DAIRY FARM BUSINESS SUMMARY

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NORTHERN NEW YORK 1979

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1979 NORTHERN NEW YORK
FARM BUSINESS SUMMARY

The Northern New York region is comprised of six counties located in the northeastern portion of the State. The counties included in the 1979 regional summary were Lewis, Jefferson, St. Lawrence, Franklin, Clinton and Essex. This is one of ten regional dairy farm business summaries in New York State.

The distribution of the 111 farms included in the 1979 summary was:

Clinton	2	Jefferson	4
Essex	8	Lewis	45
Franklin	9	St. Lawrence	43

The primary purpose of the Cornell farm business management projects is to assist cooperators in farm recordkeeping and analysis and thereby improve their farm business management skills. This report is prepared in workbook form for use in the systematic study of an individual farm business operation. This booklet should be of use to farmers in the area who are not enrolled in the business management projects and to agribusinessmen as well as to the cooperators. Spaces are provided for the figures of the farm being studied, and the group averages can be used for comparison purposes.

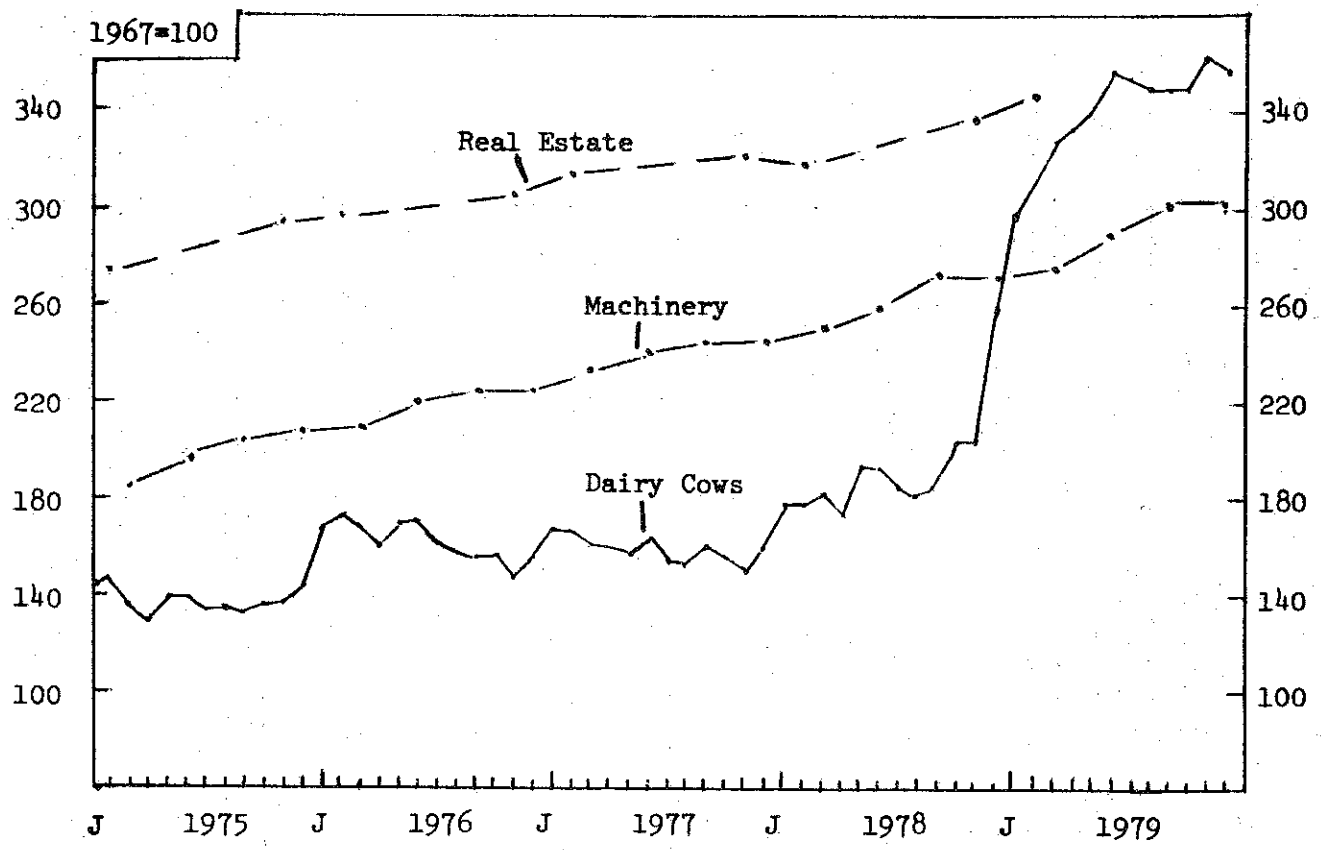
The high 1979 labor and management income was boosted by rising cow values and reduced by higher costs of capital. The average cattle inventory increased $22,500 during the year, $17,000 of the increase was due to higher prices. The charge for using equity capital was increased from seven to nine percent in 1979, resulting in an increased cost of $5,367 per farm.

