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EASTERN NEW YORK RENTER SUMMARY 1988

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1988 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 3-5. Four measures of farm profits are calculated on pages 6 and 7. The balance sheet and cash flow statement are featured on pages 8-13. The dairy program analysis includes data on the costs of producing milk (pages 16 and 17).

This special Eastern New York Dairy Summary is an average of 24 businesses that are renting substantially all of the farm real estate. The farm income, financial summary, and business analysis sections of this report include comparisons with average data on 138 owned dairy farms in the region. This report is prepared in workbook form for farm renters to use in the systematic study of their farm business operations.

Business records for 24 farms in Albany, Columbia, Delaware, Rensselaer, Schoharie, Sullivan, and Washington Counties are summarized in this publication. The Eastern New York region consists of these counties plus Greene, Herkimer, Montgomery, Otsego, Schenectady, and Ulster Counties which do not have dairy farm business summary participants that classify as renters. The 138 owned dairy farms summarized in this publication include farms from the entire region.

Use Comparative Profitability Data With Caution

The profitability analysis on page 7 where labor and management income is calculated implies that renting a dairy farm is more profitable than owning one. Concessionary rental rates set by some land owners is a major factor. The farm owners are often father and mother and other landlords who are willing to accept a very low return for their investment. Total real estate costs including depreciation and interest on equity capital averaged \$148 per tillable acre on the owned dairy farms compared to only \$111 on the rented farms. This accounts for a \$15,100 difference in costs between owned and rented farms.

¹Smith, Stuart F., Wayne A. Knoblauch, and Linda D. Putnam, <u>Dairy Farm</u> <u>Management Business Summary, New York, 1988</u>, A.E. Res. 89-12, August 1989.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics and Resources Used

Recognition of important business characteristics and identification of the farm resources used is 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 24 Eastern New York Dairy Farm Renters, 1988

<u>Type of Business</u> Single proprietorship Partnership	<u>Number</u> 17 7	<u>Labor Force</u> Operator 1. Operator 2. Operator 3. Family paid	<u>My Farm</u> mo. mo. mo. mo.	Average 11.58 3.42 0.50 0.92
Milking System	Number	Family unpaid	mo.	1.71
Dumping station	1	Hired	mo.	11.33
Pipeline	19	Total	mo.	29.46
Herringbone parlor	2			
Other parlor	2	Worker equivalent (total + 12)		2.45
<u>Type of Barn</u>	Number	Operator/Manager		
Stanchion	21	Equivalent		
Freestall	2	(Oper. mo. + 12)		1.29
Combination	1			
Dairy Records Service	Number	Land Use	<u>My Farm</u>	Average
DUIC Owner-Sempler	23	Tillable serve rented		214
None	2	iiiiable acles lenced		214
	5			
<u>Business Record System</u>	Number	<u>Number of Cows</u>	<u>My Farm</u>	<u>Average</u>
Account Book	5	Beg. year (owned)		63
Agrifax (mail-in only)	7	End year (owned &		
ELFAC	1	leased)		67
Other	9	Average for year		
On-farm computer	2	(owned & leased)		66

Predominate business characteristics of the 24 rented farms include the single proprietorship, pipeline milking system, stanchion or conventional stall barn, DHIC herd records and an "other" business 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 11 percent less than the 2.76 worker equivalent on owned farms. The rented farms averaged 214 tillable acres and 66 cows compared to 263 tillable acres and 86 cows on the 138 owned dairy farms in the same region. Land and labor resources were being used more effeciently by dairy farm owners.

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Income Statement

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

		Change in Inventory		
	Cach	or Propaid	Change in	Accrual
Europeo Itom			Accounts Payable	- Fynancas
Expense icem	raiu_+	Expense +	Accounts rayable	- Expenses
<u>Hired Labor</u> \$	10,840	\$ 0«	\$ 4	\$ 10,844
Feed		-		
Dairy grain & conc.	39,954	-735	156	39,375
Dairy roughage	2,832	188	213	3,233
Other livestock	83	0	0	83
Machinery				
Mach. hire, rent/lease	1,451	0 «	0	1,451
Machinery repairs/parts	6,710	-18	237	6,929
Auto expense (farm share)	323	0 «	0	323
Fuel, oil & grease	3,509	24	38	3,571
<u>Livestock</u>				
Replacement livestock	2,834	0 «	83	2,917
Breeding	2,500	133	6	2,639
Vet & medicine	2,825	- 24	-25	2,776
Milk marketing	8,588	0 «	- 5	8,583
Cattle lease/rent	500	0«	0	500
Other livestock expense	7,318	-60	7	7,265
Crops				
Fertilizer & lime	4,127	111	263	4,501
Seeds & plants	1,799	71	113	1,983
Spray, other crop exp.	1,396	-18	127	1,505
Real Estate				,
Land/bldg./fence repair	991	- 30	125	1,086
Taxes	1,565	0 «	0	1,565
Rent & lease	12,306	0«	25	12,331
Other	,			,
Insurance	2.342	0«	0	2.342
Telephone (farm share)	598	0«	0	598
Electricity (farm share)	4.258	0«	28	4.286
Interest paid	5,102	0 «	0	5,102
Miscellaneous	1,730	27	0	1.757
Total Operating S	126.481	\$-331	\$1.395	\$127,545
Expansion livestock	\$1,509	\$0«	\$0	\$1.509
Machinery depreciation	1-,	• -	1 -	\$7,146
Building depreciation				\$1,051
TOTAL ACCRUAL EXPENSES				\$137.251

