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DAIRY FARM BUSINESS SUMMARY

EASTERN NEW YORK DAIRY FARM RENTER BUSINESS SUMMARY

1982

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INTRODUCTION

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

This special Eastern New York Dairy Summary is an average of 27 businesses that are renting substantially all of the farm real estate. This is not one of the ten regular, original dairy summaries. This report is prepared in workbook form for farm renters to use in the systematic study of their farm business operations.

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Business records for 27 farms in Albany, Columbia, Dutchess, Rensselaer, Saratoga, and Washington Counties are summarized in this publication.

SUMMARY OF THE FARM BUSINESS

Business Characteristics

The combination of resources and management techniques used to put resources to work is an important part of planning. The tables below show important farm business characteristics, the number of farms reporting these characteristics, and the average level of resources used in production.

MANAGEMENT SYSTEMS, PRODUCTION TECHNOLOGY, AND FARM SIZE
27 Eastern New York Dairy Farm Renters, 1982

Type of Business	Number	Business Records	Number	Dairy Records	Number
Proprietorship	12	CAMIS	1	D.H.I.C.	20
Partnership	13	Account Book	3	Owner Sampler	3
Corporation	2	Agrifax	20	None	4
		On-Farm Computer	2		
		Other	1		

Barn Type	Number	Milking System	Number	Number	
Stanchion	17	Bucket & Carry	1	Herringbone	8
Freestall	9	Dumping Station	2	Other Parlor	0
Other	1	Pipeline	16		

Labor Force	My Farm	Average	Land Use	My Farm	Average
Operator 1.	_____ mo.	12	Total acres rented	_____	316
2.	_____ mo.	6	Tillable acres rented	_____	225
3.	_____ mo.	1			
Family paid	_____ mo.	1	Number of Cows	_____	Average
Family unpaid	_____ mo.	2			
Hired	_____ mo.	10	Beginning of year	_____	66
			End of year	_____	75
Total	_____ mo.	32	Average for year	_____	71

Capital Investment-Farm Inventory represents the market value of resources committed to the farm business at the beginning and end of the year. Increases in inventory occurs with herd expansion, new machinery, and building additions and appreciation of land, buildings, and livestock.

CAPITAL INVESTMENT - FARM INVENTORY
27 Eastern New York Dairy Farm Renters, 1982

Item	My Farm		Average	
	1/1/82	1/1/83	1/1/82	1/1/83
Livestock	\$ _____	\$ _____	\$ 96,177	\$101,536
Feed and supplies	_____	_____	26,346	24,659
Machinery and equipment	_____	_____	69,532	78,731
Land and buildings	_____	_____	12,755	13,255
TOTAL	\$ _____	\$ _____	\$204,810	\$218,181

INVENTORY ACCOUNTING, SELECTED CHANGES
27 Eastern New York Dairy Farm Renters, 1982

Item	My Farm	Average
Livestock Inventory:		
Total Change	\$ _____	\$ 5,359
Appreciation ^{1/}	\$ _____	\$ 102
Net Change in Inventory ^{2/}	\$ _____	\$ 5,257
Machinery and Equipment:		
Depreciation	\$ _____	\$12,004
Appreciation ^{1/3/}	\$ _____	\$ 8,015
Real Estate:		
Value added ^{4/}	\$ _____	\$ 927
Depreciation	\$ _____	\$ 525
Appreciation ^{1/}	\$ _____	\$ 98

^{1/}Change in inventory caused by inflation or deflation of prices.

^{2/}Change in inventory caused by change in herd size and/or quality.

^{3/}Positive value indicates machinery depreciation charge exceeds actual decline in market value.

^{4/}Cost of new real estate that can be added to value of new farm. Lost capital has been deducted.

FARM RECEIPTS
27 Eastern New York Dairy Farm Renters, 1982

Item	My Farm	Per Farm	Per Cow
CASH RECEIPTS			
Milk sales	\$ _____	\$150,896	\$2,125
Crop sales	_____	3,086	44
Dairy cattle sold	_____	8,232	116
Calves and other livestock sales	_____	2,071	29
Gas tax refund	_____	31	1
Government payments	_____	159	2
Custom machine work	_____	472	7
Other	_____	1,592	22
Total Cash Receipts	\$ _____	\$166,539	\$2,346
NONCASH RECEIPTS			
Increase in livestock inventory	_____	5,257	74
Increase in feed and supplies	_____	0	0
TOTAL FARM RECEIPTS EXCLUDING APPRECIATION	\$ _____	\$171,796	\$2,420
Livestock appreciation	_____	- 102	1
Machinery appreciation	_____	8,015	113
Real estate appreciation	_____	98	1
TOTAL FARM RECEIPTS	\$ _____	\$180,011	\$2,535

