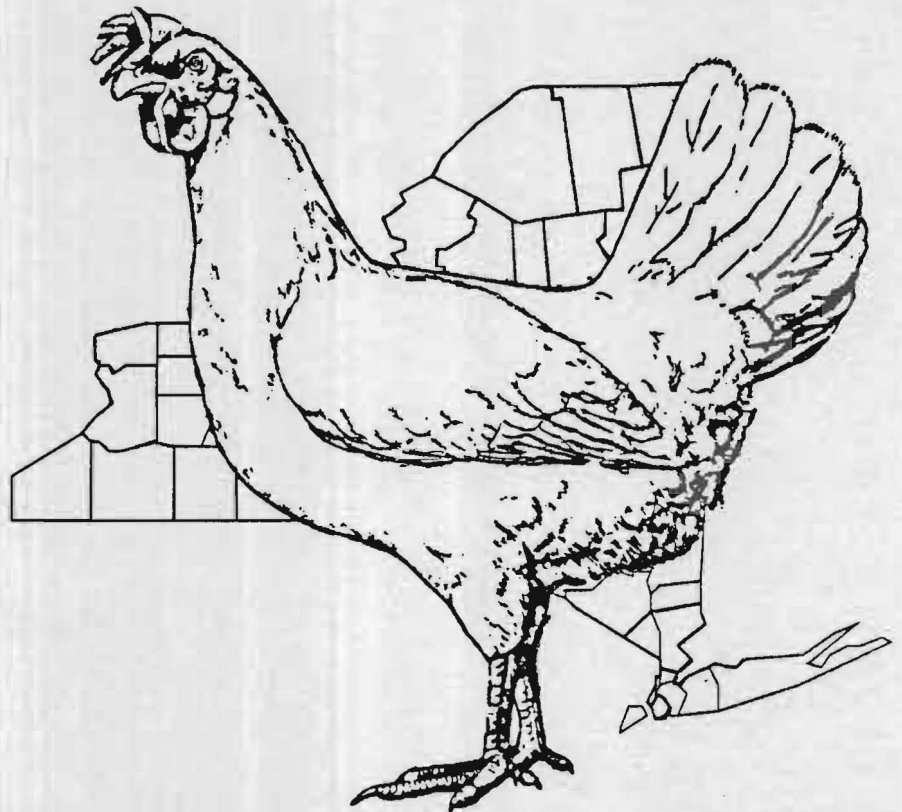


POULTRY FARM BUSINESS SUMMARY

POULTRY FARM BUSINESS SUMMARY NEW YORK 1989



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1989 POULTRY FARM BUSINESS SUMMARY
NEW YORK STATE

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ABSTRACT

This report is a summary of 1989 farm business data collected from six poultry farm businesses located throughout New York State. Egg sales comprised 97 percent of total receipts. The data are presented as averages for the six farms. The business analysis includes a balance sheet, income statement, poultry analysis, and several financial and production analyses for the farms. Blank columns are included in the tables for the user to enter his or her own farm data for comparison purposes.

Acknowledgements - The authors are research associate and regional poultry specialists respectively. Appreciation is expressed to the the cooperating poultry farmers who provided the data summarized in this report. Also, the authors appreciate reviews of this report and helpful comments by Professors G. L. Casler and E. L. LaDue of the Department of Agricultural Economics.

1989 NEW YORK
POULTRY FARM BUSINESS SUMMARY

INTRODUCTION

For many years, poultry farmers throughout New York State have been invited to participate in Cornell Cooperative Extension's poultry farm business summary program. Each participating farmer receives a comprehensive business summary and analysis of his or her farm business. This report presents averages for the data submitted from six farms located throughout the State. Data contained in the summaries received by farmers participating in the program may be entered in blanks provided in this report for a comparative analysis of the business.

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

A computer program is used in the field by the Cornell Cooperative Extension poultry specialists. This program enables an analysis to be produced on the farm as soon as the farmer's data are entered. This provides rapid processing of the information for timely use in the management of the farm business.

The six farms in this study received an average of 97 percent of their 1989 receipts from the sale of eggs. The businesses included various combinations of egg production, processing, marketing and pullet raising. Three farms engaged in grain production, mostly corn for feed to be milled on the farm. The data were not obtained from a random sample of all poultry farms in New York. Therefore, the analysis should not be used to represent the New York poultry industry; it reflects the experience of these six poultry farms in 1989.

Format Features

This report provides a set of tables which comprise a comprehensive analysis of the participating poultry farms. Worksheets are included to give poultry farmers an opportunity to summarize their business. The analysis tables have a blank column or section labeled "My Farm". That section or column may be used by an individual to compare his or her business with the average performance of the six farms.

This report features:

- (1) a complete BALANCE SHEET and analysis including financial ratios,
- (2) an INCOME STATEMENT including accrual accounting adjustments for farm business expenses and receipts, as well as measures of profitability with and without appreciation,
- (3) forms for a CASH FLOW STATEMENT and REPAYMENT ANALYSIS worksheets,
- (4) analyses of CAPITAL EFFICIENCY, EQUIPMENT, and LABOR,
- (5) a POULTRY ANALYSIS with various cost factors, and
- (6) a TWO YEAR COMPARISON of selected business factors.

Poultry Trends in Recent Years

Layer numbers and egg production continue to decline in New York State. Both factors are about 55 percent of their levels for a decade ago. Over the same period, egg production per layer has increased gradually by about six percent. Egg prices and layer feed costs have varied widely. Egg prices have ranged from a high of 70 cents per dozen for 1984 to a low of 46 cents for 1988. Feed prices increased during the first half of the decade to a high of \$227 per ton for 1983; then prices declined to a low of \$164 per ton for 1987. In 1988, feed prices increased substantially due to drought effects on feed grain yields.

The price received for eggs has a major effect on farm profitability. This price may be influenced by the marketing efforts of the farmer but it is also affected by factors outside the farmer's control. These may include the supply of layers, the economy, government policies, and consumer demand.

Table 1. EGG PRODUCTION AND PRICES AND FEED PRICES
New York State, 1980-1989

| Year | Number of layers | Eggs produced | Eggs per layer | Farm egg price per doz | Farm feed price* per ton | Egg-feed price ratio * |
|------|------------------------|------------------|----------------------|------------------------------|--------------------------------|------------------------------|
| | (thous) | (million) | (number) | (cents) | \$ | |
| 1980 | 7,112 | 1,776 | 250 | 50.3 | 193 | 5.3 |
| 1981 | 7,402 | 1,858 | 251 | 56.7 | 215 | 5.2 |
| 1982 | 7,394 | 1,859 | 251 | 54.6 | 192 | 6.0 |
| 1983 | 6,899 | 1,741 | 252 | 56.7 | 227 | 5.1 |
| 1984 | 6,692 | 1,710 | 256 | 70.0 | 216 | 6.7 |
| 1985 | 6,712 | 1,710 | 255 | 55.0 | 190 | 5.7 |
| 1986 | 6,125 | 1,523 | 249 | 58.2 | 175 | 6.6 |
| 1987 | 4,367 | 1,115 | 255 | 48.6 | 164 | 5.9 |
| 1988 | 3,878 | 1,013 | 261 | 45.6 | 195 | 4.9 |
| 1989 | 3,973 | 1,063 | 268 | 65.6 | 207 | 5.9 |

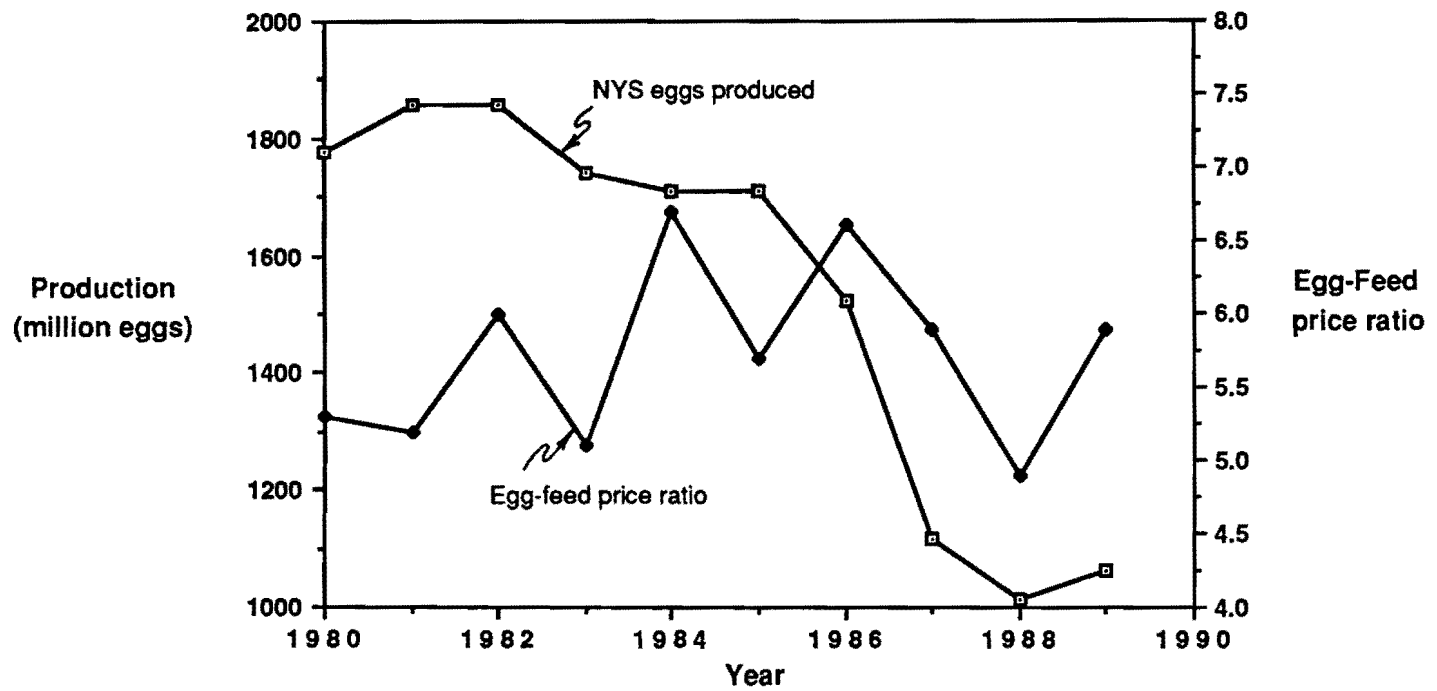
* Egg-feed price ratio - Pounds of feed equal in value to one dozen eggs, quarterly averages.

