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DAIRY FARM BUSINESS SUMMARY

OCTOBER 2012 *E.B. 2012-13*

NEW YORK DAIRY FARM RENTERS 2011

You can't manage what you can't measure but if you measure it you can improve it!

Wayne A. Knoblauch
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2011 DAIRY FARM BUSINESS SUMMARY
NEW YORK DAIRY FARM RENTERS

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2011 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 three regional summaries and in one statewide summary.*

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. Three measures of farm profits are calculated on pages 6 and 7. The balance sheet, statement of owner equity, and cash flow statement are featured on pages 8-15. The dairy program analysis includes data on the costs of producing milk (pages 18 and 19).

This New York Dairy Farm Renter Business Summary is an average of 13 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 for 81 owned dairy farms in New York that are similar in size and location to the farms that rent. This report is prepared in workbook form for farm renters to use in the systematic study of their farm business operations.

Business records for 13 farms in Chautauqua, Delaware, Essex, Jefferson, Schenectady, Schoharie and Washington Counties are summarized in this publication. The 81 owned dairy farms summarized in this publication include farms from these and neighboring counties that are similar in size to the renters.

Use Comparative Profitability Data With Caution

The profitability analysis on page 7 implies that renting a dairy farm provides a greater return to the operator's labor and management than does owning the farm. Concessionary rental rates set by some land owners is a factor. The farm owners are often father and mother or other landlords who are willing to accept a very low return for their investment. Total real estate costs including land, building and fence repair; taxes; real estate rent and lease; depreciation; and interest on real estate investment averaged $219 per tillable acre on the owned dairy farms compared to $252 per tillable acre on the rented farms. On a per cow basis, these real estate costs averaged $530 per cow on the owned dairy farms compared to $342 on the rented farms. This accounts for a $36,423 difference in real estate costs between owned and rented farms. With this difference in cost structure, the renters averaged higher labor and management incomes per operator. A major factor is the lower interest on equity capital for renters versus farm owners. Opportunity cost of equity for renters was about 38 percent of that for the owners.

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*Wayne A. Knoblauch, Linda D. Putnam, Jason Karszes, and Cathryn Dymond, Dairy Farm Management Business Summary, New York State, 2011, Research Bulletin, forthcoming.

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
13 New York Dairy Farm Renters, 2011

Type of Business	Number
Single proprietorship	10
Partnership	0
Limited liability corporation	3
Subchapter S or C corporation	0

Milking System	Number
Dumping station	1
Pipeline	6
Herringbone parlor	2
Other parlor	4

Type of Barn	Number
Stanchion	7
Freestall	6
Combination	0

Dairy Records Service	Number
Testing service	8
On-farm system	0
Other	1
None	4

Business Record System	Number
Account book	3
Accounting service	0
On-farm computer	10
Other	0

Milking Frequency	Number
2 times a day	9
3 times a day	4
Other	0

Breed of Herd	My Farm	Percent
Holstein	_____	86
Jersey	_____	4
Other	_____	10

Labor Force*	My Farm	Average
Operator 1	____mo.	12.6
Operator 2	____mo.	6.6
Family paid	____mo.	1.6
Family unpaid	____mo.	3.9
Hired	____mo.	40.5
Total	____mo.	65.2
Worker equivalent (total ÷ 12)	_____	5.43
Operator/Manager Equivalent	_____	1.50

Land Use	My Farm	Average
Total acres rented	_____	338
Tillable acres rented	_____	314

Number of Cows	My Farm	Average
Beg. year (owned)	_____	227
End year (owned & leased)	_____	235
Average for year (owned & leased)	_____	231

*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 13 rented farms include the single proprietorship, pipeline milking system, stanchion barn, two time a day milking, herd records with a testing service, and an on-farm computer record system. Seventy-seven percent of the renters were using on-farm computers for recordkeeping compared to 64 percent of the owners.

The average size of the labor force on the rented farms was similar to the 5.76 worker equivalent on owned farms. The rented farms averaged 314 tillable acres compared to 526 tillable acres on the 81 owned dairy farms. The owned farms averaged 38 cows per worker, and the rented farms averaged 43 cows per worker. In 2011, the rented farms used labor resources more efficiently than the owned farms when comparing pounds of milk sold per worker.

Income Statement

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

CASH AND ACCRUAL FARM EXPENSES
13 New York Dairy Farm Renters, 2011

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Exp.	+	Change in Accounts Payable	=	Accrual Expenses	Percent of Total
Hired Labor	$ 110,288		$ 0	<<*	$ -471		$ 109,817	11
Feed								
Dairy grain & concentrate	382,847		6,968		-16,690		359,189	35
Dairy roughage	138,325		17,437		-2,192		118,697	12
Nondairy feed	0		0		0		0	0
Professional nutritional services	0		0	<<	0		0	0
Machinery								
Machinery, hire, rent & lease	17,553		0	<<	-192		17,361	2
Mach. repair & farm vehicle exp.	35,947		0		-758		35,189	3
Fuel, oil & grease	36,907		77		-877		35,953	4
Livestock								
Replacement livestock	6,432		0	<<	0		6,432	1
Breeding	8,885		-5		0		8,891	1
Veterinary & medicine	28,201		338		-548		27,315	3
Milk marketing	42,389		0	<<	22		42,411	4
Bedding	16,230		0		-385		15,846	2
Milking supplies	27,886		2,868		-16		25,002	2
Cattle lease & rent	633		0	<<	0		633	<1
Custom boarding	3,697		0	<<	0		3,697	<1
bST expense	12,710		577		0		12,133	1
Livestock professional fees	3,837		887	<<	0		2,950	<1
Other livestock expense	4,956		0		-490		4,466	<1
Crops								
Fertilizer & lime	21,306		1,109		308		20,504	2
Seeds & plants	9,560		909		-3		8,648	1
Spray, other crop expense	2,486		-246		0		2,732	<1
Crop professional fees	458		0	<<	0		458	<1
Real Estate								
Land, building & fence repair	18,504		0		0		18,504	2
Taxes	2,955		0	<<	0		2,955	<1
Rent & lease	38,613		0	<<	0		38,613	4
Other								
Insurance	10,011		0	<<	0		10,011	1
Utilities (farm share)	29,207		0	<<	-385		28,822	3
Interest paid	36,391		0	<<	0		36,391	4
Other professional fees	7,224		0	<<	0		7,224	1
Miscellaneous	13,429		0		0		13,429	1
Total Operating	$1,067,875		$ 30,920		$ -22,677		$1,014,279	100
Expansion livestock	$ 2,829		$ 0	<<	$ 0		$ 2,829	
Extraordinary expense	$ 0		0	<<	0		0	
Machinery depreciation							45,211	
Building depreciation							9,174	
TOTAL ACCRUAL EXPENSES							$1,071,493	

*A change in prepaid expense is noted by <<.

Cash paid is the actual amount of money paid out during the year and does not necessarily represent the cost of goods and services actually used.
Change in inventory: An increase in inventory is subtracted in computing accrual expenses because it represents purchased inputs not actually used during the year. A decrease in inventory is added to expenses because it represents the cost of inputs purchased in a prior year and used this year.
Changes in prepaid expenses apply to non-inventory categories (noted by << in the tables). Include any expenses that have been paid for in advance of their use, for example, 2012 rent paid in 2011. A positive change is the amount the prepayment account increased from beginning to end year, a negative change indicates a decline in the account.

