# UMMARY DAIRY FARM

# EASTERN PLATEAU REGION 1986

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# 1986 DAIRY FARM BUSINESS SUMMARY Eastern Plateau Region\*

### Introduction

Dairy farmers throughout the State have been participating in New York Cooperative Extension's farm business summary and analysis program since the early 1950's. Each participating farmer receives a complete business and financial summary and analysis of his or her farm business. The information in this report represents an average of all the data submitted from farms in the region described at the bottom of this page.

# Program Objective

The primary objective of the dairy farm business summary, DFBS, is to help farmers improve their management skills through appropriate use of record data and application of modern farm business management decision-making techniques. In short, DFBS identifies the business and financial information farmers need and demonstrates how to use it in identifying and evaluating the strengths and weaknesses of the farm business.

# Format Features

This regional report follows the same general format as in the 1986 DFBS output received by all participating dairy farmers. Worksheets have been included to give non-DFBS participants an opportunity to summarize their businesses. The analysis tables include an open column or section labeled  $\underline{\text{My}}$   $\underline{\text{Farm}}$ . It may be used by any dairy farmer who wants to compare his or her business with the average data of this region.

The summary section of this report features accrual accounting for farm business expenses and receipts, measures of profitability with and without appreciation, a complete balance sheet including analysis, and a cash flow summary and analysis. The farm resources are examined and evaluated in the analysis section which features crop production costs, cost of producing milk, and capital and labor efficiency.

Micro DFBS, which allows Cooperative Extension agents and specialists to calculate and print individual farm business reports in their offices, is now being used by more than 70 percent of our dairy farm management field staff. This innovative program provides faster and more accurate processing of farm record data and increased use of DFBS in farm management programs.

<sup>\*</sup>This summary was prepared by Linda D. Putnam and Robert A. Milligan, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences, Cornell University, in cooperation with Cooperative Extension Agents Carl Crispell, Tom Donnelly, and Jerry LeClar. The Eastern Plateau Region is comprised of Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Tioga, and Tompkins Counties.

# SUMMARY OF THE FARM BUSINESS

# Business Characteristics

Finding the right management strategies is an important part of farming. 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 farmers reporting these characteristics.

BUSINESS CHARACTERISTICS
72 Eastern Plateau Region Dairy Farms, 1986

Type of Farm	Number	Type of Business	Number
Dairy	68	Single proprietorship	51
Part-time dairy	4	Partnership	20
Dairy cash-crop	0	Corporation	1
Part-time cash-crop dai	iry 0	Other	0
Type of Ownership	Number	Type of Barn	Number
Owner	63	Stanchion	51
Renter	9	Freestall	19
		Other	2
Milking System	Number	Business Record System	Number
Bucket & carry	0	ELFAC	9
Dumping station	5	Account Book	29
Pipeline	47	Agrifax (mail-in only)	12
Herringbone parlor	19	On-Farm Computer	5
Other parlor	1	Other	17
Production Records	Number		Number
DHIC	54	Other	4
0.S.	9	None	5

The averages used in this report were compiled using data from all the participating dairy farms in this region unless noted otherwise. There may be regular dairy farms, part-time farms, dairy cash-crop farms, farm renters, partnerships, and corporations included in the average. These specific classifications are used to separate farms in the State Business Summary.

A part-time farm has less than six months of labor from all operators and total labor is less than 12 months.

A dairy cash-crop farm has income from crop sales that exceed 10 percent of milk sales.

A farm renter owns no farm real estate at the end of the year or owns no tillable land.

 $\underline{\text{Dairy Termination Program participants}}$  that sold their cows in 1986 are not included in the report.

# Income Statement

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

CASH AND ACCRUAL FARM EXPENSES
72 Eastern Plateau Region Dairy Farms, 1986

Expense Item	Cash Paid +	Change in Inventory* +	Change in Accounts Payable	Accrual = Expenses
<del>-</del>		Inventory +	_	
	\$ 14,641		\$ 44	\$ 14,685
<u>Feed</u>				
Dairy grain & conc.	41,753	\$ -301	78	41,530
Dairy roughage	1,063	-45	0	1,018
Other livestock	793	35	0	828
<u>Machinery</u>				
Mach. hire, rent/lease	1,741		40	1,781
Machinery repairs/parts	7,317	-69	- 30	7,218
Auto exp. (farm share)	552		0	552
Fuel, oil & grease	4,832	<i>-</i> 71	-58	4,703
<u>Livestock</u>				
Replacement livestock	2,075		0	2,075
Breeding	2,742	-25	-6	2,711
Vet & medicine	3,581	-1	37	3,617
Milk marketing	10,242		0	10,242
Cattle lease/rent	247		0	247
Other livestock expense	6,389	27	-13	6,403
Crops				
Fertilizer & lime	7,342	32	-134	7,240
Seeds & plants	2,917	-69	-28	2,820
Spray, other crop exp.	2,746	-38	4	2,712
<u>Real Estate</u>				
Land/bldg./fence repair	1,811	-98	52	1,765
Taxes	4,528		120	4,648
Insurance	3,277		-1	3,276
Rent & lease	4,754		17	4,771
<u>Other</u>				
Telephone (farm share)	610		1	611
Electricity (farm share)	4,975		11	4,986
Interest paid	15,186		0	15,186
Miscellaneous	1,650	20	<u> </u>	<u>1,664</u>
Total Operating	\$147,764	\$ -603	\$ 128	\$147,289
Expansion livestock	413		0	413
Machinery depreciation				14,596
Building depreciation				<u>7,723</u>
TOTAL ACCRUAL EXPENSES				\$170,021

<sup>\*</sup>An increase in inventory is a negative number since it represents purchased inputs not used and must be subtracted in arriving at accrual expenses.

<u>Cash paid</u> is the actual amount of money paid out during the year and does not necessarily represent the cost of goods and services actually used.

Accrual expenses are the costs of inputs actually used in this year's production. The value of feed and supplies used out of inventory are included as are the costs of inputs purchased but not paid for (net increases in accounts payable). Items paid for and not used (net additions to inventory) are excluded from accrual expenses as are payments made on inputs used in a prior year (net decreases in accounts payable).

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

CASH AND ACCRUAL FARM EXPENSES WORKSHEET

Hired Labor   \$   \$   \$		Cash		Change in		Change in	Accrual
Feed	Expense Item	Paid	+	Inventory	+_	Accounts Payable	<u> = Expenses</u>
Dairy grain & conc.   S	<u> Hired Labor</u>	\$				\$	\$
Dairy roughage Other livestock Machinery Mach. hire, rent/lease Machinery repairs/parts Auto exp. (farm share) Fuel, oil & grease Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Feed	**					
Other livestock Machinery Mach. hire, rent/lease Machinery repairs/parts Auto exp. (farm share) Fuel, oil & grease Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Dairy grain & conc.			\$			
Mach. hire, rent/lease           Mach. hire, rent/lease           Machinery repairs/parts           Auto exp. (farm share)           Fuel, oil & grease           Livestock           Replacement livestock           Breeding           Vet & medicine           Milk marketing           Cattle lease/rent           Other livestock expense           Grops           Fertilizer & lime           Seeds & plants           Spray, other crop exp.           Real Estate           Land/bldg./fence repair           Taxes           Insurance           Rent & lease           Other           Telephone (farm share)           Interest paid           Miscellaneous           Total Operating         \$           Expansion livestock           Machinery depreciation           Building depreciation	Dairy roughage						
Mach. hire, rent/lease Machinery repairs/parts Auto exp. (farm share) Fuel, oil & grease Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Other livestock						
Machinery repairs/parts Auto exp. (farm share) Fuel, oil & grease Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Machinery						
Auto exp. (farm share) Fuel, oil & grease  Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating Expansion livestock Machinery depreciation Building depreciation	Mach. hire, rent/lease						
Auto exp. (farm share) Fuel, oil & grease  Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating Expansion livestock Machinery depreciation Building depreciation	Machinery repairs/parts						
Livestock Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating Expansion livestock Machinery depreciation Building depreciation						***************************************	
Replacement livestock Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating Expansion livestock Machinery depreciation Building depreciation	Fuel, oil & grease						
Breeding Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating Expansion livestock Machinery depreciation Building depreciation	Livestock						
Vet & medicine Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating Expansion livestock Machinery depreciation Building depreciation	Replacement livestock						
Milk marketing Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Breeding						
Cattle lease/rent Other livestock expense Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Vet & medicine						
Other livestock expense  Crops Fertilizer & lime Seeds & plants Spray, other crop exp.  Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Milk marketing						-
Crops Fertilizer & lime Seeds & plants Spray, other crop exp. Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Cattle lease/rent						
Fertilizer & lime  Seeds & plants  Spray, other crop exp.  Real Estate  Land/bldg./fence repair  Taxes  Insurance  Rent & lease  Other  Telephone (farm share)  Electricity (farm share)  Interest paid  Miscellaneous  Total Operating \$ \$ \$  Expansion livestock  Machinery depreciation  Building depreciation	Other livestock expense		_				
Seeds & plants  Spray, other crop exp.  Real Estate Land/bldg./fence repair  Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Crops					4	
Spray, other crop exp.  Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Fertilizer & lime						
Real Estate Land/bldg./fence repair Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Seeds & plants						-
Land/bldg./fence repair  Taxes  Insurance Rent & lease  Other  Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous  Total Operating \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Spray, other crop exp.						
Taxes Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Real Estate						
Insurance Rent & lease Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ \$ \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Land/bldg./fence repair						
Rent & lease  Other  Telephone (farm share)  Electricity (farm share)  Interest paid  Miscellaneous  Total Operating \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Taxes					Managed and Casalan Casalan L. Managed	
Other Telephone (farm share) Electricity (farm share) Interest paid Miscellaneous Total Operating \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Insurance						
Telephone (farm share)  Electricity (farm share)  Interest paid  Miscellaneous  Total Operating \$ \$ \$ \$  Expansion livestock  Machinery depreciation  Building depreciation	Rent & lease						
Electricity (farm share)  Interest paid  Miscellaneous  Total Operating \$ \$ \$ \$ \$ \$ \$ Expansion livestock  Machinery depreciation  Building depreciation	<u>Other</u>						
Interest paid Miscellaneous Total Operating \$ \$ \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Telephone (farm share)						
Miscellaneous Total Operating \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Electricity (farm share	)				-	
Total Operating \$ \$ \$ \$ \$ Expansion livestock Machinery depreciation Building depreciation	Interest paid						
Expansion livestock  Machinery depreciation  Building depreciation	Miscellaneous						<del></del>
Expansion livestock  Machinery depreciation  Building depreciation	Total Operating	\$		\$		\$	\$
Machinery depreciation Building depreciation		* Management of the contraction		-		***************************************	*
Building depreciation	<del>-</del>	***************************************					·
TOTAL ACCRUAL EXPENSES \$	TOTAL ACCRUAL EXPENSES						\$

<u>Cash Paid</u> is the actual amount of money paid out during the year and does not necessarily represent the cost of goods and services actually used.

