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DAIRY FARM BUSINESS SUMMARY

SOUTHEASTERN NEW YORK REGION 1997

Wayne A. Knoblauch
Linda D. Putnam
Stephen E. Hadcock
Larry R. Hulle
Mariane Kiraly
Joseph J. Walsh

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

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1997 DAIRY FARM BUSINESS SUMMARY
Southeastern New York
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1997 DAIRY FARM BUSINESS SUMMARY
SOUTHEASTERN 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 Southeastern New York Region for 1997.

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 farm 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 will enable the business to better meet its objectives. 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 1997 DFBS individual farm report received by all 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. 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; and

(7) a capital and labor efficiency analysis.

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*The Southeastern Region of New York State, with the number of participating farms in parentheses, is comprised of Delaware (22), Columbia (4), Sullivan (8), Orange (9), and Ulster (1) counties. This report was written by Wayne A. Knoblauch, Professor, Farm Management. Linda D. Putnam was in charge of data analysis. Melody Clark prepared the publication. Farm business data were collected by Cooperative Extension Educators Steve Hadcock, Larry Hulle, Mariane Kiraly, and Joe Walsh.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics

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

BUSINESS CHARACTERISTICS
44 Southeastern New York Region Dairy Farms, 1997

Type of Farm	Number
Dairy	44
Part-time dairy	0
Dairy cash-crop	0
Certified organic milk producer	0
Rotational grazing farm	10

Type of Ownership	Number
Owner	32
Renter	12

Type of Business	Number
Sole Proprietorship	31
Partnership	12
Corporation	1

Type of Barn	Number
Stanchion or Tie-Stall	30
Freestall	11
Combination	3

Milking Frequency	Number
2 times per day	42
3 times per day	1
Other	1

Milking System	Number
Bucket & carry	0
Dumping station	1
Pipeline	29
Herringbone parlor	9
Other parlor	5

Production Records	Number
DHIC	26
Owner-Sampler	6
Other	0
None	12

bST Usage	Number
Used on <25% of herd	2
Used on 25-75% of herd	8
Used on >75% of herd	0
Stopped using in 1997	0
Not used in 1997	34

Business Record System	Number
Account Book	28
Agrifax (mail-in only)	2
On-farm computer	11
Other	3

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 1997.

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

CASH AND ACCRUAL FARM EXPENSES

44 Southeastern New York Region Dairy Farms, 1997

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Expense	+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$ 16,743		$ 0	<<	$ 33		$ 16,776
Feed							
Dairy grain & concentrate	70,710		1		-76		70,632
Dairy roughage	2,820		-200		538		3,557
Nondairy	61		-6		0		68
Machinery							
Machinery hire, rent & lease	2,165		0	<<	0		2,164
Machinery repairs & farm vehicle exp.	13,251		7		-158		13,086
Fuel, oil & grease	5,287		34		-178		5,074
Livestock							
Replacement livestock	2,558		0	<<	0		2,558
Breeding	2,706		9		-64		2,633
Veterinary & medicine	3,866		-50		67		3,983
Milk marketing	11,465		0	<<	-3		11,463
Bedding	1,366		12		0		1,355
Milking supplies	5,358		18		-331		5,008
Cattle lease & rent	0		0	<<	0		0
Custom boarding	380		0	<<	0		380
bST	755		47		6		714
Other livestock expense	3,587		-25		7		3,618
Crops							
Fertilizer & lime	4,638		-424		873		5,935
Seeds & plants	2,470		-38		22		2,530
Spray, other crop expense	3,748		-106		237		4,090
Real Estate							
Land, building & fence repair	2,925		-63		174		3,162
Taxes	5,231		0	<<	-227		5,003
Rent & lease	5,386		5	<<	0		5,382
Other							
Insurance	3,576		0	<<	-43		3,533
Utilities (farm share)	7,926		0	<<	76		8,002
Interest paid	11,453		0	<<	0		11,453
Miscellaneous	2,419		0		67		2,486
Total Operating	$192,848		$ -779		$ 1,018		$ 194,645
Expansion livestock	4,025		0	<<	0		4,025
Machinery depreciation							11,400
Building depreciation							4,396
TOTAL ACCRUAL EXPENSES							$ 214,466

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 1997 but not paid for. A decrease is subtracted because it represents payment for resources used before 1997.

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

CASH AND ACCRUAL FARM RECEIPTS

44 Southeastern New York Region Dairy Farms, 1997

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$ 204,855				$ 2,503		$ 207,358
Dairy cattle	7,104		$ 3,074		465		10,643
Dairy calves	2,413				4		2,417
Other livestock	651		126		5		781
Crops	1,306		-4,253		-18		-2,965
Government receipts	3,143		0 *		-7		3,136
Custom machine work	1,031				-68		963
Gas tax refund	179				0		179
Other	3,301				5		3,306
Less nonfarm noncash capital**		(-)	392 **			(-)	392
Total Receipts	$ 223,983		$ -1,445		$ 2,888		$ 225,426

*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 1997 for the 1998 crop year in excess of funds earned for 1997. Likewise, a decrease is added to cash government receipts because it represents funds earned for 1997 but received in 1996.

Changes in accounts receivable are calculated by subtracting beginning year balances from end year balances. Payments in January 1998 for milk produced in December 1997 compared to January 1997 payments for milk produced in 1996 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.

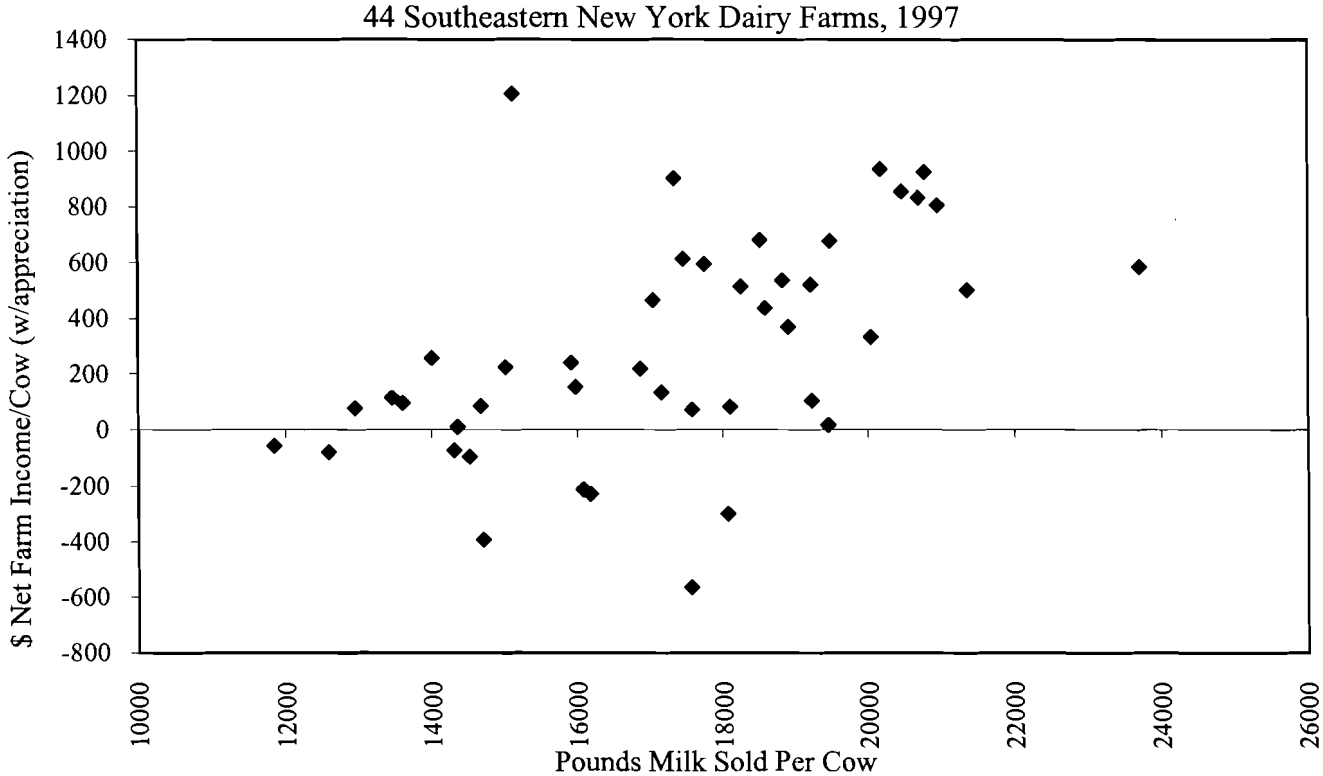
Net farm income is computed both with and without appreciation. Appreciation represents the change in values caused by annual changes in prices of livestock, machinery, real estate inventory, and stocks and certificates (other than Farm Credit). Appreciation is a major factor contributing to changes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