	CASH	AND	ACCRUAL	FARM	EXPENSES	
24	Eastern	New 3	York Dai	rv Fai	m Renters.	1988

<u>Cash paid</u> is the actual amount of money paid out during the year and does not necessarily represent the cost of goods and services actually used.

<u>Change in inventory</u>: 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.

<u>Changes in prepaid expenses</u> 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, 1989 rent paid in 1988. A positive change is the amount the prepayment account declined from beginning to end year, a negative change indicates an increase in the account.

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

<u>Accrual expenses</u> 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.

			Change in		
	a 1		Inventory		
Press and The sur	Cash		or Prepaid	Change in	Accrual
Expense Item	Pald	+	Expense +	Accounts Payable	<u>– Expenses</u>
<u>Hired Labor</u> \$			\$ «	\$	\$
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.					water welter wetter and
<u>Real Estate</u>					
Land/bldg./fence repair					
Taxes			٩,		
Rent & lease			«		
Other					
Insurance			«		
Telephone (farm share)			«		
Electricity (farm share)			*		
Interest paid			«	A	
Miscellaneous					
Total Operating \$	• <u></u>		\$	\$	\$
Expansion livestock		-	¢(•
Machinery depreciation					·····
Building depreciation					-
TUTAL ACCRUAL EXPENSES					ş

CASH AND ACCRUAL FARM EXPENSES WORKSHEET

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable		Accrual Receipts
Milk sales	\$141,151				\$161		\$141,312
Dairy cattle	9,100		\$3,601		0		12,701
Dairy calves	2,629				0		2,629
Other livestock	0		107		0		107
Crops	1,279		2,271		0		3,550
Government receipts	1,340		0*		0		1,340
Custom machine work	521				0		521
Gas tax refund	80				0		80
Other	1,469				0		1,469
- Nonfarm noncash capital	_		(-) <u> 0</u> **			(-)0
Total Accrual Receipts	\$157,569		\$5,979		\$161		\$163,709

CASH AND ACCRUAL FARM RECEIPTS 24 Eastern New York Dairy Farm Renters, 1988

*Change in advanced government receipts.

**Gifts or inheritances of cattle or crops included in inventory.

<u>Cash receipts</u> 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.

<u>Changes in inventory</u> are calculated by subtracting beginning of year values from end of year values <u>excluding appreciation</u>. 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).

<u>Changes in accounts receivable</u> 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.

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

Receipt Item	Cash <u>Rec</u> eipts	+	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 & cr Total Accrual Receipts	:ops \$	(-) \$		\$	(-) \$

CASH AND ACCRUAL FARM RECEIPT WORKSHEET

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.

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

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

NET FARM INCOME								
Eastern New York Dairy Farm Renters and Owners, 1988								
Item	24 Dairy Farm Renters	138 Dairy Farm Owners	My Farm					
Total accrual receipts	\$163,709	\$216,913	\$					
+ Appreciation: Livestock	3,065	4,504						
Machinery	-476	1,105						
Real Estate	980	15,884						
Other Stock/Cert.	<u> </u>	299						
 Total Including Appreciation 	\$168,253	\$238,705	\$					
- Total accrual expenses	137.251	185,496						
= Net Farm Income (with appreciation)	\$ 31,002	\$ 53,209	\$					
Net Farm Income (without appreciation)	\$ 26,458	\$ 31,417	\$					

<u>Return to operators' labor, management, and equity capital</u> 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, 1988

		•	
Itom	24 Dairy	138 Dairy	Mar Form
ICEM	raim Rencers	raim Owners	<u>ny raim</u>
Net farm income (with appreciation)	\$31,002	\$53,209	\$
- Family labor unpaid @ \$700 per month	1,196	1,872	
- Return to operators' labor, management			
& equity (with appreciation)	\$29,806	\$51,337	\$
- Appreciation	4,544	21,792	
- Return to operators' labor, management	;,		
& equity (without appreciation)	\$25,262	\$29,545	\$

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.