Change in Inventory: An increase in inventory must be subtracted in computing accrual expenses because it represents purchased inputs not actually used during the year. A decrease in inventory is added to expenses because it represents the cost of inputs purchased in a prior year and used this year.

<u>Change in Accounts Payable</u>: An increase in payables is added and a decrease is subtracted when calculating accrual expenses.

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

# CASH AND ACCRUAL FARM RECEIPTS 72 Eastern Plateau Region Dairy Farms, 1986

	Cash	Change in	Change in Accounts	Accrual
Receipt Item	Receipts	+ Inventory	+ Receivable	+ Receipts
Milk sales	\$163,393		\$ 1,059	\$164,452
Dairy cattle	10,606	\$ 3,687	<b>-6</b> 5	14,229
Dairy calves	1,991		0	1,991
Other livestock	274	243	6	523
Crops	1,215	1,729	221	3,164
Government receipts	2,113		28	2,141
Custom machine work	465		-94	371
Gas tax refund	102		0	102
Other	1,643		6	1,649
Less nonfarm noncash cap.	*	0	<del></del>	0
Total Accrual Receipts	\$181,801	\$ 5,659	\$ 1,161	\$188,621

<sup>\*</sup>Gifts or inheritances of cattle or crops included in inventory or used in the business.

<u>Cash receipts</u> include the gross value of milk checks received during the year plus all other payments received from the sale of farm products, services, and government programs.

Accrual receipts represent the value of all farm commodities produced and services actually provided by the farmer during the year. Increases in livestock inventory caused by herd growth and/or quality, are added and decreases caused by herd reduction are subtracted. Changes in inventories of crops grown are accounted for in accrual receipts. Changes in accounts receivable include the January milk check for this December's marketings compared with the previous January's check, and other delayed payments.

# CASH AND ACCRUAL FARM RECEIPT WORKSHEET

Receipt Item	Cash Receipts	Change in + Inventory	Change in Accounts + Receivable	Accrual + Receipts
Milk sales Dairy cattle Dairy calves Other livestock Crops Government receipts Custom machine work Gas tax refund Other Less gifts of cattle & cr	\$	\$	\$	\$
Total Accrual Receipts	\$	\$	\$	\$

To calculate the change in inventory to be included in the above worksheet, subtract the beginning of year values from the end of year values excluding appreciation. The changes in inventories caused by changing prices must be excluded from the calculation of accrual receipts. Changes in accounts receivable are also determined by subtracting beginning of year balances from end of year balances.

# Profitability Analysis

Farm owners/operators contribute labor, management, and capital to their businesses and the best combination of these resources produces optimum profits. Farm profits can be measured as the return to all family resources or as the return to one or more individual resources such as labor and management.

Net farm income is the total combined return to the farm 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, financing, and owning the farm business. This is not a measure of cash available from the year's business operation. Cash flow is evaluated later in this report.

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

NET FARM INCOME
72 Eastern Plateau Region Dairy Farms, 1986

<u>Item</u>	Average	My Farm
Total accrual receipts	\$188,622	\$
Appreciation: Livestock	2,079	
Machinery	5,299	
Real Estate	9,629	
Other Stocks/Certificates	<u> </u>	
Total Including Appreciation	\$205,721	\$
Total accrual expenses	170,021	•
Net Farm Income (with appreciation)	35,700	\$
Net Farm Income (without appreciation)	18,601	\$

Return to operators' labor, management, and equity capital measures the total business profits for the farm operators. It is calculated by deducting a charge for unpaid family labor from net farm income. Operators' labor is not included in unpaid family labor. Return to operators' labor, management, and equity capital has been compiled with and without appreciation. Appreciation is considered an important part of the return to ownership of farm assets.

RETURN TO OPERATORS' LABOR, MANAGEMENT, AND EQUITY 72 Eastern Plateau Region Dairy Farms, 1986

	Average		My	Farm
<u>Item</u>	With Apprec.	Without Apprec.	With Apprec.	Without Apprec.
Net farm income	\$ 35,700	\$ 18,601	\$	\$
Family labor unpaid @ \$600 per month	- 2,400	- 2,400	-	-
Return to operators' labor, management, & equity	\$ 33,300	\$ 16,201	\$	\$

Labor and management income is the share of net farm income without appreciation returned to the operators' labor and management. Appreciation is not included as part of the return to labor and management. Labor and management income is determined by deducting the cost of using equity capital at a real interest rate of five percent, from the return to operators' labor, management, and equity capital excluding appreciation. The interest charge reflects the long-term average rate of return that a farmer might expect to earn in comparable risk investments in a low inflation economy.

<u>Labor and management income per operator</u> measures the return to each operator's labor and management.

LABOR AND MANAGEMENT INCOME
72 Eastern Plateau Region Dairy Farms, 1986

<u>Item</u>	Average	My Farm
Return to operators' labor, management, & equity without appreciation	\$ 16,201	\$
Real interest @ 5% on \$274,907 average equity capital	- 13,745	
Labor & Management Income	\$ 2,456	\$
Labor & Management Income per 1.25 Operator/Managers	\$ 1,965	\$

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 or value 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.

RETURN ON EQUITY CAPITAL 72 Eastern Plateau Region Dairy Farms, 1986

<u>Item</u>	Average	My Farm
Return to operators' labor, management, & equity capital with appreciation	\$ 33,300	\$
Value of operators' labor & management	- 22,898	-
Return on equity capital with appreciation	\$ 10,402	\$
Rate of return on equity capital with appreciation	3.8%	&
Return on equity capital without appreciation	\$ -6,697	\$
Rate of return without appreciation	-2.4%	

# Farm and Family Financial Status

Evaluating the financial status of the farm business and the farm family is an important part of business analysis. The first step is to recognize all the assets and liabilities that make up the balance sheet. The second step is to analyze your filled out balance sheet by evaluating changes made during the year.

1986 FARM BUSINESS & NONFARM BALANCE SHEET 72 Eastern Plateau Region Dairy Farms, 1986

		L.	, , , , , , , , , , , , , , , , , , , ,		
			Farm Liabilities		
Farm Assets	Jan, 1	Dec. 31	& Net Worth	Jan. 1	<u>Dec. 31</u>
<u>Current</u>			<u>Current</u>		
Farm cash, checki	ng		Accounts payable	\$ 5,633	\$ 5,760
& savings	\$ 3,520	\$ 3,863	Operating debt	3,55 <b>6</b>	3,422
Accounts rec.	14,492	15,652	Short-term	2.914	3,236
Feed & supplies	37,426	39,757			
Total	\$ 55,438	\$ 59,272	Total	\$ 12,103	\$ 12,417
<u>Intermediate</u>			<u>Intermediate</u>		
Dairy cows:				\$ 69,260	\$ 67,011
owned	\$ 68,211	\$ 71,936			
leased	712	616			
Heifers	26,653	28,643			
Bulls/other lvstk	550	844			
Mach./eq. owned	86,530	89,118	Financial lease		
Mach./eq. leased	569	391	(cattle/mach.)	1,281	1,007
FLB/PCA stock	3,424	3,308	FLB/PCA stock	3,424	3,308
Coop stock & cert	. 1,503	$_{1.671}$			
Total	\$188,152	\$196,527	Total	\$ 73,965	\$ 71,325
Long-Term			Long-Term		
Land/buildings:				\$ 98,907	\$ 98,752
owned	\$207,672	\$210,222	Financial lease		
leased	4,432	<u>5,051</u>	(structures)	4,432	5,051
Total	\$212,104	\$215,273	Total	\$103,340	\$103,803
Total Farm Assets	\$455,694	\$471,072	Total Farm Liab.	\$189,407	\$187,545
			FARM NET WORTH	\$266,287	\$283,527
(Average for 53 f	arms report	ing)	Nonfarm Liabilit	ies	
Nonfarm Assets		Dec. 31			Dec. 31
Personal cash, ch	, ka		Nonfarm Liab.	\$ 4,378	\$ 3,843
& savings	\$ 4,106	\$ 4,097	NONFARM NET WORT		\$ 44,248
Cash value life i			NONTARII NEI WORI	.H \$ 39,120	\$ 44,240
Nonfarm real esta	•		FARM & NONFARM*	Jan. 1	Dec. 31
Auto (personal sh	•		Total Assets	\$499,192	\$519,163
Stocks & bonds	6,396	•	Total Liabilitie		
Household furn.	11,530	•	Incer preprincia	2 T27.107	<u>191,388</u>
All other	7,477	•	TOTAL FARM & NON	I	
Total Nonfarm			FARM NET WORTH		6337 775
TOTAL NUMBER	· ♀ +>,470	, <del>y 40,031</del>	I PART NET WORTE	1 9303,407	\$327,775

<sup>\*</sup>Assumes that average nonfarm assets and liabilities for the nonreporting farms were the same as for those reporting.

