DAIRY FARM BUSINESS SUMMARY

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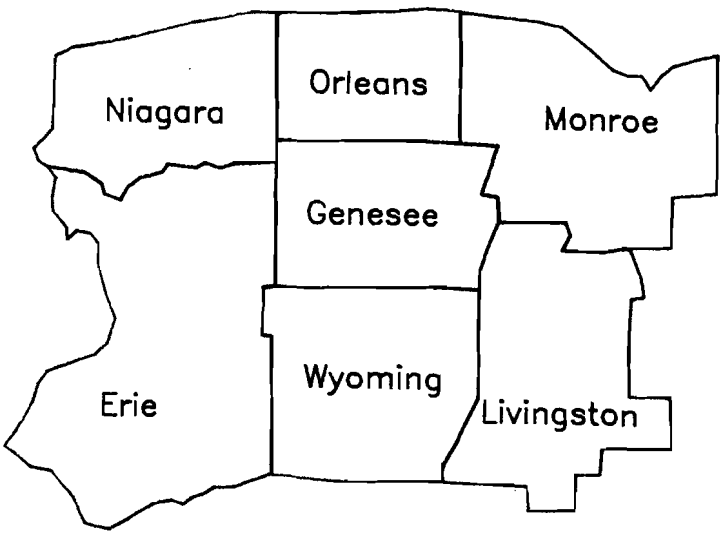
WESTERN PLAIN REGION 1993



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1993 DAIRY FARM BUSINESS SUMMARY

WESTERN PLAIN REGION

Table of Contents

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WESTERN PLAIN REGION*

INTRODUCTION

Dairy farmers throughout New York State have been participating in Cornell Cooperative Extension's farm business summary and analysis program since the early 1950's. Managers of each participating farm business receive a comprehensive summary and analysis of the farm business. The information in this report represents an average of the data submitted from dairy farms in the Western Plain Region for 1993.

Program Objective

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

Format Features

This regional report follows the same general format as in the 1993 DFBS printout received by all participating dairy farmers. The analysis tables have an open column or section labeled My Farm. It may be used by any dairy farm manager who wants to compare his or her business with the average data of this region. A DFBS Data Check-in Form can be used by non-DFBS participants to summarize their businesses.

This report features:

(1) an income statement including accrual adjustments for farm business expenses and receipts, as well as measures of profitability with and without appreciation,
(2) a complete balance sheet with analytical ratios;
(3) a statement of owner equity which shows the sources of the change in owner equity during the year;
(4) a cash flow statement and debt repayment ability analysis;
(5) an analysis of crop acreage, yields, and expenses;
(6) an analysis of dairy livestock numbers, production, and expenses; and
(7) a capital and labor efficiency analysis.

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* The Western Plain Region of New York State, with the number of participating farms in parentheses, is comprised of Erie (5), Genessee (5), Livingston (6), Niagara (1), Orleans (1), and Wyoming (30) counties. This report was written by Stuart F. Smith, Senior Extension Associate, Farm Management. Linda Putnam was in charge of data preparation. Teresa Treasure and Beverly Carcelli prepared the publication. Farm business data were collected by Cooperative Extension agents Jason Karszes, David Thorp, and Regional Specialist Michael Stratton.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics

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

BUSINESS CHARACTERISTICS
Western Plain Region Dairy Farms, 1993

Type of Farm	Number
Dairy	47
Part-time dairy	0
Dairy cash-crop	1
Part-time cash-crop dairy	0

Type of Ownership	Number
Owner	45
Renter	3

Type of Business	Number
Single proprietorship	19
Partnership	18
Corporation	11

Business Record System	Number
ELFAC II	1
Account Book	17
Agrifax (mail-in only)	6
On-Farm Computer	20
Other	4

Type of Barn	Number
Stanchion/Tie-Stall	7
Freestall	36
Combination	5

Milking System	Number
Bucket & carry	0
Dumping station	0
Pipeline	12
Herringbone parlor	29
Other parlor	7

Milking Frequency	Number
2x/day	23
3x/day	18
Other	7

Production Records	Number
DHIC	34
Owner-Sampler	8
Other	6
None	0

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

Income Statement

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

Cash paid is the actual cash outlay during the year and does not necessarily represent the cost of goods and services actually used in 1993.

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

CASH AND ACCRUAL FARM EXPENSES

48 Western Plain Region Dairy Farms, 1993

Expense Item	Cash Paid	+	Change in Inventory or Prepaid Expense*	+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$111,641		$202 <<		$100		$111,943
Feed							
Dairy grain & conc.	194,705		4,106		-1,704		197,107
Dairy roughage	6,238		-486		309		6,061
Nondairy	107		0		0		107
Machinery							
Mach. hire, rent/lease	4,965		120 <<		86		5,171
Machinery repairs/parts	33,463		-81		-102		33,280
Auto exp. (farm share)	1,150		0 <<		0		1,150
Fuel, oil & grease	13,943		283		87		14,313
Livestock							
Replacement livestock	13,448		0 <<		-52		13,396
Breeding	7,931		30		-112		7,849
Vet & medicine	21,503		54		114		21,671
Milk marketing	26,976		-7 <<		13		26,982
Cattle lease/rent	891		0 <<		68		959
Other livestock expense	35,664		312		-17		35,959
Crops							
Fertilizer & lime	15,392		1,119		-1,605		14,906
Seeds & plants	9,525		507		30		10,062
Spray, other crop exp.	10,391		290		-24		10,657
Real Estate							
Land/bldg./fence repair	9,374		-182		23		9,215
Taxes	11,376		-176 <<		-37		11,163
Rent & lease	14,417		4 <<		21		14,442
Other							
Insurance	7,933		0 <<		-10		7,923
Telephone (farm share)	964		-4 <<		-3		957
Electricity (farm share)	14,586		-145 <<		-11		14,430
Interest paid	40,853		0 <<		-314		40,539
Miscellaneous	15,758		-271		-148		15,339
Total Operating	$623,194		$5,675		$-3,288		$625,581
Expansion livestock	15,155		1,146 <<		0		16,301
Machinery depreciation							29,880
Building depreciation							21,499
TOTAL ACCRUAL EXPENSES							$693,261

Change in prepaid expenses (noted above by <<) is a net change in non-inventory expenses that have been paid in advance of their use. If 1993 funds used to prepay 1994 leases exceed the amount of 1993 leases prepaid in 1992, the amount of this excess is entered as a negative number to exclude it from 1993 accrual lease expenses. The excess prepaid lease is charged against the future year's business operation. A decrease in prepaid lease is added to accrual expenses because it represents use of resources during this year that were paid for in past years.

Change in accounts payable: An increase in accounts payable from beginning to end of year is added when calculating accrual expenses because these expenses were incurred (resources used) in 1993 but not paid for. A decrease is subtracted because the resource was used before 1993.

Accrual expenses are the costs of inputs actually used in this year's production. They are the total of cash paid, as well as changes in inventory, prepaid expenses, and accounts payable.

CASH AND ACCRUAL FARM RECEIPTS

48 Western Plain Region Dairy Farms, 1993

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$660,321				$5,136		$665,457
Dairy cattle	43,016		$28,014		51		71,081
Dairy calves	13,543				-11		13,532
Other livestock	1,051		-120		0		931
Crops	6,438		14,873		176		21,487
Government receipts	13,258		0*		-1,874		11,384
Custom machine work	816				51		867
Gas tax refund	352				-2		350
Other	6,133				18		6,151
Less nonfarm noncash cap.**		(-)	0			(-)	0
Total Receipts	$744,928		$42,767		$3,545		$791,240

*Change in advanced government receipts.
**Gifts or inheritances of cattle or crops included in inventory.

Cash receipts include the gross value of milk checks received during the year plus all other payments received from the sale of farm products, services, and government programs. Nonfarm income is not included in calculating farm profitability.

Changes in inventory of assets produced by the business are calculated by subtracting beginning of year values from end of year values excluding appreciation. Increases in livestock inventory caused by herd growth and/or quality are added, and decreases caused by herd reduction and/or quality are subtracted. Changes in inventories of crops grown are also included. An annual increase in advanced government receipts is subtracted from cash income because it represents income received in 1993 for the 1994 crop year in excess of funds earned for 1993. Likewise, a decrease is added to cash government receipts because it represents funds earned for 1993 but received in 1992.

Changes in accounts receivable are calculated by subtracting beginning year balances from end year balances. The January milk check for this December's marketings compared with the previous January's check is included as a change in accounts receivable.

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

Profitability Analysis

Farm operators* contribute labor, management, and equity capital to their businesses and the combination of these resources, and the other resources used in the business, determines profitability. Farm profitability can be measured as the return to all family resources or as the return to one or more individual resources such as labor and management.