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

Accrual expenses are the costs of inputs actually used in this year's production.

Worksheets are provided to enable any dairy farmer to compute his or her accrual farm expenses and compare them with the averages on the previous page.

CASH AND ACCRUAL FARM EXPENSES WORKSHEET

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Exp.	+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$ _____		$ _____	<<*	$ _____		$ _____
Feed							
Dairy grain & concentrate	_____		_____		_____		_____
Dairy roughage	_____		_____		_____		_____
Nondairy feed	_____		_____		_____		_____
Professional nutritional services	_____		_____	<<	_____		_____
Machinery							
Machinery, hire, rent & lease	_____		_____	<<	_____		_____
Mach. repair & farm vehicle exp.	_____		_____		_____		_____
Fuel, oil & grease	_____		_____		_____		_____
Livestock							
Replacement livestock	_____		_____	<<	_____		_____
Breeding	_____		_____		_____		_____
Veterinary & medicine	_____		_____		_____		_____
Milk marketing	_____		_____	<<	_____		_____
Bedding	_____		_____		_____		_____
Milking supplies	_____		_____		_____		_____
Cattle lease & rent	_____		_____	<<	_____		_____
Custom boarding	_____		_____	<<	_____		_____
bST expense	_____		_____		_____		_____
Livestock professional fees	_____		_____	<<	_____		_____
Other livestock expense	_____		_____		_____		_____
Crops							
Fertilizer & lime	_____		_____		_____		_____
Seeds & plants	_____		_____		_____		_____
Spray, other crop expense	_____		_____		_____		_____
Crop professional fees	_____		_____	<<	_____		_____
Real Estate							
Land, building & fence repair	_____		_____		_____		_____
Taxes	_____		_____	<<	_____		_____
Rent & lease	_____		_____	<<	_____		_____
Other							
Insurance	_____		_____	<<	_____		_____
Utilities (farm share)	_____		_____	<<	_____		_____
Interest paid	_____		_____	<<	_____		_____
Other professional fees	_____		_____	<<	_____		_____
Miscellaneous	_____		_____		_____		_____
Total Operating	$ _____		$ _____		$ _____		$ _____
Expansion livestock	$ _____		$ _____	<<	$ _____		$ _____
Extraordinary expense	$ _____		$ _____	<<	$ _____		$ _____
Machinery depreciation							_____
Building depreciation							_____
TOTAL ACCRUAL EXPENSES							$ _____

*A change in prepaid expense is noted by <<.

CASH AND ACCRUAL FARM RECEIPTS
13 New York Dairy Farm Renters, 2011

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk Sales	$1,188,585				$ 6,494		$1,195,079
Dairy cattle	51,275		$ 23,582		0		74,857
Dairy calves	5,355		77		0		5,431
Other livestock	1,173		369		0		1,542
Crops	6,999		31,851		0		38,850
Government receipts	5,244		0*		0		5,244
Custom machine work	2,969				1,931		4,900
Gas tax refund	0				0		0
Other	15,102				0		15,102
- Nonfarm noncash capital**	_____		(-) 0		_____		(-) 0
Total Accrual Receipts	$1,276,701		$ 55,879		$ 8,425		$1,341,005

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

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

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

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

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

CASH AND ACCRUAL FARM RECEIPT WORKSHEET

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

*Change in advanced government 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
New York Dairy Farm Renters and Owners, 2011

Item	13 Dairy Farm Renters	81 Dairy Farm Owners	My Farm
Total accrual receipts	$1,341,005	$1,246,426	$ _____
+ Appreciation: Livestock	0	2,157	_____
Machinery	22,296	11,536	_____
Real Estate	1,586	31,980	_____
Other Stock & Certificates	4,050	-2,180	_____
= Total Including Appreciation	$1,368,936	$1,289,919	$ _____
- Total accrual expenses	1,071,493	1,013,619	_____
= Net Farm Income (with appreciation)	$ 297,443	$ 276,300	$ _____
Per cow	$ 1,285	$ 1,267	$ _____
Net Farm Income (without appreciation)	$ 269,511	$ 232,806	$ _____
Per cow	$ 1,164	$ 1,068	$ _____

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 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
New York Dairy Farm Renters and Owners, 2011

Item	13 Dairy Farm Renters	81 Dairy Farm Owners	My Farm
Net farm income without appreciation	$ 269,511	$ 232,806	$ _____
- Family labor unpaid @ $2,550 per month	- 9,886	- 8,462	- _____
- Interest on average equity capital @ 5% real rate	- 27,417	- 73,085	- _____
= Labor & Management Income	$ 232,208	$ 151,259	$ _____
Labor & Management Income per Operator/Manager	$ 154,805	$ 93,370	$ _____

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. Net farm income from operations ratio is net farm income (without appreciation) divided by total accrual receipts.

RETURN TO EQUITY CAPITAL AND RETURN TO ALL CAPITAL
New York Dairy Farm Renters and Owners, 2011

Item	13 Dairy Farm Renters	81 Dairy Farm Owners	My Farm
Net farm income with appreciation	$ 297,443	$ 276,300	$ _____
- Family labor unpaid @ $2,550 per month	$ 9,886	$ 8,462	$ _____
- Value of operators' labor & management	57,600	67,520	_____
= Return to equity capital with appreciation	$ 229,957	$ 200,317	$ _____
+ Interest paid	36,391	29,635	_____
= Return to all capital with appreciation	$ 266,348	$ 229,952	$ _____
Return to equity capital without appreciation	$ 202,025	$ 156,824	$ _____
Return to all capital without appreciation	$ 238,416	$ 186,459	$ _____
Rate of return on average equity capital:			
with appreciation	45.1%	13.7%	_____ %
without appreciation	39.7%	10.7%	_____ %
Rate of return on all capital:			
with appreciation	23.8%	10.7%	_____ %
without appreciation	21.3%	8.7%	_____ %
Net farm income from operations ratio	0.20	0.19	_____

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.

2011 FARM BUSINESS & NONFARM BALANCE SHEET
13 New York Dairy Farm Renters

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking			Accounts payable	$ 72,189	$ 49,512
& savings	$ 7,073	$ 10,864	Operating debt	40,581	29,977
Accounts receivable	45,715	54,140	Short term	13,083	12,473
Prepaid expenses	0	887	Advanced gov't. receipt	0	0
Feed & supplies	64,427	126,311	Current portion:		
Total Current	$ 117,215	$ 192,202	Intermediate	67,515	68,489
			Long term	19,889	21,398
			Total Current	$ 213,257	$ 181,849
Intermediate			Intermediate		
Dairy Cows:			Structured debt		
owned	$ 344,377	$ 348,785	1-10 years	$ 250,870	$ 285,703
leased	1	0	Financial lease		
Heifers	189,427	208,677	(cattle & machinery)	993	4,462
Bulls & other livestock	285	654	Farm Credit stock	177	177
Mach. & equip. owned	196,035	228,349	Total Intermediate	$ 252,040	$ 290,342
Mach. & equip. leased	992	4,462			
Farm Credit stock	177	177	Long Term		
Other stock & certificates	6,225	10,999	Structured debt		
Total Intermediate	$ 737,518	$ 802,102	$\geq$ 10 years	$ 195,903	$ 88,041
Long Term			Financial lease		
Land & buildings:			(structures)	1,301	748
owned	$ 194,875	$ 196,542	Total Long Term	$ 197,204	$ 88,789
leased	1,301	748			
Total Long Term	$ 196,176	$ 197,290	Total Farm Liabilities	$ 662,502	$ 560,981
Total Farm Assets	$ 1,050,909	$ 1,191,594	FARM NET WORTH	$ 388,407	$ 630,614