** Feed price and egg-feed price ratio for Northeast States since 1986.

Source: New York Agricultural Statistics, 1988-1989;
New York Agricultural Statistics Service

The egg-feed price ratio relates egg prices and feed prices. Feed costs are the single most important cost of egg production and comprise nearly half of the cost of production. The ratio indicates the pounds of feed equal in value to one dozen eggs. Higher ratios are generally indicative of more favorable economic circumstances for the egg producer. Figure 1 shows the trend in egg production and the volatility of the egg-feed price ratio over the past decade.

Figure 1. New York State Egg Production and Egg-Feed Price Ratio, 1980-1989



Source: New York Agricultural Statistics, 1989-1990
New York Agricultural Statistics Service

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics

Finding the right management strategies is an important part of operating a successful farm business. Various combinations of farm resources, enterprises, business arrangements, and management techniques are used by poultry farmers in New York. The following table shows important farm business characteristics and the number of 1989 program participants reporting these characteristics.

Table 2. BUSINESS CHARACTERISTICS
6 Poultry Farms, New York, 1989

| Type of Business: | No. | Business Record System: | No. |
|-------------------|-----|-------------------------|-----|
| Proprietors | 1 | ELFAC | 1 |
| Partnerships | 3 | On-Farm Computer | 5 |
| Corporations | 2 | | |

| Business activities in addition to egg production: | No. of farms |
|--|--------------|
| Processing and marketing | 4 |
| Pullets raised | 5 |
| Crops raised | 3 |

Farm Financial Status

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

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

Table 3. FARM BUSINESS BALANCE SHEET
6 New York Poultry Farms, December 31

| Farm Assets | | | Farm Liabilities & Net Worth | | |
|---------------------|-----------|-----------|------------------------------|-----------|-----------|
| | 1988 | 1989 | | 1988 | 1989 |
| Current | | | Current: ≤ 1 yr | | |
| ----- | \$ | \$ | ----- | \$ | \$ |
| Cash, checking, sav | 60,416 | 27,408 | Accounts payable | 171,867 | 79,228 |
| Accounts receivable | 156,214 | 227,319 | Operating debt | 101,589 | 90,132 |
| Prepaid expenses | 1,125 | 12,776 | Short term | 127,893 | 90,863 |
| Feed & supplies | 293,176 | 317,617 | Advanced govt recpts | 0 | 0 |
| | | | Accrued interest | 0 | 0 |
| Total current | 510,931 | 585,119 | Total current | 401,349 | 260,223 |
| Intermediate | | | Intermediate: > 1 to < 10 yr | | |
| ----- | | | ----- | | |
| Poultry- Layers | 339,231 | 310,230 | Structured debt | 369,908 | 337,363 |
| Pullets | 86,885 | 88,139 | | | |
| Other livestock | 0 | 0 | | | |
| Livestock leased | 0 | 0 | | | |
| Equipment owned | 1,639,919 | 1,526,577 | | | |
| Equipment leased | 96,487 | 75,891 | Fin lease- Lvstk, Eq | 96,487 | 75,891 |
| FLB/PCA stock | 27,413 | 19,357 | FLB/PCA stock | 27,413 | 19,357 |
| Other stock, certs | 167 | 19,929 | | | |
| Total intermediate | 2,190,100 | 2,040,122 | Total intermediate | 493,807 | 432,611 |
| Long Term | | | Long Term: ≥ 10 yr | | |
| ----- | | | ----- | | |
| Land/buildings: | | | Structured debt | 304,385 | 282,038 |
| Owned | 1,673,643 | 1,673,843 | | | |
| Structures leased | 0 | 0 | Fin lease-structures | 0 | 0 |
| Total long term | 1,673,643 | 1,673,843 | Total long term | 304,385 | 282,038 |
| Total Farm: | | | Total Farm: | | |
| Assets | 4,374,674 | 4,299,083 | Liabilities | 1,199,541 | 974,871 |
| | | | Net Worth | 3,175,134 | 3,324,212 |
| | | | Liab & Net Worth | 4,374,674 | 4,299,083 |

generally indicative of more favorable economic circumstances for the egg producer. Figure 1 shows the trend in egg production and the volatility of the egg-feed price ratio over the past decade.

the item has to the business.

Table 3 presents the balance sheet data for the six poultry farm cooperators. It lists the average value of assets and liabilities for December 31, 1988 and December 31, 1989 and, therefore, shows the changes that occurred for each category during the year. Asset values that are estimated each year should reflect changes in quantity or quality of the asset and conservative adjustments for price changes. Carefull attention to asset values is important for a meaningful calculation of change in net worth, a measure of financial progress.

The table below provides a format for the reader to use to develop a balance sheet for an individual's farm business.

Table 4. FARM BUSINESS BALANCE SHEET
My Farm, December 31

| Farm Assets | | | Farm Liabilities & Net Worth | | |
|---------------------|-------|-------|------------------------------|-------|-------|
| | 1988 | 1989 | | 1988 | 1989 |
| Current | | | Current: =< 1 yr | | |
| ----- | \$ | \$ | ----- | \$ | \$ |
| Cash, checking, sav | _____ | _____ | Accounts payable | _____ | _____ |
| Accounts receivable | _____ | _____ | Operating debt | _____ | _____ |
| Prepaid expenses | _____ | _____ | Short term | _____ | _____ |
| Feed & supplies | _____ | _____ | Advanced govt recpts | _____ | _____ |
| | | | Accrued interest | _____ | _____ |
| Total current | _____ | _____ | Total current | _____ | _____ |
| Intermediate | | | Intermediate: > 1 to < 10 yr | | |
| ----- | | | ----- | | |
| Poultry- Layers | _____ | _____ | Structured debt | _____ | _____ |
| Pullets | _____ | _____ | | | |
| Other livestock | _____ | _____ | | | |
| Livestock leased | _____ | _____ | Fin lease- Lvstk, Eq | _____ | _____ |
| Equipment owned | _____ | _____ | | | |
| Equipment leased | _____ | _____ | FLB/PCA stock | _____ | _____ |
| FLB/PCA stock | _____ | _____ | | | |
| Other stock, certs | _____ | _____ | | | |
| Total intermediate | _____ | _____ | Total intermediate | _____ | _____ |
| Long Term | | | Long Term: => 10 yr | | |
| ----- | | | ----- | | |
| Land/buildings: | | | Structured debt | _____ | _____ |
| Owned | _____ | _____ | | | |
| Structures leased | _____ | _____ | Fin lease-structures | _____ | _____ |
| Total long term | _____ | _____ | Total long term | _____ | _____ |
| | | | Total Farm: | | |
| Total Farm: | | | Liabilities | _____ | _____ |
| Assets | _____ | _____ | Net Worth | _____ | _____ |
| | | | Liab & Net Worth | _____ | _____ |

The balance sheet analysis involves an examination of financial and debt ratios. Percent equity is calculated by dividing end of year net worth by end of year assets. The debt to asset ratio is compiled by dividing liabilities by assets. Low debt to asset ratios reflect strength in solvency and the potential capacity to borrow. Debt levels per unit of production include some old standards that are still usefull if used with measures of cash flow and repayment ability. The change in farm net worth without appreciation is an excellent indicator of financial progress from operating the business.

Table 5. FARM BUSINESS BALANCE SHEET ANALYSIS
6 New York Poultry Farms, December 31

| ----- Same 6 poultry farms ----- | | | |
|-------------------------------------|-----------|-----------|-----------|
| Item | 1988 | 1989 | My Farm |
| Average number of layers | 202,286 | 226,215 | _____ |
| Financial Ratios - end of year | | | |
| ----- | | | |
| Percent equity | 73% | 77% | _____ % |
| Debt to asset ratios | | | |
| Total debt | 0.27 | 0.23 | _____ |
| Long term | 0.20 | 0.17 | _____ |
| Current & intermediate | 0.31 | 0.26 | _____ |
| Change in Net Worth | | | |
| ----- | | | |
| Without appreciation | \$70,540 | \$146,542 | \$ _____ |
| With appreciation | \$93,139 | \$149,078 | \$ _____ |
| Debt Analysis - end of year | | | |
| ----- | | | |
| Percent of total farm debt that is: | | | |
| Long term | 29% | 29% | _____ % |
| Current & intermediate (incl A/P) | 71% | 71% | _____ % |
| Accounts payable | 13% | 8% | _____ % |
| Debt Levels - end of year | | | |
| ----- | | | |
| | Per layer | Per layer | Per layer |
| ----- | | | |
| Total farm debt | \$5.03 | \$4.29 | _____ |
| Long term | 1.45 | 1.24 | _____ |
| Current & intermediate | 3.58 | 3.05 | _____ |
| ----- | | | |

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

Table 6.