NET FARM INCOME
44 Southeastern New York Region Dairy Farms, 1997

Item	Average Total	Average Per Cow	My Farm Total	My Farm Per Cow
Total accrual receipts	$ 225,426		$ _____	
Appreciation: Livestock	-278		_____	
Machinery	3,918		_____	
Real Estate	3,483		_____	
Other Stock & Certificates	668		_____	
Total Including Appreciation	$ 233,217		$ _____	
Total accrual expenses	- 214,466		- _____	
Net Farm Income (with appreciation)	$ 18,751	$ 218	$ _____	$ _____
Net Farm Income (without appreciation)	$ 10,960	$ 127	$ _____	$ _____

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
44 Southeastern New York Dairy Farms, 1997



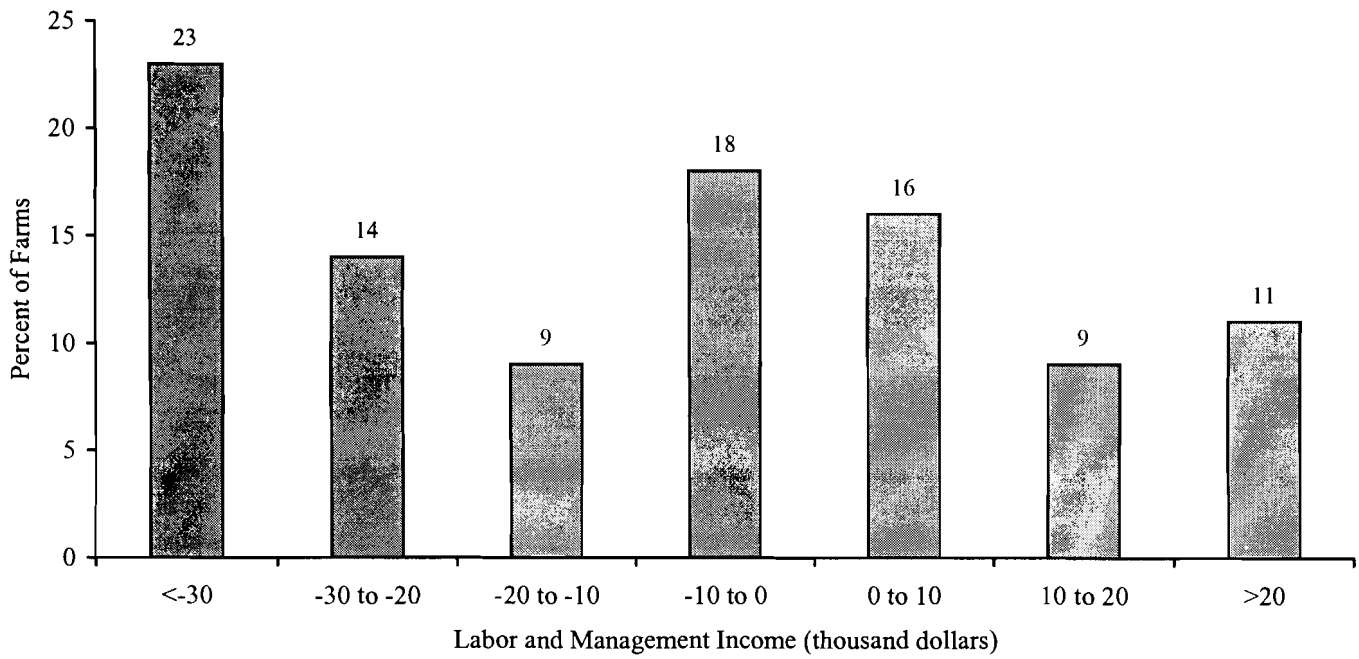
Labor and management income is the return which farm operators receive for their labor and management used in the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. Labor and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

LABOR AND MANAGEMENT INCOME
44 Southeastern New York Region Dairy Farms, 1997

Item	Average	My Farm
Net farm income without appreciation	$ 10,960	$ _____
Family labor unpaid @ $1,550 per month	- 6,510	- _____
Interest on $364,583 average equity capital @ 5% real rate	- 18,229	- _____
Labor & Management Income per farm (1.35 Operators/farm)	$ -13,779	$ _____
Labor & Management Income per Operator/Manager	$ -10,207	$ _____

Labor and management income per operator averaged $-10,207 on these 44 farms in 1997. The range in labor and management income per operator was from about $-105,000 to more than $65,000. Returns to labor and management were negative on 64% of the farms. Labor and management income per operator was between $0 and $20,000 on 25% of the farms while 11% showed labor and management incomes of $20,000 or more per operator.

DISTRIBUTION OF LABOR & MANAGEMENT INCOMES PER OPERATOR
44 Southeastern New York Dairy Farms, 1997



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.

RETURN ON EQUITY CAPITAL AND RETURN ON TOTAL CAPITAL
44 Southeastern New York Region Dairy Farms, 1997

Item	Average	My Farm
Net farm income with appreciation	$ 18,751	$ _____
Family labor unpaid @$1,550 per month	- 6,510	- _____
Value of operators' labor & management	- 27,650	- _____
Return on equity capital with appreciation	$ -15,409	$ _____
Interest paid	+ 11,453	+ _____
Return on total capital with appreciation	$ -3,956	$ _____
Return on equity capital without appreciation	$ -23,200	$ _____
Return on total capital without appreciation	$ -11,747	$ _____
Rate of return on average equity capital:		
with appreciation	-4.2%	_____ %
without appreciation	-6.4%	_____ %
Rate of return on average total capital:		
with appreciation	-0.8%	_____ %
without appreciation	-2.2%	_____ %

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 1997, lease payments were discounted by 9.25 percent to obtain their present value.

Advanced government receipts are included as current liabilities. Government payments received in 1997 that are for participation in the 1998 program are the end year balance and payments received in 1996 for participation in the 1997 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.