FARM EXPENSES
27 Eastern New York Dairy Farm Renters, 1982

Item	My Farm	Per Farm	Per Cow
<u>Hired Labor</u>	\$ _____	\$ 10,328	\$ 145
<u>Feed</u>			
Dairy concentrate	_____	38,087	536
Hay and other	_____	2,388	34
<u>Machinery</u>			
Machine hire	_____	1,095	15
Machinery repairs	_____	7,092	100
Auto expense (farm share)	_____	304	4
Gas and oil	_____	6,369	90
<u>Livestock</u>			
Replacement livestock	_____	2,958	42
Breeding fees	_____	2,689	38
Veterinary and medicine	_____	2,814	40
Milk marketing	_____	9,163	129
Cattle lease	_____	510	7
Other livestock expense	_____	5,638	79
<u>Crops</u>			
Fertilizer and lime	_____	8,584	121
Seeds and plants	_____	2,432	34
Spray, other crop expense	_____	1,563	22
<u>Real Estate</u>			
Land, building, fence repair	_____	3,595	51
Taxes	_____	2,421	34
Insurance	_____	2,110	30
Rent	_____	13,593	191
<u>Other</u>			
Telephone (farm share)	_____	524	7
Electricity (farm share)	_____	3,303	47
Interest paid	_____	10,131	143
Miscellaneous	_____	2,992	42
Total Cash Expenses	\$ _____	\$140,683	\$1,981
Decrease in livestock and/or feed	_____	1,687	24
Expansion livestock	_____	1,306	19
Machinery depreciation	_____	12,004	169
Building depreciation	_____	525	7
Unpaid family labor @ \$500/month	_____	981	14
TOTAL FARM EXPENSES EXCLUDING INTEREST ON EQUITY CAPITAL	\$ _____	\$157,186	\$2,214
Interest on equity capital @ 5%	_____	7,652	108
TOTAL FARM EXPENSES	\$ _____	\$164,838	\$2,322

Farm Business Profitability

Four common ways to measure the returns from a farm business are reported here.

Net cash farm income reflects the cash available from the year's operation of the business. Labor and management income is the return to the operator for his or her labor and management input into the business. Labor, management, and ownership income per operator reflects the combined return to the farmer for his/her triple role of worker-manager, financier, and owner. Return on equity capital is computed with appreciation. To compute the rate of return, divide return on equity capital by farm net worth or equity capital.

FARM INCOME SUMMARY 27 Eastern New York Dairy Farm Renters, 1982

Item	My Farm	Average
Cash farm receipts	\$ _____	\$166,539
Cash farm expenses	_____	<u>140,683</u>
NET CASH FARM INCOME	\$ _____	\$ 25,856
Total farm receipts excluding appreciation	\$ _____	\$171,796
Total farm expenses	_____	<u>164,838</u>
LABOR AND MANAGEMENT INCOME	\$ _____	\$ 6,958
Full-time operator-manager equivalents	_____	<u>1.56</u>
LABOR AND MANAGEMENT INCOME PER OPERATOR-MANAGER	\$ _____	\$ 4,460
Total farm receipts	\$ _____	\$180,011
Total farm expenses excluding interest on equity capital	\$ _____	<u>157,186</u>
LABOR, MANAGEMENT, AND OWNERSHIP INCOME PER FARM	\$ _____	\$ 22,825
Full-time operator-manager equivalents	_____	<u>1.56</u>
LABOR, MANAGEMENT, AND OWNERSHIP INCOME PER OPERATOR-MANAGER	\$ _____	\$ 14,631
Labor, management and ownership income per farm	\$ _____	\$ 22,825
Less value of operator's labor and management*	_____	<u>22,563</u>
Return on Equity Capital Including Appreciation	\$ _____	\$ 262
RATE OF RETURN ON \$ _____ EQUITY	_____	0.2%

*Value of operator's labor and management estimated by operators.

Farm Family Financial Situation

The financial situation is an important part of the farm business summary. It has a direct affect on current cash outflow and future capital investment decisions. A farmer may have a good labor and management income, but high debt payments may restrict management flexibility. Farm net worth is total farm assets less total farm liabilities. Family net worth is total assets less all liabilities reported.

