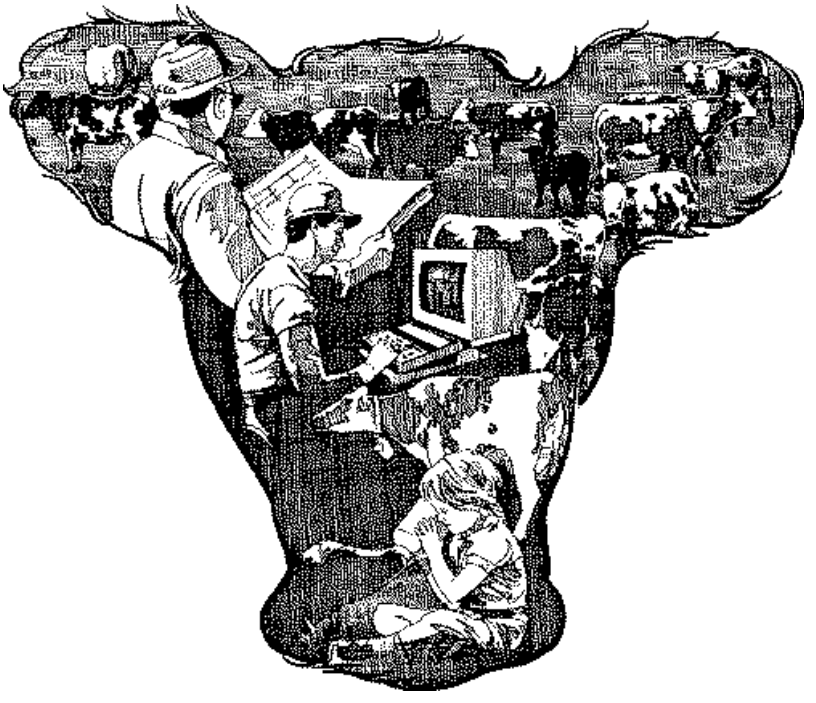
JULY 2001 *E.B. 2001-08*

DAIRY FARM BUSINESS SUMMARY

NORTHERN NEW YORK REGION 2000



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This material is based upon work supported by Smith Lever funds from the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Publication Price Per Copy: $8.00

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2000 DAIRY FARM BUSINESS SUMMARY
Northern New York Region
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2000 DAIRY FARM BUSINESS SUMMARY
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 2000.

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 2000 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. A DFBS Data Check-in Form can be used by non-DFBS participants to summarize their businesses.

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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*This summary was prepared by Wayne A. Knoblauch, Department of Applied Economics and Management, College of Agriculture and Life Sciences, Cornell University, in cooperation with Cooperative Extension Educators Bill Van Loo, Peggy Murray, Anita Deming, Chris Nobles, and Molly Ames; and Jason Karszes, Senior Extension Associate, Pro-Dairy. The Northern New York Region, with the number of participating farms in parentheses, is comprised of Clinton (5), Essex (5), Franklin (2), Jefferson (11), Lewis (7), and St. Lawrence (15) Counties. Linda Putnam was in charge of data analysis. Faye Butts prepared the publication.

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
45 Northern New York Region Dairy Farms, 2000

Type of Farm	Number
Dairy	45
Part-time dairy	0
Dairy cash-crop	0
Certified organic milk producer	0
Rotational grazing farm	8

Type of Ownership	Number
Owner	41
Renter	4

Type of Business	Number
Sole Proprietorship	24
Partnership	15
Limited Liability Corporation	4
Subchapter S Corporation	1
Subchapter C Corporation	1

Type of Barn	Number
Stanchion or Tie-Stall	15
Freestall	24
Combination	6

Milking Frequency	Number
2 times per day	31
3 times per day	12
Other	2

Milking System	Number
Bucket & carry	0
Dumping station	0
Pipeline	20
Herringbone conventional exit	15
Herringbone rapid exit	2
Parallel	8
Parabone	0
Rotary	0
Other	0

Production Records	Number
Testing Service	31
On Farm System	3
Other	1
None	10

bST Usage	Number
Used on <25% of herd	2
Used on 25-75% of herd	16
Used on >75% of herd	1
Stopped using in 2000	3
Not used in 2000	23

Business Record System	Number
Account Book	14
Accounting Service	3
On-farm computer	26
Other	2

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, part-time farms, dairy cash-crop farms, 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 2000.

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
45 Northern New York Region Dairy Farms, 2000

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Expense	+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$ 80,729		$ -113	<<	$ -3		$ 80,839
Feed							
Dairy grain & concentrate	143,338		-16,205		-530		159,013
Dairy roughage	6,254		-111		282		6,647
Nondairy	3		0		0		3
Machinery							
Machinery hire, rent & lease	17,973		236	<<	221		17,958
Machinery repairs & farm vehicle exp.	29,255		319		119		29,054
Fuel, oil & grease	13,584		-382		48		14,014
Livestock							
Replacement livestock	2,476		0	<<	0		2,476
Breeding	6,966		-335		42		7,342
Veterinary & medicine	16,510		237		168		16,441
Milk marketing	21,575		0	<<	25		21,600
Bedding	6,558		-62		74		6,694
Milking supplies	14,704		142		-66		14,495
Cattle lease & rent	0		0	<<	0		0
Custom boarding	5,793		-242	<<	-1		6,034
bST	9,425		-49		-7		9,467
Other livestock expense	7,694		106		12		7,600
Crops							
Fertilizer & lime	11,916		-876		147		12,938
Seeds & plants	5,986		-2,808		243		9,037
Spray, other crop expense	10,031		627		125		9,528
Real Estate							
Land, building & fence repair	9,058		-5		374		9,438
Taxes	8,595		0	<<	172		8,767
Rent & lease	10,094		0	<<	47		10,141
Other							
Insurance	7,803		56	<<	-8		7,740
Utilities (farm share)	14,945		0	<<	37		14,982
Interest paid	40,218		0	<<	4		40,222
Miscellaneous	7,360		77		122		7,405
Total Operating	$ 508,843		$ -19,386		$ 1,647		$ 529,876
Expansion livestock	9,950		0	<<	0		9,950
Machinery depreciation							37,316
Building depreciation							21,517
TOTAL ACCRUAL EXPENSES							$ 598,659

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 2000 but not paid for. A decrease is subtracted because it represents payment for resources used before 2000.

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
45 Northern New York Region Dairy Farms, 2000

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$ 562,105				$ 3,553		$ 565,658
Dairy cattle	23,516		$ 17,507		27		41,050
Dairy calves	5,919				19		5,939
Other livestock	424		921		0		1,345
Crops	2,115		5,254		327		7,696
Government receipts	32,339		39 *		94		32,471
Custom machine work	3,568				889		4,457
Gas tax refund	90				0		90
Other	6,930				3		6,933
Less nonfarm noncash capital**		(-)	222 **			(-)	222
Total Receipts	$ 637,007		$ 23,499		$ 4,911		$ 665,417

*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 2000 for the 2001 crop year in excess of funds earned for 2000. Likewise, a decrease is added to cash government receipts because it represents funds earned for 2000 but received in 1999.

Changes in accounts receivable are calculated by subtracting beginning year balances from end year balances. Payments in January 2001 for milk produced in December 2000 compared to January 2000 payments for milk produced in 1999 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.

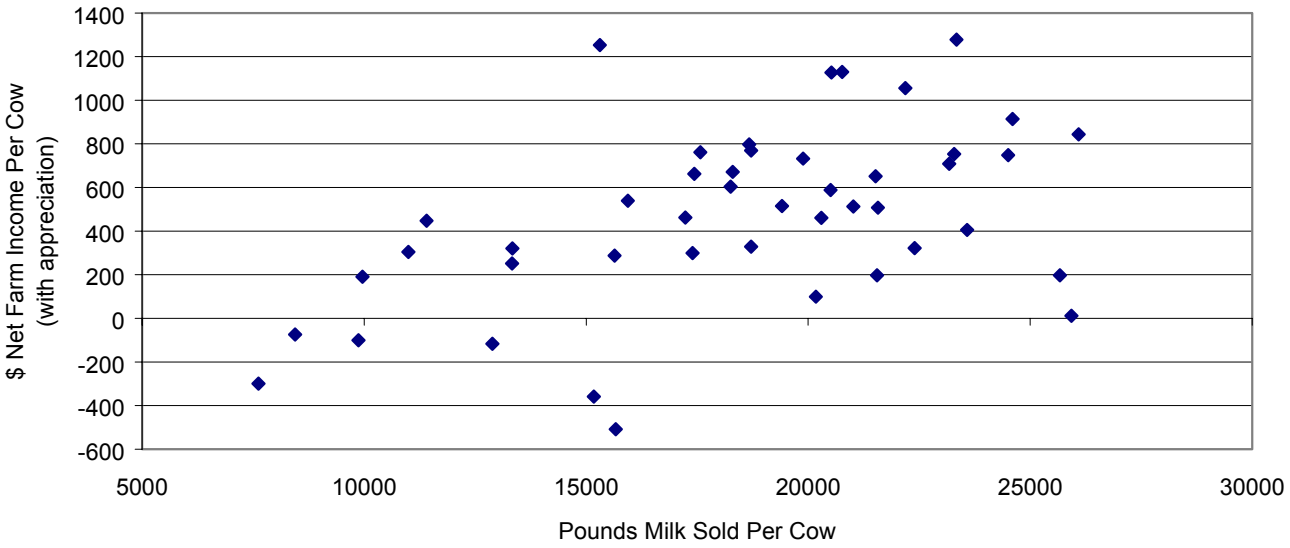
Net farm income is computed both with and without appreciation. Appreciation represents the change in values caused by annual changes in prices of livestock, machinery, real estate inventory, and stocks and certificates (other than Farm Credit). Appreciation is a major factor contributing to changes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