1997 FARM BUSINESS & NONFARM BALANCE SHEET

44 Southeastern New York Region Dairy Farms, 1997

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$ 4,068	$ 4,203	Accounts payable	$ 8,722	$ 9,740
Accounts receivable	17,018	19,906	Operating debt	3,718	3,864
Prepaid expenses	20	25	Short Term	2,050	1,729
Feed & supplies	43,994	38,957	Advanced govt. receipts	0	0
			Current Portion:		
			Intermediate	9,961	11,574
			Long Term	4,537	4,527
Total Current	$ 65,100	$ 63,091	Total Current	$ 28,988	$ 31,434
Intermediate			Intermediate		
Dairy cows:			Structured debt		
owned	$ 89,093	$ 90,586	1-10 years	$ 32,050	$ 38,035
leased	0	0	Financial lease		
Heifers	36,153	37,483	(cattle/machinery)	1,388	1,622
Bulls & other livestock	1,813	1,912	Farm Credit stock	2,563	1,167
Mach. & equip. owned	110,857	119,622	Total Intermediate	$ 36,001	$ 40,824
Mach. & equip. leased	1,388	1,622			
Farm Credit stock	2,563	1,167			
Other stock/certificate	2,741	2,862			
Total Intermediate	$ 244,608	$ 255,254			
			Long Term		
Long Term			Structured debt		
Land & buildings:			>10 years	$ 90,207	$ 93,414
owned	$ 209,035	$ 212,946	Financial lease		
leased	0	0	(structures)	0	0
Total Long Term	$ 209,035	$ 212,946	Total Long Term	$ 90,207	$ 93,414
			Total Farm Liab.	$ 155,196	$ 165,672
Total Farm Assets	$ 518,743	$ 531,291	FARM NET WORTH	$ 363,547	$ 365,619

Nonfarm Assets, Liabilities & Net Worth (Average of 30 farms reporting)

Assets	Jan. 1	Dec. 31	Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, checking & savings	$ 13,360	$ 10,187	Nonfarm Liabilities	$ 5,583	$ 5,183
Cash value life insurance	8,751	9,047			
Nonfarm real estate	96,287	96,287			
Auto (personal share)	2,510	2,740			
Stocks & bonds	10,595	12,950			
Household furnishings	7,770	7,783			
All other nonfarm assets	5,064	7,807			
Total Nonfarm Assets	$ 144,337	$ 146,811	NONFARM NET WORTH	$ 138,754	$ 141,628

Farm & Nonfarm Assets, Liabilities, and Net Worth*	Jan. 1	Dec. 31
Total Assets	$ 663,080	$ 678,102
Total Liabilities	160,779	170,855
TOTAL FARM & NONFARM NET WORTH	$ 502,301	$ 507,247

*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 46 percent on these 15 farms by including deferred taxes.

CONDENSED BALANCE SHEET INCLUDING DEFERRED TAXES
December 31, 1997
15 New York Dairy Farms, 1997

Assets		Liabilities & Net Worth	
		Current debts & payables	$ 79,353
		Current deferred taxes	27,699
Total Current Assets	$ 117,958	Total Current Liabilities	$ 107,052
		Intermediate debts & leases	$ 133,191
		Intermediate deferred taxes	90,653
Total Inter. Assets	$ 417,482	Total Intermediate Liabilities	$ 223,844
		Long term debts & leases	$ 145,975
		Long term deferred taxes	44,877
Total Long Term Assets	$ 365,456	Total Long Term Liabilities	$ 190,852
TOTAL FARM ASSETS	$ 900,896	TOTAL FARM LIABILITIES	$ 521,748
		Farm Net Worth	$ 379,148
		Percent Equity (Farm)	42.09%
		Nonfarm debts	$ 109
		Nonfarm deferred taxes	9,195
Total Nonfarm Assets	$ 69,065	Total Nonfarm Liabilities	$ 9,304
TOTAL ASSETS	$ 969,961	TOTAL LIABILITIES	$ 531,052
		Total Net Worth	$ 438,909
		Percent Equity (Total)	45.25%

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. Debt levels per productive unit represent old standards that are still useful if used with measures of cash flow and repayment ability.

BALANCE SHEET ANALYSIS
44 Southeastern New York Region Dairy Farms, 1997

Item	Average	My Farm
Financial Ratios - Farm:		
Percent equity	69%	_____ %
Debt/asset ratio: total	0.31	_____
long-term	0.44	_____
intermediate/current	0.23	_____
Farm Debt Analysis:		
Accounts payable as % of total debt	6%	_____ %
Long-term liabilities as a % of total debt	56%	_____ %
Current & inter. liabilities as a % of total debt	44%	_____ %

Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 1,861	$ 1,996	$ _____	$ _____
Long-term debt	1,050	1,125	_____	_____
Intermediate & long term	1,508	1,617	_____	_____
Intermediate & current debt	812	871	_____	_____

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

FARM INVENTORY BALANCE
44 Southeastern New York Region Dairy Farms, 1997

Item	Average of Region's Farms	
	Real Estate	Machinery & Equipment
Value beginning of year	$ 209,035	$ 110,857
Purchases	$ 6,161*	$ 15,856
Gift & inheritance	+ 1,295	+ 1,040
Lost capital	- 2,577	
Sales	- 57	- 648
Depreciation	- 4,396	- 11,400
Net investment	= 428	= 4,847
Appreciation	+ 3,483	+ 3,918
Value end of year	$ 212,946	$ 119,622

*$68 land and $6,093 and/or depreciable improvements.

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are consistent (in accountants terms, they reconcile) and (2) identification of the causes of change in equity that occurred on the farm during the year. The Statement of Owner Equity allows you to determine to what degree the change in equity was caused by (1) earnings from the business, and nonfarm income, in excess of withdrawals being retained in the business (called retained earnings), (2) outside capital being invested in the business or farm capital being removed from the business (called contributed/withdrawn capital) , (3) increases or decreases in the value (price) of assets owned by the business (called change in valuation equity), and (4) the error in the business cash flow accounting.

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

STATEMENT OF OWNER EQUITY (RECONCILIATION)
44 Southeastern New York Region Dairy Farms, 1997

Item	Average		My Farm	
Beginning of year farm net worth		$ 363,547		$ _____
Net farm income w/o appreciation	$ 10,960		$ _____	
+Nonfarm cash income	+ 8,373		+ _____	
-Personal withdrawals & family expenditures excluding nonfarm borrowings	- 31,897		- _____	
RETAINED EARNINGS		+ $ -12,564		+$ _____
Nonfarm noncash transfers to farm	$ 2,727		$ _____	
+Cash used in business from nonfarm capital	+ 5,847		+ _____	
-Note or mortgage from farm real estate sold (nonfarm)	- 0		- _____	
CONTRIBUTED/WITHDRAWN CAPITAL		+ $ 8,574		+$ _____
Appreciation	$ 7,791		$ _____	
-Lost capital	- 2,577		- _____	
CHANGE IN VALUATION EQUITY		+ $ 5,214		+$ _____
IMBALANCE/ERROR		- -848		- $ _____
End of year net worth*		= $ 365,619		=$ _____

Change in Net Worth		
Without appreciation	$ -5,719	$ _____
With appreciation	$ 2,072	$ _____

*May not add due to rounding.

Cash Flow Statement

Completing an annual cash flow statement is an important step in understanding the sources and uses of funds for the business. Understanding last year's cash flow is the first step toward planning and managing cash flow for the current and future years.

