DAIRY FARM BUSINESS SUMMARY

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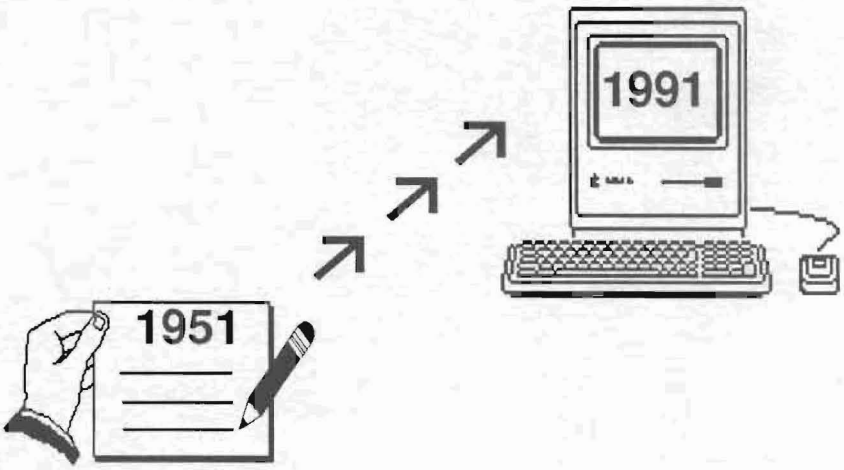
EASTERN NEW YORK RENTER SUMMARY 1991



DFBS 40th Anniversary

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1991 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.[1]

Accrual procedures have been used to provide the most accurate accounting of farm receipts and farm expenses for measuring farm profits. An explanation of these procedures is found on pages 4-6. Four measures of farm profits are calculated on pages 7 and 8. The balance sheet and cash flow statement are featured on pages 9-14. The dairy program analysis includes data on the costs of producing milk (pages 17 and 18).

This Eastern New York Dairy Summary is an average of 32 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 140 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 32 farms in 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 Albany, Dutchess, Fulton, Greene, Herkimer, Saratoga, Schenectady, and Ulster Counties which do not have dairy farm business summary participants that classify as renters (see Figure 1 on page 2). The 140 owned dairy farms summarized in this publication include farms from the entire region.

Use Comparative Profitability Data With Caution

The profitability analysis on page 8 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 $158 per tillable acre on the owned dairy farms compared to only $101 on the rented farms. This accounts for a $22,130 difference in costs between owned and rented farms.