As dairy farms become larger and more specialized, changes in prices and weather conditions have a greater impact on the net income from the business. Large fixed debt payments and overhead costs make it difficult to adjust quickly. The manager needs to keep close check on his business throughout the year and make adjustments as soon as possible. The dairyman who keeps good records and analyzes his business systematically generally is in a better position to make the adjustments needed in these changing times.

Record systems which provide monthly reports are especially helpful in periods of price changes. They alert the manager to developing situations sooner. This is one of the advantages of most electronic record systems.

This summary was prepared by Robert A. Milligan, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences in cooperation with Haskell Yancey, Lewis County Extension Agent; Andrew Dufresne, Jefferson County Cooperative Extension Agent; George Field, St. Lawrence County Extension Agent; Bruce Hazen, Franklin County Extension Agent; Geoffrey Yates, Extension Specialist for Clinton, Essex and Franklin Counties; and Anita Graves, Essex County Extension Agent. Linda Putnam and Myrtle Voorheis provided invaluable assistance in compilation of the information.

Prices VALUE OF NEW YORK FARM REAL ESTATE, DAIRY COWS & MACHINERY 1975-1979



Price changes affect the inventory values on New York dairy farms. Real estate and machinery prices have risen steadily during the past five years. Dairy cow prices dropped during 1974, rose sharply in late 1975, fluctuated throughout 1976 and 1977, and then jumped 62 percent in 1978. Dairy cow prices continued upward in 1979 and were reported at $1,105 for December, or 38 percent above the December 1978 price. From 1967 to 1979, machinery prices increased 202 percent, dairy cows 256 percent and real estate increased an estimated 255 percent.

Table 1. REPORTED VALUES OF DAIRY FARM INVENTORY ITEMS, 1975-1979

Year	N.Y. Dairy Cows		Machinery	N.Y. Farm Real Estate	
	Value/Head	1967=100	1967=100	Value/Acre	1967=100
1975	(Dec.) $450	145	(Dec.) 222	(Nov.) $543	294
1976	(Dec.) 485	156	(Dec.) 233	(Nov.) 562	304
1977	(Dec.) 495	160	(Dec.) 253	(Nov.) 593	320
1978	(Dec.) 800	258	(Dec.) 276	(Nov.) 629	339
1979	(Dec.) 1105	356	(Dec.) 302	(est.)	355
Percent change:					
1975 to 1976	+ 8%		+ 5%	+ 3%	
1976 to 1977	+ 3%		+ 9%	+ 5%	
1977 to 1978	+62%		+ 9%	+ 6%	
1978 to 1979	+38%		+ 9%	+ 5% (est.)	

SUMMARY OF THE FARM BUSINESS

Knowledge of farm resource availability and business characteristics is fundamental to judging management performance. The combination of resources and the management techniques used to put the resources to work is an important part of farm organization. The tables below show important farm business characteristics, the number of farms reporting these characteristics, and the average use of farm resources.

BUSINESS CHARACTERISTICS AND RESOURCES USED
111 Northern New York Dairy Farms, 1979

Type of Business	Number
Individual	95
Partnership	16
Corporation	0

Business Records	Number
CAMIS	9
Account Book	69
Agrifax	12
Farm Bureau	2
Agway	5

Dairy Records	Number
D.H.I.C	69
Owner Sampler	15
Other	11
None	16

Barn Type	Number
Stanchion	77
Freestall	31
Other	3

Milking System	Number
Bucket & carry	1
Dumping station	48
Pipeline	35

Milking System	Number
Herringbone	20
Other parlor	7

Labor Force	My Farm	Average
Operator	_____	14 mo.
Family paid	_____	4 mo.
Family unpaid	_____	4 mo.
Hired	_____	6 mo.
Total	_____	28 mo.
Age of operator(s)	_____	40
Estimated value op.'s labor & management	_____	$14,505

Land Used	My Farm	Average
Total acres owned	_____	306
Total acres rented	_____	61
Total acres cropped	_____	184
Rented acres cropped	_____	41

Number of Cows	My Farm	Average
Beginning of year	_____	59
End of year	_____	63
Average for year	_____	61

As in 1978, a distinguishing feature of the 1979 business summaries is the large increase in total farm inventory. The average inventory increased nearly 20 percent following a 1974 increase of 17 percent. Livestock inventories increased an average of $22,560 or 34 percent. Since cow numbers increased only modestly, most of the increase is in per head values. The end of year farm inventory values are used in valuing farm assets in this report.