(Average for 3 farms reporting) Nonfarm Assets*	Jan.1	Dec. 31	Nonfarm Liabilities* & Net Worth	Jan. 1	Dec. 31
Personal cash, checking			Nonfarm Liabilities	$ 29,100	$ 27,333
& savings	$ 1,983	$ 6,216	NONFARM NET WORTH	$ 53,216	$ 59,216
Cash value life ins.	0	0			
Nonfarm real estate	68,333	68,333	FARM & NONFARM*	Jan. 1	Dec. 21
Auto (personal share)	0	0	Total Assets	$ 1,133,225	$1,278,143
Stocks & bonds	0	0	Total Liabilities	691,602	588,314
Household furn.	0	0			
All other	12,000	12,000	TOTAL FARM & NON-		
Total Nonfarm	$ 82,316	$ 86,549	FARM NET WORTH	$ 441,623	$689,829

*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 2011 that are for participation in the 2012 program are the end year balance and payments received in 2010 for participation in the 2011 program are the beginning year balance.

Date _____

2011 FARM BUSINESS & NONFARM BALANCE SHEET

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking			Accounts payable	_____	_____
& savings	_____	_____	Operating debt	_____	_____
			_____	_____	_____
Accounts receivable	_____	_____	Short term		
			_____	_____	_____
Prepaid expenses	_____	_____	Advanced gov't. receipt	_____	_____
Feed & supplies	_____	_____	Current portion:		
Total Current	_____	_____	Intermediate	_____	_____
			Long term	_____	_____
			Total Current	_____	_____
Intermediate			Intermediate		
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	_____	_____	_____	_____	_____
Long Term			Financial lease		
Land & buildings:			(structures)	_____	_____
owned	_____	_____	Total Long Term	_____	_____
leased	_____	_____			
Total Long Term	_____	_____	Total Farm Liabilities	_____	_____
Total Farm Assets	_____	_____	FARM NET WORTH	_____	_____

Nonfarm Assets	Jan.1	Dec. 31	Nonfarm Liabilities & Net Worth	Jan. 1	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 & NONFARM	Jan. 1	Dec. 31
Total Farm and Nonfarm Assets	_____	_____
Less Total Farm & Nonfarm Liabilities	_____	_____
Farm & Nonfarm Net Worth	_____	_____

Balance sheet analysis involves examination of relative asset and debt levels for the business. 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 business solvency and the potential capacity to borrow. The leverage ratio is the dollars of debt per dollar of equity, computed by dividing total farm liabilities by farm net worth. Debt levels per productive unit represent old standards that are still useful if used with measures of cash flow and repayment ability. A current ratio of less than 1.5 or that has been falling warrants additional evaluation. The amount of working capital that is adequate must be related to the size of the farm business.

BALANCE SHEET ANALYSIS
New York Dairy Farm Renters and Owners, 2011

Item			13 Dairy Farm Renters	81 Dairy Farm Owners	My Farm
Financial Ratios - Farm:					
Percent equity			53%	69%	_____ %
Debt/asset ratio:	total		0.47	0.31	_____
	long term		0.45	0.30	_____
	intermediate & current		0.47	0.31	_____
Leverage ratio			0.89	0.44	_____
Current ratio			1.06	2.21	_____
Working capital	$10,353	as % of total expenses	1%	($192,496) 19%	_____ ___%
Farm Debt Analysis:					
Accounts payable as % of total debt			9%	4%	_____ %
Long term liabilities as a % of total debt			16%	41%	_____ %
Current & intermediate liabilities as a % of total debt			84%	59%	_____ %
Cost of term debt (weighted average)			4.7%	4.4%	_____ %
Farm Debt Levels Per Cow:					
Total farm debt			$ 2,392	$ 3,127	$ _____
Long term debt			$ 379	$ 1,286	$ _____
Intermediate & long term debt			$ 1,616	$ 2,409	$ _____
Intermediate & current debt			$ 2,013	$ 1,841	$ _____

Farm inventory balance is an accounting of the value of machinery and equipment used on the balance sheet and the changes that occur from the beginning to end of year. Changes in the livestock inventory are included in the dairy analysis. Net investment indicates whether the capital stock is being expanded (positive) or depleted (negative).

FARM MACHINERY AND EQUIPMENT INVENTORY BALANCE
New York Dairy Farm Renters and Owners, 2011

Item	13 Dairy Farm Renters		81 Dairy Farm Owners		My Farm	
Value beginning of year		$196,035		$ 385,471		$ _____
Purchases	$ 56,940		$ 77,452		$ _____	
+ Nonfarm noncash transfer	0		120		_____	
- Net Sales	1,712		2,502		_____	
- Depreciation	45,211		43,458		_____	
= Net investment		10,018		31,612		_____
+ Appreciation		22,296		11,536		_____
= Value end of year		$ 228,349		$ 428,619		$ _____

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)
13 New York Dairy Farm Renters, 2011

Item	Average		My Farm	
Beginning of year farm net worth		$ 388,407		$ _____
Net farm income without appreciation	$ 269,511		$_____	
+ Nonfarm cash income	+ 5,464		+ _____	
- Personal withdrawals & family expenditures excluding nonfarm borrowings	- 55,593		- _____	
RETAINED EARNINGS		+ $ 219,382		+ $ _____
Nonfarm noncash transfers to farm	$ 0		$_____	
+ Cash used in business from nonfarm capital	+ 6,726		+ _____	
- Note/mortgage from farm real estate sold (nonfarm)	- 0		- _____	
CONTRIBUTED/WITHDRAWN CAPITAL		+ $ 6,726		+ $ _____
Appreciation	$ 27,932		$_____	
- Lost capital	- 21,019		- _____	
CHANGE IN VALUATION EQUITY		+ $ 6,912		+ $ _____
IMBALANCE/ERROR		- $ -9,186		- $ _____
End of year farm net worth*		= $630,614		= $ _____
Change in net worth with appreciation.		$242,206		$ _____

Change in Net Worth		
Without appreciation	$ 214,274	$ _____
With appreciation	$ 242,206	$ _____

*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 annual cash flow statement 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
13 New York Dairy Farm Renters, 2011