NET FARM INCOME
45 Northern New York Region Dairy Farms, 2000

Item	Average Total	Average Per Cow	My Farm Total	My Farm Per Cow
Total accrual receipts	$ 665,417		$ _____	
Appreciation: Livestock	19,126		_____	
Machinery	3,881		_____	
Real Estate	11,564		_____	
Other Stock & Certificates	167		_____	
Total Including Appreciation	$ 700,155		$ _____	
Total accrual expenses	- 598,659		- _____	
Net Farm Income (with appreciation)	$ 101,496	$ 498	$ _____	$_____
Net Farm Income (without appreciation)	$ 66,758	$ 327	$ _____	$_____

The chart below shows the relationship between net farm income per cow (with appreciation) and pounds of milk sold per cow. Generally, farms with a higher production per cow have higher profitability per cow.

NET FARM INCOME/COW AND MILK/COW
45 Northern New York Region Dairy Farms, 2000



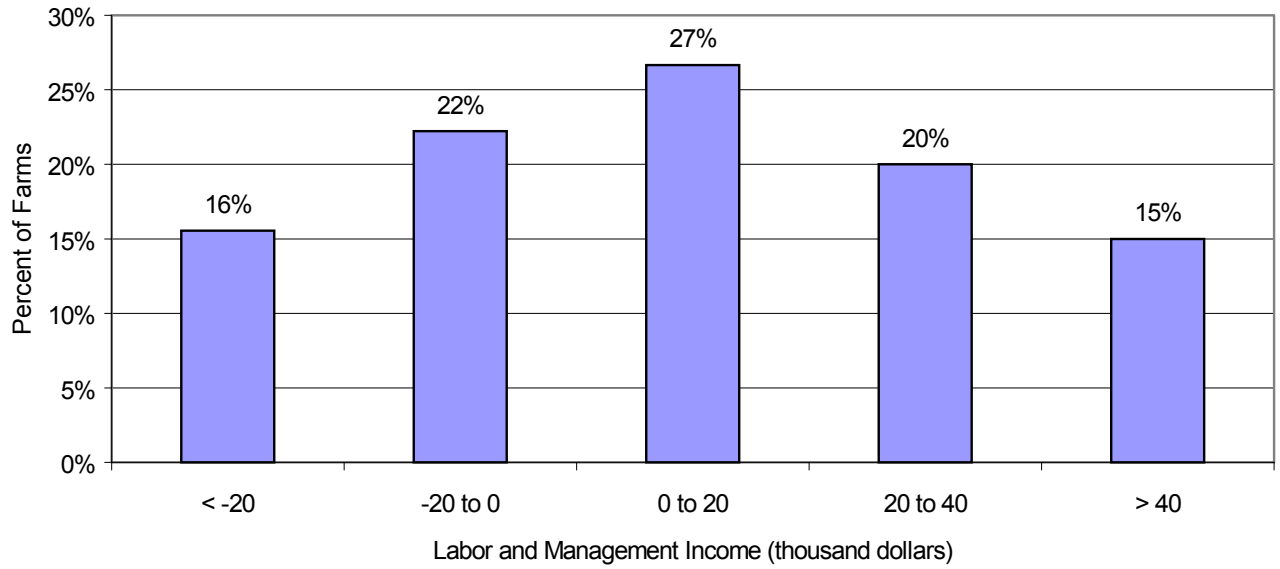
Labor and management income is the return which farm operators receive for their labor and management used in the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. Labor and 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
45 Northern New York Region Dairy Farms, 2000

Item	Average	My Farm
Net farm income without appreciation	$ 66,758	$ _____
Family labor unpaid @ $1,900 per month	- 4,560	- _____
Interest on $ 728,132 average equity capital @ 5% real rate	- 36,407	- _____
Labor & Management Income per farm (1.66 Operators/farm)	$ 25,791	$ _____
Labor & Management Income per Operator/Manager	$ 15,537	$ _____

Labor and management income per operator averaged $15,537 on these 45 farms in 2000. The range in labor and management income per operator was from less than $-120,000 to more than $165,000. Returns to labor and management were negative on 38% of the farms. Labor and management income per operator was between $0 and $20,000 on 27% of the farms while 35% showed labor and management incomes of $20,000 or more per operator.

DISTRIBUTION OF LABOR & MANAGEMENT INCOMES PER OPERATOR
45 Northern New York Region Dairy Farms, 2000



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 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. 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
45 Northern New York Region Dairy Farms, 2000

Item	Average	My Farm
Net farm income with appreciation	$ 101,496	$ _____
Family labor unpaid @$1,900 per month	- 4,560	- _____
Value of operators' labor & management	- 50,291	- _____
Return on equity capital with appreciation	$ 46,645	$ _____
Interest paid	+ 40,222	+ _____
Return on total capital with appreciation	$ 86,867	$ _____
Return on equity capital without appreciation	$ 11,907	$ _____
Return on total capital without appreciation	$ 52,129	$ _____
Rate of return on average equity capital:		
with appreciation	6.4%	_____ %
without appreciation	1.6%	_____ %
Rate of return on average total capital:		
with appreciation	6.7%	_____ %
without appreciation	4.0%	_____ %
Net Farm Income from Operations Ratio	0.10	_____

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 2000, lease payments were discounted by 9.75 percent to obtain their present value.

Advanced government receipts are included as current liabilities. Government payments received in 2000 that are for participation in the 2001 program are the end year balance and payments received in 1999 for participation in the 2000 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.

2000 FARM BUSINESS & NONFARM BALANCE SHEET

45 Northern New York Region Dairy Farms, 2000

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$ 15,717	$ 12,793	Accounts payable	$ 8,873	$ 10,520
Accounts receivable	38,090	43,001	Operating debt	23,788	23,382
Prepaid expenses	1,290	1,227	Short Term	4,382	9,141
Feed & supplies	142,753	128,684	Advanced govt. receipts	191	152
			Current Portion:		
			Intermediate	41,809	50,151
			Long Term	15,388	18,844
Total Current	$ 197,850	$ 185,705	Total Current	$ 94,433	$ 112,190
Intermediate			Intermediate		
Dairy cows:			Structured debt		
owned	$ 209,647	$ 233,104	1-10 years	$ 226,495	$ 235,286
leased	0	0	Financial lease		
Heifers	96,353	109,484	(cattle/machinery)	11,585	13,532
Bulls & other livestock	793	1,759	Farm Credit stock	2,094	2,145
Mach. & equip. owned	264,548	280,594	Total Intermediate	$ 240,174	$ 250,963
Mach. & equip. leased	11,585	13,532			
Farm Credit stock	2,094	2,145			
Other stock/certificate	4,261	4,663			
Total Intermediate	$ 589,281	$ 645,281			
			Long Term		
Long Term			Structured debt		
Land & buildings:			>10 years	$ 217,287	$ 212,284
owned	$ 472,665	$ 492,813	Financial lease		
leased	1,196	973	(structures)	1,196	973
Total Long Term	$ 473,861	$ 493,786	Total Long Term	$ 218,483	$ 213,257
			Total Farm Liab.	$ 553,090	$ 576,410
Total Farm Assets	$1,260,992	$1,324,772	FARM NET WORTH	$ 707,902	$ 748,362

Nonfarm Assets, Liabilities & Net Worth (Average of 22 farms reporting)

Assets	Jan. 1	Dec. 31	Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, checking & savings	$ 1,563	$ 3,266	Nonfarm Liabilities	$ 920	$ 501
Cash value life insurance	14,457	15,419			
Nonfarm real estate	9,136	9,341			
Auto (personal share)	4,173	7,023			
Stocks & bonds	35,550	32,250			
Household furnishings	8,350	7,964			
All other nonfarm assets	1,524	1,532			
Total Nonfarm Assets	$ 74,753	$ 76,795	NONFARM NET WORTH	$ 73,833	$ 76,294

Farm & Nonfarm Assets, Liabilities, and Net Worth*	Jan. 1	Dec. 31
Total Assets	$ 1,335,745	$ 1,401,567
Total Liabilities	554,010	576,911
TOTAL FARM & NONFARM NET WORTH	$ 781,735	$ 824,656

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

The following condensed balance sheet, including deferred taxes, contains average data from only those farmers who elected to provide the additional information required to compute deferred taxes. Deferred taxes represent an estimate of the taxes that would be paid if the farm were sold at year end fair market values on the date of the balance sheet. Accuracy is dependent on the accuracy of the market values and the tax basis data provided. Any tax liability for assets other than livestock, machinery, land, buildings and nonfarm assets is excluded. It is assumed that all gain on purchased livestock and machinery is ordinary gain and that listed market values are net of selling costs. The effects of investment tax credit carryover and recapture, carryover of operating losses, alternative minimum taxes and other than average exemptions and deductions are excluded because they have only minor influence on the taxes of most farms. The dramatic impact of including deferred taxes is clear. Total liabilities were increased 58 percent on these 5 farms by including deferred taxes.

