___           |                      | ___          |             | ___          |               | ___          |
| End of 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. Farm managers on DHI should compare milk sold per cow with rolling herd average on the test date nearest December 31.

**MILK PRODUCTION**  
 Eastern New York Dairy Farm Renters and Owners, 1990

| Item                                 | 26 Dairy<br>Farm Renters | 138 Dairy<br>Farm Owners | My Farm |
|--------------------------------------|--------------------------|--------------------------|---------|
| Total milk sold, lbs.                | 976,568                  | 1,463,299                | ___     |
| Milk sold per cow, lbs.              | 16,060                   | 16,911                   | ___     |
| Average milk plant test, % butterfat | 3.69                     | 3.63                     | ___     |

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 costs of producing milk are estimated by deducting nonmilk accrual receipts from total accrual operating expenses plus expansion livestock purchased. Total costs of producing milk include the operating costs 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. Note that the cost of labor, management, and equity capital has been excluded in the intermediate compilation.

ACCRUAL RECEIPTS FROM DAIRY AND COST OF PRODUCING MILK  
Eastern New York Dairy Farm Renters and Owners, 1990

| Item  | 26 Renters |          | 138 Owners |          | My Farm |          |
|---|------------|----------|------------|----------|---------|----------|
|   | Total      | Per Cwt. | Total      | Per Cwt. | Total   | Per Cwt. |
| <u>Accrual Costs of Producing Milk</u>            |            |          |            |          |         |          |
| Operating costs                                   | \$109,246  | \$11.19  | \$173,401  | \$11.85  | \$_____ | \$_____  |
| Total costs without op(s') labor, mgmt. & capital | \$123,460  | \$12.64  | \$195,939  | \$13.39  | \$_____ | \$_____  |
| Total Costs                                       | \$156,814  | \$16.06  | \$245,348  | \$16.77  | \$_____ | \$_____  |
| <u>Accrual Receipts from Milk</u>                 |            |          |            |          |         |          |
|   | \$151,119  | \$15.47  | \$226,307  | \$15.47  | \$_____ | \$_____  |

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, 1990

| Item   | Average Per Cwt. Milk |            | My Farm<br>Per Cwt. |
|--|-----------------------|------------|---------------------|
|  | 26 Renters            | 138 Owners |                     |
| Purchased dairy grain & conc.                    | \$3.89                | \$4.44     | \$_____             |
| Purchased dairy roughage                         | 0.20                  | 0.08       | _____               |
| Total Purchased Dairy Feed                       | \$4.09                | \$4.52     | \$_____             |
| Purchased grain & conc. as % of milk receipts    | 25%                   | 29%        | _____%              |
| Purchased feed & crop exp.                       | \$5.06                | \$5.46     | \$_____             |
| Purchased feed & crop exp. as % of milk receipts | 33%                   | 35%        | _____%              |
| Breeding   | \$0.24                | \$0.22     | \$_____             |
| Veterinary & medicine                            | 0.33                  | 0.31       | _____               |
| Milk marketing                                   | 1.01                  | 0.84       | _____               |
| Cattle lease                                     | 0.02                  | 0.01       | _____               |
| Other livestock expense                          | 0.82                  | 0.66       | _____               |

Capital and Labor Efficiency Analysis

Capital efficiency factors measure how intensively the capital is being used in the farm business. 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, 1990

| Item                          | Per Worker | Per Cow  | Per Tillable Acre |
|-------------------------------|------------|----------|-------------------|
| <u>26 Dairy Farm Renters:</u> |            |          |                   |
| Farm capital                  | \$100,500  | \$3,719  | \$1,125           |
| Machinery & equipment         | 36,270     | 1,342    | 406               |
| Capital turnover, years       | 1.30       |          |                   |
| <u>138 Dairy Farm Owners:</u> |            |          |                   |
| Farm capital                  | \$220,707  | \$7,253  | \$2,332           |
| Machinery & equipment         | 37,921     | 1,246    | 401               |
| Capital turnover, years       | 2.36       |          |                   |
| <u>My Farm:</u>               |            |          |                   |
| Farm capital                  | \$ _____   | \$ _____ | \$ _____          |
| Machinery & equipment         | _____      | _____    | _____             |
| Capital turnover, years       | _____      |          |                   |

## LABOR FORCE ANALYSIS

Eastern New York Dairy Farm Renters and Owners, 1990

| Efficiency                  | <u>26 Renters</u> |            | <u>138 Owners</u> |            | <u>My Farm</u> |            |
|-----------------------------|-------------------|------------|-------------------|------------|----------------|------------|
|                             | Total             | Per Worker | Total             | Per Worker | Total          | Per Worker |
| Cows, average number        | 61                | 27         | 87                | 31         | _____          | _____      |
| Milk sold, pounds           | 976,568           | 434,080    | 1,463,299         | 514,797    | _____          | _____      |
| Tillable acres              | 201               | 89         | 269               | 95         | _____          | _____      |
| Work units                  | 641               | 285        | 909               | 320        | _____          | _____      |
| <hr/>                       |                   |            |                   |            |                |            |
| Labor Costs                 | <u>26 Renters</u> |            | <u>138 Owners</u> |            | <u>My Farm</u> |            |
|                             | Total             | Per Cow    | Total             | Per Cow    | Total          | Per Cow    |
| Value of operator(s) labor* | \$19,275          | \$317      | \$20,063          | \$232      | \$ _____       | \$ _____   |
| Family unpaid*              | 4,475             | 74         | 3,675             | 42         | _____          | _____      |
| Hired                       | 9,475             | 156        | 21,383            | 247        | _____          | _____      |
| Total Labor                 | \$33,225          | \$546      | \$45,121          | \$522      | \$ _____       | \$ _____   |
| Machinery Cost              | \$28,272          | \$465      | \$40,288          | \$466      | \$ _____       | \$ _____   |
| Total Labor & Mach.         | \$61,497          | \$1,011    | \$85,408          | \$987      | \$ _____       | \$ _____   |

\*\$1,250 per month.