Financial lease obligations are included in the balance sheet. The present values of all future payments are listed as liabilities since the farmer is committed to make them. The present values are also listed as assets, representing the future value the item has to the business.

Date	

# 1986 FARM BUSINESS & NONFARM BALANCE SHEET

			T) . T. 1.1.1.1		
Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. l	Dec. 31
Current			Current		
			-		
Farm cash, checking	•		Accounts payable		
& savings			Operating debt		•
Accounts rec.	***************************************	***************************************	Short-term:		
Feed & supplies					
Total			Total		
<u>Intermediate</u>			<u>Intermediate</u>		
Dairy cows:					
owned					
leased					***************************************
Heifers		****			
Bulls/other lvstk.					
Mach./eq. owned					
Mach./eq. leased			Financial lease		
FLB/PCA stock			(cattle/mach.)		
Coop stock & cert.			FLB/PCA stock		
Total			Total		www.
Long-Term			Long-Term		
Land/buildings:			HOLL TOTAL		
owned			<del></del>		
leased		***************************************			
leased	·····	****			
Total			Financial lease		
	******		(structures)		
			Total		
Total Farm Assets			Total Farm Liab.		
	-		FARM NET WORTH		***************************************
Nonform Assets	Tom 1	Dec. 21	Nonfarm Liabilitie		Da = 21
Nonfarm Assets	Jan, l	<u>Dec. 31</u>	& Net Worth	Jan. 1	Dec. 31
			Nonfarm Liab.:		
Personal cash, chkg	ζ.				
& savings	-				
Cash value					***************************************
life ins.			40.000		
Nonfarm real est.				And the second s	
Auto (pers. share)			Total Nonfarm		
Stocks & bonds					
			Liabilities		
Household furn.					
All other			Nonfarm		
Total Nonfarm			Net Worth		
TOTAL FARM & NONFAI	RM		Jan. l	Dec	. 31
Total Farm & Nonfar	rm Assets				······
Less Total Farm & !	Nonfarm Li	labilities			
Farm & Nonfarm Net	Worth				

Balance sheet analysis requires an examination of financial and debt ratios and other factors measuring levels of debt. Percent equity is calculated by dividing net worth by assets. The debt to asset ratio is compiled by dividing liabilities by assets. Low debt to asset ratios reflect strength in solvency and the potential capacity to borrow. Debt levels per unit of production include some old standards that are still useful if used with measures of cash flow and repayment ability. The change in farm net worth without appreciation is a crucial indicator of financial health.

BALANCE SHEET ANALYSIS
72 Eastern Plateau Region Dairy Farms, 1986

<u>Item</u>	Avera	ge	My Farm
Financial Ratios - Farm:			
Percent equity	60	8	·%
Debt/asset ratio: total	0.40		
long-term	0.48		
intermediate/current	0.33		
Change in Farm Net Worth:			
Without appreciation	\$ 140		\$
With appreciation	\$ 17,239		\$
Farm Debt Analysis:	, ,		
Accounts payable as % of total debt	3	<b>સ્</b>	-96
Long-term liabilities as a % of total de	bt 55		
Current & inter. liab. as a % of total d		<b>%</b>	
	Per Tillable		Per Tillable
Farm Debt Levels: Per Cow	Acre Owned	Per Cow	Acre Owned
Total farm debt \$ 2,206	\$ 1,321	\$	\$
Long-term debt 1,221	731	,	•
Intermediate & current debt 985	590		

The <u>Farm Inventory Balance</u> 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
72 Eastern Plateau Region Dairy Farms, 1986

Item	Avg.	of Regio	onal Fari	ns	My Farm		
	<u>R.E.</u>		Mach./Eq	<u>.</u>	<u>R.E.</u>	-	Mach./Eq
Value beg. of year	\$207	,672	\$ 86	,530	\$		\$
Purchases \$	6,757*	\$ 13	2,682	\$		\$	
<pre>Gift/inheritance +</pre>	0	+	42	+		+	
Lost capital -	925			-			
Sales -	3,442	-	839	-		_	
Depreciation	7,723	- 14	4.596	-		-	
Net investment	\$+ -5	, <b>3</b> 33	\$+ -2	,711	\$+		\$+
Appreciation	+7	<u>.883</u> **	+5	<u>, 299</u>	+		+
Value end of year	\$210	,222	\$ 89	,118	\$		\$

<sup>\* \$ 2,387</sup> land and \$ 4,370 buildings and/or depreciable improvements. \*\*Excludes \$1,746 of appreciation on assets sold during the year.

# Cash Flow Summary and Analysis

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

The <u>Annual Cash Flow Statement</u> is structured to compare all the cash inflows with all the cash outflows for the year. A complete list of cash inflows and cash outflows are identified in the following table. By definition, the cash inflows and cash outflows when beginning and ending balances are included, are identical. The imbalance is, therefore, the error from incorrect accounting of cash inflows and cash outflows.

ANNUAL CASH FLOW STATEMENT 72 Eastern Plateau Region Dairy Farms, 1986

Item	Average	My Farm
Cash Inflows		
Beginning farm cash, checking & savings	\$ 3,520	\$
Cash farm receipts	181,801	
Sale of assets: Machinery	839	
Real estate	3,523	
Other stock & certificate	0	
Money borrowed (intermediate & long-term)	25,551	
Money borrowed (short-term)	2,306	
Increase in operating debt	0	
Nonfarm income	5,524	
Cash from nonfarm capital used in the business	423	
Money borrowed - nonfarm	340	
Total	\$223,827	\$
Cash Outflows		
Cash farm expenses	\$147,763	\$
Capital purchases: Expansion livestock	413	
Machinery	12,682	***************************************
Real estate	6,757	
Other stock & certificate	76	
Principal payments (intermediate & long-term)	27,955	
Principal payments (short-term)	1,985	
Decrease in operating debt	134	
Nonfarm debt payments	917	
Personal withdrawals & family expenditures	13,772	
Ending farm cash, checking & savings	3,863	
Total	\$216,317	\$
Imbalance (error)	\$ 7,510	\$

# Repayment Analysis

The second step of cash flow planning is to compare and evaluate debt payments planned and made last year, and estimate the payments required in the current year. It is helpful to compare and evaluate by using debt payments per unit of production and receipt/debt payment ratios.

FARM DEBT PAYMENTS PLANNED

Same 41 Eastern Plateau Region Dairy Farms, 1986 & 1987

		Average		М		
	1986 Pa	yments	Planned	1986 Pay	ments	Planned
Debt Payments	Planned	Made	1987	Planned	Made	1987
Long-term	\$ 11,939	\$ 18,844	\$ 12,056	\$	\$	\$
Intermediate-term	18,779	20,630	17,297			
Short-term	2,560	2,313	2,135			
Operating (net						
reduction)	535	684	860			
Accounts payable						
(net reduction)	<u>659</u>	979	310	***************************************		With the second
Total	\$ 34,471	\$ 43.,449	\$ 32,658	\$	\$	\$
Per cow	\$ 415	\$ 523		\$	\$	
Per cwt. 1986 milk Percent of total	\$ 2.67	\$ 3.36		\$	\$	
1986 receipts Percent of 1986	19	24	8		*	-
milk receipts	21	<b>8</b> 27	8			

The <u>Cash Flow Coverage Ratio</u> measures the ability of the farm business to meet its planned debt payment schedule. The ratio shows the percentage of planned payments that could have been made with last year's available cash flow. Farmers that did not participate in DFBS last year will find in their report a cash flow coverage ratio based on planned debt payments for 1987.

CASH FLOW COVERAGE RATIO
Same 41 Eastern Plateau Region Dairy Farms, 1986

Item	Average	My Farm
Cash farm receipts	\$178,666	\$
- Cash farm expenses	143,623	***************************************
+ Interest paid	15,526	
- Net personal withdrawals from farm*	6,926	
(A) = Amount Available for Debt Service	\$ 43,643	\$
(B) - Debt Payments Planned for 1986	\$ 34,471	\$
(A ÷ B) = Cash Flow Coverage Ratio for 1986	127	

<sup>\*</sup>Personal withdrawals and family expenditures less nonfarm income and nonfarm money borrowed. If family withdrawals are excluded the cash flow coverage ratio will be incorrect.

# ANALYSIS OF THE FARM BUSINESS

The farm business has been divided into three parts to allow a more indepth analysis of the cropping program, the dairy program, and the factors affecting capital and labor efficiency.

# Cropping Program Analysis

The cropping program is an important part of the dairy farm business and sometimes it is overlooked and neglected. A complete evaluation of available land resources, how they are being used, how well crops are producing and what it costs to produce them, is required to evaluate alternative cropping and feed purchasing choices.