FARM FAMILY FINANCIAL SITUATION
27 Eastern New York Dairy Farm Renters, January 1, 1983

Item	My Farm	Average
<u>Assets</u>		
Livestock	\$ _____	\$101,536
(includes discounted lease payments)		(0)
Feed and supplies	_____	24,659
Machinery and equipment	_____	78,747
(includes discounted lease payments)		(16)
Land and buildings	_____	18,677
(includes discounted lease payments)		(5,422)
Co-op investments	_____	6,876
Accounts receivable	_____	13,676
Cash and checking accounts	_____	1,884
Total Farm Assets	\$ _____	\$246,055
Savings accounts	_____	750
Cash value life insurance	_____	195
Stocks and bonds	_____	2,229
Nonfarm real estate	_____	4,074
Auto (personal share)	_____	607
All other	_____	2,340
Total Nonfarm Assets	\$ _____	\$ 10,195
TOTAL ASSETS	\$ _____	\$256,250
<u>Liabilities</u>		
Long term	\$ _____	\$ 7,786
Intermediate	_____	62,631
Financial lease	_____	5,438
Short term	_____	5,047
Other farm accounts	_____	12,123
Total Farm Liabilities	\$ _____	\$ 93,025
Nonfarm Liabilities	_____	2,176
TOTAL LIABILITIES	\$ _____	\$ 95,201
FARM NET WORTH (EQUITY CAPITAL)	\$ _____	\$153,030
FAMILY NET WORTH	\$ _____	\$161,049

Payment ability is the most important consideration in determining if and how proposed investments should be financed. The farm business must produce sufficient cash income to meet operating expenses, to cover family or personal living expenses, to make payments on debts, and to cover cash purchases of capital items that occur during the year.

Payment ability is estimated in the following table. Interest paid and income from off-farm work are added to net cash farm income because planned or budgeted debt payments will include interest as well as principal. Estimate family living expenses for your farm to calculate cash available for debt payment and capital purchases made in cash.

Debt payments planned are the scheduled debt payments as of January. Some farms in the group had scheduled debt payments exceeding 50 percent of the milk receipts. Committing this much cash inflow to debt payments can put a "big squeeze" on cash available for operating the business and family living.

FINANCIAL MEASURES & DEBT COMMITMENT
27 Eastern New York Dairy Farm Renters, January 1, 1983

Item	My Farm	Average
<u>Payment Ability</u>		
Net cash farm income	\$ _____	\$25,856
Plus interest paid	_____	10,131
Plus off-farm income	_____	1,142
CASH AVAILABLE FOR DEBT SERVICE AND LIVING	\$ _____	\$37,129
Less family living expenses*	_____	22,573
CASH AVAIL. FOR DEBT PYMTS. & CAP. PURCHASES	\$ _____	\$14,556
<u>Scheduled Annual Debt Payments</u>		
Long term	\$ _____	\$ 1,174
Intermediate	_____	18,102
Financial lease	_____	---
Short term	_____	4,525
Other farm accounts	_____	4,629
TOTAL PAYMENTS PLANNED FOR 1983	\$ _____	\$28,430
<u>Measures of Debt Commitment & Equity Position</u>		
Debt payments planned per cow	\$ _____	\$379
Debt payments planned as % of milk sales	_____ %	19%
Farm debt per cow	\$ _____	\$1,240
Percent equity (total)	_____ %	63%

*Estimated as \$10,200 per family plus four percent of cash receipts.

ANALYSIS OF THE FARM BUSINESS

In analyzing a farm business, a manager must consider measures or factors that reflect the performance of specified parts of the farm business. One method of doing this is to look at factors of size, production, labor efficiency, capital efficiency and cost control. These factors are considered on the following pages.

MEASURES OF SIZE OF BUSINESS
Eastern New York Dairy Farm Renters, 1982 and 1981

Item	My Farm	27 Farms 1982	21 Farms 1981
Number of cows	_____	71	84
Number of heifers	_____	55	62
Pounds of milk sold	_____	1,066,100	1,252,700
Worker equivalent	_____	2.67	3.25
Total work units	_____	781	914
Total tillable acres	_____	225	237

CROP YIELDS & MILK SOLD PER COW
27 Eastern New York Dairy Farm Renters, 1982

Crop	My Farm		Average of Farms Reporting		
	Acres	Yield	Farms	Acres	Yield/Acre
Baled hay	_____		23	(combined	
Hay crop silage	_____		13	below)	
Total Hay Crops	_____	_____	26	117	2.5 tons DM
Corn silage	_____	_____	26	68	12.3 tons
Other forage	_____	_____	1	8	2.4 tons DM
Total Forage Crops	_____	_____	26	185	3.1 tons DM
Grain corn	_____	_____	11	83	59.1 bu.
Oats	_____	_____	5	15	43.9 bu.
Other crops	_____	_____	0	0	
Tillable pasture	_____		4	12	
Idle tillable land	_____		6	28	
Milk sold per cow			15,015 lbs.		

