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DAIRY FARM BUSINESS SUMMARY

EASTERN NEW YORK DAIRY FARM RENTER BUSINESS SUMMARY 1981

Stuart F. Smith

Department of Agricultural Economics
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

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1981 EASTERN NEW YORK DAIRY FARM RENTER BUSINESS SUMMARY

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 21 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 21 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
21 Eastern New York Dairy Farm Renters, 1981

Type of Business	Number	Business Records	Number	Dairy Records	Number
Proprietorship	6	Account Book	2	D.H.I.C.	17
Partnership	14	Agrifax	19	Owner Sampler	0
Corporation	1			None	4

Barn Type	Number	Milking System	Number	Number	
Stanchion	11	Bucket & Carry	1	Herringbone	9
Freestall	10	Dumping Station	1	Other Parlor	0
Other	0	Pipeline	10		

Labor Force	My Farm	Average	Land Use	My Farm	Average
Operator 1.	_____ mo.	13	Total acres rented	_____	341
2.	_____ mo.	12	Tillable acres rented	_____	237
3.	_____ mo.	15			
Family paid	_____ mo.	0	Number of Cows	My Farm	Average
Family unpaid	_____ mo.	1			
Hired	_____ mo.	16	Beginning of year	_____	83
			End of year	_____	84
Total	_____ mo.	39	Average for year	_____	84

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
21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm		Average	
	1/1/81	1/1/82	1/1/81	1/1/82
Livestock	\$ _____	\$ _____	\$109,950	\$113,319
Feed and supplies	_____	_____	40,243	43,282
Machinery and equipment	_____	_____	69,225	75,284
Land and buildings	_____	_____	16,389	27,372
TOTAL	\$ _____	\$ _____	\$235,807	\$259,257

INVENTORY ACCOUNTING, SELECTED CHANGES
21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm	Average
Livestock Inventory:		
Total Change	\$ _____	\$ 3,369
Appreciation ^{1/}	\$ _____	\$ (310)
Net Change in Inventory ^{2/}	\$ _____	\$ 3,679
Machinery and Equipment:		
Appreciation ^{1/3/}	\$ _____	\$ 1,732
Real Estate:		
Value added ^{4/}	\$ _____	\$12,759
Appreciation ^{1/}	\$ _____	\$ 1,860

^{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
21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm	Ave: Amount	Percent
CASH RECEIPTS			
Milk sales	\$ _____	\$180,169	89
Crop sales	_____	1,096	1
Dairy cattle sold	_____	14,341	7
Calves and other livestock sales	_____	2,513	1
Gas tax refund	_____	485	<1
Government payments	_____	300	<1
Custom machine work	_____	73	<1
Other	_____	4,099	2
Total Cash Receipts	\$ _____	\$203,076	100
NONCASH RECEIPTS			
Increase in livestock inventory	_____	3,679	
Increase in feed and supplies	_____	3,039	
TOTAL FARM RECEIPTS EXCLUDING APPRECIATION	\$ _____	\$209,794	
Livestock appreciation	_____	- 310	
Machinery appreciation	_____	1,732	
Real estate appreciation	_____	1,860	
TOTAL FARM RECEIPTS	\$ _____	\$213,076	

FARM EXPENSES
21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm	Ave: Amount	Percent
<u>Hired Labor</u>	\$ _____	\$ 14,646	9
<u>Feed</u>			
Dairy concentrate	_____	48,540	29
Hay and other	_____	1,532	1
<u>Machinery</u>			
Machine hire	_____	2,186	1
Machinery repairs	_____	7,940	5
Auto expense (farm share)	_____	191	<1
Gas and oil	_____	8,998	5
<u>Livestock</u>			
Replacement livestock	_____	4,507	3
Breeding fees	_____	2,967	2
Veterinary and medicine	_____	3,184	2
Milk marketing	_____	10,179	6
Other livestock expense	_____	7,509	5
<u>Crops</u>			
Fertilizer and lime	_____	11,244	7
Seeds and plants	_____	2,929	2
Spray, other crop expense	_____	1,835	1
<u>Real Estate</u>			
Land, building, fence repair	_____	1,952	1
Taxes	_____	2,989	2
Insurance	_____	2,524	2
Rent	_____	12,275	7
<u>Other</u>			
Telephone (farm share)	_____	511	<1
Electricity (farm share)	_____	3,725	2
Interest paid	_____	8,441	5
Miscellaneous	_____	3,830	2
Total Cash Expenses	\$ _____	\$164,634	100
Decrease in livestock and/or feed	_____	0	
Expansion livestock	_____	4,201	
Machinery depreciation	_____	11,385	
Building depreciation	_____	3,174	
Unpaid family labor @ \$500/month	_____	524	
TOTAL FARM EXPENSES EXCLUDING INTEREST ON EQUITY CAPITAL	\$ _____	\$183,918	
Interest on equity capital @ 9%	_____	18,600	
TOTAL FARM EXPENSES	\$ _____	\$202,518	