Item		Average	
Cash Flow from Operating Activities			
Cash farm receipts	$1,276,701		
- Cash farm expenses	1,067,875		
- Extraordinary expense	0		
= Net cash farm income		$ 208,826	
Personal withdrawals & family expenses including nonfarm debt payments	$ 55,593		
- Nonfarm income	5,464		
- Net cash withdrawals from the farm		$ 50,129	
= Net Provided by Operating Activities			$ 158,697
Cash Flow From Investing Activities			
Sale of assets: Machinery	$ 1,712		
+ real estate	0		
+ other stock & certificates	0		
= Total asset sales		$ 1,712	
Capital purchases: expansion livestock	$ 2,829		
+ machinery	56,940		
+ real estate	30,275		
+ other stock & certificates	724		
- Total invested in farm assets		$ 90,768	
= Net Provided by Investment Activities			$ -89,056
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	$ 41,108		
+ Money borrowed (short term)	10,766		
+ Increase in operating debt	0		
+ Cash from nonfarm capital used in business	6,726		
+ Money borrowed - nonfarm	0		
= Cash inflow from financing		$ 58,599	
Principal payments (intermediate & long term)	$ 111,654		
+ Principal payments (short term)	11,377		
+ Decrease in operating debt	10,604		
- Cash outflow for financing		$ 133,634	
= Net Provided by Financing Activities			$ -75,035
Cash Flow From Reserves			
Beginning farm cash, checking & savings		$ 7,073	
- Ending farm cash, checking & savings		10,864	
= Net Provided from Reserves			$ -3,791
Imbalance (error)			$ -9,186

ANNUAL CASH FLOW STATEMENT

Item		My Farm	
Cash Flow from Operating Activities			
Cash farm receipts	$ _____		
- Cash farm expenses	_____		
- Extraordinary expense	_____		
= Net cash farm income		$ _____	
Personal withdrawals & family expenses including nonfarm debt payments	$ _____		
- Nonfarm income	_____		
- Net cash withdrawals from the farm		$ _____	
= Net Provided by Operating Activities			$ _____
Cash Flow From Investing Activities			
Sale of assets: Machinery	$ _____		
+ real estate	_____		
+ other stock & certificates	_____		
= Total asset sales		$ _____	
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		$ _____	
Principal payments (intermediate & long term)	$ _____		
+ Principal payments (short term)	_____		
+ Decrease in operating debt	_____		
- Cash outflow 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			$ _____
Imbalance (error)			$ _____

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 2012. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 2012 debt payments shown below.

FARM DEBT PAYMENTS PLANNED
Same 9 New York Dairy Farm Renters, 2010 & 2011*

	Average			My Farm		
	2011 Payments		Planned	2011 Payments		Planned
Debt Payments	Planned	Made	2012	Planned	Made	2012
Long-term	$ 92,619	$ 44,037	$ 39,839	$ _____	$ _____	$ _____
Intermediate-term	93,021	159,950	112,438	_____	_____	_____
Short-term	2,303	17,255	16,632	_____	_____	_____
Operating (net reduction)	0	15,316	0	_____	_____	_____
Accounts payable (net reduction)	0	33,475	0	_____	_____	_____
Total	$ 187,943	$ 270,034	$168,908	$ _____	$ _____	$ _____
Per cow	$ 606	$ 871		$ _____	$ _____	
Per cwt. 2011 milk	$ 2.44	$ 3.51		$ _____	$ _____	
Percent of total 2011 receipts	11%	15%		_____	_____	
Percent of 2011 milk receipts	12%	17%		_____	_____	

*Farms that completed Dairy Farm Business Summaries for both 2010 and 2011.

The cash flow coverage ratio and debt coverage ratio measure the ability of the farm business to meet its planned debt payment schedule. The ratios show the percentage of planned payments (as of December 31, 2010) that could have been made with the amount available for debt service in 2011. Farmers that did not participate in DFBS last year will find in their report coverage ratios based on planned debt payments for 2012.

COVERAGE RATIOS
Same 9 New York Dairy Farm Renters, 2010 & 2011

Item	Average	Item	Average
Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	$1,737,320	Net farm income (w/o appreciation)	$355,533
- Cash farm expenses	1,467,804	+ Depreciation	70,952
+ Interest paid (cash)	51,634	+ Interest paid (accrual)	51,634
- Net personal withdrawals from farm*	61,036	- Net personal withdrawals from farm*	61,036
(A) = Amount Available for Debt Service	$ 260,115	(A') = Repayment Capacity	$417,084
(B) = Debt Payments Planned for 2011 (as of December 31, 2010)	$ 187,943	(B) = Debt Payments Planned for 2011 (as of December 31, 2010)	$187,943
(A/B)=Cash Flow Coverage Ratio for 2011	1.38	(A'/B)=Debt Coverage Ratio for 2011	2.22

Same 72 New York Dairy Farm Owners, 2010 & 2011

(A) = Amount Available for Debt Service	$186,003	(A') = Repayment Capacity	$272,098
(B) = Debt Payments Planned for 2011	$111,889	(B) = Debt Payments Planned for 2011	$111,889
(A/B)=Cash Flow Coverage Ratio for 2011	1.66	(A'/B)=Debt Coverage Ratio for 2011	2.43

*Personal withdrawals and family expenditures less nonfarm income and nonfarm money borrowed. If family withdrawals are excluded, or inaccurately included, the coverage ratios will be incorrect.

ANNUAL CASH FLOW WORKSHEET

Item	13 Dairy Farm Renters	My Farm Total	My Farm Per Cow	Expected Change	2012 Projection
Average number of cows	231	_____	_____		_____
Accrual Operating Receipts	(per cow)				
Milk	$5,163	$ _____	$ _____	_____	$ _____
Dairy cattle	323	_____	_____	_____	_____
Dairy calves	23	_____	_____	_____	_____
Other livestock	7	_____	_____	_____	_____
Crops	168	_____	_____	_____	_____
Miscellaneous receipts	109	_____	_____	_____	_____
Total	$5,794	$ _____	$ _____	_____	$ _____
Accrual Operating Expenses					
Hired labor	$ 474	$ _____	$ _____	_____	$ _____
Dairy grain & concentrate	1,552	_____	_____	_____	_____
Dairy roughage	513	_____	_____	_____	_____
Nondairy feed	0	_____	_____	_____	_____
Professional nutritional services	0	_____	_____	_____	_____
Machinery hire, rent & lease	75	_____	_____	_____	_____
Machinery repair & vehicle exp.	152	_____	_____	_____	_____
Fuel, oil & grease	155	_____	_____	_____	_____
Replacement livestock	28	_____	_____	_____	_____
Breeding	38	_____	_____	_____	_____
Veterinary & medicine	118	_____	_____	_____	_____
Milk marketing	183	_____	_____	_____	_____
Bedding	68	_____	_____	_____	_____
Milking supplies	108	_____	_____	_____	_____
Cattle lease	3	_____	_____	_____	_____
Custom boarding	16	_____	_____	_____	_____
bST expense	52	_____	_____	_____	_____
Livestock professional fees	13	_____	_____	_____	_____
Other livestock expense	19	_____	_____	_____	_____
Fertilizer & lime	89	_____	_____	_____	_____
Seeds & plants	37	_____	_____	_____	_____
Spray & other crop expense	12	_____	_____	_____	_____
Crop professional fees	2	_____	_____	_____	_____
Land, building & fence repair	80	_____	_____	_____	_____
Taxes	13	_____	_____	_____	_____
Real estate rent & lease	167	_____	_____	_____	_____
Insurance	43	_____	_____	_____	_____
Utilities	125	_____	_____	_____	_____
Misc. & other professional fees	89	_____	_____	_____	_____
Total Less Interest Paid	$4,225	$ _____	$ _____	$ _____	$ _____
Net Accrual Operating Income	(Total)				
(without interest paid)	$ 363,116	$ _____			$ _____
- Change in livestock & crop inv.	55,879	_____		_____	_____
- Change in accounts receivable	8,425	_____		_____	_____
- Change in feed & supply inv.*	30,920	_____		_____	_____
+ Change in accounts payable**	-22,677	_____		_____	_____
NET CASH FLOW	$245,216	$ _____			$ _____
- Net family withdrawals	50,112	_____		_____	_____
Available for Farm Debt & Investments	$195,104	$ _____			$ _____
- Farm debt payments	192,123	_____		_____	_____
Available for Farm Investments	$2,981	$ _____			$ _____
- Capital purchases: cattle, machinery & improvements	90,768	$ _____		$ _____	$ _____
Additional Capital Needed	$ 87,786	$ _____			$ _____