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

ANNUAL CASH FLOW STATEMENT
44 Southeastern New York Region Dairy Farms, 1997

Item			Average	
Cash Flow from Operating Activities				
	Cash farm receipts	$ 223,983		
-	Cash farm expenses	192,848		
=	Net cash farm income		$ 31,135	
	Personal withdrawals & family expenses including nonfarm debt payments	$ 31,852		
-	Nonfarm income	8,373		
-	Net cash withdrawals from the farm		$ 23,479	
=	Net Provided by Operating Activities			$ 7,656
Cash Flow From Investing Activities				
	Sale of assets: machinery	$ 648		
	+ real estate	57		
	+ other stock & cert.	555		
=	Total asset sales		$ 1,260	
	Capital purchases: expansion livestock	$ 4,025		
	+ machinery	15,856		
	+ real estate	6,161		
	+ other stock& cert.	8		
-	Total invested in farm assets		$ 26,050	
=	Net Provided by Investment Activities			$ -24,790
Cash Flow From Financing Activities				
	Money borrowed (intermediate & long term)	$ 29,629		
+	Money borrowed (short term)	1,178		
+	Increase in operating debt	146		
+	Cash from nonfarm capital used in business	5,847		
+	Money borrowed - nonfarm	-45		
=	Cash inflow from financing		$ 36,755	
	Principal payments (intermediate & long term)	$ 18,836		
+	Principal payments (short term)	1,499		
+	Decrease in operating debt	0		
-	Cash outflow for financing		$ 20,335	
=	Net Provided by Financing Activities			$ 16,420
Cash Flow From Reserves				
	Beginning farm cash, checking & savings		$ 4,068	
-	Ending farm cash, checking & savings		4,203	
=	Net Provided from Reserves			$ -135
Imbalance (error)				$ -849

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 1997. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 1998 debt payments shown below.

FARM DEBT PAYMENTS PLANNED

Same 43 Southeastern New York Region Dairy Farms, 1996 & 1997

	Average			My Farm		
	1997 Payments		Planned	1997 Payments		Planned
Debt Payments	Planned	Made	1998	Planned	Made	1998
Long term	$ 13,440	$ 13,408	$ 13,967	$	$	$
Intermediate term	16,280	21,137	17,383			
Short term	2,042	1,931	2,059			
Operating (net reduction)	1,901	0	638			
Accounts payable (net reduction)	135	0	270			
Total	$ 33,798	$ 36,476	$ 34,317	$	$	$
Per cow	$ 393	$ 424		$	$	
Per cwt. 1997 milk	$ 2.26	$ 2.44		$	$	
Percent of total 1997 farm receipts	15%	16%				
Percent of 1997 milk receipts	16%	17%				

The cash flow coverage ratio measures the ability of the farm business to meet its planned debt payment schedule. The ratio shows the percentage of payments planned for 1997 (as of December 31, 1996) that could have been made with the amount available for debt service in 1997. Farmers who did not participate in DFBS in 1996 have their 1997 cash flow coverage ratio based on planned debt payments for 1998.

CASH FLOW COVERAGE RATIO

Same 43 Southeastern New York Region Dairy Farms, 1996 & 1997

Item	Average	My Farm
Cash farm receipts	$ 226,358	$
- Cash farm expenses	193,409	
+ Interest paid	11,269	
- Net personal withdrawals from farm*	24,063	
(A) = Amount Available for Debt Service	$ 20,155	$
(B) = Debt Payments Planned for 1997 (as of December 31, 1996)	$ 33,798	$
(A/B) = Cash Flow Coverage Ratio for 1997	0.60	

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

ANNUAL CASH FLOW WORKSHEET

Item	Regional Average Per Cow	Regional Average Per Cwt.	My Farm Per Cow/ Per Cwt.	Expected Change	1998 Projection
Average no. of cows	86				
Total cwt. of milk sold		14,831			
Accrual Operating Receipts					
Milk	$ 2,411	$ 13.98	$		$
Dairy cattle	124	0.72			
Dairy calves	28	0.16			
Other livestock	9	0.05			
Crops	-34	-0.20			
Misc. Receipts	84	0.48			
Total	$ 2,621	$ 15.20	$		$
Accrual Operating Expenses					
Hired labor	$ 195	$ 1.13	$		$
Dairy grain & concentrate	821	4.76			
Dairy roughage	41	0.24			
Nondairy feed	1	0.00			
Mach. hire, rent & lease	25	0.15			
Mach. repair & vehicle exp.	152	0.88			
Fuel, oil & grease	59	0.34			
Replacement livestock	30	0.17			
Breeding	31	0.18			
Vet & medicine	46	0.27			
Milk marketing	133	0.77			
Bedding	16	0.09			
Milking supplies	58	0.34			
Cattle lease	0	0.00			
Custom boarding	4	0.03			
bST	8	0.05			
Other livestock exp.	42	0.24			
Fertilizer & lime	69	0.40			
Seeds & plants	29	0.17			
Spray & other crop exp.	48	0.28			
Land, bldg., fence repair	37	0.21			
Taxes	58	0.34			
Real estate rent & lease	63	0.36			
Insurance	41	0.24			
Utilities	93	0.54			
Miscellaneous	29	0.17			
Total Less Interest Paid	$ 2,130	$ 12.35	$		$
Net Accrual Operating Income	Total				
(without interest paid)	$ 42,234		$		$
- Change in livestock & crop invent.*	-1,445				
- Change in accounts receivable	2,888				
- Change in feed & supply inventory**	-779				
+ Change in accounts payable***	1,018				
NET CASH FLOW	$ 42,588		$		$
- Net family withdrawals	$ 23,524				
Available for Farm	$ 19,064		$		
- Farm debt payments	31,335				
Available for Farm Investment	$ -12,271		$		$
- Capital purchases	26,050				
Additional Capital Needed	$ 38,321		$		$

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

Cropping Analysis

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

LAND RESOURCES AND CROP PRODUCTION
44 Southeastern New York Region Dairy Farms, 1997

Item	Average			My Farm		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	83	163	246			
Nontillable	43	51	99			
Other nontillable	63	16	79			
Total	194	230	424			

Crop Yields	Farms	Acres*	Prod/Acre	Acres	Prod/Acre
Hay crop	43	151	1.92 tn DM		tn DM
Corn silage	38	67	12.54 tn		tn
			4.06 tn DM		tn DM
Other forage	4	43	1.12 tn DM		tn DM
Total forage	43	215	2.49 tn DM		tn DM
Corn grain	9	95	76 Bu		bu
Oats	3	12	53 Bu		bu
Wheat	0	0	0 Bu		bu
Other crops	2	22			
Tillable pasture	8	47			
Idle	3	89			
Total Tillable Acres	44	246			

*This column represents the average acreage for the farms producing that crop. Average acreages including those farms not producing were hay crop 148, corn silage 58, corn grain 19, oats 1, tillable pasture 9, and idle 6.

Average crop acres and yields compiled for the region are for the farms reporting each crop. Yields of forage crops have been converted to tons of dry matter using dry matter coefficients reported by the farmers. Grain production has been converted to bushels of dry grain equivalent based on dry matter information provided.

The following crop/dairy ratios indicate the relationship between forage production, forage production resources, and the dairy herd.

CROP/DAIRY RATIOS
44 Southeastern New York Region Dairy Farms, 1997

Item	Average	My Farm
Total tillable acres per cow	2.86	
Total forage acres per cow	2.44	
Harvested forage dry matter, tons per cow	6.08	

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 10 farms in the region.

