DAIRY FARM BUSINESS SUMMARY

JULY 2016 *E.B. 2016-08*

NORTHERN NEW YORK REGION 2015

You can't manage what you can't measure.
But if you measure it, you can improve it!

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The Dairy Farm Business Summary and Analysis Project is funded in part by:

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NORTHERN NEW YORK REGION
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NORTHERN NEW YORK REGION*

INTRODUCTION

Dairy farm managers throughout New York State have been participating in Cornell Cooperative Extension's farm business summary and analysis program since the early 1950's. Managers of each participating farm business receive a comprehensive summary and analysis of their farm business. The information in this report represents averages of the data submitted from dairy farms in the Northern New York Region for 2015.

Program Objective

The primary objective of the dairy farm business summary, DFBS, is to help farm managers improve the business and financial management of their business through appropriate use of historical data and the application of modern farm business analysis techniques. This information can also be used to establish goals that enable the business to better fulfill its mission. In short, DFBS provides business and financial information needed in identifying and evaluating strengths and weaknesses of the farm business.

Format Features

This regional report follows the same general format as the 2015 DFBS individual farm report received by participating dairy farmers. The analysis tables have an open column or section labeled My Farm. It may be used by any dairy farm manager who wants to compare his or her business with the average data of this region. The individual farm data, the regional averages and other data can then be used to establish goals for the business. Non-DFBS participants can download a DFBS Data Check-In Form at http://dfbs.cornell.edu. After collecting the data on the form, it can be entered in the U. S. Top Dairies business summary program at the same web site to obtain a summary of their business.

This report features:

(1) an income statement including accrual adjustments for farm business expenses and receipts, as well as measures of profitability with and without appreciation,

(2) a complete balance sheet with analytical ratios;

(3) a statement of owner equity which shows the sources of the change in owner equity during the year;

(4) a cash flow statement and debt repayment ability analysis;

(5) an analysis of crop acreage, yields, and expenses;

(6) an analysis of dairy livestock numbers, production, and expenses;

(7) a capital and labor efficiency analysis; and

(8) progress of the farm business over the past two years.

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* The Northern New York Region of New York State, with the number of participating farms in parentheses, is comprised of Clinton (4), Jefferson (10), Lewis (8), Montgomery (5), Oneida (6), and St. Lawrence (11) counties in New York. This report was written by Wayne A. Knoblauch, Professor, Farm Business Management. Cathryn Dymond was in charge of data and publication preparation. Farm business data were collected by Senior Extension Associate in PRO-DAIRY, Jason Karszes; Extension Support Specialist in PRO-DAIRY, Betsey Howland; Extension Support Specialist in Dairy Farm Business Summary and Analysis Program, Richard Kimmich; Cooperative Extension Educators Peggy Murray and Jim Manning. We also acknowledge the cooperation of Charles Z. Radick, Consultant; and Farm Credit East Association for their assistance in data collection.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics

Planning optimal management strategies is a crucial component of operating a successful farm. Various combinations of farm resources, enterprises, business arrangements, and management techniques are used by the dairy farmers in this region. The following table shows important farm business characteristics and the number of farms with each characteristic.

BUSINESS CHARACTERISTICS
44 Northern New York Region Dairy Farms, 2015

Type of Farm	Number
Dairy	40
Part-time dairy	0
Dairy cash-crop	4
Certified organic milk producer	0
Rotational grazing farm	1

Type of Ownership	Number
Owner	44
Renter	0

Type of Business	Number
Sole Proprietorship	7
Partnership	5
Limited Liability Corporation	31
Subchapter S Corporation	0
Subchapter C Corporation	1

Type of Barn	Number
Stanchion or Tie-Stall	2
Freestall	37
Combination	4

Milking Frequency	Number
2 times per day	12
3 times per day	30
Other	2

Milking System	Number
Bucket & carry	0
Dumping station	1
Pipeline	3
Herringbone conventional exit	9
Herringbone rapid exit	2
Parallel	20
Parabone	1
Rotary	2
Other	5

Production Records	Number
Testing Service	32
On Farm System	8
Other	0
None	2

Business Record System	Number
Account Book	0
Accounting Service	3
On-farm computer	39
Other	0

Breed of Herd	Percent
Holstein	95
Jersey	1
Other	4

The averages used in this report were compiled using data from all the participating dairy farms in this region unless noted otherwise. There are full-time dairy farms, dairy cash-crop farms, farms with confined herds, farms with grazing herds, farm renters, partnerships, and corporations included in the average. Average data for these specific types of farms are presented in the State Business Summary.

Income Statement

In order for an income statement to accurately measure farm income, it must include cash transactions and accrual adjustments (changes in accounts payable, accounts receivable, inventories, and prepaid expenses).

Cash paid is the actual cash outlay during the year and does not necessarily represent the cost of goods and services actually used in 2015.

Change in inventory: Increases in inventories of supplies and other purchased inputs are subtracted in computing accrual expenses because they represent purchased inputs not actually used during the year. Decreases in purchased inventories are added to expenses because they represent inputs purchased in a prior year and used this year.

CASH AND ACCRUAL FARM EXPENSES

44 Northern New York Region Dairy Farms, 2015

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Expense	+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$ 598,428		$ -3,564	<<	$ 449		$ 602,442
Feed							
Dairy grain & concentrate	1,273,933		-173,842		6,469		1,454,244
Dairy roughage	64,286		5,895		-68		58,323
Nondairy	209		0		0		209
Professional nutritional services	1,141		0	<<	0		1,141
Machinery							
Machinery hire, rent & lease	107,720		996	<<	2,562		109,286
Machinery repairs & farm vehicle exp.	211,495		1,313		634		210,816
Fuel, oil & grease	124,920		-5,399		-312		130,007
Livestock							
Replacement livestock	15,037		0	<<	545		15,583
Breeding	43,070		-1,529		441		45,041
Veterinary & medicine	130,434		-697		350		131,481
Milk marketing	198,275		0	<<	-3,299		194,977
Bedding	76,133		194		-1		75,938
Milking supplies	85,749		-125		386		86,260
Cattle lease & rent	51		0	<<	0		51
Custom boarding	81,044		0	<<	-176		80,868
bST	72,338		-145		-216		72,268
Livestock professional fees	12,953		-633	<<	7		13,593
Other livestock expense	22,124		68		102		22,157
Crops							
Fertilizer & lime	127,264		-4,077		4,252		135,592
Seeds & plants	92,580		-31,273		0		123,853
Spray, other crop expense	63,718		1,749		2,371		64,340
Crop professional fees	3,551		-2,731	<<	-184		6,099
Real Estate							
Land, building & fence repair	74,814		-147		916		75,877
Taxes	53,507		0	<<	178		53,685
Rent & lease	55,334		104	<<	157		55,387
Other							
Insurance	45,706		-8,855	<<	-292		54,269
Utilities (farm share)	84,297		80	<<	83		84,300
Interest paid	100,199		0	<<	0		100,199
Other professional fees	20,526		-149	<<	13		20,688
Miscellaneous	23,132		-34		-67		23,100
Total Operating	$3,863,970		$-222,802		$15,300		$4,102,072
Expansion livestock	24,472		0	<<	0		24,472
Extraordinary expense	455		0	<<	0		455
Machinery depreciation							223,565
Building depreciation							148,936
TOTAL ACCRUAL EXPENSES							$4,499,501

Change in prepaid expenses (noted above by <<) is a net change in non-inventory expenses that have been paid in advance of their use. For example, prepaid lease expense on the beginning of year balance sheet represents last year's payment for use of the asset during this year. End of year prepaid expense represents payments made this year for next year's use of the asset. Adding payments made last year for this year's use of the asset, and subtracting payments made this year for next year's use of the asset is accomplished by subtracting the difference.

Change in accounts payable: An increase in accounts payable from beginning to end of year is added when calculating accrual expenses because these expenses were incurred (resources used) in 2015 but not paid for. A decrease is subtracted because it represents payment for resources used before 2015.

Accrual expenses are an estimate of the costs of inputs, except operator/family labor and equity capital, actually used in this year's production. They are the cash paid, less changes in inventory and prepaid expenses, plus accounts payable.

CASH AND ACCRUAL FARM RECEIPTS

44 Northern New York Region Dairy Farms, 2015

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$4,130,508				$-147,296		$3,983,212
Dairy cattle	286,121		90,149		-4,580		371,690
Dairy calves	84,711		1,461		-145		86,027
Other livestock	2,028		-414		0		1,614
Crops	60,251		99,146		-2,982		156,416
Government receipts	24,083		0*		0		24083
Custom machine work	8,777				-14		8,763
Gas tax refund	2,354				0		2,354
Other	84,047				-2,845		81,201
Less nonfarm noncash capital**		(-)	0**			(-)	0
Total Receipts	$4,682,882		$190,342		$-157,862		$4,715,361

*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 of assets produced by the business 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/or quality are subtracted. Changes in inventories of crops grown are also included. An increase in advanced government receipts is subtracted from cash income because it represents income received in 2015 for the 2016 crop year in excess of funds earned for 2015. Likewise, a decrease is added to cash government receipts because it represents funds earned for 2015 but received in 2014.

Changes in accounts receivable are calculated by subtracting beginning year balances from end year balances. Payments in January 2016 for milk produced in December 2015 compared to January 2015 payments for milk produced in 2014 are included as a change in accounts receivable in determining accrual milk sales.

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

Profitability Analysis

Farm operators* contribute labor, management, and equity capital to their businesses and the combination of these resources, and the other resources used in the business, determines profitability. 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.

The return to any individual resource must be viewed as an estimate because the cost of other family resources must be approximated to calculate returns to the selected resource. For example, the costs of operator and family labor and management must be approximated to calculate the returns to equity capital.

* Operators are the individuals who are integrally involved in the operation and management of the farm business. They are not limited to those who are the owner of a sole proprietorship or are formally a member of the partnership or corporation.

Net farm income is the return to the farm operators and other unpaid family members for their labor, management, and equity capital. It is the farm family's net annual return from working, managing, and financing 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.