1981 average yields included: Milk sold per cow, 14,913 pounds
Corn silage, 14.6 tons per acre
All hay crops, 2.5 tons dry matter per acre

MEASURES OF LABOR EFFICIENCY
Eastern New York Dairy Farm Renters, 1982 and 1981

Item	My Farm	27 Farms 1982	21 Farms 1981
Cows per worker	_____	27	26
Pounds of milk sold per worker	_____	399,288	385,446
Work units per worker	_____	293	281

MEASURES OF CAPITAL EFFICIENCY
Eastern New York Dairy Farm Renters, 1982 and 1981

Item	My Farm	27 Farms 1982	21 Farms 1981
Farm capital per worker	\$ _____	\$81,716	\$79,771
Farm capital per cow	\$ _____	\$2,909	\$3,086
Machinery investment per cow	\$ _____	\$1,050	\$896
Machinery per tillable acre	\$ _____	\$350	\$318
Capital turnover	_____ years	1.2 years	1.2 years

FEED COSTS AND RELATED MEASURES
Eastern New York Dairy Farm Renters, 1982 and 1981

Item	My Farm	27 Farms 1982	21 Farms 1981
Dairy concentrate purchased per cow	\$ _____	\$536	\$578
Dairy concentrate purchased per cwt. of milk sold	\$ _____	\$3.57	\$3.87
Percent dairy concentrate is of milk receipts	_____ %	25%	27%
Crop expense per cow	\$ _____	\$177	\$191
Feed and crop expense per cwt. milk	\$ _____	\$4.98	\$5.15
Forage dry matter harvested per cow (tons)	_____	8.2	7.6
Acres of forage per cow	_____	2.6	2.3
Total tillable acres per cow	_____	3.2	2.8
Fertilizer and lime per tillable acre	\$ _____	\$38	\$47
Heifers as percent of cow numbers	_____ %	77%	74%

MACHINERY & LABOR COSTS
Eastern New York Dairy Farm Renters, 1982 and 1981

Item	My Farm	27 Farms 1982	21 Farms 1981
<u>Machinery:</u> Depreciation ¹	\$ _____	\$12,004	\$11,385
Interest ²	_____	3,707	3,613
Operating expense ³	_____	14,860	19,315
Total machinery	_____	\$30,571	\$34,313
Per cow	_____	\$431	\$408
Per cwt. of milk	_____	\$2.87	\$2.74
<u>Labor:</u> Value of operators ⁴	\$ _____	\$14,000	\$16,500
Unpaid family ⁵	_____	981	524
Hired	_____	10,328	14,646
Total labor	\$ _____	\$25,309	\$31,670
Per cow	_____	\$356	\$377
Per cwt. milk	_____	\$2.37	\$2.53
Labor & machinery costs/cwt. milk	\$ _____	\$5.24	\$5.27

¹Regular depreciation from last year's tax plus 10 percent of new purchases.

²Five percent of average machinery investment.

³Machine hire, repairs, farm share auto expense, and gas and oil.

⁴\$750 per month.

⁵\$500 per month.

OTHER COST AND RECEIPT MEASURES
Eastern New York Dairy Farm Renters, 1982 and 1981

Item	My Farm	27 Farms 1982	21 Farms 1981
Total livestock expense (excluding replacements & overhead) per cow	\$ _____	\$293	\$284
Total real estate expenses per cow	\$ _____	\$306	\$235
Milk and cattle sales per cow	\$ _____	\$2,270	\$2,346
Average price per cwt. milk sold	\$ _____	\$14.15	\$14.38
Total cash receipts per worker	\$ _____	\$62,374	\$62,485

YEARLY CASH FLOW PLANNING & ANALYSIS

The worksheet below is a valuable tool in planning expansions and for setting goals for improving the farm business. The average is from 27 Eastern New York dairy farm renters.