Deferred taxes on these farms totaled an average of $214,846, roughly one-third of the pretax net worth. Percent equity decreased from 63 percent to 41 percent when deferred taxes are included on these farms. When examining net worth, especially as a source of cash for retirement or other purposes, deferred taxes become an important consideration. Deferred taxes in this calculation specify that all assets were sold during one tax year. Therefore, tax management strategies such as making sales in more than one year or installment sales warrant careful consideration to reduce income tax liabilities.

CONDENSED BALANCE SHEET INCLUDING DEFERRED TAXES
December 31, 2000
5 New York Dairy Farms, 2000

Assets		Liabilities & Net Worth	
		Current debts & payables	$ 76,572
		Current deferred taxes	43,331
Total Current Assets	$ 143,265	Total Current Liabilities	$ 119,903
		Intermediate debts & leases	$ 215,235
		Intermediate deferred taxes	120,386
Total Inter. Assets	$ 516,692	Total Intermediate Liabilities	$ 335,621
		Long term debts & leases	$ 78,304
		Long term deferred taxes	46,312
Total Long Term Assets	$ 329,731	Total Long Term Liabilities	$ 124,616
TOTAL FARM ASSETS	$ 989,687	TOTAL FARM LIABILITIES	$ 580,140
		Farm Net Worth	$ 409,547
		Percent Equity (Farm)	41%
		Nonfarm debts	$ 0
		Nonfarm deferred taxes	4,817
Total Nonfarm Assets	$ 95,363	Total Nonfarm Liabilities	$ 4,817
TOTAL ASSETS	$ 1,085,050	TOTAL LIABILITIES	$ 584,957
		Total Net Worth	$ 500,093
		Percent Equity (Total)	46%

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

45 Northern New York Region Dairy Farms, 2000

Item		Average	My Farm
Financial Ratios - Farm:			
Percent equity		56%	_____ %
Debt/asset ratio:	total	0.44	_____
	long-term	0.43	_____
	intermediate/current	0.44	_____
Leverage Ratio:		0.77	_____
Current Ratio:		1.66	
Working capital $73,515	As % of total expenses:	12%	
Farm Debt Analysis:			
Accounts payable as % of total debt		2%	_____ %
Long-term liabilities as a % of total debt		37%	_____ %
Current & inter. liabilities as a % of total debt		63%	_____ %
Cost of term debt (weighted average)		7.3%	_____ %

Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 2,758	$ 1,871	$ _____	$ _____
Long-term debt	1,020	692	_____	_____
Intermediate & long term	2,221	1,507	_____	_____
Intermediate & current debt	1,738	1,179	_____	_____

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

45 Northern New York Region Dairy Farms, 2000

Item	Average of Region's Farms			
	Real Estate		Machinery & Equipment	
Value beginning of year		$ 472,665		$ 264,548
Purchases	$ 42,938*		$ 51,064	
Gift & inheritance	+ 556		+ 0	
Lost capital	- 11,702			
Sales	- 1,690		- 1,582	
Depreciation	- 21,517		- 37,316	
Net investment		= 8,584		= 12,165
Appreciation		+ 11,564		+ 3,881
Value end of year		$ 492,813		$ 280,594

*$10,218 land and $32,720 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)
45 Northern New York Region Dairy Farms, 2000

Item	Average		My Farm	
Beginning of year farm net worth		$ 707,902		$_____
Net farm income w/o appreciation	$ 66,758		$ _____	
+Nonfarm cash income	+ 4,161		+ _____	
-Personal withdrawals & family expenditures excluding nonfarm borrowings	- 53,469		- _____	
RETAINED EARNINGS		+ $ 17,450		+$_____
Nonfarm noncash transfers to farm	$ 778		$ _____	
+Cash used in business from nonfarm capital	+ 1,302		+ _____	
-Note or mortgage from farm real estate sold (nonfarm)	- 0		- _____	
CONTRIBUTED/WITHDRAWN CAPITAL		+ $ 2,080		+$_____
Appreciation	$ 34,738		$ _____	
-Lost capital	- 11,702		- _____	
CHANGE IN VALUATION EQUITY		+ $ 23,036		+$_____
IMBALANCE/ERROR		- 2,106		- $_____
End of year net worth*		= $ 748,362		=$_____

Change in Net Worth

Without appreciation	$ 5,722	$_____
With appreciation	$ 40,460	$_____

*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
45 Northern New York Region Dairy Farms, 2000

Item			Average	
Cash Flow from Operating Activities				
	Cash farm receipts	$ 637,007		
-	Cash farm expenses	508,843		
=	Net cash farm income		$ 128,164	
	Personal withdrawals & family expenses including nonfarm debt payments	$ 53,469		
-	Nonfarm income	4,161		
-	Net cash withdrawals from the farm		$ 49,308	
=	Net Provided by Operating Activities			$ 78,856
Cash Flow From Investing Activities				
	Sale of assets: machinery	$ 1,582		
	+ real estate	1,690		
	+ other stock & cert.	68		
=	Total asset sales		$ 3,340	
	Capital purchases: expansion livestock	$ 9,950		
	+ machinery	51,064		
	+ real estate	42,938		
	+ other stock & cert.	303		
-	Total invested in farm assets		$ 104,255	
=	Net Provided by Investment Activities			$ -100,915
Cash Flow From Financing Activities				
	Money borrowed (intermediate & long term)	$ 77,517		
+	Money borrowed (short term)	7,521		
+	Increase in operating debt	0		
+	Cash from nonfarm capital used in business	1,302		
+	Money borrowed - nonfarm	0		
=	Cash inflow from financing		$ 86,340	
	Principal payments (intermediate & long term)	$ 61,931		
+	Principal payments (short term)	2,763		
+	Decrease in operating debt	406		
-	Cash outflow for financing		$ 65,100	
=	Net Provided by Financing Activities			$ 21,240
Cash Flow From Reserves				
	Beginning farm cash, checking & savings		$ 15,717	
-	Ending farm cash, checking & savings		12,793	
=	Net Provided from Reserves			$ 2,924
Imbalance (error)				$ 2,105

ANNUAL CASH FLOW STATEMENT

Item			My Farm	
Cash Flow from Operating Activities				
	Cash farm receipts	$ _____		
-	Cash farm expenses	_____		
=	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 2001. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 2001 debt payments shown below.

FARM DEBT PAYMENTS PLANNED
Same 29 Northern New York Region Dairy Farms, 1999 & 2000

	Average			My Farm		
	2000 Payments		Planned	2000 Payments		Planned
Debt Payments	Planned	Made	2001	Planned	Made	2001
Long term	$ 42,588	$ 50,587	$ 45,726	$ _____	$ _____	$ _____
Intermediate term	77,123	74,263	86,237	_____	_____	_____
Short term	5,325	5,420	12,387	_____	_____	_____
Operating (net reduction)	3,025	184	3,238	_____	_____	_____
Accounts payable (net reduction)	429	574	233	_____	_____	_____
Total	$ 128,490	$ 131,028	$147,821	$ _____	$ _____	$ _____
Per cow	$ 540	$ 551		$ _____	$ _____	
Per cwt. 2000 milk	$ 2.43	$ 2.48		$ _____	$ _____	
Percent of total 2000 farm receipts	16%	16%		_____	_____	
Percent of 2000 milk receipts	19%	19%		_____	_____	

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 2000 (as of December 31, 1999) that could have been made with the amount available for debt service in 2000. Farmers who did not participate in DFBS in 1999 have their 2000 ratios based on planned debt payments for 2001.