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

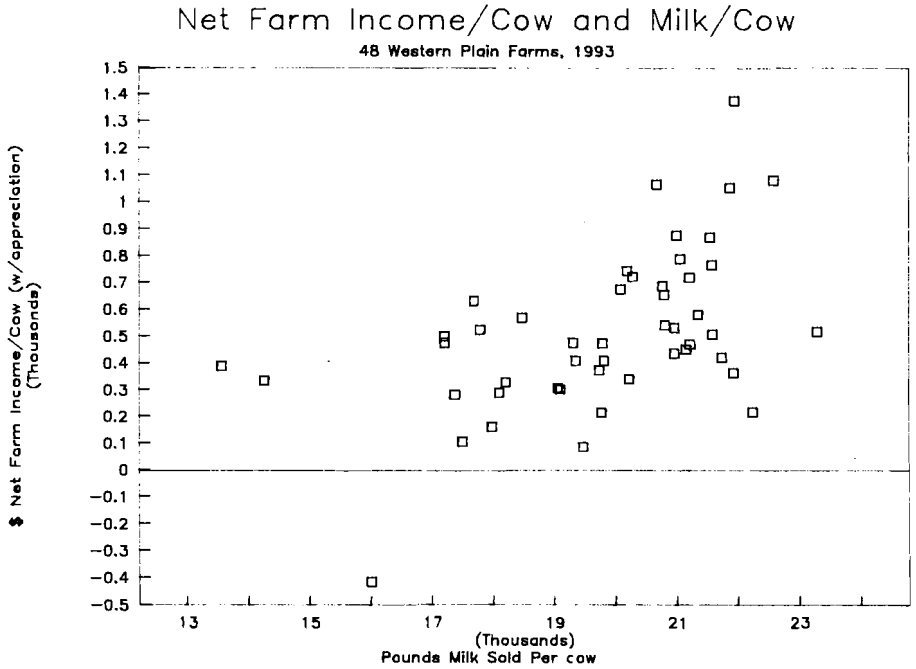
Net farm income is the return to the farm operators and other unpaid family members for their labor, management, and equity capital. It is the farm family's net annual return from working, managing, financing, and owning the farm business. This is not a measure of cash available from the year's business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

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

NET FARM INCOME
48 Western Plain Region Dairy Farms, 1993

Item	Average	My Farm
Total accrual receipts	$791,240	$_____
Appreciation: Livestock	1,605	_____
Machinery	2,187	_____
Real Estate	18,311	_____
Other Stock/Certificates	2,179	_____
Total Including Appreciation	$815,522	$_____
Total accrual expenses	- 693,261	-_____
Net Farm Income (with appreciation)	$122,261	$_____
Net Farm Income (without appreciation)	$97,979	$_____

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



Return to operators' labor, management, and equity capital measures the total net farm income for the farm operator(s). 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 calculated both with and without appreciation. Appreciation is an important part of the return to ownership of farm assets.

RETURN TO OPERATORS' LABOR, MANAGEMENT, AND EQUITY
48 Western Plain Region Dairy Farms, 1993

	Average		My Farm	
Item	With Apprec.	Without Apprec.	With Apprec.	Without Apprec.
Net farm income	$122,261	$97,979	$_____	$_____
Family labor unpaid @ $1,400 per month	- 2,912	- 2,912	-_____	-_____
Return to operators' labor, management, & equity	$119,349	$95,067	$_____	$_____

Labor and management income is the return which farm operators receive for their labor and management used in operating the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. Labor and management income is calculated by deducting the opportunity 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 of five percent reflects the long-term average rate of return above inflation that a farmer might expect to earn in comparable risk investments.

LABOR AND MANAGEMENT INCOME
48 Western Plain Region Dairy Farms, 1993

Item	Average	My Farm
Return to operators' labor, management, & equity without appreciation	$95,067	$_____
Real interest @ 5% on $824,751 average equity capital	- 41,238	-_____
Labor & Management Income	$53,829	$_____
Labor & Management Income per 1.73 Operator/Manager	$31,115	$_____

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

RETURN ON EQUITY CAPITAL AND RETURN ON TOTAL CAPITAL
48 Western Plain Region Dairy Farms, 1993

Item	Average	My Farm
Return to operators' labor, management, & equity capital with appreciation	$119,349	$_____
Value of operators' labor & management	- 49,621	-_____
Return on equity capital with appreciation	$69,728	$_____
Interest paid	+40,539	+_____
Return on total capital with appreciation	$110,267	$_____
Return on equity capital without appreciation	$45,446	$_____
Return on total capital without appreciation	$85,985	$_____
Rate of return on average equity capital:		
with appreciation	8.45%	_____%
without appreciation	5.51%	_____%
Rate of return on average total capital:		
with appreciation	7.53%	_____%
without appreciation	5.87%	_____%

Farm and Family Financial Status

The first step in evaluating the financial position of the farm is to construct a balance sheet which identifies all the assets and liabilities of the business. The second step is to evaluate the relationship between assets, liabilities, and net worth and changes that occurred during the year.

Financial lease obligations are included in the balance sheet. The present value of all future payments is listed as a liability since the farmer is committed to make the payments by signing the lease. The present value is also listed as an asset, representing the future value the item has to the business. For 1993, leases were discounted by 7.75 percent.

Advanced government receipts are included as current liabilities. Government payments received in 1993 that are for participation in the 1994 program are the end year balance and payments received in 1992 for participation in the 1993 program are the beginning year balance

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

1993 FARM BUSINESS & NONFARM BALANCE SHEET

48 Western Plain Region Dairy Farms, 1993

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$10,749	$8,706	Accounts payable	$18,457	$15,171
Accounts rec.	47,178	50,723	Operating debt	45,154	32,432
Prepaid exp.	4,528	3,388	Short-term	2,151	6,866
Feed & supplies	140,679	149,871	Advanced govt. rec.	0	0
			Current Portion:		
			Intermediate	0	37,446
			Long Term	0	21,822
Total	$203,134	$212,688	Total	$65,762	$113,737
Intermediate			Intermediate		
Dairy cows:			Structured debt		
owned	$244,761	$263,245	1-10 years	$242,998	$234,702
leased	1,578	827	Financial lease		
Heifers	94,185	105,288	(cattle/mach.)	7,279	7,422
Bulls/other lvstk.	1,912	1,823	Farm Credit stock	7,858	8,272
Mach./eq. owned	238,385	254,270			
Mach./eq. leased	5,701	6,595	Total	$258,135	$250,396
Farm Credit stock	7,858	8,272			
Other stock/cert.	40,220	42,736			
Total	$634,600	$683,056			
			Long Term		
Long-Term			Structured debt		
Land/buildings:			>10 yrs	$289,423	$301,124
owned	$574,338	$620,262	Financial lease		
leased	30	0	(structures)	30	0
Total	$574,368	$620,262	Total	$289,453	$301,124
Total Farm Assets	$1,412,102	$1,516,006	Total Farm Liab.	$613,350	$665,257
			FARM NET WORTH	$798,752	$850,749

Nonfarm Assets, Liabilities & Net Worth (Average of 20 farms reporting)

Assets	Jan. 1	Dec. 31	Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, chkg. & savings	$16,442	$14,079	Nonfarm Liab.	$2,559	$2,821
Cash value life ins.	7,007	6,409			
Nonfarm real estate	7,280	7,280			
Auto (personal sh.)	3,749	3,920			
Stocks & bonds	3,515	3,416			
Household furn.	8,750	9,258			
All other	17,100	15,000			
Total Nonfarm	$63,844	$59,362	NONFARM NET WORTH	$61,285	$56,541

Farm & Nonfarm Assets, Liabilities, & Net Worth*	Jan. 1	Dec. 31
Total Assets	$1,475,946	$1,575,368
Total Liabilities	615,909	668,078
TOTAL FARM & NONFARM NET WORTH	$860,037	$907,290

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

The following condensed balance sheet, including deferred taxes, contains average data from only those farmers who elected to provide the additional information required to compute deferred taxes.

Deferred taxes represent an estimate of the taxes that would be paid if the farm were sold at year end fair market values and date on the balance sheet. Accuracy is dependent on the accuracy of the market values and the tax basis data provided. Any tax liability for assets other than livestock, machinery, land, buildings and nonfarm assets is excluded. It is assumed that all gain on purchased livestock and machinery is ordinary gain and that listed market values are net of selling costs. The effects of investment tax credit carryover and recapture, carryover of operating losses, alternative minimum taxes and other than average exemptions and deductions are excluded because they have only minor influence on the taxes of most farms. However, they could be important.

