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Cornell University, Ithaca, New York 14853

1985 DAIRY FARM BUSINESS SUMMARY Oneida-Mohawk 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 summary and analysis of his or her farm business in addition to this publication. The information in this report is compiled by averaging data submitted from 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 decisionmaking techniques. In short, DFBS identifies the records farmers need and demonstrates how to use them in making business and financial management decisions.

Program Improvements

The 1985 DFBS report features improved accrual accounting procedures, a new measure of farm profitability, a more indepth balance sheet, an annual cash flow statement, and several major improvements in the business analysis format and the analysis measures used. These and other changes are identified in the body of this report.

The revised format provides one full page for the analysis of the farm cropping program and another for complete analysis of the dairy program. Corn and hay crop related expenses are evaluated separately for farmers who submitted the breakdown of expenses by crop. The cost of producing milk per cow and per hundredweight of milk sold has been compiled. An annual cash flow worksheet has been added to the farmer's individual report. The popular <u>Progress of The Farm Business</u> report has been moved to page one of the farmer's report and added to this publication.

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 50 percent of our dairy farm management field staff. This innovative program provides faster processing of farm record data and increased use of DFBS in farm management programs.

^{*}This summary was prepared by Eddy L. LaDue, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences, Cornell University in cooperation with Cooperative Extension agents David Thompson, Mike Kelleher, and Teddy Aber. Analysis and data management assistance was provided by Linda Putnam.

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.

<u>Type of Farm</u>	Number	<u>Type of Business</u>	<u>Number</u>			
Dairy	32	Single proprietorship	24			
Part-time dairy	2	Partnership	10			
Dairy cash-crop	1	Corporation	1			
Part-time cash-crop dairy	0	Other	0			
Type of Ownership	Number	Type of Barn	Number			
Owner	30	Stanchion	29			
Renter	5	Freestall	3			
Reflect	5	Other	3			
Milking System	Number	Business Record System	Number			
Bucket & carry	0	CAMIS	2			
Dumping station	6	Account Book	18			
Pipeline	25	Agrifax (mail-in only)	5			
Herringbone parlor	3	On-Farm Computer	õ			
Other parlor	ĩ	Other	10			
Deine Deseude Constan	Number		Numbers			
Dairy Records Service	Number	Out an	Number			
DHIC	24	Other	0			
0.S.	5	None	6			
Milk Diversion Program Pa	Milk Diversion Program Participants Number: 2					

BUSINESS CHARACTERISTICS 35 Oneida-Mohawk Region Dairy Farms, 1985

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 12 months of labor from all operators.

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

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

<u>Milk Diversion Program Participants</u> are the farmers who were in the 1984-85 federal milk diversion program. These farms have also been included in the regional summary averages.

Income Statement

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

Expense Item Hired Labor Feed	\$	<u>aid +</u> 8,536	Inventory	+ Accounts Payable	- Expenses
	-	8,536			
Feed				\$ O	\$ 8,536
<u></u>					
Dairy grain & conc.	2	6,386	\$ 142	-204	26,324
Dairy roughage		681	0	-189	492
Other livestock		165	-119	0	46
Machinery					
Mach. hire, rent/lease		1,811		-15	1,796
Machinery repairs/parts		4,900	3	-87	4,816
Auto expense (f.s.)		684		-19	665
Fuel, oil & grease		3,977	- 29	34	3,982
Livestock					
Replacement livestock		498		0	498
Breeding		2,097	-10	8	2,095
Vet & medicine		2,167	-2	-29	2,136
Milk marketing		8,884		34	8,918
Cattle lease/rent		31		0	31
Other livestock expense		4,274	5	-23	4,256
Crops		-			
Fertilizer & lime		4,281	771	- 57	4,995
Seeds & plants		2,262	129	14	2,405
Spray, other crop exp.		1,418	56	60	1,534
Real Estate		-			
Land/bldg./fence repair		1,930		22	1,952
Taxes		3,011		-85	2,926
Insurance		2,335		- 8	2,327
Rent & lease		3,868		29	3,897
Other					
Telephone (f.s.)		656		- 2	654
Electricity (f.s.)		3,229		8	3,237
Interest paid]	L0,121		0	10,121
Miscellaneous		2,393	-13	19	2,399
Total Operating	\$10	00,595	\$ 933	\$-490	\$101,038
Expansion livestock	•	\$388	·	\$ 80	\$ 468
Machinery depreciation				-	12,373
Building depreciation					4.87
TOTAL ACCRUAL EXPENSES					\$118,754

CASH AND ACCRUAL FARM EXPENSES 35 Oneida-Mohawk Region Dairy Farms, 1985

<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.

<u>Accrual expenses</u> are the costs of inputs actually used in this year's production. The value of feed and supplies used out of inventory (decrease in 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 increase in 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 income and compare it with averages on the opposite page.

	Cash		Decrease in		Accrual
Expense Item	Paid	+	Inventory	+ Accounts Payable	_
<u>Hired Labor</u>	\$		\$	\$	\$
Feed					
Dairy grain & conc.					
Dairy roughage					
Other livestock					
Machinery					
Mach. hire, rent/lease					
Machinery repairs/parts					
Auto expense (f.s.)					
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.					
<u>Real Estate</u>					
Land/bldg./fence repair					
Taxes					
Insurance					
Rent & lease					
<u>Other</u>					
Telephone (f.s.)					
Electricity (f.s.)		_			
Interest paid					
Miscellaneous					
Total Operating	\$		\$	\$	\$
Expansion livestock		_			
Machinery depreciation					
Building depreciation					
TOTAL ACCRUAL EXPENSES	\$		\$	\$	\$

CASH AND ACCRUAL FARM EXPENSES WORKSHEET

<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.

<u>Accrual expenses</u> are the costs of inputs actually used in this year's production. Purchased feed and supplies used out of inventory must be included. Beginning of year less end of year purchased feed and supply inventory equals the decrease in inventory to include in accrual expenses. An increase in inventory will be a negative number in the decrease in inventory column. Feed, supplies, and services used but not paid for must be included by adding the net increase in operating accounts payable. Increases in operating accounts payable are determined by subtracting the balance at the beginning of the year from the end of year balance.

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	+	Accrual Receipts
Milk sales	\$118,150				\$-481		\$117,669
Dairy cattle	6,758		\$ 281		-17		7,023
Dairy calves	1,368		•		- 6		1,362
Other livestock	74		31		0		105
Crops	2,175		-1,003		439		1,611
Government receipts	1,505		-		-164		1,341
Custom machine work	41				0		41
Gas tax refund	141				-14		127
Other	774				<u> </u>		767
Total Accrual Receipts	\$130,986		\$ -691		\$-250		\$130,046

	CASH AND	ACCRUAL	FARM RE	CEIPTS	
35	Oneida-Moha	wk Regio	n Dairy	Farms,	1985

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

<u>Accrual receipts</u> 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 included as accrual receipts. Decreases in inventory caused by herd reduction are deducted. 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 the change in other delayed payments.

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	\$	\$	\$	\$
Total Accrual Receipts	\$	\$	\$	\$

CASH AND ACCRUAL FARM RECEIPT WORKSHEET

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 <u>excluding</u> <u>appreciation</u>. The changes in inventories caused by increasing or decreasing 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 profitability can be measured as the return to all operator and family supplied resources or as the return to one or more individual resources such as labor and management.