COVERAGE RATIOS
Same 29 Northern New York Region Dairy Farms, 1999 & 2000

Item	Average	Item	Average
Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	$ 772,060	Net farm income (w/o appreciation)	$ 79,075
- Cash farm expenses	614,847	+ Depreciation	70,421
+ Interest paid (cash)	49,233	+ Interest paid (accrual)	49,239
- Net personal withdrawals from farm*	56,667	- Net personal withdrawals from farm*	56,667
(A) = Amount Available for Debt Service	$ 149,779	(A') = Repayment Capacity	$ 142,068
(B) = Debt Payments Planned for 2000 (as of December 31, 1999)	$ 128,490	(B) = Debt Payments Planned for 2000 (as of December 31, 1999)	$ 128,490
(A/ B)=Cash Flow Coverage Ratio for 2000	1.17	(A'/B)= Debt Coverage Ratio for 2000	1.11

*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	Regional Average Per Cow	Regional Average Per Cwt.	My Farm Per Cow/ Per Cwt.	Expected Change	2001 Projection
Average no. of cows	204				
Total cwt. of milk sold		43,528			
Accrual Operating Receipts					
Milk	$ 2,773	$ 13.00	$		$
Dairy cattle	201	0.94			
Dairy calves	29	0.14			
Other livestock	7	0.03			
Crops	38	0.18			
Misc. Receipts	214	1.00			
Total	$ 3,262	$ 15.29	$		$
Accrual Operating Expenses					
Hired labor	$ 396	$ 1.86	$		$
Dairy grain & concentrate	779	3.65			
Dairy roughage	33	0.15			
Nondairy feed	0	0.00			
Mach. hire, rent & lease	88	0.41			
Mach. repair & vehicle exp.	142	0.67			
Fuel, oil & grease	69	0.32			
Replacement livestock	12	0.06			
Breeding	36	0.17			
Vet & medicine	81	0.38			
Milk marketing	106	0.50			
Bedding	33	0.15			
Milking supplies	71	0.33			
Cattle lease	0	0.00			
Custom boarding	30	0.14			
bST	46	0.22			
Other livestock exp.	37	0.17			
Fertilizer & lime	63	0.30			
Seeds & plants	44	0.21			
Spray & other crop exp.	47	0.22			
Land, bldg., fence repair	46	0.22			
Taxes	43	0.20			
Real estate rent & lease	50	0.23			
Insurance	38	0.18			
Utilities	73	0.34			
Miscellaneous	36	0.17			
Total Less Interest Paid	$ 2,400	$ 11.25	$		$
Net Accrual Operating Income (without interest paid)		Total $ 175,763	$		$
- Change in livestock & crop invent.*		23,499			
- Change in accounts receivable		4,911			
- Change in feed & supply inventory**		-19,386			
+ Change in accounts payable***		1,643			
NET CASH FLOW		$ 168,382	$		$
- Net family withdrawals		$ 49,308			
Available for Farm		$ 119,074	$		
- Farm debt payments		103,790			
Available for Farm Investment		$ 15,284	$		$
- Capital purchases		104,255			
Additional Capital Needed		$ 88,971	$		$

*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
45 Northern New York Region Dairy Farms, 2000

Item	Average			My Farm		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	308	249	557	_____	_____	_____
Nontillable	48	16	64	_____	_____	_____
Other nontillable	161	2	164	_____	_____	_____
Total	517	268	785	_____	_____	_____

Crop Yields	Farms	Acres*	Prod/Acre	Acres	Prod/Acre
Hay crop	44	309	2.81 tn DM	_____	_____ tn DM
Corn silage	42	182	14.44 tn	_____	_____ tn
			4.59 tn DM		_____ tn DM
Other forage	9	60	1.63 tn DM	_____	_____ tn DM
Total forage	45	485	3.40 tn DM	_____	_____ tn DM
Corn grain	9	107	85 bu	_____	_____ bu
Oats	2	49	30 bu	_____	_____ bu
Wheat	0	0	0 bu	_____	_____ bu
Other crops	5	93		_____	
Tillable pasture	10	41		_____	
Idle	15	83		_____	
Total Tillable Acres	45	557		_____	

*This column represents the average acreage for the farms producing that crop. Average acreages including those farms not producing were hay crop 302, corn silage 170, corn grain 21, oats 2, tillable pasture 9, and idle 28.

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
45 Northern New York Region Dairy Farms, 2000

Item	Average	My Farm
Total tillable acres per cow	2.73	_____
Total forage acres per cow	2.37	_____
Harvested forage dry matter, tons per cow	8.07	_____

Cropping Analysis (continued)

A number of cooperators have allocated crop expenses among the hay crop, corn, and other crops produced. Fertilizer and lime, seeds and plants, and spray and other crop expenses have been computed per acre and per production unit for hay and corn. Additional expense items such as fuels, labor, and machinery repairs are not included. Rotational grazing was used on 8 farms in the region.

CROP RELATED ACCRUAL EXPENSES
Northern New York Region Dairy Farms Reporting, 2000

Item	Total Per Till. Acre	All Corn Per Acre	Corn Silage Per Ton DM	Corn Grain Per Dry Sh. Bu.	Hay Crop Per Acre	Hay Crop Per Ton DM	Pasture Per Till Acre	Pasture Per Total Acre
No. of farms reporting	45	10			7		0	
Ave. number of acres	557	132			224		0	0
Fert. & lime	$ 23.23	$ 29.81	$ 7.73	$ 0.31	$ 16.82	$ 4.44	$ 0.00	$ 0.00
Seeds & plants	16.22	33.67	8.73	0.35	9.74	2.57	0.00	0.00
Spray & other crop exp.	17.11	27.38	7.09	0.28	3.39	0.90	0.00	0.00
TOTAL	$ 56.56	$ 90.86	$ 23.55	$ 0.94	$ 29.95	$ 7.91	$ 0.00	$ 0.00
My Farm								
Fert. & lime	$_____	$_____	$_____	$_____	$_____	$_____	$_____	$_____
Seeds & plants	_____	_____	_____	_____	_____	_____	_____	_____
Spray & other crop exp.	_____	_____	_____	_____	_____	_____	_____	_____
TOTAL	$_____	$_____	$_____	$_____	$_____	$_____	$_____	$_____

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
45 Northern New York Region Dairy Farms, 2000

Machinery Expense	Average Total Expenses	Average Per Till. Acre	My Farm Total Expenses	My Farm Per Till. Acre
Fuel, oil & grease	$ 14,014	$ 25.16	$ _____	$ _____
Mach. repair & vehicle exp.	29,054	52.16	_____	_____
Machine hire, rent & lease	17,958	32.24	_____	_____
Interest (5%)	14,256	25.59	_____	_____
Depreciation	37,316	66.99	_____	_____
Total	$ 112,598	$ 202.15	$ _____	$ _____

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

45 Northern New York Region Dairy Farms, 2000

	Dairy Cows		Heifer					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Beg. year (owned)	197	$ 209,647	51	$ 51,714	55	$ 33,243	42	$ 11,395
+ Change w/o apprec.		12,835		3,079		-256		1,849
+ Appreciation		10,622		4,523		2,617		1,320
End year (owned)	209	$ 233,104	54	$ 59,316	55	$ 35,604	48	$ 14,564
End including leased	209							
Average number	204		154	(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

45 Northern New York Region Dairy Farms, 2000

Item	Average	My Farm
Total milk sold, lbs.	4,352,820	_____
Milk sold per cow, lbs.	21,375	_____
Average milk plant test, percent butterfat	3.66%	_____

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

ANIMALS LEAVING THE HERD

45 Northern New York Region Dairy Farms, 2000

	Average		My Farm	
Item	Number	Percent*	Number	Percent*
Cows sold for beef	49	23.8	_____	_____
Cows sold for dairy	0	0.0	_____	_____
Cows died	8	3.9	_____	_____
Culling rate**		27.7		_____

*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

45 Northern New York Region Dairy Farms, 2000

Item	Average			My Farm		
	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Cost of Producing Milk						
Operating costs	$ 440,067	$ 2,157	$ 10.11	$ _____	$ _____	$ _____
Purchased inputs costs	$ 498,900	$ 2,446	$ 11.46	$ _____	$ _____	$ _____
Total Costs	$ 590,158	$ 2,893	$ 13.56	$ _____	$ _____	$ _____
Accrual Receipts From Milk	$ 565,658	$ 2,773	$ 13.00	$ _____	$ _____	$ _____
Net Milk Receipts	$ 544,058	$ 2,667	$ 12.50	$ _____	$ _____	$ _____
Net Farm Income without Apprec.	$ 66,758	$ 327	$ 1.53	$ _____	$ _____	$ _____
Net Farm Income with Apprec.	$ 101,496	$ 498	$ 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

45 Northern New York Region Dairy Farms, 2000

Item	Average		My Farm	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrate	$ 779	$ 3.65	$ _____	$ _____
Purchased dairy roughage	33	0.15	_____	_____
Total Purchased Dairy Feed	$ 812	$ 3.81	$ _____	$ _____
Purchased grain & conc. as % of milk receipts	28%		_____ %	
Purchased feed & crop exp.	$ 966	$ 4.53	$ _____	$ _____
Purchased feed & crop exp. as % of milk receipts	35%		_____ %	
Breeding	$ 36	$ 0.17	$ _____	$ _____
Veterinary & medicine	81	0.38	_____	_____
Milk marketing	106	0.50	_____	_____
Bedding	33	0.15	_____	_____
Milking supplies	71	0.33	_____	_____
Cattle lease	0	0.00	_____	_____
Custom boarding	30	0.14	_____	_____
bST	46	0.22	_____	_____
Other livestock expense	37	0.17	_____	_____

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
45 Northern New York Region Dairy Farms, 2000

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$ 264,393	$ 6,338	$ 2,321	$ 4,198
Real estate		2,372		1,571
Machinery & equipment	58,309	1,398	512	
Ratios				
Asset turnover	Operating Expense	Interest Expense	Depreciation Expense	
0.54	0.75	0.06	0.09	
My Farm				
Farm capital	$ _____	$ _____	$ _____	$ _____
Real estate	_____	_____	_____	_____
Machinery & equipment	_____	_____	_____	_____
Ratios				
Asset turnover	Operating Expense	Interest Expense	Depreciation Expense	
_____	_____	_____	_____	

LABOR FORCE INVENTORY
45 Northern New York Region Dairy Farms, 2000

Labor Force	Months	Age	Years of Educ.	Value of Labor & Mgmt.
Operator number 1	12.7	47	14	$ 31,447
Operator number 2	6.6	42	13	16,010
Operator number 3	1.3	50	13	2,834
Family paid	4.4			
Family unpaid	2.4			
Hired	31.3			
Total	58.7	/ 12 = 4.89 Worker Equivalent		
		1.66 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 $1,000 on small conventional stall barns, less than $900 on large conventional stall barns, less than $850 on small free stall barns and below $750 on large free stall barns should be a goal.