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 21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm	Average: 1981
Cash farm receipts	\$ _____	\$203,076
Cash farm expenses	_____	164,634
NET CASH FARM INCOME	\$ _____	\$ 38,442
Total farm receipts excluding appreciation	\$ _____	\$209,794
Total farm expenses	_____	202,518
LABOR AND MANAGEMENT INCOME	\$ _____	\$ 7,276
Full-time operator-manager equivalents	_____	1.83
LABOR AND MANAGEMENT INCOME PER OPERATOR-MANAGER	\$ _____	\$ 3,976
Total farm receipts	\$ _____	\$213,076
Total farm expenses excluding interest on equity capital	\$ _____	183,918
LABOR, MANAGEMENT, AND OWNERSHIP INCOME PER FARM	\$ _____	\$ 29,158
Full-time operator-manager equivalents	_____	1.83
LABOR, MANAGEMENT, AND OWNERSHIP INCOME PER OPERATOR-MANAGER	\$ _____	\$ 15,933
Labor, management and ownership income per farm	\$ _____	\$ 29,158
Less value of operator's labor and management*	_____	26,767
Return on Equity Capital Including Appreciation	\$ _____	\$ 2,391
RATE OF RETURN ON \$ _____ EQUITY	_____	1.2%

*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 21 Eastern New York Dairy Farm Renters, January 1, 1982

<u>Item</u>	<u>My Farm</u>	<u>Average Per Farm</u>
<u>Assets</u>		
Livestock	\$ _____	\$113,319
Feed and supplies	_____	43,282
Machinery and equipment	_____	75,284
Land and buildings	_____	27,372
Co-op investments	_____	9,551
Accounts receivable	_____	16,097
Cash and checking accounts	_____	2,950
Total Farm Assets	\$ _____	\$287,855
Savings accounts	_____	3,667
Cash value life insurance	_____	903
Stocks and bonds	_____	4,061
Nonfarm real estate	_____	2,714
Auto (personal share)	_____	181
All other	_____	754
Total Nonfarm Assets	\$ _____	\$ 12,280
TOTAL ASSETS	\$ _____	\$300,135
<u>Liabilities</u>		
Real estate	\$ _____	\$ 8,176
Cattle and equipment	_____	51,817
Installment contracts	_____	2,765
Other loans over 10 years	_____	3,141
Other loans 1-10 years	_____	7,145
Other loans less than 1 year	_____	926
Feed store accounts	_____	2,555
Other accounts	_____	4,664
Total Farm Liabilities	\$ _____	\$ 81,189
Nonfarm Liabilities	_____	1,524
TOTAL LIABILITIES	\$ _____	\$ 82,713
FARM NET WORTH (EQUITY CAPITAL)	\$ _____	\$206,666
FAMILY NET WORTH	\$ _____	\$217,422

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
21 Eastern New York Dairy Farm Renters, January 1, 1982

Item	My Farm	Average
<u>Payment Ability</u>		
Net cash farm income	\$ _____	\$38,442
Plus interest paid	_____	8,441
Plus off-farm income	_____	<u>1,051</u>
CASH AVAILABLE FOR DEBT SERVICE AND LIVING	\$ _____	\$47,934
Less family living expenses*	_____	<u>25,691</u>
CASH AVAIL. FOR DEBT PYMTS. & CAP. PURCHASES	\$ _____	\$22,243
<u>Scheduled Annual Debt Payments</u>		
Real estate mortgage	\$ _____	\$ 1,539
Cattle and equipment liens	_____	14,203
Installment contracts	_____	1,972
Other loans over 10 years	_____	714
Other loans 1-10 years	_____	1,878
Other loans	_____	<u>856</u>
TOTAL PAYMENTS PLANNED FOR 1982	\$ _____	\$21,162
<u>Measures of Debt Commitment & Equity Position</u>		
Debt payments planned per cow	\$ _____	\$252
Debt payments planned as % of milk sales	_____ %	12%
Farm debt per cow	\$ _____	\$967
Percent equity (total)	_____ %	72%

*Estimated as \$9,600 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
21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm	Average
Number of cows	_____	84
Number of heifers	_____	62
Pounds of milk sold	_____	1,252,700
Worker equivalent	_____	3.25
Total work units	_____	914
Total tillable acres	_____	237

CROP YIELDS & MILK SOLD PER COW
21 Eastern New York Dairy Farm Renters, 1981

Crop	My Farm		Average of Farms Reporting		
	Acres	Yield	Farms	Acres	Yield/Acre
Baled hay	_____	_____	15	105	(combined below)
Hay crop silage	_____	_____	9	133	
Corn silage	_____	_____	21	62	14.6 tons 5.0 tons DM
Grain corn	_____	_____	14	63	104.8 bu.
Oats	_____	_____	2	6	58.0 bu.
Other crops	_____	_____	0	0	
Tillable pasture	_____	_____	4	4	
Idle tillable land	_____	_____	1	2	