Eastern New York Dairy Farm Renters and Owners, 1988									
Item	24 Dairy Farm Renters	138 Dairy Farm Owners	My Farm						
Return to operators' labor, mgmt., & equity without appreciation - Real interest @ 5% on average	\$25,262	\$29,545	\$						
equity capital	7,823	20,386	-						
- Labor & Management Income	\$17,440	\$ 9,159	\$						
Labor & Management Income per Operator/Manager	\$13,519	\$ 6,542	\$						

<u>Return on equity capital</u> 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. <u>Return on total capital</u> 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	EQU	ITY	CAPITA	AL AND	RETURN	ON	TOTAL	CAI	PITAL
Easterr	ı Ne	w Y	ork	Dairy	Farm	Renters	and	l Owner	:s,	1988

	24 Dairy	138 Dairy	
Item Fa	arm Renters	Farm Owners	My Farm
Return to operators' labor, mgmt.,			
& equity capital with apprec.	\$29,806	\$51,337	\$
- Value of operators' labor & mgmt.	23,812	25,285	
- Return on equity capital with apprec.	\$ 5,994	\$26,052	\$
+ Interest paid	5,102	13,575	·
- Return on total capital with apprec.	\$11,096	\$39,627	\$
Return on equity capital without apprec.	\$ 1,450	\$ 4,260	\$
Return on total capital without apprec.	\$ 6,552	\$17,835	Ś
Rate of return on average equity capital	1:		*
with appreciation	3.8%	6.4%	8
without appreciation	0.9%	1.0%	
Rate of return on average total capital:	•		
with appreciation	5.0%	6.9%	8
without appreciation	2.9%	3.1%	

in a low inflation economy.

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.

			Farm Liabilities		
Farm Assets	<u>Jan. 1</u>	Dec. 31	& Net Worth	<u>Jan. 1</u>	<u>Dec. 31</u>
Current			Current		
Farm cash. checkir	12		Accounts payable	\$ 2.077	\$ 3,472
& savings	\$ 5.420	\$ 4,068	Operating debt	3.153	3,679
Accounts rec.	11.615	13,235	Short-term	979	1.454
Prepaid exp.	0	0	Advanced govt, rec	. 0	_,0
Feed & supplies	28.075	30.676	Total	\$ 6,209	\$ 8,605
Total	\$ 45,110	\$ 47,979		, ,	. ,
Intermediate	,,	, .,,	Intermediate		
Dairy cows: owned	\$ 56.021	\$ 60.250	Structured debt		
leased	2.434	2.146	1-10 years	\$ 48,208	\$ 49,421
Heifers	19.554	21,933	Financial lease	,,	, , ,
Bulls/other lvstk.	. 240	404	(cattle/mach.)	2.661	2.311
Mach./eg. owned	73.016	74.415	FLB/PCA stock	1,166	1.051
Mach./eq. leased	227	165	,	·····	
FLB/PCA stock	1.166	1.051	Total	\$ 52.035	\$ 52,784
Other stock/cert.	4,281	5,318		, . ,	
Total	\$156,939	\$165,682	Long Term		
Long-Term		, ,	Structured debt		
Land/buildings:			≥10 years	\$ 5,322	\$ 8,107
owned	\$ 13,358	\$ 16,899	Financial lease		
leased	0	0	(structures)	0	0
Total	\$ 13,358	\$ 16,899	Total	\$ 5,322	\$ 8,107
Total Farm Assets	\$215,407	\$230,560	Total Farm Liab.	\$ 63,567	\$ 69,496
			FARM NET WORTH	\$151,840	\$161,065
(Average for 12 fa	arms report	ing)	Nonfarm Liabiliti	es*	
Nonfarm Assets*	Jan. 1	Dec. 31	& Net Worth	<u>Jan. 1</u>	<u>Dec. 31</u>
Personal cash. chl	cg.		Nonfarm Liab.	\$ 4,567	\$ 4.149
& savings	\$ 3,051	\$ 3,549	NONFARM NET WORTH	\$30,275	\$35.053
Cash value life in	ns. 812	1,217			,,
Nonfarm real estat	te 17,183	21,375	FARM & NONFARM*	Jan, 1	Dec. 31
Auto (personal sh.	.) 2,758	2,121	Total Assets	\$250,249	\$269,761
Stocks & bonds	1,681	2,417	Total Liabilities	68.134	73.645
Household furn.	7,958	7,125			
All other	1,398	1,397	TOTAL FARM & NON-		
Total Nonfarm	\$34,842	\$39,201	FARM NET WORTH	\$182,115	\$196,116

1988 FARM BUSINESS & NONFARM BALANCE SHEET 24 Eastern New York Dairy Farm Renters, 1988

*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 1988 that are for participation in the 1989 program are the end year balance and payments received in 1987 for participation in the 1988 program are the beginning year balance.