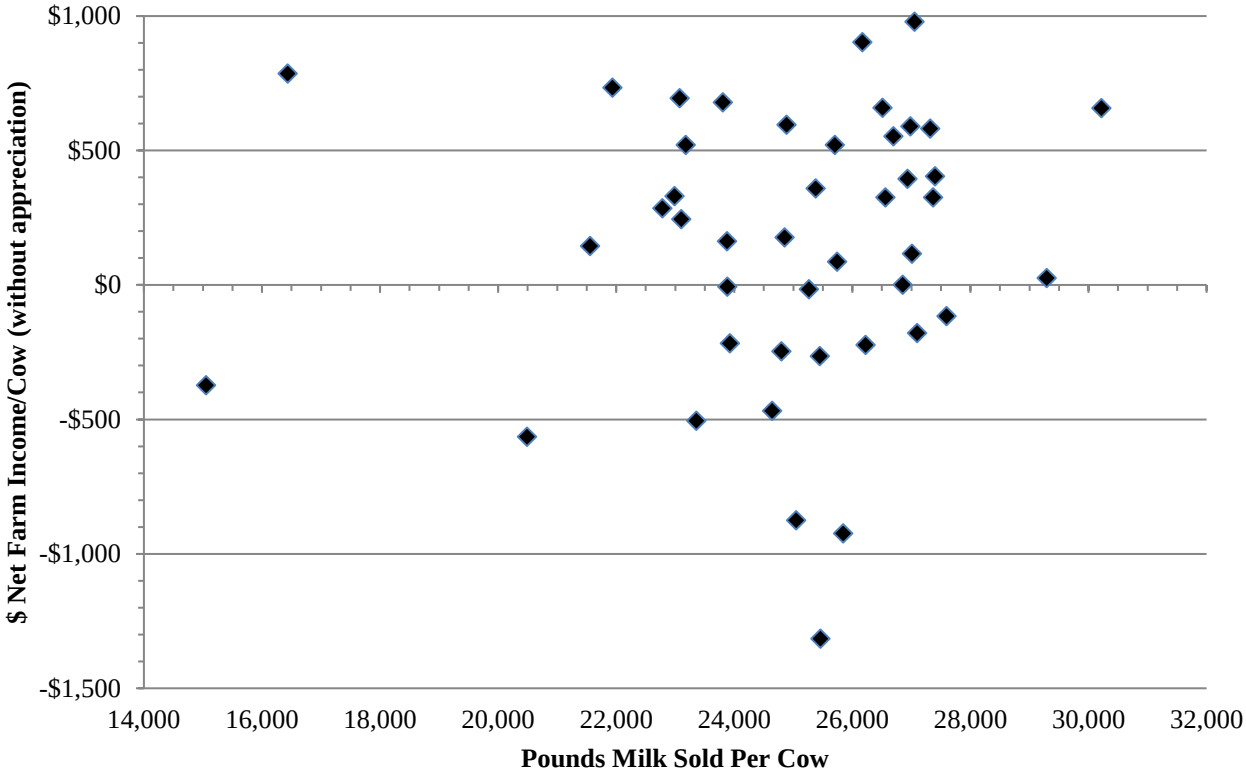
Net farm income is computed both with and without appreciation. Appreciation represents the change in values caused by annual changes in prices of livestock, machinery, real estate inventory, and stocks and certificates (other than Farm Credit stock required for loan borrowings). Appreciation is a major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

NET FARM INCOME
44 Northern New York Region Dairy Farms, 2015

Item	Average Total	Average Per Cow	My Farm Total	My Farm Per Cow
Total accrual receipts	$ 4,715,361		$_____	
Appreciation: Livestock	1,992		_____	
Machinery	28,953		_____	
Real Estate	257,623		_____	
Other Stock & Certificates	10,376		_____	
Total Including Appreciation	$ 5,014,305		$_____	
Total accrual expenses	4,499,501		- _____	
Net Farm Income (with appreciation)	$ 514,804	$ 599	$_____	$ _____
Net Farm Income (without appreciation)	$ 215,860	$ 251	$_____	$ _____

The chart below shows the relationship between net farm income per cow (without appreciation) and pounds of milk sold per cow. Higher net farm incomes can be achieved across a range of production levels as a result of different management systems, such as grazing, being utilized by the participating dairies.

NET FARM INCOME PER COW AND MILK PER COW
44 Northern New York Region Dairy Farms, 2015



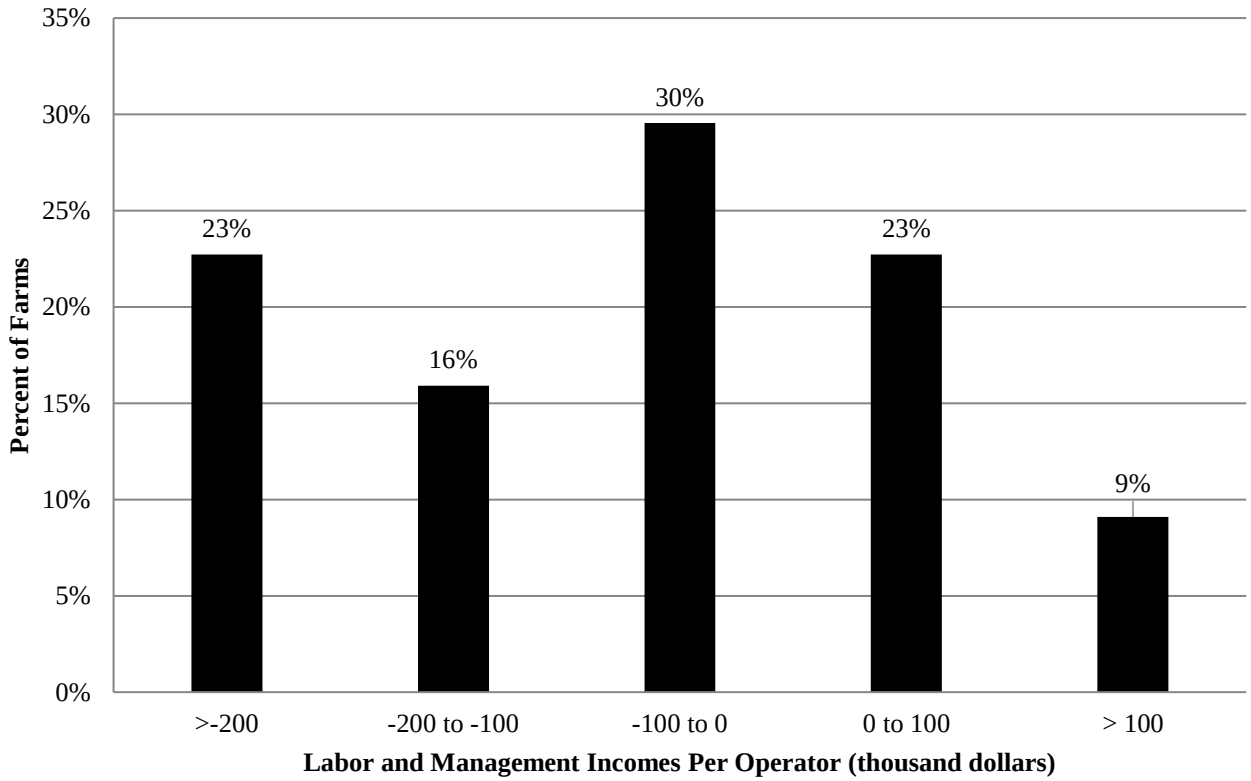
Labor and management income is the return which farm operators receive for their labor and management used in the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. Labor and management income is calculated by deducting a charge for unpaid family labor and the opportunity cost of equity capital, at a real interest rate of five percent, from net farm income excluding appreciation. The interest charge of five percent reflects the long-term average rate of return above inflation that a farmer might expect to earn in comparable risk investments.

LABOR AND MANAGEMENT INCOME
44 Northern New York Region Dairy Farms, 2015

Item	Average	My Farm
Net farm income without appreciation	$ 215,860	$ _____
Family labor unpaid @ $2,600 per month	- 3,114	- _____
Interest on $7,049,200 average equity capital @ 5% real rate	- 352,460	- _____
Labor & Management Income per farm (2.15 Operators/farm)	$ -139,714	$ _____
Labor & Management Income per Operator/Manager	$ -64,983	$ _____

Labor and management income per operator averaged $-64,983 on these 44 farms in 2015. The range in labor and management income per operator was from about $-770,000 to more than $447,000. Returns to labor and management were less than $-100,000 on 39 percent of the farms. Labor and management incomes per operator were between $-100,000 and $0 on 30 percent of the farms. This year 32 percent had labor and management incomes of greater than $0 or per operator, with only 9% of the farms showing a return to labor & management greater than $100,000.

DISTRIBUTION OF LABOR AND MANAGEMENT INCOMES PER OPERATOR
44 NorthernNew York Region Dairy Farms, 2015



Return on equity capital measures the net return remaining for the farmer's equity or owned capital after a charge has been made for the owner-operator's labor and management. The earnings or amount of net farm income allocated to labor and management is the opportunity cost of operators' labor and management estimated by the cooperators. Return on equity capital is calculated with and without appreciation. The rate of return on equity capital is determined by dividing the amount returned by the average farm net worth (market value) or equity capital. Rate of return on total capital is calculated by adding interest paid to the return on equity capital and then dividing by average farm assets (market value). Net farm income from operations ratio is net farm income (without appreciation) divided by total accrual receipts.

RETURN ON EQUITY CAPITAL AND RETURN ON TOTAL CAPITAL

44 Northern New York Region Dairy Farms, 2015

Item	Average	My Farm
Net farm income with appreciation	$ 514,804	$_____
Family labor unpaid @ $2,600 per month	- 3,114	- _____
Value of operators' labor & management	- 154,738	- _____
Return on equity capital with appreciation	$ 356,953	$_____
Interest paid	+ 100,199	+ _____
Return on total capital with appreciation	$ 457,151	$_____
Return on equity capital without appreciation	$ 58,009	$_____
Return on total capital without appreciation	$ 158,207	$_____
Rate of return on average equity capital:		
with appreciation	5.1%	_____ %
without appreciation	0.8%	_____ %
Rate of return on average total capital:		
with appreciation	4.5%	_____ %
without appreciation	1.6%	_____ %
Net Farm Income from Operations Ratio	0.05	_____

Farm and Family Financial Status

The first step in evaluating the financial position of the farm is to construct a balance sheet which identifies and values 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.

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. For 2015, lease payments were discounted by 7 percent to obtain their present value.

Advanced government receipts are included as current liabilities. Government payments received in 2015 that are for participation in the 2016 program are the end year balance and payments received in 2014 for participation in the 2015 program are the beginning year balance.

Current Portion or principal due in the next year for intermediate and long term debt is included as a current liability.