*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
New York Dairy Farm Renters Reporting, 2011

Item	Average of Farms Reporting			My Farm	
Crop Yields	Farms	Acres	Production/Acre*	Acres	Production/Acre
Hay crop	8	334	2.24 tons DM	_____	_____ tons DM
Corn silage	8	144	14.45 tons	_____	_____ tons
			4.71 tons DM	_____	_____ tons DM
Other forage	0	0	0 tons DM	_____	_____ tons DM
Total forage	9	442	3.06 tons DM	_____	_____ tons DM
Corn grain	0	0	0 bushels	_____	_____ bushels
Oats	0	0	0 bushels	_____	_____ bushels
Wheat	0	0	0 bushels	_____	_____ bushels
Other crops	0	28		_____	
Tillable pasture	3	15		_____	
Idle	0	0		_____	
Total Tillable Acres	13	314		_____	

*2011 average yields for 81 dairy farm owners in New York included: all hay crops, 3.2 tons dry matter per acre; corn silage, 16.4 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 FOR FARMS GROWING FORAGES
New York Dairy Farm Renters and Owners, 2011

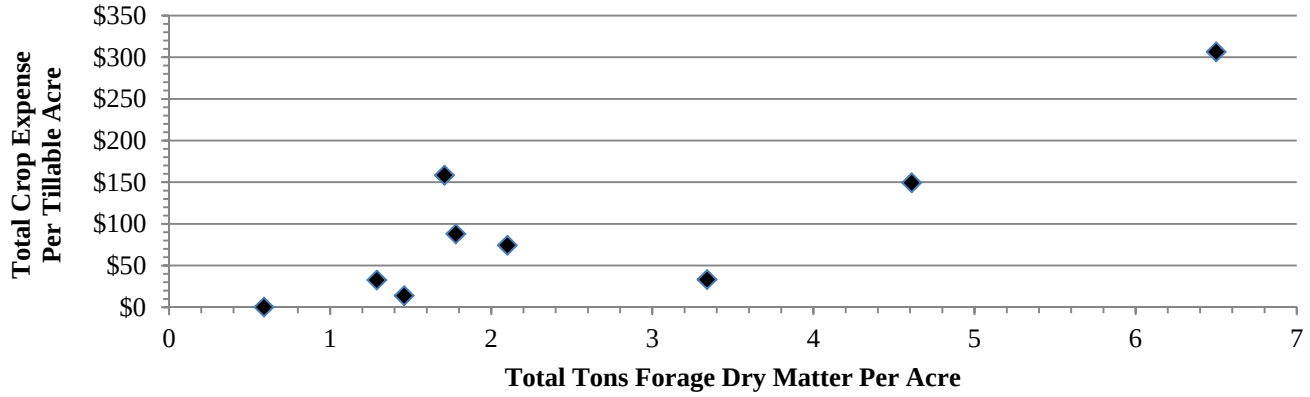
Item	13 Dairy Farm Renters	81 Dairy Farm Owners	My Farm
Total tillable acres per cow	3.18	2.44	_____
Total forage acres per cow	3.12	2.11	_____
Harvested forage dry matter, tons per cow	9.54	8.69	_____

Average fertilizer and lime, seeds and plants, and spray and other crop expenses are computed per tillable acre for all farms that grow forages. Additional expense items such as fuel, labor, and machinery repairs are not included. Rotational grazing was used on two rented farms and on 16 owned farms.

CROP RELATED ACCRUAL EXPENSES FOR FARMS GROWING FORAGES
New York Dairy Farm Renters and Owners, 2011

	Average Per Tillable Acre		
Item	9 Dairy Farm Renters	79 Dairy Farm Owners	My Farm
Average number of acres	450	535	
Fertilizer and lime expense	$57.94	$48.97	$ _____
Seeds & plants	23.46	31.92	_____
Spray and other crop expense	13.76	20.55	_____
Total	$95.16	$101.44	$ _____

CROP EXPENSE PER ACRE BY TOTAL FORAGE PRODUCTION PER ACRE
9 Dairy Farm Renters That Grow Forages, 2011



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 FOR FARMS GROWING FORAGES
New York Dairy Farm Renters and Owners, 2011

	Average Per Tillable Acre		My Farm	
Item	9 Dairy Farm Renters	79 Dairy Farm Owners	Total Expenses	Per Tillable Acre
Fuel, oil & grease	$ 67.85	$ 97.07	$ _____	$ _____
Machine repair & farm vehicle expense	55.94	104.62	_____	_____
Machine hire, rent & lease	45.68	57.50	_____	_____
Interest (5%)	26.67	38.29	_____	_____
Depreciation	120.95	81.44	_____	_____
Total	$317.09	$378.92	$ _____	$ _____

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 the following 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
New York Dairy Farm Renters and Owners, 2011

	Dairy Cows		Heifers					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
13 Dairy Farm Renters:								
Beginning year (owned)	227	$ 344,377	59	$ 90,715	62	$ 58,461	74	$ 40,250
+ Change w/o appreciation		4,408		21,208		-2,034		77
+ Appreciation		0		0		0		0
End year (owned)	230	$ 348,785	73	$ 111,923	61	$ 56,427	75	$ 40,327
End including leased	235							
Average number	231		201	(all age groups)				
81 Dairy Farm Owners:								
Beginning year (owned)	216	$ 300,230	62	$ 86,581	63	$ 53,412	52	$ 24,681
+ Change w/o appreciation		6,789		11,108		-1,741		1,527
+ Appreciation		1,571		171		740		1,106
End year (owned)	220	$ 308,590	70	$ 97,860	61	$ 52,410	55	$ 27,313
End including leased	222							
Average number	218		183	(all age groups)				
My Farm:								
Beginning year (owned)	__	$ _____	___	$ _____	__	$ _____	__	$ _____
+ Change w/o appreciation		_____		_____		_____		_____
+ Appreciation		_____		_____		_____		_____
End year (owned)	__	$ _____	___	$ _____	__	$ _____	__	$ _____
End including leased	__							
Average number	__		___	(all age groups)				

Total milk sold and milk sold per cow are extremely valuable measures of productivity on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year.