LAND RESOURCES AND CROP PRODUCTION
72 Eastern Plateau Region Dairy Farms, 1986

<u>Item</u>	Average			Average My Farm					
Land	<u>Own</u>		ented	<u>Total</u>	<u>Owned</u>	Rented	<u>Total</u>		
Tillable	14	2 1	L07	249					
Nontillable	6	5	21	86					
Other nontillable	9	9	<u> 16</u>	115					
Total	30	6	143	449		***************************************			
Crop Yields	<u>Farms</u>	Acres	Prod	<u>'Acre</u>	Acre	s <u>Prod</u>	/Acre		
Hay crop	72	130	2.6	0 tn DM			_ tn DM		
Corn silage	69	56	14.4	3 tn			tn		
<del>-</del>			4.7	77 tn DM			tn DM		
Other forage	10	17	1.5	66 tn DM			tn DM		
Total forage	72	186	3.2	1 tn DM			tn DM		
Corn grain	38	69	106.9	91 bu			_ bu		
0ats	15	28	66.2	26 bu	******		bu bu		
Wheat	2	57	47.1	l7 bu	<u></u>		_ bu		
Other crops	4	32				_			
Tillable pasture	20	38			***************************************				
Idle	17	27							
Total Tillable Acres	72	249							

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

The following measures of crop management measure how efficiently the land resource is being used and how well total forage requirements are being

CROP MANAGEMENT FACTORS
72 Eastern Plateau Region Dairy Farms, 1986

<u>Item</u>	Average	My Farm
Total tillable acres per cow	3.02	
Total forage acres per cow	2.26	
Harvested forage dry matter, tons per cow	7.26	

# Cropping Program Analysis (continued)

A substantial number of cooperators have allocated crop expenses to have crop, corn, and other crop production. This additional data has been compiled to show the traditional crop expenses per acre and per production unit for these crops.

CROP RELATED ACCRUAL EXPENSES
Eastern Plateau Region Dairy Farms, 1986

	Total			C	orn	
	Per	<u>Hay</u>	Crop		Per Ton	Other
	Till.	Per	Per	Per	Silage	Crops
<u>Item</u>	Acre	Açre	Ton DM	Acre	Equiv.*	Per Acre
N 1 C C						
Number of farms			••		2.0	10
reporting	72		<b>3</b> 9		38	18
Average number						
of acres	249		129		89	19
Fertilizer & lime	\$ 29.08	\$ 22.86	\$ 8.59	\$ 45.21	\$ 2.61	\$ 26.61
Seeds & plants	11.33	6.56	2.47	19.50	1.13	20.93
Spray & other crop						
expense	10.90	7,46	2.80	25.73	1.48	<u> 11.27</u>
Total	\$ 51.31		\$ 13.85	\$ 90.43	\$ 5.22	\$ 58.81
My Farm:						
Fertilizer & lime Seeds & plants Spray & other crop		\$	\$	\$	\$	\$
expense Total	\$	\$	\$	\$	\$	\$

 $<sup>\</sup>star$ Corn grain converted to silage equivalent using 5.88 bushels of dry shell equivalent to equal one ton of corn silage as fed.

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 per total tillable acre.

ACCRUAL MACHINERY EXPENSES
72 Eastern Plateau Region Dairy Farms, 1986

	Ave	rage	My Farm		
Machinery	Total	Per Til.	Total	Per Til.	
Expense Item	Expenses	Acre	Expenses	Acre	
Fuel, oil & grease	\$ 4,703	\$ 18.89	\$	\$ <sup>.</sup>	
Machinery repairs & parts	7,218	29.00	·		
Machine hire, rent & lease	1,781	7.16			
Auto expense (farm share)	552	2.22	<del></del>	-	
Interest (5%)	4,391	17.64			
Depreciation	14,596	58,64	<del></del>		
Total	\$ 33,241	\$ 133.55	\$	\$	

# Dairy Program Analysis

Analysis of the dairy enterprise can tell a great deal about the strengths and weaknesses of the dairy farm business. Information on this page should be used in conjunction with DHI and other dairy production information. Changes in dairy herd size and market values that occur during the year are identified in the table below. The change in inventory value without appreciation is attributed to physical changes in herd size and quality. This real increase in inventory has been included as an accrual farm receipt on page 5.

DAIRY HERD INVENTORY
72 Eastern Plateau Region Dairy Farms, 1986

	Dai	ry Cows	He	ifers	
Item	Number	Value	Number	Value	
Beginning of year (owned)	81	\$ 68,211	66	\$ 26,653	
+ Change without appreciation		2,830		857	
+ Appreciation		<u> </u>		1,133	
End of year (owned)	84	\$ 71,936	67	\$ 28,643	
End including leased	85				
Average number	82		66		
My Farm:					
Beginning of year (owned)		\$		\$	
+ Change without appreciation			***************************************		
+ Appreciation		APPAN AND AND AND AND AND AND AND AND AND A	***************************************		
End of year (owned)	***************************************				
End including leased		***************************************			
Average number	***************************************	\$	***************************************	\$	

Total milk sold and milk sold per cow are extremely valuable measures of productivity on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year. Farm managers on DHI should compare milk sold per cow with rolling herd average on the test date nearest December 31.

MILK PRODUCTION
72 Eastern Plateau Region Dairy Farms, 1986

Item	Average	My Farm
Total milk sold, lbs.	1,316,672	
Milk sold per cow, lbs.	15,992	
Average milk plant test, percent butterfat	3.68	

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. Total costs of producing milk include the operating costs plus expansion livestock purchased, depreciation on machinery and buildings, the value of operators' labor and management, and the interest charge for using equity capital. Note that the cost of labor, management, and equity capital has been excluded in the intermediate calculation.

ACCRUAL RECEIPTS FROM DAIRY AND COST OF PRODUCING MILK 72 Eastern Plateau Region Dairy Farms, 1986

	,	Average							
Item	Total	P	er Cow	P	er Cwt.		Total	Per Cow	Per Cwt.
Accrual Receipts									
Milk	\$164,452	\$	1,997	\$	12.49	\$		\$	\$
Dairy cattle	14,228		173		1.08				
Dairy calves	$_{1,991}$	_	24		0.15	-			
Total	\$180,672	\$	2,194	\$	13.72	\$_		\$	\$
Accrual Costs of Producing Milk									
Operating costs Total costs w/o	\$123,119	\$	1,495	\$	9.35	\$_		\$	\$
opers' labor, mgmt. & capital Total Costs	\$148,251 \$184,894				11.26 14.04	\$_ \$_		\$ \$	\$ \$

The accrual operating expenses most commonly associated with the dairy enterprise are listed in the table below. Evaluating these costs per unit of production enables the comparison of different size dairy farms.

DAIRY RELATED ACCRUAL EXPENSES
72 Eastern Plateau Region Dairy Farms, 1986

	Average					My Farm		
<u>Item</u>	Pe	r Cow		Per	Cwt.	Per Cow		Per Cwt
Purchased dairy grain								
& concentrates	\$	504	\$	3	.15	\$		\$
Purchased dairy roughage		12	_	0	<u>. 08</u>			
Total Purchased								
Dairy Feed	\$	517	\$	3	. 23	\$		\$
Purchased grain & conc.								
as % of milk receipts			25%				8	
Purchased feed & crop exp.	\$	672	\$	4	. 20	\$		\$
Purchased feed & crop exp.								
as % of milk receipts			34%				8	
Breeding	\$	33	\$	0	.21	\$		\$
Veterinary & medicine		44		0	. 27			*
Milk marketing		124		0	.78			
Cattle lease		3		0	.02			
Other livestock expense		78		0	.49			

# Capital and Labor Efficiency Analysis

Capital efficiency factors measure how intensively the capital is being used in the farm business. Measures of labor efficiency are key indicators of management's success.

CAPITAL EFFICIENCY
72 Eastern Plateau Region Dairy Farms, 1986

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital Real estate Machinery & equipment Capital turnover, years	31,166	\$ 5,628 2,595 1,073	\$ 1,862 355	\$ 3,263 1,505
My Farm: Farm capital Real estate Machinery & equipment Capital turnover, years	\$	\$	\$	\$

# LABOR FORCE INVENTORY AND ANALYSIS 72 Eastern Plateau Region Dairy Farms, 1986

72 East	ern Plateau Re	gion Dair	ry Farms, 1986	
Labor Force	Months .	Age	Years of of Educ.	Value of Labor & Mgmt.
Operator number 1	12	43	14	\$ 17,979
Operator number 2	3	35	14	4,530
Operator number 3	<1	59	13	389
Family paid	5			
Family unpaid	4			
Hired	10			
Total	34	+ 12 -	2.83 Worker E	quivalent
			1.25 Operator	/Manager Equiv.
My Farm: Total		+ 12 =	Worker Eq	uivalent
Operator's	***************************************	÷ 12 = _	~	Manager Equiv.
Labor	Av	erage		My Farm
m * * * *	: -			

Labor	Av	erage	My Farm		
Efficiency	Total	Per Worker	<u>Total</u>	Per Worker	
Cows, average number	82	29			
Milk sold, pounds	1,316,672	464,708			
Tillable acres	249	88			
Work units	861	304			

		Average				My_Farm			
		Pe	er	Per		Per	Per		
Labor Costs	Total	Co	w	Til. Acre	<u>Total</u>	Cow	Til, Acre		
Value of operator(s)									
labor (\$850/mo.)	\$ 12,750	\$	155	\$ 51.22	\$	\$	\$		
Family unpd. (\$600/mo	.) 2,400	-	29	9.64		*			
Hired	14,685		178	59.00					
Total Labor	\$ 29,835	Ş	362	\$119.87	\$	\$	 \$		
Machinery Cost	\$ 33,241	\$	404	\$133.55	\$	\$	\$		
Total Labor & Mach.	\$ 63,076	\$	766	\$253.42	\$	\$	\$		
						***************************************			