2015 FARM BUSINESS & NONFARM MARKET VALUE BALANCE SHEET

44 Northern New York Region Dairy Farms, 2015

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$ 71,931	$ 51,374	Accounts payable	$ 37,380	$ 52,680
Accounts receivable	509,374	351,512	Operating debt	274,981	223,450
Prepaid expenses	22,709	7,956	Short Term	3,005	6,682
Feed & supplies	1,387,964	1,279,060	Advanced govt. receipts	0	0
			Current Portion:		
			Intermediate	268,605	277,318
			Long Term	103,541	110,926
Total Current	$1,991,978	$1,689,902	Total Current	$ 687,513	$ 671,056
Intermediate			Intermediate		
Dairy cows:			Structured debt		
owned	$1,220,878	$1,275,089	1-10 years	$ 1,072,560	$ 1,155,726
leased	0	0	Financial lease		
Heifers	687,893	727,285	(cattle/machinery)	23,570	24,293
Bulls & other livestock	5,486	5,072	Farm Credit stock	1,266	1,266
Mach. & equip. owned	1,639,962	1,718,702	Total Intermediate	$ 1,097,396	$ 1,181,286
Mach. & equip. leased	23,570	24,293			
Farm Credit stock	1,266	1,266			
Other stock/certificate	180,959	197,160			
Total Intermediate	$3,760,014	$3,948,868			
Long Term			Long Term		
Land & buildings:			Structured debt		
owned	$4,174,403	$4,728,087	>10 years	$ 1,228,892	$ 1,386,355
leased	0	0	Financial lease		
Total Long Term	$4,174,403	$4,728,087	(structures)	0	0
			Total Long Term	$ 1,228,892	$ 1,386,355
Total Farm Assets	$9,926,396	$10,366,857			
			Total Farm Liabilities	$ 3,013,800	$ 3,238,697
			FARM NET WORTH	$ 6,912,595	$ 7,128,161

Nonfarm Assets, Liabilities & Net Worth (Average of 6 farms reporting)

Assets	Jan. 1	Dec. 31	Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, checking & savings	$ 4,504	$ 9,677	Nonfarm Liabilities	$ 1,675	$ 0
Cash value life insurance	79,190	78,354			
Nonfarm real estate	0	0			
Auto (personal share)	12,667	12,333			
Stocks & bonds	81,000	344,431			
Household furnishings	5,000	5,000			
All other nonfarm assets	14,120	16,996			
			NONFARM		
Total Nonfarm Assets	$196,480	$466,791	NET WORTH	$194,806	$466,791

Farm & Nonfarm Assets, Liabilities, and Net Worth*	Jan. 1	Dec. 31
Total Assets	$ 10,122,876	$ 10,833,648
Total Liabilities	3,015,475	3,238,697
TOTAL FARM & NONFARM NET WORTH	$ 7,107,401	$ 7,594,951

*Assumes that average nonfarm assets and liabilities for the nonreporting farms were the same as for those reporting.

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 and multiplying by 100. 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

44 Northern New York Region Dairy Farms, 2015

Item			Average	My Farm
Financial Ratios - Farm:				
Percent equity			69%	_____ %
Debt/asset ratio:	total		.31	_____
	long-term		.29	_____
	intermediate/current		.33	_____
Leverage Ratio:			.45	_____
Current Ratio:			2.52	
Working capital	$1,018,846	As % of total expenses:	23%	
Farm Debt Analysis:				
Accounts payable as % of total debt			2%	_____ %
Long-term liabilities as a % of total debt			43%	_____ %
Current & inter. liabilities as a % of total debt			57%	_____ %
Cost of term debt (weighted average)			3.9%	_____ %

Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 3,816	$ 2,909	$ _____	$ _____
Long-term debt	1,634	1,245	_____	_____
Intermediate & long term	3,026	2,306	_____	_____
Intermediate & current debt	2,183	1,664	_____	_____

Farm inventory balance is an accounting of the value of assets 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 INVENTORY BALANCE

44 Northern New York Region Dairy Farms, 2015

Item	Average of Region's Farms			
	Real Estate		Machinery & Equipment	
Value beginning of year		$ 4,174,403		$ 1,639,962
Purchases	$ 619,373*		$ 282,250	
Noncash transfer to farm	+ 0		+ 0	
Lost capital	- 166,359			
Sales	- 8,016		- 8,898	
Depreciation	- 148,936		- 223,565	
Net investment		= 296,062		= 49,787
Appreciation		+ 257,623		+ 28,953
Value end of year		$ 4,728,087		$ 1,718,702

*$238,006 land and $381,367 buildings and/or depreciable improvements.

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are 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 you 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) , (3) increases or decreases in the value (price) of assets owned by the business (called change in valuation equity), and (4) the error in the business cash flow accounting.

Retained earnings is an excellent indicator of farm generated financial progress.

STATEMENT OF OWNER EQUITY (RECONCILIATION)
44 Northern New York Region Dairy Farms, 2015

Item	Average		My Farm	
Beginning of year farm net worth		$6,970,240		$ _____
Net farm income without appreciation	$ 215,860		$_____	
+Nonfarm cash income	+ 4,917		+_____	
-Personal withdrawals & family expenditures excluding nonfarm borrowings	- 250,508		- _____	
RETAINED EARNINGS		+ $ -29,730		+$ _____
Nonfarm noncash transfers to farm	$ 0		$_____	
+Cash used in business from nonfarm capital	+ 55,001		+_____	
-Note or mortgage from farm real estate sold (nonfarm)	- 0		- _____	
CONTRIBUTED/WITHDRAWN CAPITAL		+ $ 55,001		+$ _____
Appreciation	$ 298,944		$_____	
-Lost capital	- 166,359		- _____	
CHANGE IN VALUATION EQUITY		+ $ 132,585		+$ _____
IMBALANCE/ERROR		- -64		- $ _____
End of year net worth*		= $7,128,161		=$ _____

Change in Net Worth		
Without appreciation	$ -141,024	$ _____
With appreciation	$ 157,920	$ _____

*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
44 Northern New York Region Dairy Farms, 2015

Item			Average	
Cash Flow from Operating Activities				
	Cash farm receipts	$ 4,682,882		
-	Cash farm expenses	3,863,970		
-	Extraordinary expense	455		
=	Net cash farm income		$ 818,457	
	Personal withdrawals & family expenses including nonfarm debt payments	$ 250,463		
-	Nonfarm income	4,917		
-	Net cash withdrawals from the farm		$ 245,546	
=	Net Provided by Operating Activities			$ 572,911
Cash Flow From Investing Activities				
	Sale of assets: machinery	$ 8,898		
	+ real estate	8,016		
	+ other stock & cert.	2,641		
=	Total asset sales		$ 19,555	
	Capital purchases: expansion livestock	$ 24,472		
	+ machinery	282,250		
	+ real estate	619,373		
	+ other stock & cert.	8,467		
-	Total invested in farm assets		$ 934,562	
=	Net Provided by Investment Activities			$ -915,007
Cash Flow From Financing Activities				
	Money borrowed (intermediate & long term)	$ 676,051		
+	Money borrowed (short term)	4,469		
+	Increase in operating debt	0		
+	Cash from nonfarm capital used in business	55,001		
+	Money borrowed - nonfarm	-45		
=	Cash inflow from financing		$ 735,477	
	Principal payments (intermediate & long term)	$ 361,688		
+	Principal payments (short term)	792		
+	Decrease in operating debt	51,531		
-	Cash outflow for financing		$ 414,012	
=	Net Provided by Financing Activities			$ 321,465
Cash Flow From Reserves				
	Beginning farm cash, checking & savings		$ 71,931	
-	Ending farm cash, checking & savings		51,374	
=	Net Provided from Reserves			$ 20,557
Imbalance (error)				$ -74

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 & cert.	_____		
= Total asset sales		$ _____	
Capital purchases: expansion livestock	$ _____		
+ machinery	_____		
+ real estate	_____		
+ other stock & cert.	_____		
- 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

A valuable use of 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 2016. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 2016 debt payments shown below.

FARM DEBT PAYMENTS PLANNED

Same 42 Northern New York Region Dairy Farms, 2014 & 2015

	Average			My Farm		
	2015 Payments		Planned	2015 Payments		Planned
Debt Payments	Planned	Made	2016	Planned	Made	2016
Long term	$ 152,400	$ 192,025	$ 172,003	$ _____	$ _____	$ _____
Intermediate term	316,267	273,687	345,143	_____	_____	_____
Short term	237	870	1,392	_____	_____	_____
Operating (net reduction)	0	96,438	7,540	_____	_____	_____
Accounts payable (net reduction)	899	11,549	9,442	_____	_____	_____
Total	$ 469,803	$ 574,570	$ 535,520	$ _____	$ _____	$ _____
Per cow	$ 528	$ 645		$ _____	$ _____	
Per cwt. 2015 milk	$ 2.06	$ 2.52		$ _____	$ _____	
Percent of total 2015 farm receipts	10%	12%		_____	_____	
Percent of 2015 milk receipts	11%	14%		_____	_____	

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 payments planned for 2015 (as of December 31, 2014) that could have been made with the amount available for debt service in 2015. Farmers who did not participate in DFBS in 2014 have their 2015 ratios based on planned debt payments for 2016.

COVERAGE RATIOS

Same 42 Northern New York Region Dairy Farms, 2014 & 2015

Item	Average	Item	Average
Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	$4,853,850	Net farm income (w/o appreciation)	$223,731
- Cash farm expenses	4,007,456	+ Depreciation	385,410
+ Interest paid (cash)	102,348	+ Interest paid (accrual)	102,348
- Net personal withdrawals from farm*	255,119	- Net personal withdrawals from farm*	255,119
(A) = Amount Available for Debt Service	$ 693,623	(A') = Repayment Capacity	$456,371
(B) = Debt Payments Planned for 2015 (as of December 31, 2014)	$ 469,803	(B) = Debt Payments Planned for 2015 (as of December 31, 2014)	$469,803
(A/ B)= Cash Flow Coverage Ratio for 2015	1.48	(A'/B)= Debt Coverage Ratio for 2015	0.97