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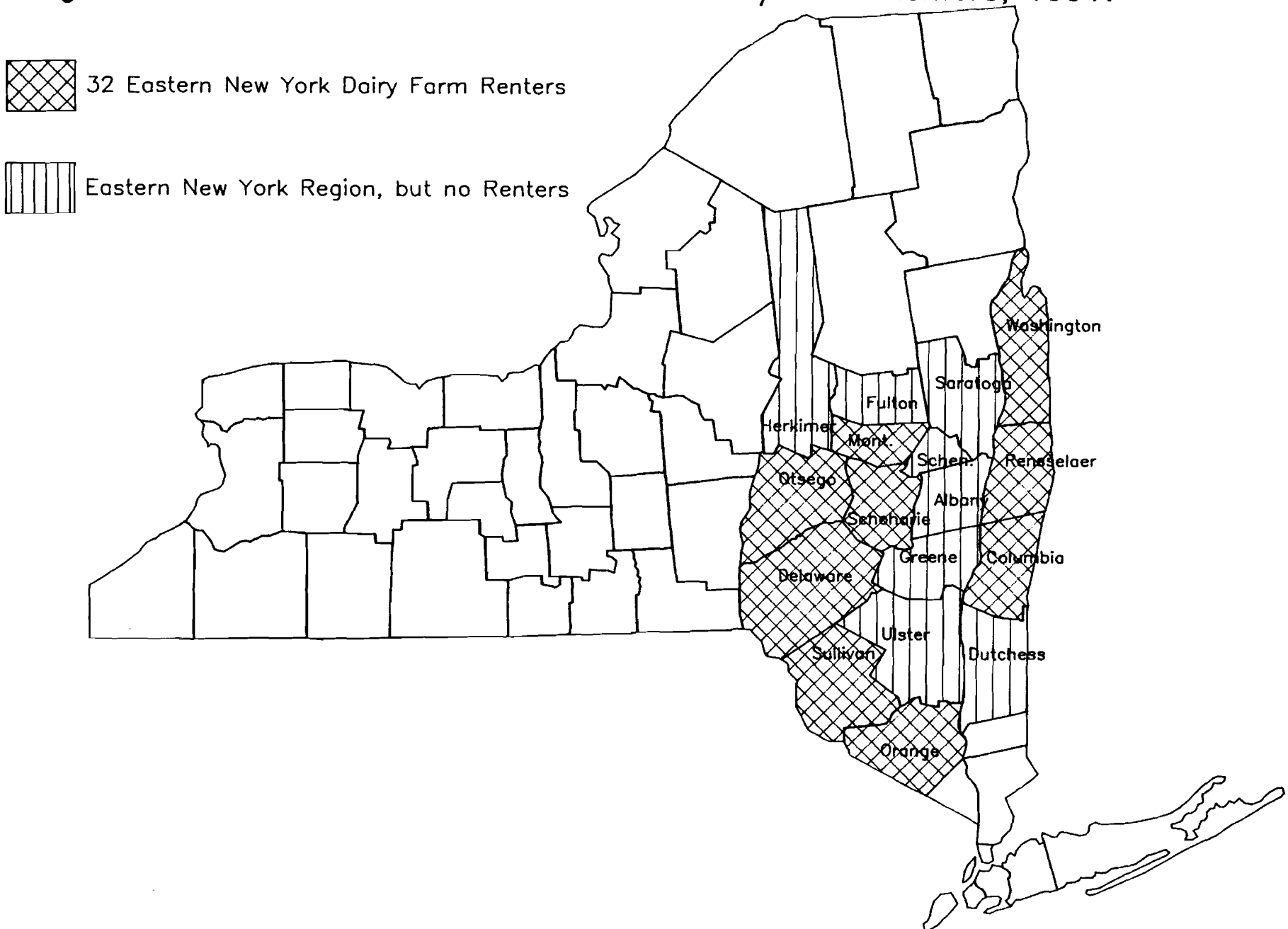
[1]Smith, Stuart F., Wayne A. Knoblauch, and Linda D. Putnam, Dairy Farm Management Business Summary, New York, 1991, A.E. Res. 92-6, August 1992.

Figure 1. Location of Eastern New York Dairy Farm Renters, 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
32 Eastern New York Dairy Farm Renters, 1991

Type of Business	Number	Labor Force	My Farm	Average
Single proprietorship	30	Operator 1.	____ mo.	11.97
Partnership	2	Operator 2.	____ mo.	1.19
		Operator 3.	____ mo.	0.38
Milking System	Number	Family paid	____ mo.	2.09
Dumping station	1	Family unpaid	____ mo.	3.09
Pipeline	26	Hired	____ mo.	5.00
Herringbone parlor	4	Total	____ mo.	23.72
Other parlor	1			
		Worker equivalent		
Type of Barn	Number	(total ÷ 12)	____	1.98
Stanchion	26	Operator/Manager		
Freestall	4	Equivalent		
Combination	2	(Oper. mo. ÷ 12)	____	1.13

Dairy Records Service	Number	Land Use	My Farm	Average
DHIC	23	Total acres rented	_____	370
DHIC Owner-Sampler	4	Tillable acres rented	_____	218
Other	2			
None	3			

Business Record System	Number	Number of Cows	My Farm	Average
Account Book	18	Beg. year (owned)	_____	57
Agrifax (mail-in only)	5	End year (owned &		
ELFAC	0	leased)	_____	60
Other	5	Average for year		
On-farm computer	4	(owned & leased)	_____	59

Predominate business characteristics of the 32 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 44 percent less than the 2.86 worker equivalent on owned farms. The rented farms averaged 218 tillable acres and 59 cows compared to 279 tillable acres and 90 cows on the 140 owned dairy farms in the same region. The owned farms averaged 31 cows per worker compared to 30 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
32 Eastern New York Dairy Farm Renters, 1991

