

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

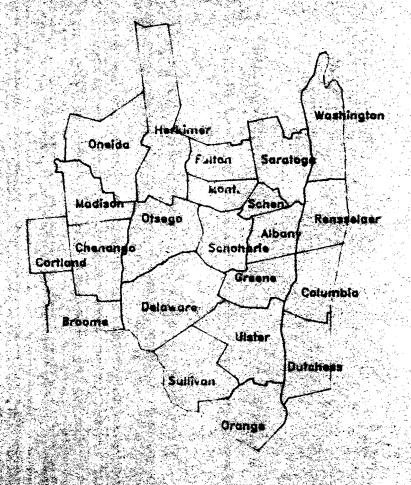
Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

EASTERN NEW YORK RENTER SUMMARY 1995



Stuart F. Smith Linda D. Putnam

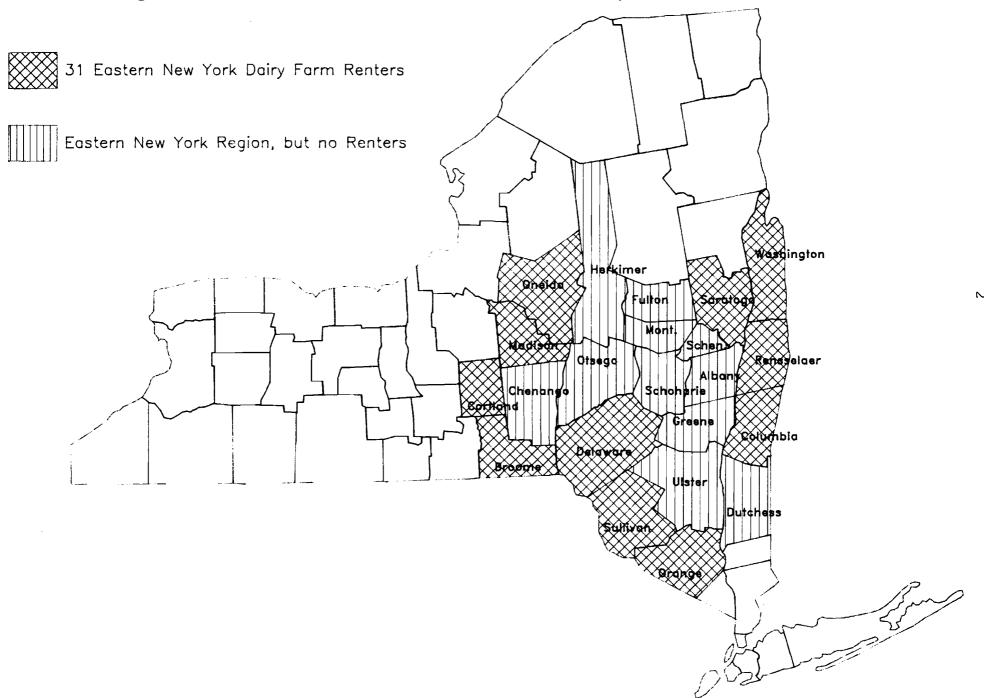
Department of Agricultural, Resource, and Managerial Economics College of Agriculture and Life Sciences Cornell University, Illiana, New York, 14853-7801

It is the Policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of apportunity.

1995 DAIRY FARM BUSINESS SUMMARY EASTERN NEW YORK RENTERS Table of Contents

Pa	ıge
TRODUCTION	. 1
Use Comparative Profitability Data With Caution	. 1
JMMARY AND ANALYSIS OF THE FARM BUSINESS	.3
Business Characteristics and Resources Used	.3
Income Statement	.4
Profitability Analysis	.7
Farm and Family Financial Status	9
Statement of Owner Equity	2
Cash Flow Statement	.3
Repayment Analysis1	.5
Cropping Program Analysis1	.7
Dairy Program Analysis	9
Capital and Labor Efficiency Analysis2	<u>!</u> 1
OMPARATIVE ANALYSIS OF THE FARM BUSINESS	!2
Progress of the Farm Business	22
Regional Farm Business Chart	23
Regional Financial Analysis Chart	!4
DENTIFY AND SET GOALS2	25
LOSSARY AND LOCATION OF COMMON TERMS2	<u>!</u> 7
IDEX3	30

Figure 1. Location of Eastern New York Dairy Farm Renters, 1995.



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 31 Eastern New York Dairy Farm Renters, 1995

Type of Business	Number	bST Usage	Nu	mber
Single proprietorship	21	Used on <25% of herd		8
Partnership	9	Used on 25-75% of herd		2
Corporation	1	Used on >75% of herd		0
		Stopped using in 1995		1
Milking System	Number	Not used in 1995		20
Dumping station	0			
Pipeline	21	<u>Labor Force*</u>	My Farm	<u>Average</u>
Herringbone parlor	9	Operator 1	mo.	14.16
Other parlor	1	Operator 2	mo.	4.56
		Operator 3	mo.	0.39
Type of Barn	<u>Number</u>	Family paid	mo.	2.73
Stanchion	22	Family unpaid	mo.	4.05
Freestall	9	Hired	mo.	<u>6.89</u>
Combination	0	Total	mo.	32.78
		Worker equivalent		
Dairy Records Service	<u>Number</u>	(total + 12)		2.73
DHIC	21	Operator/Manager Equiv.		
DHIC Owner-Sampler	3	(Operator months + 12)		1.39
Other	2	-		
None	5	Land Use	My Farm	Average
		Total acres rented		363
Business Record System	<u>Number</u>	Tillable acres rented		241
Account Book	17			
Agrifax (mail-in only)	3	Number of Cows	My Farm	Average
Other	4	Beg. year (owned)		82
On-farm computer	7	End year (owned & leased)		91
-		Average for year (owned & leased)		88

^{*}Based on hours actually worked by owner/operator, instead of standard 12 months per full-time owner/operator. The standard 12 months is used for operator/manager equivalent when calculating labor and management income per operator.

Predominate business characteristics of the 31 rented farms include the single proprietorship, pipeline milking system, stanchion or conventional stall barn, DHIC herd records and an account book record system. Only 23 percent of the renters were using on-farm computers compared to 31 percent of the owners.

The average size of the labor force on the rented farms was 24 percent less than the 3.61 worker equivalent on owned farms. The rented farms averaged 241 tillable acres and 88 cows compared to 329 tillable acres and 115 cows on the 138 owned dairy farms in the same region. The owned farms averaged 32 cows per worker, the same as the rented farms. In 1995, the rented farms did not use land and labor resources as efficiently as the owned farms.