# ANNUAL CASH FLOW WORKSHEET

	Regional		Farm	Expected	1987
Item	Average	Total	Per Cow		Projection
	(per cow)			_	
Average number of cows	82				
Accrual Oper, Receipts					
Milk	\$ 1,997 \$		\$		\$
Dairy cattle	173				
Dairy calves	24				
Other livestock	∘6				
Crops	38				
Misc. receipts	52				
Total	\$ 2,291 \$		\$		\$
Accrual Oper. Expenses					
Hired labor	\$ 178 \$		\$		\$
Dairy grain & conc.	504				
Dairy roughage	12			***************************************	
Other lvstk. feed	10			***************************************	
Mach. hire/rent/lease	22	***			
Mach. rpr./parts & auto	94			***************************************	
Fuel, oil & grease	57	***************************************	Applications and the ability department		
Replacement lvstk.	25				
Breeding	33		,		
Vet & medicine	44				
Milk marketing	124				
Cattle lease	3				
Other lvstk. exp.	78				
Fertilizer & lime	88				
Seeds & plants	34				
Spray/other crop exp.	33				
Land, bldg.,fence repair	21				
Taxes	56		-		
Insurance	40				_
Real est. rent/lease	5.8				
Utilities	68				
Miscellaneous	20				
Total Less Int. Paid	\$ 1,604	-			.\$
Net Accrual Operating Inco					
(without interest paid)	\$ 56,5				\$
- Change in lvstk./crop in			***************************************		
- Change in accts. rec.	1,1		Angelijke Aprilijanski (1 og 1864 -	***************************************	****
+ Change in feed/supply in		503		***************************************	
+ Change in accts, payable		27			
NET CASH FLOW	\$ 49,2	224 \$			\$
- Net personal withdrawals					
family expenditures	<u> 7.9</u>	<u> </u>			
Available for Debt Payment					•
Investments & Savings	\$ 41,3	-			\$
- Farm Debt Payments	45.7	12			
Available for Investment					
& Savings	\$ -4,3	96 \$_	······································		"\$
- Capital Purchases: cattl					
machinery & improvements	\$ 19,9	28	·····	-	*
Additional Capital Needed		\$			\$

<sup>\*</sup>Less change in account payable for interest.

# PROGRESS OF THE FARM BUSINESS

Comparing your business with average data from regional DFBS cooperators that participated in both of the last two years is one part of a business checkup. It is equally important for you to determine the progress your business has made over the past two or three years and to set targets or goals for the future.

PROGRESS OF THE FARM BUSINESS
Same 41 Eastern Plateau Region Dairy Farms, 1985 & 1986

	Average				My Farm				
Selected Factors		1985				1985	1986		11
Size of Business									
Average number of cows		81		83					
					-				
Average number of heifers				63					
Milk sold, lbs.	1,2						****		
Worker equivalent		2.78		2.83	_				
Total tillable acres		240		246			****		_
Rates of Production									
		15,001		15,540					
Hay DM per acre, tons		2.33		2.46					_
Corn silage per acre, tons		14		15					
I shor Efficiency									
Labor Efficiency		^^		0.0					
Cows per worker		29		29			***************************************		
Milk sold/worker, lbs.	- 2	437,054	4	455,768	_				
Cost Control									
Grain & conc. purchased									
as % of milk sales		25	8	26%	i	8		9 <del>.</del>	
Dairy feed & crop exp.			-		_				
per cwt, milk	\$	4.38	Ś	4.31	Ś		Ś	Ś	
Labor & mach. costs/cow	\$	755			\$_		\$	\$	
Capital Efficiency*								•	
	ć	E /.OO		E 255	^		^	^	
Farm capital per cow			Ş	5,355	Ş_		Ş	\$	
Real estate per cow	\$		Ş	2,405	Ş_		Ş	\$	
Mach. & equip. per cow	\$	•		1,053	<b>\$</b> _		\$	\$	
Capital turnover, years		2.43		2.21		****			
<u>Profitability</u>									
Net farm inc. w/o apprec.	\$	22,293	\$	17,469	\$		\$	\$	
Net farm inc. w/apprec.				35,373	\$		Ś	:	
Labor & mgmt. income		6,837	-	1,723	Ś		Ś	š	
Rate of return on eq.		-,,	*	-,3	٧		Υ	Y	
capital w/apprec.		-0.60	8	4.49%	_	<b>%</b>		8	
Pinoncial Comments									
Financial Summary		367 365							
Farm net worth, end year	<b>\$</b> 2	267,260	Ş;	2/3,741	\$_		\$	\$	
Debt to asset ratio		0.40		0.39					
Farm debt per cow	\$	2,116	\$	2,075	\$		\$	\$	

<sup>\*</sup>Average for the year.

# Farm Business Chart

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 404 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 <u>lowest cost</u> 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 404 New York Dairy Farms, 1985

<b>C</b> *	£ n		<b>D</b>	- F D 4	_ 4. \$	T -1 1	
Size	of Bus	iness	<u> </u>	Rates of Production			Efficiency
Worker	No.	Pounds	Pounds	Tons	Tons Corn	Cows	Pounds
Equiv-	of	Milk	Milk Sold	Hay Crop	Silage	Per	Milk Sold
alent	Cows	Sold	Per Cow	DM/Acre	Per Acre	Worker	Per Worker
6.8	252	4,319,504	18,980	4.6	21	48	747,314
4.4	134	2,108,684	17,551	3.6	18	37	575,840
3.5	101	1,596,188	16,655	3.1	16	33	516,053
3.1	85	1,304,015	16,116	2.9	15	31	472,387
2.8	73	1,128,297	15,543	2.6	15	29	432,993
2.5	65	972,841	14,953	2.4	14	26	400,211
2.3	58	824,836	14,399	2.2	13	24	367,373
2.0	50	725,500	13,682	2.0	12	23	330,625
1.8	44	628,376	12,849	1.7	10	20	290,454
1.4	34	466,272	11,055	1.3	8	16	215,433

Grain	<pre>% Feed is</pre>	Machinery	Labor &	Feed & Crop	Feed & Crop				
Bought	of Milk	Cost <b>s</b>	Machinery	Expenses	Expenses Per				
Per Cow	Receipts	Per Cow	Costs Per Cow	Per Cow	Cwt, Milk				
\$185	10%	\$212	\$ 503	\$375	\$2.52				
288	15	282	605	464	3.23				
352	18	326	670	525	3.60				
397	21	370	726	567	3.87				
439	23	404	783	605	4.10				
476	25	435	832	647	4.31				
518	27	471	882	683	4.48				
562	28	516	956	731	4.77				
608	31	572	1,025	783	5.12				
721	36	759	1,251	913	5,85				

The next section of the Farm Business Chart provides for comparative analysis of the value of production as measured by milk receipts per cow and dairy receipts per hundredweight of milk sold and the costs of production. The final or profitability section shows the variation in farm income by decile and enables a dairy farmer to determine where he or she ranks by using several measures of farm profitability. Remember that each column is independently established and the farms making up the top decile in the first column will not necessarily be on the top of any other column. The dairy farmer who ranks at or near the top of most of these columns is in a very enviable position.

# FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS 404 New York Dairy Farms, 1985

Milk Receipts	Dairy Receipts	Oper. Cost Milk	Oper. Cost Milk	Total Cost Production Per Cow	Total Cost Production Per Cwt.
Per Cow	Per Cwt.	Per Cow	Per Cwt.	rer cow	rer Cwt.
\$2,735	\$16.52	\$ 901	\$ 6.10	\$1,667	\$11.26
2,508	15.15	1,112	7.70	1,895	12.55
2,399	14.68	1,231	8.39	2,007	13.29
2,290	14.40	1,334	8.93	2,088	13.94
2,197	14.13	1,399	9.39	2,196	14.47
2,097	13.91	1,498	9.82	2,281	15.02
1,999	13.67	1,584	10.32	2,360	15.82
1.898	13.42	1,672	10.94	2,480	16.55
1,760	13.08	1,800	11.82	2,609	17.45
1,507	12.11	2,074	13.81	3,032	20.80

# Profitability

		Return to Oper	ator's Labor,	Lat	oor &	
Net Farm	Income	Management, &	Equity Capital	Management Income		
With	Without	With	Without	Per	Per	
<u>Appreciation</u>	Appreciation	Appreciation	Appreciation	Farm	Operator	
\$101,576	\$98,427	\$100,957	\$97,616	\$67,398	\$49,398	
51,232	54,238	49,740	52,972	27,247	19,608	
34,730	36,084	33,833	35,030	16,338	11,912	
26,015	25,033	24,933	23,703	10,248	7,708	
19,413	18,975	17,901	17,131	5,056	3,887	
13,695	12,180	12,066	9.951	-342	-320	
9,055	6,473	6,863	4,834	-5,172	-4,523	
2,290	-56	374	-1,936	-10,015	-8,491	
-6,727	-9,810	-8,364	-11,125	-19,381	-16,205	
-28,801	-39,020	-30,637	-40,495	-46,928	-43,181	

# Financial Analysis Chart

The farm financial analysis chart is designed just like the <u>Farm Business</u> <u>Chart</u> and may be used to measure the financial health of the farm business. Most of the financial measures used in the chart are presented on pages 7, 10, 12, and 17 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART 404 New York Dairy Farms, 1985

	Liqu	idity (repayment	=)	
	Debt Payments	Cash Flow	Available for	
Debt Payments	as Percent	Coverage	Debt Service	Debt
Made Per Cow	of Milk Receipts	Ratio	Per Cow	Per Cow
(DFBS pg. 7)	(7)	(7)	(11)	(5)
\$ 25	1%	7.03	\$1,012	\$ 70
171	9	2.15	780	568
264	14	1.58	674	1,011
332	18	1.30	606	1,489
406	20	1.10	527	1,858
460	24	0.96	460	2,195
518	27	0.80	387	2,584
591	31	0.65	313	3,130
722	37	0.43	244	3,679
1,165	63	-0.04	42	4,795