MILK PRODUCTION
New York Dairy Farm Renters and Owners, 2011

Item	13 Dairy Farm Renters	81 Dairy Farm Owners	My Farm
Total milk sold, pounds	5,630,191	5,046,034	_____
Milk sold per cow, pounds	24,325	23,141	_____
Average milk plant test, % butterfat	3.62%	3.72%	_____

Monitoring and evaluating culling practices and experiences on an annual basis are important herd management tools. Culling rate can have an effect on both milk per cow and profitability.

ANIMALS LEAVING THE HERD
New York Dairy Farm Renters and Owners, 2011

	13 Dairy Farm Renters		81 Dairy Farm Owners		My Farm	
Item	Number	Percent*	Number	Percent*	Number	Percent*
Cows sold for beef	63	27	61	28	_____	_____
Cows sold for dairy	2	1	2	1	_____	_____
Cows died	11	5	13	6	_____	_____
Culling rate**		32		34		_____

*Percent of average number of cows in the herd. ** Cows sold for beef plus cows died.

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
New York Dairy Farm Renters and Owners, 2011

	13 Dairy Farm Renters		81 Dairy Farm Owners		My Farm	
Item	Total	Per Cwt.	Total	Per Cwt.	Total	Per Cwt.
Accrual Cost of Producing Milk						
Operating cost	$ 871,183	$15.47	$791,573	$15.69	$ _____	$ _____
Purchased input cost	$ 925,568	$16.44	$861,485	$17.07	$ _____	$ _____
Total cost	$1,020,471	$18.12	$1,010,552	$20.03	$ _____	$ _____
Accrual Receipts from Milk	$1,195,079	$21.23	$1,094,291	$21.69	$ _____	$ _____
Net Milk Receipts	$1,152,668	$20.47	$1,048,720	$20.78	$ _____	$ _____

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
New York Dairy Farm Renters and Owners, 2011

	Average Per Cwt. Milk		My Farm
Item	13 Dairy Farm Renters	81 Dairy Farm Owners	Per Cwt.
Purchased dairy grain & concentrate	$6.38	$6.10	$ _____
Purchased dairy roughage	2.11	0.36	_____
Total Purchased Dairy Feed	$8.49	$6.46	$ _____
Purchased grain & concentrate as % of milk receipts	29%	28%	_____ %
Purchased feed & crop expense	$9.06	$7.67	$ _____
Purchased feed & crop expense as % of milk receipts	38%	35%	_____ %
Breeding	$0.16	$0.25	$ _____
Veterinary & medicine	0.49	0.65	_____
Milk marketing	0.75	0.90	_____
Bedding	0.28	0.37	_____
Milking supplies	0.44	0.41	_____
Cattle lease	0.01	0.02	_____
Custom boarding	0.07	0.30	_____
bST expense	0.22	0.12	_____
Livestock professional fees	0.05	0.07	_____
Other livestock expense	0.08	0.12	_____

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
New York Dairy Farm Renters and Owners, 2011

Item	Per Worker	Per Cow	Per Tillable Acre
13 Dairy Farm Renters:			
Farm capital	$ 206,492	$ 4,844	$ 3,575
Machinery & equipment	39,580	929	685
Ratios			
Asset turnover	Operating expense	Interest expense	Depreciation expense
1.22	0.73	0.03	0.04
81 Dairy Farm Owners:			
Farm capital	$ 373,153	$ 9,857	$ 4,088
Machinery & equipment	70,736	1,868	775
Ratios			
Asset turnover	Operating expense	Interest expense	Depreciation expense
0.60	0.73	0.02	0.06
My Farm:			
Farm capital	$_____	$ _____	$ _____
Machinery & equipment	_____	_____	_____
Ratios			
Asset turnover	Operating expense	Interest expense	Depreciation expense
____	____	____	____

LABOR FORCE ANALYSIS
New York Dairy Farm Renters and Owners, 2011

	13 Dairy Farm Renters		81 Dairy Farm Owners		My Farm	
Efficiency	Total	Per Worker	Total	Per Worker	Total	Per Worker
Cows, average number	231	43	218	38	_____	_____
Milk sold, pounds	5,630,191	1,036,232	5,046,034	876,428	_____	_____
Tillable acres	314	58	526	91	_____	_____

	13 Dairy Farm Renters		81 Dairy Farm Owners		My Farm	
Labor Costs	Total	Per Cow	Total	Per Cow	Total	Per Cow
Value of operator(s) labor*	$ 48,858	$ 211	$ 55,590	$ 255	$ _____	$ _____
Family unpaid*	9,894	43	8,466	39	_____	_____
Hired	109,817	474	120,737	554	_____	_____
Total Labor	$ 168,569	$ 728	$ 184,793	$ 847	$ _____	$ _____
Machinery Cost	$ 144,460	$ 624	$ 200,772	$ 921	$ _____	$ _____
Total Labor & Machinery	$ 313,029	$ 1,352	$ 385,566	$ 1,768	$ _____	$ _____
Hired labor expense per hired worker equivalent	$ 31,257		$ 32,951		$ _____	
Hired labor expense as % of milk sales	9.2%		11.0%		_____%	

*$2,550 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 9 New York Dairy Farm Renters, 2010 & 2011

	Average		My Farm		
Selected Factors	2010	2011	2010	2011	Goal
Size of Business					
Average number of cows	303	310	_____	_____	_____
Average number of heifers	250	274	_____	_____	_____
Milk sold, pounds	7,253,566	7,688,499	_____	_____	_____
Worker equivalent	7.18	7.19	_____	_____	_____
Total tillable acres	354	391	_____	_____	_____
Rates of Production					
Milk sold per cow, pounds	23,904	24,811	_____	_____	_____
Hay DM per acre, tons	2.0	2.2	_____	_____	_____
Corn silage per acre, tons	16.1	14.5	_____	_____	_____
Labor Efficiency					
Cows per worker	42	43	_____	_____	_____
Milk sold per worker, lbs.	1,010,246	1,069,332	_____	_____	_____
Cost Control					
Grain & concentrate purchased as % of milk sales	28%	30%	_____ %	____ %	_____ %
Dairy feed & crop expense per hundredweight milk	$7.81	$9.14	$_____	$ _____	$_____
Labor & machinery costs/cow	$1,173	$1,339	$_____	$ _____	$_____
Operating cost of producing hundredweight milk	$14.39	$15.65	$_____	$ _____	$_____
Capital Efficiency*					
Farm capital per cow	$4,225	$4,628	$_____	$ _____	$_____
Machinery & equipment per cow	$791	$868	$_____	$ _____	$_____
Asset turnover ratio	1.11	1.30	_____	_____	_____
Profitability					
Net farm income without appreciation	$182,324	$355,533	$_____	$ _____	$_____
Net farm income with appreciation	$173,322	$392,087	$_____	$ _____	$_____
Labor & management income per operator/manager	$85,082	$182,560	$_____	$ _____	$_____
Rate of return on equity capital with appreciation	26.7%	54.7%	_____ %	____ %	_____ %
Rate of return on all capital with appreciation	11.0%	25.6%	_____ %	____ %	_____ %
Financial Summary					
Farm net worth, end year	$408,032	$737,567	$_____	$ _____	$_____
Debt to asset ratio	0.70	0.52	_____	_____	_____
Farm debt per cow	$3,026	$2,509	$_____	$ _____	$_____

*Average for the year.