LABOR EFFICIENCY
45 Northern New York Region Dairy Farms, 2000

Labor Efficiency	Average Total	Average Per Worker	My Farm Total	My Farm Per Worker
Cows, average number	204	42	_____	_____
Milk sold, pounds	4,352,820	890,147	_____	_____
Tillable acres	557	114	_____	_____
Work units	2,084	426	_____	_____

LABOR AND MACHINERY COSTS
45 Northern New York Region Dairy Farms, 2000

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 ($1,900/mo.)	$ 39,140	$ 192	$ 0.90	$ _____	$ _____	$ _____
Family unpaid ($1,900/mo.)	4,560	22	0.10	_____	_____	_____
Hired	80,839	396	1.86	_____	_____	_____
Total Labor	$ 124,539	$ 610	$ 2.86	$ _____	$ _____	$ _____
Machinery Cost	$ 112,598	$ 552	$ 2.59	$ _____	$ _____	$ _____
Total Labor & Mach.	$ 237,137	$ 1,162	$ 5.45	$ _____	$ _____	$ _____
Hired labor expense per hired worker equivalent			$ 27,173		$ _____	
Hired labor expense as % of milk sales			14.3%		_____%	

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 29 Northern New York Region Dairy Farms, 1999 & 2000

	Average of 29 Farms*		My Farm		
Selected Factors	1999	2000	1999	2000	Goal
Size of Business					
Average number of cows	225	238	_____	_____	_____
Average number of heifers	170	185	_____	_____	_____
Milk sold, lbs.	4,970,342	5,288,841	_____	_____	_____
Worker equivalent	5.59	5.68	_____	_____	_____
Total tillable acres	611	627	_____	_____	_____
Rates of Production					
Milk sold per cow, lbs.	22,128	22,245	_____	_____	_____
Hay DM per acre, tons	2.8	3.0	_____	_____	_____
Corn silage per acre, tons	16.2	14.4	_____	_____	_____
Labor Efficiency					
Cows per worker	40	42	_____	_____	_____
Milk sold/worker, lbs.	889,149	931,134	_____	_____	_____
Cost Control					
Grain & conc. purchased as % of milk sales	25%	29%	_____%	_____ %	_____%
Dairy feed & crop exp. per cwt. milk	$ 4.57	$ 4.59	$ _____	$ _____	$ _____
Labor & mach. costs/cow	$ 1,118	$ 1,159	$ _____	$ _____	$ _____
Operating cost of producing cwt. of milk	$ 10.34	$ 10.24	$ _____	$ _____	$ _____
Capital Efficiency**					
Farm capital per cow	$ 6,167	$ 6,333	$ _____	$ _____	$ _____
Mach. & equip. per cow	$ 1,308	$ 1,328	$ _____	$ _____	$ _____
Asset turnover ratio	0.62	0.56	_____	_____	_____
Profitability					
Net farm income w/o apprec.	$ 155,333	$ 79,075	$ _____	$ _____	$ _____
Net farm income w/apprec.	$ 185,523	$ 120,422	$ _____	$ _____	$ _____
Labor & mgt. income per operator/manager	$ 63,970	$ 18,360	$ _____	$ _____	$ _____
Rate of return on equity capital w/appreciation	17.1%	7.2%	_____%	_____ %	_____%
Rate of return on all capital w/appreciation	12.5%	7.3%	_____%	_____ %	_____%
Financial Summary					
Farm net worth, end year	$ 820,603	$ 870,527	$ _____	$ _____	$ _____
Debt to asset ratio	0.44	0.43	_____	_____	_____
Farm debt per cow	$ 2,796	$ 2,764	$ _____	$ _____	$ _____

*Farms participating both years.
**Average for the year.

RECEIPTS AND EXPENSES PER COW AND PER CWT.

Same 29 Northern New York Region Dairy Farms, 1999 & 2000

	1999		2000	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average Number of Cows	225		238	
Cwt. of Milk Sold		49,703		52,888
ACCRUAL OPERATING RECEIPTS				
Milk	$ 3,257	$ 14.74	$ 2,903	$ 13.07
Dairy cattle	187	0.85	200	0.90
Dairy calves	21	0.09	28	0.13
Other livestock	10	0.05	7	0.03
Crops	75	0.34	35	0.16
Miscellaneous receipts	115	0.52	200	0.90
Total Receipts	$ 3,665	$ 16.59	$ 3,373	$ 15.18
ACCRUAL OPERATING EXPENSES				
Hired labor	$ 389	$ 1.76	$ 412	$ 1.85
Dairy grain & concentrate	806	3.65	832	3.74
Dairy roughage	30	0.14	39	0.18
Nondairy feed	0	0.00	0	0.00
Machine hire/rent/lease	86	0.39	96	0.43
Mach. repair & vehicle exp.	163	0.74	148	0.66
Fuel, oil & grease	52	0.24	71	0.32
Replacement livestock	31	0.14	13	0.06
Breeding	37	0.17	35	0.16
Veterinary & medicine	99	0.45	84	0.38
Milk marketing	79	0.36	115	0.52
Bedding	37	0.17	36	0.16
Milking supplies	85	0.38	71	0.32
Cattle lease	8	0.04	0	0.00
Custom boarding	25	0.11	34	0.15
bST expense	51	0.23	51	0.23
Other livestock expense	26	0.12	38	0.17
Fertilizer & lime	75	0.34	63	0.28
Seeds & plants	47	0.21	45	0.20
Spray/other crop expense	52	0.23	42	0.19
Land, building, fence repair	56	0.25	51	0.23
Taxes	37	0.17	43	0.19
Real estate rent/lease	52	0.24	52	0.23
Insurance	35	0.16	34	0.15
Utilities	58	0.26	58	0.26
Interest paid	184	0.83	207	0.93
Miscellaneous	38	0.17	40	0.18
Total Operating Expenses	$ 2,636	$ 11.93	$ 2,705	$ 12.17
Expansion Livestock	57	0.26	40	0.18
Machinery Depreciation	166	0.75	170	0.77
Real Estate Depreciation	116	0.52	125	0.56
Total Expenses	$ 2,975	$ 13.47	$ 3,041	$ 13.68
Net Farm Income Without Appreciation	$ 690	$ 3.13	$ 332	$ 1.50

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

45 Northern New York Region Dairy Farms, 2000

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
11.77	549	13,039,944	24,465	4.1	21	56	1,198,615
5.09	215	4,233,912	21,337	3.4	16	44	899,363
3.45	123	2,512,432	19,159	2.7	14	38	732,392
2.56	82	1,375,471	16,374	2.2	11	32	547,170
1.60	49	602,341	10,874	1.4	6	22	288,449

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$ 334	18%	$ 296	$ 858	$ 488	$ 3.24
519	24	421	1,088	687	3.91
644	27	521	1,188	821	4.40
742	30	627	1,270	932	4.89
963	38	852	1,587	1,144	5.96

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income w/Apprec.	Net Farm Inc. w/o Apprec.	Labor & Mgt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(3)	(3)	(6)
$ 3,162	$ 7.55	$ 11.43	$ 326,056	$ 243,430	$91,431	$ 205,040
2,742	8.89	13.08	96,590	67,515	24,221	50,716
2,494	9.72	14.23	63,720	46,365	11,058	24,308
2,070	10.81	15.53	30,324	14,082	-5,967	-3,914
1,380	12.99	20.29	-9,215	-37,601	-52,648	-73,846

*Page number of the participant's DFBS 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. Two areas that were examined this year were the source of dairy replacements and the breakdown of the milk income and marketing expenses. Following is a summary of this information.