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

ANNUAL CASH FLOW WORKSHEET

Item	44 Northern New York Region Dairy Farms Per Cow	Per Cwt.	My Farm Per Cow/ Per Cwt.	Expected Change	2016 Projection
Average number of cows	859				
Total cwt. of milk sold		220,533	_____	_____	_____
Accrual Operating Receipts					
Milk	$4,635	$18.06	$ _____	_____	$ _____
Dairy cattle	433	1.69	_____	_____	_____
Dairy calves	100	0.39	_____	_____	_____
Other livestock	2	0.01	_____	_____	_____
Crops	182	0.71	_____	_____	_____
Miscellaneous Receipts	135	0.53	_____	_____	_____
Total	$5,487	$21.38	$ _____	_____	$ _____
Accrual Operating Expenses					
Hired labor	$ 701	$ 2.73	$ _____	_____	$ _____
Dairy grain & concentrate	1,692	6.59	_____	_____	_____
Dairy roughage	68	0.26	_____	_____	_____
Nondairy feed	0	0.00	_____	_____	_____
Professional nutritional services	1	0.01	_____	_____	_____
Machinery hire, rent & lease	127	0.50	_____	_____	_____
Machinery repair & vehicle expense	245	0.96	_____	_____	_____
Fuel, oil & grease	151	0.59	_____	_____	_____
Replacement livestock	18	0.07	_____	_____	_____
Breeding	52	0.20	_____	_____	_____
Veterinary & medicine	153	0.60	_____	_____	_____
Milk marketing	227	0.88	_____	_____	_____
Bedding	88	0.34	_____	_____	_____
Milking supplies	100	0.39	_____	_____	_____
Cattle lease	0	0.00	_____	_____	_____
Custom boarding	94	0.37	_____	_____	_____
bST expense	84	0.33			
Livestock professional fees	16	0.06	_____	_____	_____
Other livestock expense	26	0.10	_____	_____	_____
Fertilizer & lime	158	0.61	_____	_____	_____
Seeds & plants	144	0.56	_____	_____	_____
Spray & other crop expense	75	0.29	_____	_____	_____
Crop professional fees	7	0.03	_____	_____	_____
Land, building & fence repair	88	0.34	_____	_____	_____
Taxes	62	0.24	_____	_____	_____
Real estate rent & lease	64	0.25	_____	_____	_____
Insurance	63	0.25	_____	_____	_____
Utilities	98	0.38	_____	_____	_____
Other professional fees	24	0.09			
Miscellaneous	27	0.10	_____	_____	_____
Total Less Interest Paid	$4,657	$18.15	$ _____	_____	$ _____
Net Accrual Operating Income	Total				
(without interest paid)	$713,488		$ _____		$ _____
- Change in livestock /crop inventory*	190,342		_____	_____	_____
- Change in accounts receivable	-157,862		_____	_____	_____
- Change in feed & supply inventory**	-222,802		_____	_____	_____
+ Change in accounts payable***	15,300		_____	_____	_____
NET CASH FLOW	$919,111		$ _____		$ _____
- Net family withdrawals	244,588		_____	_____	_____
Available for Farm	$674,523		$ _____		_____
- Farm debt payments	562,185		_____	_____	_____
Available for Farm Investment	$112,338		$ _____		$ _____
- Capital purchases	934,562		_____	_____	_____
Additional Capital Needed	$822,224		$ _____	_____	$ _____

*Includes change in advance government receipts. **Includes change in prepaid expenses. ***Excludes change in interest account payable.

Cropping Analysis

The cropping program is an important part of the dairy farm business and often represents opportunities for improved productivity and profitability. A complete evaluation of what the available land resources are, how they are being used, the level of crop yields, and what it costs to produce crops is important in evaluating alternative cropping and feed purchasing alternatives.

LAND RESOURCES AND CROP PRODUCTION
44 Northern New York Region Dairy Farms, 2015

Item	Average			My Farm		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	1,113	779	1,892	_____	_____	_____
Nontillable	26	3	29	_____	_____	_____
Other nontillable	266	1	267	_____	_____	_____
Total	1,405	783	2,188	_____	_____	_____

Crop Yields	Farms	Acres*	Production/Acre	Acres	Production/Acre
Hay crop	43	835	3.42 tons DM	_____	_____ tons DM
Corn silage	43	738	18.39 tons	_____	_____ tons
			6.44 tons DM		_____ tons DM
Other forage	2	75	4.63 tons DM	_____	_____ tons DM
Total forage	43	1,576	4.83 tons DM	_____	_____ tons DM
Corn grain	31	335	142 bushels	_____	_____ bushels
Oats	2	64	72 bushels	_____	_____ bushels
Wheat	3	149	55 bushels	_____	_____ bushels
Other crops	16	200		_____	
Tillable pasture	3	53		_____	
Idle	14	137		_____	
Total Tillable Acres	44	1,892		_____	

*This column represents the average acreage for the farms producing that crop. Average acreages including those farms not producing were hay crop 816, corn silage 721, corn grain 236, oats 3, tillable pasture 4, and idle 44.

Average crop acres and yields compiled for the region are for the 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 crop/dairy ratios indicate the relationship between forage production, forage production resources, and the dairy herd.

CROP/DAIRY RATIOS
44 Northern New York Region Dairy Farms, 2015*

Item	Average	My Farm
Total tillable acres per cow	2.26	_____
Total forage acres per cow	1.84	_____
Harvested forage dry matter, tons per cow	8.91	_____

*Excludes farms that do not harvest forages.

Cropping Analysis (continued)

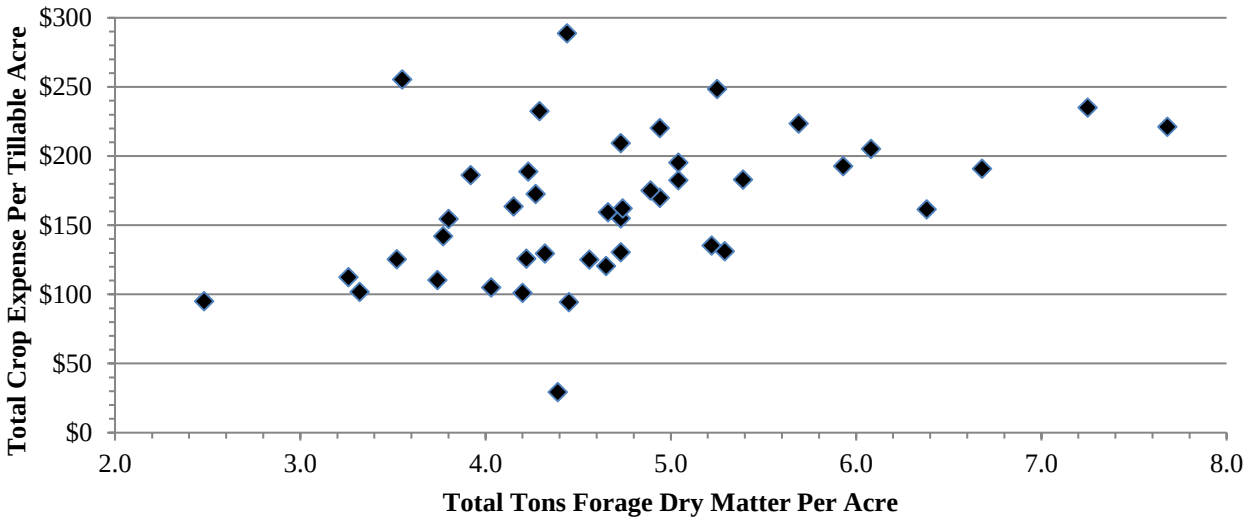
Crop input costs per tillable acre are reported in the table below. The chart below shows the relationship between total forage dry matter and total crop input costs.

CROP RELATED ACCRUAL EXPENSES
Northern New York Region Dairy Farms Reporting, 2015*

Item	Average 44 Farms Total Per Tillable Acre	My Farm Total Per Tillable Acre
Number of farms reporting	43	_____
Average number of acres	1,936	_____
Fertilizer & lime expenses	$ 67.71	$_____
Seeds & plants	61.36	_____
Spray & other crop expenses	34.74	_____
Total	$ 163.81	$_____

* Excludes farms that do not harvest forages.

CROP EXPENSE PER ACRE AND TOTAL FORAGE PRODUCTION PER ACRE
43 Northern New York Dairy Farms, 2015*



* Excludes farms that do not harvest forages.

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
44 Northern New York Region Dairy Farms, 2015*

Machinery Expense	Average Total Expenses	Average Per Tillable Acre	My Farm Total Expenses	My Farm Per Tillable Acre
Fuel, oil & grease	$131,159	$ 67.74	$ _____	$ _____
Mach. repair & vehicle expense	211,472	109.22	_____	_____
Machine hire, rent & lease	111,529	57.60	_____	_____
Interest (5%)	86,489	44.67	_____	_____
Depreciation	225,663	116.55	_____	_____
Total	$766,313	$395.78	$ _____	$ _____

*Excludes farms that do not harvest forages.

Dairy Analysis

Analysis of the dairy enterprise can reveal 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. Any change in inventory is included as an accrual farm receipt when calculating all of the profitability measures on pages 6 and 7.

DAIRY HERD INVENTORY

44 Northern New York Region Dairy Farms, 2015

	Dairy Cows		Heifer					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Beg. year (owned)	840	$1,220,878	263	$378,820	232	$207,632	215	$101,441
+ Change w/o apprec.		50,731		24,142		15,276		1,461
+ Appreciation		3,480		-770		-717		0
End year (owned)	870	$1,275,089	279	$402,192	244	$222,191	217	$102,902
End including leased	849							
Average number	859		726	(all age groups)				
My Farm:								
Beg. year (owned)	___	$_____	____	$ _____	___	$_____	____	$ _____
+ Change w/o apprec.		_____		_____		_____		_____
+ 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 size and productivity, respectively, on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year.

MILK PRODUCTION

44 Northern New York Region Dairy Farms, 2015

Item	Average	My Farm
Total milk sold, pounds	22,053,314	_____
Milk sold per cow, pounds	25,662	_____
Average milk plant test, percent butterfat	3.75%	_____

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

44 Northern New York Region Dairy Farms, 2015

	Average		My Farm	
Item	Number	Percent*	Number	Percent*
Cows sold for beef	241	28.1	_____	_____
Cows sold for dairy	3	0.3	_____	_____
Cows died	51	6.0	_____	_____
Culling rate**		34.1		_____

*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 can be compared with the accrual costs of producing milk per cow and per hundredweight of milk. Using the whole farm method, operating costs of producing milk are estimated by deducting nonmilk accrual receipts from total accrual operating expenses including expansion livestock purchased. Purchased inputs cost of producing milk are the operating costs plus depreciation. Total costs of producing milk include the operating costs of producing milk plus depreciation on machinery and buildings, the value of unpaid family labor, the value of operators' labor and management, and the interest charge for using equity capital.

ACCRUAL RECEIPTS FROM DAIRY, COSTS OF PRODUCING MILK, AND PROFITABILITY

44 Northern New York Region Dairy Farms, 2015

Item	Average			My Farm		
	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Cost of Producing Milk						
Operating costs	$ 3,394,395	$ 3,950	$ 15.39	$_____	$_____	$_____
Purchased inputs costs	$ 3,767,352	$ 4,384	$ 17.08	$_____	$_____	$_____
Total Costs	$ 4,277,663	$ 4,978	$ 19.40	$_____	$_____	$_____
Accrual Receipts From Milk	$ 3,983,212	$ 4,635	$ 18.06	$_____	$_____	$_____
Net Milk Receipts	$ 3,788,235	$ 4,408	$ 17.18	$_____	$_____	$_____
Net Farm Income without Apprec.	$ 215,860	$ 251	$ 0.98	$_____	$_____	$_____
Net Farm Income with Appreciation	$ 514,804	$ 599	$ 2.33	$_____	$_____	$_____

The accrual operating expenses most commonly associated with the dairy enterprise are listed in the table below. Feed and crop expenses include total purchased dairy feed plus fertilizer, seeds, spray and other crop expenses.