CAPITAL INVESTMENT--FARM INVENTORY VALUES
111 Northern New York Dairy Farms, 1979

Item	My Farm 1/1/79	My Farm 1/1/80	Average 111 Farms 1/1/79	Average 111 Farms 1/1/80
Livestock	$_____	$_____	$ 65,832	$ 88,392
Feed & supplies	_____	_____	14,842	18,599
Machinery & equipment	_____	_____	51,661	60,127
Land & buildings	_____	_____	123,384	139,676
TOTAL	_____	_____	$255,719	$306,794

Machinery and Real Estate Inventory Calculations

Capital outlays for machinery, buildings and land or land improvements, usually occur in large uneven amounts but depreciate gradually over a period of time. Machinery depreciation is calculated from changes in machinery values rather than by using the accounting values required for tax purposes and is included as a farm expense.

MACHINERY & EQUIPMENT DEPRECIATION
111 Northern New York Dairy Farms, 1979

Item	My Farm		Average 111 Farms	
Beginning Inventory	$_____		$51,661	
Machinery Purchases	_____		14,350	
Total (1)		$_____		$66,011
End of Year Inventory	$_____		$60,127	
Machinery Sold	_____		305	
Total (2)		$_____		$60,432
DEPRECIATION (1 minus 2)		$_____		$ 5,579
Percent Depreciation		_____%		8%

Lost capital is the difference between the cost of new buildings or land improvements and the amount these improvements add to the value of the farm. It is not included in farm expenses, since depreciation of these items is based on the full cost of these items and will account for lost capital over the life of the investment. Building depreciation is taken from the farm depreciation schedule and is included as a farm expense. Real estate appreciation was estimated by each farm operator. It is the increase in value of real estate caused by demand and inflation. Appreciation averaged 7.0 percent on these farms in 1979. On 134 Northern New York farms appreciation averaged 7.2 percent in 1978.

REAL ESTATE INVENTORY CALCULATIONS
111 Northern New York Dairy Farms, 1979

Item	My Farm		Average 111 Farms	
Beginning Market Value		$_____		$123,384
Cost of New Real Estate	$_____		$15,736	
Less Lost Capital	-_____		- 2,740	
Value of New Added		+$_____		+ 12,996
Less Building Depreciation		- _____		- 3,344
Less Real Estate Sold		- _____		- 1,970
Total Without Appreciation		$_____		$131,066
Appreciation of Beginning Real Estate		+ _____		+ 8,610
End of Year Market Value		$_____		$139,676

Receipts

Receipts (cash and non-cash) from the business should be large enough to cover all expenses (cash and non-cash) and leave a reasonable return for the operator's labor and management. Here we look at sources and amounts of receipts for this group of farms.

Total cash receipts increased about $13,000 or 13 percent compared to those farms summarized in 1978. Livestock sales (dairy cattle sold and calves and other livestock sales) increased 34 percent. The $22,560 increase in livestock exceeded the $20,800 increase in 1978. An estimated $16,500 of the increase was due to higher values per head with the remainder due to slightly higher numbers of animals. The increase in feed and supplies was $1,000 more than in 1978 due to many farms experiencing good harvests and some farms purchasing inputs, especially fertilizer, for 1980.

FARM RECEIPTS
111 Northern New York Dairy Farms, 1979

Item	My Farm	Average 111 Farms	
		Amount	Percent
Milk sales	$_____	$100,981	87.8
Crop sales	_____	684	0.6
Dairy cattle sold	_____	8,255	7.2
Calves & other livestock sales	_____	3,129	2.7
Gas tax refunds	_____	103	1.7
Government payments	_____	675	
Work off farm	_____	340	
Custom machine work	_____	87	
Other	_____	679	
Total Cash Receipts	$_____	$114,933	100.0
Increase in Livestock	_____	22,560	
Increase in Feed & Supplies	_____	3,757	
TOTAL FARM RECEIPTS	$_____	$141,250	

The average price received for milk in 1979 on these 111 farms was $11.80 which was up $1.51 or 14.6 percent compared to the average milk sales per cow which increased almost 19 percent.