Farm Assets	Jan 1	Dec 3	Farm Liabilities	Jan 1	Dec. 31
<u>Current</u> Farm cash, checking & savings Accounts rec	<u>, , , , , , , , , , , , , , , , , , , </u>		<u>Current</u> Accounts payable Operating debt:		
Prepaid expense Feed & supplies Total			Short Term:		
Intermediate Dairy cows: owned leased Heifers Bulls/other lvstk.			Adv. govt. rec. Total <u>Intermediate</u>		
Mach./eq. owned Mach./eq. leased FLB/PCA stock Other stock/cert. Total			Financial lease (cattle/mach.) FLB/PCA stock Total		
Long-Term Land/buildings: owned leased					
Total Total Farm Assets			Financial lease _ (structures) Total Total Farm Liab		
			FARM NET WORTH		
Nonfarm Assets	Jan, 1	Dec. 3	Nonfarm Liabilitio	es Jan. l	Dec. 31
Personal cash, chkg & savings Cash val. life ins. Nonfarm real est.	5. 	••••••••••••••••••••••••••••••••••••••	Nonfarm Liab.:		
Auto (pres. share) Stocks & bonds Household furn. All other Total Nonfarm		· · · · · · · · · · · · · · · · · · ·	Total Nonfarm Liabilities Nonfarm Net Worth		
TOTAL FARM & NONFAR Total Farm & Nonfar Less Total Farm & N Farm & Nonfarm Not	M m Assets lonfarm] Worth	s Liabilitie	Jan, 1s	Dec .	31

1988 FARM BUSINESS & NONFARM BALANCE SHEET

Date .

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<u>Balance sheet analysis</u> 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, 1988

	24 Dairy	138 Dairy		
Item	Farm Renters	Farm Owners	<u>M</u> y	<u>r Farm</u>
Financial Ratios - Farm:				
Percent equity	70%	72%		÷
Debt/asset ratio: total	0.30	0.28		
long-term	0.48	0.30		
intermediate/current	0.29	0.26		
Change in Net Worth:			**************************************	
Without appreciation	\$4,680	\$9,930	\$	
With appreciation	\$9,224	\$31,722	• • • • • • •	
Farm Debt Analysis:			- <u>1</u> -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
Accounts payable as % of total debt	5%	3%		8
Long-term liabilities as a % of total de	bt 12%	55%		÷
Current & inter. liab. as a % of total d	lebt 88%	45%		
Farm Debt Levels Per Cow:				
Total farm debt	\$1,037	\$1,917	S	
Long-term debt	121	1,054	·	
Intermediate & current debt	916	864		

<u>Farm inventory balance</u> 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, 1988

	24 Dairy	138 Dairy	
Item	Farm Renters	Farm Owners	My Farm
Value beg. of year	\$73,016	\$94,580	\$
Purchases	\$8,562	\$13,729	\$
+ Nonfarm noncash			
transfer	458	0	+
- Sales	0	331	الله الم
- Depreciation	7,146	<u>10,971</u>	
- Net investment	1,874	2,427	sax-+
+ Appreciation	-476	1,105	+
- Value end of year	\$74,415	\$98,113	\$

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 <u>annual cash flow statement</u> 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.