FARM INVENTORY BALANCE
6 New York Poultry Farms, 1989

| Item | | Average | | My Farm | |
|--|---------|--------------|--------------|-------------|-----------|
| Inventory Balance | | Real Estate | Equipment | Real Estate | Equipment |
| Value- beginning of year | (1) | \$ 1,673,643 | \$ 1,639,919 | \$ _____ | \$ _____ |
| Purchases | | \$ 53,753 | a \$ 36,887 | \$ _____ | \$ _____ |
| + Nonfarm noncash transfers | | 0 | 0 | _____ | _____ |
| - Lost capital | | 0 | | _____ | _____ |
| - Sales | | 0 | 160 | _____ | _____ |
| - Depreciation | | 74,865 | 156,618 | _____ | _____ |
| = Net investment | (2) | \$ (21,113) | \$ (119,890) | \$ _____ | \$ _____ |
| Appreciation | (3-1-2) | 21,313 | b 6,548 | _____ | _____ |
| Value- end of year | (3) | \$ 1,673,843 | \$ 1,526,577 | \$ _____ | \$ _____ |
| a These purchases include \$0 for land and \$53,753 for buildings. | | | | | |
| b RE appreciation excludes \$0 of appreciation on assets sold during the year. | | | | | |

Income Statement

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

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

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

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

CHANGE IN ACCOUNTS PAYABLE: An increase in payables is an expense chargeable to this year but not paid at the end of the year. A decrease in payables is an expense for a previous year that was paid this year.

ACCRUAL EXPENSES are the costs of inputs actually used for this year's production.

The worksheet on page 9 is provided to enable any poultry farmer to compare his or her expenses and receipts with the group averages in the corresponding tables.

Table 7.

CASH AND ACCRUAL FARM EXPENSES
6 New York Poultry Farms, 1989

| EXPENSES | Cash amount paid | Change in inventory or prepaid + expense | Change in accounts payable + | Accrual expenses = |
|-----------------------------|------------------------|---|---------------------------------------|-----------------------|
| Hired Labor (excl oper) \$ | 332,333 | \$ 0 | \$ 0 | \$ 332,333 |
| Feed | | | | |
| Layer | 1,443,909 | (9,117) | (92,639) | 1,342,152 |
| Grower | 150,779 | (464) | 0 | 150,315 |
| Other | 0 | 0 | 0 | 0 |
| Equipment | | | | |
| Machine hire, eq rent | 5,046 | 0 | 0 | 5,046 |
| Leased equipment | 29,209 | 0 | 0 | 29,209 |
| Repairs & parts | 73,735 | (33) | 0 | 73,702 |
| Auto exp - farm share | 2,027 | 0 | 0 | 2,027 |
| Fuel, oil & grease | 25,152 | (449) | 0 | 24,703 |
| Livestock | | | | |
| Replacements - chicks | 95,966 | 0 | 0 | 95,966 |
| pullets | 36,802 | 0 | 0 | 36,802 |
| Contract payments | 36,589 | 0 | 0 | 36,589 |
| Poultry vet & medicine | 21,966 | 0 | 0 | 21,966 |
| Production supplies | 12,090 | 1,117 | 0 | 13,208 |
| Proc & packing supplies | 210,212 | (3,239) | 0 | 206,973 |
| Marketing, trucking exp | 130,232 | 0 | 0 | 130,232 |
| Nonpoultry expenses | 7,886 | 0 | 0 | 7,886 |
| Crops | | | | |
| Fertilizer & lime | 8,100 | 6 | 0 | 8,105 |
| Seeds & plants | 8,070 | (929) | 0 | 7,141 |
| Spray, other crop exp | 10,709 | 11 | 0 | 10,720 |
| Real Estate | | | | |
| Repair- land, bldg, fence | 5,387 | 0 | 0 | 5,387 |
| Taxes | 21,652 | (1,370) | 0 | 20,282 |
| Rent | 9,435 | 0 | 0 | 9,435 |
| Leased structures | 1,083 | 0 | 0 | 1,083 |
| Other Expenses | | | | |
| Insurance | 69,942 | (10,280) | 0 | 59,662 |
| Telephone- farm share | 6,376 | 0 | 0 | 6,376 |
| Electricity- farm share | 63,400 | 0 | 0 | 63,400 |
| Eggs purch for resale | 745,810 | 0 | 0 | 745,810 |
| Interest paid | 86,119 | 0 | 0 | 86,119 |
| Miscellaneous | 29,885 | 0 | 0 | 29,885 |
| TOTAL OPERATING EXPENSES \$ | 3,679,901 | \$ (24,749) | \$ (92,639) | \$ 3,562,513 |
| Expansion poultry \$ | 0 | 0 | 0 | 0 |
| Deprec- Equipment | | | | 156,618 |
| Buildings | | | | 74,865 |
| TOTAL ACCRUAL EXPENSES | | | | \$ 3,793,996 |

Table 9.

CASH AND ACCRUAL FARM RECEIPTS
6 New York Poultry Farms, 1989

| RECEIPTS | Cash receipts + | Change in inventory a + | Change in accounts recvble | = | Accrual receipts |
|----------------------------|-----------------|-------------------------|----------------------------|----|------------------|
| Egg sales | \$ 4,510,756 | \$ 5,718 | \$ 71,105 | \$ | 4,587,579 |
| Fowl | 78,739 | 74 | 0 | | 78,812 |
| Pullets | 23,353 | (2,497) | 0 | | 20,856 |
| Other lvstk & products | 46 | 0 | 0 | | 46 |
| Crops | 19,295 | 5,624 | 0 | | 24,919 |
| Gov't program receipts | 11,644 | 0 b | 0 | | 11,644 |
| Custom machine work | 0 | | 0 | | 0 |
| Other | 6,804 | | 0 | | 6,804 |
| - Noncash capital transfer | | 0 c | | | 0 |
| TOTAL OPERATING RECEIPTS | \$ 4,650,636 | \$ 8,918 | \$ 71,105 | \$ | 4,730,660 |

a Change in egg inventory, livestock inventory w/o appreciation and total change in crops inventory.

b Change in advanced government receipts.

c Gifts & inheritances of livestock and crops.

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

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

CHANGES IN ACCOUNTS RECEIVABLE are calculated by subtracting beginning year balances from end year balances.

ACCRUAL RECEIPTS represent the value of all farm commodities and services generated by the farm business during the year.

Table 10.

CASH AND ACCRUAL FARM RECEIPTS - My Farm

| RECEIPTS | Cash receipts + | Change in inventory + | Change in accounts recvble | = | Accrual receipts |
|---------------------------|-----------------|-----------------------|----------------------------|----|------------------|
| Egg sales | \$ _____ | \$ _____ | \$ _____ | \$ | _____ |
| Fowl | _____ | _____ | _____ | | _____ |
| Pullets | _____ | _____ | _____ | | _____ |
| Other lvstk & products | _____ | _____ | _____ | | _____ |
| Crops | _____ | _____ | _____ | | _____ |
| Gov't program receipts | _____ | _____ | _____ | | _____ |
| Custom machine work | _____ | _____ | _____ | | _____ |
| Other | _____ | _____ | _____ | | _____ |
| - Nonfarm noncash capital | _____ | _____ | _____ | | _____ |
| TOTAL OPERATING RECEIPTS | \$ _____ | \$ _____ | \$ _____ | \$ | _____ |

Profitability Analysis

Farm owner-operators contribute labor, management, and capital to their businesses. The best combination of these resources maximizes net 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 owner/operators and unpaid family members for their labor, management, and equity capital. It is the farm family's or management's net annual return from working, managing, financing, and owning the farm business.

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

Table 11 shows a significant increase in net farm income for 1989 over 1988. This is basically due to a 31 percent increase in egg price in a year when the cost of production increased only three percent and total egg production increased by 18 percent on these six poultry farms.

Table 11.