Expense Item	Cash Paid	+	Inventory or Prepaid Expense	+	Change in Accounts Payable	=	Accrual Expenses	Percent of Total
Hired Labor	$ 9,013		$ 0	«	$-67		$ 8,946	7
Feed								
Dairy grain & conc.	34,772		526		497		35,795	30
Dairy roughage	863		80		0		943	1
Other livestock	156		0		0		156	<1
Machinery								
Mach. hire, rent/lease	1,696		0	«	34		1,730	1
Machinery repairs/parts	6,293		-5		-23		6,265	5
Auto expense (farm share)	361		0	«	0		361	<1
Fuel, oil & grease	4,077		-21		32		4,088	3
Livestock								
Replacement livestock	1,974		0	«	0		1,974	2
Breeding	1,933		-60		6		1,879	2
Vet & medicine	2,572		76		-49		2,599	2
Milk marketing	9,623		0	«	-1		9,622	8
Cattle lease/rent	396		0	«	0		396	<1
Other livestock expense	6,382		-1		62		6,443	5
Crops								
Fertilizer & lime	4,162		433		167		4,762	4
Seeds & plants	2,103		-133		-10		1,960	2
Spray, other crop exp.	1,776		11		-81		1,706	1
Real Estate								
Land/bldg./fence repair	1,356		-9		2		1,349	1
Taxes	1,053		0	«	313		1,366	1
Rent & lease	12,188		0	«	0		12,188	10
Other								
Insurance	2,408		0	«	0		2,408	2
Telephone (farm share)	538		0	«	0		538	<1
Electricity (farm share)	4,348		0	«	-50		4,298	4
Interest paid	7,057		0	«	0		7,057	6
Miscellaneous	1,535		6		11		1,552	1
Total Operating	$118,635		$903		$843		$120,381	100
Expansion livestock	$3,994		$0	«	$0		3,994	
Machinery depreciation							9,024	
Building depreciation							642	
TOTAL ACCRUAL EXPENSES							$134,041	

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, 1992 rent paid in 1991. 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

Accrual Expense Item	Cash Paid +	Change in Inventory or Prepaid Expense +	Change in Accounts Payable	= Expenses
Hired Labor	$	$ «	$	$
Feed				
Dairy grain & conc.				
Dairy roughage				
Other livestock				
Machinery				
Mach. hire, rent/lease		«		
Machinery repairs/parts				
Auto expense (farm share)		«		
Fuel, oil & grease				
Livestock				
Replacement livestock		«		
Breeding				
Vet & medicine				
Milk marketing		«		
Cattle lease/rent		«		
Other livestock expense				
Crops				
Fertilizer & lime				
Seeds & plants				
Spray, other crop exp.				
Real Estate				
Land/bldg./fence repair				
Taxes		«		
Rent & lease		«		
Other				
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
32 Eastern New York Dairy Farm Renters, 1991

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$128,015				$1,846		$129,861
Dairy cattle	9,156		$1,529		0		10,685
Dairy calves	2,700				0		2,700
Other livestock	407		81		0		488
Crops	392		-1,533		63		-1,078
Government receipts	755		0*		0		755
Custom machine work	336				0		336
Gas tax refund	125				0		125
Other	1,304				0		1,304
- Nonfarm noncash capital**		(-)	0			(-)	0
Total Accrual Receipts	$143,190		$ 77		$1,909		$145,176

*Change in advanced government receipts.
**Gifts or inheritances of cattle or crops included in inventory.

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

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

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

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

CASH AND ACCRUAL FARM RECEIPT WORKSHEET

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$_____				$_____		$_____
Dairy cattle	_____		$_____		_____		_____
Dairy calves	_____		_____		_____		_____
Other livestock	_____		_____		_____		_____
Crops	_____		_____		_____		_____
Government receipts	_____		_____		_____		_____
Custom machine work	_____				_____		_____
Gas tax refund	_____				_____		_____
Other	_____				_____		_____
Less gifts of cattle & crops		(-)	_____			(-)	_____
Total Accrual Receipts	$_____		$_____		$_____		$_____

Profitability Analysis

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

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

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

NET FARM INCOME
Eastern New York Dairy Farm Renters and Owners, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Total accrual receipts	$145,176	$238,783	$
+ Appreciation: Livestock	816	1,887	
Machinery	2,374	2,269	
Real Estate	478	8,884	
Other Stock/Cert.	22	331	
= Total Including Appreciation	$148,866	$252,154	$
- Total accrual expenses	134,041	219,859	
= Net Farm Income (with appreciation)	$ 14,825	$ 32,295	$
Net Farm Income (without appreciation)	$ 11,135	$ 18,924	$

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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Net farm income (with appreciation)	$14,825	$32,295	$
- Family labor unpaid @ $1,300 per month	4,017	4,082	
= Return to operators' labor, management, & equity (with appreciation)	$10,808	$28,213	$
- Appreciation	3,690	13,371	
= Return to operators' labor, management, & equity (without appreciation)	$ 7,118	$14,842	$