DAIRY RELATED ACCRUAL EXPENSES

44 Northern New York Region Dairy Farms, 2015

Item	Average		My Farm	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrate	$ 1,692	$ 6.59	$_____	$_____
Purchased dairy roughage	68	0.26	_____	_____
Total Purchased Dairy Feed	$ 1,760	$ 6.86	$_____	$_____
Purchased grain & concentrate as % of milk receipts	36%		_____ %	
Purchased feed & crop expense	$ 2,144	$ 8.35	$_____	$_____
Purchased feed & crop expense as % of milk receipts	46%		_____ %	
Breeding	$ 52	$ 0.20	$_____	$_____
Veterinary & medicine	153	0.60	_____	_____
Milk marketing	227	0.88	_____	_____
Bedding	88	0.34	_____	_____
Milking supplies	100	0.39	_____	_____
Cattle lease	0	0.00	_____	_____
Custom boarding	94	0.37	_____	_____
bST expense	84	0.33		
Livestock professional fees	16	0.06	_____	_____
Other livestock expense	26	0.10	_____	_____

Capital and Labor Efficiency Analysis

Capital efficiency factors measure how effectively the capital is being used in the farm business. Measures of labor efficiency are key indicators of management's success in generating products per unit of labor input. When evaluating a business, the relationship between capital efficiency and labor efficiency should be explored. For example, if capital efficiency shows high capital investment per worker or per cow, labor efficiency should be high reflecting use of capital to make labor more effective. However, if capital investment is high per worker or per cow, and labor efficiency is low, a problem may exist on that farm.

CAPITAL EFFICIENCY
44 Northern New York Region Dairy Farms, 2015

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$558,427	$11,807	$5,362	$9,114
Real estate		5,180		3,998
Machinery & equipment	93,740	1,982	900	

Ratios

Asset turnover	Operating Expense	Interest Expense	Depreciation Expense
0.49	0.85	0.02	0.08

My Farm

Farm capital	$ _____	$ _____	$ _____	$ _____
Real estate	_____	_____	_____	_____
Machinery & equipment	_____	_____	_____	_____

Ratios

Asset turnover	Operating Expense	Interest Expense	Depreciation Expense
_____	_____	_____	_____

LABOR FORCE INVENTORY
44 Northern New York Region Dairy Farms, 2015

Labor Force	Months	Age	Years of Education	Value of Labor & Management
Operator number 1	13.7	53	16	$72,825
Operator number 2	7.6	53	15	45,545
Operator number 3	5.0	41	14	23,777
Operator number 4	2.8	30	14	12,591
Family paid	1.7			
Family unpaid	1.2			
Hired	186.1			
Total	218.1	/ 12 = 18.2 Worker Equivalent		
		2.15 Operator/Manager Equivalent		
My Farm: Total	_____	/ 12 = _____ Worker Equivalent		
Operator's	_____	/ 12 = _____ Operator/Manager Equivalent		

Small conventional stall operations of 60 or less cows should strive for labor efficiency of 600,000 or more pounds of milk sold per worker. Large conventional stall operations should strive for 850,000 or more pounds of milk sold per worker. Small free stall operations of less than 300 cows should strive for 1,000,000 pounds of milk sold per worker and large free stall operations with more than 300 cows should strive for over 1,200,000 pounds of milk sold per worker.

Labor costs and machinery costs should also be evaluated both individually and jointly. The more machinery or technology at a worker's disposal, the less time, and therefore cost, that should be required to get work accomplished. Striving for labor and machinery costs per cow of less than $2,200 on small conventional stall barns, less than $1,800 on large conventional stall barns, less than $1,700 on small free stall barns and below $1,600 on large free stall barns should be a goal.

LABOR EFFICIENCY
44 Northern New York Region Dairy Farms, 2015

Labor Efficiency	Average Total	Average Per Worker	My Farm Total	My Farm Per Worker
Cows, average number	859	47	_____	_____
Milk sold, pounds	22,053,314	1,213,443	_____	_____
Tillable acres	1,892	104	_____	_____

LABOR AND MACHINERY COSTS
44 Northern New York Region Dairy Farms, 2015

Labor Costs	Average Total	Average Per Cow	Average Per Cwt.	My Farm Total	My Farm Per Cow	My Farm Per Cwt.
Value of operator(s) labor ($2,600/month)	$ 81,849	$ 95	$ 0.37	$_____	$ _____	$ _____
Family unpaid ($2,600/month)	3,120	4	0.01	_____	_____	_____
Hired	602,442	701	2.73	_____	_____	_____
Total Labor	$ 687,411	$ 800	$ 3.12	$_____	$ _____	$ _____
Machinery Cost	$ 758,838	$ 883	$ 3.44	$_____	$ _____	$ _____
Total Labor & Mach.	$1,446,249	$ 1,683	$ 6.56	$_____	$ _____	$ _____
Hired labor expense per hired worker equivalent			$ 38,495	$ _____		
Hired labor expense as % of milk sales			15.1%	_____%		

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 can be helpful to establishing your goals for these parameters. It is equally important for you to determine the progress your business has made over the past two or three years, to compare this progress to your goals, and to set goals for the future.

PROGRESS OF THE FARM BUSINESS

Same 42 Northern New York Region Dairy Farms, 2014 & 2015

	Average of 42 Farms*		My Farm		
Selected Factors	2014	2015	2014	2015	Goal
Size of Business					
Average number of cows	844	891	_____	_____	_____
Average number of heifers	714	751	_____	_____	_____
Milk sold, pounds	21,812,777	22,843,140	_____	_____	_____
Worker equivalent	18.0	18.6	_____	_____	_____
Total tillable acres	1,864	1,953	_____	_____	_____
Rates of Production					
Milk sold per cow, pounds	25,830	25,652	_____	_____	_____
Hay DM per acre, tons	3.4	3.4	_____	_____	_____
Corn silage per acre, tons	18	18.40	_____	_____	_____
Labor Efficiency					
Cows per worker	47	48	_____	_____	_____
Milk sold/worker, pounds	1,211,148	1,225,490	_____	_____	_____
Cost Control					
Grain & conc. purchased as % of milk sales	28%	37%	_____ %	_____ %	_____ %
Dairy feed & crop expense per cwt. milk	$ 8.90	$ 8.37	$ _____	$ _____	$ _____
Labor & mach. costs/cow	$ 1,788	$ 1,677	$ _____	$ _____	$ _____
Operating cost of producing cwt. of milk	$ 16.78	$ 15.41	$ _____	$ _____	$ _____
Capital Efficiency**					
Farm capital per cow	$ 11,318	$ 11,802	$ _____	$ _____	$ _____
Mach. & equipment per cow	1,871	1,978	$ _____	$ _____	$ _____
Asset turnover ratio	0.67	0.49	_____	_____	_____
Profitability					
Net farm income w/o apprec.	$1,421,983	$ 223,731	$ _____	$ _____	$ _____
Net farm income w/apprec.	$1,691,123	$ 537,370	$ _____	$ _____	$ _____
Labor & mgmt. income per operator/manager	$ 509,010	$ -66,742	$ _____	$ _____	$ _____
Rate of return on equity capital with appreciation	23.3	5.2	_____ %	_____ %	_____ %
Rate of return on all capital with appreciation	17.1	4.6	_____ %	_____ %	_____ %
Financial Summary					
Farm net worth, end year	$7,235,788	$7,414,215	$ _____	$ _____	$ _____
Debt to asset ratio	0.29	0.31	_____	_____	_____
Farm debt per cow	$ 3,538	$ 3,787	$ _____	$ _____	$ _____

*Farms participating both years.

**Average for the year.

RECEIPTS AND EXPENSES PER COW AND PER CWT.

Same 42 Northern New York Region Dairy Farms, 2014 & 2015

	2014		2015	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average Number of Cows	844		891	
Cwt. of Milk Sold		218,128		228,431
ACCRUAL OPERATING RECEIPTS				
Milk	$6,464	$25.03	$4,639	$18.08
Dairy cattle	467	1.81	434	1.69
Dairy calves	70	0.27	100	0.39
Other livestock	2	0.01	2	0.01
Crops	144	0.56	184	0.72
Miscellaneous receipts	113	0.44	129	0.50
Total Receipts	$7,259	$28.10	$5,488	$21.39
ACCRUAL OPERATING EXPENSES				
Hired labor	$ 678	$ 2.62	$ 703	$ 2.74
Dairy grain & concentrate	1,824	7.06	1,695	6.61
Dairy roughage	88	0.34	68	0.27
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	1	0.00	1	0.01
Machine hire, rent & lease	143	0.55	127	0.50
Machinery repair & vehicle expense	277	1.07	246	0.96
Fuel, oil & grease	232	0.90	151	0.59
Replacement livestock	20	0.08	18	0.07
Breeding	51	0.20	52	0.20
Veterinary & medicine	159	0.62	153	0.60
Milk marketing	216	0.84	227	0.89
Bedding	91	0.35	88	0.34
Milking supplies	96	0.37	100	0.39
Cattle lease	0	0.00	0	0.00
Custom boarding	109	0.42	95	0.37
bST expense	89	0.35	84	0.33
Livestock professional fees	14	0.06	16	0.06
Other livestock expense	29	0.11	26	0.10
Fertilizer & lime	166	0.64	159	0.62
Seeds & plants	139	0.54	143	0.56
Spray & other crop expense	77	0.30	75	0.29
Crop professional fees	6	0.02	7	0.03
Land, building & fence repair	100	0.39	89	0.35
Taxes	61	0.24	62	0.24
Real estate rent & lease	61	0.23	64	0.25
Insurance	53	0.21	63	0.25
Utilities	125	0.49	97	0.38
Interest paid	115	0.44	115	0.45
Other professional fees	29	0.11	24	0.09
Miscellaneous	30	0.12	27	0.10
Total Operating Expenses	$5,080	$19.67	$4,778	$18.62
Expansion Livestock	50	0.19	26	0.10
Extraordinary Expense	0	0.00	1	0.00
Machinery Depreciation	273	1.06	259	1.01
Real Estate Depreciation	173	0.67	174	0.68
Total Expenses	$5,576	$21.59	$5,238	$20.41
Net Farm Income Without Appreciation	$1,684	$ 6.52	$ 251	$ 0.98

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 five figures in each column represent the average of each 20 percent or quintile of farms included in the regional summary. Use this information to identify business areas where more challenging goals are needed.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS

44 Northern New York Region Dairy Farms, 2015

Size of Business			Rate 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)
40.4	2,111	53,518,484	27,916	5.3	23	60	1,530,074
23.6	1,107	29,896,667	26,659	3.7	20	49	1,241,697
15.4	678	17,079,745	25,418	3.3	18	45	1,130,578
10.3	413	10,545,584	24,034	2.7	17	40	991,441
3.7	128	2,722,220	20,823	1.8	14	28	655,028

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)
$1,049	26%	$689	$1,346	$1,440	$6.31
1,472	33	829	1,586	1,860	7.67
1,682	36	914	1,746	2,120	8.36
1,811	39	1,000	1,920	2,333	9.04
2,074	44	1,259	2,565	2,708	10.17

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Producing Milk Per Cwt.	% Rate of Return on All Capital w/o Appreciation	Net Farm Income w/o Appreciation	Labor & Mgt. Income Per Operator	Change in Net Worth with Appreciation
(12)	(12)	(12)	(4)	(4)	(4)	(8)
$5,118	$12.83	$17.59	5.8%	$1,007,706	$178,352	$1,194,289
4,798	14.30	19.03	2.7	410,043	7,499	381,701
4,552	15.51	20.15	0.8	99,601	-55,498	32,841
4,277	16.55	21.30	-1.2	-13,062	-142,524	-105,803
3,689	19.49	24.86	-8.3	-337,004	-427,471	-598,274

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

Supplementary Information

Each year DFBS cooperators volunteer to complete supplementary data collection forms looking at selected management aspects of the business or specific research areas being studied. This is in addition to the normal DFBS data collection form. An area that was examined this year was the source of dairy replacements. Following is a summary of this information.