NET FARM INCOME 6 New York Poultry Farms

| Item | Same 6 poultry farms | | | | My farm |
|--|----------------------|-----------|------|-----------|------------|
| | 1988 | | 1989 | | |
| Total accrual receipts | \$ | 3,021,315 | \$ | 4,730,660 | \$ \$_____ |
| + Appreciation: | | | | | |
| Livestock | | 26,803 | | (25,324) | _____ |
| Equipment | | (9,623) | | 6,548 | _____ |
| Real estate | | 5,418 | | 21,312 | _____ |
| Other- Stock & cert | + | 0 | + | 0 | + |
| = Total accrual receipts with appreciation | \$ | 3,043,913 | \$ | 4,733,196 | \$ \$_____ |
| - Total accrual expenses | - | 2,922,751 | - | 3,793,996 | - -_____ |
| = Net Farm Income | | | | | |
| with appreciation | \$ | 121,162 | \$ | 939,200 | \$ \$_____ |
| Net Farm Income without appreciation | \$ | 98,564 | \$ | 936,664 | \$ \$_____ |

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

Table 12. RETURN TO OPERATORS' LABOR, MANAGEMENT AND EQUITY CAPITAL
6 New York Poultry Farms

| Item | Same 6 Poultry farms | | | My farm |
|--|----------------------|------------|--|----------|
| | 1988 | 1989 | | |
| With appreciation: | | | | |
| Net farm income | \$ 121,162 | \$ 939,200 | | \$ _____ |
| - Family unpaid labor @ \$750 per month | - 1,633 | - 625 | | - _____ |
| = Return to operators' labor management, & equity | \$ 119,529 | \$ 938,575 | | \$ _____ |
| Without appreciation: | | | | |
| Net farm income | \$ 98,563 | \$ 936,664 | | \$ _____ |
| - Family unpaid labor @ \$750 per month | - 1,633 | - 625 | | - _____ |
| = Return to operators' labor management, & equity | \$ 96,930 | \$ 936,039 | | \$ _____ |

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

Table 13. LABOR AND MANAGEMENT INCOME
6 New York Poultry Farms

| Item | Same 6 Poultry farms | | | My farm |
|---|----------------------|------------|--|----------|
| | 1988 | 1989 | | |
| Without appreciation: | | | | |
| Return to operators' labor, management, & equity | \$ 96,930 | \$ 936,039 | | \$ _____ |
| - Real interest @ 5% on average equity capital | - 152,099 | - 162,484 | | - _____ |
| = Labor & Management Income per Farm | \$ (55,169) | \$ 773,555 | | \$ _____ |
| Labor & Management Income per Operator | \$ (24,369) | \$ 279,879 | | \$ _____ |

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 as well as interest on borrowed

capital. 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. It indicates the rate of return earned by this business on all of the funds used in the business.

Table 14. RETURN ON EQUITY CAPITAL AND TOTAL CAPITAL
6 New York Poultry Farms

| Item | Same 6 Poultry farms | | My farm |
|---|----------------------|-------------|----------|
| | 1988 | 1989 | |
| Average number of layers | 202,286 | 226,215 | _____ |
| Average EQUITY capital | \$3,041,981 | \$3,249,673 | \$ _____ |
| Average TOTAL capital | \$3,975,769 | \$4,336,879 | \$ _____ |
| Returns WITH appreciation: | | | |
| Return to operators' labor, management & equity capital | \$ 119,529 | \$ 938,575 | \$ _____ |
| - Value of opers' lab & mgmt | - 47,333 | - 103,833 | - _____ |
| = Return on avg. EQUITY capital | \$ 72,196 | \$ 834,742 | \$ _____ |
| + Interest paid | + 66,143 | + 86,119 | + _____ |
| = Return on avg. TOTAL capital | \$ 138,339 | \$ 920,861 | \$ _____ |
| Rates of return on: | | | |
| Average EQUITY capital | 2.4% | 25.7% | _____ % |
| Average TOTAL capital | 3.5% | 21.2% | _____ % |
| Returns WITHOUT appreciation: | | | |
| Return on avg. equity capital WITH appreciation | \$ 72,196 | \$ 834,742 | \$ _____ |
| - Total appreciation | - 22,601 | - 2,536 | - _____ |
| = Return on avg. EQUITY capital | \$ 49,595 | \$ 832,206 | \$ _____ |
| + Interest paid | + 66,143 | + 86,119 | + _____ |
| = Return on avg. TOTAL capital | \$ 115,738 | \$ 918,325 | \$ _____ |
| Rates of return on: | | | |
| Average EQUITY capital | 1.6% | 25.6% | _____ % |
| Average TOTAL capital | 2.9% | 21.2% | _____ % |

Cash Flow Statement

Completing an annual cash flow statement is an important step in understanding the sources and uses of funds for the business. The ANNUAL CASH FLOW STATEMENT is structured to include all cash inflows and outflows for the year. In Table 15, space is provided for a complete list of transactions by category. Total cash inflows must equal total

cash outflows when beginning and end balances are included. Any imbalance, therefore, could indicate a duplicate, error, or omission of an important cash transaction. A balanced cash flow statement helps to insure accurate accounting of all cash transactions 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.

Table 15. ANNUAL CASH FLOW STATEMENT

| Item | My Farm |
|---|----------------|
| Cash Inflows | |
| Beginning farm cash, checking & savings | \$ _____ |
| Cash farm receipts | _____ |
| Sale of assets: | |
| Equipment | _____ |
| Real estate | _____ |
| Other stock & certificates | _____ |
| Money borrowed: | |
| Increase in operating debt | _____ |
| Short term | _____ |
| Intermediate | _____ |
| Long term | _____ |
| Refinanced debt | _____ |
| Nonfarm: | |
| Income | _____ |
| Capital used in business | _____ |
| Money borrowed | _____ |
| Total Cash Inflows | (1) \$ _____ |
| Cash Outflows | |
| Cash farm expenses (excl interest paid) | \$ _____ |
| Capital purchases: | |
| Expansion livestock | _____ |
| Equipment | _____ |
| Real estate | _____ |
| Other stock & certificates | _____ |
| Debt payments: | |
| Principal payments for: | |
| Decrease in operating debt | _____ |
| Short term | _____ |
| Intermediate | _____ |
| Long term | _____ |
| Refinanced debt | _____ |
| Interest paid | _____ |
| Personal withdrawals and family expenditures including nonfarm debt payments and corporation operator labor costs | _____ |
| Ending farm cash, checking & savings | _____ |
| Total Cash Outflows | (2) \$ _____ |
| Imbalance (error) | (1-2) \$ _____ |

Repayment Analysis

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

Table 16. FARM DEBT PAYMENTS PLANNED

| Debt Payments | My Farm | | |
|--------------------------------|--------------------------|----------|-----------------|
| | 1989 Payments Planned | Made a | Planned 1990 |
| Accts payable (net reduction) | \$ _____ | \$ _____ | \$ _____ |
| Operating (net reduction) | _____ | _____ | _____ |
| Short term (prin & interest) | _____ | _____ | _____ |
| Intermediate (prin & interest) | _____ | _____ | _____ |
| Long term (prin & interest) | _____ | _____ | _____ |
| Total debt payments | \$ _____ | \$ _____ | \$ _____ |
| Payments as a % of: | | | |
| total accrual receipts | _____ % | _____ % | |
| total accrual egg receipts | _____ % | _____ % | |
| Payments per layer | \$ _____ | \$ _____ | |
| Payments per dz eggs sold | \$ _____ | \$ _____ | |

a Actual payments excluding refinanced debt.

The CASH FLOW COVERAGE RATIO measures the ability of the farm business to meet its planned debt payment schedule. The ratio shows the percentage of planned payments that could have been made with this year's available cash flow. However, the critical question to many farmers and lenders is whether planned payments can be made in 1990. Worksheets are provided in Tables 18 and 19 to help farmers in each group to project next year's receipts and expenses and to estimate repayment ability for comparison with the planned 1990 debt payments shown in Table 16 above.

Table 17. CASH FLOW COVERAGE RATIO

| Item | | My Farm |
|---|--|----------|
| Cash farm receipts | | \$ _____ |
| - Cash farm expenses | | _____ |
| + Interest paid | | _____ |
| - Net personal withdrawals from farm a | | _____ |
| = Amount available for debt service (1) | | \$ _____ |
| Debt payments planned for 1989 (2) | | \$ _____ |
| Cash Flow Coverage Ratio (1/2) | | _____ |

a 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.

Average number - dz eggs sold, layers: 2,708,335 127,200

| ACCRUAL OPERATING RECEIPTS | | (/dz sold) | (/layer) | | | | |
|--------------------------------|---------|------------|----------|----|--|----|--|
| Egg sales | \$0.666 | \$14.19 | \$ | \$ | | \$ | |
| Fowl | 0.011 | 0.23 | | | | | |
| Pullets | 0.014 | 0.29 | | | | | |
| Other lvstk & products | 0.000 | 0.00 | | | | | |
| Crops | 0.000 | 0.00 | | | | | |
| Miscellaneous receipts | 0.002 | 0.05 | | | | | |
| Total operating receipts | \$0.693 | \$14.76 | \$ | \$ | | \$ | |
| ACCRUAL OPERATING EXPENSES | | | | | | | |
| Labor- Hired (excl oper) | \$0.022 | \$0.47 | \$ | \$ | | \$ | |
| Feed - Layer | 0.333 | 7.09 | | | | | |
| Grower | 0.038 | 0.80 | | | | | |
| Equip- Machine hire, eq rent | 0.003 | 0.07 | | | | | |
| Leased equipment | 0.007 | 0.14 | | | | | |
| Repairs, parts & auto | 0.007 | 0.14 | | | | | |
| Fuel, oil & grease | 0.002 | 0.05 | | | | | |
| Lvstk- Repl chicks & pullets | 0.029 | 0.62 | | | | | |
| Contract payments | 0.005 | 0.10 | | | | | |
| Poultry vet & medicine | 0.004 | 0.09 | | | | | |
| Production supplies | 0.002 | 0.04 | | | | | |
| Proc & packing supplies | 0.044 | 0.94 | | | | | |
| Marketing, trucking exp | 0.001 | 0.03 | | | | | |
| Nonpoultry expenses | 0.002 | 0.05 | | | | | |
| Crops- Fertilizer & lime | 0.000 | 0.00 | | | | | |
| Seeds & plants | 0.000 | 0.00 | | | | | |
| Spray, other crop exp | 0.000 | 0.00 | | | | | |
| R Est- Repr- land, bldg, fence | 0.002 | 0.05 | | | | | |
| Taxes | 0.003 | 0.07 | | | | | |
| Rent | 0.001 | 0.02 | | | | | |
| Leased structures | 0.000 | 0.00 | | | | | |
| Other- Insurance | 0.004 | 0.09 | | | | | |
| Telephone- farm share | 0.001 | 0.02 | | | | | |
| Electricity- farm share | 0.013 | 0.27 | | | | | |
| Eggs purch for resale | 0.006 | 0.13 | | | | | |
| Miscellaneous | 0.003 | 0.07 | | | | | |
| Total excl interest paid | \$0.533 | \$11.35 | \$ | \$ | | \$ | |