Dry matter:					
All hay crops	_____	_____	21	132	2.5 tons DM
All forage crops	_____	_____	21	194	3.3 tons DM
Milk sold per cow	_____	_____			14,913

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

Item	My Farm	Average
Cows per worker	_____	26
Pounds of milk sold per worker	_____	385,446
Work units per worker	_____	281

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

Item	My Farm	Average
Farm capital per worker	\$ _____	\$79,771
Farm capital per cow	\$ _____	\$3,086
Machinery investment per cow	\$ _____	\$896
Machinery per tillable acre	\$ _____	\$318
Capital turnover	_____ years	1.2 years

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

Item	My Farm	Average
Dairy concentrate purchased per cow	\$ _____	\$578
Dairy concentrate purchased per cwt. of milk sold	\$ _____	\$3.87
Percent dairy concentrate is of milk receipts	_____ %	27%
Crop expense per cow	\$ _____	\$191
Feed and crop expense per cwt. milk	\$ _____	\$5.15
Forage dry matter harvested per cow (tons)	_____	7.6
Acres of forage per cow	_____	2.3
Total tillable acres per cow	_____	2.8
Fertilizer and lime per tillable acre	\$ _____	\$47
Heifers as percent of cow numbers	_____ %	74%

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

Item	My Farm	Average
<u>Machinery:</u> Depreciation ¹	\$ _____	\$11,385
Interest ²	_____	6,503
Operating expense ³	_____	19,315
Total machinery	_____	\$37,203
Per cow	_____	\$443
Per cwt. of milk	_____	\$2.97
<u>Labor:</u> Value of operators ⁴	\$ _____	\$16,500
Unpaid family ⁵	_____	524
Hired	_____	14,646
Total labor	\$ _____	\$31,670
Per cow	_____	\$377
Per cwt. milk	_____	\$2.53
Labor & machinery costs/cwt. milk	\$ _____	\$5.50

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

²Nine 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
21 Eastern New York Dairy Farm Renters, 1981

Item	My Farm	Average
Total livestock expense (excluding replacements & overhead) per cow	\$ _____	\$284
Total real estate expenses per cow	\$ _____	\$235
Milk and cattle sales per cow	\$ _____	\$2,346
Average price per cwt. milk sold	\$ _____	\$14.38
Total cash receipts per worker	\$ _____	\$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 21 Eastern New York dairy farm renters.

Item	Average Per Cow	My Farm, _____		Cows Goal
		Per Cow	Total	
CASH RECEIPTS				
Milk sales	\$2,145	\$ _____	\$ _____	\$ _____
Crop sales	13	_____	_____	_____
Dairy cattle	171	_____	_____	_____
Calves & other livestock	30	_____	_____	_____
Other	59	_____	_____	_____
Total Cash Receipts	\$2,418	\$ _____	\$ _____	\$ _____
CASH EXPENSES				
Hired labor	\$ 174	\$ _____	\$ _____	\$ _____
Dairy concentrate	578	_____	_____	_____
Hay and other	18	_____	_____	_____
Machine hire	26	_____	_____	_____
Machine repair & auto expense	97	_____	_____	_____
Gas & oil	107	_____	_____	_____
Replacement livestock	54	_____	_____	_____
Breeding fees	35	_____	_____	_____
Vet & medicine	38	_____	_____	_____
Milk marketing (ADA, Dues)	121	_____	_____	_____
Other livestock expense	89	_____	_____	_____
Fertilizer & lime	134	_____	_____	_____
Seeds & plants	35	_____	_____	_____
Spray & other	22	_____	_____	_____
Land, bldg. fence repair	23	_____	_____	_____
Taxes	36	_____	_____	_____
Insurance	30	_____	_____	_____
Rent	146	_____	_____	_____
Telephone (farm share)	6	_____	_____	_____
Electricity (farm share)	44	_____	_____	_____
Miscellaneous	46	_____	_____	_____
Total Cash Expenses ¹	\$1,859	\$ _____	\$ _____	\$ _____
Total Cash Receipts	\$2,418	_____	_____	_____
Total Cash Expenses ¹	-1,859	- _____	- _____	- _____
Net Cash Flow	\$ 559	\$ _____	\$ _____	\$ _____
Cash Family Living Expense ²	- 306	- _____	- _____	- _____
Amount Left for Debt Service, Capital Investment & Retained Earnings	\$ 253	\$ _____	\$ _____	\$ _____
Scheduled Debt Service	- 252	- _____	- _____	- _____
Available for Capital Investment	\$ 1	\$ _____	\$ _____	\$ _____
Planned Expansion Livestock Purch. Planned Equipment Purchase		_____	_____	_____
Borrowed or Equity Funds Needed		\$ _____	\$ _____	\$ _____

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

²Estimated: \$9,600 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	1979	1980	1981	1982 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	\$ _____	\$ _____	\$ _____	\$ _____