SOURCE OF DAIRY REPLACEMENTS
91 New York Dairy Farms, 2000

Animals Entering Herd	Average
Number calving in 2000 for first time	118
Animals purchased, %[1]	17.2
Animals raised by farm, %[2]	82.8
Current Heifer Inventory	
Raised on dairy, %	81
Raised by a custom grower, %	19

[1] Animals purchased are animals purchased from a different farm and were not the farms 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, 118 animals calved for the first time in 2000. The breakdown on these animals for source was 17.2% purchased and 82.8% raised by the farm. Of the current heifer inventory, 81% were raised on the dairy and 19% were being raised by a custom grower. There is increased interest in evaluating the dairy replacement enterprise.

Milk Income and Marketing Expense Breakdown

Starting January 1st, 2001, 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, 74 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 new line item in this section is the expenses associated with utilizing forward contracting or hedging programs to market milk, such as commission or broker fees. The fifth area is income from the compact program or 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. Your net farm price can be found on page 10 of your farm's DFBS report.

The table on page 26 reports the averages for these different areas. The table on page 27 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
74 New York Dairy Farms, 2000

	Pounds	Percent	Price/Pound	Total	$/Cwt of Milk
BASE FARM PRICE					
Butterfat	317,577.00	3.71%	$ 1.2634	$ 398,523.66	$ 4.68
Protein	261,077.90	3.03%	$ 1.6813	$ 433,854.43	$ 5.06
Solids	489,113.09	5.63%	$ 0.0525	$ 25,680.42	$ 0.30
Total Component Contribution					$10.04
PPD	8,617,559.41		$ 2.5458	$ 213,842.50	$ 2.55
Base Farm Price					$ 12.59
Premiums					
Quality				$ 12,344.17	$ 0.13
Volume				$ 21,946.03	$ 0.16
Market Premiums				$ 28,483.59	$ 0.26
Total Premiums					$ 0.55
BASE FARM PRICE + PREMIUM					$ 13.13
Deductions					
Promo				$ 13,049.68	$ 0.15
Hauling + Stop Charges.				$ 40,008.64	$ 0.52
Market Fees & Coop Dues				$ 5,638.69	$ 0.07
Futures/Contract Fees				$ 3.40	$ 0.00
Total Deductions					$ 0.74
BASE FARM PRICE + PREMIUMS - DEDUCTIONS					$ 12.40
Marketing Programs					
Compact				$ 8,158.92	$ 0.14
Futures Contracts, Forward Contracting, Etc.				$ 7,197.64	$ 0.05
Total Marketing Income					$ 0.20
Patronage Dividends				$ 13,846.23	$ 0.23
NET PRICE RECEIVED ON FARM, ALL SOURCES					**$ 12.82**
PPD - Hauling, per cwt.					$ 2.02
PPD - Hauling + Market Premiums, per cwt.					$ 2.28

MILK PRICE INFORMATION BY QUINTILE
(Each Category Sorted Independently)
74 New York Dairy Farms, 2000

	Lowest Quintile				Highest Quintile
Butterfat, %	3.49	3.63	3.68	3.78	4.00
Protein, %	2.84	2.93	2.97	3.03	3.41
Other Solids, %	5.18	5.63	5.70	5.75	5.90
Butterfat, $ per Cwt.	4.37	4.52	4.61	4.73	5.22
Protein, $ per Cwt.	4.76	4.93	5.03	5.12	5.50
Other solids, $ per Cwt.	0.28	0.29	0.29	0.29	0.34
Total Component Value per Cwt.	**$ 9.50**	**$ 9.77**	**$ 9.91**	**$ 10.11**	**$ 10.98**
PPD, $ per Cwt.	2.24	2.31	2.42	2.68	3.12
Base Farm Price per Cwt.	**$ 11.87**	**$ 12.16**	**$ 12.38**	**$ 12.72**	**$ 13.90**
Quality, $ per Cwt.	.01	.08	.13	.20	.27
Volume, $ per Cwt.	.00	.00	.07	.24	.50
Market premium, $ per Cwt.	.00	.01	.19	.28	.84
Total Premium, $ per Cwt.	**.07**	**.35**	**.47**	**.70**	**1.19**
Base Farm Price + Premiums per Cwt.	**$ 12.29**	**$ 12.67**	**$ 12.86**	**$ 13.32**	**$ 14.62**
Promotion, $ per Cwt.	.13	.15	.15	.15	.17
Hauling, $ per Cwt.	.28	.40	.50	.57	.90
Market fees & coop dues per Cwt.	.00	.03	.06	.07	.17
Futures/contract fees, $ per Cwt.	.00	.00	.00	.00	.00
Total Marketing Expenses per Cwt.	**$ .47**	**$ .60**	**$ .68**	**$ .79**	**$ 1.18**
Base + Premiums – Deductions per Cwt.	**$ 11.59**	**$ 11.98**	**$ 12.19**	**$ 12.51**	**$ 13.80**
Compact, $ per Cwt.	.00	.00	.00	.00	.76
Futures contract, forward contracting, $ per Cwt.	.00	.00	.00	.00	.28
Total Marketing Income, $ per Cwt.	**$ .00**	**$ .00**	**$ .00**	**$ .16**	**$ .87**
Patronage Dividends, $ per Cwt.	**$ .00**	**$ .00**	**$ .00**	**$ .12**	**$ 1.07**
Net Price Received From All Sources, $ per Cwt.	**$ 11.86**	**$ 12.36**	**$ 12.66**	**$ 13.09**	**$ 14.24**
PPD - hauling, $ per Cwt.	**1.73**	**1.88**	**1.97**	**2.11**	**2.44**
PPD - hauling + mkt premiums, $ per Cwt.	**1.85**	**2.01**	**2.13**	**2.38**	**3.07**

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 314 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

314 New York Dairy Farms, 1999

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
18.6	851	19,987,607	25,069	5.3	23	55	1,213,661
9.9	418	9,126,584	23,355	4.0	20	47	1,009,282
7.0	279	5,925,301	22,344	3.4	19	44	888,653
5.3	198	3,903,863	21,492	3.0	17	40	798,241
4.2	145	2,857,909	20,435	2.6	16	37	731,684
3.5	111	2,145,630	19,413	2.3	15	34	660,719
3.0	87	1,605,859	18,334	2.0	14	31	597,681
2.5	71	1,261,635	17,209	1.7	12	28	493,858
2.0	56	1,003,180	15,764	1.5	10	24	390,912
1.4	40	588,644	12,475	1.0	8	18	281,530

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$365	15%	$278	$778	$506	$3.25
519	20	381	933	703	3.81
590	22	427	1,028	805	4.25
653	23	463	1,111	866	4.48
700	24	504	1,164	921	4.67
743	25	541	1,223	971	4.88
793	27	582	1,299	1,021	5.05
852	28	624	1,398	1,089	5.29
916	30	701	1,540	1,163	5.71
1,036	37	845	1,847	1,300	6.78

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

FARM BUSINESS CHART FOR
FARM MANAGEMENT COOPERATORS
314 New York Dairy Farms, 1999

Milk Receipts Per Cow	Milk Receipts Per Cwt.	Oper. Cost Milk Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cow	Total Cost Production Per Cwt.
(10)	(10)	(10)	(10)	(10)	(10)
$3,817	$16.50	$1,200	$7.89	$2,176	$12.45
3,461	15.56	1,635	9.24	2,532	13.42
3,293	15.27	1,832	9.90	2,752	13.97
3,160	15.05	1,998	10.35	2,864	14.48
3,046	14.86	2,137	10.78	2,987	14.98
2,908	14.73	2,262	11.20	3,101	15.43
2,743	14.58	2,367	11.66	3,211	16.16
2,529	14.39	2,479	12.10	3,306	16.79
2,320	14.12	2,636	12.76	3,459	17.98
1,838	13.61	2,955	14.43	3,867	22.84

Profitability

Net Farm Income Without Appreciation			Net Farm Income With Appreciation		Labor & Management Income	
Total	Per Cow	As % of Total Accrual Receipts	Total	Per Cow	Per Farm	Per Operator
(3)	(10)	(3)	(3)	(10)	(3)	(3)
$578,366	$1,174	0.33	$668,929	$1,351	$454,170	$318,071
222,031	863	0.25	270,325	1,035	150,302	88,408
136,405	763	0.22	180,888	922	82,986	54,378
96,263	663	0.19	124,395	824	54,339	39,122
74,615	550	0.17	91,554	697	38,704	26,018
56,349	464	0.14	69,234	615	25,330	15,699
39,420	376	0.11	53,026	520	13,406	9,369
26,824	290	0.09	38,225	405	1,342	876
15,421	173	0.16	26,086	282	-11,196	-10,038
-10,114	-114	-0.06	4,679	12	-42,427	-38,149

Farm Business Charts for farms with freestall barns and 150 cows or less, 151-300 cows, and more than 300 cows; and farms with conventional barns with 60 cows or less and more than 60 cows are shown on pages 33-37.