CROP RELATED ACCRUAL EXPENSES
44 Southeastern New York Region Dairy Farms Reporting, 1997

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	44	6			7		0	
Ave. number of acres	246	93			196		0	0
Fert. & lime	$ 24.13	$ 61.08	$ 16.78	$ 0.87	$ 7.43	$ 5.13	$ 0.00	$ 0.00
Seeds & plants	10.28	30.08	8.26	0.43	0.73	0.51	0.00	0.00
Spray & other crop exp.	16.63	38.26	10.51	0.54	3.44	2.37	0.00	0.00
TOTAL	$ 51.04	$ 129.42	$ 35.55	$ 1.84	$ 11.60	$ 8.01	$ 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
44 Southeastern New York Region Dairy Farms, 1997

Machinery Expense	Average Total Expenses	Average Per Till. Acre	My Farm Total Expenses	My Farm Per Till. Acre
Fuel, oil & grease	$ 5,074	$ 20.63	$	$
Mach. repair & vehicle exp.	13,086	53.20		
Machine hire, rent & lease	2,164	8.80		
Interest (5%)	5,837	23.73		
Depreciation	11,400	46.34		
Total	$ 37,561	$ 152.69	$	$

Dairy Analysis

Analysis of the dairy enterprise can reveal strengths and weaknesses of the dairy farm business. Information on this page should be used in conjunction with DHI and other dairy production information. Changes in dairy herd size and market values that occur during the year are identified in the table below. The change in inventory value without appreciation is attributed to physical changes in herd size and quality. Any change in inventory is included as an accrual farm receipt when calculating all of the profitability measures on pages 6 and 7.

DAIRY HERD INVENTORY

44 Southeastern New York Region Dairy Farms, 1997

	Dairy Cows		Heifer					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Beg. year (owned)	87	$ 89,093	22	$ 19,109	23	$ 11,907	19	$ 5,137
+ Change w/o apprec.		1,702		3,368		-1,585		-412
+ Appreciation	89	-209		0		4		-46
End year (owned)		$ 90,586	26	$ 22,477	20	$ 10,326	17	$ 4,679
End including leased	89							
Average number	86		62	(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. Farm managers on DHI should compare milk sold per cow with their rolling herd average on the test date nearest December 31 to see how close the DHI estimate of milk produced is to actual milk sales.

MILK PRODUCTION

44 Southeastern New York Region Dairy Farms, 1997

Item	Average	My Farm
Total milk sold, lbs.	1,483,065	_____
Milk sold per cow, lbs.	17,240	_____
Average milk plant test, percent butterfat	3.70%	_____

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

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

44 Southeastern New York Region Dairy Farms, 1997

Item	Average			My Farm		
	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Cost of Producing Milk						
Operating costs	$ 180,602	$ 2,100	$ 12.18	$ _____	$ _____	$ _____
Purchased inputs costs	$ 196,398	$ 2,284	$ 13.24	$ _____	$ _____	$ _____
Total Costs	$ 248,787	$ 2,893	$ 16.77	$ _____	$ _____	$ _____
Accrual Receipts From Milk	$ 207,358	$ 2,411	$ 13.98	$ _____	$ _____	$ _____
Net Farm Income without Apprec.	$ 10,960	$ 127	$ 0.74	$ _____	$ _____	$ _____
Net Farm Income with Apprec.	$ 18,751	$ 218	$ 1.26	$ _____	$ _____	$ _____

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

DAIRY RELATED ACCRUAL EXPENSES

44 Southeastern New York Region Dairy Farms, 1997

Item	Average		My Farm	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrate	$ 821	$ 4.76	$ _____	$ _____
Purchased dairy roughage	41	0.24	_____	_____
Total Purchased Dairy Feed	$ 863	$ 5.00	$ _____	$ _____
Purchased grain & conc. as % of milk receipts	34%		_____ %	
Purchased feed & crop exp.	$ 1,009	$ 5.85	$ _____	$ _____
Purchased feed & crop exp. as % of milk receipts	42%		_____ %	
Breeding	$ 31	$ 0.18	$ _____	$ _____
Veterinary & medicine	46	0.27	_____	_____
Milk marketing	133	0.77	_____	_____
Bedding	16	0.09	_____	_____
Milking supplies	58	0.34	_____	_____
Cattle lease	0	0.00	_____	_____
Custom boarding	4	0.03	_____	_____
bST	8	0.05	_____	_____
Other livestock expense	42	0.24	_____	_____

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.

CAPITAL EFFICIENCY

44 Southeastern New York Region Dairy Farms, 1997

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$ 196,636	$ 6,105	$ 2,134	$ 6,326
Real estate		2,453		2,542
Machinery & equipment	43,725	1,357	475	
Asset turnover ratio	0.44			
My Farm				
Farm capital	$ _____	$ _____	$ _____	$ _____
Real estate	_____	_____	_____	_____
Machinery & equipment	_____	_____	_____	_____
Asset turnover ratio	_____			

LABOR FORCE INVENTORY AND ANALYSIS

44 Southeastern New York Region Dairy Farms, 1997

Labor Force	Months	Age	Years of Educ.	Value of Labor & Mgmt.
Operator number 1	13.0	46	14	$ 21,664
Operator number 2	3.2	46	13	5,209
Operator number 3	0.5	32	12	777
Family paid	5.9			
Family unpaid	4.2			
Hired	5.2			
Total	32.0	/ 12 = 2.67 Worker Equivalent		
		1.35 Operator/Manager Equivalent		
My Farm: Total	_____	/ 12 = _____ Worker Equivalent		
Operator's	_____	/ 12 = _____ Operator/Manager Equivalent		

Labor Efficiency	Average Total	Average Per Worker	My Farm Total	My Farm Per Worker
Cows, average number	86	32	_____	_____
Milk sold, pounds	1,483,065	555,455	_____	_____
Tillable acres	246	92	_____	_____
Work units	880	330	_____	_____

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 ($1,550/mo.)	$ 25,885	$ 301	$ 1.75	$ _____	$ _____	$ _____
Family unpaid ($1,550/mo.)	6,510	76	0.44	_____	_____	_____
Hired	16,776	195	1.13	_____	_____	_____
Total Labor	$ 49,171	$ 572	$ 3.32	$ _____	$ _____	$ _____
Machinery Cost	$ 37,561	$ 437	$ 2.53	$ _____	$ _____	$ _____
Total Labor & Mach.	$ 86,732	$ 1,009	$ 5.85	$ _____	$ _____	$ _____

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 43 Southeastern New York Region Dairy Farms, 1996 & 1997

	Average of 43 Farms*		My Farm		
Selected Factors	1996	1997	1996	1997	Goal
Size of Business					
Average number of cows	85	86			
Average number of heifers	65	63			
Milk sold, lbs.	1,384,273	1,495,602			
Worker equivalent	2.60	2.66			
Total tillable acres	241	245			
Rates of Production					
Milk sold per cow, lbs.	16,344	17,334			
Hay DM per acre, tons	2.2	2.0			
Corn silage per acre, tons	14.2	12.5			
Labor Efficiency					
Cows per worker	33	32			
Milk sold/worker, lbs.	532,413	562,256			
Cost Control					
Grain & conc. purchased as % of milk sales	34%	34%	%	%	%
Dairy feed & crop exp. per cwt. milk	$ 6.24	$ 5.85	$	$	$
Labor & mach. costs/cow	$ 1,023	$ 1,018	$	$	$
Operating cost of producing cwt. of milk	$ 12.34	$ 12.17	$	$	$
Capital Efficiency**					
Farm capital per cow	$ 6,054	$ 6,133	$	$	$
Mach. & equip. per cow	$ 1,318	$ 1,372	$	$	$
Asset turnover ratio	0.48	0.45			
Profitability					
Net farm income w/o apprec.	$ 23,966	$ 11,450	$	$	$
Net farm income w/apprec.	$ 31,995	$ 19,323	$	$	$
Labor & mgt. income per operator/manager	$ -29	$ -10,034	$	$	$
Rate of return on equity capital w/appreciation	-0.2%	-4.2%	%	%	%
Rate of return on all capital w/appreciation	2.0%	-0.8%	%	%	%
Financial Summary					
Farm net worth, end year	$ 373,614	$ 369,602	$	$	$
Debt to asset ratio	0.29	0.31			
Farm debt per cow	$ 1,759	$ 1,842	$	$	$

*Farms participating both years.