		24	Deiry	13	8 Dairy		
<u>Item</u>		Farm	Renters	Far	m Owners		My Farm
Cash Inflows							
Beg farm cash checking	& caringe	ć	5 420	ć	6 1 2 3	¢	
Cash form receipte	a savings	ې 1	57 560	ې د	10 921	Ŷ	
Calm af receipts		T	57,509	2	10,021		
Sale of assets: Machiner	У		0		331	_	
Real est	ate		U		3,102		
Other st	ock & cert.		0		129		
Money borrowed (inter. &	long-term)		20,877		19,597	****	
Money borrowed (short-te	rm)		1,571		1,543		
Increase in operating de	bt		525		1,021		
Nonfarm income			2,667		3,771		
Cash from nonfarm cap. u	sed in the busi	ness	3,353		2,832		
Money borrowed - nonfarm	l		0		1.027		
Total		\$1	91,982	\$2	50,297	\$	
Cash Outflows							
Cash farm expenses		\$1	26,477	\$1	66,888	\$	
Capital purchases: Expan	sion livestock		1,509		1,208	1.000	
Machi	nery		8,562		13,729		
Real	estate		4,160		7,721	_	
Other	stock & cert.		62		621		
Principal payments (inte	r. & long-term)		16,879		24,371		
Principal payments (shor	t-term)		1,096		1,303		
Decrease in operating de	bt		0		0		
Personal withdrawals & f	amily expenditu	res,					
including nonfarm debt	payments		27,301		26,947		
Ending farm cash, checki	ng & savings		4,068		6,788		
Total		\$1	90,114	\$2	49,576	\$	
Imbalance (error)		\$	1,868	\$	721	\$_	

ANNUAL CASH FLOW STATEMENT Eastern New York Dairy Farm Renters and Owners, 1988

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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 1989. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 1989 debt payments shown below.

		Average			My Farm		
	1988 Payments		Planned	1988 Payments		Planned	
Debt Payments	Planned	Made	1989	Planned	Made	1989	
Long-term	\$788	\$ 1,261	\$ 1,969	\$	\$	\$	
Intermediate-term	13,850	20,567	15,435				
Short-term	468	1,175	438				
Operating (net red.) 727	0	933				
Accounts payable							
(net reduction)	<u> </u>	0	<u> </u>				
Total	\$16,643	\$23,003	\$19,614	\$	\$	\$	
Per cow	\$234	\$323		\$	\$		
Per cwt. 1988 milk	\$1.43	\$1.98		\$	\$		
Percent of total						-	
1988 receipts	10%	13%				_	
Percent of 1988						_	
milk receipts	11%	15%					

		FARM	1 DEF	BT PAY	MENTS	PLAN	NED	
Same	20	Eastern	New	York	Dairy	Farm	Renters,	1988*

*Farms that completed Dairy Farm Business Summaries for both 1987 and 1988.

The <u>cash flow coverage ratio</u> 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 1989.

		-	
Item	Same 20 Farm Renters	Same 104 Farm Owners	My Farm
Cash farm receipts	\$169,558	\$215,512	\$
- Cash farm expenses	135,489	170,073	
+ Interest paid	5,419	13,080	
- Net personal withdrawals from farm	n* <u>28.005</u>	23,039	<u></u>
(A) - Amount Available for Debt Service	\$ 11,483	\$ 35,480	\$
(B) = Debt Payments Planned for 1988			
(as of December 31, 1987)	\$16,643	\$32,718	\$
(A + B) - Cash Flow Coverage Ratio for 1	988 0.69	1.08	-

CASH FLOW COVERAGE RATIO Eastern New York Dairy Farm Renters and Owners, 1988

*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

	24	Dairy		My	Farm		Expected	1989
Item	Farm	Renter	rs I	otal	Per	Cow	Change	Projection
	(per	cow)					-	-
Average number of cows		66						
Accrual Oper. Receipts								
Milk	\$2	,132	\$		\$			\$
Dairy cattle		192						
Dairy calves		40						
Other livestock		2						
Crops		53					<u></u>	
Misc. receipts		51						
Total	\$2	,470	\$		\$			\$
Accrual Oper Expenses								
Hired labor	¢	164	¢		ć			¢
Dairy grain & conc	Ŷ	594	۷		۷ <u> </u>			۷
Dairy grain a conc.		294 70				······································		
Other lustk food		49						····
Mach hire/rent/leasa		22						
Mach. http://enc/lease		100						·
Fuel oil & grasce		54	~~~~					
Paplagement lugth		54						
Breeding		44						
Vet & medicine		40					<u></u>	
Milk marketing		129						
Cattle lease		8						
Other lystk, exp		110						
Fertilizer & lime		68						
Seeds & plants		30						
Spray/other crop eyp		23						
Land hldg fence repair		16	à					
Taxes		24						
Real est, rent/lease		186						
Insurance		35						······
litilities		74						
Miscellaneous		26						
Total Less Int. Paid	\$1	847						\$
10001 1000 100, 1410	¥.*	,.,.,		······			·····	Ŷ
Net Accrual Operating Incom	<u>ne</u>	(to	otal	.)				
(without interest paid)		\$4:	1,26	66 \$_		_		\$
- Change in lvstk./crop in	v.	1	5,97	'9 <u>-</u>				
- Change in accts. rec.			16	51		a		
+ Change in feed/supply in	v.		- 33	91 _				
+ Change in accts. payable	k		<u>1,39</u>	<u>15</u>				
NET CASH FLOW		\$36	6,19	00 \$_				\$
- Net personal withdrawals	&							
family expenditures		_2/	4,63	<u>14</u>				
Available for Farm Debt Pag	yment	S						
& Investments		\$11	1,55	66 \$ _				\$
- Farm debt payments		_22	2,69	15		_		
Available for Farm Investme	ents	\$-1]	1,13	19 \$_				\$
- Capital purchases: cattle	e,							
machinery & improvements		\$14	4,29)3		_		
Additional Capital Needed				\$_		_		\$
			-					