Income Statement

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

CASH AND ACCRUAL FARM EXPENSES 31 Eastern New York Dairy Farm Renters, 1995

Expense Item	Cash Paid	Inventory - or Prepaid Expense	+	Change in Accounts Payable	= Accrual Expenses	Percent of Total
Hired Labor	\$ 12,253	\$ 0	<<	\$ 0	\$ 12,253	7
Feed	,	·			,	,
Dairy grain & concentrate	56,936	1,498		1,239	56,677	31
Dairy roughage	5,185	821		102	4,466	2
Other livestock	171	0		0	171	<1
Machinery						
Machinery, hire, rent & lease	1,699	0	<<	0	1,699	1
Machinery repair & farm veh. exp.	12,032	-2		704	12,738	7
Fuel, oil & grease	5,310	11		30	5,329	3
Livestock	•				-,-	
Replacement livestock	5,440	0	<<	0	5,440	3
Breeding	3,338	102		-55	3,181	2
Vet & medicine	4,994	29		16	4,981	3
Milk marketing	11,564	0	<<	-17	11,547	6
Bedding	1,213	45		10	1,178	1
Milking supplies	4,897	31		0	4,866	3
Cattle lease & rent	29	0	<<	0	29	<1
Custom boarding	189	0	<<	0	189	<1
Other livestock expense	4,766	6		392	5,152	3
Crops	•			-	-,	
Fertilizer & lime	6,809	733		49	6,125	3
Seeds & plants	2,718	593		94	2,219	1
Spray, other crop expense	4,053	86		104	4,071	2
Real Estate	•				.,	_
Land, building & fence repair	2,729	-12		301	3,042	2
Taxes	750	0	<<	-152	598	1
Rent & lease	16,294	0	<<	-17	16,277	9
Other	•				.,	
Insurance	3,111	0	<<	0	3,111	2
Utilities (farm share)	7,099	0	<<	43	7,142	4
Interest paid	7,904	0	<<	0	7,904	4
Miscellaneous	2,088	48		2	2,138	1
Total Operating	\$ 183,571	\$ 3,893		\$ 2,845	\$ 182,523	100
Expansion livestock	\$ 4,965	\$ 0	<<		\$ 4,965	_00
Machinery depreciation	, .,			. •	9,243	
Building depreciation					1,469	
TOTAL ACCRUAL EXPENSES					\$ 198,200	

<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, 1996 rent paid in 1995. A positive change is the amount the prepayment account increased from beginning to end year, a negative change indicates a decline in the account.

<u>Change in accounts payable</u>: 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

	 Cash	Inventory - or Prepaid	+	Change in Accounts	= Accrual
Expense Item	Paid	Expense	+	Payable	= Accidar Expenses
Expense nem	raiu	Expense		Fayaute	Expenses
Hired Labor	\$	\$	<<	\$	\$
Feed	Ψ	Ψ		Ψ	Ψ
Dairy grain & concentrate					
Dairy roughage					
Other livestock					<u> </u>
Machinery		 .			
Machinery, hire, rent & lease			<<		
Machinery repair & farm veh. exp.			•		
Fuel, oil & grease					
Livestock					
Replacement livestock			<<		
Breeding					
Vet & medicine					
Milk marketing			<<		
Bedding					
Milking supplies					
Cattle lease & rent	-		<<		
Custom boarding			<<		
Other livestock expense					
-					
Crops Fertilizer & lime					
Seeds & plants					
Spray, other crop expense					
Real Estate			•		
Land, building & fence repair					
Taxes			<<		
Rent & lease			<<		
Other _					
Insurance			<<		
Utilities (farm share)			<<		
Interest paid			<<		
Miscellaneous					
Total Operating	\$	\$		\$	\$
Expansion livestock	\$	\$	<<	\$	\$
Machinery depreciation					
Building depreciation					
TOTAL ACCRUAL EXPENSES					\$

CASH AND ACCRUAL FARM RECEIPTS 31 Eastern New York Dairy Farm Renters, 1995

Receipt Item	Cash Receipts		Change in Inventory	+	Change in Accounts Receivable	=	Accrual Expenses
Milk Sales	\$ 202,047				\$ 1,760		\$ 203,807
Dairy cattle	8,932		9,064		-65		17,931
Dairy calves	2,439		•		2		2,441
Other livestock	90		769		0		859
Crops	1,788		-411		-288		1,089
Government receipts	3,717		0*		186		3,903
Custom machine work	427				6		433
Gas tax refund	84				0		84
Other	1,652				0		1,652
- Nonfarm noncash capital**		(-)	0				<u>(-)</u> 0
Total Accrual Receipts	\$ 221,176		9,422		\$ 1,601		\$ 232,199

^{*}Change in advanced government receipts.

<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.

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).

<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.

CASH AND ACCRUAL FARM RECEIPT WORKSHEET

Receipt Item	Cash Receipts	+ Change in Inventory	Change in + Accounts Receivable	= Accrual Expenses
Milk Sales	\$		\$	\$
Dairy cattle		\$		
Dairy calves				
Other livestock				
Crops				
Government receipts				
Custom machine work				=
Gas tax refund				
Other				
- Nonfarm noncash capital**		(-)		(-)
Total Accrual Receipts	\$	\$	\$	\$

^{**}Gifts or inheritances of cattle or crops included in inventory.

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, 1995

Item	31 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
Total accrual receipts	\$ 232,199	\$ 335,437	\$
+ Appreciation: Livestock	-1,800	-5,295	
Machinery	2,510	2,541	
Real Estate	960	8,348	
Other Stock & Certificates	-16	179	
= Total Including Appreciation	\$ 233,853	\$ 341,210	\$
- Total accrual expenses	<u>198,200</u>	<u>302,015</u>	
= Net Farm Income (with appreciation)	\$ 35,653	\$ 39,195	\$
Per cow	\$ 405	\$ 340	\$
Net Farm Income (without appreciation)	\$ 33,999	\$ 33,422	\$
Per cow	\$ 386	\$ 290	\$

<u>Labor and management income</u> 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 from net farm income excluding appreciation a charge for unpaid family labor and the opportunity cost of using equity capital at a 5 percent interest rate. The interest charge of 5 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, 1995

Item	31 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
Net farm income without appreciation	\$ 33,999	\$ 33,422	\$
- Family labor unpaid @ \$1,450 per month	- 5,873	- 4,046	
 Interest on average equity capital @ 5% real rate 	<u>- 9,804</u>	<u>- 27,167</u>	-
= Labor & Management Income	\$ 18,322	\$ 2,209	\$
Labor & Management Income per Operator/Manager	\$ 13,181	\$ 1,463	\$

Return to equity capital measures the net return remaining for the farmer's equity or owned capital after a charge has been made for unpaid family labor and 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 to 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 to all capital is calculated by adding interest paid to the return to equity capital and then dividing by average farm assets to calculate the rate of return on average total capital.

RETURN TO EQUITY CAPITAL AND RETURN TO ALL CAPITAL Eastern New York Dairy Farm Renters and Owners, 1995

Item	31 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
nem	Tain Kenters	Taili Owlicis	Wry raim
Net farm income with appreciation	\$ 35,653	\$ 39,195	\$
- Family labor unpaid @ 1,450 per month	\$ 5,873	\$ 4,046	\$
- Value of operators' labor & management	28,226	32,927	
= Return to equity capital with appreciation	\$ 1,554	\$ 2,222	\$
+ Interest paid	7,904	<u> 19,878</u>	
= Return to all capital with appreciation	\$ 9,458	\$ 22,100	\$
Return to equity capital without appreciation	\$ -100	\$ -3,511	\$
Return to all capital without appreciation	\$ 7,804	\$ 16,327	\$
Rate of return on average equity capital: with appreciation without appreciation	0.8% -0.1%	0.4% -0.7%	
Rate of return on all capital: with appreciation without appreciation	3.1% 2.6%	2.8% 2.0%	% %

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.