CONDENSED BALANCE SHEET INCLUDING DEFERRED TAXES
December 31, 1993
Average of 8 New York Dairy Farms Reporting Data, 1993

ASSETS		LIABILITIES & NET WORTH	
		Current debts & payables	$ 35,766
		Current deferred taxes	16,098
Total Current Assets	$ 57,808	Total Current Liabilities	$ 51,864
		Intermediate debts & leases	$ 95,084
		Intermediate deferred taxes	54,951
Total Inter. Assets	$ 212,191	Total Inter. Liabilities	$ 150,035
		Long term debts & leases	$ 58,265
		Long term deferred taxes	23,430
Total Long Term Assets	$ 208,625	Total Long Term Liab.	$81,695
TOTAL FARM ASSETS	$ 478,624	TOTAL FARM LIABILITIES	$283,594
		Farm Net Worth	$195,030
		Percent Equity (Farm)	41%
		Nonfarm debts	$6,555
		Nonfarm deferred taxes	5,927
Total Nonfarm Assets	$ 44,728	Total Nonfarm Liabilities	$12,482
TOTAL ASSETS	$523,352	TOTAL LIABILITIES	$296,077
		Total Net Worth	$227,275
		Percent Equity (Total)	43%

Balance sheet analysis involves examination of relative asset and debt levels for the business. Percent equity is calculated by dividing end of year net worth by end of year assets and multiplying by 100. The debt to asset ratio is compiled by dividing liabilities by assets. Low debt to asset ratios reflect business solvency and the potential capacity to borrow. Debt levels per productive unit represent old standards that are still useful if used with measures of cash flow and repayment ability.

BALANCE SHEET ANALYSIS

48 Western Plain Region Dairy Farms, 1993

Item	Average	My Farm
Financial Ratios - Farm:		
Percent equity	56%	_____%
Debt/asset ratio: total	.44	_____
long-term	.49	_____
intermediate/current	.41	_____
Farm Debt Analysis:		
Accounts payable as % of total debt	2%	_____%
Long-term liabilities as a % of total debt	45%	_____%
Current & inter. liab. as a % of total debt	55%	_____%

Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$2,482	$2,139	$_____	$_____
Long-term debt	1,124	969	_____	_____
Intermediate & current debt	1,359	1,172	_____	_____

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

FARM INVENTORY BALANCE

48 Western Plain Region Dairy Farms, 1993

Item	Average of Region's Farms			
	Real Estate		Machinery & Equipment	
Value beg. of year		$574,338		$238,385
Purchases	$67,997		$48,111	
Gift/inheritance	+ 0		+ 417	
Lost capital	- 16,162		- --	
Sales	- 2,723		- 4,950	
Depreciation	- 21,499		- 29,880	
Net investment		= 27,614		= 13,698
Appreciation		+ 18,311		+ 2,187
Value end of year		$620,262		$254,270

* $18,444 land and $49,554 buildings and/or depreciable improvements.

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

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

STATEMENT OF OWNER EQUITY (RECONCILIATION)
48 Western Plain Region Dairy Farms, 1993

Item	Average		My Farm	
Beginning of year farm net worth		$798,752		$_____
Net farm income w/o apprec.	$ 97,979		$_____	
+Nonfarm cash income	+ 9,113		+_____	
-Personal withdrawals & family expenditures excluding nonfarm borrowings	- 66,203		-_____	
RETAINED EARNINGS		+$ 40,889		$_____
Nonfarm noncash transfers to farm	$ 417		$_____	
+Cash used in business from nonfarm capital	+ 3,022		+_____	
-Note/mortgage from farm real estate sold (nonfarm)	- 0		-_____	
CONTRIBUTED/WITHDRAWN CAPITAL		+$ 3,439		+$_____
Appreciation	$ 24,282		$_____	
-Lost capital	- 16,162		-_____	
CHANGE IN VALUATION EQUITY		+$ 8,120		+$_____
IMBALANCE/ERROR		-$ 446		-$_____
End of year farm net worth*		=$ 850,749		=$_____
Change in net worth w/apprec.		$ 51,997		$_____

Change in Net Worth		
Without appreciation	$ 27,715	$_____
With appreciation	$ 51,997	$_____

* May not add due to rounding.

Cash Flow Statement

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

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

ANNUAL CASH FLOW STATEMENT

48 Western Plain Region Dairy Farms, 1993

Item		Average	
Cash Flow from Operating Activities			
Cash farm receipts	$ 744,928		
- Cash farm expenses	623,194		
= Net cash farm income		$121,733	
Nonfarm income	$ 9,113		
- Personal withdrawals/family expenses including nonfarm debt payments	60,305		
+ Net cash nonfarm income		$-57,301	
= Net Provided by Operating Activities			$ 64,432
Cash Flow From Investing Activities			
Sale of Assets: Machinery	$ 4,950		
+ real estate	2,723		
+ other stock/cert.	0		
= Total asset sales		$ 10,053	
Capital purchases: expansion livestock	$ 15,155		
+ machinery	48,111		
+ real estate	67,997		
+ other stock/cert.	2,717		
- Total invested in farm assets		$133,981	
= Net Provided by Investment Activities			$-123,928
Cash Flow From Financing Activities			
Money borrowed (inter. & long term)	$ 174,352		
+ Money borrowed (short-term)	8,174		
+ Increase in operating debt	0		
+ Cash from nonfarm cap. used in business	3,022		
+ Money borrowed - nonfarm	211		
= Cash inflow from financing		$185,759	
Principal payments (inter. & long-term)	$ 111,679		
+ Principal payments (short-term)	3,459		
+ Decrease in operating debt	12,722		
- Cash outflow for financing		$127,860	
= Net Provided by Financing Activities			$ 57,899
Cash Flow From Business			
Beginning farm cash, checking & savings		$ 10,749	
- Ending farm cash, checking & savings		8,706	
= Net Provided from Reserves			$ 2,043
Imbalance (error)			$ 446

ANNUAL CASH FLOW STATEMENT

Item		My Farm	
Cash Flow from Operating Activities			
Cash farm receipts	$_____		
- Cash farm expenses	_____		
= Net cash farm income		$_____	
Nonfarm income	$_____		
- Personal withdrawals/family expenses including nonfarm debt payments	_____		
+ Net cash nonfarm income		$_____	
= Net Provided by Operating Activities			$_____
Cash Flow From Investing Activities			
Sale of Assets: Machinery	$_____		
+ real estate	_____		
+ other stock/cert.	_____		
= Total asset sales		$_____	
Capital purchases: expansion livestock	$_____		
+ machinery	_____		
+ real estate	_____		
+ other stock/cert.	_____		
- Total invested in farm assets		$_____	
= Net Provided by Investment Activities			$_____
Cash Flow From Financing Activities			
Money borrowed (inter. & long term)	$_____		
+ Money borrowed (short-term)	_____		
+ Increase in operating debt	_____		
+ Cash from nonfarm cap. used in business	_____		
+ Money borrowed - nonfarm	_____		
= Cash inflow from financing		$_____	
Principal payments (inter. & long-term)	$_____		
+ Principal payments (short-term)	_____		
+ Decrease in operating debt	_____		
- Cash outflow for financing		$_____	
= Net Provided by Financing Activities			$_____
Cash Flow From Business			
Beginning farm cash, checking & savings		$_____	
- Ending farm cash, checking & savings		_____	
= Net Provided from Reserves			$_____
Imbalance (error)			$_____

Repayment Analysis

A valuable use of cash flow analysis is to compare the debt payments planned for the last year with the amount actually paid. The measures listed below provide a number of different perspectives on the repayment performance of the business. However, the critical question to many farmers and lenders is whether planned payments can be made in 1994. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 1994 debt payments shown below.

FARM DEBT PAYMENTS PLANNED

Same 44 Western Plain Region Dairy Farms, 1992 & 1993

	Average			My Farm		
	1993 Payments		Planned	1993 Payments		Planned
Debt Payments	Planned	Made	1994	Planned	Made	1994
Long-term	$37,283	$43,632	$45,904	$_____	$_____	$_____
Intermediate-term	68,374	110,061	58,579	_____	_____	_____
Short-term	3,439	3,899	6,932	_____	_____	_____
Operating (net reduction)	3,267	14,021	2,290	_____	_____	_____
Accounts payable (net reduction)	2,504	3,648	1,840	_____	_____	_____
Total	$114,867	$175,261	$115,544	$_____	$_____	$_____
Per cow	$432	$659		$_____	$_____	
Per cwt. 1993 milk	$2.18	$3.32		$_____	$_____	
Percent of total 1993 receipts	14%	21%		_____	_____	
Percent of 1993 milk receipts	17%	25%		_____	_____	

The cash flow coverage ratio measures the ability of the farm business to meet its planned debt payment schedule. The ratio shows the percentage of payments planned for 1993 (as of December 31, 1992) that could have been made with the amount available for debt service in 1993. Farmers who did not participate in DFBS in 1992 have their 1993 cash flow coverage ratio based on planned debt payments for 1994.