# PROGRESS OF THE FARM BUSINESS

Comparing your business with average data from regional DFBS co-operators 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 19 Eastern New York Dairy Farm Renters, 1989 and 1990

| Selected Factors                              | Average   |           | My Farm |      | Goal |
|---|-----------|-----------|---------|------|------|
|   | 1989      | 1990      | 1989    | 1990 |      |
| <u>Size of Business</u>                       |           |           |         |      |      |
| Average number of cows                        | 63        | 64        |         |      |      |
| Average number of heifers                     | 46        | 48        |         |      |      |
| Milk sold, lbs.                               | 961,361   | 997,025   |         |      |      |
| Worker equivalent                             | 2.43      | 2.28      |         |      |      |
| Total tillable acres                          | 227       | 213       |         |      |      |
| <u>Rates of Production</u>                    |           |           |         |      |      |
| Milk sold per cow, lbs.                       | 15,285    | 15,708    |         |      |      |
| Hay DM per acre, tons                         | 2.4       | 2.4       |         |      |      |
| Corn silage per acre, tons                    | 13        | 14        |         |      |      |
| <u>Labor Efficiency</u>                       |           |           |         |      |      |
| Cows per worker                               | 26        | 28        |         |      |      |
| Milk sold per worker, lbs.                    | 396,503   | 437,983   |         |      |      |
| <u>Cost Control</u>                           |           |           |         |      |      |
| Grain & conc. purchased<br>as % of milk sales | 26%       | 26%       | %       | %    | %    |
| Dairy feed & crop exp.<br>per cwt. milk       | \$4.89    | \$5.12    | \$      | \$   | \$   |
| Labor & mach. costs/cow                       | \$861     | \$1,012   | \$      | \$   | \$   |
| <u>Capital Efficiency*</u>                    |           |           |         |      |      |
| Farm capital per cow                          | \$3,550   | \$3,716   | \$      | \$   | \$   |
| Mach. & equip. per cow                        | \$1,241   | \$1,368   | \$      | \$   | \$   |
| Capital turnover, years                       | 1.3       | 1.3       |         |      |      |
| <u>Profitability</u>                          |           |           |         |      |      |
| Net farm inc. w/o apprec.                     | \$30,251  | \$34,077  | \$      | \$   | \$   |
| Net farm inc. w/apprec.                       | \$41,030  | \$36,021  | \$      | \$   | \$   |
| Labor & mgmt. income<br>per operator/manager  | \$16,046  | \$17,726  | \$      | \$   | \$   |
| Rate of return on eq.<br>capital w/apprec.    | 9.3%      | 4.5%      | %       | %    | %    |
| Rate of return on all<br>capital w/apprec.    | 9.1%      | 5.7%      | %       | %    | %    |
| <u>Financial Summary</u>                      |           |           |         |      |      |
| Farm net worth                                | \$162,752 | \$164,788 | \$      | \$   | \$   |
| Debt to asset ratio                           | 0.31      | 0.33      |         |      |      |
| Farm debt per cow                             | \$1,158   | \$1,290   | \$      | \$   | \$   |

\*Average for the year.

Other Agricultural Economics Extension Publications

|           |   |  |
|-----------|---|--|
| No. 91-12 | Raising Dairy Replacements: Practices and Costs New York, 1990              | Jason Karszes<br>B.F. Stanton  |
| No. 91-13 | Dairy Farm Business Summary Central New York and Central Plain Regions 1990 | Wayne A. Knoblauch<br>Linda A. Putnam<br>June C. Grabemeyer<br>James A. Hilson<br>Ann Peck<br>James R. Peck      |
| No. 91-14 | Dairy Farm Business Summary Western Plateau Region 1990                     | George L. Casler<br>Carl W. Albers<br>Andrew N. Dufresne<br>Joan S. Petzen<br>Linda D. Putnam<br>Stuart F. Smith |
| No. 91-15 | Dairy Farm Business Summary Mohawk Region 1990                              | Eddy L. LaDue<br>Mark E. Anibal<br>Jacqueline M. Mierek  |
| No. 91-16 | Dairy Farm Business Summary Northern Hudson Region 1990                     | Stuart F. Smith<br>Linda D. Putnam<br>Cathy S. Wickswat<br>John M. Thurgood<br>Thomas J. Gallagher               |
| No. 91-17 | Dairy Farm Business Summary Southeastern New York 1990                      | Stuart F. Smith<br>Linda D. Putnam<br>Alan S. White<br>Gerald J. Skoda<br>Stephen E. Hadcock                     |
| No. 91-18 | Supermarket Dairy Department: An Overview of Operations and Performance     | Edward McLaughlin<br>David Russo   |