RECEIPTS AND EXPENSES PER COW AND PER HUNDREDWEIGHT
Same 9 New York Dairy Farm Renters, 2010 & 2011

	2010		2011	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average Number of Cows	303		310	
Cwt. of Milk Sold		72,536		76,885
ACCRUAL OPERATING RECEIPTS				
Milk	$4,175	$17.46	$5,260	$21.20
Dairy cattle	343	1.44	327	1.32
Dairy calves	44	0.19	25	0.10
Other livestock	1	0.00	6	0.02
Crops	88	0.37	153	0.62
Miscellaneous receipts	77	0.32	115	0.46
Total Receipts	$4,728	$19.78	$5,885	$23.72
ACCRUAL OPERATING EXPENSES				
Hired labor	$ 503	$ 2.11	$ 512	$ 2.06
Dairy grain & concentrate	1,188	4.97	1,583	6.38
Dairy roughage	533	2.23	539	2.17
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	0	0.00	0	0.00
Machine hire/rent/lease	49	0.20	69	0.28
Machinery repair & vehicle expense	145	0.61	154	0.62
Fuel, oil & grease	124	0.52	158	0.64
Replacement livestock	7	0.03	20	0.08
Breeding	32	0.13	39	0.16
Veterinary & medicine	116	0.48	119	0.48
Milk marketing	194	0.81	181	0.73
Bedding	72	0.30	71	0.29
Milking supplies	130	0.54	110	0.44
Cattle lease	0	0.00	3	0.01
Custom boarding	8	0.03	15	0.06
bST expense	55	0.23	56	0.23
Livestock professional fees	8	0.03	13	0.05
Other livestock expense	20	0.09	19	0.08
Fertilizer & lime	99	0.41	94	0.38
Seeds & plants	41	0.17	38	0.15
Spray/other crop expense	5	0.02	12	0.05
Crop professional fees	0	0.00	2	0.01
Land, building, fence repair	31	0.13	75	0.30
Taxes	41	0.17	11	0.05
Real estate rent/lease	187	0.78	171	0.69
Insurance	47	0.20	44	0.18
Utilities	106	0.44	125	0.51
Interest paid	152	0.64	167	0.67
Other professional fees	36	0.15	33	0.13
Miscellaneous	32	0.13	61	0.25
Total Operating Expenses	$3,962	$16.57	$4,495	$18.12
Expansion Livestock	32	0.13	13	0.05
Extraordinary Expense	0	0.00	0	0.00
Machinery Depreciation	86	0.36	193	0.78
Real Estate Depreciation	48	0.20	36	0.14
Total Expenses	$4,128	$17.26	$4,737	$19.09
Net Farm Income Without Appreciation	$ 601	$ 2.51	$1,147	$ 4.62

Condensed Summary and Selected Business Factors for Two Herd Size Groups

CONDENSED FARM BUSINESS SUMMARY FOR TWO RENTER GROUPS BY HERD SIZE
13 New York Dairy Farm Renters, 2011

	6 Dairy Farm Renters with < 100 Cows		7 Dairy Farm Renters with >= 100 Cows	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
ACCRUAL EXPENSES				
Hired labor	$ 152	$ 0.89	$ 507	$ 2.02
Dairy grain & concentrate	1,163	6.82	1,591	6.35
Dairy roughage	176	1.03	547	2.18
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	0	0.00	0	0.00
Machine hire, rent & lease	19	0.11	81	0.32
Machine repairs & farm vehicle expense	186	1.09	149	0.59
Fuel, oil & grease	118	0.69	159	0.63
Replacement livestock	114	0.67	19	0.08
Breeding	42	0.25	38	0.15
Veterinary & medicine	56	0.33	124	0.50
Milk marketing	203	1.19	181	0.72
Bedding	39	0.23	71	0.29
Milking supplies	66	0.39	112	0.45
Cattle lease & rent	0	0.00	3	0.01
Custom boarding	19	0.11	16	0.06
bST expense	7	0.04	57	0.23
Livestock professional fees	15	0.09	13	0.05
Other livestock expense	31	0.18	18	0.07
Fertilizer & lime	92	0.54	88	0.35
Seeds & plants	70	0.41	34	0.14
Spray & other crop expense	77	0.45	5	0.02
Crop professional fees	0	0.00	2	0.01
Land, building & fence repair	26	0.15	85	0.34
Taxes & rent	189	1.11	179	0.72
Utilities	136	0.80	123	0.49
Interest paid	62	0.36	167	0.67
Other professional fees	20	0.12	32	0.13
Misc. (including insurance)	74	0.43	104	0.42
Total Operating Expenses	$3,151	$18.48	$4,506	$17.98
Expansion livestock	11	0.06	12	0.05
Extraordinary expense	0	0.00	0	0.00
Machinery depreciation	211	1.24	194	0.77
Building depreciation	22	0.13	41	0.17
Total Accrual Expenses	$3,395	$19.91	$4,754	$18.97
ACCRUAL RECEIPTS				
Milk sales	$3,627	$21.27	$5,318	$21.22
Dairy cattle	238	1.40	332	1.32
Dairy calves	54	0.32	20	0.08
Other livestock	16	0.09	6	0.02
Crops	-21	-0.12	187	0.75
Miscellaneous receipts	114	0.67	109	0.43
Total Accrual Receipts	$4,028	$23.62	$5,972	$23.83
PROFITABILITY ANALYSIS (Total)				
Net farm income (without appreciation)	$29,094		$475,583	
Net farm income (with appreciation)	$30,342		$526,386	
Labor & management income/operator	$5,440		$222,177	
Rates of return on: Equity capital without appreciation	-10.1%		49.1%	
Equity capital with appreciation	-9.4%		55.5%	
All capital without appreciation	-6.1%		24.3%	
All capital with appreciation	-5.6%		27.0%	

SELECTED BUSINESS FACTORS FOR TWO RENTER GROUPS BY HERD SIZE
13 New York Dairy Farm Renters, 2011

Item	6 Dairy Farm Renters with < 100 Cows	7 Dairy Farm Renters with >= 100 Cows
Cropping Program Analysis		
Total acres rented	194	461
Tillable acres rented	148	455
Hay crop acres*	172	497
Corn silage acres*	55	197
Hay crop, tons DM/acre*	1.0	2.7
Corn silage, tons/acre*	8.1	15.5
Forage DM per cow, tons*	6.6	10.0
Tillable acres/cow*	4.6	2.9
Fertilizer & lime expense/tillable acre*	$24.61	$84.60
Machinery cost/tillable acre*	$182	$353
Dairy Analysis		
Number of cows	46	390
Number of heifers	36	343
Milk sold, pounds	784,371	9,783,751
Milk sold/cow, pounds	17,052	25,059
Operating cost of producing milk/cwt.	$16.20	$15.42
Total cost of producing milk/cwt.	$24.66	$17.68
Price/cwt. milk sold	$21.27	$21.22
Purchased dairy feed/cow	$1,339	$2,138
Purchased dairy feed/cwt. milk	$7.85	$8.53
Purchased grain & concentrate as % of milk receipts	29%	30%
Purchased feed & crop expense/cwt. milk	$9.25	$9.05
Capital Efficiency		
Farm capital/worker	$135,672	$219,201
Farm capital/cow	$5,279	$4,800
Real estate/cow	$541	$881
Machinery investment/cow	$1,894	$831
Asset turnover ratio	0.77	1.27
Labor Efficiency		
Worker equivalent	1.80	8.55
Operator/manager equivalent	1.00	1.92
Milk sold/worker, lbs.	436,976	1,144,187
Cows/worker	26	46
Labor cost/cow	$1,216	$679
Financial Measures		
Percent equity	75%	51%
Debt/asset ratio - long term	0.08	0.48
Debt/asset ratio - intermediate & current	0.28	0.50
Change in net worth with appreciation	$19,618	$432,996
Total farm debt per cow	$1,256	$2,514
Debt payments made per cow	$382	$900
Debt payments as % of milk sales	10%	17%
Amount available for debt service	$32,257	$374,044
Debt coverage ratio for 2011	2.22	2.22

*Average of farms growing forages.