1995 FARM BUSINESS & NONFARM BALANCE SHEET 31 Eastern New York Dairy Farm Renters

	-			Farm Liabilities				
Farm Assets		Jan. 1	Dec. 31	& Net Worth		Jan. 1		Dec. 31
Current				Current				
Farm cash, checking				Accounts payable	\$	6,195	\$	8,999
& savings	\$	4,894	\$ 5,462	Operating debt		5,881		7,112
Accounts receivable		15,787	17,389	Short term		3,077		3,081
Prepaid expenses		0	0	Advanced gov't. receipt		0		0
Feed & supplies		39,536	 43,020	Current portion:				
Total Current	\$	60,217	\$ 65,871	Intermediate		8,369		10,042
				Long term		3,850		3,465
				Total Current	\$	27,372	\$	32,699
<u>Intermediate</u>				<u>Intermediate</u>				
Dairy Cows:				Structured debt				
owned	\$	84,787	\$ 90,862	1-10 years	\$	46,267	\$	45,114
leased		0	0	Financial lease				
Heifers		37,208	38,470	(cattle & machinery)		1,351		1,229
Bulls & other livestock		1,019	1,726	Farm Credit stock		1,346		1,552
Mach. & equip. owned		87,121	94,332	Total Intermediate	\$	48,964	\$	47,895
Mach. & equip. leased		1,351	1,229					
Farm Credit stock		1,346	1,552	Long Term				
Other stock & cert.		1,759	 1,908	Structured debt				
Total Intermediate	\$	214,601	\$ 230,079	≥ 10 years	\$	25,795	\$	34,501
Long Term				Financial lease				
Land & buildings:				(structures)		397		311
owned	\$	16,640	\$ 21,990	Total Long Term	\$	26,192	\$	34,812
leased	_	397	 311	_				
Total Long Term	\$	17,037	\$ 22,301	Total Farm Liabilities	\$	102,528	\$	115,406
Total Farm Assets	\$	291,855	\$ 318,251	FARM NET WORTH	\$	189,327	\$	202,845
(Average for 13 farms rep	ortin	g)		Nonfarm Liabilities*				
Nonfarm Assets*		Jan.1	Dec. 31	& Net Worth	J.	<u>an. 1</u>	I	Dec. 31
Personal cash, checking				Nonfarm Liabilities	\$	5,218	\$	4,993
& savings	\$	3,612	\$ 5,158	NONFARM NET WORTH	\$	<u>53,777</u>	\$	52,265
Cash value life ins.		13,120	11,474					
Nonfarm real estate		23,846	23,846	FARM & NONFARM**	J	<u>an</u> . 1	I	Dec. 31
Auto (personal share)		4,692	4,077	Total Assets	- \$	350,850	\$	375,509
Stocks & bonds		5,172	4,210	Total Liabilities	•	107,746	•	120,399
Household furn.		7,077	6,685					•
All other		1,475	1,808	TOTAL FARM & NON-				
Total Nonfarm	\$	58,995	\$ 57,258	FARM NET WORTH	\$	243,104	\$	255,110

^{*}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.

Advance government receipts are included as current liabilities. Government payments received in 1995 that are for participation in the 1996 program are the end year balance and payments received in 1994 for participation in the 1995 program are the beginning year balance.

Date	
------	--

1995 FARM BUSINESS & NONFARM BALANCE SHEET

	Farm Liabilities										
Farm Assets	Jan. 1	Dec. 31	& Net Worth	Jan. 1	Dec. 31						
Current			Current								
Farm cash, checking			Accounts payable								
& savings			Operating debt								
8											
Accounts receivable			Short term								
Prepaid expenses			Advanced gov't, receipt								
Feed & supplies			Current portion:								
Total Current			Intermediate								
	_		Long term								
			Total Current								
Intermediate			<u>Intermediate</u>								
Dairy Cows:			·								
owned											
leased			Financial lease								
Heifers			(cattle & machinery)								
Bulls & other livestock			Farm Credit stock								
Mach. & equip. owned			Total Intermediate								
Mach. & equip. leased			_								
Farm Credit stock			Long Term								
Other stock & cert.											
Total Intermediate			T"								
Long Term			Financial lease								
Land & buildings:			(structures)								
owned leased			Total Long Term								
Total Long Term			Total Farm Liabilities								
_											
Total Farm Assets			FARM NET WORTH								
			Nonfarm Liabilities								
Nonfarm Assets	Jan.1	<u>Dec. 31</u>	& Net Worth	<u>Jan. 1</u>	Dec. 31						
Personal cash, checking			Nonfarm Liabilities								
& savings			\								
Cash value life ins.			}								
Nonfarm real estate			\								
Auto (personal share)											
Stocks & bonds			Total Nonfarm Liabilities								
Household furn.											
All other			Nonfarm Net Worth								
Total Nonfarm											
TOTAL FARM & NONFA	·RM			Jan. 1	Dec. 31						
Total Farm and Nonfarm A											
Less Total Farm & Nonfar											
Farm & Nonfarm Net Wor											
											

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
Easter New York Dairy Farm Renters and Owners, 1995

	31 Dairy	138 Dairy	
Item	Farm Renters	Farm Owners	My Farm
Financial Ratios - Farm:			
Percent equity	64%	67%	
Debt/asset ratio: total	0.36	0.33	
long term	1.56	0.30	
intermediate & current	0.27	0.35	
Farm Debt Analysis:			
Accounts payable as % of total debt	8%	4%	
Long term liabilities as a % of total debt	30%	43%	
Current & intermediate liabilities as a % of total debt	70%	57%	
Farm Debt Levels Per Cow:	-		
Total farm debt	\$ 1,268	\$ 2,224	\$
Long term debt	\$ 383	\$ 951	\$
Intermediate & long term debt	\$ 909	\$ 1,809	\$
Intermediate & current debt	\$ 886	\$ 1,272	\$

<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, 1995

Item	31 Dairy Farm Renters \$ 87,121		138 Dairy Farm Owners \$ 140,034		My Farm	
Value beginning of year						\$
Purchases	\$ 14,735		\$ 16,647		\$	<u> </u>
+ Nonfarm noncash transfer	0		110			
- Net Sales	791		941			
- Depreciation	9,243		<u>14,966</u>			
= Net investment		4,701		850		
+ Appreciation		<u>2,510</u>		2,541		
= Value end of year		\$ 94,332		\$143,425		\$

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are interrelated and consistent (in accountants' terms, they reconcile) and (2) identification of the causes of change in equity that occurred on the farm during the year. The Statement of Owner Equity allows the farmer to determine to what degree the change in equity was caused by (1) earnings from the business, and nonfarm income, in excess of withdrawals being retained in the business (called retained earnings), (2) outside capital being invested in the business or farm capital being removed from the business (called contributed/withdrawn capital) and (3) increases or decreases in the value (price) of assets owned by the business (called change in valuation equity).