Net farm income is the total combined return to the farm operator(s) and other unpaid family members for their labor, management, and equity capital. It is the farm family's net annual return from working, managing, financing, and owning the farm business. This is not a measure of cash available from the year's business operation. Cash flow is evaluated later in this report.

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

Item	Average	My Farm
Total accrual receipts	\$130,046	\$
Appreciation: Livestock	-8,418	
Machinery	5,304	
Real Estate	2,756	
Total Including Appreciation	\$129,688	\$
Total accrual expenses	118,754	-
Net Farm Income (with appreciation)	\$ 10,934	\$
Net Farm Income (without appreciation)	\$ 11,292	\$

NET FARM INCOME 35 Oneida-Mohawk Region Dairy Farms, 1985

Return to operator(s') 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. Operator(s') labor is not included in unpaid family labor. Return to operator(s') 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 OPERATOR(S') LABOR, MANAGEMENT, AND EQUITY 35 Oneida-Mohawk Region Dairy Farms, 1985

	Aver	age	My Farm		
Item	Without Apprec.	With Apprec,	Without Apprec,	With Apprec.	
Net farm income	\$11,292	\$10,934	\$	\$	
Family labor unpaid @ \$550 per month	-1,100	-1,100	dar Martin and a state of the s	-	
Return to operator(s') labor, management, & equi	ity \$10,192	\$ 9,834	\$	\$	

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 operator(s') labor, management, and equity capital excluding appreciation. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of assets. 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.

Item	Average	My Farm
Return to operator(s') labor, management, & equity without appreciation	\$10,192	\$
Real interest @ 5% on \$231,445 equity capital Labor & Management Income	<u>-11,572</u> \$-1,380	\$
Labor & Management Income per Operator (1.58 operators)	\$ -872	\$

LABOR AND MANAGEMENT INCOME 35 Oneida-Mohawk Region Dairy Farms, 1985

<u>Return on equity capital</u> 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 operator(s') labor and management estimated by the cooperators.

RETURN ON CAPITAL 35 Oneida-Mohawk Region Dairy Farms, 1985

Item	Average	My Farm
Return to operator(s') labor, management & equity capital with appreciation	\$ 9,834	\$
Value of operator(s') labor & management	20,131	
Return on equity capital with appreciation	-10,297	
Interest paid	10,121	
Return on total capital with appreciation	-176	
Return on equity capital without appreciation	-9,939	
Return on total capital without appreciation	182	
Rate of return on equity capital: with appreciation without appreciation	-4.4% -4.3%	8
Rate of return on average total capital: with appreciation without appreciation	-0.18 0.18	ی چــــــــــــــــــــــــــــــــــــ

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 balance sheet presents a picture of the business at one point in time. Non-farm assets and liabilities may also be an important part of that picture, particularly for individual proprietorships.

	_	Farm Liabilities	·····	
Farm Assets Jan, 1	Dec. 31	& Net Worth	<u>Jan, 1</u>	Dec. 31
Current		Current		
Farm cash, checking		Accounts payable	\$3,993	\$3,583
& savings \$ 1,727	\$ 1,867	Operating debt	884	991
Accounts rec. 11,607	11,050	Short-term	2,599	3,195
Feed & supplies26.220				
Total \$39,554	\$37,178	Total	\$7,476	\$7,768
Intermediate		<u>Intermediate</u>		
Dairy cows:			\$47,118	\$44,731
owned \$ 53,359	\$ 47,976			
leased 0	0			
Heifers 21,091	18,373			
Bulls/other lvstk. 223	218			
Mach./eq. owned 81,117	82,686			
Mach./eq. leased 799	1,021	Financial lease		
Coop stock & cert. 3.591	3,585	(cattle/mach.)	799	1,021
Total \$160,180	\$153,859	Total	\$47,917	\$45,752
Long-Term		<u>Long-Term</u>		
Land/buildings:		-	\$57,151	\$61,165
owned \$153,005	\$155,094			
leased <u>1,831</u>	1,699	Financial lease		
Total \$154,836	\$156,793	(structures)	1,831	1.699
		Total	\$ 58,982	\$ 62,864
Total Farm Assets \$354,569	\$347,830	Total Farm Liab.	\$114,374	\$116,384
		FARM NET WORTH	\$240,195	\$231,446
		Nonfarm Liabiliti	es*	
<u>Nonfarm Assets* Jan. 1</u>	Dec, 31	<u>& Net Worth</u>	<u>Jan, 1</u>	Dec. 31
Personal cash, chkg.		Nonfarm Liab.	\$ 2,833	\$ 2,893
& savings \$ 2,760	\$2,364	NONFARM NET WORTH		\$21,300
Cash value life ins. 3,296	3,925	FARM & NONFARM	Jan, 1	Dec, 31
Nonfarm real estate 6,571	7,086	Total Assets	\$376,021	\$372,023
Auto (personal sh.) 1,821	2,466	Total Liabilities		119,277
Stocks & bonds 1,300	2,227	İ		
Household furn. 5,449	5,886			
All other255_	-	TOTAL FARM & NON-		
Total Nonfarm \$21,452	\$24,193	FARM NET WORTH	\$258,814	\$252,746

1985 FARM BUSINESS & NONFARM BALANCE SHEET 35 Oneida-Mohawk Region Dairy Farms, 1985

*Average of 37 farms completing non-farm balance sheet.

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

			Farm Liabilities		
Farm Assets	Jan. 1	<u>Dec, 31</u>	& Net Worth	Jan, l	Dec. 31
Current			<u>Current</u>		
Farm cash, checking	5		Accounts payable		
& savings	, 		Operating debt		
Accounts rec.			Short-term:		
Feed & supplies					
Total			Total		
<u>Intermediate</u> Dairy cows:			Intermediate		
owned					
leased					
Heifers					
Bulls/other lvstk.					
Mach./eq. owned					
Mach./eq. leased			Financial lease		
Coop stock & cert.			(cattle/mach.)		
Total		·····	Total		
Long-Term			Long-Term		
Land/buildings: owned					
leased					
TEADER					
Total			Financial lease		
			(structures)		
			Total		
Total Farm Assets			Total Farm Liab.		
			FARM NET WORTH		
······			Nonfarm Liabilitie	S	
Nonfarm Assets	<u>Jan. 1</u>	Dec. 31	& Net Worth	Jan, 1	Dec. 31
Personal cash, chkg	_		Nonfarm Liab.:		
& savings	3.				
Cash value					
life ins.					
Nonfarm real est.					
Auto (pers. share)			Total Nonfarm		
Stocks & bonds			Liabilities		
Household furn.					
All other			Nonfarm		
Total Nonfarm			Net Worth		
TOTAL FARM & NONFAR	RW		Jan. 1	Dec,	31
Total Farm & Nonfar	m Assets				
Less Total Farm & N		abilities			
Farm & Nonfarm Net				•	
				•	

1985 FARM BUSINESS & NONFARM BALANCE SHEET

Balance sheet analysis is conducted by examining financial and debt ratios and factors measuring levels of debt. Percent equity is calculated by dividing net worth by assets. Equity increases as the value of assets increase more than liabilities. 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. The debt analysis ratios show how well the debt is structured and managed. Debt levels per unit of production include some old standards that are still useful if used with measures of cash flow and repayment ability.