CASH FLOW COVERAGE RATIO

Same 44 Western Plain Region Dairy Farms, 1992 & 1993

Item	Average	My Farm
Cash farm receipts	$769,384	$_____
- Cash farm expenses	644,171	_____
+ Interest paid	41,277	_____
- Net personal withdrawals from farm**	58,909	_____
(A) = Amount Available for Debt Service	$107,581	$_____
(B) = Debt Payments Planned for 1993 (as of December 31, 1992)	$114,867	$_____
(A % B) = Cash Flow Coverage Ratio for 1993	.94	_____

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

ANNUAL CASH FLOW WORKSHEET

Item	Regional Average Per Cow	Regional Average Per Cwt	My Farm Per Cow/ Per Cwt.	Expected Change	1994 Projection
No. cows and cwt. milk	257.9	51,089.4		_____	_____
Accrual Oper. Receipts					
Milk	$2,580.29	$13.03	$_____	_____	$_____
Dairy cattle	275.61	1.39	_____	_____	_____
Dairy calves	52.47	.26	_____	_____	_____
Other livestock	3.61	.02	_____	_____	_____
Crops	83.32	.42	_____	_____	_____
Misc. receipts	72.71	.37	_____	_____	_____
Total	$3,068.01	$15.49	$_____	_____	$_____
Accrual Oper. Expenses					
Hired labor	$434.06	$2.19	$_____	_____	$_____
Dairy grain & conc.	764.28	3.86	_____	_____	_____
Dairy roughage	23.50	.12	_____	_____	_____
Nondairy feed	.41	.01	_____	_____	_____
Mach. hire/rent/lease	20.05	.10	_____	_____	_____
Mach. rpr./parts & auto	133.50	.67	_____	_____	_____
Fuel, oil & grease	55.50	.28	_____	_____	_____
Replacement lvstk.	51.94	.26	_____	_____	_____
Breeding	30.43	.15	_____	_____	_____
Vet & medicine	84.03	.42	_____	_____	_____
Milk marketing	104.62	.53	_____	_____	_____
Cattle lease	3.72	.02	_____	_____	_____
Other livestock exp.	139.43	.70	_____	_____	_____
Fertilizer & lime	57.79	.29	_____	_____	_____
Seeds & plants	39.02	.20	_____	_____	_____
Spray/other crop exp.	41.32	.21	_____	_____	_____
Land, bldg.,fence repair	35.73	.18	_____	_____	_____
Taxes	43.28	.22	_____	_____	_____
Real estate rent/lease	56.00	.28	_____	_____	_____
Insurance	30.72	.15	_____	_____	_____
Utilities	59.67	.30	_____	_____	_____
Miscellaneous	59.48	.30	_____	_____	_____
Total Less Int. Paid	$2,268.48	11.44	_____	_____	$_____
Net Accrual Operating Income (without interest paid)		(Total) $ 206,194	$_____		$_____
- Change in lvstk./crop inv.*		42,767	_____	_____	_____
- Change in accts. rec.		3,545	_____	_____	_____
+ Change in feed/supply inv.**		5,675	_____	_____	_____
+ Change in accts. payable***		-2,974	_____	_____	_____
NET CASH FLOW		$ 162,583	$_____		$_____
- Net personal w/drawals from farm (see footnote on pg. 14		$ 57,090	_____	_____	_____
Available for Farm Debt Payments & Investments		$105,493	$_____		$_____
- Farm debt payments		169,029	_____	_____	_____
Available for Farm Investment		$-63,536	$_____		$_____
- Capital purchases: cattle, machinery & improvements		$133,981	_____	_____	_____
Additional Capital Needed			$_____		$_____

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

Cropping Analysis

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

LAND RESOURCES AND CROP PRODUCTION
48 Western Plain Region Dairy Farms, 1993

Item	Average			My Farm		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	311	259	570	_____	_____	_____
Nontillable	33	3	35	_____	_____	_____
Other nontillable	83	6	89	_____	_____	_____
Total	426	268	693	_____	_____	_____

Crop Yields	Farms	Acres*	Prod/Acre	Acres	Prod/Acre
Hay crop	46	223	3.38 tn DM	_____	_____ tn DM
Corn silage	46	209	16.63 tn	_____	_____ tn
			5.56 tn DM		_____ tn DM
Other forage	9	70	1.94 tn DM	_____	_____ tn DM
Total forage	46	446	4.28 tn DM	_____	_____ tn DM
Corn grain	26	118	113.01 bu	_____	_____ bu
Oats	7	25	54.75 bu	_____	_____ bu
Wheat	10	39	52.23 bu	_____	_____ bu
Other crops	15	102		_____	
Tillable pasture	17	41		_____	
Idle	26	37		_____	
Total Tillable Acres	48	570		_____	

*This column represents the average acreage for the farms producing that crop. Average acreages including those farms not producing were hay crop 214, corn silage 201, corn grain 64, oats 4, tillable pasture 0, and idle 20.

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

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

CROP/DAIRY RATIOS
48 Western Plain Region Dairy Farms, 1993

Item	Average	My Farm
Total tillable acres per cow	2.21	_____
Total forage acres per cow	1.66	_____
Harvested forage dry matter, tons per cow	7.10	_____

Cropping Analysis (continued)

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

CROP RELATED ACCRUAL EXPENSES
Western Plain Region Dairy Farms Reporting, 1993

Item	Total Per Till. Acre	All Corn Per Acre	Corn Silage Per Ton DM	Corn Grain Per Dry Sh.Bu.	Hay Crop Per Acre	Hay Crop Per Ton DM	Pasture Per Till. Acre	Pasture Per Total Acre
No. of farms reporting	48	18			18		2	
Ave.number of acres	570	267			207		50	53
Fert./lime	$26.15	$30.95	$5.59	$.25	$18.68	$5.66	$18.40	$18.04
Seeds/plants	17.65	21.82	3.94	.18	19.76	5.99	8.83	8.78
Spray/other crop exp.	18.70	31.60	5.70	.26	8.38	2.54	2.69	2.69
TOTAL	$62.50	$84.37	$15.23	$.69	$46.82	$14.19	$29.92	$29.51
My Farm:								
Fert./lime	$_____	$_____	$_____	$_____	$_____	$_____	$_____	$_____
Seeds/plants	_____	_____	_____	_____	_____	_____	_____	_____
Spray/other crop exp.	_____	_____	_____	_____	_____	_____	_____	_____
TOTAL	$_____	$_____	$_____	$_____	$_____	$_____	$_____	$_____

Most machinery costs are associated with crop production and should be analyzed with the crop enterprise. Total machinery expenses include the major fixed costs (interest and depreciation), as well as the accrual operating costs. Although machinery costs have not been allocated to individual crops, they are shown below per total tillable acre.

ACCRUAL MACHINERY EXPENSES
48 Western Plain Region Dairy Farms, 1993

Machinery Expense Item	Average Total Expenses	Average Per Till. Acre	My Farm Total Expenses	My Farm Per Till. Acre
Fuel, oil & grease	$14,313	$25.11	$_____	$_____
Machinery repairs & parts	33,280	58.39	_____	_____
Machine hire, rent & lease	5,171	9.07	_____	_____
Auto expense (farm share)	1,150	2.02	_____	_____
Interest (5%)	12,316	21.61	_____	_____
Depreciation	29,880	52.42	_____	_____
Total	$96,110	$168.61	$_____	$_____

Dairy Analysis

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

DAIRY HERD INVENTORY
48 Western Plain Region Dairy Farms, 1993

	Dairy Cows		Heifers					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Beg. year (owned)	246	$244,761	84	$60,042	40	$20,551	47	$13,592
+ Change w/o apprec.		17,681		-2,092		9,732		2,693
+ Appreciation		803		218		445		107
End year (owned)	264	$263,245	72	$58,168	64	$30,728	56	$16,392
End incl. leased	268							
Average number	258		185 (all age groups)					
My Farm:								
Beg. of year (owned)	_____	$_____	_____	$_____	_____	$_____	_____	$_____
+ Change w/o apprec.		_____		_____		_____		_____
+ Appreciation		_____		_____		_____		_____
End of year (owned)	_____	$_____	_____	$_____	_____	$_____	_____	$_____
End including leased	_____							
Average number	_____		_____ (all age groups)					

Total milk sold and milk sold per cow are extremely valuable measures of size and productivity, respectively, on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year. Farm managers on DHI should compare milk sold per cow with their rolling herd average on the test date nearest December 31 to see how close the DHI estimate of milk produced is to actual milk sales.