| REPAYMENT ANALYSIS | | (Total) | (/layer) | | | | |
|--------------------------------------|-------------|----------|----------|--|--|----|--|
| Net accr'l operating income excl int | \$ 433,435 | \$3.41 | \$ | | | \$ | |
| - Change in livestock & crop inv | (9,227) | (\$0.07) | | | | | |
| - Change in accounts receivable | 66,285 | \$0.52 | | | | | |
| + Change in produce & supply inv | (17,733) | (\$0.14) | | | | | |
| + Change in accts payable excl int | (69,638) | (\$0.55) | | | | | |
| NET CASH FLOW | \$ 289,006 | \$2.27 | \$ | | | \$ | |
| - Net personal withdrawals | 17,965 | \$0.14 | | | | | |
| Available for debt payments & invest | \$ 271,041 | \$2.13 | \$ | | | \$ | |
| - Farm debt payments: prin & int | 331,252 | \$2.60 | | | | | |
| Available for farm investment | \$ (60,211) | (\$0.47) | \$ | | | \$ | |
| Capital purchases | \$ 63,771 | \$0.50 | \$ | | | \$ | |
| Additional capital needed | \$ 123,982 | \$0.97 | \$ | | | \$ | |

Table 19.

ANNUAL CASH FLOW WORKSHEET - Poultry and crops

| Item | Poultry & crops 3 farms | My Farm, 1989 Total | Per | Expected change | 1990 Proj'n |
|--|----------------------------|------------------------|-----|--------------------|----------------|
| Average number - dz eggs sold, layers: | 9,954,578 | 325,229 | | | |
| ACCRUAL OPERATING RECEIPTS | (/dz sold) | (/layer) | | | |
| Egg sales | \$0.740 | \$22.66 | \$ | \$ | \$ |
| Fowl | 0.013 | 0.39 | | | |
| Pullets | 0.001 | 0.02 | | | |
| Other lvstk & products | 0.000 | 0.00 | | | |
| Crops | 0.005 | 0.15 | | | |
| Miscellaneous receipts | 0.003 | 0.09 | | | |
| Total operating receipts | \$0.762 | \$23.31 | \$ | \$ | \$ |
| ACCRUAL OPERATING EXPENSES | | | | | |
| Labor- Hired (excl oper) | \$0.061 | \$1.86 | \$ | \$ | \$ |
| Feed - Layer | 0.179 | 5.48 | | | |
| Grower | 0.020 | 0.61 | | | |
| Equip- Machine hire, eq rent | 0.000 | 0.00 | | | |
| Leased equipment | 0.004 | 0.12 | | | |
| Repairs, parts & auto | 0.013 | 0.41 | | | |
| Fuel, oil & grease | 0.004 | 0.13 | | | |
| Lvstk- Repl chicks & pullets | 0.019 | 0.58 | | | |
| Contract payments | 0.006 | 0.19 | | | |
| Poultry vet & medicine | 0.003 | 0.10 | | | |
| Production supplies | 0.002 | 0.07 | | | |
| Proc & packing supplies | 0.029 | 0.90 | | | |
| Marketing, trucking exp | 0.026 | 0.79 | | | |
| Nonpoultry expenses | 0.001 | 0.03 | | | |
| Crops- Fertilizer & lime | 0.002 | 0.05 | | | |
| Seeds & plants | 0.001 | 0.04 | | | |
| Spray, other crop exp | 0.002 | 0.07 | | | |
| R Est- Repr- land, bldg, fence | 0.001 | 0.02 | | | |
| Taxes | 0.003 | 0.10 | | | |
| Rent | 0.002 | 0.05 | | | |
| Leased structures | 0.000 | 0.01 | | | |
| Other- Insurance | 0.011 | 0.33 | | | |
| Telephone- farm share | 0.001 | 0.03 | | | |
| Electricity- farm share | 0.009 | 0.28 | | | |
| Eggs purch for resale | 0.148 | 4.54 | | | |
| Miscellaneous | 0.005 | 0.16 | | | |
| Total excl interest paid | \$0.554 | \$16.95 | \$ | \$ | \$ |
| REPAYMENT ANALYSIS | (Total) | (/layer) | | | |
| Net accr'l operating income excl int | \$2,078,145 | \$6.39 | \$ | | \$ |
| - Change in livestock & crop inv | 30,112 | \$0.09 | | | |
| - Change in accounts receivable | 75,924 | \$0.23 | | | |
| + Change in produce & supply inv | (31,766) | (\$0.10) | | | |
| + Change in accts payable excl int | (115,640) | (\$0.36) | | | |
| NET CASH FLOW | \$1,824,703 | \$5.61 | \$ | | \$ |
| - Net personal withdrawals | 583,333 | \$1.79 | | | |
| Available for debt payments & invest | \$1,241,370 | \$3.82 | \$ | | \$ |
| - Farm debt payments: prin & int | 352,999 | \$1.09 | | | |
| Available for farm investment | \$ 888,371 | \$2.73 | \$ | | \$ |
| Capital purchases | \$ 157,034 | \$0.48 | \$ | | \$ |
| Additional capital needed | \$ 0 | \$0.00 | \$ | | \$ |

Capital Efficiency Analysis

Capital efficiency factors measure how intensively capital is being used in the farm business. As capital needs grow, capital management becomes more important. Table 20 compares capital efficiency for the same poultry farms with poultry only and with poultry and crops for 1988 and 1989. Investment per worker changed with size of labor force and investment and other factors changed as affected by increases in flock size and production per layer. Farms in the poultry only group had smaller flocks. These farms had significantly higher capital needs per worker and less capital invested per layer and per dozen eggs.

Table 20.

CAPITAL EFFICIENCY ANALYSIS 6 New York Poultry Farms

| Item | Average Capital Investment | | | |
|------------------------------------|----------------------------|--------------|----------------------------------|----------|
| | Per worker equiv | Per layer | -- Per dozen eggs -- Produced | Sold |
| Same 3 POULTRY ONLY farms for: | | | | |
| 1988 Total farm capital | \$246,205 | \$12.14 | \$0.617 | \$0.560 |
| Real estate | n/a | 4.74 | 0.241 | 0.237 |
| All equipment | 90,235 | 4.45 | 0.226 | 0.109 |
| Capital turnover, years | 1.13 | | | |
| 1989 | | | | |
| Total farm capital | \$226,099 | \$12.54 | \$0.595 | \$0.577 |
| Real estate | n/a | 4.52 | 0.215 | 0.212 |
| All equipment | 81,626 | 4.53 | 0.215 | 0.106 |
| Capital turnover, years | 0.86 | | | |
| Same 3 POULTRY AND CROP farms for: | | | | |
| 1988 Total farm capital | \$180,815 | \$22.66 | \$1.009 | \$0.790 |
| Real estate | n/a | 9.15 | 0.407 | 0.339 |
| All equipment | 71,565 | 8.97 | 0.400 | 0.160 |
| Capital turnover, years | 1.35 | | | |
| 1989 | | | | |
| Total farm capital | \$183,487 | \$21.76 | \$0.928 | \$0.722 |
| Real estate | n/a | 8.52 | 0.363 | 0.278 |
| All equipment | 71,620 | 8.50 | 0.362 | 0.144 |
| Capital turnover, years | 0.93 | | | |
| My Farm, 1989 | | | | |
| Total farm capital | \$ _____ | \$ _____ | \$ _____ | \$ _____ |
| Real estate | n/a | _____ | _____ | _____ |
| All equipment | _____ | _____ | _____ | _____ |
| Capital turnover, years | _____ | | | |

Capital turnover is a measure of capital efficiency as it shows the number of years of farm receipts required to equal the capital investment. It is computed by dividing the average farm asset value by total farm accrual receipts including appreciation. While total asset value increased for both groups from 1988 to 1989, a significant increase in the price of eggs resulted in a greater increase in receipts and improved the capital turnover factors to less than one year.

Equipment Analysis

Equipment costs are an important item in the cost of producing eggs. Total equipment expenses include the major fixed costs, such as interest and depreciation, as well as the accrual operating costs. As shown in Table 21, both types of farms increased in flock size and volume of eggs sold compared to 1988. In 1988, the fixed costs of interest and depreciation comprised over 70 percent of total equipment costs. However, as flock size and egg volume increased for 1989 fixed costs were spread over more units lowering the fixed portion of the total costs and generally reducing total equipment costs per unit. Equipment costs account for about 14 percent of the total cost of producing eggs on farms with poultry only and about eight percent on the farms with crops in addition to poultry.