INCOME ANALYSIS

Item	Northern New York Average		My Farm
	134 Farms, 1978	111 Farms, 1979	1979
Average price/cwt. milk sold	$10.29	$11.80	$_____
Milk sales per cow	$1,393	$1,655	$_____
Total cash receipts/man	$45,198	$49,327	$_____

Expenses

Cash expenses on these 111 farms averaged over $320 per day. Classifying expenses into categories can help identify those that need tighter control. Expenses vary considerably depending upon the importance of crop enterprises, the labor force and other factors. Interest on equity capital increased almost $6,500 compared to 1978 due to the increase in interest rate from 7 percent to 9 percent and larger amounts of equity capital.

FARM EXPENSES
111 Northern New York Dairy Farms, 1979

Item	My Farm	Average 111 Farms	
		Amount	Percent
Hired Labor	$_____	$ 7,038	8
Feed			
Dairy concentrate	_____	30,995	37
Other feed	_____	1,089	1
Machinery			
Machine hire	_____	533	1
Machinery repairs	_____	4,579	5
Auto expense (farm share)	_____	402	--
Gas & oil	_____	3,274	4
Livestock			
Purchased livestock	_____	3,202	4
Breeding fees	_____	1,069	1
Veterinary & medicine	_____	1,988	2
Milk marketing	_____	1,748	2
Other livestock expense	_____	3,388	4
Crops			
Fertilizer & lime	_____	4,679	6
Seeds & plants	_____	1,371	2
Spray, other crop expense	_____	959	1
Real Estate			
Land, building, fence repair	_____	1,882	2
Taxes	_____	2,312	3
Insurance	_____	1,710	2
Rent	_____	685	1
Other			
Telephone (farm share)	_____	407	1
Electricity (farm share)	_____	1,678	2
Interest paid	_____	8,733	10
Miscellaneous	_____	1,196	1
Total Cash Expenses	$_____	$84,917	100
Noncash Items			
Machinery depreciation	$_____	$ 5,579	
Building depreciation	_____	3,344	
Unpaid family labor	_____	1,800	
Interest on equity capital @ 9%	_____	17,649	
Decrease in feed	_____	--	
TOTAL FARM EXPENSES	$_____	$113,289	

Financial Summary of Year's Business

The financial summary of the year's operation reflects the results of management. Researchers have developed a number of ways to measure the returns from a farm business. Four common measures are reported on the next two pages.

Net cash farm income reflects the cash available from the year's operation of the business. Family living has first claim on cash income followed by fixed payments on debts. A family may have additional cash available if they have non-farm income. Cash flow is not a good measure of farm business profits, but it is useful when planning debt repayment programs. Guidelines for annual cash flow planning are presented on page 10. Monthly cash flow planning is also recommended and may be required in order to identify cash flow problems in the year ahead. This is particularly true when major changes in the business are planned or when the price of important factors such as purchased concentrate or fertilizer are expected to change significantly.

NET CASH FARM INCOME
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Cash Farm Receipts	$101,696	$114,933	$_____
Cash Farm Expenses	77,282	84,917	_____
NET CASH FARM INCOME	$ 24,414	$ 30,016	$_____

Labor and management income is the return to the operator for his/her efforts in operating the business. A 9 percent charge for the use of the operator's equity capital in the business has been included as a farm expense. This interest charge reflects what the operator could have earned from this capital had it been invested elsewhere, such as in bank certificates.

Again, for 1979 the average labor and management income per operator is reported with the increase in cattle values included and excluded. The rise in cattle values has occurred and it is reasonable to include it in the income calculation. For comparison purposes, however, calculations have been made with effects of the cattle value increases excluded. Labor and management income per operator in 1979 is 11 percent higher than in 1978 with increased cattle values included and 77 percent or $4,743 greater with increased cattle values excluded.