MILK PRODUCTION
48 Western Plain Region Dairy Farms, 1993

Item	Average	My Farm
Total milk sold, lbs.	5,108,944	_____
Milk sold per cow, lbs.	19,809	_____
Average milk plant test, percent butterfat	3.62	_____

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

ACCRUAL RECEIPTS FROM DAIRY AND COST OF PRODUCING MILK
48 Western Plain Region Dairy Farms, 1993

	Average			My Farm		
Item	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Costs of Producing Milk						
Operating costs	$516,099	$2,001	$10.10	$_____	$_____	$_____
Purchased inputs costs	$567,478	$2,200	$11.11	$_____	$_____	$_____
Total Costs	$661,249	$2,564	$12.94	$_____	$_____	$_____
Accrual Receipts From Milk	$665,457	$2,580	$13.03	$_____	$_____	$_____

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 an evaluation of the dairy enterprise.

DAIRY RELATED ACCRUAL EXPENSES
48 Western Plain Region Dairy Farms, 1993

	Average		My Farm	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrates	$764	$3.86	$_____	$_____
Purchased dairy roughage	24	.12	_____	_____
Total Purchased Dairy Feed	$788	$3.98	$_____	$_____
Purchased grain & conc. as % of milk receipts	30%		____%	
Purchased feed & crop exp.	$926	$4.67	$_____	$_____
Purchased feed & crop exp. as % of milk receipts	36%		____%	
Breeding	$30	$.15	$_____	$_____
Veterinary & medicine	84	.42	_____	_____
Milk marketing	105	.53	_____	_____
Cattle lease	4	.02	_____	_____
Other livestock expense	139	.70	_____	_____

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 in generating products per unit of labor input.

CAPITAL EFFICIENCY

48 Western Plain Region Dairy Farm, 1993

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$241,823	$5,677	$2,569	$4,708
Real estate		2,316		1,921
Machinery & equipment	41,702	979	443	
Asset turnover ratio		.56		
My Farm:				
Farm capital	$_____	$_____	$_____	$_____
Real estate	_____	_____	_____	_____
Machinery & equipment	_____	_____	_____	_____
Asset turnover ratio		_____		

LABOR FORCE INVENTORY AND ANALYSIS

48 Western Plain Region Dairy Farm, 1993

Labor Force	Months	Age	Years of Educ.	Value of Labor & Mgmt.
Operator number 1	11.90	45	14	$30,723
Operator number 2	5.54	43	14	12,521
Operator number 3	3.35	29	13	6,378
Family paid	3.77			
Family unpaid	2.08			
Hired	46.00			
Total	72.65	/ 12 = 6.05 Worker Equivalent		
		1.73 Operator/Manager Equiv.		
My Farm: Total	____	/ 12 = _____ Worker Equivalent		
Operator's	____	/ 12 = _____ Operator/Manager Equiv.		

Labor Efficiency	Average Total	Average Per Worker	My Farm Total	My Farm Per Worker
Cows, average number	258	43	_____	_____
Milk sold, pounds	5,108,944	843,863	_____	_____
Tillable acres	570	94	_____	_____
Work units	2,530	418	_____	_____

Labor Costs	Average Total	Average Per Cow	Average Per Cwt.	My Farm Total	My Farm Per Cow	My Farm Per Cwt.
Value of operator(s) labor ($1,400/mo.)	$29,120	$113	$.57	$_____	$_____	$_____
Family unpaid ($1,400/mo.)	2,912	11	.06	_____	_____	_____
Hired	111,943	434	2.19	_____	_____	_____
Total Labor	$143,975	$558	$2.82	$_____	$_____	$_____
Machinery Cost	$96,110	$373	$1.88	$_____	$_____	$_____
Total Labor & Mach.	$240,085	$931	$4.70	$_____	$_____	$_____

COMPARATIVE ANALYSIS OF THE FARM BUSINESS

Progress of the Farm Business

Comparing your business with average data from regional DFBS cooperators that participated in both of the last two years can be helpful to establishing your goals for these parameters. It is equally important for you to determine the progress your business has made over the past two or three years, to compare this progress to your goals, and to set goals for the future.

PROGRESS OF THE FARM BUSINESS

Same 44 Western Plain Region Dairy Farms, 1992 & 1993

	Average of 44 Farms*		My Farm		
Selected Factors	1992	1993	1992	1993	Goal
Size of Business					
Average number of cows	247	266			
Average number of heifers	174	189			
Milk sold, lbs.	4,834,632	5,276,364			
Worker equivalent	5.99	6.20			
Total tillable acres	557	578			
Rates of Production					
Milk sold per cow, lbs.	19,593	19,805			
Hay DM per acre, tons	3.39	3.24			
Corn silage per acre, tons	15	17			
Labor Efficiency					
Cows per worker	41	43			
Milk sold/worker, lbs.	806,605	850,834			
Cost Control					
Grain & conc. purchased as % of milk sales	27%	30%	%	%	%
Dairy feed & crop exp. per cwt. milk	$4.58	$4.68	$	$	$
Labor & mach. costs/cow	$915	$927	$	$	$
Operating cost of producing cwt. of milk	10.23	10.13	$	$	$
Capital Efficiency**					
Farm capital per cow	$5,798	$5,660	$	$	$
Mach. & equip. per cow	$977	$972	$	$	$
Asset turnover ratio	.56	.56			
Profitability					
Net farm inc. w/o apprec.	$111,112	$100,807	$	$	$
Net farm inc. w/apprec.	$139,541	$125,468	$	$	$
Labor & mgt. income per oper./manager	$40,783	$32,312	$	$	$
Rate of return on eq. capital w/apprec.	10.7%	8.5%	%	%	%
Rate of return on all capital w/apprec.	9.0%	7.6%	%	%	%
Financial Summary					
Farm net worth, end year	$864,044	$879,286	$	$	$
Debt to asset ratio	.42	.44			
Farm debt per cow	$2,366	$2,460	$	$	$

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

Regional Farm Business Chart

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

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
48 Western Plain Region Dairy Farms, 1993

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
14.6	722	14,219,394	22,032	4.7	20	52	1,026,002
5.9	213	4,302,641	21,051	3.6	17	45	889,968
4.4	147	3,043,478	20,146	2.9	16	37	735,548
2.9	112	2,181,096	18,874	2.2	15	32	639,859
2.0	65	1,169,662	16,504	1.5	12	27	495,870

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$ 435	17%	$ 247	$ 706	$ 650	$ 3.37
645	25	348	845	859	4.29
764	30	404	915	916	4.70
818	32	483	1,062	996	5.03
933	36	680	1,298	1,169	5.89

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income w/Apprec.	Net Farm Inc. w/o Apprec.	Labor & Mgt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(3)	(3)	(6)
$ 2,868	$ 7.28	$ 11.65	$ 340,354	$289,527	$149,883	$ 174,859
2,714	8.96	12.46	126,971	96,566	39,682	61,230
2,593	9.91	13.56	77,738	61,563	14,413	34,066
2,461	10.57	14.29	46,235	30,922	6,746	11,489
2,143	11.85	15.90	13,212	5,380	-14,654	-30,433

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

New York State Farm Business Charts

The Farm Business Chart is a tool which can be used in analyzing a business by drawing a line through the figure in each column which represents the current level of management performance. The figure at the top of each column is the average of the top 10 percent of the 357 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the top 10 percent for any other factor.