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 four figures in each column represent the average of each 25 percent or quartile of farms included in the summary.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
13 New York Dairy Farm Renters, 2011

Size of Business			Rates of Production			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
(14)*	(12)	(12)	(12)	(11)	(11)	(14)	(14)
16.1	748	19,457,972	26,523	3.5	17	57	1,377,633
3.3	129	2,650,531	23,318	1.7	12	42	896,413
2.3	77	1,612,896	19,440	1.1	9	34	698,800
1.3	36	507,073	11,818	0.6	5	22	289,590

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
(12)	(12)	(14)	(14)	(12)	(12)
$671	20%	$275	$985	$940	$5.89
1,196	28	631	1,510	1,474	8.08
1,505	32	788	1,922	1,951	9.13
1,954	41	1,180	2,430	2,618	10.97

Value and Cost of Production			Profitability		
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Producing Milk Per Cwt.	Net Farm Income With Appreciation	Net Farm Income Without Appreciation	Labor & Man-agement Income Per Operator
(12)	(12)	(12)	(4)	(4)	(4)
$5,572	$12.51	$17.44	$1,014,713	$905,381	$604,662
5,093	14.73	19.32	182,284	173,074	84,329
4,225	17.08	22.36	61,193	61,193	38,053
2,567	18.64	35.94	23,047	21,175	-11,723

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

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 6, 7, 10, and 14 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART
13 New York Dairy Farm Renters, 2011

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
(10)*	(16)	(10)	(10)	(7)
$ 267	$1,143	3.16	8%	$792
422	800	1.82	13	1,351
542	677	1.30	16	2,241
1,000	353	0.52	25	2,997

Solvency			Profitability	
		Debt/Asset Ratio	Percent Rate of Return on (with Appreciation):	
Leverage Ratio**	Percent Equity	Current & Intermediate	Equity	Investment***
(7)	(7)	(7)	(4)	(4)
-6.06	89%	0.17	48%	33%
0.53	65	0.36	22	16
0.90	53	0.51	8	9
1.53	29	0.76	-42	-23

Efficiency (Capital)			
Asset Turnover Ratio	Machinery Investment Per Cow	Total Farm Assets Per Cow	Change in Net Worth With Appreciation
(14)	(14)	(14)	(8)
1.72	$402	$10,198	$883,827
1.22	758	5,432	110,001
1.03	1,501	3,828	38,696
0.60	3,049	2,600	12,777

*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 **S**pecific.

2. Goals should be **M**easurable.

3. Goals should be **A**chievable but challenging.

4. Goals should be **R**ewarding.

5. You should designate a **T**ime 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

I. Mission and Objectives

_____

_____

_____

_____

_____

_____

_____

Worksheet for Setting Goals (continued)

II. Goals

What	How	When	Who is Responsible

Summarize Your Business Performance

The Farm Business and Financial Analysis Charts on pages 25 and 26 can be used to help identify strengths and weaknesses of your farm business. Identify three major strengths and three areas of your farm business that need improvement.

Strengths:_____

_____

_____

_____

_____

_____

_____

Need Improvements: _____

_____

_____

_____

_____

_____

_____

GLOSSARY AND LOCATION OF COMMON TERMS

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

Accounts Receivable - 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 4)

Accrual Receipts - (defined on page 5)

Annual Cash Flow Statement - (defined on page 12)

Appreciation - (defined on page 6)

Asset Turnover Ratio - (defined on page 20)

Balance Sheet - 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.

Capital Efficiency - 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.

Cash From Nonfarm Capital Used in the Business - 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 14)

Cash Paid - (defined on page 3)

Cash Receipts - (defined on page 5)

Change in Accounts Payable - (defined on page 4)

Change in Accounts Receivable - (defined on page 5)

Change in Inventory - (defined on page 3)

Cost of Term Debt - A weighted average of the cost of borrowed capital to the farm. Calculate by multiplying end of year principal of each loan that is borrowed by the interest rate for each loan at that time. Add up each amount that is calculated for each loan and then divide by total amount of borrowed funds. Do not include accounts payable, operating debt or advanced government receipts. This information is found on pages 10 and 11 of the data entry form.

Culling Rate - (defined on page 18)

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

Current Ratio - Measures the extent to which current farm assets, if liquidated, would cover current farm liabilities. Calculated as current farm assets at end year divided by current farm liabilities at end year.

Dairy (farm) - 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.

Dairy Cash-Crop (farm) - 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.

Debt Per Cow - Total end-of-year debt divided by end-of-year number of cows.

Debt to Asset Ratios - (defined on page 10)

Depreciation Expense Ratio - Machinery and building depreciation divided by total accrual receipts.

Dry Matter - 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.

Farm Debt Payments as Percent of Milk Sales - 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.

Farm Debt Payments Per Cow - 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.

Financial Lease - 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.

Hired Labor Expense per Hired Worker Equivalent - The total cost to the farm per hired worker equivalent. Divide accrual hired labor expense by number of hired plus family paid worker equivalent.

Hired Labor Expense as % of Milk Sales - The percentage of the gross milk receipts that is used for labor expense. Divide accrual hired labor expense by accrual milk sales.

Income Statement - 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.

Interest Expense Ratio - Accrual interest expense divided by total accrual receipts.

Labor and Management Income - (defined on page 7)

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

Labor Efficiency - Production capacity and output per worker.

Leverage Ratio - (defined on page 10)

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

Net Farm Income - (defined on page 6)

Net Farm Income from Operations Ratio - (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 19)

Operating Expense Ratio - Total accrual expenses less interest and machinery and building depreciation divided by total accrual receipts.

Opportunity Cost - 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.

Part-Time Cash-Crop Dairy (farm) - Operating and managing this farm is not a full-time occupation, crop sales exceed 10 percent of accrual milk receipts and cropland is owned.

Part-Time Dairy (farm) - 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.

Personal Withdrawals and Family Expenditures Including Nonfarm Debt Payments - 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.

Profitability - 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 19)

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

Replacement Livestock - 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 7)

Return on Total Capital - (defined on page 7)

Return to Operators' Labor, Management, and Equity Capital - (defined on page 6)

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

Solvency - 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 19)

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.

Working Capital - A theoretical measure of the amount of funds available to purchase inputs and inventory items after the sale of current farm assets and payment of all current farm liabilities. Calculate as current farm assets at end year less current farm liabilities at end year.

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