LABOR AND MANAGEMENT INCOME
111 Northern New York Dairy Farms, 1979

Item	Ave. 111 Farms, 1979 Increased Cattle Value Included	Ave. 111 Farms, 1979 Increased Cattle Value Excluded	My Farm Increased Cattle Value Included	My Farm Increased Cattle Value Excluded
Total Farm Receipts	$141,250	$124,302	$_____	$_____
Total Farm Expenses	113,289	111,764	_____	_____
LABOR & MGT. INCOME	$ 27,961	$ 12,538	$_____	$_____
Number of Operators	1.153	1.153	_____	_____
LABOR & MGT. INCOME PER OPERATOR	$ 24,251	$ 10,874	$_____	$_____

Labor, management and ownership income per operator reflects the combined return to the farmer for his triple role of worker-manager, financier, and owner. Again, this is not a measure of the cash flow situation of the farm business. A satisfactory labor, management and ownership income may not eliminate cash flow problems if liabilities are large and repayment is rapid.

LABOR, MANAGEMENT AND OWNERSHIP INCOME
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Labor & management income	$25,413	$27,961	$_____
Real estate appreciation	8,567	8,610	_____
Interest on equity capital*	12,282	17,649	_____
Total per farm	$46,262	$54,220	$_____
Number of operators	1.164	1.153	_____
LABOR, MANAGEMENT AND OWNERSHIP INCOME/OPERATOR	$39,744	$47,025	$_____

*Seven percent interest charge in 1978; nine percent in 1979.

Return on equity capital is a common measure for nonfarm businesses. It can be computed with or without real estate appreciation. Both measures are shown below. To compute the rate of return, divide return on equity capital by farm net worth or equity capital. Excluding both real estate appreciation and increase in livestock values, the rate of return on equity capital is 6.7 percent.

RETURN ON EQUITY CAPITAL
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
	Including Real Estate Appreciation		
Labor, Mgt. & Ownership Income/Farm	$46,262	$54,220	$_____
Less: Value of Operator's Labor & Mgt.*	15,497	16,724	_____
Return on Equity Capital	$30,765	$37,496	$_____
Rate of Return on Equity Capital	17.5%	19.1%	_____%
	Excluding Real Estate Appreciation		
Return on Equity Capital (see above)	$30,765	$37,496	$_____
Less: Real Estate Appreciation	8,567	8,610	_____
Return on Equity Capital	$22,198	$28,886	$_____
Rate of Return on Equity Capital	12.6%	14.7%	_____%

*Value of operator's labor and management estimated by operators (page 3--$14,505 times 1.153 operators per farm for 1979).

Farm Family Financial Situation

The financial situation is an important part of the farm business summary. It has a direct effect on current cash outflow and future capital investment decisions. A farm business may have a good labor and management income, but a high debt payment schedule may seriously restrict management flexibility. Complete financial data was submitted by each of the 111 Northern New York farms.

Farm net worth (equity capital) is total farm assets less total farm liabilities. Family net worth is total assets less all liabilities reported.

Farm net worth (equity capital) averaged $196,104 on these 111 Northern New York farms. Farm Net Worth is Total Farm Assets less Total Farm Liabilities. Family Net Worth is Total Assets less Total Liabilities. The increase in livestock values during 1979 would be reflected in the net worth statement above. Likewise, rises in machinery and real estate values also affect the net worth.

FARM FAMILY FINANCIAL SITUATION
111 Northern New York Dairy Farms, January 1, 1980

Item	My Farm	Average 111 Farms Amount	Percent
Assets			
Livestock	$_____	$ 88,393	27
Feed and supplies	_____	18,599	6
Machinery and equipment	_____	60,128	19
Land and buildings	_____	139,677	44
Co-op investment	_____	2,477	1
Accounts receivable	_____	5,152	2
Cash and checking accounts	_____	2,163	1
Total Farm Assets	$_____	$316,589	100
Savings accounts	$_____	$ 3,025	
Cash value life insurance	_____	2,555	
Stocks and bonds	_____	1,865	
Nonfarm real estate	_____	12,125	
Auto (personal share)	_____	1,112	
All other	_____	6,283	
Total Nonfarm Assets	$_____	$ 26,965	
TOTAL ASSETS	$_____	$343,554	
Liabilities			
Real estate mortgage	$_____	$ 64,536	53
Liens on cattle & equipment	_____	43,316	36
Installment contracts	_____	4,710	4
Notes and other farm debt	_____	7,923	7
Total Farm Liabilities	$_____	$120,485	100
Nonfarm Liabilities	_____	3,112	
TOTAL LIABILITIES	$_____	$123,597	
Farm Net Worth (equity capital)	$_____	$196,104	
Family Net Worth	$_____	$219,957	

Payment Ability is an important consideration in determining if and how proposed investments should be financed. The farm business must produce sufficient cash income to meet operating expenses, to cover family or personal living expenses, to make debt payments and to cover cash purchases of capital items that normally take place during the year.