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

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
357 New York Dairy Farms, 1992

Size of Business			Rates of Production			Labor Efficiency	
Worker Equivalent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
10.0	428	8,455,437	22,613	4.8	22	52	959,379
5.4	184	3,511,396	21,180	3.7	18	43	797,982
4.1	136	2,551,838	20,249	3.2	17	38	715,818
3.4	107	1,971,002	19,582	3.0	16	34	640,614
3.0	89	1,660,762	18,753	2.7	15	32	587,553
2.6	76	1,366,246	18,065	2.5	15	29	534,745
2.4	64	1,149,820	17,445	2.3	13	27	477,585
2.1	57	964,766	16,486	2.1	12	25	432,399
1.8	48	792,337	15,085	1.8	10	23	389,221
1.2	37	578,602	12,400	1.4	6	18	296,180

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$ 348	16%	$250	$ 675	$ 497	$3.23
484	21	325	803	649	3.77
556	24	379	867	716	4.09
618	26	414	926	783	4.36
665	27	442	993	832	4.55
712	29	478	1,058	892	4.76
763	31	512	1,114	943	4.99
826	32	548	1,180	1,004	5.27
896	35	608	1,274	1,071	5.70
1,030	42	796	1,563	1,232	6.76

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

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS

357 New York Dairy Farms, 1992

Milk Receipts Per Cow (10)	Milk Receipts Per Cwt. (10)	Oper. Cost Milk Per Cow (10)	Oper. Cost Milk Per Cwt. (10)	Total Cost Production Per Cow (10)	Total Cost Production Per Cwt. (10)
$3,086	$14.64	$1,068	$ 6.84	$1,952	$11.79
2,861	14.02	1,419	8.27	2,312	13.00
2,732	13.77	1,575	8.96	2,452	13.60
2,638	13.60	1,706	9.62	2,567	14.12
2,527	13.46	1,845	10.15	2,691	14.75
2,434	13.38	1,954	10.67	2,792	15.44
2,340	13.27	2,051	11.07	2,934	16.01
2,199	13.15	2,163	11.51	3,091	16.59
2,023	13.02	2,357	12.18	3,241	17.54
1,684	12.56	2,636	14.08	3,666	21.09

Profitability

Net Farm Income		Return to Operator's Labor, Management, & Equity Capital		Labor & Management Income	
With Appreciation (3)	Without Appreciation (3)	With Appreciation (3)	Without Appreciation (3)	Per Farm (3)	Per Operator (3)
$275,597	$218,659	$272,714	$216,089	$152,525	$111,774
99,964	79,562	97,288	77,148	46,635	33,282
71,930	55,878	68,243	53,019	28,823	20,747
55,060	42,428	52,537	38,519	18,603	12,977
44,009	32,527	39,218	27,999	9,260	6,723
33,724	23,687	29,676	19,523	1,980	1,639
26,725	16,924	22,688	12,394	-4,505	-3,779
18,592	9,627	14,777	5,882	-13,845	-11,067
8,916	353	5,299	-4,196	-23,769	-21,005
-16,432	-31,254	-20,794	-34,417	-61,040	-53,650

Farm Business Charts for farms with freestall barns and 120 cows or less and more than 120 cows, and farms with conventional barns with 60 cows or less and more than 60 cows are shown on pages 28-31.

Financial Analysis Chart

The farm financial anlaysis chart on page 25 is designed just like the Farm Business Chart and may be used to assess the financial health of the farm business. Most of the financial measures used in the chart are defined on pages 6, 10, 14 and 20 of this publication. References to DFBS output page numbers for participating dairy farmers are provided in the table headings.

FINANCIAL ANALYSIS CHART

357 New York Dairy Farms, 1992

Liquidity (repayment)					
Planned Debt Payments Per Cow	Available for Debt Service Per Cow	Cash Flow Coverage Ratio	Debt Payments as Percent of Milk Sales	Debt Per Cow	
(8)*	(12)	(8)	(8)	(5)	
$ 46	$840	4.11	5%	$ 116	
191	663	1.75	9	754	
276	579	1.37	13	1,302	
362	494	1.14	15	1,781	
411	440	0.98	17	2,160	
458	401	0.86	19	2,521	
501	339	0.73	22	2,882	
584	274	0.60	25	3,243	
677	181	0.29	30	3,735	
885	-22	-0.14	38	5,214	

Solvency				Profitability	
		Debt/Asset Ratio		Percent Rate of Return with appreciation on:	
Leverage Ratio**	Percent Equity	Current & Intermediate	Long Term	Equity	Investment***
	(5)	(5)	(5)	(3)	(3)
0.02	98%	0.01	0.00	22%	16%
0.11	90	0.08	0.00	11	10
0.24	81	0.14	0.04	8	8
0.35	73	0.21	0.18	5	6
0.48	68	0.29	0.28	3	4
0.58	63	0.35	0.38	1	3
0.74	57	0.39	0.48	-1	1
0.95	52	0.46	0.57	-4	-1
1.29	44	0.55	0.70	-8	-2
3.20	29	0.77	1.04	-26	-7

Efficiency (Capital)				
Asset Turnover (ratio)	Real Estate Investment Per Cow	Machinery Investment Per Cow	Total Farm Assets Per Cow	Change in Net Worth w/Appreciation
(11)	(11)	(11)	(11)	(11)
.71	$1,327	$ 545	$ 4,339	$185,910
.57	2,044	792	5,156	59,227
.52	2,372	942	5,727	40,515
.48	2,667	1,054	6,243	28,384
.45	2,967	1,194	6,680	19,748
.42	3,279	1,358	7,120	13,025
.39	3,663	1,520	7,621	5,269
.35	4,188	1,753	8,236	-2,230
.31	4,861	2,008	9,100	-10,422
.24	7,201	2,722	12,014	-50,747

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

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

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

Comparison by Type of Barn and Herd Size

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

The table on page 27 includes the average values for the resulting four groups of dairy farms. The average size of farms in the four groups ranges from 47 cows on the small conventional farms to 250 cows on the large freestall farms. The large conventional farms and small freestall farms averaged approximately the same herd size and rates of milk output per cow.

The large freestall farms averaged the highest milk output per cow and per worker, the lowest total costs of production and investment per cow, and the greatest returns to labor, management and capital. The large conventional farms showed average profits somewhat higher than the small freestall operations. Total costs of production averaged substantially less on the large conventional farms.

Farm business charts have been computed for each of the four housing and herd size categories and are on pages 28-31. By comparing the farm's performance on the most appropriate business chart, a farm manager will be better able to evaluate his or her business performance.

Herd Size Comparisons

A detailed comparison of profitability, financial situation and business analysis factors across herd sizes is contained on pages 40-49 of the 1992 State Summary*. As herd size increases, the average profitability generally increases (pages 42-43). Net farm income without appreciation was $252,256 per farm for the 300 or more herd size group and $4,790 per farm for those with less than 40 cows. This relationship generally holds for all measures of profitability including rate of return on capital. However, the 200 to 299 herd size group showed a lower level of profitability in 1992 than the farms with 150-199 cows.

Farm net worth increases rapidly as herd size increases (pages 44-47), even though percent equity was higher on the smaller farms. The 85 to 99 cow group and the group with more than 300 cows demonstrated the strongest ability to make debt payments.

Crop yields showed little relationship to herd size, but fertilizer and lime expenses, and machinery cost per tillable acre generally increased as herd size increased (pages 48-49)*. Milk sold per cow increased as herd size increased, ranging from 17,208 pounds on the farms with less than 40 cows to 19,795 pounds on farms with 300 or more cows. Farm capital per worker increased, and farm capital per cow decreased as herd size increased. Milk sold per worker increased dramatically as herd size increased, ranging from 369,797 pounds at the lowest herd size category up to 923,495 pounds at the largest size category.

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*Smith, Stuart F., Wayne A. Knoblauch, and Linda D. Putnam, Dairy Farm Management Business Summary, New York, 1992, Department of Agricultural, Resource, and Managerial Economics, Cornell University, A.E. Res. 93-11, August 1993.

SELECTED BUSINESS FACTORS BY TYPE OF BARN AND HERD SIZE

328 New York Dairy Farms, 1992

Farms with:	Conventional		Freestall	
Item	<= 60 Cows	>60 Cows	<= 120 Cows	>120 Cows
Number of farms	99	86	59	84
Cropping Program Analysis				
Total Tillable acres	156	276	301	675
Tillable acres rented*	53	90	126	280
Hay crop acres*	100	165	154	268
Corn silage acres*	29	52	75	248
Hay crop, tons DM/acre	2.3	2.6	2.8	3.1
Corn silage, tons/acre	13.4	15.1	13.3	14.9
Oats, bushels/acre	57.0	68.8	60.3	67.6
Forage DM per cow, tons	7.6	7.9	8.7	7.2
Tillable acres/cow	3.3	3.1	3.5	2.4
Fert. & lime exp./til. acre	$17.79	$ 21.31	$ 24.95	$ 28.81
Total machinery costs	$22,434	$39,496	$46,959	$114,680
Machinery cost/tillable acre	$144	$ 143	$ 156	$ 170
Dairy Analysis				
Number of cows	48	89	87	279
Number of heifers	37	70	73	213
Milk sold, lbs.	828,310	1,617,663	1,566,899	5,421,782
Milk sold/cow, lbs.	17,337	18,131	18,042	19,469
Operating cost of prod. milk/cwt.	$10.09	$10.12	$10.54	$10.61
Total cost of prod. milk/cwt.	$16.41	$14.54	$15.70	$13.59
Price/cwt. milk sold	$13.35	$13.41	$13.67	$13.68
Purchased dairy feed/cow	$713	$727	$714	$750
Purchased dairy feed/cwt. milk	$4.11	$4.01	$3.95	$3.85
Purc. grain & conc. as % milk rec.	29%	29%	28%	27%
Purc. feed & crop exp./cwt. milk	$4.81	$4.73	$4.98	$4.62
Capital Efficiency				
Farm capital/worker	$193,685	$212,649	$225,584	$245,237
Farm capital/cow	$7,641	$7,032	$7,534	$6,012
Farm capital/til. acre owned	$3,546	$3,373	$3,758	$4,249
Real estate/cow	$3,991	$3,269	$3,458	$2,654
Machinery investment/cow	$1,420	$1,401	$1,589	$997
Asset turnover ratio	0.37	0.41	0.42	0.54
Labor Efficiency				
Worker equivalent	1.89	2.95	2.90	6.83
Operator/manager equivalent	1.15	1.41	1.38	1.71
Milk sold/worker, lbs.	439,237	548,374	540,489	794,151
Cows/worker	25	30	30	41
Labor cost/cow	$610	$526	$563	$546
Labor cost/tillable acre	$187	$170	$162	$225
Profitability & Balance Sheet Analysis				
Net farm income (w/o apprec.)	$15,377	$35,087	$26,671	$105,301
Labor & mgmt. income/operator	$-1,752	$7,912	$-70	$31,312
Return on all capital w/apprec.	1.1%	4.2%	4.3%	7.9%
Farm debt/cow	$2,353	$2,174	$2,482	$2,462
Percent equity	70%	69%	67%	58%