Item		Aver	age	My Farm	
<u>Financial Ratios - Farm</u> :					
Percent equity		6	7%	8	
Debt/asset ratio: total		0.3	3		
long-term		0.4	0		
intermediate/cu	rrent	0.2	8		
Financial Ratios - Farm & Nonfarm					
Percent equity		6	8%	8	
Total debt/asset ratio		0.3	2		
Farm Debt Analysis:					
Accounts payable as % of total de	bt3		38	¥	
Long-term liabilities as a % of t	otal deb	ot 5	48		
Current & inter. liab. as a % of	total de	ebt 4	68	£	
		Per Tillable		Per Tillable	
Farm Debt Levels: P	er Cow	Acre Owned	Per Cow	Acre Owned	
Total farm debt \$	1,940	\$895	\$	\$	
Long-term debt	1,048	484	·	-	
Intermediate & current debt	892	412			

BALANCE SHEET ANALYSIS 35 Oneida-Mohawk Region Dairy Farms, 1985

<u>Balance sheet analysis</u> concludes with a summary of the inventory balancing procedure for farm real estate and machinery and equipment. It is important to account for the value of these 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.

FARM INVENTORY BALANCE 35 Oneida-Mohawk Region Dairy Farms, 1985

Item	Avg, of Re	<u>egional Farms</u>	My	Farm
	<u>R.E.</u>	Mach./Eq.	<u>R.E.</u>	<u>Mach./Eq.</u>
Value beg. of year	\$153,005	\$81,117	\$	\$
Purchases	\$5,462*	\$ 8,863	\$	\$
Lost capital	1,255		•	· ·
Sales	0	225	-	-
Depreciation	4,875	<u>12,373</u>	-	-
Net investment	668			
Appreciation	+2,756	<u>+5,304</u>	+	+
Value end of year	\$155,094	\$82,686	\$	\$

* \$2,009 land and \$3,454 buildings and/or depreciable improvements.

Cash Flow Summary and Analysis

Considerable insight about a business is frequently attained through a complete cash flow analysis. 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> in the following table is structured to compare all the cash inflows with all the cash outflows for the year. Cash inflows include all the cash farm receipts, receipts from the sale of farm assets, additional funds borrowed, as well as the amount of cash available at the beginning of the year. Cash outflows include all the cash farm expenses, capital purchases, principal payments, money taken out of the business, and the cash balance left at year's end. When all the cash inflows and outflows are correct, the statement will balance. If the imbalance (error) amount is positive, recorded cash inflows exceed outflows by this amount. If it is negative, cash outflows are too high in relation to inflows. Positive errors (imbalances) are frequently caused by underestimating family living expenses while negative errors are frequently caused by omitting some new money borrowed.

Item	Average	My Farm
Cash Inflows	-	
Beginning farm cash, checking & savings	\$ 1,727	\$
Cash farm receipts	130,986	
Sale of assets: Machinery	225	
Real estate	0	·····
Money borrowed (intermediate & long-term)	17,193	
Money borrowed (short-term)	3,663	
Increase in operating debt	107	
Nonfarm income	2,974	
Money borrowed - nonfarm	792	
Total	\$157,668	\$
Cash Outflows		
Cash farm expenses	\$100,595	\$
Capital purchases: Expansion livestock	388	
Machinery	8,863	
Real estate	5,462	
Principal payments (intermediate & long-term)	15,567	
Principal payments (short-term)	3,068	
Decrease in operating debt	0	
Nonfarm debt payments	956	
Personal withdrawals & family expenses*	18,828	
Ending farm cash, checking & savings	1,867	
Total	\$155,592	\$
Imbalance (error)	\$ 2,076	\$

ANNUAL CASH FLOW STATEMENT 35 Oneida-Mohawk Region Dairy Farms, 1985

*On many farms this item was estimated.

Repayment Analysis

The second step of cash flow planning is to compare debt payments planned and made last year, and estimate the payments required in the current year. The data presented below are for the 21 farms that completed Farm Business Summaries for both 1984 and 1985.

		Average		<u>M</u>		
	<u>1985 Pay</u>	ments	Planned	<u>1985 Pay</u>	ments	Planned
Debt Payments	Planned	Made	1986	Planned	Made	1986
Long-term	\$ 6,998	\$ 6,648	\$ 6,954	\$	\$	s
Intermediate-term	12,195	13,392	13,585	•	•	•••••
Short-term	1,986	1,673	1,275			····
Operating (net	_,	_,	-,			
reduction)	0	0	425			
Accounts payable	-	-				
(net reduction)	1,424	1,427	1.045	·		<u> </u>
Total	\$22,602	\$23,140	\$23,285	\$	\$	\$
Per cow	\$401	\$410		Ś	ŝ	
Per cwt. 1985 milk Percent of total	2.61	2.68		\$	\$	
1985 receipts Percent of 1985	19%	19%				_
milk receipts	20%	21%				

FARM DEBT PAYMENTS PLANNED Same 21 Oneida-Mohawk Region Dairy Farms, 1985 and 1986

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 who did not participate in DFBS last year will find in their report a cash flow coverage ratio based on this year's planned debt payments.

CASH FLOW COVERAGE RATIO Same 21 Oneida-Mohawk Region Dairy Farms, 1985 and 1986

Item	Average	My Farm
Cash farm receipts	\$122,501	\$
- Cash farm expenses	91,416	
+ Interest paid	9,171	
- Net personal withdrawals from farm*	14,589	
A) - Amount Available for Debt Service	\$25,667	\$
B) - Debt Payments Planned for 1985	\$22,602	\$
(A + B) — Cash Flow Coverage Ratio for 1985	1.14	

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

ANALYSIS OF THE FARM BUSINESS

Analysis of the farm business requires a detailed assessment of at least three different aspects: 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.

Item			Average				My Far	<u>.</u>
<u>Land</u> Tillable Nontillable		13	<u>ned R</u> 30 41	<u>ented</u> 73 14	<u>Total</u> 203 54	<u> 0wned</u>	Rented	<u>Total</u>
Other nontillabl Total	e	22		<u>16</u> 103	<u> 67</u> 324			
<u>Crop Yields</u> Hay crop Corn silage Other forage Total forage Corn grain Oats Wheat Other crops Tillable pasture Idle Total Tillable	7	Acres 118 42 20 152 56 22 0 30 31 28	Acres 114 37 1 152 27 4 0 3 11 <u>6</u> 203	2.4 12.9 4.5 1.9 2.9 83	Acre tn DM tn DM tn DM tn DM bu bu		<u>eres</u> Pro	<u>od/Acre</u> tn DM tn DM tn DM tn DM bu bu bu

LAND RESOURCES AND CROP PRODUCTION 35 Oneida-Mohawk Region Dairy Farms, 1985

Average crop acres and yields compiled for the region are for all farms. The number of farms reporting each crop and the average acres on farms reporting each crop are also shown. 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 met.