SOURCE OF DAIRY REPLACEMENTS
33 Dairy Farms, 2015

Animals Entering Herd	Average
Number calving in 2015 for first time	276
Animals purchased, %[1]	4.2
Animals raised by farm, %[2]	95.8
Current Heifer Inventory	
Raised on dairy, %	87.2
Raised by a custom grower, %	12.8

[1] Animals purchased are animals purchased from a different farm and were not the farm's genetics.
[2] Animals raised by farm are animals that were born on the farm and entered the herd, which includes animals raised by the farm or custom grower.

On the average farm, 276 animals calved for the first time in 2015. The breakdown on the source of these animals was 4.2 percent purchased and 95.8 percent raised on the farm. Of the current heifer inventory, 87.2 percent were raised on the dairy and 12.8 percent were raised by a custom grower. There is increased interest in evaluating the dairy replacement enterprise.

Milk Income and Marketing Expense Breakdown

Starting January 1st, 2000, the northeast switched to multiple components pricing, which changed the format of the milk check and how farmers received payment for their milk. To examine the breakdown of the gross milk income and the marketing expenses, 42 farms filled out a detailed form for all the different sources of income for milk sales and the milk marketing expenses on an accrual basis. This information is reported in the following two tables. The tables are divided into six different areas, each representing a different area of income or expenses.

The first section looks at the value of the milk components on a per cwt. basis. The second area looks at the Producer Price Differential. The third area looks at the premiums a farm receives. Any premiums not specifically noted as quality or volume-related are included in market premiums. The fourth area looks at the expenses associated with marketing milk. A line item in this section is the expense associated with utilizing forward contracting or hedging programs to market milk, such as commissions or broker fees. The fifth area is income from forward contracting or hedging programs. The sixth area is the patronage dividends or refunds from the milk cooperatives. Equity purchased in the milk cooperative utilizing a monthly deduction from the milk check or a percent of the patronage dividend is treated as a capital purchase and is not a milk marketing expense. The cumulative total for these six areas is the net price received on farms. For participating farms, the net farm price can be found on page 13 of the DFBS report.

The table on page 25 reports the averages for these different areas. The table on page 26 contains the range for each of the individual lines of the report. This table is in farm business chart format with each item sorted independently and ranked by fifths. Numbers for the different areas will not add to the totals for that quintile or to the net price received because the highest farms for each item were averaged, not the same farms throughout the six areas. This table shows the range of income and expenses received by farms for all the different areas.

For your individual farm, compare your accrual numbers following this same format to look at how you compare to other farms in your region and to identify possible areas to generate additional revenue.

AVERAGE MILK INCOME AND MARKETING REPORT
42 Northern New York Region Dairy Farms, 2015

	Pounds	Percent	Price/Pound	Total	$/Cwt of Milk
BASE FARM PRICE					
Butterfat	863,726	3.75%	$2.30	$1,982,886	$ 8.62
Protein	713,660	3.10%	$2.23	$1,593,992	$ 6.93
Solids	1,323,725	5.75%	$0.19	$246,777	$ 1.07
Total Component Contribution					$16.62
PPD	23,004,397			$115,612	$0.50
Base Farm Price					$17.12
Premiums					
Quality				$43,810	$0.19
Volume				$50,663	$0.22
Market Premiums				$75,129	$0.33
Total Premiums					$0.74
BASE FARM PRICE + PREMIUM					$17.86
Deductions					
Promotion				$34,631	$0.15
Hauling & Coop Dues				$168,536	$0.73
Total Deductions					$0.88
BASE FARM PRICE + PREMIUMS - DEDUCTIONS					$16.98
Marketing Programs					
Futures Contracts, Forward Contracting, Etc.				$40,872	$0.18
Total Marketing Income					$0.18
Patronage Dividends				$6,694	$0.03
NET PRICE RECEIVED ON FARM, ALL SOURCES					**$17.18**
Net Marketing Value (PPD + Total Premiums - Total Deductions), $ per cwt.					$0.36

MILK PRICE INFORMATION BY QUINTILE*
(Each Category Sorted Independently)
42 Northern New York Region Dairy Farms, 2015

	Lowest Quintile	←			Highest Quintile
Butterfat, %	3.57	3.71	3.79	3.88	3.99
Protein, %	2.99	3.05	3.10	3.13	3.18
Other Solids, %	5.68	5.72	5.76	5.77	5.80
Butterfat, $ per Cwt.	8.17	8.52	8.71	8.92	9.24
Protein, $ per Cwt.	6.60	6.80	6.93	6.99	7.10
Other solids, $ per Cwt.	0.98	1.06	1.08	1.09	1.13
Total Component Value per Cwt.	**$16.02**	**$16.41**	**$16.68**	**$16.95**	**$17.20**
PPD, $ per Cwt.	0.37	0.41	0.43	0.55	0.91
Base Farm Price per Cwt.	**$16.52**	**$16.89**	**$17.26**	**$17.55**	**$17.69**
Quality, $ per Cwt.	0.03	0.13	0.20	0.30	0.42
Volume, $ per Cwt.	0.00	0.03	0.17	0.26	0.47
Market premium, $ per Cwt.	0.00	0.12	0.26	0.37	0.75
Total Premium, $ per Cwt.	**0.27**	**0.50**	**0.63**	**0.92**	**1.14**
Base Farm Price + Premiums per Cwt.	**$17.16**	**$17.53**	**$17.80**	**$18.21**	**$18.59**
Promotion, $ per Cwt.	0.15	0.15	0.15	0.15	0.15
Hauling & Coop Dues, $ per Cwt.	0.43	0.51	0.70	0.91	1.27
Total Marketing Expenses per Cwt.	**$0.58**	**$0.66**	**$0.85**	**$1.06**	**$1.42**
Base + Premiums – Deductions per Cwt.	**$16.36**	**$16.70**	**$16.90**	**$17.70**	**$17.65**
Futures contract, forward contracting, $ per Cwt.	-0.03	0.00	0.00	0.04	0.76
Total Marketing Income, $ per Cwt.	**$-0.03**	**$0.00**	**$0.00**	**$0.04**	**$0.76**
Patronage Dividends, $ per Cwt.	**$0.00**	**$0.00**	**$0.01**	**$0.05**	**$0.18**
Net Price Received From All Sources, $ per Cwt.	**$16.40**	**$16.82**	**$17.10**	**$17.52**	**$17.86**
Net Marketing Value (PPD + Total Premiums - Total Deductions), $ per cwt.	**-0.11**	**0.13**	**0.31**	**0.46**	**0.81**

*Data for each category are calculated independently of all others. Therefore, summation of individual categories will not equal total categories.

New York State Farm Business Charts

The Farm Business Chart is a tool which can be used in analyzing a business by drawing a line through the figure in each column which represents the current level of management performance. The figure at the top of each column is the average of the top 10 percent of the 173 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the top 10 percent for any other factor.

The cost control factors are ranked from low to high, but the lowest cost is not necessarily the most profitable. In some cases, the "best" management position is somewhere near the middle or average. Many things affect the level of costs, and must be taken into account when analyzing the factors.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS

173 New York Dairy Farms, 2014

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)
43.1	2,080	54,313,076	28,559	5.3	25	65	1,586,137
28.4	1,270	33,539,575	27,250	4.5	22	53	1,336,051
22.7	1,035	27,003,740	26,643	4.0	21	49	1,208,128
18.9	824	21,327,246	25,968	3.6	20	45	1,132,035
15.2	661	16,453,059	25,432	3.4	19	42	1,054,347
11.6	511	12,332,005	24,759	3.1	18	40	999,368
7.6	334	7,801,745	23,569	2.9	17	38	892,185
5.0	179	3,701,754	22,370	2.5	16	34	757,815
3.5	103	2,128,586	19,365	2.0	14	29	582,032
2.0	53	861,203	13,124	0.9	3	22	369,343

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)
$739	18%	$537	$1,233	$1,030	$6.37
1,239	23	770	1,564	1,630	7.91
1,520	26	859	1,701	1,967	8.37
1,681	27	917	1,807	2,118	8.70
1,775	28	983	1,906	2,233	9.02
1,878	29	1,047	1,970	2,350	9.25
1,939	30	1,118	2,043	2,436	9.67
2,024	31	1,202	2,166	2,519	10.08
2,110	32	1,295	2,367	2,656	10.59
2,344	37	1,572	2,812	2,915	12.10

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

FARM BUSINESS CHART FOR
FARM MANAGEMENT COOPERATORS
173 New York Dairy Farms, 2014

Milk Receipts Per Cow	Milk Receipts Per Cwt.	Operating Cost Milk Production Per Cow	Operating Cost Milk Production Per Cwt.	Total Cost Milk Production Per Cow	Total Cost Milk Production Per Cwt.
(12)	(12)	(12)	(12)	(12)	(12)
$7,384	$27.84	$2,230	$13.12	$3,739	$18.40
7,023	26.66	3,213	15.37	4,660	19.90
6,768	26.19	3,686	16.04	4,920	20.68
6,583	25.86	3,937	16.51	5,132	21.44
6,406	25.58	4,142	17.02	5,290	22.01
6,249	25.41	4,301	17.65	5,486	22.49
6,019	25.20	4,534	18.57	5,632	23.38
5,705	25.04	4,736	19.09	5,893	24.18
5,072	24.64	4,999	19.73	6,186	26.34
3,354	23.66	5,448	21.72	6,652	33.68

Profitability

Net Farm Income Without Appreciation			Net Farm Income With Appreciation		Labor & Management Income	
Total	Per Cow	Operations Ratio	Total	Per Cow	Per Farm	Per Operator
(4)	(12)	(4)	(4)	(12)	(4)	(4)
$4,016,078	$2,583	0.35	$4,686,493	$3,222	$3,227,880	$1,612,645
2,336,674	2,102	0.29	2,855,399	2,588	1,811,699	926,424
1,669,865	1,910	0.27	2,076,389	2,268	1,273,005	637,057
1,320,389	1,757	0.25	1,546,866	2,063	1,004,947	455,781
970,351	1,652	0.24	1,152,837	1,944	731,383	309,980
697,780	1,526	0.22	889,287	1,778	461,038	229,958
426,295	1,377	0.20	555,913	1,623	291,520	156,637
225,621	1,199	0.17	273,539	1,385	138,710	94,825
125,798	893	0.14	148,273	1,062	56,543	40,728
34,576	328	0.06	36,597	453	-60,251	-39,398

Farm Business Charts for farms with freestall barns and 200 cows or less, 200 to 500 cows, and more than 500 cows, and farms with conventional barns with less than 60 cows and equal to or more than 60 cows are shown on pages 32-36.