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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Return to operators' labor, mgmt., & equity without appreciation	$7,118	$14,842	$_____
- Real interest @ 5% on average equity capital	6,373	22,975	-_____
= Labor & Management Income	$ 745	$-8,133	$_____
Labor & Management Income per Operator/Manager	$ 659	$-5,980	$_____

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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Return to operators' labor, mgmt., & equity capital with apprec.	$10,808	$28,213	$_____
- Value of operators' labor & mgmt.	22,500	27,255	_____
= Return on equity capital with apprec.	$-11,692	$ 958	$_____
+ Interest paid	7,057	17,142	_____
= Return on total capital with apprec.	$-4,635	$18,100	$_____
Return on equity capital without apprec.	$-15,382	$-12,413	$_____
Return on total capital without apprec.	$-8,325	$4,729	$_____
Rate of return on average equity capital:			
with appreciation	-9.2%	0.2%	_____%
without appreciation	-12.1%	-2.7%	_____%
Rate of return on average total capital:			
with appreciation	-2.1%	2.7%	_____%
without appreciation	-3.7%	0.7%	_____%

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.

1991 FARM BUSINESS & NONFARM BALANCE SHEET
32 Eastern New York Dairy Farm Renters

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$ 2,417	$ 2,603	Accounts payable	$ 4,353	$ 5,179
Accounts rec.	9,685	11,594	Operating debt	2,587	1,852
Prepaid exp.	0	0	Short-term	1,931	2,610
Feed & supplies	30,633	28,198	Advanced govt. rec.	0	0
Total	$42,735	$ 42,395	Total	$ 8,871	$ 9,641
Intermediate			Intermediate		
Dairy cows: owned	$ 58,378	$ 60,531	Structured debt		
leased	524	411	1-10 years	$ 62,582	$ 67,274
Heifers	21,711	21,895	Financial lease		
Bulls/other lvstk.	823	913	(cattle/mach.)	2,533	2,169
Mach./eq. owned	74,848	76,258	Farm Credit stock	601	654
Mach./eq. leased	2,009	1,758			
Farm Credit stock	601	654	Total	$ 65,716	$ 70,097
Other stock/cert.	1,787	1,763			
Total	$160,681	$164,183	Long Term		
Long-Term			Structured debt		
Land/buildings:			≥10 years	$ 19,163	$ 18,766
owned	$ 18,311	$ 18,862	Financial lease		
leased	370	203	(structures)	370	203
Total	$ 18,681	$ 19,065	Total	$ 19,533	$ 18,969
Total Farm Assets	$222,097	$225,643	Total Farm Liab.	$ 94,120	$ 98,707
			FARM NET WORTH	$127,977	$126,936

(Average for 20 farms reporting) Nonfarm Assets*	Jan. 1	Dec. 31	Nonfarm Liabilities* & Net Worth	Jan. 1	Dec. 31
Personal cash, chkg. & savings	$ 1,743	$ 2,237	Nonfarm Liab.	$10,933	$9,280
Cash value life ins.	1,870	1,946	NONFARM NET WORTH	$19,592	$23,956
Nonfarm real estate	12,825	13,425			
Auto (personal sh.)	4,433	4,575	FARM & NONFARM*	Jan. 1	Dec. 31
Stocks & bonds	150	155	Total Assets	$252,622	$258,879
Household furn.	7,525	8,569	Total Liabilities	105,053	107,987
All other	1,980	2,330			
Total Nonfarm	$30,525	$33,236	TOTAL FARM & NON-FARM NET WORTH	$147,569	$150,892

*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 1991 that are for participation in the 1992 program are the end year balance and payments received in 1990 for participation in the 1991 program are the beginning year balance.