	S	olvency	Efficiency & Profitability			
		Debt/Asset Ratio		Total	Capital	Rate of
Percent <u>Equity</u>	Total_	Current & Intermediate	Long Term	Farm Cap. <u>Per Cow</u>	Turnover (years)	Return on Equity Cap.
(DFBS pg. 5)	(5)	(5)	(5)	(10)	(10)	(3)
99%	0.01	0.00	0.00	\$3,705	1.67	14
90	0.10	0.04	0.01	4,524	2.00	6
82	0.18	0.11	0.10	4,960	2.19	4
75	0.25	0.16	0.25	5,289	2.40	1
68	0.32	0.23	0.37	5,654	2.60	-1
61	0.39	0.29	0.50	5,955	2,77	-4
5 <b>3</b>	0.47	0.36	0.63	6,342	2.93	-6
44	0.56	0.44	0.73	6,837	3.14	-11
36	0.64	0.55	0.89	7,671	3.46	-20
16	0.84	0.81	1.38	9,498	4.57	-83

# Summarize Your Business Performance

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

Strengths:	Need Improvement:

# FARM BUSINESS SUMMARY BY HERD SIZE 404 New York Dairy Farms, 1985

T	Less than	40 to	55 to	70 to	85 to
Item Farm Size:	40 Cows	54 Cows	69 Cows	84 Cows	99 Cows
Number of farms	33	93	82	55	38
ACCRUAL EXPENSES					
Hired labor	\$ 4,093	\$ 5,937	\$ 9,313	\$ 13,051	\$ 18,026
Dairy grain & concentrate	15,862	22,245	27,169	33,379	37,599
Dairy roughage	813	816	933	1,158	767
Other livestock feed	164	250	555	705	2,234
Machine hire/rent/lease	588	1,018	1,305	1,644	1,251
Machine repairs/parts	2,560	4,470	5,735	7,900	10,291
Auto expense (farm share)	405	488	450	645	368
Fuel, oil & grease	2,442	3,192	4,276	5,625	7,090
Replacement livestock	465	926	1,800	1,350	1,078
Breeding	998	1,300	1,949	2,565	2,491
Veterinary & medicine	1,173	1,672	2,601	2,933	3,664
Milk marketing	4,836	6,395	8,313	10,033	10,296
Cattle lease/rent	3	39	33	08	0
Other livestock expense	2,492	3,684	5,053	5,607	8,095
Fertilizer & lime	2,255	4,002	5,849	7,976	10,357
Seeds & plants	712	1,311	2,131	2,954	4,128
Spray & other crop expense	476	1,033	2,077	2,626	2,881
Land/building/fence repair	778	1,340	1,518	1,989	2,769
Taxes & insurance	3,725	4,505	6,227	6,668	9,482
Telephone & electricity	2,267	3,054	4,025	4,926	5,436
Interest paid	4,443	8,829	12,031	13,163	17,536
Misc. (including rent) Total Operating Expenses	<u>1,660</u> \$ 53,210	$\frac{2,764}{$79,270}$	$\frac{3,348}{$106,691}$	$\frac{4,895}{$131,872}$	$\frac{5,516}{$161,355}$
Expansion livestock	968	346	874	774	844
Machinery depreciation	6,124	7,704	10,941	15,593	17,741
Building depreciation	2,193	3,217	5,039	8,144	8,004
Total Accrual Expenses	\$62,495	\$90,537	\$123,545	\$156,383	\$187,944
ACCRUAL RECEIPTS					
Milk sales	\$59,218	\$ 88,407	\$119,550	\$151,834	\$183,742
Dairy cattle	4,811	6,521	9,436	11,266	14,400
Dairy calves	933	1,163	1,444	1,798	2,364
Other livestock	97	243	352	436	472
Crops	1,030	806	592	1,949	3,216
Misc. receipts	1.975	3,156	5,102	5,737	7,682
Total Accrual Receipts	\$68,064	\$100,296	\$136,476	\$173,020	\$211,876
PROFITABILITY ANALYSIS					
Net farm income (w/o apprec.)		\$9,759	\$12,931		\$23,932
Net farm income (w/apprec.)	\$4,706	\$8,700	\$9,716		\$19,249
Labor & mgmt. income	\$-3,996	<b>\$-592</b>	\$-718	\$-453	\$4,124
Number of operators	1.08	1.17	1.33	1.42	1.42
Labor & mgmt. inc./oper.	\$-3,689	\$-508	\$-539	\$-320	\$2,911
Rate of return on equity			, ^-	A A-	•
capital (w/o apprec.) Rate of return on equity	-6.6%	-6.4%	-4.0%	-2.3%	-0.6
capital (w/apprec.)	-7.1%	-7.0%	-5.3%	-1.4%	-1.8

# FARM BUSINESS SUMMARY BY HERD SIZE 404 New York Dairy Farms, 1985

Item Farm Size:	100 to 149 Cows	150 to 199 Cows	200 to 249 Cows	250 or More Cow
Item Fain Size.	149 COWS	199 COWS	Z49 COWS	More cows
Number of farms	54	20	14	15
ACCRUAL EXPENSES				
Hired labor	\$ 26,831	\$ 37,871	\$ 69,656	\$118,623
Dairy grain & concentrate	52,504	69,080	119,361	181,104
Dairy roughage	979	3,007	1,464	6,896
Other livestock feed	1,253	1,581	176	193
Machine hire/rent/lease	1,828	2,514	4,138	3,541
Machine repairs/parts	12,204	17,945	30,301	37,855
Auto expense (farm share)	372	<b>37</b> 7	829	303
Fuel, oil & grease	9,375	12,763	18,866	24,475
Replacement livestock	1,300	2,816	1,521	3,244
Breeding	3,611	4,415	7,083	11,731
Veterinary & medicine	5,044	6,398	9,844	20,184
Milk marketing	13,992	19,197	30,848	38,127
Cattle lease/rent	68	188	0	344
Other livestock expense	9,665	13,049	17,907	31,495
Fertilizer & lime	11,193	19,173	23,424	33,953
Seeds & plants	4,444	6,000	7,942	14,478
Spray & other crop expense	3,981	7,053	10,397	15,416
Land/building/fence repair	2,981	4,147	4,852	9,358
Taxes & insurance	10,303	12,467	16,682	23,234
Telephone & electricity	6,501	7,470	11,821	17,907
Interest paid	23,255	34,925	45,152	75,543
Misc. (including rent)	<u>6,759</u>	11.814	<u>17,838</u>	21,921
Total Operating Expenses	\$208,443	\$294,250	\$450,102	\$689,925
Expansion livestock	1,127	7,108	1,680	16,690
Machinery depreciation	20,258	26,978	32,499	45,087
Building depreciation	9,161	17.114	16,621	35,310
Total Accrual Expenses	\$238,989	\$345,450	\$500,902	\$787,012
ACCRUAL RECEIPTS				
Milk sales	\$236,108	\$320,343	\$468,190	\$796,157
Dairy cattle	20,211	32,874	46,908	81,554
Dairy calves	2,992	3,559	5,168	8,731
Other livestock	556	21	89	775
Crops	193	5,092	10,339	16,228
Misc. receipts	7,420	16,589	21.994	15,205
Total Accrual Receipts	\$267,480	\$378,478	\$552,688	\$918,650
PROFITABILITY ANALYSIS				
Net farm income (w/o apprec.)	\$28,491	\$33,028	\$51,786	\$131,638
Net farm income (w/apprec.)	\$29,111	\$24,269	\$44,731	\$120,705
Labor & mgmt. income	\$5,196	\$6,896	\$17,279	\$76,669
Number of operators	1.50	1.58	1.67	1.58
Labor & mgmt. inc./oper.	\$3,464	\$4,355	\$10,367	\$48,423
Rate of return on equity				
capital (w/o apprec.)	-0.0%	0.6%	2.8%	8.7
Rate of return on equity				
capital (w/apprec.)	0.1%	-1.1%	1.8%	7.7

# FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 404 New York Dairy Farms, 1985

Farms with:	Less than	40 Cows	40 to 5	54 Cows	55 to 6	9 Cows
Item	Jan, 1	Dec. 31	Jan. 1	Dec. 31	Jan. 1	Dec. 31
<u>ASSETS</u>						
Farm cash/chkg./sav.	\$ 2,208	\$ 1,936	\$ 1,264	\$ 1,427	\$ 2,280	\$ 2,584
Accounts receivable	6,052	5,791	7,548	7,173	10,835	10,530
Feed & supplies	11,016	11,551	17,075	17,168	25,038	25,601
Dairy cows*	27,508	25,568	40,790	38,285	55,435	52,811
Heifers	11,583	9,208	15,737	13,815	22,773	19,303
Bulls & other lvstk.		479	878	812	599	474
Machinery & equipmen		40,782	53,683	54,064	80,279	78,950
Coop stocks & cert.	2,024	2,145	2,615	2,487	4,237	4,524
Land & buildings*	110,929	115,967	140,467	144,528	194,568	196,143
Total Farm Assets	\$213,221	\$213,427	\$280,057	\$279,759	\$396,044	\$390,921
Pers. cash/chkg./sav	7.\$ 7,817	\$ 8,760	¢ 2 / 5 6	\$ 2,551	\$ 3,725	\$ 3,960
			\$ 2,456			
Cash value of life i	•	3,214	3,465		3,239	3,187
Nonfarm real estate	2,342	2,115	4,371		8,953	9,312
Auto (personal share		2,224	2,246		2,190	2,416
Stocks & bonds	5,868	5,976	1,643		16,266	16,945
Household furnishing	•	7,365	8,216		6,930	7,925
All other	1,298	1.121	3,098	2,119	<u>268</u>	1,048
Total Nonfarm	4 00 000	A 00 776		* ** ***	* ** 5.0	A
Assets**	\$ 29,866	\$ 30,776	\$ 25,495	\$ 25,369	\$ 41,569	\$ 44,793
Total Farm & Nonfarm		****	****		*********	****
Assets	\$243,087	\$244,203	\$305,552	\$305,128	\$437,613	\$435,714
LIABILITIES						
Accounts payable	\$ 1,955	\$ 2,293	\$ 4,525	\$ 4,396	\$ 3,675	\$ 3,744
Operating debt	0	. 0	323		798	1,192
Short term	984	871	1,169	1,399	1,450	1,265
Intermediate*	17,813	17,003	36,012		44,541	44,628
Long term*	32,026	34,951	70,323		89,325	89,105
Total Farm Liab.	\$ 52,777	\$ 55,118	\$112,353		\$139,789	\$139,933
Total Nonfarm Liab.		579	752		2,664	2,838
Total Farm & Nonfarm				· · · · · · · · · · · · · · · · · · ·		
Liabilities	\$ 53,215	\$ 55,697	\$113,105	\$117,915	\$142,453	\$142,771
Farm Net Worth	•	•	, ,	• •	. ,	, ,
(Equity Capital)	\$160,444	\$158.310	\$167.704	\$163,026	\$256.255	\$250,987
Farm & Nonfarm	•	, , -	• " • •	, ,	, ,	, ,
Net Worth	\$189,872	\$188,506	\$192,447	\$187,213	\$295,160	\$292,943
FINANCIAL MEASURES		Less than	40 Cows	40 to 54 Co	owe 55 t	o 69 Cows
Percent equity		Dess chan	74%	58%	<u> </u>	64%
Debt/asset ratio-lor	ng term	(	).30	0.51		0.45
Debt/asset ratio-int			), 21	0.31		0.45
Total farm debt per			,621	\$2,382	ć	32,186
Annual debt payments			166	\$2,382		30,885
Debt payments made p			368	\$432	Ų.	\$500
Debt payments as %			20%	23%		26%
Amount avail. for de			,942	\$23,026	ė a	30,400
Cash flow coverage			,942 L.74	\$23,026 1.07	<b>\$</b> 3	1.04
cash flow coverage i	LACIO 101	1,700	L./4	1.07		1.04