	CROP MAN	NAGEMENT	FACT(DRS	
35	Oneida-Mohawk	Region	Dairy	Farms,	1985

Average	My Farm
3.4	
2.6	
7.4	· · · · · · · · · · · · · · · · · · ·
	3.4 2.6

Cropping Program Analysis (continued)

A substantial number of cooperators have allocated crop expenses to hay crop, corn, and other crop production. These additional data have been compiled to show the traditional crop expenses per acre and per production unit for these crops. Corn production has been converted to corn silage equivalent using 5.88 bushels of dry shell equivalent to equal one ton of corn silage as fed.

	Total Per	Hav (Crop*	Corn*	Other	
Expense	Till. Acre	Per Acre	Per Ton DM	Per Acre	Silage Equiv.**	Crops* Per Acre
Fertilizer & lime Seeds & plants Spray & other crop expense Total	\$24.64 11.86 <u>7.57</u> \$44.07	\$16.57 6.00 <u>3.04</u> \$25.60	\$5.52 2.00 <u>1.01</u> \$8.53	\$36.53 25.01 <u>18.49</u> \$80.03	\$2.17 1.48 <u>1.10</u> \$4.74	\$ 52.65 40.71 <u>11.60</u> \$104.96
<u>My Farm</u> :						
Fertilizer & lime Seeds & plants Spray & other crop	\$	\$	\$	\$	\$	\$
expense Total	\$	\$	\$	\$	\$	\$

CROP RELATED ACCRUAL EXPENSES 35 Oneida-Mohawk Region Dairy Farms, 1985

*Hay: 28 farms reporting, 114 average acres; corn: 26 farms reporting, 69
average acres; other crops: 13 farms reporting, 15 average acres.
**Corn grain converted to silage equivalent using 5.88 bushels - one ton
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.

	Aver	age	My Farm		
Machinery	Total	Per Til.	Total	Per Til	
Expense Item	Expenses	Acre	Expenses	Acre	
Fuel, oil & grease	\$ 3,982	\$ 19.64	Ş	\$	
Machinery repairs & parts	4,816	23.75	·	······	
Machine hire, rent & lease	1,796	8.86	······································		
Auto expense (farm share)	665	3.28			
Interest (5%)	4,095	20.20			
Depreciation	12,373	61.03	·····		
Total	\$27,727	\$136.76	\$	\$	

ACCRUAL MACHINERY EXPENSES 35 Oneida-Mohawk Region Dairy Farms, 1985

Dairy Program Analysis

Analysis of the dairy enterprise can tell a great deal about the strengths and weaknesses of the dairy farm business. 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.

	Daiı	cy Cows	Heifers		
Item	Number	Value	Number	Value	
Beginning of year (owned)	58	\$53,359	48	\$21,091	
+ Change without appreciation		951		-669	
+ Appreciation		-6,334		-2,049	
End of year (owned)	59	\$47,976	47	\$18,373	
End including leased	60				
Average number	60		47		
<u>My Farm</u> :					
Beginning of year (owned)		\$		\$	
+ Change without appreciation					
+ Appreciation		4-1			
End of year (owned)					
End including leased					
Average number		\$		\$	

DAIRY HERD INVENTORY 35 Oneida-Mohawk Region Dairy Farms, 1985

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

MILK PRODUCTION 35 Oneida-Mohawk Region Dairy Farms, 1985

Item	Average	My Farm
Total milk sold, lbs.	917,790	
Milk sold per cow, lbs.	15,399	·····
Average milk plant test, percent butterfat	3.4	

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, <u>operating costs of</u> <u>producing milk</u> are estimated by deducting nonmilk accrual receipts from total accrual operating expenses.

		Average			My Farm	
Item	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Receipts						
Milk	\$117,669	\$1,974	\$12.82	\$	\$	\$
Dairy cattle	7,023	118	0.77	•		·
Dairy calves	1,362	23	0,15	. <u> </u>		
Total	\$126,054	\$2,115	\$13.73	\$	\$	\$
Accrual Costs of Producing Milk Operating costs Total costs with-	\$ 88,683	\$1,488	\$ 9.66	\$	\$	\$
out op(s') labor mgmt. & capital Total Costs	-	\$1,803 \$2,335	\$11.71 \$15.16	\$	\$	\$

ACCRUAL RECEIPTS FROM DAIRY AND COST OF PRODUCING MILK 35 Oneida-Mohawk Region Dairy Farms, 1985

<u>Total costs of producing milk</u> include the operating costs, minus non-milk income, plus expansion livestock purchased, depreciation on machinery and buildings, the value of operator(s') labor and management, and the interest charge for using equity capital. Note that the cost of labor, management, and equity capital have been excluded in the intermediate compilation. Subtracting this cost from the price received for milk indicates the amount the farm operator obtains for his or her inputs.

DAIRY RELATED ACCRUAL EXPENSES 35 Oneida-Mohawk Region Dairy Farms, 1985

		verag	е	My Farm		
Item	Per Cow		Per Cwt.	Per Cow	Per Cwt	
Purchased dairy grain						
& concentrates	\$442		\$2.87	\$	\$	
Purchased dairy roughage	9		0,06		· ····································	
Total Purchased				· <u>····································</u>		
Dairy Feed	\$450		\$2.92	\$	\$	
Purchased grain & conc.	·		·	•	• <u></u>	
as % of milk receipts		228			£	
Purchased feed & crop exp.	\$600		\$3.90	\$	\$	
Purchased feed & crop exp.	·		·	•	•	
as % of milk receipts		30%			*	
Breeding	\$35		\$0.23	\$	\$	
Veterinary & medicine	36		0.23	•	•	
Milk marketing	150		0.97			
Cattle lease	1		0.00			
Other livestock expense	71		0.46			

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.

35 Oneida-Mohawk Region Dairy Farms, 1985							
Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned			
Farm capital Real estate Machinery & equipment Capital turnover, years	\$135,948 32,056 2	\$5,893 2,614 1,389 2.70	\$1,732 408	\$2,702 1,199 			
<u>My Farm</u> : Farm capital Real estate Machinery & equipment Capital turnover, years	\$ 	\$ 	\$ 	\$ 			

	CAPITAL	EFFICIENCY		
35	Onaida Mohawk Re	aton Dairy	Forme	108

LABOR FORCE INVENTORY AND ANALYSIS 35 Oneida-Mohawk Region Dairy Farms, 1985

35 (Jneida-M	onawk keg	10h Dalry	rarms, 190		
Labor Force M	Mon y Farm	ths All Farm	_ s Age	Years of of Educ		Value of abor & Mgmt,
	y rarm					-
Operator number 1		12	45	13	Ę	\$13,393
Operator number 2	·	4	33	14		4,292
Operator number 3		2	29	13		1,880
Operator number 4		1	44	12		566
Family paid		4				
Family unpaid		2				
Hired		2 6				
Total		31	+ 12 = 2.6	Worker E	quivalent	E
				Operator,		
<u>My Farm</u> : Total			+ 12 -	Worke	r Equival	lent
Operator's			+ 12 =		-	ger Equiv.
				opoilu	001/11ana	,or bquitt.
Labor			erage		My	Farm
Efficiency		Total	Per Work	er Te	otal	<u>Per Worker</u>
Cows, average number		60	23			
Milk sold, pounds		917,790	355,274			
Tillable acres		203	78			
Work units		635	246			
		Avera	ge		My Fai	cm
		Per	Per		Per	Per
<u>Labor Costs</u>	Tota	<u>1 Cow</u>	Til, Acre	Total	Cow	<u>Til. Acre</u>
Value of operator(s)						
labor (\$800/month)	\$15,2	00 \$255	\$ 74.97	\$	\$	\$
Family unpd. (\$550/mo	.) 1,1	00 18	5.43			
Hired	8.5		42.10			-
Total Labor	\$24,8	36 \$417	\$122.50	\$	\$	\$
Machinery Cost	\$27,7		\$136.76	\$	Ś	Ś
Total Labor & Mach.	\$52,5	-	\$259.26	\$	Ś	Ś
		•	•	•	•	