The change in farm net worth without appreciation is an excellent indicator of farm generated financial progress.

STATEMENT OF OWNER EQUITY (RECONCILIATION) 31 Eastern New York Dairy Farm Renters, 1995

Item	Average	My Farm
Beginning of year farm net worth	\$ 189,327	\$
Net farm income without appreciation	\$ 33,999	\$
+ Nonfarm cash income	+ 3,614	+
- Personal withdrawals & family expenditures excluding nonfarm borrowings	<u>- 25,976</u>	
RETAINED EARNINGS	+ \$ 11,637	+ \$
Nonfarm noncash transfers to farm	\$ 0	\$
+ Cash used in business from nonfarm capital	+ 4,073	+
- Note/mortgage from farm real estate sold (nonfarm)	0	
CONTRIBUTED/WITHDRAWN CAPITAL	+ \$ 4,073	+ \$
Appreciation	\$ 1,654	\$
- Lost capital	<u>- 4,203</u>	
CHANGE IN VALUATION EQUITY	+\$ -2,549	+ \$
IMBALANCE/ERROR	<u>- \$ -311</u>	- \$
End of year farm net worth*	= \$ 202,845	= \$
Change in net worth with appreciation.	\$ 13,518	\$
Change in Net Worth		
Without appreciation	\$ 11,864	\$
With appreciation	\$ 13,518	\$

^{*}May not add due to rounding.

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 show net cash provided by operating activities, investing activities, financing activities and from reserves. All cash inflows and outflows including beginning and end balances are included. Therefore, the sum of net cash provided from all four activities should be zero. Any imbalance is the error from incorrect accounting of cash inflows/outflows.

ANNUAL CASH FLOW STATEMENT 31 Eastern New York Dairy Farm Renters, 1995

Item		Average	· ·
Cash Flow from Operating Activities			
Cash farm receipts	\$ 221,176		
- Cash farm expenses	<u> 183,571</u>		
= Net cash farm income		\$ 37,607	
Nonfarm income	\$ 3,614		
- Personal withdrawals & family expenses including nonfarm debt payments	<u>25,976</u>		
+ Net cash nonfarm income		<u>\$ -22,362</u>	
= Net Provided by Operating Activities			\$ 15,245
Cash Flow From Investing Activities			
Sale of assets: Machinery	\$ 791		
+ real estate	0		
+ other stock & certificates	0		
= Total asset sales		\$ 791	
Capital purchases: expansion livestock	\$ 4,965	4 .32	
+ machinery	14,735		
+ real estate	10,063		
+ other stock & certificates	165		
- Total invested in farm assets		\$ 29,928	
= Net Provided by Investment Activities		<u> </u>	\$ -29,137
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	\$ 24,281		
+ Money borrowed (short term)	3,274		
+ Increase in operating debt	1,231		
+ Cash from nonfarm capital used in business	4,073		
+ Money borrowed - nonfarm	0		
= Cash inflow from financing		\$ 32,859	
- Cash hillow from mancing		\$ 32,639	
Principal payments (intermediate & long term)	\$ 15,440		
+ Principal payments (short term)	3,270		
+ Decrease in operating debt	0		
- Cash outflow for financing		<u>\$ 18,710</u>	
= Net Provided by Financing Activities			\$ 14,149
Cash Flow From Reserves			
Beginning farm cash, checking & savings		\$ 4,894	
- Ending farm cash, checking & savings		5,462	
= Net Provided from Reserves			<u>\$ -568</u>
Imbalance (error)			\$ -311

ANNUAL CASH FLOW STATEMENT

Item		My Farm	
Cash Flow from Operating Activities			
Cash farm receipts	\$		
- Cash farm expenses			
= Net cash farm income		\$	
Nonfarm income	\$		
- Personal withdrawals & family expenses including nonfarm debt payments	Φ		
+ Net cash nonfarm income		\$	
+ Net cash homa in meone		Ψ	
= Net Provided by Operating Activities			\$
Cash Flow From Investing Activities			
Sale of assets: Machinery	\$		
+ real estate			
+ other stock & certificates			
= Total asset sales		\$	
- V			
Capital purchases: expansion livestock	\$		
+ machinery			
+ real estate			
+ other stock & certificates			
- Total invested in farm assets		\$	
= Net Provided by Investment Activities			\$
•			
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	\$		
+ Money borrowed (short term)			
+ Increase in operating debt			
+ Cash from nonfarm capital used in business			
+ Money borrowed - nonfarm			
= Cash inflow from financing		\$	
Drivering I recommend (intermediate & language)	¢		
Principal payments (intermediate & long term)	\$		
+ Principal payments (short term)			
+ Decrease in operating debt- Cash outflow for financing		¢	
- Cash outriow for financing		\$	
= Net Provided by Financing Activities			\$
Cash Flow From Reserves			
Beginning farm cash, checking & savings		\$	
- Ending farm cash, checking & savings		₩	
= Net Provided from Reserves			\$
— 110t 120 110th 1100th 100			Ψ
Imbalance (error)			\$
- 1 - 0 - 1			*

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 1996. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 1996 debt payments shown below.

FARM DEBT PAYMENTS PLANNED
Same 24 Eastern New York Dairy Farm Renters, 1995*

	Average					My Farm			
	1995 F	ayn	nents	_	Planned		1995 Payı	nents	Planned
Debt Payments	Planned		Made		1996	Plan	ned	Made	1996
Long-term	\$ 2,600	\$	2,640	\$	3,125	\$	\$	i	\$
Intermediate-term	11,923		13,085		12,695				
Short-term	1,610		4,554		1,917				
Operating (net red.)	1,366		437		1,326				
Accounts payable									
(net reduction)	250		0		83				
Total	\$ 17,749	\$	20,716	\$	19,147	\$	\$	i	\$
Per cow	\$ 247	\$	288			\$	\$	S	
Per cwt. 1995 milk	\$ 1.38	\$	1.61			\$	\$	S	
Percent of total									
1995 receipts	9%		11%						
Percent of 1995									
milk receipts	11%		12%						

^{*}Farms that completed Dairy Farm Business Summaries for both 1994 and 1995.

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 1996.