Financial Analysis Chart

The farm financial analysis chart on page 29 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, 9, 13 and 19 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART

173 New York Dairy Farms, 2014

Liquidity (repayment)							
Planned Debt Payments Per Cow	Available for Debt Service Per Cow	Cash Flow Coverage Ratio	Debt Coverage Ratio	Debt Pay-ments as Percent of Milk Sales	Debt Per Cow	Working Capital as % of Total Expenses	Current Ratio
(10)*	(16)	(10)	(10)	(10)	(7)	(7)	(7)
$ 51	$1,950	28.46	48.05	0%	$ 209	70%	63.81
264	1,559	4.75	7.40	3	1,179	49	8.70
426	1,416	3.31	5.19	5	2,163	40	5.63
541	1,283	2.76	4.19	6	2,560	34	4.17
621	1,182	2.35	3.40	7	3,067	29	3.21
713	1,102	1.95	2.94	9	3,629	25	2.74
856	938	1.65	2.50	10	4,039	21	2.33
991	819	1.41	2.05	11	4,630	17	1.87
1,172	581	1.11	1.42	14	5,379	10	1.40
1,570	216	0.43	0.37	20	7,241	-1	0.75

Solvency				Operational Ratios		
		Debt/Asset Ratio		Operating	Interest	Depreciation
Leverage Ratio**	Percent Equity	Current & Intermediate	Long Term	Expense Ratio	Expense Ratio	Expense Ratio
(7)	(7)	(7)	(7)	(14)	(14)	(14)
0.01	99%	0.01	0.00	0.58	0.00	0.02
0.11	91	0.08	0.00	0.64	0.00	0.04
0.20	84	0.15	0.05	0.66	0.01	0.04
0.27	79	0.21	0.13	0.67	0.01	0.05
0.35	75	0.25	0.23	0.69	0.01	0.05
0.46	70	0.29	0.31	0.70	0.02	0.06
0.56	65	0.32	0.39	0.72	0.02	0.07
0.63	62	0.37	0.46	0.75	0.03	0.07
0.78	57	0.44	0.55	0.78	0.03	0.09
1.35	45	0.59	0.81	0.85	0.05	0.13

Efficiency (Capital)					Profitability	
					Percent Rate of Return with Appreciation on:	
Asset Turnover (ratio)	Real Estate Investment Per Cow	Machinery Investment Per Cow	Total Farm Assets Per Cow	Change in Net Worth With Appreciation	Equity	Investment***
(14)	(14)	(14)	(14)	(8)	(4)	(4)
0.98	$12,306	$ 760	$ 7,448	$3,814,371	41%	27%
0.80	3,167	1,228	9,156	2,290,942	31	22
0.74	3,703	1,510	10,063	1,642,462	27	19
0.69	4,192	1,748	10,681	1,234,750	23	17
0.65	4,647	1,964	11,315	848,733	20	15
0.60	5,131	2,219	12,335	584,698	17	13
0.56	5,676	2,436	13,077	348,105	15	12
0.52	6,330	2,708	13,895	170,637	12	9
0.45	7,435	3,212	15,217	90,292	6	6
0.30	11,101	4,932	19,902	-19,302	-5	-2

*Page number of the participant's DFBS report 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

Comparison by Type of Barn and Herd Size

When analyzing a dairy farm business by comparing it to a group of farms, it is important that the group of farms have used as many of the same physical characteristics as possible as the farm being analyzed. To assist in this endeavor, dairy farms in the summary have been divided into those with freestall and those with conventional housing. Conventional housing includes stanchion and tiestall barns. Within each group, is a further classification by size of the dairy herd.

The table on page 31 includes the average values for the resulting five groups of dairy farms. The average size of farms in the five groups ranges from 37 cows on the small conventional farms to 2,462 cows on the largest freestall farms.

The largest freestall farms averaged the highest milk output per cow and per worker, the lowest total cost of production; and, in 2014, they had the highest returns to labor, management and capital.

Farm business charts have been computed for each of the five housing and herd size categories and are on pages 32-36. By comparing the farm's performance on the most appropriate business chart, a farm manager will be better able to evaluate his or her business performance.

Herd Size Comparisons

A detailed comparison of profitability, financial situation and business analysis factors across herd sizes is contained on pages 48-60 of the 2014 State Summary*. In most years, as herd size increases, the net farm income increases (page 48)*; and that was the case for 2014. Net farm income without appreciation averaged $52,279 per farm for the less than 60 cow farms and $2,479,788 per farm for those with more than 900 cows. Return to all capital without appreciation generally increased as herd size increased. With herd sizes less than 200 cows, many farms find it difficult to find a low cost combination of technology and labor to produce milk. Thus profits are lower for these herds than other herd sizes.

Assets, liabilities and financial measures are presented on pages 55-58*. All herd size categories saw an increase in net worth during 2014. The largest herd size category experienced an increase in net worth of $2,306,383. However, percent equity varied as herd size increased. The 600 to 899 herd size category had the lowest percent equity at 70 percent; while the 400 to 599 herd size category averaged the highest percent equity at 79 percent.

Crop yields showed little relationship to herd size, but fertilizer and lime expenses, and machinery cost per tillable acre generally increased as herd size increased (pages 59-60)*. The farms with more than 900 cows averaged more milk sold per cow than any other size category (page 60). With 26,139 pounds of milk sold per cow, farms in the largest herd size group averaged 7.6 percent more milk output per cow than the average of all herds in the summary with less than 900 cows. Farm capital per cow generally decreased as herd size increased. Milk sold per worker increased dramatically as herd size increased. The farms with 100 cows or more averaged over 1,148,000 pounds of milk sold per worker while the farms with less than 100 cows averaged less than 442,000 pounds per worker.

*Wayne A. Knoblauch, Cathryn Dymond, Jason Karszes, and Richard Kimmich, Dairy Farm Management Business Summary, New York State, 2014, Charles H. Dyson School of Applied Economics and Management, Cornell University, R.B. 2015-01, September 2015.

SELECTED BUSINESS FACTORS BY TYPE OF BARN AND HERD SIZE

173 New York Dairy Farms, 2014

Item Farms with:	Tiestall/Stanchion <= 60 Cows	Tiestall/Stanchion >60 Cows	Freestall <=200 Cows	Freestall 201-500 Cows	Freestall ≥500 Cows
Number of farms	11	13	20	26	91
Cropping Program Analysis					
Total Tillable acres	222	337	323	703	2,142
Tillable acres rented*	100	200	155	299	1,006
Hay crop acres*	150	225	183	356	873
Corn silage acres*	25	68	96	267	899
Hay crop, tons DM/acre	1.7	2.4	2.6	3.6	3.5
Corn silage, tons/acre	15.4	17.0	18.2	19.8	19.1
Oats, bushels/acre	0	46	0	65	49
Forage DM per cow, tons	9.5	10.9	10.0	9.2	8.3
Tillable acres/cow	4.9	3.9	2.9	2.1	2.0
Fertilizer & lime expense/tillable acre	$32.82	$50.27	$67.76	$67.47	$73.69
Total machinery costs	$55,139	$97,993	$130,669	$386,120	$1,099,217
Machinery cost/tillable acre	$247	$291	$374	$549	$502
Dairy Analysis					
Number of cows	45	87	119	341	1,123
Number of heifers	38	70	104	285	959
Milk sold, lbs.	795,461	1,708,858	2,599,172	8,635,907	29,164,728
Milk sold/cow, lbs.	17,502	19,572	21,833	25,294	25,965
Operating cost of producing milk/cwt.	$16.76	$18.43	$17.91	$17.32	$17.24
Total cost of producing milk/cwt.	$31.20	$26.39	$24.34	$22.10	$21.08
Price/cwt. milk sold	$25.15	$25.68	$25.95	$25.70	$25.41
Purchased dairy feed/cow	$1,189	$1,398	$1,753	$1,975	$2,021
Purchased dairy feed/cwt. milk	$6.79	$7.14	$8.03	$7.81	$7.78
Purchased grain & concentrate as % of milk receipts	24%	25%	28%	29%	29%
Purchased feed & crop expense/cwt milk	$8.00	$9.14	$9.67	$9.15	$9.10
Capital Efficiency					
Farm capital/worker	$362,724	$410,022	$370,250	$472,045	$522,752
Farm capital/cow	$17,159	$14,652	$12,254	$11,946	$11,430
Farm capital/tillable acre owned	$6,397	$9,317	$8,699	$10,105	$11,299
Real estate/cow	$9,507	$6,741	$5,146	$4,904	$4,634
Machinery investment/cow	$3,499	$3,511	$2,406	$2,349	$1,893
Asset turnover ratio	0.31	0.40	0.53	0.64	0.68
Labor Efficiency					
Worker equivalent	2.15	3.12	3.95	8.64	24.56
Operator/manager equivalent	1.25	1.42	1.34	1.84	2.44
Milk sold/worker, lbs.	369,552	547,418	658,852	999,141	1,187,489
Cows/worker	21	28	30	40	46
Labor cost/cow	$1,364	$1,078	$1,040	$905	$847
Labor cost/tillable acre	$279	$279	$383	$439	$444
Profitability & Balance Sheet Analysis					
Net farm income (without appreciation)	$46,268	$96,700	$167,144	$567,183	$1,907,986
Labor & management income/operator	$1,626	$28,068	$73,718	$224,607	$598,499
Rate return on all capital with appreciation	-0.5%	4.8%	7.8%	15.0%	17.4%
Farm debt/cow	$3,660	$3,636	$2,810	$3,135	$3,507
Percent equity	79%	75%	77%	75%	71%

*Average of all farms, not only those reporting data.