ANNUAL CASH FLOW WORKSHEEET

	Regional	4	ly Farm		Expected	1986
Item	Average	Total	Per (Cow	Change	Projection
	(per cow)					
Average number of cows	60					
Accrual Oper, Receipts						
Milk	\$1,974	\$	\$			\$
Dairy cattle	118	Υ	¥			۲
Dairy calves	23		·····			
Other livestock	23					
	27				. <u></u>	
Crops Miss mossists	38					
Misc. receipts		<u>م</u>			•	^
Total	\$2,182	\$	\$			\$
Accrual Oper, Expenses						
Hired labor	\$ 143	\$	\$			\$
	442	Υ	¥			· •
Dairy grain & conc.						
Dairy roughage	9					
Other lvstk. feed	1				····	
Mach. hire/rent/lease	30					·····
Mach. rpr./parts & auto	91					
Fuel, oil & grease	66					
Replacement lvstk.	8	K				
Breeding	35					
Vet & medicine	36					
Milk marketing	150					
Cattle lease	1					
Other lvstk. exp.	71					
Fertilizer & lime	83					
Seeds & plants	40					
Spray/other crop exp.	26					· · · · · · · · · · · · · · · · · · ·
Land, bldg., fence repair	33					
Taxes	49					
Insurance	39					
Real est. rent/lease	65					
Utilities	65					
Miscellaneous						
	40	. <u></u>	<u></u>			^
Total Less Int. Paid	\$1,515					\$
Net Accrual Operating Incom	e (to	tal)				
(without interest paid)	-	,129	\$			Ś
- Change in lvstk./crop inv		-691	Y			Y
- Change in accts. rec.		-250				
+ Change in feed/supply inv		933				
+ Change in accts. payable		<u>-490</u>	A			
NET CASH FLOW	\$40	,535	ş			ş
- Personal withdrawals &		0.0.5				
family expenditures		<u>.828</u>				· · · · · · · · · · · · · · · · · · ·
Available for Debt Payments						
Investments & Savings		,707	\$			\$
- Farm Debt Payments	29	.746				
Available for Investment					, <u> </u>	
& Savings	\$-8	,039	\$			\$
- Capital Purchases: cattle						•
machinery & improvements		,793				
Additional Capital Needed		,	\$			ŝ
			т			۲

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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 21 Oneida-Mohawk Region Dairy Farms, 1984 and 1985

Average My Farm Selected Factors 1984 1985 1984 1985 Size of Business Average number of cows 56 56	Goal
Size of Business Average number of cows 56 56	
Average number of cows 56 56 Average number of heifers 43 41 Milk sold, lbs. 834,943 864,500 Worker equivalent 2.30 2.25 Total tillable acres 195 206 Rates of Production	
Average number of cows 56 56 Average number of heifers 43 41 Milk sold, lbs. 834,943 864,500 Worker equivalent 2.30 2.25 Total tillable acres 195 206 Rates of Production	
Average number of heifers 43 41	
Milk sold, lbs. 834,943 864,500	
Worker equivalent 2.30 2.25 Total tillable acres 195 206 Rates of Production	
Total tillable acres 195 206	
Rates of Production Milk sold per cow, lbs. 15,012 15,333 Hay DM per acre, tons 2.4 2.1	
Milk sold per cow, lbs. 15,012 15,333 Hay DM per acre, tons 2.4 2.1	
Milk sold per cow, lbs. 15,012 15,333 Hay DM per acre, tons 2.4 2.1	
Hay DM per acre, tons 2.4 2.1	
Corn silage per acre, tons 14 14	
Labor Efficiency	
Cows per worker 24 25	
Milk sold per worker, 1bs. 363,395 384,222	
Cost Control	
Grain & conc. purchased	
as % of milk sales 24% 23% %	*
Dairy feed & crop exp.	×
per cwt. milk \$4.23 \$3.82 \$ \$	
Labor & mach. costs/cow \$796 \$802 \$ \$	
Capital Efficiency*	
Farm capital per cow \$6,314 \$6,163 \$ \$	
Real estate per cow \$2,993 \$2,950 \$ \$	
Mach. & equip. per cow \$1,336 \$1,345 \$ \$	
Capital turnover, years 2.7 2.9	
	·
<u>Profitability</u>	
Net farm inc. w/o apprec. \$21,032 \$15,780 \$ \$	
Net farm inc. w/apprec. \$21,076 \$13,896 \$ \$	
Labor & mgmt. income \$6,928 \$2,188 \$ \$	
Rate of return on eq.	
capital w/apprec. 0.8% -2.9% %	٩
	£
Financial Summary	
Farm net worth \$241,124 \$238,840 \$ \$	
Tarm net worth $3241,124$ $3233,040$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{}$ $3_{$	
Farm debt per cow \$1,968 \$1,841 \$<	
101m 0000 bor cow d1,200 d1,041 d d d d	

*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 458 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 <u>not</u> necessarily be the same farms which make up the top 10 percent for any other factor.

Size of Business			Rates	Rates of Production			Labor Efficiency	
				Tons	Tons			
Worker	No.	Pounds	Pounds	Hay	Corn	Cows	Pounds	
Equiv-	of	Milk	Milk Sold	Crop	Silage	Per	Milk Sold	
alent	Cows	Sold	Per Cow	DM/Acre	Per Acre	Worker	Per Worker	
6.8	255	4,211,900	18,800	4.7	20	45	697,300	
4.3	138	2,118,100	17,300	3.7	18	36	560,900	
3.6	100	1,551,500	16,500	3.3	16	33	503,900	
3.1	83	1,287,200	15,900	2.9	15	30	456,100	
2.8	72	1,090,400	15,300	2.7	14	28	423,300	
2.5	63	950,300	14,800	2.5	13	26	392,200	
2.2	56	818,600	14,200	2.3	12	25	361,400	
2.0	49	691,500	13,400	2.0	12	23	328,000	
1.7	43	577,800	12,200	1.7	10	20	275,500	
1.4	33	395,200	10,000	1.3	8	16	191,300	

FARM	BUSINESS	CHART	FOR	FARM	MANAGEM	ENT	COOPERATORS
	458	New Y	ork	Dairy	Farms,	1984	4

Feed Bought	<pre>% Feed is of Milk</pre>	Machinery Costs	Labor & Machinery	Feed & Crop Expenses Per
Per Cow	Receipts	Per Cow	Costs Per Cow	Cwt, Milk
\$214	11%	\$205	\$ 511	\$2.75
306	16	286	610	3.47
369	19	337	662	3.87
432	22	379	713	4.21
474	25	408	771	4.45
523	27	445	818	4.68
574	28	481	873	4.97
624	31	519	928	5.31
685	33	580	1,004	5.72
809	40	765	1,201	6.73

The cost control factors are ranked from low to high, but the <u>lowest</u> <u>cost is not necessarily the most profitable</u>. 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.