**Average for the year.

Regional Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing your business. Compare your business by drawing a line through or near the figure in each column which represents your current level of performance. The five figures in each column represent the average of each 20 percent or quintile of farms included in the regional summary. Use this information to identify business areas where more challenging goals are needed.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS

44 Southeastern New York Region Dairy Farms, 1997

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)
5.17	192	3,305,122	21,024	2.8	18	47	820,819
2.89	94	1,667,326	18,947	2.2	16	35	613,462
2.25	63	1,098,114	17,567	2.0	13	31	516,915
1.91	52	906,284	15,617	1.5	12	28	475,081
1.40	40	640,930	13,515	1.1	7	20	335,247

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)
$561	$26	$236	$735	$684	$4.44
704	30	348	882	871	5.19
822	34	442	1,051	984	5.65
913	37	519	1,189	1,094	6.09
1,040	43	701	1,519	1,249	6.87

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)
$3,018	$8.89	$13.45	$70,542	$61,350	$33,356	$46,210
2,641	10.70	16.13	32,949	29,461	5,290	22,160
2,475	11.72	17.26	17,813	10,778	-6,270	11,305
2,143	12.88	17.97	5,189	-2,346	-24,714	-4,896
1,797	14.77	22.16	-26,985	-38,841	-63,178	-59,519

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

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 300 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

300 New York Dairy Farms, 1996

Size of Business			Rates of Production			Labor Efficiency	
Worker Equivalent	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)
14.1	651	14,248,916	24,025	4.9	21	57	1,138,608
6.8	266	5,607,051	22,037	3.8	19	45	912,193
5.3	186	3,650,914	21,015	3.4	18	40	793,393
4.2	138	2,594,240	20,222	3.1	17	37	679,606
3.5	112	2,027,310	19,078	2.8	16	34	620,615
3.0	89	1,632,345	18,150	2.5	15	31	558,524
2.6	73	1,311,881	17,149	2.3	14	28	505,026
2.2	62	1,075,438	16,328	2.1	13	26	463,816
1.8	50	808,021	14,947	1.8	11	23	388,967
1.4	40	548,071	11,967	1.4	8	19	274,100

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)
$434	17%	$229	$683	$601	$3.68
608	24	322	827	787	4.50
685	26	374	904	853	4.83
746	28	411	971	915	5.14
804	30	447	1,036	991	5.38
872	32	479	1,088	1,062	5.66
939	33	520	1,154	1,123	5.96
1,005	36	571	1,251	1,184	6.29
1,083	38	642	1,354	1,280	6.83
1,211	43	801	1,610	1,475	7.80

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

FARM BUSINESS CHART FOR
FARM MANAGEMENT COOPERATORS
300 New York Dairy Farms, 1996

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)
$3,619	$16.22	$1,247	$8.22	$2,152	$13.09
3,313	15.60	1,619	9.87	2,478	14.18
3,158	15.30	1,825	10.57	2,666	14.66
3,008	15.09	1,985	11.15	2,829	15.28
2,868	14.93	2,118	11.53	2,972	15.76
2,709	14.80	2,259	11.96	3,084	16.43
2,564	14.70	2,415	12.42	3,209	17.08
2,431	14.60	2,556	12.96	3,365	17.74
2,226	14.48	2,738	13.91	3,550	19.20
1,796	14.08	3,048	15.79	3,922	23.08

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)
$321,819	$1,028	30.4%	$347,786	$1,157	$224,564	$162,869
115,924	711	22.1	134,601	843	76,776	52,013
79,222	579	18.2	94,669	688	43,729	32,464
56,906	504	15.7	65,624	580	25,394	21,026
41,652	430	13.4	52,280	512	16,055	12,477
31,778	354	11.3	41,047	426	8,594	6,199
23,448	259	8.5	29,141	330	-50	-55
12,232	146	5.2	18,606	231	-12,439	-10,090
1,044	14	0.5	6,389	78	-25,888	-21,207
-35,684	-377	-15.6	-26,815	-277	-65,783	-52,531

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 28-32.

Financial Analysis Chart

The farm financial analysis chart on page 25 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
300 New York Dairy Farms, 1996

Liquidity (repayment)				
Planned Debt Payments Per Cow	Available for Debt Service Per Cow	Cash Flow Coverage Ratio	Debt Payments as Percent of Milk Sales	Debt Per Cow
(8)*	(12)	(8)	(8)	(5)
$55	$873	3.10	2%	$179
195	672	1.87	7	795
306	575	1.47	10	1,411
363	512	1.21	12	1,808
403	463	1.05	14	2,134
445	406	0.90	16	2,509
490	346	0.77	17	2,809
544	254	0.62	20	3,140
630	158	0.27	24	3,541
863	-239	-0.63	40	4,640

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)	(3)	(3)
-0.62	97%	0.03	0.00	21%	13%
0.12	89	0.11	0.00	12	9
0.25	80	0.17	0.07	9	7
0.37	73	0.24	0.20	6	5
0.51	66	0.31	0.28	4	4
0.64	61	0.38	0.38	2	2
0.79	56	0.43	0.46	-1	1
0.98	50	0.51	0.57	-4	-1
1.31	43	0.60	0.70	-9	-3
3.50	27	0.86	1.07	-46	-10

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
(11)	(11)	(11)	(11)	(6)
.82	$1,235	$524	$4,083	$243,775
.66	1,886	753	5,051	87,972
.59	2,168	895	5,528	58,367
.54	2,423	1,022	5,954	37,579
.50	2,685	1,144	6,387	25,888
.47	3,016	1,323	6,773	17,129
.44	3,479	1,472	7,285	9,226
.39	3,897	1,649	7,873	1,735
.34	4,502	1,896	8,752	-8,219
.25	6,861	2,618	11,530	-65,498

*Page number of the participant's DFBS where the factor is located.
**Dollars of debt per dollar of equity, computed by dividing total liabilities by total equity.
***Return on all farm capital (no deduction for interest paid) divided by total farm assets.

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 27 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 604 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 28-32. 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 41-50 of the 1996 State Summary*. As herd size increases, the average profitability generally increases (page 41)*. Net farm income without appreciation averaged $10,342 per farm for the less than 40 cow farms and $259,047 per farm for those with 300 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 45-48)*, even though percent equity was higher on the smaller farms. The group with more than 300 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 49-50)*. The farms with 300 and more cows per farm averaged 53 percent more milk sold per cow than the smallest farms. All of the groups with 85 or more cows averaged above 18,000 pounds of milk sold per cow while the farms smaller than 85 cows averaged 16,500 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 313,758 pounds at the lowest herd size category up to 1,000,157 pounds at the largest size category.

*Wayne A. Knoblauch, and Linda D. Putnam, Dairy Farm Management Business Summary, New York, 1996, Department of Agricultural, Resource, and Managerial Economics, Cornell University, R.B. 97-14, September 1997.