CASH FLOW COVERAGE RATIO
Eastern New York Dairy Farm Renters and Owners, 1995

Item	Same 24 Farin Renters	Same 111 Farm Owners	My Farm
Cash farm receipts	\$ 184,576	\$ 341,299	\$
- Cash farm expenses	149,446	288,979	
+ Interest paid	6,314	20,295	
- Net personal withdrawals from farm*	<u>21,661</u>	29,020	
(A) = Amount Available for Debt Service	\$ 19,783	\$ 43,595	\$
(B) = Debt Payments Planned for 1995			
(as of December 31, 1994)	\$ 17,749	\$ 48,141	\$
(A ÷ B) = Cash Flow Coverage Ratio for 1995	1.11	0.91	

^{*}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 WORKSHEET

 		CASH FLOW W			4004
_	31 Dairy		Y Farm	Expected	1996
Item	Farm Renters	Total	Per Cow	<u>Change</u>	Projection
	(per cow)				
Average number of cows	88				
Accrual Operating Receipts					
Milk	\$ 2,313	\$	\$		\$
Dairy cattle	204				
Dairy calves	28				
Other livestock	10				
Crops	12				
Misc. receipts	69				
Total	\$ 2,636	\$	\$		\$
Accrual Operating Expenses					
Hired labor	\$ 139	\$	\$		\$
Dairy grain & concentrate	643	Ψ	Ψ		Ψ
Dairy roughage	51				
Other livestock feed	2				
	19				
Machinery hire, rent & lease					
Machinery repair & vehicle exp.	145				
Fuel, oil & grease	60				
Replacement livestock	62				
Breeding	36				
Vet & medicine	57				
Milk marketing	131				
Bedding	13				
Milking supplies	55				
Cattle lease	1				
Custom boarding	2				
Other livestock expense	58				
Fertilizer & lime	70				
Seeds & plants	25				
Spray & other crop expense	46				
Land, building & fence repair	35				
Taxes	7				
Real estate rent & lease	185				
Insurance	35				
Utilities	81				
Miscellaneous	24				
Total Less Interest Paid	\$ 1,982	\$	\$	\$	<u> </u>
		· ———	·		
Net Accrual Operating Income	(Total)				
(without appreciation)	\$ 57,586	\$			\$
- Change in livestock & crop inv.		-			
- Change in accounts receivable	1,601				
- Change in feed & supply inv.*	3,893				
+ Change in accounts payable**	2,845				
NET CASH FLOW	\$ 45,515	\$			\$
- Net personal withdrawals &					
family expenditures	22,362				
Available for Farm Debt Payments					
& Investments	\$ 23,153	\$			\$
- Farm debt payments	26,193			_	
Available for Farm Investments	\$ -3,040	<u> </u>			\$
- Capital purchases: cattle,	+ 2,010	* —			,
machinery & improvements	\$ 29,928	\$		\$	\$
machinery & improvements					w w

^{*}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 31 Eastern New York Dairy Farm Renters, 1995

Item		Average of Farms Reporting			My Farm
Crop Yields	<u>Farms</u>	<u>Acres</u>	Prod/Acre*	Acres	Prod/Acre
Hay crop	27	154	2.55 tn DM		tn DM
Corn silage	22	80	10.91 tn		tn
•			3.75 tn DM		tn DM
Other forage	1	8	1.50 tn DM		tn DM
Total forage	27	220	2.67 tn DM		tn DM
Corn grain	12	100	84.48 bu		bu
Oats	4	8	69.84 bu		bu
Wheat	0	0	0.00 bu		bu
Other crops	0	0			
Tillable pasture	9	27			
Idle	4	14			
Total Tillable Acres	31	241			

^{*1995} average yields for 138 dairy farm owners in Eastern New York included: all hay crops, 2.4 tons dry matter per acre; corn silage, 13.1 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, 1995

Item	31 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
Total tillable acres per cow	2.74	2.84	
Total forage acres per cow	2.14	2.42	·
Harvested forage dry matter, tons per cow	5.80	7.38	-

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. Rotational grazing was used on 10 rented farms and 19 owned farms in the region.

CROP RELATED ACCRUAL EXPENSES
Eastern New York Dairy Farm Renters and Owners, 1995

	Total/	Hay	y Crop	All	Corn Silage	Corn Grain
	Till.	Per	Per	Corn	Per Ton	Per Dry
Expense	Acre	Acre	Ton DM	Per Acre	DM	Shell Bu.
31 Dairy Farm Renters:		Average	4 Farms Repor	ting Individual	Crop Costs	
Fertilizer & lime	\$25.41	\$16.83	\$6.60	\$39.05	\$9.19	\$0.36
Seeds & plants	9.21	4.90	1.92	20.92	4.92	0.20
Spray & other crop expense	<u>16.89</u>	<u>6.06</u>	<u>2.38</u>	<u>27.70</u>	<u>6.52</u>	<u>0.26</u>
Total	\$51.51	\$27.79	\$10.90	\$87.67	\$20.63	\$0.82
400 D 4 D 0			10 E B		a a	
138 Dairy Farm Owners:		_	40 Farms Repor	-	-	
Fertilizer & lime	\$26.98	\$17.53	\$7.17	\$48.02	\$10.45	\$0.46
Seeds & plants	12.91	8.24	3.37	23.61	5.14	0.22
Spray & other crop expense	<u>14.13</u>	<u>3.93</u>	<u>1.61</u>	<u>36.70</u>	<u>7.98</u>	<u>0.35</u>
Total	\$54.02	\$29.70	\$12.15	\$108.33	\$23.57	\$1.03
My Farm:						
Fertilizer & lime	S	\$	\$	\$	\$	S
Seeds & plants	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ
Spray & other crop expense						
Total	<u>s</u>	s	s ———	s ——	<u> </u>	\$
1041	¥	Ψ	Ψ	Ψ	Ψ	Ψ

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, 1995

	Average Per	Tillable Acre	My Farm		
Item	31 Dairy Farm Renters	138 Dairy Farm Owners	Total Expenses	Per Till. Acres	
Fuel, oil & grease	\$22.11	\$22.77	\$	\$	
Machine repair & farm veh. exp.	52.85	52.32			
Machine hire, rent & lease	7.05	10.12			
Interest (5%)	18.82	21.61			
Depreciation	<u>38.35</u>	<u>45.63</u>			
Total	\$139.19	\$152.45	\$	\$	

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, 1995

	Da	iry Cows				Heifers		
				Bred		Open	(Calves
Item	No.	Value	No.	Value	No.	Value	No.	Value
31 Dairy Farm Renters:								
Beginning year (owned)	82	\$ 84,797	23	\$ 20,410	21	\$ 11,619	20	\$ 5,179
+ Change w/o apprec.		7,753		-384		412		1,282
+ Appreciation	0.1	-1,688		3	22	-87	2.4	37
End year (owned)	91	\$ 90,862	23	\$ 20,029	22	\$ 11,944	24	\$ 6,498
End including leased	91			(-11	- \			
Average number	88		66	(all age groups	S)			
138 Dairy Farm Owners:								
Beginning year (owned)	113	\$ 121,809	32	\$ 29,829	30	\$ 17,143	27	\$ 7,747
+ Change w/o apprec.	113	8,038	3 2	461	30	255	۷,	342
+ Appreciation		<u>-3,444</u>		-979		-582		257
End year (owned)	120	\$ 126,403	33	\$ 29,311	31	\$ 16,816	28	\$ 7,832
End including leased	120	4 -20, 100		7 37,072		7 -0,010		4 .,052
Average number	115		91	(all age groups	s)			
				(w6 - 6 F	-,			
My Farm:								
Beginning year (owned)		\$		\$		\$		\$
+ Change w/o apprec.								
+ Appreciation								
End year (owned)	_	\$		\$		\$		\$
End including leased	_							
Average number				(all age groups	s)			

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, 1995

Item	31 Dairy Farm Renters	138 Dairy Farm Owners	My Farm
Total milk sold, lbs.	1,542,276	2,241,833	
Milk sold per cow, lbs.	17,500	19,422	
Average milk plant test, % butterfat	3.67%	3.69%	<u> </u>

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 cost of producing milk is estimated by deducting nonmilk accrual receipts from total accrual operating expenses plus expansion livestock purchased. Purchased input cost of producing milk is the operating cost plus depreciation. Total cost of producing milk includes the operating cost 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.