Financial Analysis Chart

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The farm financial analysis chart is designed just like the <u>Farm</u> <u>Business 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.

	Liquidi	ty (Repayment)		
Debt Payments Per Cow	Available for Debt Service Per Cow	Cash Flow Coverage <u>Rati</u> o	Debt Payments as Percent of <u>Milk Sales</u>	Debt Per Cow
\$36	\$909	7.67	2	\$ 104
176	640	2.16	9	638
277	537	1,41	14	1,142
362	469	1.10	19	1,625
438	411	.91	22	1,930
500	357	.75	26	2,377
571	279	.58	30	2,688
656	216	.46	35	3,161
752	126	.28	40	3,770
971	-95	56	52	5,072

I	TINAN	ICIAL	ANALYS	SIS	CHAR	T
458	New	York	Dairy	Fari	ns,	1984

Solvency				Efficiency & Profitability			
Debt		t/Asset Ratio	Capital	Rate o	f Return on		
Leverage Ratio ¹	Percent Equity	Long Term	Intermediate & Current	Turnover (years)	Equity	Investment ²	
.02	99	.00	.00	1.60	18%	13%	
.12	90	.02	.04	1.90	8	9	
. 24	81	.14	.11	2.06	5	7	
.37	73	.30	.16	2.20	3	6	
.51	67	.41	.23	2.34	1	4	
.70	60	.51	. 29	2.51	-1	3	
.94	53	.62	. 37	2.66	- 3	1	
1.22	46	.73	.45	2,95	-6	Ō	
1.72	38	.85	.55	3.25	-11	-3	
5.04	20	1.27	.80	4.54	- 37	- 8	

¹Dollars of debt per dollar of equity, computed by dividing total liabilities by total equity.

²Return on all farm capital (no deduction for interest paid) divided by total farm assets.

FARM	BUSIN	IESS S	SUMMARY	BY	HERD	SIZE	
458	8 New	York	Dairy	Farm	ns, 19	984	

-	•.1	Less than	40 to	55 to	70 to
Item Farms	with:	40 Cows	54 Cows	69 Cows	84 Cows
Capital Investment (end of	i year)	A	A 50 001	A 01 100	A100 100
Livestock		\$ 39,803	\$ 58,991	\$ 81,180	\$100,136
Feed & supplies		11,239	17,653	26,056	34,432
Machinery & equipment		40,402 <u>120,967</u>	53,984	76,669 <u>193,710</u>	97,951 <u>225,287</u>
Land & buildings		120,907	142,160	195./10	
TOTAL INVESTMENT		\$212,411	\$272,788	\$377,615	\$457,806
<u>Receipts</u>					
Milk sales		\$ 58,562	\$ 89,405	\$123,086	\$155,027
Dairy cattle sold		4,531	5,287	8,630	10,295
Other livestock sales		1,004	1,626	2,110	1,890
Crop sales		425	738	1,411	2,271
Miscellaneous receipts		3.791	3,991	5.448	5,640
Total Cash Receipts		\$ 68,313	\$101,047	\$140,685	\$175,123
Increase in livestock		-589	687	889	3,018
Increase in feed & supplie	es	501 1,609	10 <u>3,371</u>	2,085 <u>6,243</u>	435 <u>5,188</u>
Appreciation		1,009		0,245	,100
TOTAL FARM RECEIPTS		\$ 69,834	\$105,115	\$149,902	\$183,764
TOTAL FARM REC. EXCL. AN	PREC.	\$ 68,225	\$101,744	\$143,659	\$178,576
Expenses		• • • • • •		• • • • • •	
Hired labor		\$ 2,503	\$ 5,326	\$ 8,539	\$ 13,584
Dairy grain & concentrate		16,993	23,274	30,095	36,692
Other feed Machine bine		1,632	1,422	2,227	1,486
Machine hire		764 3,072	949 4,013	1,494	1,501
Machinery repair Auto expense (farm share)		446	4,015	5,929 502	7,527 485
Gas & oil		2,072	3,157	4,494	6,131
Replacement animals		549	766	1,692	1,116
Breeding fees		875	1,238	2,062	2,548
Veterinary & medicine		1,072	1,617	2,641	3,098
Milk marketing		4,893	7,345	9,676	12,223
Cattle lease		0	55	87	125
Other livestock expense		2,362	3,650	5,511	6,278
Fertilizer & lime		2,355	3,446	6,291	8,000
Seeds & plants		697	1,081	1,933	2,602
Spray & other crop expense		693	813	1,438	1,988
Land, bldg., fence repair		936	1,190	1,971	2,339
Taxes & insurance		3,292	4,120	5,922	7,203
Elec. & phone (farm share))	2,018	2,879	3,875	4,700
Interest paid	- 1	5,789	9,300	12,660	14,845
Misc. expenses (incl. rent	[]	$\frac{1,441}{5,54,454}$	$\frac{3,088}{5,79,144}$	$\frac{4.125}{6113.164}$	$\frac{5,609}{6140,080}$
Total Cash Expenses Expansion livestock		\$ 54,454 60	\$ 79,144 238	\$113,164 702	\$140,080 1,062
Machinery depreciation		6,475	7,623	11,531	15,287
Building depreciation		2,001	3,166	5,605	5,742
Unpaid family labor		1,844	1,750	1,821	1,805
Interest on equity @ 5%		7,433	9,162	12,678	15,771
TOTAL FARM EXPENSES		\$ 72,267	\$101,083	\$145,501	\$179,747
Financial Summary					
NET CASH FARM INCOME		\$13,859	\$21,903	\$27,521	\$35,043
Labor & Management Incom	ne	\$-4,042	\$661	\$-1,842	\$-1,171
Number of Operators		1.07	i.18	1.32	1.34
LABOR & MGT. INCOME/OPER.		\$-3,778	\$560	\$-1,395	\$-874
LABOR, MGT. & OWNSHP. INC.	./OPER.	\$4,673	\$11,181	\$12,939	\$14,767