Date _____

1991 FARM BUSINESS & NONFARM BALANCE SHEET

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings			Accounts payable		
Accounts rec.			Operating debt:		
Prepaid expense					
Feed & supplies					
Total			Short Term:		
Intermediate					
Dairy cows:			Adv. govt. rec.		
owned			Total		
leased			Intermediate		
Heifers					
Bulls/other lvstk.					
Mach./eq. owned					
Mach./eq. leased					
Farm Credit stock			Financial lease		
Other stock/cert.			(cattle/mach.)		
Total			Farm Credit stock		
			Total		
			Long-Term		
Long-Term					
Land/buildings:					
owned					
leased					
			Financial lease		
Total			(structures)		
			Total		
Total Farm Assets			Total Farm Liab.		
			FARM NET WORTH		

Nonfarm Assets	Jan. 1	Dec. 31	Nonfarm Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, chkg. & savings			Nonfarm Liab.:		
Cash val. life ins.					
Nonfarm real est.					
Auto (pers. share)					
Stocks & bonds			Total Nonfarm		
Household furn.			Liabilities		
All other			Nonfarm		
Total Nonfarm			Net Worth		

TOTAL FARM & NONFARM	Jan. 1	Dec. 31
Total Farm & Nonfarm Assets		
Less Total Farm & Nonfarm Liabilities		
Farm & Nonfarm Net Worth		

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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Financial Ratios - Farm:			
Percent equity	56%	69%	_____%
Debt/asset ratio: total	0.44	0.31	_____
long-term	0.99	0.31	_____
intermediate/current	0.39	0.31	_____
Change in Net Worth:			
Without appreciation	$-4,731	$-2,227	$_____
With appreciation	$-1,041	$11,144	_____
Farm Debt Analysis:			
Accounts payable as % of total debt	5%	4%	_____%
Long-term liabilities as a % of total debt	19%	51%	_____%
Current & inter. liab. as a % of total debt	81%	49%	_____%
Farm Debt Levels Per Cow:			
Total farm debt	$1,645	$2,332	$_____
Long-term debt	$316	$1,185	_____
Intermediate & current debt	$1,329	$1,147	_____

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, 1991

Item	32 Dairy Farm Renters		140 Dairy Farm Owners		My Farm	
Value beg. of year		$74,848		$113,829		$_____
Purchases	$8,425		$10,704		$_____	
+ Nonfarm noncash transfer	0		14		+_____	
- Sales	364		667		-_____	
- Depreciation	9,024		12,208		-_____	
= Net investment		-963		-2,157		=+_____
+ Appreciation		2,374		2,269		+_____
= Value end of year		$76,258		$113,942		$_____

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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Cash Inflows			
Beg. farm cash, checking & savings	$ 2,417	$ 4,052	$
Cash farm receipts	143,191	232,456	
Sale of assets: Machinery	364	667	
Real estate	0	3,016	
Other stock & cert.	106	193	
Money borrowed (intermediate & long-term)	18,452	28,027	
Money borrowed (short-term)	2,417	1,616	
Increase in operating debt	0	949	
Nonfarm income	3,103	4,386	
Cash from nonfarm capital used in the business	1,459	2,584	
Money borrowed - nonfarm	0	462	
Total	$171,509	$278,408	$
Cash Outflows			
Cash farm expenses	$118,635	$195,212	$
Capital purchases: Expansion livestock	3,994	1,326	
Machinery	8,425	10,704	
Real estate	882	7,712	
Other stock & cert.	60	178	
Principal payments (inter. & long-term)	14,157	28,596	
Principal payments (short-term)	1,738	2,013	
Decrease in operating debt	735	0	
Personal withdrawals & family expenditures, including nonfarm debt payments	20,181	29,049	
Ending farm cash, checking & savings	2,603	3,531	
Total	$171,410	$278,323	$
Imbalance (error)	$99	$85	$

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 1992. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 1992 debt payments shown below.

FARM DEBT PAYMENTS PLANNED
Same 22 Eastern New York Dairy Farm Renters, 1991*

	Average			My Farm		
	1991 Payments		Planned	1991 Payments		Planned
Debt Payments	Planned	Made	1992	Planned	Made	1992
Long-term	$ 2,416	$ 640	$ 600	$_____	$_____	$_____
Intermediate-term	18,433	19,412	15,862	_____	_____	_____
Short-term	2,656	2,360	1,749	_____	_____	_____
Operating (net red.)	1,280	1,112	404	_____	_____	_____
Accounts payable (net reduction)	0	71	95	_____	_____	_____
Total	$24,786	$23,595	$18,709	$_____	$_____	$_____
Per cow	$400	$381		$_____	$_____	
Per cwt. 1991 milk	$2.38	$2.26		$_____	$_____	
Percent of total 1991 receipts	17%	16%		_____	_____	
Percent of 1991 milk receipts	18%	17%		_____	_____	

*Farms that completed Dairy Farm Business Summaries for both 1990 and 1991.

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 1992.