Item	Average Per Cow	My Farm, _____ Cows		
		Per Cow	Total	Goal
CASH RECEIPTS				
Milk sales	\$2,125	\$ _____	\$ _____	\$ _____
Crop sales	44	_____	_____	_____
Dairy cattle	116	_____	_____	_____
Calves & other livestock	29	_____	_____	_____
Other	32	_____	_____	_____
Total Cash Receipts	\$2,346	\$ _____	\$ _____	\$ _____
CASH EXPENSES				
Hired labor	\$ 145	\$ _____	\$ _____	\$ _____
Dairy concentrate	536	_____	_____	_____
Hay and other	34	_____	_____	_____
Machine hire	15	_____	_____	_____
Machine repair & auto expense	104	_____	_____	_____
Gas & oil	90	_____	_____	_____
Replacement livestock	42	_____	_____	_____
Breeding fees	38	_____	_____	_____
Vet & medicine	40	_____	_____	_____
Milk marketing (ADA, Dues)	129	_____	_____	_____
Other livestock exp. (incl. \$7 lease)	86	_____	_____	_____
Fertilizer & lime	121	_____	_____	_____
Seeds & plants	34	_____	_____	_____
Spray & other	22	_____	_____	_____
Land, bldg. fence repair	51	_____	_____	_____
Taxes	34	_____	_____	_____
Insurance	30	_____	_____	_____
Rent	191	_____	_____	_____
Telephone (farm share)	7	_____	_____	_____
Electricity (farm share)	47	_____	_____	_____
Miscellaneous	42	_____	_____	_____
Total Cash Expenses ¹	\$1,838	\$ _____	\$ _____	\$ _____
Total Cash Receipts	\$2,346	_____	_____	_____
Total Cash Expenses ¹	-1,838	- _____	- _____	- _____
Net Cash Flow	\$ 508	\$ _____	\$ _____	\$ _____
Cash Family Living Expense ²	- 318	- _____	- _____	- _____
Amount Left for Debt Service, Capital Investment & Retained Earnings	\$ 190	\$ _____	\$ _____	\$ _____
Scheduled Debt Service	- 379	- _____	- _____	- _____
Available for Capital Investment	\$- 189	\$ _____	\$ _____	\$ _____
Planned Expansion Livestock Purch.		_____	_____	_____
Planned Equipment Purchase		_____	_____	_____
Borrowed or Equity Funds Needed		\$ _____	\$ _____	\$ _____

¹Interest paid excluded for it is contained in Scheduled Debt Service.

²Estimated: \$10,200 per family and four percent of cash farm receipts.

PROGRESS OF THE FARM BUSINESS

Comparing your business with that of other farmers is one part of a business checkup. It is equally important to compare your current year's business with that of earlier years to show the progress you are making, and to plan ahead, by setting business targets or goals.

Item	1980	1981	1982	1983 Goal
<u>Size of Business</u>				
Number of cows	_____	_____	_____	_____
Number of heifers	_____	_____	_____	_____
Pounds of milk sold	_____	_____	_____	_____
Worker equivalent	_____	_____	_____	_____
Total tillable acres	_____	_____	_____	_____
<u>Rates of Production</u>				
Lbs. milk sold per cow	_____	_____	_____	_____
Tons hay D.M. per acre	_____	_____	_____	_____
Tons corn silage per acre	_____	_____	_____	_____
<u>Labor Efficiency</u>				
Cows per worker	_____	_____	_____	_____
Lbs. milk sold per worker	_____	_____	_____	_____
<u>Cost Control</u>				
Purch. feed as % milk sold	\$ _____	\$ _____	\$ _____	\$ _____
Feed & crop exp./cwt. milk	\$ _____	\$ _____	\$ _____	\$ _____
Labor & mach. cost per cow	\$ _____	\$ _____	\$ _____	\$ _____
<u>Capital Efficiency</u>				
Farm capital per cow	\$ _____	\$ _____	\$ _____	\$ _____
Capital turnover	\$ _____	\$ _____	\$ _____	\$ _____
<u>Price</u>				
Price per cwt. milk	\$ _____	\$ _____	\$ _____	\$ _____
<u>Financial Summary</u>				
Net cash farm income	\$ _____	\$ _____	\$ _____	\$ _____
Labor & mgmt. inc./oper.	\$ _____	\$ _____	\$ _____	\$ _____
Farm net worth	\$ _____	\$ _____	\$ _____	\$ _____
Rate of return on equity	_____ %	_____ %	_____ %	_____ %
Percent equity	_____ %	_____ %	_____ %	_____ %
Farm debt per cow	\$ _____	\$ _____	\$ _____	\$ _____