ana -/// arawa // ana // a

FARM BUSINESS SUMMARY BY HERD SIZE 458 New York Dairy Farms, 1984

	85 to		150 to	200 to	250 or
Item Farms with:	<u>99 Çows</u>	149 Cows	199 Cows	249 Cows	<u>More Cows</u>
Capital Investment (end of ye	ear)				
Livestock	\$124,747	\$166,776	\$223,343	\$ 317,993	\$ 470,722
Feed & supplies		60,934	81,393	113,736	189,321
Machinery & equipment	111,838			190,946	
Land & buildings	242,050	348,070	415.970	581.058	<u> </u>
TOTAL INVESTMENT	\$519,834	\$710,183	\$903,911	\$1,203,733	\$1,799,551
<u>Receipts</u>					
Milk sales	\$189,618	\$256,245	\$343,599	\$505,975	\$ 838,467
Dairy cattle sold	12,783	16,560	24,102	37,420	48,329
Other livestock sales	2,448		5,448	8,275	9,101
Crop sales	1,066		5,851	4,013	
Miscellaneous receipts	4.509	9,564	<u>18,177</u>	19,824	
Total Cash Receipts		\$288,752		\$575,507	
Increase in livestock	5,264	2,971	7,534	4,471	51,943
Increase in feed & supplies	281	7,022	6,856	4,218	14,687
Appreciation	2,746	10,566	11.658	24,903	12.861
TOTAL PADM DECETOTO	0010 715	\$200 211	61.03 005	\$600 000	\$1,001,277
TOTAL FARM RECEIPTS TOTAL FARM REC. EXCL. APPR	.\$215,969	\$298,745	\$423,225 \$411,567	\$584,196	
Expenses					
Hired labor	\$ 16,688	\$ 27,852	\$ 46,503	\$ 77,411	\$117,236
Dairy grain & concentrate	49,523	61,297	78,388	115,416	201,481
Other feed	1,616	3,305	3,705	4,065	10,626
Machine hire	1,049	1,539	2,704	3,679	
Machinery repair	10,347	14,395	20,231	27,963	
Auto expense (farm share)	608	307	534		
Gas & oil	7,220	10,651	13,739	19,720	
Replacement animals	1,045	1,673	4,834	1,189	
Breeding fees	2,715	3,811	5,028	8,061	12,013
Veterinary & medicine	3,776	5,339	6,729	12,980	20,847
Milk marketing	15,285		26,629	39,971	52,277
Cattle lease	150			-	
Other livestock expense	8,091	9,643			
Fertilizer & lime	9,363			26,273	
Seeds & plants	3,122	4,101	7,169	9,889	
Spray & other crop expense	2,126	4,726	7,328		15,530
Land, bldg., fence repair	2,697		3,746		9,185
Taxes & insurance	7,346		13,188	16,264	
Elec. & phone (farm share)	5,464		8,877	11,927	
Interest paid	19,120			50,300	
Misc. expenses (incl. rent)	$\frac{5,312}{6172,662}$	8,375	10,210	20,000	
Total Cash Expenses			\$335,289		
Expansion livestock	1,040		3,596 29,514	7,173	
Machinery depreciation Building depreciation	16,720 7,497				
Unpaid family labor	1,698	10,826 1,348	11,453 760	22,077 938	
Interest on equity @ 5%	16,884		29,569		1,433 <u>59,533</u>
TOTAL FARM EXPENSES	9210,30Z	\$295,320	94TO, TOT	\$577,482	\$894,371
Financial Summary					
NET CASH FARM INCOME	\$37,761	\$50,540		\$99,443	\$189,734
Labor & Management Income	\$-533	\$3,425	\$1,386	\$6,714	
Number of Operators	1.37	1.41	1.52	1.44	
LABOR & MGT. INCOME/OPER.	\$-389	\$2,429		\$4,663	
LABOR, MGT. & OWNSHP. INC./OP	. \$13,939	\$26,016	\$28,035	\$48,799	\$92,466

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SELECTED BUSINESS FACTORS BY HERD SIZE 458 New York Dairy Farms, 1984

*Average of all farms.

	85 to	100 to	150 to	200 to	250 or
Item Farms with:	99 Cows	149 Cows	199 Cows	249_Cows	More Cows
Number of farms	43	56	25	16	15
<u>Size of Business</u>					
Number of cows	91	124	170	229	359
Number of heifers	83	111	134	200	285
Pounds of milk sold	1,399,400				6,247,600
Worker equivalent	3.08	3.92	4.67	6.17	8.58
Total work units	1,030				3,801
Total tillable acres	290	383	549	622	790
(Tillable acres rented)*	(101)	(136)	(220)	(222)	(260)
Rates of Production					
Milk sold per cow	15,378	15,149	15,018	•	17,403
Tons hay crop dry matter/a		2.9	3.0	3.3	4.0
Tons corn silage per acre	13.4	13.8	14.4	15.4	16.3
Bushels of oats per acre	53.0	45.8	50.1	57.1	80.0
Labor Efficiency				.	
Cows per worker	30	32	36	37	42
Pounds milk sold/worker	454,351	479,209	546,681	-	728,159
Work units per worker	334	357	408	412	443
Feed Costs					
Feed purchased per cow	\$544	\$494	\$461	\$504	\$561
Crop expense per cow	\$161	\$179	\$211	\$185	\$167
Feed cost per cwt. milk	\$3.54	\$3.26	\$3.07	\$3.13	\$3.22
Feed & crop exp./cwt. milk		\$4.62	\$4.62	\$4.38	\$4.36
% feed is of milk receipts				23୫	248
Tons forage dry matter/cow		8.0	8.7	8.5	8.0
Tillable acres per cow	3.2	3.1		2.7	2.2
Fertilizer & lime/crop acr	e \$32	\$35	\$39	\$42	\$41
<u>Machinery & Labor Costs</u>					
Total machinery costs	\$41,499	\$54,991	\$75,651	\$94,090	\$129,309
Machinery cost per cow	\$456	\$443	\$445	\$411	\$360
Machinery cost per cwt. mi		\$2.93	\$2.96	\$2.55	\$2.07
Labor cost per cow	\$337	\$338	\$360	\$399	\$375
Labor cost per cwt. milk	\$2.19	\$2.23	\$2.39	\$2.47	\$2.15
Capital Efficiency					
Investment per worker	\$168,777	\$181,169	\$193,557	\$195,094	\$209,738
Investment per cow	\$5,590	\$5,636	\$5,165	\$5,144	\$4,699
Investment per cwt. milk	\$37	\$38	\$35	\$33	\$29
Land & buildings per cow	\$2,603	\$2,762	\$2,377	\$2,483	\$2,298
Machinery investment per c	ow \$1,203	\$1,067	\$1,047	\$816	\$678
Capital turnover	2.4	2.3	2.1	2.0	1.8
<u>Other</u>					
Price per cwt. milk sold	\$13.55	\$13.64	\$13.46	\$13.70	\$13.42
Acres hay crops*	154	176	258	237	245
Acres corn silage*	71	102	144	235	326
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SELECTED BUSINESS FACTORS BY HERD SIZE 458 New York Dairy Farms, 1984

*Average of all farms.

FARM	FAMILY	FINANCIAI	. SITUA	FION BY	HERD S	SIZE
458	New Yo	rk Dairy	Farms,	January	1, 19	85