*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.

Item	Averag	<u>e of Fa</u>	irms Reporting	My Farm		
Crop Yields	Farms	<u>Acres</u>	Prod/Acre*	<u>Acres</u>	Prod/Acre	
Hay crop	23	140	2.52 tn DM		tn DM	
Corn silage	23	43	12.84 tn		tn	
-			4.40 tn DM		tn DM	
Other forage	3	24	1.49 tn DM		tn DM	
Total forage	23	186	2.86 tn DM		tn DM	
Corn grain	9	42	103.50 bu		bu	
Oats	3	10	44.83 bu		bu	
Wheat	0	0	0.0 bu		bu	
Other crops	2	25				
Tillable pasture	4	61		·		
Idle	6	23				
Total Tillable Acres	24	214				

LAND RESOURCES AND CROP PRODUCTION 24 Eastern New York Dairy Farm Renters, 1988

*1988 average yields for 138 dairy farm owners in Eastern New York included: all hay crops, 2.6 tons dry matter per acre; corn silage, 13.9 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, 1988

Item	24 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
Total tillable acres per cow	3.22	3.04	
Total forage acres per cow	2.69	2.49	
Harvested forage dry matter, tons per co	w 7.71	7.81	

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

	Total/	Hay	Crop		Corn Sil.	Corn Grain
	Till.	Per	Per	Corn	Per Ton	Per Dry
Expense	Acre	Acre	Ton DM	All Corn Sil. Corn Corn Per Ton Per DM Per Acre DM Shell rms Reporting Individual Crop 93 \$30.83 \$ 7.01 16 16 11.50 2.62 77 9.92 2.26 86 \$52.25 \$11.89 arms Reporting Individual Crop 97 \$26.31 \$ 5.68 46 10.72 2.31 07 12.02 2.59 50 \$49.05 \$10.58 \$ \$ \$ \$ \$ \$	Shell Bu.	
24 Dairy Farm Rente	rs:	Average	13 Farms	Reporting	Individual	Crop Costs
Fertilizer & lime	\$21.07	\$ 9.50	\$3.93	\$30.83	\$ 7.01	\$0.30
Seeds & plants	9.28	2.81	1.16	11.50	. 2.62	0.11
Spray & other crop						
expense	7.05	1.86	_0.77	9.92	2.26	0.10
Total	\$37.40	\$14.17	\$5.86	\$52.25	\$11.89	\$0.51
138 Dairy Farm Owne	ers:	Average	83 Farms	Reporting	Individual	Crop Costs
Fertilizer & lime	\$27.60	\$10.19	\$3.97	\$26.31	\$ 5,68	\$0.26
Seeds & plants	9.90	3.74	1.46	10.72	2.31	0.11
Spray & other crop						
expense	9.19	2.75	1.07	12.02	2.59	0.12
Total	\$46.69	\$16.68	\$6.50	\$49.05	\$10.58	\$0.49
<u>My Farm</u> :						
Fertilizer & lime	s	Ś	ŝ	\$	s	\$
Seeds & plants	•	•	•	•	•	•
Spray & other crop						
expense						
Total	\$	\$	\$	\$	\$	\$

CROP RELATED ACCRUAL EXPENSES Eastern New York Dairy Farm Renters and Owners, 1988

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.

		ACCI	RUAL MA	CHINE	ERY EXPEN	ISES		
Eastern	New	York	Dairy	Farm	Renters	and	Owners,	1988

	Average Per T	illable Acre	My]	Farm
	24 Dairy	138 Dairy	Total	Per Til.
Item	Farm Renters	Farm Owners	Expenses	Acres
Fuel, oil & grease	\$ 16.72	\$ 19.17	\$	\$
Machinery repairs & parts	32.44	37.01		
Machine hire, rent & lease	6.79	6.96		
Auto expense (farm share)	1.51	2.07		********
Interest (5%)	17.25	18.33	·····	
Depreciation	33,45	41,74		
Total	\$108.16	\$125.29	\$	\$

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.