SELECTED BUSINESS FACTORS BY TYPE OF BARN AND HERD SIZE

270 New York Dairy Farms, 1996

Item	Farms with:	Conventional <= 60 Cows	Conventional >60 Cows	Freestall <=150 Cows	Freestall 151-300 Cows	Freestall ≥300 Cows
Number of farms		69	55	63	48	35
Cropping Program Analysis						
Total Tillable acres		155	282	315	567	1,174
Tillable acres rented*		56	112	121	285	546
Hay crop acres*		102	160	167	254	452
Corn silage acres*		24	57	73	166	465
Hay crop, tons DM/acre		2.1	2.6	2.5	2.7	3.2
Corn silage, tons/acre		13.6	14.4	14.3	15.5	17.1
Oats, bushels/acre		48	55	33	42	48
Forage DM per cow, tons		7.1	8.1	7.3	6.9	6.8
Tillable acres/cow		3.3	3.3	3.0	2.6	1.9
Fert. & lime exp./tillable acre		$16.46	$24.64	$23.00	$26.67	$29.89
Total machinery costs		$22,250	$41,761	$53,443	$101,702	$247,248
Machinery cost/tillable acre		$144	$148	$170	$179	$211
Dairy Analysis						
Number of cows		47	86	105	222	604
Number of heifers		35	69	78	164	444
Milk sold, lbs.		758,356	1,510,688	1,967,450	4,491,591	13,142,057
Milk sold/cow, lbs.		16,061	17,562	18,789	20,213	21,774
Operating cost of prod. milk/cwt.		$11.52	$11.10	$12.21	$12.28	$12.05
Total cost of prod. milk/cwt.		$18.39	$15.94	$16.73	$15.28	$14.21
Price/cwt. milk sold		$14.85	$15.00	$15.04	$15.07	$14.91
Purchased dairy feed/cow		$792	$791	$881	$1,044	$994
Purchased dairy feed/cwt. milk		$4.91	$4.50	$4.70	$5.16	$4.57
Purchased grain & conc. as % milk rec.		31%	29%	30%	32%	30%
Purchased feed & crop exp./cwt. milk		$5.62	$5.40	$5.57	$5.94	$5.21
Capital Efficiency						
Farm capital/worker		$189,979	$203,875	$233,684	$237,054	$263,840
Farm capital/cow		$7,599	$7,136	$7,166	$5,958	$5,591
Farm capital/tillable acre owned		$3,608	$3,631	$3,879	$4,691	$5,378
Real estate/cow		$3,974	$3,269	$3,279	$2,476	$2,316
Machinery investment/cow		$1,486	$1,486	$1,427	$1,030	$879
Asset turnover ratio		0.38	0.43	0.45	0.59	0.64
Labor Efficiency						
Worker equivalent		1.88	3.01	3.22	5.58	12.80
Operator/manager equivalent		1.24	1.42	1.56	1.90	2.04
Milk sold/worker, lbs.		403,381	501,890	611,009	804,945	1,026,723
Cows/worker		25	29	33	40	47
Labor cost/cow		$706	$587	$572	$532	$594
Labor cost/tillable acre		$214	$179	$191	$208	$306
Profitability & Balance Sheet Analysis						
Net farm income (without appreciation)		$14,070	$41,852	$30,343	$78,707	$259,047
Labor & management income/operator		$-3,360	$9,116	$972	$20,575	$80,897
Rate Return on all capital with appreciation		-0.1%	4.1%	3.1%	6.6%	9.6%
Farm debt/cow		$2,175	$1,817	$2,424	$2,587	$2,553
Percent equity		71%	74%	66%	56%	55%

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

FARM BUSINESS CHART FOR SMALL CONVENTIONAL STALL DAIRY FARMS

69 Conventional Stall Dairy Farms with 60 or Less Cows, New York, 1996

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)
2.97	60	1,203,435	21,572	3.7	21	50	799,962
2.51	57	1,013,799	19,519	3.1	18	36	579,006
2.13	54	938,605	18,174	2.7	17	30	500,345
2.00	51	828,545	17,275	2.4	16	28	480,813
1.96	48	766,044	16,753	2.2	15	26	437,443
1.77	46	715,358	16,026	2.1	14	24	384,217
1.58	44	660,636	15,128	1.9	12	22	352,174
1.50	42	604,158	13,790	1.6	11	21	320,834
1.42	39	550,236	12,459	1.5	9	20	271,110
1.07	33	366,328	9,254	1.0	6	17	205,488

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)
$340	18%	$153	$680	$431	$3.48
525	23	298	902	666	4.38
619	26	353	1,017	791	4.95
664	29	392	1,084	830	5.28
708	30	432	1,137	859	5.45
741	32	464	1,197	909	5.86
783	34	498	1,264	978	6.18
849	36	574	1,342	1,055	6.42
945	39	679	1,467	1,143	6.96
1,172	47	903	1,819	1,308	7.82

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)
$3,227	$8.08	$14.39	$47,874	$1,027	$26,356	$88,439
2,915	8.91	15.53	37,039	750	17,242	30,717
2,731	9.79	16.46	28,499	593	10,327	19,252
2,573	10.61	17.03	23,329	524	4,918	15,786
2,481	11.33	17.65	18,072	406	2,053	10,484
2,380	11.66	18.44	12,298	248	-2,090	6,180
2,220	12.40	19.46	7,513	160	-6,685	1,006
2,066	12.97	20.82	3,382	75	-14,211	-3,150
1,830	14.00	22.97	-2,821	-75	-22,342	-8,142
1,370	16.62	27.50	-29,650	-562	-49,645	-22,857

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

FARM BUSINESS CHART FOR LARGE CONVENTIONAL STALL DAIRY FARMS

55 Conventional Stall Dairy Farms with More Than 60 Cows, New York, 1996

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)
5.29	142	2,417,978	22,410	5.3	21	48	816,762
4.11	111	2,016,357	20,557	3.7	18	39	666,640
3.39	101	1,863,454	19,202	3.5	17	36	614,542
3.15	92	1,617,046	18,293	3.2	16	33	579,071
3.00	82	1,526,996	18,043	2.8	15	31	544,006
2.87	76	1,389,911	17,627	2.5	15	30	524,015
2.59	74	1,309,439	17,007	2.4	14	27	489,153
2.50	70	1,219,710	16,479	2.1	12	25	443,699
2.14	66	1,153,288	15,248	1.9	11	22	395,763
1.74	64	907,431	13,017	1.4	5	18	286,535

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$416	15%	$280	$771	$612	$3.51
554	22	342	849	704	4.19
634	24	399	890	787	4.60
669	27	440	966	848	4.93
726	30	470	1,039	883	5.19
799	32	507	1,111	945	5.62
880	33	539	1,221	1,070	5.89
951	34	568	1,312	1,146	6.11
1,066	38	645	1,385	1,234	6.80
1,145	44	781	1,607	1,317	7.64

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)
$3,347	$7.25	$12.60	$126,115	$1,196	$64,873	$90,224
3,081	8.67	13.68	76,332	905	38,043	64,355
2,865	9.90	14.61	58,470	798	29,481	39,264
2,755	10.53	15.27	50,403	626	19,651	31,945
2,677	11.17	15.73	44,176	540	16,879	26,831
2,626	11.44	16.40	39,967	452	12,437	22,572
2,521	11.83	16.89	31,455	370	6,386	11,896
2,410	12.42	17.28	25,322	327	-1,715	6,776
2,309	13.50	18.29	17,743	173	-20,528	225
1,985	15.64	22.38	-24,090	-317	-45,435	-28,152

*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, 1996

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)
5.12	145	3,165,908	24,516	4.3	19	59	1,036,200
4.44	140	2,809,190	22,148	3.6	18	43	836,779
3.94	131	2,462,621	20,888	3.2	17	38	727,081
3.63	122	2,231,843	20,001	3.0	16	35	656,951
3.35	114	2,097,629	19,221	2.8	15	34	630,173
3.16	106	1,896,454	18,516	2.7	15	33	598,483
2.91	96	1,722,674	17,205	2.5	14	31	545,410
2.50	81	1,522,757	16,352	2.2	13	28	498,264
2.19	72	1,250,795	15,632	1.8	12	25	466,291
1.55	57	888,080	13,516	1.3	10	22	390,808