<sup>\*</sup>Includes discounted lease payments.

\*\*Average of farms reporting nonfarm assets and liabilities for 1985.

# FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 404 New York Dairy Farms, 1985

Farms with: 70 to 84 Cows 85 to 99 Cows							
Farms with:		84 Cows					
Item	<u>Jan. 1</u>	Dec. 31	<u> </u>	Dec. 31			
A C C TITLO							
ASSETS	A 5 7//	A , 00,	A 0 (17	A 2 / 00			
Farm cash/chkg./savings	\$ 5,766	\$ 4,884	\$ 2,617	\$ 3,422			
Accounts receivable	14,697	14,487	16,078	15,871			
Feed & supplies	35,637	35,228	44,666	46,961			
Dairy cows*	65,176	62,650	82,318	78,084			
Heifers	29,022	25,175	35,773	32,808			
Bulls & other lvstk.	747	981	1,382	1,372			
Machinery & equipment*	95,054	98,240	115,793	116,850			
Coop stocks & cert.	5,003	5,700	8,095	8,876			
Land & buildings*	204,940	208,015	<u>260,816</u>	257,440			
Total Farm Assets	\$456,042	\$455,360	\$567,538	\$561,684			
Pers. cash/chkg./savings	\$ 15,519	\$ 13,636	\$ 4,787	\$ 6,288			
Cash value of life ins.	4,650	5,373	3,600	3,859			
Nonfarm real estate	13,829	13,700	4,813	5,542			
Auto (personal share)	2,819	3,158	2,265	2,338			
Stocks & bonds	9,052	10,261	1,940	3,000			
Household furnishings	7,200	7,223	3,604	4,792			
All other	5,321	5,986	4,084	4,752			
Total Nonfarm Assets**	\$ 58,390	\$ 59,336	\$ 25,092	\$ 30,571			
Total Farm & Nonfarm							
Assets	\$514,432	\$514,696	\$592,630	\$592,255			
			, ,	. ,			
<u>LIABILITIES</u>							
Accounts payable	\$ 5,037	\$ 6,816	\$ 4,539	\$ 4,883			
Operating debt	1,074	1,924	4,013	4,144			
Short term	1,148	2,185	3,724	2,827			
Intermediate*	44,336	46,725	68,472	67,533			
Long term*	90,933	<u>88,906</u>	_116,051	119,142			
Total Farm Liab.	\$142,529	\$146,555	\$196,799	\$198,529			
Total Nonfarm Liab.**	454	1,242	21	21			
Total Farm & Nonfarm							
Liabilities	\$142,983	\$147,797	\$196,820	\$198,550			
Farm Net Worth	,,	<b>,</b> , , , , , ,	7, 0	4270,330			
(Equity Capital)	\$313,513	\$308,805	\$370,739	\$363,155			
Farm & Nonfarm	, ,	7	, ,	4000,100			
Net Worth	\$371,449	\$366,899	\$395,810	\$393,705			
DINANGTAL MOAGUNDG	70	0.4	0.5	20 "			
FINANCIAL MEASURES	<u>70</u>	to 84 Cows	85 to	99 Cows			
Percent equity		68%		65%			
Debt/asset ratio-long term	0.43	0.46					
Debt/asset ratio-inter. & cu	0.23	0.26					
Total farm debt per cow	\$1,879		2,112				
Annual debt payments made	\$30,462	\$39	9,392				
Debt payments made per cow	•	\$402		\$426			
Debt payments as % of milk s		20%		21%			
Amount avail. for debt servi		\$41,194	\$45	5,661			
Cash flow coverage ratio for	1985	1.40		1.09			

<sup>\*</sup>Includes discounted lease payments.

\*\*Average of farms reporting nonfarm assets and liabilities for 1985.

# FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 404 New York Dairy Farms, 1985

Farms with:	100 to	149 Cows	150 to 1	199 Cows		
Item	Jan. 1	Dec. 31	Jan. 1	Dec. 31		
<u>ASSETS</u>						
Farm cash/chkg./savings	\$ 4,109	\$ 3,938	\$ 5,551	\$ 6,336		
Accounts receivable	20,971	20,473	27,818	32,064		
Feed & supplies	57,947	56,439	71,818	73,963		
Dairy cows*	102,408	98,777	135,614	136,797		
Heifers	46,781	45,478	59,207	53,197		
Bulls & other lvstk.	1,699	1,255	905	868		
Machinery & equipment*	128,332	127,976	157,670	159,826		
Coop stocks & cert.	12,808	13,373	24,972	28,919		
Land & buildings*	312,736	317,406	411,748	407,082		
Total Farm Assets	\$687,791	\$685,115	\$895,303	\$899,052		
Pers. cash/chkg./savings	\$ 3,454	\$ 3,103	\$ 1,248	\$ 1,313		
Cash value of life ins.	3,101	3,480	14,353	14,730		
Nonfarm real estate	14,212	15,212	8,333	9,167		
Auto (personal share)	3,465	3,582	3,550	2,700		
Stocks & bonds	6,212	9,026	1,963	3,404		
Household furnishings	9,167	9,785	11,417	11,417		
All other	2,949	3,461	6,660	6,826		
Total Nonfarm Assets**	\$ 42,561	\$ 47,648	\$ 47,523	\$ 49,556		
Total Farm & Nonfarm		. ,				
Assets	\$730,352	\$732,763	\$942,826	\$948,608		
<u>LIABILITIES</u>						
Accounts payable	\$ 8,457	\$ 6,855	\$ 15,603	\$ 11,279		
Operating debt	2,275	2,809	12,751	11,042		
Short term	4,442	5,789	4,901	2,918		
Intermediate*	95,195	94,518	153,072	153,000		
Long term*	129,707	131,237	204,102	220,169		
Total Farm Liab.	\$240,075	\$241,208	\$390,429	\$398,408		
Total Nonfarm Liab.**	1,064	946	4,650	3,984		
Total Farm & Nonfarm						
Liabilities	\$241,139	\$242,154	\$395,079	\$402,392		
Farm Net Worth						
(Equity Capital)	\$447,716	\$443,907	\$504,874	\$500,644		
Farm & Nonfarm						
Net Worth	\$489,213	\$490,609	\$547,747	\$546,216		
FINANCIAL MEASURES	10	00 to 149 Cows	150 t	o 199 Cows		
Percent equity		65%		56%		
Debt/asset ratio-long term		0.41		0.54		
Debt/asset ratio-inter, & c	urrent	0.30		0.36		
Total farm debt per cow		\$1,977	\$2,371			
Annual debt payments made		\$60,605		98,620		
Debt payments made per cow		\$503	•	\$611		
Debt payments as % of milk	sales	25%		31%		
Amount avail. for debt serv		\$59,930	\$	\$75,317		
Cash flow coverage ratio fo		1.01	•	0.86		

<sup>\*</sup>Includes discounted lease payments.

\*\*Average of farms reporting nonfarm assets and liabilities for 1985.

# FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 404 New York Dairy Farms, 1985

Farms with:	200 t	o 249 Cows	More that	1 250 Cows		
Item	Jan. 1	Dec. 31	Jan, 1	Dec. 31		
ASSETS						
Farm cash/chkg./savings	\$ 6,837	\$ 11,847	\$ 8,039	\$ 5,409		
Accounts receivable	46,843		68,068	72,250		
Feed & supplies	100,424		172,391	180,862		
Dairy cows*	188,896	· · · · · · · · · · · · · · · · · · ·	282,847	294,830		
Heifers	84,355		128,368	122,225		
Bulls & other lvstk.	2,011	•	1,938	1,876		
Machinery & equipment*	183,392		252,055	254,436		
Coop stocks & cert.	27,566	· ·	43,310	46,142		
Land & buildings*	499,166		781,420	808,694		
Total Farm Assets	\$1,139,490		\$1,738,436	\$1,786,724		
TOTAL TALM MODELS	<b>Ψ</b> 1,132,420	Ψ1,140,222	γ±,/30,430	<b>Ψ1,700,72</b> 4		
Pers. cash/chkg./savings	\$ 16,800	\$ 13,613	\$ 1,068	\$ 1,428		
Cash value of life ins.	8,038	9,825	5,226	6,400		
Nonfarm real estate	12,750		0	. 0		
Auto (personal share)	4,813		1,700	1,000		
Stocks & bonds	6,875	•	1,000	1,000		
Household furnishings	11,585		5,400	4,800		
All other	5,483		3,150	3,086		
Total Nonfarm Assets**	\$ 66,343		\$ 17,544	\$ 17,714		
Total Farm & Nonfarm	7,	7,	7 -,,5,,	¥ =/,/=:		
Assets	\$1,205,833	\$1,218,629	\$1,755,980	\$1,804,438		
	7-,,	72,220,022	42,,33,300	Ψ2,001,400		
<u>LIABILITIES</u>						
Accounts payable	\$ 14,599	\$ 15,885	\$ 14,777	\$ 12,388		
Operating debt	12,829		6,667	9,667		
Short term	814		13,302	28,805		
Intermediate*	161,140	•	325,610	326,324		
Long term*	284,505	•	332,094	321,161		
Total Farm Liab.	\$473,887		\$ 692,450	\$ 698,344		
Total Nonfarm Liab.**	0	•	0	0		
Total Farm & Nonfarm						
Liabilities	\$473,887	\$461,780	\$ 692,450	\$ 698,344		
Farm Net Worth	9475,007	7401,700	φ 092,430	ÿ 090,344		
(Equity Capital)	\$665,603	\$679,142	\$1,045,986	¢1 000 200		
Farm & Nonfarm	\$005,005	9079,142	\$1,043,900	\$1,088,380		
Net Worth	\$731,946	\$756,849	¢1 062 520	61 106 006		
Net worth	\$731,540	\$730,049	\$1,063,530	\$1,106,094		
FINANCIAL MEASURES	2	00 to 249 Cows	More th	an 250 Cows		
Percent equity	_	60%		61%		
Debt/asset ratio-long term		0.54		0.40		
Debt/asset ratio-inter. & current		0.30	0.40			
Total farm debt per cow		\$1,965		\$1,962		
Annual debt payments made		\$92,757	¢			
Debt payments made per cow		\$412	ş	154,197		
Debt payments made per cow  Debt payments as % of milk sales		•		\$438		
Amount avail. for debt ser		19%	^	19%		
		\$97,464	\$	\$220,436		
Cash flow coverage ratio f	OI 1303	0.94		1.31		

<sup>\*</sup>Includes discounted lease payments.

\*\*Average of farms reporting nonfarm assets and liabilities for 1985.

# SELECTED BUSINESS FACTORS BY HERD SIZE 404 New York Dairy Farms, 1985

Farms with:	Less than		55 to	70 to	85 to
<u>Item</u>	40 Cows	54 Cows	69 Cows	84 Cows	99 Cows
Number of farms	33	93	82	55	38
Cropping Program Analysis					
Total Tillable acres	107	165	206	258	329
Tillable acres rented*	25	53	63	86	106
Hay crop acres*	74	107	119	132	156
Corn silage acres*	17	29	40	54	73
Hay crop, tons DM/acre	2.1	2.2	2.5	2.4	2.6
Corn silage, tons/acre	13.1	13.2	13.5	14.4	13.7
Oats, bushels/acre	61.4	82.1	86.9	76.9	74.4
Forage DM per cow, tons	6.9	7.7	7.7	7.8	8.2
Tillable acres/cow	3.3	3.5	3.3	3.4	3.6
Fert. & lime exp./til. acre	\$21.06	\$24.20	\$28.35	\$30.93	\$31.45
Total machinery costs	\$14,171	\$19,519	\$26,647	\$36,161	\$42,527
Machinery cost/tillable acre	\$132	\$118	\$129	\$140	\$129
Dairy Analysis					
Number of cows	33	47	62	76	92
Number of heifers	25	37	48	62	77
Milk sold, lbs.	465,289	691,467		1,162,676	
Milk sold/cow, 1bs.	14,113	14,722	14,897		
Operating cost of prod. milk/co		\$9.75	\$9.71	\$9.52	•
Total cost of prod. milk/cwt.	\$16.67	\$15.46	\$15.37	•	\$14.26
Price/cwt. milk sold	\$12.73	\$12.79	\$12.93		•
Purchased dairy feed/cow	\$506	\$491	\$453	\$456	•
Purchased dairy feed/cwt. milk		\$3.33	\$3.04	,	\$2.68
Purchased grain & conc. as *	·	•	•	•	•
of milk receipts	27%	25%	239	b 22 <sup>s</sup>	<b>ક</b> 20₹
Purchased feed & crop					
expense/cwt. milk	\$4.32	\$4.25	\$4.13	\$4.14	\$3.90
Capital Efficiency					
Farm capital/worker	\$116,359	\$134,356	\$162,820	\$160,836	\$173,727
Farm capital/cow	6,470	5,960	6,340	6,015	6,113
Farm capital/til. acre owned	2,602	2,477	2,752	2,649	2,532
Real estate/cow	3,441	3,034	3,148	2,725	2,805
Machinery investment/cow	1,245	1,147	1,283	1,276	1,259
Capital turnover, years	3.13	2.79	2.88	2.63	2.66
Labor Efficiency					
Worker equivalent	1.83	2.08	2.42	2.83	3.25
Operator/manager equivalent	1.08	1.17	1.33	1.42	1.42
Milk sold/worker, lbs.	253,794	331,904	382,566	410,356	440,096
Cows/worker	18	23	26	410,330	28
Work units/worker	188	243	272	289	324
Labor cost/cow	\$490	\$412	\$374	\$374	\$360
Labor cost/tillable acre	\$151	\$117	\$113	\$110	\$101
	4+21	ATT/	ATTO	9110	ATOL

<sup>\*</sup>Average of all farms, not only those reporting data.

# SELECTED BUSINESS FACTORS BY HERD SIZE 404 New York Dairy Farms, 1985

Farms with:	100 to	150 to	200 to	250 or
Item	149 Cows	199 Cows	249 Cows	More Cows
Number of farms	54	20	14	15
Cropping Program Analysis				
Total Tillable acres	364	529	595	809
Tillable acres rented*	120	194	237	276
Hay crop acres*	180	235	237	280
Corn silage acres*	89	128	220	348
Hay crop, tons DM/acre	3.0	2.9	3.2	3.8
Corn silage, tons/acre	14.2	14.0	14.8	15.9
Oats, bushels/acre	81.7	64.9	71.4	93.6
Forage DM per cow, tons	8.2	8.1	8.3	8.5
Tillable acres/cow	3.1	3.3	2.7	2.4
Fert. & lime exp./til. acre	\$30.74	\$36.27	\$39.35	\$41.99
Total machinery costs	\$50,416	\$68,482	\$95,644	\$123,924
Machinery cost/tillable acre	\$138	\$130	\$161	\$153
Dairy Analysis				
Number of cows	119	160	223	342
Number of heifers	107	129	182	286
Milk sold, 1bs.	1,839,601	2,450,256	3,618,728	6,189,863
Milk sold/cow, 1bs.	15,524	15,295	16,233	18,099
Operating cost of prod. milk/cwt.	\$9.63	\$9.64	\$10.10	\$9.17
Total cost of prod. milk/cwt.	\$14.04	\$13.97	\$13.35	\$12.22
Price/cwt. milk sold	\$12.83	\$13.07	\$12.94	\$12.86
Purchased dairy feed/cow	\$451	\$450	\$542	\$550
Purchased dairy feed/cwt. milk	\$2.91	\$2.94	\$3.34	\$3.04
Purchased grain & conc. as %				
of milk receipts	22%	22%	25%	23%
Purchased feed & crop				
expense/cwt. milk	\$3.97	\$4.26	\$4.49	\$4.07
Capital Efficiency				
Farm capital/worker	\$179,075	\$199,373	\$187,431	\$215,826
Farm capital/cow	5,793	5,600	5,115	5,154
Farm capital/til, acre owned	2,813	2,678	3,185	3,307
Real estate/cow	2,659	2,556	2,245	2,325
Machinery investment/cow	1,081	991	818	740
Capital turnover, years	2.57	2.37	2.06	1.92
Labor Efficiency				
Worker equivalent	3.83	4.50	6.08	8.17
Operator/manager equivalent	1.50	1.58	1.67	1.58
Milk sold/worker, lbs.	479,896	544,501	594,859	757,942
Cows/worker	31	36	37	42
Work units/worker	332	379	382	439
Labor cost/cow	\$357	\$338	\$387	\$393
Labor cost/tillable acre	\$116	\$102	\$145	\$166
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<sup>\*</sup>Average of all farms, not only those reporting data.

# IDENTIFY AND SET GOALS

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

- 1. Goals should be specific.
- 2. Goals should be realistic and achievable.
- 3. The achievement of the goal should be verifiable.
- 4. You should designate a time when each goal will be achieved.

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

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

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

- a. Begin with a general philosophy statement which incorporates both business and family goals.
- b. Identify 4-6 long range goals.
- c. Identify specific short range goals for a given time period (i.e., one year).

# Worksheet for Setting Goals

General	l Philosoph	y and Obje	ectives			
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	Worksheet for Sett	ing Goals (continued)	
II. Long Range (	Goals (require two or mo	re years to achieve)	
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TII Chart Dan	as Coola (poasible to a	phiomo in one or two w	, a m a \
	ge Goals (possible to ac		
What	How	Whe	<u>en</u>
			**************************************

NOTE: Once long and short range goals have been identified, it is helpful to rank them in order of priority.

Prepared by T.R. Maloney, Extension Associate, Cornell University