	Daj	ry Cows	Heifers				
			Bred		Open	C	alves
Item	No,	Value	No. Value	No,	Value	No.	Value
24 Dairy Farm Renters:							
Beg. year (owned)	63	\$56.021	15 \$10,196	16	\$6.346	18	\$3.013
+ Change w/o apprec.		2,205	1,160		54		181
+ Appreciation		2,024	415		242		327
End year (owned)	66	\$60,250	$16 \overline{\$11,771}$	16	\$6,642	19	\$3,521
End incl. leased	67						
Average number	66		50 (all age	grou	ps)		
138 Dairy Farm Owners:							
Beg. year (owned)	87	\$75,778	24 \$15,924	21	\$8,223	21	\$3,906
+ Change w/o apprec.		227	330		538		312
+ Appreciation		2,832	652		540		405
End year (owned)	87	\$78,837	24 \$16,906	21	\$9,301	22	\$4,623
End incl. leased	87						
Average number	86		66 (all age	grou	ips)		
My Farm:							
Beg. of year (owned)		\$	\$		\$		\$
+ Change w/o apprec.		· House			•		•
+ Appreciation							
End of year (owned)		\$	\$		\$		\$
End including leased							
Average number			(all age	grou	ups)		

DAIRY HERD INVENTORY Eastern New York Dairy Farm Renters and Owners, 1988

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, 1988

Item	24 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
Total milk sold, 1bs.	1,078,132	1,382,557	
Milk sold per cow, lbs.	16,263	16,010	
Average milk plant test, % butterfat	3.69	3.66	

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, <u>operating costs of producing milk</u> are estimated by deducting nonmilk accrual receipts from total accrual operating expenses plus expansion livestock purchased. <u>Total costs of producing milk</u> include the operating costs plus depreciation on machinery and buildings, 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, 1988

	24 Renters		138 (Owners	My Farm	
Item	Total	Per Cwt.	Total	Per Cwt,	Total	Per Cwt.
<u>Accrual Costs of</u> Producing Milk						
Operating costs	\$106,657	\$9.89	\$137,977	\$9.98	\$	\$
Total costs with- out op(s') labor,						
mgmt. & capital	\$116,050	\$10.76	\$157,062	\$11.36	\$	\$
Total Costs	\$147,684	\$13.70	\$202,733	\$14.66	\$	\$
Accrual Receipts						
from Milk	\$141,312	\$13.11	\$186,607	\$13.50	\$	\$

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.

	Ι	DAIRY	RELATE	ED ACC	CRUAL EX	PENSI	ES	
Eastern	New	York	Dairy	Farm	Renters	and	Owners,	1988

	Average Pe	r Cwt. Milk	My Farm
Item	24 Renters	138 Owners	Per Cwt.
Purchased dairy grain & conc.	\$3.65	\$3.89	\$
Purchased dairy roughage	0.30	0.13	
Total Purchased Dairy Feed	\$3.95	\$4.02	\$
Purchased grain & conc.		·	
as % of milk receipts	28%	29%	8
Purchased feed & crop exp.	\$4.69	\$4.91	\$
Purchased feed & crop exp.		·	·
as % of milk receipts	36%	36%	8
Breeding	\$0.24	\$0.20	\$
Veterinary & medicine	0.26	0.26	·
Milk marketing	0.80	0,83	
Cattle lease	0.05	0.00	
Other livestock expense	0.67	0.59	

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.

Item 24 Dairy Farm D	Per Worker	Per Cow	Per Tillable		
Farm capital Machinery & equipment Capital turnover, years	\$90,834 30,108	\$3,364 1,115	\$1,044		
<u>138 Dairy Farm Owners</u> : Farm capital Machinery & equipment Capital turnover, years My Farm:	1. \$208,494 35,156 2.4	\$6,670 1,125	\$2,191 370		
Farm capital Machinery & equipment Capital turnover, years	\$	\$	\$		