Table 21.

ACCRUAL EQUIPMENT EXPENSES 6 New York Poultry Farms

| Item | Avg equip cost | | Avg equip cost | | Average equipment cost | | |
|-----------------------|-----------------------------|-------------|----------------|-------------|------------------------|-----------|-------------|
| | Per layer | Per dz sold | Per layer | Per dz sold | Total | Per layer | Per dz sold |
| | Same 3 POULTRY ONLY farms | | | | | My farm | |
| | 1988 | | 1989 | | | 1989 | |
| Avg. no.: layers, 000 | | 115.5 | | 127.2 | | | |
| dz eggs sold, 000 | | 2,310 | | 2,708 | | | |
| Annual Accrual Cost: | | | | | | | |
| Eq hire, rent, lease | \$0.15 | \$0.007 | \$0.21 | \$0.010 | \$ | \$ | \$ |
| Repair & parts | 0.10 | 0.005 | 0.12 | 0.006 | | | |
| Auto exp - farm share | 0.02 | 0.001 | 0.01 | 0.001 | | | |
| Fuel, oil & grease | 0.01 | 0.000 | 0.05 | 0.002 | | | |
| Interest - (5%) | 0.22 | 0.011 | 0.20 | 0.009 | | | |
| Depreciation | 0.58 | 0.029 | 0.33 | 0.015 | | | |
| Total equip cost | \$1.08 | \$0.053 | \$0.92 | \$0.043 | \$ | \$ | \$ |
| | Same 3 POULTRY & CROP farms | | | | | My farm | |
| | 1988 | | 1989 | | | 1989 | |
| Avg. no.: layers, 000 | | 289.1 | | 325.2 | | | |
| dz eggs sold, 000 | | 7,788 | | 9,955 | | | |
| Annual Accrual Cost: | | | | | | | |
| Eq hire, rent, lease | \$0.24 | \$0.009 | \$0.13 | \$0.004 | \$ | \$ | \$ |
| Repair & parts | 0.13 | 0.005 | 0.41 | 0.013 | | | |
| Auto exp - farm share | 0.00 | 0.000 | 0.01 | 0.000 | | | |
| Fuel, oil & grease | 0.15 | 0.006 | 0.13 | 0.004 | | | |
| Interest - (5%) | 0.45 | 0.017 | 0.41 | 0.013 | | | |
| Depreciation | 0.86 | 0.032 | 0.84 | 0.027 | | | |
| Total equip cost | \$1.83 | \$0.069 | \$1.93 | \$0.061 | \$ | \$ | \$ |

Labor Analysis

The efficient use of labor is closely related to farm profitability. Measures of labor efficiency or productivity are key indicators of management's success. For both groups shown in Table 22, the size of the labor force increased from 1988. For the same farms with poultry only, labor costs per worker increased for 1989 while productivity declined resulting in higher labor costs per layer and per dozen sold. Poultry farms with crops had improved productivity resulting in lower labor costs per dozen sold in spite of higher costs per worker and per layer.

Table 22. **LABOR FORCE INVENTORY AND ANALYSIS**
6 New York Poultry Farms

| Item | Same 3 farms POULTRY ONLY | | Same 3 farms POULTRY & CROPS | | My farm 1989 |
|-------------------------------------|------------------------------|-----------|---------------------------------|-----------|-----------------|
| | 1988 | 1989 | 1988 | 1989 | |
| LABOR FORCE: | | | | | |
| Operator(s), months | 17.0 | 17.0 | 37.3 | 49.3 | |
| Family unpaid, months | 4.7 | 1.7 | 0.0 | 0.0 | |
| Family paid, months | 3.0 | 5.0 | 0.0 | 0.0 | |
| Hired, months | 43.6 | 61.0 | 397.4 | 413.6 | |
| Total, months | 68.3 | 84.7 | 434.7 | 462.9 | |
| Total worker equiv, no. | 5.69 | 7.06 | 36.22 | 38.58 | |
| Total operator equiv, no. | 1.42 | 1.42 | 3.11 | 4.11 | |
| Value of labor & management | | | | | |
| All operators | \$38,667 | \$39,333 | \$56,000 | \$168,333 | |
| Per operator | \$27,294 | \$27,764 | \$18,016 | \$40,974 | |
| LABOR EFFICIENCY: | | | | | |
| Layers, average no. | 115,515 | 127,200 | 289,057 | 325,229 | |
| Layers per worker, no. | 20,286 | 18,028 | 7,980 | 8,430 | |
| Total eggs sold, dz | 2,309,917 | 2,708,335 | 7,788,180 | 9,954,578 | |
| Eggs sold per worker, dz | 405,644 | 383,858 | 215,011 | 258,039 | |
| LABOR COST: | | | | | |
| Annual accrual cost (incl non-cash) | | | | | |
| Hired: (excl family) | | | | | |
| Per worker equivalent | \$9,697 | \$11,543 | \$15,198 | \$17,541 | |
| Per layer | 0.31 | 0.46 | 1.74 | 1.86 | |
| Per dz eggs sold | 0.015 | 0.022 | 0.065 | 0.061 | |
| All labor cost: (incl oper) | | | | | |
| Per worker equivalent | \$10,224 | \$11,222 | \$14,924 | \$17,015 | |
| Per layer | 0.50 | 0.62 | 1.87 | 2.02 | |
| Per dz eggs sold | 0.025 | 0.029 | 0.069 | 0.066 | |
| All labor & equipment cost: | | | | | |
| Per worker equivalent | \$32,055 | \$27,745 | \$29,511 | \$33,199 | |
| Per layer | 1.58 | 1.54 | 3.70 | 3.94 | |
| Per dz eggs sold | 0.079 | 0.072 | 0.137 | 0.129 | |

Cropping Program Analysis

Of the six poultry farms in this year's summary, three had field crop enterprises. The following table summarizes the acreages and yields for the farms that produced various crops. Corn grain, the most common crop, was grown for feed and was generally milled on the farm where it was produced. When crops are grown it is important that the enterprise be profitable in its own right and that crop production and feed processing costs compete favorably with purchased feed costs. 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.

Table 23. LAND RESOURCES AND CROP PRODUCTION
3 New York Poultry Farms with Crops, 1989

| Item | Average | | | My Farm | | |
|----------------------------|--------------|---------------|----------------|-------------|----------------|-------|
| Land class (End of year) | Owned | Rented | Total | Owned | Rented | Total |
| Tillable, acres | 646 | 336 | 982 | | | |
| Nontillable pasture, acres | 0 | 0 | 0 | | | |
| Other nontillable, acres | 187 | 0 | 187 | | | |
| Total land operated, ac | 833 | 336 | 1169 | | | |
| Crop Production | | | | | | |
| Crop: | No. of farms | Average acres | Yield per acre | Total acres | Yield per acre | |
| Hay, acre equivalents | 0 | 0 | 0.0 tn | | | tn |
| Corn grain | 3 | 616 | 93 bu | | | bu |
| Oats | 1 | 50 | 26 bu | | | bu |
| Wheat | 2 | 83 | 33 bu | | | bu |
| Gov't programs, idle | 2 | 442 | | | | |

Poultry Analysis

Analysis of the poultry enterprise can tell a great deal about the strengths and weaknesses of the poultry farm business. Data are provided in Table 24 for the same six poultry farms for 1988 and 1989 for comparison. Measures of business size include layer and pullet flock sizes and total eggs sold. The number of eggs produced per layer per year is an important measure of productivity. Layer mortality needs to be minimized. Since feed costs about half of the cost of producing eggs, it is well to know feed costs and quantities per layer and per dozen eggs. Feed costs and quantities per raised pullet equivalent are also shown. Layer feed cost as a percent of produced egg sales is lower in 1989 primarily because of a significant increase in egg price.

Table 24.

POULTRY FLOCK INVENTORY AND ANALYSIS
6 New York Poultry Farms

| Item | Same 3 farms POULTRY ONLY | | Same 3 farms POULTRY & CROPS | | My farm 1989 |
|--|------------------------------|-----------|---------------------------------|-----------|-----------------|
| | 1988 | 1989 | 1988 | 1989 | |
| Layers | | | | | |
| Beginning of year, no. | 97,946 | 132,082 | 282,859 | 321,906 | |
| End of year, no. | 130,860 | 131,818 | 321,577 | 322,269 | |
| Average number | 115,515 | 127,200 | 289,057 | 325,229 | |
| Pullets | | | | | |
| Beginning of year, no. | 27,497 | 35,229 | 106,690 | 85,843 | |
| End of year, no. | 35,229 | 26,891 | 112,893 | 90,702 | |
| Pullet equivalents raised to 20 weeks of age, no. | 95,304 | 80,813 | 333,878 | 295,310 | |
| Total eggs sold, dz | 2,309,917 | 2,708,335 | 7,788,180 | 9,954,578 | |
| Percent purchased | 2% | 1% | 17% | 23% | % |
| Percent produced | 98% | 99% | 83% | 77% | % |
| Percent processed | 82% | 84% | 90% | 85% | % |
| Eggs produced per layer, no. | 236 | 253 | 269 | 281 | |
| Mortality | 8.9% | 11.6% | 8.7% | 8.7% | % |
| Feed analysis | | | | | |
| Layer feed: | | | | | |
| Cost per ton | \$ | 152 | 169 | 140 | 140 |
| Per layer: | | | | | |
| Quantity | lb | 79.2 | 83.8 | 81.6 | 82.6 |
| Cost | \$ | 6.02 | 7.09 | 5.70 | 5.77 |
| Per dz produced: | | | | | |
| Quantity | | 4.02 | 3.98 | 3.64 | 3.52 |
| Cost | \$ | 0.306 | 0.336 | 0.254 | 0.246 |
| Cost as a % of produced egg sales | | 63% | 50% | 44% | 33% |
| Grower feed: | | | | | |
| Cost per ton | \$ | 136 | 171 | 144 | 137 |
| Per 20 week pullet equiv: | | | | | |
| Quantity | lb | 16.0 | 14.8 | 13.4 | 16.2 |
| Cost | \$ | 1.09 | 1.26 | 0.96 | 1.11 |
| Other cost factors | | | | | |
| Vet & medicine per layer | \$ | 0.06 | 0.09 | 0.07 | 0.10 |
| Prodn supplies per layer | | 0.02 | 0.04 | 0.10 | 0.07 |
| Proc, mktg suppl / dz sold | | 0.040 | 0.044 | 0.038 | 0.030 |
| Utilities per dz sold | | 0.015 | 0.014 | 0.013 | 0.010 |
| Utilities per layer | | 0.30 | 0.29 | 0.36 | 0.32 |
| All labor per layer | | 0.50 | 0.62 | 1.87 | 2.02 |