CASH FLOW COVERAGE RATIO
Eastern New York Dairy Farm Renters and Owners, 1991

Item	Same 22 Farm Renters	Same 106 Farm Owners	My Farm
Cash farm receipts	$150,085	$231,433	$_____
- Cash farm expenses	126,228	193,367	_____
+ Interest paid	6,622	16,613	_____
- Net personal withdrawals from farm*	18,126	24,634	_____
(A) = Amount Available for Debt Service	$ 12,353	$ 30,045	$_____
(B) = Debt Payments Planned for 1991 (as of December 31, 1990)	$24,786	$39,053	$_____
(A + B) = Cash Flow Coverage Ratio for 1991	0.50	0.77	_____

*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 WORKSHEEET

Item	32 Dairy Farm Renters (per cow)	My Farm Total	My Farm Per Cow	Expected Change	1992 Projection
Average number of cows	59				
Accrual Oper. Receipts					
Milk	$2,186	$	$		$
Dairy cattle	180				
Dairy calves	45				
Other livestock	8				
Crops	-18				
Misc. receipts	42				
Total	$2,444	$	$		$
Accrual Oper. Expenses					
Hired labor	$ 151	$	$		$
Dairy grain & conc.	603				
Dairy roughage	16				
Other lvstk. feed	3				
Mach. hire/rent/lease	29				
Mach. repair/parts & auto	112				
Fuel, oil & grease	69				
Replacement lvstk.	33				
Breeding	32				
Vet & medicine	44				
Milk marketing	162				
Cattle lease	7				
Other lvstk. exp.	108				
Fertilizer & lime	80				
Seeds & plants	33				
Spray/other crop exp.	29				
Land, bldg.,fence repair	23				
Taxes	23				
Real est. rent/lease	205				
Insurance	41				
Utilities	81				
Miscellaneous	26				
Total Less Interest Paid	$1,908	$	$	$	$
Net Accrual Operating Income (without interest paid)	(total) $31,854	$			$
- Change in lvstk./crop inv.	77				
- Change in accts. rec.	1,909				
+ Change in feed/supply inv.*	903				
+ Change in accts. payable**	843				
NET CASH FLOW	$31,614	$			$
- Net personal withdrawals & family expenditures	17,078				
Available for Farm Debt Payments & Investments	$14,536	$			$
- Farm debt payments	23,386				
Available for Farm Investments	$-8,850	$			$
- Capital purchases: cattle, machinery & improvements	$13,361	$		$	$
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
32 Eastern New York Dairy Farm Renters, 1991

Item	Average of Farms Reporting			My Farm	
Crop Yields	Farms	Acres	Prod/Acre*	Acres	Prod/Acre
Hay crop	30	141	2.38 tn DM	_____	_____ tn DM
Corn silage	27	51	10.95 tn	_____	_____ tn
			3.81 tn DM	_____	_____ tn DM
Other forage	0	0	0.00 tn DM	_____	_____ tn DM
Total forage	30	187	2.62 tn DM	_____	_____ tn DM
Corn grain	12	59	86.61 bu	_____	_____ bu
Oats	0	0	0.00 bu	_____	_____ bu
Wheat	0	0	0.00 bu	_____	_____ bu
Other crops	1	40		_____	
Tillable pasture	11	33		_____	
Idle	6	42		_____	
Total Tillable Acres	32	218		_____	

*1991 average yields for 140 dairy farm owners in Eastern New York included: all hay crops, 2.2 tons dry matter per acre; corn silage, 13.5 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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Total tillable acres per cow	3.67	3.12	_____
Total forage acres per cow	2.95	2.65	_____
Harvested forage dry matter, tons per cow	7.72	7.92	_____

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

CROP RELATED ACCRUAL EXPENSES
Eastern New York Dairy Farm Renters and Owners, 1991