CAPITAL EFFICIENCY Eastern New York Dairy Farm Renters and Owners, 1988

LABOR FORCE ANALYSIS Eastern New York Dairy Farm Renters and Owners, 1988

	24 Re	enters	138 0	wners	Mv	Farm
Efficiency	<u>Total</u>	Per Worker	Total	Per Worker	Total	Per Worker
Cows, average number Milk sold, pounds 1,07 Tillable acres Work units	66 78,132 214 692	27 439,182 87 282	86 1,382,557 263 900	31 500,440 95 326		
Labor Costs	24 Ro Total	enters Per Cow	<u>138 0</u> Total	wners Per Cow	<u>My</u> Total	Farm Per Cow
Value of operator(s) labor (\$1,000/month) Family unpd. (\$700/mo.) Hired Total Labor Machinery Cost Total Labor & Mach.	\$15,500 1,190 10.844 \$27,540 \$23,100 \$50,640	$\begin{array}{cccc} 0 & \$234 \\ 6 & 18 \\ 4 & 164 \\ 0 & \$415 \\ 6 & \$349 \\ 6 & \$764 \\ \end{array}$	\$16,848 1,872 <u>16,772</u> \$35,492 \$32,931 \$68,423	\$195 22 <u>194</u> \$411 \$381 \$792	\$ \$ \$ \$	\$ \$ \$ \$

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 20 Eastern New York Dairy Farm Renters, 1987 and 1988

	Ave	rage		My Farm		
Selected Factors	1987	1988	1987	1988	Goal	
<u>Size of Business</u>						
Average number of cows	71	71				
Average number of heifers	54	55				
Milk sold, lbs.	1,132,406	1,163,566				
Worker equivalent	2.61	2.65				
Total tillable acres	227	232				
Rates of Production						
Milk sold per cow, lbs.	15,994	16,342				
Hay DM per acre, tons	2.5	2.5				
Corn silage per acre, tons	15	13		·····		
Labor Efficiency						
Cows per worker	27	27				
Milk sold per worker, lbs.	433,457	439,082			······································	
Cost Control						
Grain & conc nurchased						
as a of milk sales	230	285	9	<i>د</i>	a	
Dairy food & aron own	2.30	200	ں	σσ	م	
per cut milk	¢/ 18	\$4 60	ċ	¢	¢	
Johor & mach coats (con	94.10 0761	\$4.03 6700	۹ د	ې د	. У	
Labor & mach. Costs/cow	\$701	\$760	Ş	ې	· ?	
Capital Efficiency*						
Farm capital per cow	\$3,300	\$3,504	\$	\$	\$	
Mach. & equip. per cow	\$1,149	\$1,183	\$	\$	\$	
Capital turnover, years	1.3	1.4				
Profitability						
Net farm inc. w/o apprec.	\$32,163	\$26,331	\$	\$	\$	
Net farm inc. w/apprec.	\$39,503	\$31,628	Ś	Ś	Ś	
Labor & mgmt. income	. ,	• • •	•			
per operator/manager	\$23.286	\$16.266	Ś	ŝ	ŝ	
Rate of return on eq.	, , -	, , _	*	т		
capital w/apprec	8 89	3 4 8	2	9	9	
Rate of return on all	0.00	5.40		0		
capital w/apprec.	8.6%	4.6%		&	8	
Financial Summary						
Farm net worth	\$175 055	\$181 039	ŝ	Ś	ŝ	
Debt to asset ratio	0 28	0 29	т	۳	۲	
Farm debt per cow	\$940	\$1,045	\$	\$	\$	
-	-		·	-	· · ····	

*Average for the year.

Other Agricultural Economics Extension Publications

No.	89-7	National Dairy Markets and Policy and Some Implications for New York	Α.	Novakovic
No.	89-8	Dairy Farm Business Summary, Northern New York, 1988	S. L.	Smith Putnam
No.	89-9	Dairy Farm Business Summary, Western Plain Region, 1988	S. L.	Smith Putnam
No.	89-10	Dairy Farm Business Summary, Northern Hudson Region, 1988	S. L.	Smith Putnam
No.	89-11	Dairy Farm Business Summary, Eastern Plateau Region, 1988	R. L. C. J. G.	Milligan Putnam Crispell Mierek LeClar
No.	89-12	Dairy Farm Business Summary, Oneida-Mohawk Region, 1988	E. G. B.	LaDue Andrew Aldrich
No.	89-13	Dairy Farm Business Summary, Central New York and Central Plain Regions, 1988	W. L.	Knoblauch Putnam
No.	89-14	Dairy Farm Business Summary, Western Plateau Region, 1988	G.	Casler
No.	89-15	Dairy Farm Business Summary, Southeastern New York, 1988	S. L.	Smith Putnam
No.	89-16	Income Tax Consequences of Farm Debt Cancellation and Bankruptcy	G.	Casler
No.	89-17	Factors Affecting Profitability on Limited Resource Dairy Farms, New York, 1986	В.	Stanton
No.	89-18	Staying Competitive Into the 21st Century: Issues and Challenges Facing the New York State Dairy Industry	0. A.	Forker Novakovic

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