The cost of producing eggs has been compiled using the whole farm method, and is presented in the following table. Accrual receipts per dozen from egg sales can be compared with the accrual costs per dozen for producing eggs. Costs are calculated for eggs produced and eggs sold. Operating expenses are reduced by non-egg receipts (on the assumption that total costs for those items were equal to the accrual receipts) and receipts for eggs purchased for resale to obtain the operating costs for eggs produced. Fixed costs are included to obtain total costs for eggs produced. Receipts for the sale of purchased eggs (assumed equal to cost) are added to the total cost of producing eggs to determine costs for eggs sold.

Table 25. ACCRUAL RECEIPTS AND COST OF PRODUCTION
6 New York Poultry Farms

| Item | Same 3 farms POULTRY ONLY | | Same 3 farms POULTRY & CROPS | | My farm 1989 |
|---|------------------------------|-----------|---------------------------------|-----------|-----------------|
| | 1988 | 1989 | 1988 | 1989 | |
| Average number: layers | 115,515 | 127,200 | 289,057 | 325,229 | |
| eggs per layer | 236 | 253 | 269 | 281 | |
| dz eggs prod | 2,272,527 | 2,681,163 | 6,488,156 | 7,627,192 | |
| dz eggs sold | 2,309,917 | 2,708,335 | 7,788,180 | 9,954,578 | |
| Accrual receipts: | | | | | |
| Total egg sales | \$1,121,862 | 1,804,532 | 4,483,564 | 7,370,625 | |
| Egg sales- % of total recpts | 88% | 96% | 94% | 97% | % |
| Receipts per dz sold | \$ 0.486 | 0.666 | 0.576 | 0.740 | |
| Produced egg sales per layer (dz prod x recpt/dz)/layers | \$ 9.55 | 14.04 | 12.92 | 17.36 | |
| Accrual Cost of Production (whole farm method) | | | | | |
| Total operating expenses | \$1,201,432 | 1,532,674 | 4,041,172 | 5,592,352 | |
| - non-egg receipts | 157,564 | 72,042 | 286,281 | 217,168 | |
| - purchased egg receipts (dz purchased x recpt/dz) | 18,160 | 18,104 | 748,409 | 1,723,257 | |
| - Operating costs | | | | | |
| for eggs produced | \$1,025,708 | 1,442,528 | 3,006,482 | 3,651,927 | |
| + expansion poultry | 79,210 | 0 | 50,667 | 0 | |
| + depreciation - equip, bldg | 102,188 | 73,105 | 370,834 | 389,860 | |
| + unpaid family labor | 3,267 | 1,250 | 0 | 0 | |
| + value of oper labor & mgmt | 38,667 | 39,333 | 56,000 | 168,333 | |
| + interest- avg eqty capital | 26,752 | 30,712 | 277,446 | 294,255 | |
| - TOTAL COSTS FOR EGGS PRODUCED | \$1,275,792 | 1,586,928 | 3,761,429 | 4,504,375 | |
| Operating cost/dz eggs produced | \$ 0.451 | 0.538 | 0.463 | 0.479 | |
| Total cost/dz eggs produced | \$ 0.561 | 0.592 | 0.580 | 0.591 | |
| Total cost per layer | \$ 11.04 | 12.48 | 13.01 | 13.85 | |
| Total costs for eggs produced | \$1,275,792 | 1,586,928 | 3,761,429 | 4,504,375 | |
| + Total recpts- purchased eggs | 18,160 | 18,104 | 748,409 | 1,723,257 | |
| - TOTAL COSTS FOR EGGS SOLD | \$1,293,952 | 1,605,032 | 4,509,838 | 6,227,632 | |
| Operating cost per dz eggs sold | \$ 0.452 | 0.539 | 0.482 | 0.540 | |
| Total cost per dz eggs sold | \$ 0.560 | 0.593 | 0.579 | 0.626 | |

PROGRESS OF THE FARM BUSINESS

Monitoring progress of your farm business is critical to improving management. Tables 26-28 provide average data from the Poultry Summary for the most recent two years. While it is helpful to compare your factors with the group average, it is even more important to compare

Table 26. PROGRESS OF THE POULTRY FARM BUSINESS
Farms with Poultry Only, New York State, 1988-1989

| SELECTED FACTORS: | Average per Farm | | |
|----------------------------------|------------------------|--------------------------|------------|
| | All 6 farms in 1988 | Same 3 farms in: 1988 | 1989 |
| Size of Business | | | |
| Layers, avg no. | 92,181 | 115,515 | 127,200 |
| Pullets, no. of 20 wk equiv | 72,729 | 95,304 | 80,813 |
| Eggs sold, dz | 2,265,579 | 2,309,917 | 2,708,335 |
| Eggs produced, dz | 1,882,606 | 2,272,527 | 2,681,163 |
| Worker equivalent | 6.97 | 5.69 | 7.06 |
| Rates of Production | | | |
| Eggs produced per layer, no. | 245 | 236 | 253 |
| Labor Efficiency | | | |
| Layers per worker, no. | 13,221 | 20,286 | 18,028 |
| Eggs sold per worker, dz | 324,944 | 405,644 | 383,858 |
| Cost Control - accrual | | | |
| Grower feed: lb/pullet equiv | 16.1 | 16.0 | 14.8 |
| Layer feed: lb/dz eggs prod | 3.84 | 4.02 | 3.98 |
| cost/dz produced | \$ 0.281 | \$ 0.306 | \$ 0.336 |
| All labor cost/dz eggs sold | \$ 0.039 | \$ 0.025 | \$ 0.029 |
| All labor & equip cost/dz sold | \$ 0.078 | \$ 0.079 | \$ 0.072 |
| Prod supplies cost/dz prod | \$ 0.001 | \$ 0.001 | \$ 0.002 |
| Proc/mktg suppl cost/dz sold | \$ 0.061 | \$ 0.040 | \$ 0.044 |
| Utilities cost/dz eggs sold | \$ 0.013 | \$ 0.015 | \$ 0.014 |
| Capital Efficiency- avg for year | | | |
| Total farm capital: per layer | \$ 11.92 | \$ 12.14 | \$ 12.54 |
| /dz sold | \$ 0.440 | \$ 0.560 | \$ 0.577 |
| Equipment investment / layer | \$ 4.04 | \$ 4.45 | \$ 4.53 |
| Capital turnover, years | 0.9 | 1.1 | 0.9 |
| Profitability | | | |
| Net farm income: w/o apprec | \$ (97,385) | \$ (103,405) | \$ 270,794 |
| w/ apprec | \$ (92,013) | \$ (138,766) | \$ 259,448 |
| Labor & mgmt income per operator | \$ (104,409) | \$ (94,181) | \$ 168,588 |
| Rate of return to avg capital | | | |
| w/apprec: Equity capital | -19.1% | -33.8% | 35.6% |
| Total capital | -8.0% | -8.9% | 19.3% |
| Financial Summary - end of year | | | |
| Farm: Net worth | \$ 662,419 | \$ 445,023 | \$ 733,459 |
| Debt to asset ratio | 0.45 | 0.71 | 0.55 |
| Debt per layer | \$ 5.32 | \$ 8.15 | \$ 6.78 |

factors for your business this year with previous years. Participation in the Summary program will enable you to make that comparison. It will keep you aware of financial and production trends occurring in your business. Participators are provided with this comparison as they continue in the program. Others will find it helpful to enter their own data in Table 29. Historical factors will help in setting future goals.