COST OF PRODUCING MILK AND ACCRUAL RECEIPTS FROM MILK Eastern New York Dairy Farm Renters and Owners, 1995

	31 Renters		138 C	wners	My Farm	
Item	Total	Per Cwt.	Total	Per Cwt.	Total	Per Cwt.
Accrual Cost of Producing M	<u>ilk</u>					
Operating cost	\$159,096	\$10.32	\$243,548	\$10.86	\$	\$
Purchased input cost	\$169,808	\$11.01	\$266,578	\$11.89	\$	\$
Total cost	\$213,711	\$13.86	\$330,718	\$14.75	\$	\$
Accrual Receipts from Milk	\$203,807	\$13.21	\$300,000	\$13.38	\$	\$

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, 1995

	Average Pe	er Cwt. Milk	_	
<u>Item</u>	31 Renters	138 Owners	Per Cwt.	_
Purchased dairy grain & concentrate	\$3.67	\$3,70	\$	
Purchased dairy roughage	0.29	0.10	<u> </u>	
Total Purchased Dairy Feed	\$3.96	\$3.80	\$	
Purchased grain & concentrate as % of milk receipts	28%	28%		%
Purchased feed & crop expense	\$4.77	\$4.59	\$	
Purchased feed & crop expense as % of milk receipts	36%	34%		%
Breeding	\$0.21	\$0.19	\$	
Veterinary & medicine	0.32	0.40		
Milk marketing	0.75	0.95		
Bedding	0.08	0.12		
Milking supplies	0.32	0.37		
Cattle lease	0.00	0.01		
Custom boarding	0.01	0.03		
Other livestock expense	0.33	0.29		

Capital and Labor Efficiency Analysis

Capital efficiency factors measure how intensively the capital is being used in the farm business. The asset turnover ratio is the ratio of total farm income to total farm assets. It is calculated by dividing total accrual operating receipts plus appreciation by average total farm assets. 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, 1995

Item	Per Worker			Per Cow		Per Tillable Acre	
Hem		WOIKCI			COW	Auc	
31 Dairy Farm Renters:							
Farm capital	\$	111,665		\$	3,463	\$ 1,266	
Machinery & equipment		33,683			1,044	382	
Asset turnover ratio			0.77				
138 Dairy Farm Owners:							
Farm capital	\$	222,708		\$	6,966	\$ 2,451	
Machinery & equipment		39,702			1,242	437	
Asset turnover ratio			0.42				
My Farm:							
Farm capital	\$.			\$_		\$	
Machinery & equipment				_			
Asset turnover ratio							

LABOR FORCE ANALYSIS
Eastern New York Dairy Farm Renters and Owners, 1995

31 R	enters	138 O	wners	My	Farm
	Per	·	Per	 -	Per
Total	Worker	<u>Total</u>	Worker	<u>To</u> tal	Worker
88	32	115	32		
1,542,276	564,552	2,241,833	621,084		
241	88	328	91		
909	333	1,203	333		
31 R	enters	138 O	wners	My	
<u> </u>	Per		Per		Per
Total	Cow	Total	Cow	Total	Cow
\$ 27.710	\$ 315	\$ 28,565	\$ 248	s	\$
	67		35		*
•	139	-	295		
	\$ 520		\$ 578	\$	\$
•	\$ 381	\$ 50,004	\$ 433	\$	\$
\$ 79,380	\$ 901	\$ 116,661	\$ 1,011	\$	\$
	Total 88 1,542,276 241 909 31 R Total \$ 27,710 5,873 12,253 \$ 45,835 \$ 33,545	Total Worker 88 32 1,542,276 564,552 241 88 909 333 Per Total Cow \$ 27,710 \$ 315 5,873 67 12,253 139 \$ 45,835 \$ 520 \$ 33,545 \$ 381	Per Total Total Worker Total 88 32 115 1,542,276 564,552 2,241,833 241 88 328 909 333 1,203 Per Total Total Cow Total \$ 27,710 \$ 315 \$ 28,565 5,873 67 4,046 12,253 139 34,046 \$ 45,835 \$ 520 \$ 66,657 \$ 33,545 \$ 381 \$ 50,004	Total Per Worker Total Per Worker 88 32 115 32 1,542,276 564,552 2,241,833 621,084 241 88 328 91 909 333 1,203 333 Per Total Per Cow Total Cow Total Cow \$ 27,710 \$ 315 \$ 28,565 \$ 248 5,873 67 4,046 35 12,253 139 34,046 295 \$ 45,835 \$ 520 \$ 66,657 \$ 578 \$ 33,545 \$ 381 \$ 50,004 \$ 433	Total Per Worker Total Per Worker Total 88 32 115 32

^{*\$1,450} per month.

COMPARATIVE ANALYSIS OF THE FARM BUSINESS

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 24 Eastern New York Dairy Farm Renters, 1994 & 1995

	Aver	age		My Fa	rm		
Selected Factors	1994	1995	1994	1995	<u> </u>	Goal	_
Size of Business							
Average number of cows	68	72					
Average number of heifers	51	51			_		
Milk sold, lbs.	1,225,173	1,285,749	<u>—</u> —		_		
Worker equivalent	2.26	2.48			_		
Total tillable acres	181	200			_		
Rates of Production							
Milk sold per cow, lbs.	18,151	17,868					
Hay DM per acre, tons	2.8	2.3					
Corn silage per acre, tons	15	13					
Labor Efficiency							
Cows per worker	30	29			_		
Milk sold per worker, lbs.	541,752	518,719			_		
Cost Control							
Grain & concentrate purchased							
as % of milk sales	29%	28%		%	_ %		
Dairy feed & crop expense							
per cwt. milk	\$4.96	\$4.52	\$	\$	\$		
Labor & machinery costs/cow	\$1,017	\$992	\$	\$ \$	\$		
Operating cost of producing							
cwt. milk	\$10.23	\$10.20	\$	\$	\$		
Capital Efficiency*							
Farm capital per cow	\$3,864	\$3,735	\$	\$	\$		
Machinery & equipment per cow	\$1,141	\$1,149	\$	\$ \$	\$		
Asset turnover ratio	0.76	0.71			_		
<u>Profitability</u>							
Net farm income without apprec.	\$31,432	\$27,100	\$	\$	\$		
Net farm income with apprec.	\$34,588	\$28,627	\$	\$	_ \$		
Labor & management income							
per operator/manager	\$10,690	\$6,777	\$	\$	_ \$		
Rate of return on equity							
capital with appreciation	0.8%	-3.1%		%	%		
Rate of return on all capital				-	=		
with appreciation	2.6%	0.2%		%	_ %		
Financial Summary							
Farm net worth	\$193,265	\$191,008	\$	\$	_ \$		
Debt to asset ratio	0.29	0.31					
Farm debt per cow	\$1,126	\$1,141	\$	\$	\$		

^{*}Average for the year.