Expense	Total/ Till. Acre	Hay Crop Per Acre	Hay Crop Per Ton DM	All Corn Per Acre	Corn Sil. Per Ton DM	Corn Grain Per Dry Shell Bu.
32 Dairy Farm Renters:		Average 3 Farms Reporting Individual Crop Costs				
Fertilizer & lime	$21.84	$ 8.52	$4.10	$ 76.31	$21.95	$1.12
Seeds & plants	8.99	4.55	2.19	26.63	7.66	0.39
Spray & other crop expense	7.82	4.25	2.04	20.76	5.97	0.31
Total	$38.65	$17.32	$8.33	$123.70	$35.58	$1.82
140 Dairy Farm Owners:		Average 40 Farms Reporting Individual Crop Costs				
Fertilizer & lime	$24.86	$14.77	$ 6.90	$42.27	$10.03	$0.41
Seeds & plants	10.42	6.00	2.80	19.72	4.68	0.19
Spray & other crop expense	9.57	5.28	2.47	19.67	4.67	0.19
Total	$44.85	$26.05	$12.17	$81.66	$19.38	$0.79
My Farm:						
Fertilizer & lime	$_____	$_____	$_____	$_____	$_____	$_____
Seeds & plants	_____	_____	_____	_____	_____	_____
Spray & other crop expense	_____	_____	_____	_____	_____	_____
Total	$_____	$_____	$_____	$_____	$_____	$_____

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

ACCRUAL MACHINERY EXPENSES
Eastern New York Dairy Farm Renters and Owners, 1991

Item	Average Per Tillable Acre 32 Dairy Farm Renters	Average Per Tillable Acre 140 Dairy Farm Owners	My Farm Total Expenses	My Farm Per Til. Acres
Fuel, oil & grease	$ 18.75	$ 24.00	$_____	$_____
Machinery repairs & parts	28.74	40.29	_____	_____
Machine hire, rent & lease	7.94	8.08	_____	_____
Auto expense (farm share)	1.66	2.97	_____	_____
Interest (5%)	17.33	20.41	_____	_____
Depreciation	41.39	43.76	_____	_____
Total	$115.81	$139.51	$_____	$_____

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, 1991

	Dairy Cows		Heifers					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
32 Dairy Farm Renters:								
Beg. year (owned)	57	$58,378	17	$13,106	11	$5,095	13	$3,510
+ Change w/o apprec.		1,665		-698		655		-93
+ Appreciation		488		247		44		29
End year (owned)	58	$60,531	16	$12,655	12	$5,794	13	$3,446
End incl. leased	60							
Average number	59		40 (all age groups)					
140 Dairy Farm Owners:								
Beg. year (owned)	90	$92,972	23	$20,019	23	$12,023	23	$5,904
+ Change w/o apprec.		1,652		1,431		987		43
+ Appreciation		1,370		68		256		156
End year (owned)	91	$95,994	25	$21,518	25	$13,266	24	$6,103
End incl. leased	91							
Average number	90		69 (all age groups)					
My Farm:								
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, 1991

Item	32 Dairy Farm Renters	140 Dairy Farm Owners	My Farm
Total milk sold, lbs.	982,628	1,588,776	_____
Milk sold per cow, lbs.	16,550	17,746	_____
Average milk plant test, % butterfat	3.70	3.71	_____

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, 1991

Item	32 Renters Total	32 Renters Per Cwt.	140 Owners Total	140 Owners Per Cwt.	My Farm Total	My Farm Per Cwt.
Accrual Costs of Producing Milk						
Operating costs	$109,060	$11.10	$170,945	$10.76	$_____	$_____
Total costs without op(s') labor, mgmt. & capital	$122,743	$12.49	$194,464	$12.24	$_____	$_____
Total Costs	$151,616	$15.43	$244,694	$15.40	$_____	$_____
Accrual Receipts from Milk	$129,861	$13.22	$209,306	$13.17	$_____	$_____

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, 1991

Item	Average Per Cwt. Milk 32 Renters	Average Per Cwt. Milk 140 Owners	My Farm Per Cwt.
Purchased dairy grain & conc.	$3.64	$3.95	$_____
Purchased dairy roughage	0.10	0.08	_____
Total Purchased Dairy Feed	$3.74	$4.03	$_____
Purchased grain & conc. as % of milk receipts	28%	30%	_____%
Purchased feed & crop exp.	$4.60	$4.81	$_____
Purchased feed & crop exp. as % of milk receipts	35%	37%	_____%
Breeding	$0.19	$0.21	$_____
Veterinary & medicine	0.26	0.32	_____
Milk marketing	0.98	0.94	_____
Cattle lease	0.04	0.01	_____
Other livestock expense	0.66	0.62	_____

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, 1991

Item	Per Worker	Per Cow	Per Tillable Acre
32 Dairy Farm Renters:			
Farm capital	$113,238	$3,769	$1,027
Machinery & equipment	39,169	1,304	355
Capital turnover, years	1.50		
140 Dairy Farm Owners:			
Farm capital	$234,316	$7,494	$2,404
Machinery & equipment	40,265	1,288	413
Capital turnover, years	2.66		
My Farm:			
Farm capital	$_____	$_____	$_____
Machinery & equipment	_____	_____	_____
Capital turnover, years	_____		