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

FARM BUSINESS CHART FOR SMALL CONVENTIONAL STALL DAIRY FARMS

99 Conventional Stall Dairy Farms with 60 or Less Cows, New York, 1992

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
2.9	60	1,216,307	21,382	3.1	22	46	760,933
2.5	59	1,056,041	19,969	3.1	18	36	627,590
2.3	56	971,222	19,389	2.9	16	30	540,690
2.1	52	904,369	18,540	2.6	15	27	492,638
2.0	50	833,676	18,160	2.4	15	26	454,994
1.8	47	784,602	17,523	2.2	13	24	427,601
1.6	44	741,239	16,512	2.1	12	23	400,809
1.4	42	663,822	15,520	1.9	12	22	369,048
1.2	38	614,828	14,121	1.6	10	20	323,957
1.0	29	460,178	11,563	1.2	4	16	241,563

Cost Control

Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$324	17%	$251	$ 666	$ 451	$3.20
454	23	304	810	582	3.78
531	25	352	917	671	4.12
602	26	396	977	724	4.34
650	28	437	1,049	783	4.52
690	29	470	1,108	849	4.73
729	31	506	1,159	913	4.95
796	33	545	1,212	967	5.33
874	35	599	1,316	1,054	5.90
1,068	43	867	1,680	1,302	6.88

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income With Apprec.	Net Farm Income Without Apprec.	Labor &. Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(3)	(3)	(6)
$2,911	$ 6.56	$12.90	$63,046	$44,806	$23,678	$59,924
2,698	8.05	14.03	45,628	34,597	14,168	35,056
2,574	8.52	14.70	36,269	27,896	9,493	22,019
2,497	9.30	15.40	28,971	22,714	4,888	16,391
2,422	9.88	16.05	24,643	17,420	1,521	12,621
2,322	10.38	16.43	18,479	12,690	-2,983	6,278
2,178	10.84	16.83	14,042	8,549	-7,798	119
2,049	11.31	17.59	8,645	2,239	-13,240	-4,219
1,882	12.23	19.38	3,338	-3,095	-19,918	-9,925
1,468	13.66	23.90	-9,920	-17,335	-38,585	-20,443

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

FARM BUSINESS CHART FOR LARGE CONVENTIONAL STALL DAIRY FARMS

86 Conventional Stall Dairy Farms with More Than 60 Cows, New York, 1992

Size of Business			Rates of Production			Labor Efficiency	
Worker Equivalent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
4.9	153	2,798,611	22,871	5.0	23	48	876,546
3.7	115	2,136,428	20,905	3.6	19	37	724,109
3.3	101	1,839,098	20,106	3.2	17	34	641,723
3.1	90	1,662,293	19,342	2.9	17	32	592,104
2.9	83	1,550,272	18,385	2.7	16	31	563,811
2.6	77	1,423,737	17,845	2.5	15	29	512,314
2.5	70	1,333,387	17,054	2.2	13	27	467,326
2.3	67	1,236,304	16,373	2.0	12	25	430,539
2.1	65	1,104,978	15,006	1.8	10	24	397,414
1.8	62	878,461	12,535	1.4	7	21	352,630

Cost Control

Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$ 311	14%	$223	$ 620	$ 442	$3.02
411	20	316	747	580	3.60
506	22	369	824	656	3.79
568	24	412	887	707	4.04
636	26	426	945	811	4.41
710	28	447	1,014	875	4.64
807	31	489	1,075	953	4.93
870	34	523	1,122	1,004	5.19
925	37	563	1,197	1,058	5.60
1,054	42	718	1,372	1,245	6.51

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income With Apprec.	Net Farm Income Without Apprec.	Labor &. Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(3)	(3)	(6)
$3,093	$ 6.72	$11.87	$108,267	$91,353	$43,558	$82,187
2,821	7.90	12.73	74,747	65,766	28,599	41,744
2,690	8.52	13.29	62,248	55,029	23,048	32,305
2,590	9.10	13.68	53,294	43,685	18,555	25,438
2,465	9.66	14.21	45,675	37,569	9,783	15,961
2,394	10.37	14.75	34,976	28,776	4,808	8,831
2,265	10.88	15.42	27,816	19,963	-1,813	4,654
2,159	11.34	15.91	19,825	12,165	-7,608	-157
2,013	11.76	16.56	11,517	2,831	-17,446	-6,447
1,699	12.91	18.29	-9,556	-20,251	-43,084	-39,646

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

FARM BUSINESS CHART FOR SMALL FREESTALL DAIRY FARMS

59 Freestall Barn Dairy Farms with 120 or Less Cows, New York, 1992

Size of Business			Rates of Production			Labor Efficiency	
Worker Equivalent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
4.5	118	2,318,393	23,226	5.7	21	53	872,689
3.7	108	2,025,486	20,742	3.9	19	42	770,827
3.4	104	1,905,776	20,075	3.4	18	37	688,683
3.3	97	1,812,755	19,485	3.2	16	34	603,386
3.1	91	1,697,486	18,584	2.9	15	32	571,158
2.7	86	1,557,311	18,036	2.6	14	29	538,989
2.5	80	1,351,124	17,504	2.3	12	27	488,313
2.2	72	1,173,922	16,043	2.0	10	25	433,176
2.0	62	1,022,537	13,200	1.8	8	23	360,361
1.4	45	651,669	11,685	1.3	3	15	270,409

Cost Control

Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$ 374	16%	$264	$ 679	$ 529	$3.36
488	20	376	810	653	3.83
551	23	406	872	708	4.24
605	26	448	933	803	4.50
658	28	490	1,011	864	4.83
705	30	538	1,097	924	5.10
749	31	592	1,183	998	5.26
827	33	644	1,290	1,066	5.56
900	35	692	1,449	1,109	6.29
974	39	875	1,741	1,186	6.91

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income With Apprec.	Net Farm Income Without Apprec.	Labor &. Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(3)	(3)	(6)
$3,115	$ 6.33	$11.89	$179,031	$86,712	$51,557	$133,449
2,801	8.39	13.23	79,233	61,053	22,625	55,877
2,718	9.37	14.13	63,081	48,995	10,907	38,686
2,626	9.78	14.97	51,912	36,234	6,110	27,392
2,534	10.13	15.66	41,056	25,578	1,978	19,985
2,451	10.57	16.07	34,711	18,848	- 689	13,594
2,353	11.17	16.67	28,891	15,569	- 4,932	5,705
2,186	11.72	17.68	22,662	9,092	-15,149	-4,431
1,895	12.99	18.98	7,870	- 9,009	-26,857	-13,164
1,694	14.79	20.47	-22,606	-36,917	-65,994	-46,141

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

FARM BUSINESS CHART FOR LARGE FREESTALL DAIRY FARMS

84 Freestall Barn Dairy Farms with More Than 120 Cows, New York, 1992

Size of Business			Rates of Production			Labor Efficiency	
Worker Equivalent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(11)*	(11)	(11)	(10)	(9)	(9)	(11)	(11)
17.8	827	16,288,987	22,717	5.0	21	60	1,138,851
8.4	370	7,526,000	21,818	4.1	18	47	899,158
7.3	280	5,563,510	21,355	3.6	17	44	845,337
6.2	234	4,442,314	20,495	3.3	16	42	805,033
5.8	205	3,922,439	19,777	3.0	16	40	760,845
5.2	190	3,626,910	19,160	2.8	15	37	731,079
4.8	173	3,324,340	18,228	2.6	14	35	690,044
4.3	158	3,036,766	17,535	2.4	13	33	647,088
3.8	145	2,675,565	16,783	2.2	11	31	598,697
3.2	128	2,294,285	14,619	1.8	7	27	492,796