Table 27. PROGRESS OF THE POULTRY FARM BUSINESS
Farms with Poultry and Crops, New York State, 1988-1989

| SELECTED FACTORS: | Average per Farm | | |
|----------------------------------|------------------------|--------------------------|--------------|
| | All 5 farms in 1988 | Same 3 farms in: 1988 | 1989 |
| Size of Business | | | |
| Layers, avg no. | 188,248 | 289,057 | 325,229 |
| Pullets, no. of 20 wk equiv | 200,327 | 333,878 | 295,310 |
| Eggs sold, dz | 5,028,705 | 7,788,180 | 9,954,578 |
| Eggs produced, dz | 4,234,666 | 6,488,156 | 7,627,192 |
| Worker equivalent | 23.83 | 36.22 | 38.58 |
| Rates of Production | | | |
| Eggs produced per layer, no. | 270 | 269 | 281 |
| Labor Efficiency | | | |
| Layers per worker, no. | 7,900 | 7,980 | 8,430 |
| Eggs sold per worker, dz | 211,024 | 215,011 | 258,039 |
| Cost Control - accrual | | | |
| Grower feed: lb/pullet equiv | 13.4 | 13.4 | 16.2 |
| Layer feed: lb/dz eggs prod | 3.65 | 3.64 | 3.52 |
| cost/dz produced | \$ 0.258 | \$ 0.254 | \$ 0.246 |
| All labor cost/dz eggs sold | \$ 0.069 | \$ 0.069 | \$ 0.066 |
| All labor & equip cost/dz sold | \$ 0.136 | \$ 0.137 | \$ 0.129 |
| Prod supplies cost/dz prod | \$ 0.004 | \$ 0.004 | \$ 0.003 |
| Proc/mktg suppl cost/dz sold | \$ 0.038 | \$ 0.038 | \$ 0.030 |
| Utilities cost/dz eggs sold | \$ 0.013 | \$ 0.013 | \$ 0.010 |
| Capital Efficiency- avg for year | | | |
| Total farm capital: per layer | \$ 21.93 | \$ 22.66 | \$ 21.76 |
| /dz sold | \$ 0.775 | \$ 0.790 | \$ 0.722 |
| Equipment investment / layer | \$ 8.45 | \$ 8.97 | \$ 8.50 |
| Capital turnover, years | 1.3 | 1.4 | 0.9 |
| Profitability | | | |
| Net farm income: w/o apprec | \$ 163,822 | \$ 307,173 | \$ 1,605,581 |
| w/ apprec | \$ 217,897 | \$ 381,089 | \$ 1,618,952 |
| Labor & mgmt income per operator | \$ (3,118) | \$ 9,555 | \$ 318,971 |
| Rate of return to avg capital | | | |
| w/apprec: Equity capital | 4.7% | 5.9% | 24.6% |
| Total capital | 5.2% | 6.1% | 21.7% |
| Financial Summary - end of year | | | |
| Farm: Net worth | \$3,527,464 | \$ 5,732,076 | \$ 5,914,964 |
| Debt to asset ratio | 0.19 | 0.17 | 0.15 |
| Debt per layer | \$ 4.02 | \$ 3.77 | \$ 3.28 |

Table 28.

PROGRESS OF THE POULTRY FARM BUSINESS
All Summary Farms, New York State, 1988-1989

| SELECTED FACTORS: | Average per Farm | | |
|---|----------------------------|------------------|--------------|
| | All 11 farms in 1988 | Same 6 farms in: | |
| | 1988 | 1988 | 1989 |
| Size of Business | | | |
| Layers, avg no. | 135,848 | 202,286 | 226,215 |
| Pullets, no. of 20 wk equiv | 130,728 | 214,591 | 188,061 |
| Eggs sold, dz | 3,521,545 | 5,049,049 | 6,331,457 |
| Eggs produced, dz | 2,951,724 | 4,380,341 | 5,154,177 |
| Worker equivalent | 14.63 | 20.96 | 22.82 |
| Rates of Production | | | |
| Eggs produced per layer, no. | 261 | 260 | 273 |
| Labor Efficiency | | | |
| Layers per worker, no. | 9,282 | 9,652 | 9,914 |
| Eggs sold per worker, dz | 240,627 | 240,909 | 277,493 |
| Cost Control - accrual | | | |
| Grower feed: lb/pullet equiv | 14.2 | 14.0 | 15.9 |
| Layer feed: lb/dz eggs prod | 3.72 | 3.74 | 3.64 |
| cost/dz produced | \$ 0.266 | \$ 0.267 | \$ 0.269 |
| All labor cost/dz eggs sold | \$ 0.058 | \$ 0.059 | \$ 0.058 |
| All labor & equip cost/dz sold | \$ 0.116 | \$ 0.124 | \$ 0.117 |
| Prod supplies cost/dz prod | \$ 0.003 | \$ 0.004 | \$ 0.003 |
| Proc/mktg suppl cost/dz sold | \$ 0.046 | \$ 0.039 | \$ 0.033 |
| Utilities cost/dz eggs sold | \$ 0.013 | \$ 0.014 | \$ 0.011 |
| Capital Efficiency- avg for year | | | |
| Total farm capital: per layer | \$ 18.22 | \$ 19.65 | \$ 19.17 |
| /dz sold | \$ 0.657 | \$ 0.738 | \$ 0.691 |
| Equipment investment / layer | \$ 6.82 | \$ 7.68 | \$ 7.38 |
| Capital turnover, years | 1.2 | 1.3 | 0.9 |
| Profitability | | | |
| Net farm income: w/o apprec | \$ 22,338 | \$ 98,563 | \$ 936,664 |
| w/ apprec | \$ 48,855 | \$ 121,162 | \$ 939,200 |
| Labor & mgmt income per operator | \$ (39,319) | \$ (24,369) | \$ 279,879 |
| Rate of return to avg capital | | | |
| w/apprec: Equity capital | 0.2% | 2.4% | 25.7% |
| Total capital | 2.0% | 3.5% | 21.2% |
| Financial Summary - end of year | | | |
| Farm: Net worth | \$1,964,712 | \$ 3,088,550 | \$ 3,324,212 |
| Debt to asset ratio | 0.25 | 0.27 | 0.23 |
| Debt per layer | \$ 4.50 | \$ 5.03 | \$ 4.29 |

Table 29.

PROGRESS OF MY POULTRY FARM BUSINESS
New York State, 1987-1989

| SELECTED FACTORS: | My Farm | | | |
|---|---------|------|------|------|
| | 1987 | 1988 | 1989 | Goal |
| Size of Business | | | | |
| Layers, avg no. | | | | |
| Pullets, no. of 20 wk equiv | | | | |
| Eggs sold, dz | | | | |
| Eggs produced, dz | | | | |
| Worker equivalent | | | | |
| Rates of Production | | | | |
| Eggs produced per layer, no. | | | | |
| Labor Efficiency | | | | |
| Layers per worker, no. | | | | |
| Eggs sold per worker, dz | | | | |
| Cost Control - accrual | | | | |
| Grower feed: lb/pullet equiv | | | | |
| Layer feed: lb/dz eggs prod | | | | |
| cost/dz produced | | | | |
| All labor cost/dz eggs sold | | | | |
| All labor & equip cost/dz sold | | | | |
| Prod supplies cost/dz prod | | | | |
| Proc/mktg suppl cost/dz sold | | | | |
| Utilities cost/dz eggs sold | | | | |
| Capital Efficiency- avg for year | | | | |
| Total farm capital: per layer | | | | |
| /dz sold | | | | |
| Equipment investment / layer | | | | |
| Capital turnover, years | | | | |
| Profitability | | | | |
| Net farm income: w/o apprec | | | | |
| w/ apprec | | | | |
| Labor & mgmt income per oper | | | | |
| Rate of return to avg capital | | | | |
| w/apprec: Equity capital | % | % | % | % |
| Total capital | % | % | % | % |
| Financial Summary - end of year | | | | |
| Farm: Net worth | | | | |
| Debt to asset ratio | | | | |
| Debt per layer | | | | |

Other Agricultural Economics Extension Publications

| | | |
|-----------|---|--|
| No. 90-11 | Dairy Farm Business Summary, Eastern Plateau Region, 1989 | Robert A. Milligan Linda D. Putnam Carl A. Crispell William H. Gengenbach Gerald A. LeClar |
| No. 90-12 | National and State Trends in Milk Production | Andrew Novakovic Kevin Jack Maura Keniston |
| No. 90-13 | Dairy Farm Business Summary, Oneida-Mohawk Region, 1989 | Eddy L. LaDue Mark E. Anibal Jacqueline M. Mierek |
| No. 90-14 | Dairy Farm Business Summary, Western Plateau Region, 1989 | George L. Casler |
| No. 90-15 | Dairy Farm Business Summary, Northern Hudson Region, 1989 | Stuart F. Smith Linda D. Putnam |
| No. 90-16 | Dairy Farm Business Summary, Southeastern New York, 1989 | Stuart F. Smith |
| No. 90-17 | Present Value, Future Value and Amortization Formulas and Tables | Eddy L. LaDue |
| No. 90-18 | The Milkfat Issue: Production, Processing, and Marketing | Tom Cosgrove Andrew Novakovic |
| No. 90-19 | Dairy Farm Business Summary, Eastern New York Renter Summary, 1989 | Linda D. Putnam Stuart F. Smith |
| No. 90-20 | Improving Communication About Risks Associated With Residues of Agricultural Chemicals on Produce | Nancy Ostiguy Enrique E. Figueroa Carole Bisogni |
| No. 90-21 | Cornell Cooperative Extension Farm Business Management Program Guidelines, Suggestions, and Resources | Stuart F. Smith Wayne A. Knoblauch Gerald B. White |
| No. 90-22 | Fruit Farm Business Summary, Lake Ontario Region, New York, 1989 | Darwin P. Snyder Alison M. DeMarree |