Financial Analysis Chart

The farm financial analysis chart on page 30 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, 10, 14 and 20 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART

314 New York Dairy Farms, 1999

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
(8)*	(12)	(8)	(8)	(8)	(5)	(5)	(5)
$128	$1,177	5.71	7.13	4%	$217	57%	30.96
247	868	2.38	2.84	8	929	34	5.03
333	757	1.88	2.19	11	1,464	27	3.54
383	675	1.61	1.75	13	1,862	22	2.73
430	599	1.38	1.52	14	2,343	18	2.10
476	546	1.17	1.28	16	2,758	13	1.71
521	486	1.04	1.10	18	3,067	9	1.45
581	406	0.89	0.94	21	3,426	5	1.20
710	300	0.70	0.73	24	3,882	-2	0.91
922	69	0.29	0.31	37	5,125	-17	0.55

Solvency				Profitability	
		Debt/Asset Ratio		Percent Rate of Return with appreciation on:	
Leverage Ratio*	Percent Equity	Current & Intermediate	Long Term	Equity	Investment**
(5)	(5)	(5)	(5)	(3)	(3)
0.06	98%	0.03	0.00	36%	19%
0.17	88	0.11	0.00	19	14
0.29	80	0.19	0.04	14	11
0.40	73	0.26	0.18	11	9
0.56	66	0.33	0.29	8	8
0.70	60	0.39	0.38	6	6
0.90	54	0.47	0.46	3	4
1.13	48	0.55	0.56	0	3
1.50	40	0.64	0.73	-3	0
3.91	23	0.88	1.19	-31	-5

Efficiency (Capital)					
Asset Turnover (ratio)	Real Estate Investment Per Cow	Machinery Investment Per Cow	Total Farm Assets Per Cow	Change in Net Worth w/Appreciation	Farm Net Worth, End Year
(11)	(11)	(11)	(11)	(6)	(4)
.85	$1,210	$527	$4,275	$449,790	$3,107,799
.72	1,808	775	5,134	169,937	1,452,198
.64	2,109	944	5,668	93,388	1,021,329
.59	2,336	1,082	6,126	59,438	804,166
.54	2,628	1,204	6,555	42,597	644,876
.50	2,935	1,348	6,999	29,284	547,645
.46	3,307	1,493	7,497	20,531	429,658
.41	3,836	1,738	8,214	12,457	347,748
.35	4,552	2,103	9,192	838	251,306
.25	6,622	2,899	11,691	-47,361	124,028

*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 32 includes the average values for the resulting five groups of dairy farms. The average size of farms in the five groups ranges from 47 cows on the small conventional farms to 601 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 investment per cow, and the greatest returns to labor, management and capital. The large conventional farms showed average profits somewhat higher than the small freestall farm businesses.

Farm business charts have been computed for each of the five housing and herd size categories and are on pages 33-37. 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 46-55 of the 1999 State Summary*. As herd size increases, the average profitability generally increases (page 46)*. Net farm income without appreciation averaged $ 21,114 per farm for the less than 50 cow farms and $639,672 per farm for those with 600 cows and over. This relationship generally holds for all measures of profitability including rate of return on capital.

Farm net worth increases rapidly as herd size increases (pages 50-53)*, even though percent equity was higher on the smaller farms. The group with more than 600 cows demonstrated the strongest ability to make debt payments.

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 54-55)*. The farms with 600 and more cows per farm averaged 42 percent more milk sold per cow than the smallest farms. All of the groups with 150 or more cows averaged above 20,000 pounds of milk sold per cow while the farms smaller than 150 cows averaged 18,104 pounds of milk sold per cow. Farm capital per worker increased, and farm capital per cow decreased as herd size increased. Milk sold per worker increased dramatically as herd size increased, ranging from 363,719 pounds at the lowest herd size category up to 1,118,658 pounds at the largest size category.

*Wayne A. Knoblauch, Linda D. Putnam, and Jason Karszes, Dairy Farm Management Business Summary, New York, 1999, Department of Agricultural, Resource, and Managerial Economics, Cornell University, R.B. 2000-03, October 2000.

SELECTED BUSINESS FACTORS BY TYPE OF BARN AND HERD SIZE

292 New York Dairy Farms, 1999

Item	Farms with:	Conventional <= 60 Cows	Conventional >60 Cows	Freestall <=150 Cows	Freestall 151-300 Cows	Freestall ≥300 Cows
Number of farms		53	52	63	55	69
Cropping Program Analysis						
Total Tillable acres		163	296	308	557	1,149
Tillable acres rented*		60	124	141	261	531
Hay crop acres*		104	177	164	266	486
Corn silage acres*		27	61	85	196	515
Hay crop, tons DM/acre		1.9	2.2	2.4	2.7	3.6
Corn silage, tons/acre		11.8	14.7	14.1	15.2	17.3
Oats, bushels/acre		38	63	45	61	36
Forage DM per cow, tons		6.6	8.2	7.7	7.9	7.9
Tillable acres/cow		3.5	3.4	2.9	2.5	1.9
Fert. & lime exp./tillable acre		$19.93	$22.70	$26.23	$33.97	$36.28
Total machinery costs		$25,558	$47,622	$56,876	$119,638	$285,367
Machinery cost/tillable acre		$157	$161	$185	$215	$248
Dairy Analysis						
Number of cows		47	87	105	219	601
Number of heifers		34	70	74	165	436
Milk sold, lbs.		794,585	1,572,844	2,019,084	4,572,742	13,630,992
Milk sold/cow, lbs.		16,920	18,027	19,267	20,833	22,694
Operating cost of prod. milk/cwt.		$10.15	$10.40	$11.34	$11.27	$11.34
Total cost of prod. milk/cwt.		$17.63	$15.88	$15.85	$14.65	$13.70
Price/cwt. milk sold		$14.86	$14.85	$14.85	$14.98	$14.89
Purchased dairy feed/cow		$694	$648	$787	$790	$911
Purchased dairy feed/cwt. milk		$4.11	$3.58	$4.09	$3.78	$4.02
Purchased grain & conc. as % milk rec.		25%	23%	25%	24%	25%
Purchased feed & crop exp./cwt. milk		$4.82	$4.55	$5.01	$4.67	$4.75
Capital Efficiency						
Farm capital/worker		$195,392	$210,516	$252,922	$249,401	$266,995
Farm capital/cow		$8,315	$7,453	$7,347	$6,514	$5,931
Farm capital/tillable acre owned		$3,794	$3,770	$4,619	$4,820	$5,768
Real estate/cow		$4,222	$3,298	$3,330	$2,561	$2,269
Machinery investment/cow		$1,734	$1,565	$1,423	$1,239	$1,004
Asset turnover ratio		0.37	0.43	0.46	0.58	0.67
Labor Efficiency						
Worker equivalent		2.00	3.08	3.05	5.72	13.35
Operator/manager equivalent		1.33	1.59	1.46	1.79	2.13
Milk sold/worker, lbs.		397,293	510,664	661,995	799,430	1,021,048
Cows/worker		24	28	34	38	45
Labor cost/cow		$872	$709	$614	$617	$653
Labor cost/tillable acre		$251	$208	$209	$243	$342
Profitability & Balance Sheet Analysis						
Net farm income (without appreciation)		$25,834	$50,194	$45,437	$115,430	$337,256
Labor & management income/operator		$ 3,537	$12,243	$10,141	$38,510	$113,628
Rate Return on all capital with appreciation		2.0%	4.8%	4.5%	9.5%	12.3%
Farm debt/cow		$1,967	$1,965	$2,633	$2,607	$2,901
Percent equity		76%	74%	64%	61%	52%

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

FARM BUSINESS CHART FOR SMALL CONVENTIONAL STALL DAIRY FARMS

53 Conventional Stall Dairy Farms with 60 or Less Cows, New York, 1999

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
3.36	60	1,249,557	23,442	4.1	24	42	866,834
2.82	57	1,097,188	21,649	3.2	20	34	623,722
2.49	54	997,166	19,974	2.7	17	31	511,506
2.16	52	951,687	18,273	2.3	15	27	431,444
1.98	51	842,501	17,468	2.0	14	26	405,806
1.83	47	771,571	16,658	1.8	11	25	382,448
1.71	46	700,887	15,691	1.6	10	23	352,446
1.52	42	636,598	14,698	1.4	10	20	326,229
1.39	37	553,671	13,054	1.2	8	18	266,346
1.12	30	319,766	8,782	0.9	6	15	193,003

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$291	15%	$284	$892	$398	$3.31
435	19	370	1,109	509	3.52
495	21	430	1,222	630	3.81
537	22	482	1,301	697	4.14
558	22	540	1,361	745	4.56
601	24	580	1,453	784	4.87
670	27	614	1,585	898	5.13
735	30	670	1,707	1,036	5.65
818	33	742	1,847	1,154	6.58
1,066	43	857	2,090	1,343	7.58

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(10)	(3)	(6)
$3,495	$6.88	$13.66	$67,606	$1,399	$37,900	$56,577
3,255	8.35	14.90	51,727	1,028	24,910	41,828
3,049	8.67	15.48	39,496	861	15,940	25,057
2,849	9.12	16.35	34,679	735	12,211	22,037
2,554	9.98	16.91	29,487	652	8,205	18,746
2,423	10.53	17.89	23,104	532	2,786	15,378
2,294	11.17	19.10	19,484	418	22	12,474
2,169	11.68	20.80	14,070	264	-6,642	9,145
1,960	12.74	23.78	4,661	104	-14,728	2,663
1,208	15.67	29.51	-11,863	-369	-37,507	-11,715