Estimated payment ability for 1979 is summarized in the following table. Interest paid is added to net cash farm income because debt payments include interest as well as principal. You should estimate your family living expenses in order to calculate the cash available for debt payment, capital purchases made in cash and capital retention.

Debt Payments Planned for 1980 are the scheduled debt payments as of January 1980. The debt payments per cow are figured on the basis of the number of cows at the end of the year NOT the average number for the year. The percent debt payments are of milk sales is based on last year's milk sales which may be less than those for the coming year if there has been an expansion in the business.

FINANCIAL MEASURES & DEBT COMMITMENT
111 Northern New York Dairy Farms, January 1, 1980

Item	My Farm	Average 111 Farms
Payment Ability		
Net cash farm income (from page 7)	$_____	$30,016
Add: Interest paid (from page 6)	_____	8,733
CASH AVAILABLE FOR DEBT SERVICE & LIVING	$_____	$38,749
Less: Family living expenses	_____	$11,515*
CASH AVAILABLE FOR DEBT PAYMENT AND CAPITAL PURCHASES	$_____	$27,234
Scheduled Annual Debt Payments		
Real estate mortgage	$_____	$ 7,746
Cattle and equipment liens	_____	9,384
Installment contracts	_____	1,375
Notes and other	_____	3,563
TOTAL PAYMENTS PLANNED 1980	$_____	$22,068
Measure of Debt Commitment & Equity Position		
Scheduled debt payments per cow	$_____	$ 350
Scheduled debt payments as % of milk sales	_____%	22%
Farm debt per cow	$_____	$ 1,912
Percent equity (total)	_____%	64%

*Estimated at $6,000 per family (assuming one family per operator and 1.153 operators per farm) plus four percent of cash farm receipts.

An analysis of the farm business financial situation can point up many things about the operator's management of finances. The checklist below is designed to help you focus on financial management practices and how you compare with other dairymen.

A FARM FINANCE CHECKLIST
Northern New York Dairy Farms, 1978 & 1979

	1978		1979	1979
	Ave. 527 N.Y. Farms	Ave. Top 10% Farms	Ave. 111 N.N.Y. Farms	My Farm
A. How assets are being used:				
1. Total inventory (capital)/cow	$4,500	$4,400	$4,900	$_____
2. % assets in productive units	22%	25%	28%	_____%
3. % assets in farm real estate	49%	44%	44%	_____%
4. % assets in machinery & equipment	18%	19%	19%	_____%
5. % assets in cash and checking accounts	1%	1%	1%	_____%
B. Characteristics of the debt structure:				
1. % debt long-term	56%	50%	53%	_____%
2. % debt in chattel liens	34%	40%	40%	_____%
3. % debt installment contracts	2%	2%	4%	_____%
4. % debt in notes & open accounts	8%	8%	7%	_____%
C. Have you borrowed to the limit?				
1. % equity in business	65%	69%	64%	_____%
2. Real estate debt as % of inventory value	43%	37%	46%	_____%
3. Liens as % of livestock & machinery inventory	32%	31%	29%	_____%
D. How is your debt repayment schedule?				
1. Farm debt per cow	$1,700	$1,500	$1,912	$_____
2. Scheduled debt payments/cow	$292	$298	$350	$_____
3. Scheduled debt payments as % of milk check	21%	20%	22%	_____%
E. What financial progress did you make last year?				
1. Change in farm assets	+$48,700*	xxxx	xxxx	$_____
2. Change in farm debts	+$8,900	xxxx	xxxx	$_____
3. Change in net worth	+$39,800	xxxx	xxxx	$_____

*Progress of 365 same farms for 1977 and 1978.

ANALYSIS OF THE FARM BUSINESS

In analyzing a farm business, a manager must consider measures or factors that reflect the performance of specified parts of the farm business. One means of doing this is to look at factors of size, production, labor efficiency, capital efficiency and cost. These factors are considered on the following pages. Another method, which is not considered in this workbook, is to analyze the farm business by analyzing the individual crop and livestock enterprises and the relationships between these enterprises.

Size of Business

Studies have shown that, in general, larger farms are more profitable. Two basic reasons for this are that larger businesses make possible more efficient use of overhead inputs such as labor and machinery and there are more units of production on which to make a profit. Another reason is that profitable farm businesses with good management have the ability and incentive to become larger. It is imperative to remember that large farms are not necessarily profitable and that increases in size are only profitable with good management.