LABOR FORCE ANALYSIS
Eastern New York Dairy Farm Renters and Owners, 1991

	32 Renters		140 Owners		My Farm	
Efficiency	Total	Per Worker	Total	Per Worker	Total	Per Worker
Cows, average number	59	30	90	31	_____	_____
Milk sold, pounds	982,628	497,034	1,588,776	555,008	_____	_____
Tillable acres	218	110	279	97	_____	_____
Work units	625	316	943	329	_____	_____

	32 Renters		140 Owners		My Farm	
Labor Costs	Total	Per Cow	Total	Per Cow	Total	Per Cow
Value of operator(s) labor*	$17,602	$296	$21,177	$237	$_____	$_____
Family unpaid*	4,017	68	4,082	46	_____	_____
Hired	8,946	151	20,317	227	_____	_____
Total Labor	$30,565	$515	$45,576	$509	$_____	$_____
Machinery Cost	$25,247	$425	$38,922	$435	$_____	$_____
Total Labor & Mach.	$55,812	$940	$84,498	$944	$_____	$_____

*$1,300 per month.

PROGRESS OF THE FARM BUSINESS

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

PROGRESS OF THE FARM BUSINESS
Same 22 Eastern New York Dairy Farm Renters, 1990 & 1991

	Average		My Farm		
Selected Factors	1990	1991	1990	1991	Goal
Size of Business					
Average number of cows	65	62			
Average number of heifers	41	41			
Milk sold, lbs.	1,026,697	1,042,900			
Worker equivalent	2.24	2.02			
Total tillable acres	194	199			
Rates of Production					
Milk sold per cow, lbs.	15,829	16,821			
Hay DM per acre, tons	2.5	2.4			
Corn silage per acre, tons	14	11			
Labor Efficiency					
Cows per worker	29	31			
Milk sold per worker, lbs.	457,836	517,466			
Cost Control					
Grain & conc. purchased as % of milk sales	26%	28%	%	%	%
Dairy feed & crop exp. per cwt. milk	$4.95	$4.74	$	$	$
Labor & mach. costs/cow	$947	$910	$	$	$
Capital Efficiency*					
Farm capital per cow	$3,685	$3,892	$	$	$
Mach. & equip. per cow	$1,203	$1,410	$	$	$
Capital turnover, years	1.3	1.6			
Profitability					
Net farm income w/o apprec.	$28,795	$11,532	$	$	$
Net farm income w/apprec.	$31,511	$15,280	$	$	$
Labor & mgmt. income per operator/manager	$14,921	$387	$	$	$
Rate of return on equity capital w/apprec.	2.4%	-8.6%	%	%	%
Rate of return on all capital w/apprec.	4.6%	-2.4%	%	%	%
Financial Summary					
Farm net worth	$140,684	$145,175	$	$	$
Debt to asset ratio	0.43	0.39			
Farm debt per cow	$1,666	$1,504	$	$	$

*Average for the year.

OTHER AGRICULTURAL ECONOMICS EXTENSION PUBLICATIONS

No. 92-10	Employee Training Practices on Large New York Dairy Farms	Thomas R. Maloney
No. 92-11	Dairy Farm Business Summary Southeastern New York Region 1991	Stuart F. Smith Linda D. Putnam Alan S. White Gerald J. Skoda Stephen E. Hadcock Larry R. Hulle
No. 92-12	Dairy Farm Business Summary Western Plateau Region 1991	George L. Casler Andrew N. Dufresne Joan S. Petzen Michael L. Stratton Linda D. Putnam
No. 92-13	Dairy Farm Business Summary Eastern Plateau Region 1991	Robert A. Milligan Linda D. Putnam Carl Crispell Gerald A. LeClar A. Edward Staehr
No. 92-14	Dairy Farm Business Summary Northern Hudson Region 1991	Stuart F. Smith Linda D. Putnam Cathy S. Wickswat W. Christopher Skellie Thomas J. Gallagher
No. 92-15	Bibliography of Horticultural Product Marketing and Related Topics	Enrique Figueroa
No. 92-16	New York State Fresh Market Apple Export Survey: Results from Packers/Shippers and Growers	Peter Fredericks Enrique Figueroa