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)
$490	18%	$260	$681	$710	$3.85
629	24	380	891	845	4.68
734	26	425	951	915	5.16
788	29	462	1,011	972	5.32
836	30	493	1,055	999	5.42
882	32	548	1,100	1,072	5.71
943	35	577	1,156	1,130	6.19
989	37	615	1,233	1,189	6.48
1,084	38	646	1,318	1,282	6.93
1,208	41	790	1,582	1,446	7.59

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)
$3,740	$9.76	$14.32	$97,857	$872	$45,473	$85,446
3,316	10.35	15.01	69,667	619	25,567	60,647
3,090	10.85	15.57	51,429	511	18,664	40,918
2,984	11.52	16.11	39,709	446	11,608	27,830
2,880	12.04	16.64	35,698	364	7,908	20,346
2,766	12.39	17.21	28,862	274	1,195	15,396
2,588	12.83	17.64	21,470	193	-5,943	8,719
2,488	13.70	18.46	10,039	96	-13,657	910
2,317	14.80	19.46	-3,808	-35	-24,434	-9,794
2,049	16.12	21.51	-28,596	-380	-47,468	-43,680

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

FARM BUSINESS CHART FOR MEDIUM FREESTALL DAIRY FARMS

48 Freestall Barn Dairy Farms with 151-300 Cows, New York, 1996

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)
7.88	283	6,803,006	25,468	4.3	23	68	1,299,135
7.12	270	5,867,677	23,534	3.9	20	54	1,086,749
6.56	259	5,404,483	22,532	3.8	19	49	990,062
6.19	248	5,030,295	21,375	3.5	18	45	897,337
6.01	237	4,690,388	20,783	3.3	17	41	828,328
5.42	219	4,194,819	20,184	3.0	15	39	796,346
5.20	201	3,941,415	19,165	2.5	15	36	770,387
4.75	187	3,582,997	18,366	2.3	14	35	693,874
4.16	176	3,383,605	16,961	2.0	13	31	613,575
3.27	163	2,754,728	14,384	1.2	9	27	486,569

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)
$637	21%	$258	$657	$822	$4.17
747	26	302	745	964	4.71
832	27	351	798	1,036	5.02
898	30	408	846	1,085	5.40
971	32	443	944	1,147	5.75
1,008	33	494	1,013	1,194	6.18
1,044	36	526	1,083	1,269	6.50
1,092	37	570	1,179	1,389	7.03
1,199	41	643	1,364	1,443	7.59
1,291	45	728	1,527	1,719	8.68

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)
$3,824	$9.74	$12.80	$233,259	$991	$110,437	$184,695
3,636	10.64	13.88	154,020	649	82,859	137,445
3,413	11.12	14.28	124,422	566	73,344	104,559
3,259	11.52	14.50	109,516	487	50,964	80,265
3,124	11.89	15.02	95,367	450	38,058	64,476
2,991	12.42	15.53	82,390	379	30,202	50,655
2,902	12.85	16.18	63,806	315	12,729	28,330
2,733	13.91	16.97	45,286	216	-153	9,867
2,518	14.49	17.48	-857	-5	-25,875	-18,458
2,200	16.03	18.97	-74,163	-317	-79,530	-91,546

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

FARM BUSINESS CHART FOR LARGE FREESTALL DAIRY FARMS

35 Freestall Barn Dairy Farms with 300 or More Cows, New York, 1996

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)
32.14	1,697	37,033,757	24,803	5.7	20	61	1,378,113
17.15	955	21,804,174	24,077	4.7	20	53	1,137,106
15.36	703	15,227,082	23,149	3.8	20	50	1,084,070
14.27	597	13,003,869	22,525	3.6	18	47	1,029,827
12.86	525	12,027,844	22,250	3.3	18	46	996,098
10.92	493	10,351,685	21,744	3.1	18	45	943,313
10.17	406	8,809,368	21,091	2.6	16	41	922,957
9.30	366	7,925,753	20,653	2.5	15	39	883,987
8.62	346	7,172,671	19,853	2.3	14	39	773,624
7.16	313	6,410,978	18,614	2.2	12	33	684,809

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)
$711	23%	$243	$723	$901	$4.39
800	25	310	884	1,006	4.64
877	28	373	922	1,072	4.89
979	29	398	953	1,107	5.08
1,005	31	411	1,003	1,140	5.42
1,023	32	446	1,036	1,189	5.64
1,068	34	474	1,061	1,266	5.76
1,131	35	485	1,110	1,293	5.87
1,167	36	541	1,208	1,336	5.93
1,232	39	662	1,408	1,396	6.45

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)
$3,715	$10.54	$12.90	845,578	$730	$591,699	$527,102
3,567	11.34	13.31	470,286	655	227,950	349,326
3,394	11.59	13.70	343,687	572	168,299	286,678
3,351	11.90	13.92	318,634	535	115,496	256,533
3,314	12.13	14.32	253,916	512	83,964	201,351
3,257	12.31	14.83	212,235	422	66,114	139,175
3,200	12.47	15.27	168,430	368	51,618	97,918
3,101	12.75	15.52	121,635	318	33,784	63,594
2,989	13.15	15.75	72,892	189	12,134	37,437
2,712	13.98	16.26	17,407	42	-29,249	-147,916

*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 22-25 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)

Current Portion - (defined on page 7)

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

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

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

Debt to Asset Ratios - (defined on page 10)

Deferred Taxes - (defined on page 9)

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.

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.

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.

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 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)

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.

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OTHER A.R.M.E. EXTENSION BULLETINS

EB No	Title	Author(s)
98-09	Dairy Farm Business Summary, Western and Central Plateau Region, 1997	Knoblauch, W.A., L.D. Putnam, C.A. Crispell, J.W. Grace, J.S. Petzen, A.N. Dufresne and G. Albrecht
98-08	Dairy Farm Business Summary, Northern Hudson Region, 1997	Conneman, G.J., L.D. Putnam, C.S. Wickswat, S. Buxton and D.R. Wood
98-07	Dairy Farm Business Summary, Western and Central Plain Region, 1997	Knoblauch, W.A., L.D. Putnam, J. Karszes, C. Mentis, G. Allhusen and J. Hanchar
98-06	Dairy Farm Business Summary, New York Large Herd Farms, 300 Cows or Larger, 1997	Karszes, J., K.A. Knoblauch and L.D. Putnam
98-05	A Presentation Guide to the U.S. Food Industry	Green, G.M., E. W. McLaughlin and K. Park
98-04	Estate and Succession Planning for Small Business Owners	Tauer, L.W. and D.A. Grossman
98-03	Profile of the Work Force on Dairy Farms in New York and Wisconsin	McClenahan, E.J. and R.A. Milligan
98-02	MICRO DFBS: A Guide to Processing Dairy Farm Business Summaries in County and Regional Extension Offices for Micro DFBS Version 4.1	Putnam, L.D. and W.A. Knoblauch
98-01	Estimation of Regional Differences in Class I Milk Values Across U.S. Milk Markets	Pratt, J.E., A.M. Novakovic, P.M. Bishop, M.W. Stephenson, E.M. Erba and C. Alexander
97-22	FISA -- A Complete Set of Financial Statements for Agriculture	LaDue, E.L.
97-21	New York Economic Handbook, 1998: Agribusiness Economic Outlook Conference	A.R.M.E. Staff
97-20	Farm Labor Regulations	Grossman, D.A.
97-19	1997 Farm Income Tax Management and Reporting Reference Manual	Smith, S.F. and C.H. Cuykendall
97-18	Lake Erie Grape Farm Cost Survey, 1991-1995	Shaffer, B. and G.B. White

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