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

FARM BUSINESS CHART FOR LARGE CONVENTIONAL STALL DAIRY FARMS

52 Conventional Stall Dairy Farms with More Than 60 Cows, New York, 1999

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
4.87	154	2,730,517	24,029	4.4	24	42	770,362
4.07	106	1,955,695	20,762	3.2	20	38	701,390
3.63	98	1,847,727	19,622	2.8	19	35	659,484
3.24	89	1,657,243	18,787	2.5	18	32	602,209
3.17	81	1,504,242	18,451	2.1	16	30	568,430
2.93	77	1,441,765	17,688	2.0	15	29	524,998
2.72	74	1,362,999	17,211	1.9	14	27	461,326
2.52	70	1,232,960	16,396	1.7	12	25	405,822
2.26	67	1,168,162	15,643	1.4	9	22	371,817
1.80	64	1,018,863	14,002	1.0	7	19	315,077

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$320	12%	$283	$887	$514	$3.03
464	18	422	988	635	3.48
538	20	466	1,072	710	3.77
568	21	515	1,164	774	4.07
608	22	562	1,237	824	4.39
646	24	591	1,307	857	4.64
687	26	629	1,414	881	4.95
723	28	650	1,496	919	5.28
769	30	700	1,644	970	5.68
902	35	837	1,799	1,140	6.74

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation		Labor & Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
			Total	Per Cow		
(10)	(10)	(10)	(3)	(10)	(3)	(6)
$3,471	$7.60	$13.02	$118,857	$1,145	$54,023	$81,736
3,082	8.82	14.10	83,539	916	37,675	47,776
2,928	9.47	14.49	70,691	847	29,425	36,423
2,810	9.74	15.22	62,069	689	21,755	31,469
2,728	10.20	15.87	51,419	574	17,112	26,330
2,661	10.76	16.40	42,228	489	12,169	21,569
2,553	11.12	16.86	33,666	449	7,566	17,147
2,436	11.51	17.41	29,170	371	1,784	13,183
2,280	12.03	18.26	21,667	294	-9,900	2,177
2,051	13.97	20.60	3,657	64	- 34,295	-20,718

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

FARM BUSINESS CHART FOR SMALL FREESTALL DAIRY FARMS

63 Freestall Barn Dairy Farms with 150 or Less Cows, New York, 1999

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
4.88	147	3,202,363	23,465	5.7	21	59	1,099,774
4.15	141	2,826,420	22,587	3.4	19	46	932,011
3.76	132	2,591,385	21,572	3.0	17	43	819,869
3.40	121	2,430,389	20,668	2.6	17	39	741,613
3.22	115	2,225,447	19,876	2.3	16	38	686,560
2.90	108	2,035,131	19,182	2.1	14	34	640,699
2.59	95	1,724,716	18,501	1.9	13	32	602,729
2.37	85	1,479,864	17,675	1.6	11	29	572,122
2.11	74	1,250,141	15,995	1.4	10	28	497,571
1.62	49	839,593	12,201	1.1	7	19	324,190

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$398	16%	$278	$755	$504	$3.37
532	20	394	907	757	4.15
612	22	422	1,002	872	4.48
648	24	455	1,073	911	4.76
680	25	520	1,125	935	4.95
739	26	542	1,182	981	5.10
775	27	595	1,236	1,033	5.31
833	29	682	1,400	1,093	5.55
929	31	776	1,552	1,176	6.08
1,063	37	908	1,859	1,348	6.82

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation		Labor & Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
			Total	Per Cow		
(10)	(10)	(10)	(3)	(10)	(3)	(6)
$3,499	$8.40	$13.54	$105,781	$892	$59,306	$132,279
3,279	9.73	14.11	90,022	792	42,957	61,621
3,117	10.28	14.75	77,375	686	35,110	49,786
3,056	10.85	15.38	67,071	571	17,345	41,699
2,995	11.16	15.91	54,109	521	12,461	34,045
2,883	11.46	16.41	36,762	419	7,745	26,599
2,748	11.83	16.66	25,170	293	-692	18,504
2,557	12.33	17.19	16,133	199	-7,054	10,198
2,352	13.43	18.04	8,502	92	-13,987	1,712
1,871	14.47	21.75	- 6,797	- 60	-32,477	-11,848

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

FARM BUSINESS CHART FOR MEDIUM FREESTALL DAIRY FARMS

55 Freestall Barn Dairy Farms with 151-300 Cows, New York, 1999

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
8.90	297	6,965,476	25,959	4.8	23	55	1,180,513
7.39	280	6,123,854	24,416	3.8	20	50	994,280
6.60	258	5,579,962	23,228	3.3	18	47	882,331
6.10	238	5,288,803	22,273	3.1	18	42	846,958
5.83	228	4,804,482	21,486	2.9	17	41	812,892
5.57	214	4,348,085	20,629	2.6	16	38	784,754
4.96	198	3,939,776	19,499	2.4	15	36	750,910
4.61	185	3,565,149	18,557	2.2	14	34	701,611
4.29	173	3,283,627	17,405	1.8	11	31	660,157
3.96	156	2,811,352	15,725	1.2	9	28	583,431

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$448	14%	$349	$803	$700	$3.36
637	21	417	896	819	4.11
680	22	455	968	864	4.33
723	23	501	1,054	936	4.46
749	25	537	1,141	962	4.59
782	26	564	1,214	987	4.89
819	27	591	1,305	1,015	4.97
870	28	622	1,380	1,059	5.15
909	30	703	1,478	1,151	5.64
1,038	36	812	1,617	1,296	6.40

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Apprec. Total	Net Farm Income Without Apprec. Per Cow	Labor & Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(10)	(3)	(6)
$4,048	$9.11	$12.57	$307,993	$1,287	$155,954	$302,351
3,626	9.86	13.22	217,554	861	110,405	188,506
3,430	10.34	13.79	163,915	757	68,703	146,148
3,298	10.51	14.20	136,148	690	56,765	125,984
3,204	10.89	14.76	128,773	589	45,661	99,684
3,078	11.73	15.08	107,451	484	34,085	73,593
2,918	12.16	15.39	86,609	410	22,418	58,794
2,776	12.72	16.08	64,416	321	11,250	40,024
2,593	13.22	16.68	30,768	158	-3,441	11,494
2,329	14.40	17.78	-26,452	-123	- 47,671	-67,566

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

FARM BUSINESS CHART FOR LARGE FREESTALL DAIRY FARMS

69 Freestall Barn Dairy Farms with 300 or More Cows, New York, 1999

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
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
30.13	1,492	35,463,663	25,925	6.1	24	59	1,398,957
19.38	916	21,330,989	24,421	5.0	21	53	1,234,591
15.37	677	15,899,554	23,720	4.4	20	49	1,126,537
14.46	589	13,831,992	23,381	4.0	19	47	1,064,267
12.13	530	11,689,937	22,842	3.8	19	46	1,009,216
10.93	445	9,793,417	22,157	3.6	17	45	966,074
9.84	406	9,089,815	21,648	3.4	16	43	929,661
8.92	389	8,628,060	21,040	2.9	15	40	872,738
8.13	367	7,712,372	20,420	2.1	14	38	802,159
6.61	322	5,989,077	17,594	1.4	11	33	669,307

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$617	32%	$246	$731	$841	$3.97
691	28	368	899	922	4.35
756	27	409	1,022	978	4.44
809	27	442	1,088	1,014	4.59
839	26	471	1,130	1,055	4.70
871	25	494	1,164	1,101	4.82
901	24	515	1,191	1,134	5.00
928	23	548	1,231	1,161	5.13
973	22	605	1,312	1,214	5.38
1,042	20	725	1,441	1,312	6.05

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation		Labor & Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
			Total	Per Cow		
(10)	(10)	(10)	(3)	(10)	(3)	(6)
$3,948	$9.10	$11.71	$1,117,509	$1,035	$737,887	$797,943
3,654	10.15	12.53	679,305	841	331,566	520,123
3,550	10.70	12.97	426,163	752	209,766	338,284
3,455	11.13	13.54	305,873	638	140,966	242,994
3,369	11.51	14.02	258,146	534	98,432	182,176
3,265	11.81	14.33	225,101	437	73,125	149,863
3,197	12.11	14.70	182,181	369	57,971	100,949
3,107	12.37	14.99	143,273	312	39,379	65,273
2,988	12.85	15.22	101,868	250	21,884	15,739
2,681	13.34	16.13	44,602	103	-20,310	-89,510

*Page number of the participant's DFBS 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 24 and 28-30 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 12)

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 14)

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 gavernment receipts. This information is found on pages 8 & 9 of the data entry form.

Culling Rate - (defined on page 18)

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 14)

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

Debt to Asset Ratios - (defined on page 10)

Deferred Taxes - (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-cancellable 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 10)

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 19)

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; bST, 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 19)

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 19)

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

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

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