The average Northern New York farm summarized in 1979 was slightly smaller than the average farm summarized in 1978 with three less cows, three less heifers and 17 less crop acres.

MEASURES OF SIZE OF BUSINESS
Northern New York Dairy Farms, 1978 & 1979

Measure	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Number of cows	64	61	
Number of heifers	44	41	
Pounds milk sold	866,500	856,000	
Man equivalent	2.3	2.3	
Total work units	714	677	
Total acres of crops	201	184	

Number of cows is one measure of size. In the table below, the 527 New York dairy farms that summarized in 1978 are sorted by number of cows and the labor and management income is shown for each size group.

COWS PER FARM AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Number of Cows	Number of Farms	Percent of Farms	Labor & Management Income Per Operator	Per Cow
Under 40	73	13%	$ 9,865	$307
40 - 54	156	30	14,480	345
55 - 69	104	20	18,505	376
70 - 84	68	13	20,246	345
85 - 99	34	6	18,818	286
100 - 114	28	5	32,417	382
115 - 129	19	4	27,440	358
130 - 149	16	3	32,752	341
150 and over	29	6	45,387	329

Rates of Production

Crop yields and livestock production rates, primarily production per cow, are factors that affect the profitability of the respective enterprises and consequently farm income.

Tons of hay equivalent of all hay and silage is a good measure of the overall rate of forage production. One ton of hay equivalent is equal to one ton of dry hay containing 90 percent dry matter.

The 1979 hay crop yield of 2.5 tons hay equivalent is up from 2.0 in 1978. With corn silage yields essentially the same (13.1 tons in 1978) the forage crop yield of 3.0 tons hay equivalent was up from 2.7 in 1978. Estimated 1979 average yields for New York State were 2.26 for all hay crop and 13.0 for corn silage.

CROP YIELDS & MILK SOLD PER COW
111 Northern New York Dairy Farms, 1979

Crop	My Farm		Average of Farms Reporting		
	Acres	Yield	Farms Reporting	Acres	Yield
Dry hay	_____	_____	110	85	(combined
Hay crop silage	_____	_____	89	51	below)
Corn silage	_____	_____	103	49	13.0 ton
Grain corn	_____	_____	16	40	98 bu.
Oats	_____	_____	19	13	48 bu.
Hay equivalent:					
All hay crops	_____	_____	111	127	2.5 ton
All hay & silage	_____	_____	111	173	3.0 ton
Milk sold per cow	_____			14,033 lbs.	

The importance of strong milk output per cow is shown in the table below.

MILK SOLD PER COW AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Pounds of Milk Sold Per Cow	Number of Farms	Number of Cows	Feed Bought Per Cow	Labor & Mgmt. Income Per Operator	Per Cow
Under 10,000	28	60	$294	$ 3,400	$ 64
10,000 - 10,999	37	52	339	10,170	227
11,000 - 11,999	37	67	334	19,230	349
12,000 - 12,999	76	69	370	18,680	296
13,000 - 13,999	99	75	378	18,680	294
14,000 - 14,999	99	79	442	23,650	369
15,000 - 15,999	85	75	465	26,690	456
16,000 and over	66	65	499	21,590	438

Labor Efficiency

The labor input is an important factor in farm production. Several measures of labor efficiency measured by accomplishment per man are shown below.

Number of cows per man is calculated by dividing the average number of cows by the man equivalent which includes the total farm labor force. Pounds of milk sold per man is an important measure of labor efficiency on the dairy farm. It measures the ability of the labor force to handle a large number of cows without sacrificing milk output per cow.

It is important to look at other measure of labor efficiency, such as work units per man because all dairy farms do not have the same relationship between cows, heifers and crops grown.

Labor efficiency depends on a number of things. Among these are the amount of mechanization, the field and building layout, the work methods and the abilities of the workers. All of these are management items under the control of the operator.

MEASURES OF LABOR EFFICIENCY
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Man equivalent	2.3	2.3	_____
Cows per man	28	26	_____
Lbs. milk sold per man	385,100	367,400	_____
Work units per man	317	291	_____

The importance of pounds of milk sold per man is illustrated in the table below.