FARM BUSINESS CHART FOR SMALL TIESTALL/STANCHION DAIRY FARMS

11 Tiestall/Stanchion Dairy Farms with 60 or Less Cows, New York, 2014

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)
3.29	53	1,089,634	24,055	2.3	20	32	640,358
2.26	50	980,545	20,896	2.0	18	25	459,022
2.04	47	899,062	17,728	1.8	16	23	362,842
2.00	45	661,668	15,472	1.6	13	22	309,925
1.50	37	496,086	11,602	0.8	7	16	251,394

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)
$579	15%	$582	$1,762	$868	$5.52
1,021	22	1,001	2,377	1,202	7.72
1,100	26	1,271	2,543	1,243	8.10
1,261	29	1,423	2,697	1,675	9.09
1,440	36	1,701	3,497	2,210	10.21

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
(12)	(12)	(12)	(4)	(12)	(4)	(8)
$5,971	$12.65	$25.49	$96,732	$1,823	$39,378	$112,385
5,525	16.02	28.04	75,087	1,631	17,983	73,514
4,398	17.70	33.22	53,080	1,112	8,569	34,862
3,900	19.06	37.20	23,701	613	-18,402	25,318
2,813	20.85	42.98	3,917	109	-32,524	6,925

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

FARM BUSINESS CHART FOR LARGE TIESTALL/STANCHION DAIRY FARMS

13 Tiestall/Stanchion Dairy Farms with 60 or More Cows, New York, 2014

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)
4.42	131	3,180,856	26,787	5.2	22	45	941,743
4.04	108	2,173,379	23,550	3.3	20	35	744,544
3.28	86	1,755,770	20,925	2.7	18	32	532,783
2.75	69	1,204,158	16,846	1.9	13	24	492,792
1.86	65	875,631	11,441	1.2	3	20	293,084

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)
$521	16%	$678	$1,590	$787	$6.44
1,030	23	885	1,979	1,489	8.40
1,443	26	1,088	2,324	1,955	9.22
1,730	30	1,358	2,427	2,309	9.86
2,023	34	1,636	2,914	2,677	11.56

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
(12)	(12)	(12)	(4)	(12)	(4)	(8)
$6,957	$16.80	$23.43	$201,097	$1,716	$99,412	$175,695
5,988	17.53	24.90	136,130	1,542	63,430	126,788
5,414	18.41	26.50	114,572	1,403	38,541	91,564
4,366	19.46	31.19	68,708	888	12,228	40,080
2,845	22.94	39.08	10,937	156	-63,562	5,668

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

FARM BUSINESS CHART FOR SMALL FREESTALL DAIRY FARMS

20 Freestall Barn Dairy Farms with 200 Cows or less, New York, 2014

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)
7.71	178	4,664,492	27,142	4.6	23	47	1,140,257
5.40	153	3,366,879	25,460	3.3	21	39	868,195
4.42	140	3,145,965	23,470	3.1	20	37	744,071
4.10	134	2,888,870	22,617	2.9	20	32	706,312
3.74	120	2,724,527	22,169	2.6	19	31	663,148
3.63	117	2,593,920	21,243	2.5	18	30	626,924
3.39	113	2,279,830	20,193	2.3	15	29	568,428
2.63	107	2,146,995	18,881	1.7	10	27	536,357
2.35	73	1,183,296	16,400	1.3	0	26	465,118
2.09	58	996,943	14,939	0.0	0	21	424,798

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)
$764	19%	$503	$1,606	$1,074	$6.48
1,102	23	730	1,634	1,394	7.33
1,381	26	839	1,678	1,774	8.12
1,497	27	885	1,738	1,979	8.58
1,529	29	940	1,853	2,094	9.61
1,642	29	1,016	1,961	2,227	10.19
1,763	30	1,037	2,012	2,359	10.62
1,937	32	1,120	2,315	2,511	11.18
2,047	34	1,353	2,642	2,599	11.75
2,106	36	1,637	2,873	2,847	14.75

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
(12)	(12)	(12)	(4)	(12)	(4)	(8)
$6,943	$13.69	$21.24	$301,499	$2,232	$167,393	$241,808
6,458	15.00	22.31	242,982	1,738	136,539	201,615
6,295	16.09	22.73	209,101	1,655	102,474	153,895
6,021	16.64	23.10	195,417	1,618	98,186	131,023
5,883	17.14	23.36	183,166	1,546	89,966	117,768
5,532	18.42	23.70	160,851	1,401	85,001	108,905
5,307	19.00	24.39	135,858	1,328	70,324	81,042
4,806	19.87	26.08	119,871	1,260	46,307	63,317
4,271	20.31	28.60	88,397	805	22,662	25,127
3,677	21.91	30.70	34,299	371	-11,318	-100,609

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

FARM BUSINESS CHART FOR MEDIUM FREESTALL DAIRY FARMS

26 Freestall Barn Dairy Farms with 201-500 Cows, New York, 2014

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)
14.51	490	12,811,128	28,034	5.4	25	62	1,601,543
13.05	449	11,838,170	27,305	5.0	24	54	1,280,734
11.39	420	10,923,200	26,851	4.6	23	47	1,173,592
9.63	406	10,634,193	26,596	4.4	22	45	1,137,750
9.32	389	10,074,994	26,072	4.0	20	43	1,073,824
8.30	365	8,978,834	25,587	3.6	20	40	1,029,781
7.45	312	8,039,669	25,162	3.3	19	39	957,395
6.67	271	7,005,816	24,038	3.1	18	35	858,115
6.13	236	5,427,747	23,500	2.9	16	33	783,788
4.65	210	4,513,011	20,021	2.1	9	29	732,535

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)
$1,332	21%	$611	$1,228	$1,711	$6.88
1,588	25	870	1,668	2,008	8.10
1,678	27	958	1,874	2,090	8.40
1,797	27	1,063	1,991	2,220	8.63
1,882	29	1,123	2,050	2,275	9.13
1,946	30	1,203	2,130	2,370	9.49
2,001	31	1,292	2,238	2,484	10.13
2,031	31	1,459	2,344	2,684	10.53
2,219	32	1,507	2,471	2,821	10.92
2,365	40	1,822	2,970	2,938	12.68

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation		Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
			Total	Per Cow		
(12)	(12)	(12)	(4)	(12)	(4)	(8)
$7,269	$13.46	$19.18	$1,077,418	$2,565	$598,994	$965,452
7,157	15.45	19.94	938,643	2,094	478,568	862,851
7,086	16.01	20.86	856,043	2,029	372,365	785,545
6,792	16.64	21.66	725,223	1,824	342,849	754,253
6,614	17.06	22.23	679,147	1,739	274,744	675,510
6,446	17.64	23.09	515,178	1,687	233,561	494,109
6,261	18.44	23.60	464,731	1,598	183,246	380,108
6,140	19.51	24.19	376,632	1,493	142,118	326,630
5,915	20.71	26.06	337,898	1,270	106,123	243,292
5,420	22.51	26.64	143,779	524	-13,229	94,594

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

FARM BUSINESS CHART FOR LARGE FREESTALL DAIRY FARMS

91 Freestall Barn Dairy Farms with 500 or More Cows, New York, 2014

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)
50.89	2,462	65,820,428	29,086	5.4	26	62	1,650,512
33.93	1,632	41,034,758	27,726	4.5	22	54	1,415,049
29.32	1,327	34,971,517	27,207	4.1	21	51	1,330,582
26.42	1,151	30,715,941	26,697	3.8	20	48	1,251,025
23.33	1,053	27,271,097	26,331	3.6	20	47	1,190,232
20.68	945	24,804,103	25,732	3.4	19	45	1,130,465
18.95	813	21,046,630	25,337	3.2	18	42	1,067,506
16.84	710	18,165,643	24,882	2.9	17	39	1,024,330
14.85	647	15,948,215	23,751	2.6	16	38	971,155
11.81	556	13,598,524	22,040	1.6	12	34	845,970

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)
$1,340	22%	$659	$1,332	$1,719	$7.23
1,668	25	827	1,551	2,075	8.17
1,744	27	865	1,681	2,174	8.57
1,834	28	924	1,790	2,282	8.84
1,901	29	979	1,849	2,372	9.07
1,957	29	1,031	1,913	2,430	9.26
2,022	30	1,092	1,960	2,479	9.54
2,088	31	1,158	2,031	2,558	9.88
2,145	33	1,211	2,129	2,676	10.22
2,435	36	1,316	2,328	2,982	11.02

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
(12)	(12)	(12)	(4)	(12)	(4)	(8)
$7,530	$13.85	$18.27	$4,958,267	$2,717	$1,858,419	$4,575,100
7,153	15.47	19.49	2,880,097	2,205	1,171,285	2,915,088
6,937	16.00	20.16	2,391,634	2,026	962,426	2,388,399
6,763	16.35	20.54	2,085,785	1,913	791,334	1,997,375
6,663	16.84	21.05	1,676,095	1,794	622,406	1,664,669
6,503	17.62	21.60	1,463,044	1,623	509,779	1,405,039
6,399	18.46	21.98	1,313,281	1,426	403,618	1,208,979
6,238	19.04	22.29	1,055,258	1,274	286,779	913,830
6,023	19.47	23.24	860,217	1,093	237,762	656,784
5,627	20.97	25.21	547,366	721	109,379	279,930

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

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 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 desired 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. Goals should be **T**imed with a designated date by which the goal will be achieved.

Goal setting on a dairy farm should be 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 23 and 27-29 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:	Needs improvement:

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 3)

Accrual Receipts - (defined on page 4)

Annual Cash Flow Statement - (defined on page 11)

Appreciation - (defined on page 5)

Asset Turnover Ratio - The ratio of total farm income to total farm assets, calculated by dividing total accrual operating receipts plus appreciation by average total farm assets.

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.

bST Usage - An estimate of the percentage of herd, on average, that was supplemented with bovine somatotropin during the year.

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 13)

Cash Paid - (defined on page 2)

Cash Receipts - (defined on page 4)

Change in Accounts Payable - (defined on page 3)

Change in Accounts Receivable - (defined on page 4)

Change in Inventory - (defined on page 2)

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 8 & 9 of the data entry form.

Culling Rate - (defined on page 17)

Current Portion - (defined on page 7)

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 Coverage Ratio – (defined on page 13)

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

Debt to Asset Ratios - (defined on page 9)

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 14.

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 equivalents.

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 6)

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 9)

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

Net Farm Income - (defined on page 5)

Net Farm Income from Operations Ratio - (defined on page 7)

Net Milk Receipts – Accrual milk receipts less milk marketing expense.

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 18)

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

Opportunity Costs - 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; DHIC, registration fees and transfers.

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 the costs including the opportunity costs of the owner/manager's labor, management, and equity capital.

Purchased Inputs Cost of Producing Milk - (defined on page 18)

Renter - Farm business owner/operator owns no tillable land and commonly rents all other farm real estate.

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)

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 18)

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. Calculated as current farm assets at end year less current farm liabilities at end year.

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