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(10)	(10)	(11)	(11)	(10)	(10)
$ 411	15%	$259	$ 713	$ 644	$3.19
556	21	320	810	765	3.86
618	24	366	850	803	4.17
667	25	397	879	819	4.41
701	27	421	924	873	4.55
728	28	441	1,001	910	4.70
768	30	479	1,037	937	4.90
804	31	513	1,099	982	5.12
861	33	553	1,185	1,038	5.44
960	38	691	1,339	1,141	6.23

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Oper. Cost Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income With Apprec.	Net Farm Income Without Apprec.	Labor &. Mgmt. Inc. Per Oper.	Change in Net Worth w/Apprec.
(10)	(10)	(10)	(3)	(3)	(3)	(6)
$3,137	$ 7.56	$11.30	$556,579	$437,174	$266,126	$368,663
2,978	8.92	12.22	219,914	202,962	78,676	133,568
2,893	9.56	12.99	152,924	127,718	43,360	85,566
2,792	10.27	13.36	117,022	95,001	33,386	57,664
2,701	10.82	13.66	100,788	79,566	21,848	41,655
2,597	**11.10**	13.92	85,282	55,575	10,659	25,685
2,486	**11.30**	14.55	53,580	37,649	-1,813	16,246
2,365	**11.65**	15.37	35,584	19,581	-12,922	-1,307
2,297	**12.24**	16.26	22,661	-954	-34,149	**-34,827**
2,024	**13.58**	17.28	-29,806	-56,453	-79,753	-96,233

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

IDENTIFY AND SET GOALS

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

1. Goals should be **Specific**.

2. Goals should be **Measurable**.

3. Goals should be **Achievable** but challenging.

4. Goals should be **Rewarding**.

5. 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 objectives (long-range) and goals (short-range) when looking at the future of your farm business.

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

a. Begin with a mission statement which describes why the business exists based on the preferences and values of the owners.

b. Identify 4-6 objectives.

c. Identify SMART goals.

Worksheet for Setting Goals

I. Mission and Objectives

_____

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Worksheet for Setting Goals (continued)

II. Goals

What	How	When	Who is Responsible

Summarize Your Business Performance

The Farm Business and Financial Analysis Charts on pages 22-25 and 28-31 can be used to help identify strengths and weaknesses of your farm business. Identify three major strengths and three areas of your farm business that need improvement.

Strengths:	Needs improvement:

GLOSSARY AND LOCATION OF COMMON TERMS

Accounts Payable - Open accounts or bills owed to feed and supply firms, cattle dealers, veterinarians and other providers of farm services and supplies.

Accounts Receivable - Outstanding receipts from items sold or sales proceeds not yet received, such as the payment for December milk sales received in January.

Accrual Expenses - (defined on page 3)

Accrual Receipts - (defined on page 4)

Annual Cash Flow Statement - (defined on page 12)

Appreciation - (defined on page 5)

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

Balance Sheet - A "snapshot" of the business financial position at a given point in time, usually December 31. The balance sheet equates the value of assets to liabilities plus net worth.

Capital Efficiency - The amount of capital invested per production unit. Relatively high investments per worker with low to moderate investments per cow imply efficient use of capital.

Cash From Nonfarm Capital Used in the Business - Transfers of money from nonfarm savings or investments to the farm business where it is used to pay operating expenses, make debt payments and/or capital purchases.

Cash Flow Coverage Ratio - (defined on page 14)

Cash Paid - (defined on page 2)

Cash Receipts - (defined on page 4)

Change in Accounts Payable - (defined on page 3)

Change in Accounts Receivable - (defined on page 4)

Change in Inventory - (defined on page 2)

Current Portion - (defined on page 7)

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

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

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

Debt to Asset Ratios - (defined on page 10)

Deferred Taxes - (defined on page 9)

Dry Matter - The amount or proportion of dry material that remains after all water is removed. Commonly used to measure dry matter percent and tons of dry matter in feed.

Equity Capital - The farm operator/manager's owned capital or farm net worth.

Expansion Livestock - Purchased dairy cattle and other livestock that cause an increase in herd size from the beginning to the end of the year.

Farm Debt Payments as Percent of Milk Sales - Amount of milk income committed to debt repayment, calculated by dividing planned debt payments by total milk receipts. A reliable measure of repayment ability, see page 14.

Farm Debt Payments Per Cow - Planned or scheduled debt payments per cow represent the repayment plan scheduled at the beginning of the year divided by the average number of cows for the year. This measure of repayment ability is used in the Financial Analysis Chart.

Financial Lease - A long-term non-cancellable contract giving the lessee use of an asset in exchange for a series of lease payments. The term of a financial lease usually covers a major portion of the economic life of the asset. The lease is a substitute for purchase. The lessor retains ownership of the asset.

Income Statement - A complete and accurate account of farm business receipts and expenses used to measure profitability over a period of time such as one year or one month.

Labor and Management Income - (defined on page 6)

Labor and Management Income Per Operator - The return to the owner/manager's labor and management per full-time operator.

Labor Efficiency - Production capacity and output per worker.

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

Net Farm Income - (defined on page 5)

Net Worth - The value of assets less liabilities equal net worth. It is the equity the owner has in owned assets.

Operating Costs of Producing Milk - (defined on page 19)

Opportunity Costs - The cost or charge made for using a resource based on its value in its most likely alternative use. The opportunity cost of a farmer's labor and management is the value he/she would receive if employed in his/her most qualified alternative position.

Other Livestock Expenses - All other dairy herd and livestock expenses not included in more specific categories. Other livestock expenses include; bedding, DHIC, milk house and parlor supplies, livestock board, registration fees and transfers.

Part-Time Cash-Crop Dairy (farm) - Operating and managing this farm is not a full-time occupation, crop sales exceed 10 percent of accrual milk receipts and cropland is owned.

Part-Time Dairy (farm) - Dairy farming is the primary enterprise, cropland is owned but operating and managing this farm is not a full-time occupation for one or more people.

Personal Withdrawals and Family Expenditures Including Nonfarm Debt Payments - All the money removed from the farm business for personal or nonfarm use including family living expenses, health and life insurance, income taxes, nonfarm debt payments, and investments.

Profitability - The return or net income the owner/manager receives for using one or more of his or her resources in the farm business. True "economic profit" is what remains after deducting all the costs including the opportunity costs of the owner/manager's labor, management, and equity capital.

Purchased Inputs Cost of Producing Milk - (defined on page 19)

Repayment Analysis - An evaluation of the business' ability to make planned debt payments.

Replacement Livestock - Dairy cattle and other livestock purchased to replace those that were culled or sold from the herd during the year.

Return on Equity Capital - (defined on page 7)

Return on Total Capital - (defined on page 7)

Return to Operators' Labor, Management, and Equity Capital - (defined on page 6)

Solvency - The extent or ability of assets to cover or pay liabilities. Debt/asset and leverage ratios are common measures of solvency.

Total Costs of Producing Milk - (defined on page 19)

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

INDEX

OTHER A.R.M.E. EXTENSION BULLETINS
(Formerly A.E. Ext. Publications)

No. 93-16	Farm Income Tax Management and Reporting Reference Manual	George L.Casler Stuart F. Smith
No. 93-17	New York Economic Handbook 1994 Agricultural Situation and Outlook	Ag Ec Staff
No. 93-18	Time Value of Money	Eddy L. LaDue
No. 94-01	Fruit Farm Business Summary Lake Ontario Region New York 1992	Gerald B. White Alison DeMarree Linda D. Putnam
No. 94-02	Micro DFBS, A Guide to Processing Dairy Farm Business Summaries in County and Regional Extension Offices for Micro DFBS Version 3.0	Linda D. Putnam Wayne A. Knoblauch Stuart F. Smith
No. 94-03	Dairy Farm Cash Flow, Debt Repayment Ability and Financial Analysis	George L. Casler
No. 94-04	The Cornell Program on Dairy Markets and Policy Summary of Activities, 1989 to 1993	Andrew M. Novakovic
No. 94-05	Bibliography of Horticultural Product Marketing and Related Topic Papers, Second Edition	Enrique E. Figueroa
No. 94-06	DFBS Expert System For Analyzing Dairy Farm Businesses Users' Guide for Version 4.0	Linda D. Putnam Stuart F. Smith