Regional Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing your business. Compare your business by drawing a line through or near the figure in each column which represents your current level of performance. The 5 figures in each column represent the average of each 20 percent or quintile of farms included in the regional summary.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS 31 Eastern New York Dairy Farm Renters, 1995

	Size of Bus	siness	R	ates of Production	on	Labor	Efficiency
Worker Equiv- alent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(10)	(10)	(10)	(9)	(9)	(11)	(11)
4.9	187	3,240,398	21,877	3.9	18	48	853,684
2.7	77	1,445,775	19,163	2.6	15	34	605,858
2.3	63	1,169,597	18,195	2.2	12	29	510,617
2.0	55	948,743	16,389	2.0	10	25	446,451
1.4	42	623,846	12,408	1.4	7	20	316,134

Cost Control

Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
\$364	19%	\$199	\$642	\$442	\$2.92
547	24	280	796	697	4.24
647	28	386	928	869	4.69
757	31	438	1,096	975	5.14
849	34	535	1,333	1,066	5.83

Va	lue and Cost of Produ	action	Profitability				
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income w/Apprec.	Net Farm Income w/o Apprec.	Labor & Mgmt. Income Per Oper.		
(10)	(10)	(10)	(3)	(3)	(3)		
\$2,881	\$8.00	\$12.30	\$92,878	\$84,524	\$40,996		
2,523	9.55	13.46	35,453	36,747	16,334		
2,411	10.23	13.96	28,300	25,473	7,975		
2,188	10.81	15.11	16,527	15,244	1,158		
1,622	12.40	17.05	-4,396	-380	-7,102		

^{*}Page number of the participant's DFBS where the factor is located.

Regional Financial Analysis Chart

The farm financial analysis chart is designed just like the Farm Business Chart and may be used to assess the financial health of the farm business. Most of the financial measures used in the chart are defined on pages 7, 8, 11, and 15 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART
31 Eastern New York Dairy Farm Renters, 1995

Liquidity (repayment)

Planned Debt Payments Per Cow	Available for Debt Service Per Cow	Cash Flow Coverage Ratio	Debt Payments as Percent of Milk Sales	Debt Per Cow
(8)*	(12)	(8)	(8)	(5)
\$ 0	\$474	3.51	0.0%	\$15
75	355	1.13	0.3	481
216	283	0.76	5.0	1,156
342	160	0.28	13.2	1,530
509	37	-0.01	21.8	2,430

Solvency Leverage Percent		Debt/Asset Ratio Current &	Profitability Percent Rate of Return with appreciation on:		
Ratio**	Equity	Intermediate	Equity	Investment***	
	(5)	(5)	(3)	(3)	
0.00	99%	0.00	17%	12%	
0.18	82	0.11	2	3	
0.55	61	0.27	-2	1	
1.03	48	0.46	-14	-5	
3.12	28	0.65	-71	-17	

Efficiency (Capital)				
Asset	Machinery	Total Farm	Change in Net Worth	
Turnover	Investment	Assets		
Ratio	Per Cow	Per Cow	w/Appreciation	
(11)	(11)	(11)	(6)	
1.01	\$256	\$4 ,917	\$60,428	
0.86	785	3,944	14,718	
0.73	1,133	3,310	7,446	
0.65	1,521	2,871	-874	
0.54	1,863	2,357	-21,950	

^{*}Page number of the participant's DFBS where the factor is located.

^{**}Dollars of debt per dollar of equity, computed by dividing total liabilities by total equity.

^{***}Return on all farm capital (no deduction for interest paid) divided by total farm assets.

IDENTIFY AND SET GOALS

If businesses are to be successful, they must have direction. Written goals help provide businesses with an identifiable direction over both the long and the short term. Goal setting is as important on a dairy farm as it is in other businesses. Written goals are a tool which farm operators can use to ensure that the business continues to move in the proper direction. Goals should be SMART:

- 1. Goals should be **Specific**.
- 2. Goals should be Measurable.
- 3. Goals should be Achievable but challenging.
- 4. Goals should be Rewarding.
- 5. You should designate a <u>Time</u> when each goal will be achieved.

Goal setting on a dairy farm does not have to be a complex process. In many cases it provides a process for writing down and agreeing on goals that you have already given some thought to. It is also important to remember that once you write out your goals they are not cast in concrete. If a change takes place which has a major impact on the farm business, the goals should be reworked to accommodate that change. Refer to your goals as often as necessary to keep the farm business progressing.

It is important to identify both objectives (long-range) and goals (short-range) when looking at the future of your farm business.

A suggested format for writing out your goals is as follows:

- a. Begin with a mission statement which describes why the business exists based on the preferences and values of the owners.
- b. Identify 4-6 objectives.
- c. Identify SMART goals.

Worksheet for Setting Goals

. Mission a	nd Objectives						
			_			 	
					_		
					_		·
				_			
		_				 	

Worksheet for Setting Goals (continued)

Lina	ıc

What	How	When	Who is Responsible
		<u> </u>	
			
Summarize Your Business l	Performance		
The Farm Business	and Financial Analysis Charts	on pages 23 and 24 can be used trengths and three areas of your	
Strengths:		Need Improvements:	
			

GLOSSARY AND LOCATION OF COMMON TERMS

<u>Accounts Payable</u> - Open accounts or bills owed to feed and supply firms, cattle dealers, veterinarians and other providers of farm services and supplies.

<u>Accounts Receivable</u> - Outstanding receipts from items sold or sales proceeds not yet received such as the payment for December milk sales received in January.

Accrual Expenses - (defined on page 5)

Accrual Receipts - (defined on page 6)

Annual Cash Flow Statement - (defined on page 13)

Appreciation - (defined on page 7)

Asset Turnover Ratio - (defined on page 21)

<u>Balance Sheet</u> - A "snapshot" of the business financial position at a given point in time, usually December 31. The balance sheet equates the value of assets to liabilities plus net worth.

bST Usage - An estimate of percentage of herd that was injected with bovine somatotropin during 1995.

<u>Capital Efficiency</u> - The amount of capital invested per production unit. Relatively high investments per worker with low to moderate investments per cow imply efficient use of capital.

<u>Cash From Nonfarm Capital Used in the Business</u> - Transfers of money from nonfarm savings or investments to the farm business where it is used to pay operating expenses, make debt payments and/or capital purchases.

Cash Flow Coverage Ratio - (defined on page 15)

Cash Paid - (defined on page 4)

<u>Cash Receipts</u> - (defined on page 6)

Change in Accounts Payable - (defined on page 5)

Change in Accounts Receivable - (defined on page 6)

Change in Inventory - (defined on page 4)

<u>Current Portion</u> - Principal due in the next year for intermediate and long term debt.

<u>Dairy (farm)</u> - A farm business where dairy farming is the primary enterprise, operating and managing this farm is a full-time occupation for one or more people and cropland is owned.

<u>Dairy Cash-Crop (farm)</u> - Operating and managing this farm is the full-time occupation of one or more people, cropland is owned but crop sales exceed 10 percent of accrual milk receipts.

<u>Debt Per Cow</u> - Total end-of-year debt divided by end-of-year number of cows.