Item Farms with:	Less Than	40 to <u>54 Cows</u>	55 to <u>69 Cows</u>	70 to 84 Cows	85 to 99 Cows
Item Farms with:	40 COWS	<u> </u>	09 COWS	04 COWS	<u>99 COws</u>
Number of farms	45	100	94	64	43
<u>Assets</u>					
Livestock (includes	\$ 39,803	\$ 59,013	\$ 81,180		\$124,747
discounted lease payments)	(0)	(22)	(0)	(25)	(0)
Feed & supplies	11,239	17,653	26,056	34,432	41,199
Machinery & equip (includes	40,617	55,212	77,650	98,722	
discounted lease payments)	(215)	(1,228)	(981)	(771)	(799)
Land & buildings (includes	121,757	144,453	194,790	227,936	246,366
discounted lease payments)	(608)	(2,293)	(1,080)	(2,649)	(4,316)
Co-op investment	950	2,842	3,971	4,747	7,902
Accounts receivable	5,903	8,170	11,281	14,229	17,314
Cash & checking accounts	1,084	1,664	2,028	3,492	2,463
Total Farm Assets	\$221,171	\$289,007	\$396,956	\$483,719	\$552,628
Savings accounts	2,892	3,025	2,751	4,773	3,694
Cash value life insurance	2,071	2,119	3,115	2,670	1,908
Stocks & bonds	990	2,082	2,195	3,755	2,155
Nonfarm real estate	3,853	2,905	8,897	5,656	3,616
Auto (personal share)	1,464	1,903	2,005	1,806	1,979
All other	7.871	9.212	6,298	6,887	5,231
Total Nonfarm Assets	\$ 19,141	\$ 21,246	\$ 25,261	\$ 25,547	\$ 18,583
TOTAL ASSETS	\$240,312	\$310,253	\$422,217	\$509,266	\$571,211
<u>Liabilities</u>					
Long-term	\$ 48,126	\$ 61,437	\$ 80,274	\$ 97.144	\$130,575
Intermediate	20,644	35,075	54,202	59,859	
Financial lease	823	3,543	2,061	3,445	
Short-term	500	2,191	2,547	2,059	-
Other farm accounts	2,414	3,526	4,311	5,789	5,209
Total Farm Liabilities	\$ 72,507	\$105,772	\$143,395		\$214,949
Total Nonfarm Liabilities	190	830	856	1,816	570
TOTAL LIABILITIES	\$ 72,697	\$106,602	\$144,251		\$215,519
Farm Net Worth (Eq. Cap.)	\$148,664	\$183,235	\$253,561		\$337,679
FAMILY NET WORTH		• •	\$277,966		
<u>Financial Measures</u>					
Percent equity	70%	66%	66%	67	628
Farm debt per cow	\$2,133	\$2,204	\$2,351	\$2,130	
Available for debt service	70,200	¥2,201	42,001	<i>42</i> ,130	<i>42,311</i>
& living	\$22,264	\$33,907	\$43,287	\$50,678	\$57,557
Scheduled annual debt pymt.	\$13,695	\$21,704	\$29,930	\$35,772	\$45,664
Scheduled debt pymts./cow	\$398	\$447	\$486	\$450	
Payment as % of milk check	23%	24%	24%	•	•
Debt/Asset ratio - long-term	0.40	0.43	0.41	0.43	0.53
Debt/Asset ratio - intermedi					
& short-term	0.22	0.28	0.29	0.26	0.26
Cash flow coverage ratio	0.57	0.78	0.78	0.81	0.75

FARM FAMILY	FINANCIAL	SITUATION	BY HERD SIZE
458 New Yo	rk Dairy F	arms, Janu	ary 1, 1985

Item Farms with:	100 to 149 Cows	150 to 199 Cows	200 to 249 Cows	250 or More Cows
				1010 0045
Number of farms	56	25	16	15
Assets	A1 / //	A 000 0/0	A 017 000	A (70 700
Livestock (includes	\$166,776	\$ 223,343	\$ 317,993	\$ 470,722
discounted lease payments)	(0)	(0)	(0)	(0)
Feed & supplies	60,934	81,393	113,736	189,321
Machinery & equip (includes	135,106	184,455	196,961	260,222
discounted lease payments)	(703)	(1,250)	(6,015)	(694)
Land & buildings (includes	348,754	415,970	581,058	879,980
discounted lease payments)	(684)	(0)	(0)	(0)
Co-op investment	14,180	28,568	32,536	41,442
Accounts receivable	23,033	31,420	50,181	76,619
Cash & checking accounts	5,401	4,236	9.117	6,807
Total Farm Assets	\$754,184	\$ 969,385	\$1,301,582	\$1,925,113
Savings accounts	3,921	8,721	3,796	9,126
Cash value life insurance	3,560	6,789	3,796	9,126
Stocks & bonds	5,664	8,108	2,455	4,079
Nonfarm real estate	7,632	13,880	0	6,867
Auto (personal share)	1,817	3,173	1,063	667
All other	8,148	7,340	7.019	4,411
Total Nonfarm Assets	\$ 30,742	\$ 48,000	\$ 16,029	\$ 27,500
TOTAL ASSETS	\$784,926	\$1,017,385	\$1,317,611	\$1,9523,613
<u>Liabilities</u>				
Long-term	\$164,375	\$218,110	\$272,541	\$399,185
Intermediate	116,134	135,883	228,449	298,210
Financial lease	1,387	1,250	6,015	694
Short-term	7,550	10,275	5,801	13,752
Other farm accounts	10,893	12,494	15,708	22,605
Total Farm Liabilities	\$300,339	\$378,012	\$528,514	\$734,446
Total Nonfarm Liabilities		1,578	250	400
TOTAL LIABILITIES	\$301,081	\$379,590	\$528,764	\$734,846
Farm Net Worth (Eq. Cap.)	\$453,845	\$591,373	\$773,068	\$1,190,667
FAMILY NET WORTH	\$483,845	\$637,795	\$788,847	
Financial Measures				
Percent equity	62%	63%	60%	62%
Farm debt per cow	\$2,384	\$2,160	\$2,259	\$1,918
Available for debt service				
& living	\$79,761	\$103,180	\$150,134	\$277,674
Scheduled annual debt pymt.	\$67,136	\$92,504	\$118,968	\$186,887
Scheduled debt pymts./cow	\$531	\$526	\$508	\$488
Payment as % of milk check	26%			
Debt/Asset ratio - long-term	0.47	0.52	0.47	0.45
Debt/Asset ratio - intermediate				
& short-term	0.31	0.27	0.33	0.30
Cash flow coverage ratio	0.78	0.76	0.94	1.18

MEASURE YOUR PERFORMANCE

After you have entered your farm business data on the pages of this workbook, categorize your farm business performance into three groups. List the strong points, those which indicate average performance, and those areas which need improvement. Your business factors that exceed the regional average should be listed as <u>strong points</u>, factors that are close to the regional average should be identified as <u>average</u>, and factors that are below average should be listed under <u>need improvement</u>.

The Farm Business Chart on page 20 and the Financial Analysis Chart on page 21 can be used to identify strengths and weaknesses by comparing your business with a large number of New York dairy farms summarized for the previous year. It is recommended that you use more than one standard for comparison when analyzing the farm business.

STRONG POINTS:

AVERAGE:

NEED IMPROVEMENT:

After identifying opportunities for improvement, consider alternative ways of solving each problem. List each alternative and analyze the consequences in detail. Cooperative Extension conducts many schools, meetings, and provides many printed materials that should be of assistance. Local agribusinesses often provide helpful information and assistance. Seek out information related to the problem under consideration.

Another way to measure your management performance is to compare your current business factors with those from previous years. Page 19 is provided for this purpose. Answering the following questions may also help evaluate your farm business progress.

- 1. Do livestock number, labor force, and crop acres make up a well balanced unit of resources?
- 2. Have rates of production shown a steady increase?
- 3. When will milk output per worker reach 700,000 pounds?
- 4. Have some costs of production declined over the last two years?
- 5. Is net farm income improving fast enough to meet your needs?
- 6. Is growth in net worth keeping up with increased capital investment?
- 7. Have you reached the business goals set for 1985 and have you set new goals for 1986?