Debt to Asset Ratios - (defined on page 11)

<u>Dry Matter</u> - The amount or proportion of dry material that remains after all water is removed. Commonly used to measure dry matter percent and tons of dry matter in feed.

Equity Capital - The farm operator/manager's owned capital or farm net worth.

- **Expansion Livestock** Purchased dairy cattle and other livestock that cause an increase in herd size from the beginning to the end of the year.
- <u>Farm Debt Payments as Percent of Milk Sales</u> Amount of milk income committed to debt repayment, calculated by dividing planned debt payments by total milk receipts. A reliable measure of repayment ability, see page 15.
- <u>Farm Debt Payments Per Cow</u> Planned or scheduled debt payments per cow represent the repayment plan scheduled at the beginning of the year divided by the average number of cows for the year. This measure of repayment ability is used in the Financial Analysis Chart.
- <u>Financial Lease</u> A long-term non-cancelable contract giving the lessee use of an asset in exchange for a series of lease payments. The term of a financial lease usually covers a major portion of the economic life of the asset. The lease is a substitute for purchase. The lessor retains ownership of the asset.
- <u>Income Statement</u> A complete and accurate account of farm business receipts and expenses used to measure profitability over a period of time such as one year or one month.

Labor and Management Income - (defined on page 8)

<u>Labor and Management Income Per Operator</u> - The return to the owner/manager's labor and management per full-time operator.

Labor Efficiency - Production capacity and output per worker.

Liquidity - Ability of business to generate cash to make debt payments or to convert assets to cash.

Net Farm Income - (defined on page 7)

Net Worth - The value of assets less liabilities equal net worth. It is the equity the owner has in owned assets.

Operating Costs of Producing Milk - (defined on page 20)

- <u>Opportunity Cost</u> The cost or charge made for using a resource based on its value in its most likely alternative use.

 The opportunity cost of a farmer's labor and management is the value he/she would receive if employed in his/her most qualified alternative position.
- Other Livestock Expenses All other dairy herd and livestock expenses not included in more specific categories. Other livestock expenses include; bedding, DHIC, milk house and parlor supplies, livestock board, registration fees and transfers.
- <u>Part-Time Cash-Crop Dairy (farm)</u> Operating and managing this farm is not a full-time occupation, crop sales exceed 10 percent of accrual milk receipts and cropland is owned.
- <u>Part-Time Dairy (farm)</u> Dairy farming is the primary enterprise, cropland is owned but operating and managing this farm is not a full-time occupation for one or more people.
- <u>Personal Withdrawals and Family Expenditures Including Nonfarm Debt Payments</u> All the money removed from the farm business for personal or nonfarm use including family living expenses, health and life insurance, income taxes, nonfarm debt payments, and investments.
- <u>Profitability</u> The return or net income the owner/manager receives for using one or more of his or her resources in the farm business. True "economic profit" is what remains after deducting all costs including the opportunity costs of the owner/manager's labor, management, and equity capital.

Purchased Inputs Cost of Producing Milk - (defined on page 20)

Repayment Analysis - An evaluation of the business' ability to make planned debt payments.

<u>Replacement Livestock</u> - Dairy cattle and other livestock purchased to replace those that were culled or sold from the herd during the year.

Return on Equity Capital - (defined on page 8)

Return on Total Capital - (defined on page 8)

Return to Operators' Labor, Management, and Equity Capital - (defined on page 7)

<u>Rotational Grazing</u> - The dairy herd is on pasture at least three months of the year, changing paddock at least every three days.

<u>Solvency</u> - The extent or ability of assets to cover or pay liabilities. Debt/asset and leverage ratios are common measures of solvency.

Total Costs of Producing Milk - (defined on page 20)

Whole Farm Method - A procedure used to calculate costs of producing milk on dairy farms without using enterprise cost accounts. All non-milk receipts are assigned a cost equal to their sale value and deducted from total farm expenses to determine the costs of producing milk.

INDEX

Page(s)	Page(s)
Accounts Payable4,9	Financial Analysis Chart24
Accounts Receivable6,9	Financial Lease9
Accrual Expenses4,7	Income Statement4
Accrual Receipts6,7	Inflows
Acreage 3,17	Labor and Management Income8
Advanced Government Receipts	Labor and Management
Amount Available for Debt Service	Income Per Operator8
Annual Cash Flow Statement	Labor Efficiency21
Appreciation	Land Resources
Asset Turnover Ratio	Liquidity11
Balance Sheet9	Machinery Expenses4,18
Barn Type 3	Milk Production
bST Usage 3	Milking System3
Business Type 3	Money Borrowed13
Capital Efficiency21	Net Farm Income7
Cash From Nonfarm Capital Used in	Net Investment11
the Business 13	Net Worth9
Cash Flow Coverage Ratio	Number of Cows
Cash Paid4	Operating Cost of Producing Milk20
Cash Receipts 6,13	Opportunity Cost8
Change in Accounts Payable4	Other Livestock Expenses4
Change in Accounts Receivable6	Outflows
Change in Inventory4,6	Personal Withdrawals and Family Expenditures
Change in Net Worth 12	Including Nonfarm Debt Payments
Crop Expenses 4,18	Principal Payments13
Crop/Dairy Ratios 17	Profitability7
Current Portion9	Purchased Inputs Cost of Producing Milk20
Dairy (farm) 1	Receipts6
Debt Per Cow11	Record System3
Debt to Asset Ratios11	Repayment Analysis
Depreciation 4,11	Replacement Livestock4
Dry Matter 17	Return on Equity Capital8
Equity Capital9	Return on Total Capital8
Expansion Livestock	Rotational Grazing18
Expenses4	Solvency11
Farm Business Chart	Total Costs of Producing Milk20
Farm Debt Payments as Percent of	Whole Farm Method20
Milk Sales	Worker Equivalent3
Farm Deht Payments Per Cow 15	Yields Per Acre 17

CTHER A.R.H.R. EXTENSION BULLETINS

No. 96-10	Dairy Farm Business Summary	Stuart F. Smith
	Northern New York Region 1995	Linda D. Putnam Patricia Beyer
		Anita Deming Trent Teegerstrom
		George Yarnall
No. 96-11	Dairy Farm Business Summary Central Valleys Region 1995	Eddy L. LaDue Stuart F. Smith
		Karen Livingston James A. Hilson
		A.Edward Staehr Thomas Weeks
		Jacqueline M. Hilts Charles Z. Radick
		Linda D. Putnam
No. 96-12	Dairy Farm Business Summary Southeastern New York Region 1995	Robert A. Milligan Linda D. Putnam
		Colleen A. McKeon Stephen E. Hadcock
		Larry R. Hulle Paul Cerosaletti
		Mariane Kiraly
No. 96-13	Bibliography of Horticultural Product Marketing and Related Topic Papers Third Edition	Enrique E. Figueroa
No. 96-14	Trade Liberalization and the U.S. and Canadian Dairy Industries	Maurice A. Doyon Andrew M. Novakovic
No. 96-15	A Comparative Assessment of the Milk Hauling Sector in the US and Argentina	Edith Depetris de Guiguet James Edward Pratt