MILK SOLD PER MAN AND LABOR AND MANAGEMENT INCOME
527 New York Dairy Farms, 1978

Pounds of Milk Sold Per Man	Number of Farms	Number of Cows	Lbs. Milk Per Cow	Labor & Mgmt. Income Per Operator	Per Cow
Under 250,000	62	41	11,200	$ 6,760	$191
250,000 - 299,999	60	49	12,900	12,830	309
300,000 - 349,999	71	68	13,100	14,170	279
350,000 - 399,999	91	66	13,800	21,000	376
400,000 - 449,999	82	73	14,400	23,090	392
450,000 - 499,999	64	79	14,500	23,500	337
500,000 - 599,999	67	97	15,200	25,570	366
600,000 and over	30	120	14,500	34,840	413

Capital Efficiency

Capital is a key resource and it is important to analyze its use in the business. The measures of capital efficiency shown in the following table include owned as well as borrowed capital. The management of borrowed capital has been considered on pages 10 and 11. It is possible for a business to be under capitalized, but investing too much capital per productive unit is a more common problem. The best way a farmer can get a good return on capital invested in his business is to "put it to work".

Land and building investment per crop acre owned shows the relationship between investments in land and buildings and crop acres owned. The farmer who owns little cropland but builds lots of farm buildings will have a relatively large land and building investment per crop acre owned. This could be an indication that his use of capital is "out of balance"; however, the level depends upon how much of the feed required is grown on the farm.

Capital turnover is calculated by dividing the total farm capital (total year end farm inventory) by the total farm receipts for the year. The factor is called capital turnover because it measures the number of years of receipts needed to equal or "turnover" farm capital. A fast rate of turnover is more desirable than a slow rate because it means capital purchases can be paid off at a faster rate. This figure can also depend upon the enterprise selection of the farm business.

MEASURES OF CAPITAL EFFICIENCY
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Farm capital per man	$121,059	$131,671	$_____
Farm capital per cow	4,190	4,870	_____
Land & buildings per cow	1,999	2,217	_____
Land & buildings/crop acre owned	890	977	_____
Machinery investment per cow	830	954	_____
Machinery investment per crop acre	264	316	_____
Capital turnover	2.2 yrs.	2.2 yrs.	_____yrs.

SIZE OF HERD AND CAPITAL EFFICIENCY
527 New York Dairy Farms, 1978

Number of Cows	Number of Farms	Capital Investment Per Cow			Total Capital Per Cwt. Milk
		Total	Real Estate	Machinery	
Under 40	73	$4,860	$2,660	$900	$38
40 - 54	156	4,780	2,500	890	36
55 - 69	104	4,570	2,300	890	33
70 - 84	68	4,880	2,500	940	34
85 - 99	34	4,390	2,200	800	33
100 - 114	28	4,480	2,200	800	32
115 - 129	19	4,100	2,000	750	30
130 - 149	16	4,000	2,000	700	28
150 and over	29	3,800	1,800	680	28

Cost Control

The control of costs is a big factor in the success of modern commercial dairy operations. Feed, machinery and labor costs are major items and are examined in detail. However, it is important to check all cost items both large and small. Expenses should be incurred only when the returns from the expense are expected to be greater than the cost incurred.

Feed Costs

Purchased feed is the largest single expenditure on most dairy farms. The average Northern New York farm included in this summary used 32 cents from each dollar's worth of milk sold to purchase dairy feed in 1979.

Two considerations are important in keeping the feed bill down: (1) Be certain that only nutrients required by the cow are being fed. A dairyman cannot afford to buy a feed mix that overfeeds energy or protein. (2) Be certain that the required nutrients are being obtained from their cheapest souce. For example, what is the chepest source of protein? urea? soybean oil meal? a commercial protein? Help in answering these questions can come from budgeting, from agribusinessmen selling feeds and from dairy and management extension agents. Extension is supporting two computerized decision aids to assist in answering these questions: a NEWPLAN program, Least Cost Balanced Dairy Rations and the NYDHIC forage balancing program.

The size and productivity of the crop program has an important influence on the size of the purchased feed bill. Increased production of either roughages or grains should reduce the purchased feed expense unless cow numbers are increased. Also, the heifer raising practices affect feed costs. The overall feed situation must be examined and evaluated as a "system".

FEED COSTS AND RELATED MEASURES
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Purchased feed per cow	$435	$508	$_____
Purchased feed per cwt. milk	$3.22	$3.62	$_____
Crop expense per cow	$95	$115	$_____
Feed & crop expense per cwt. milk	$3.92	$4.44	$_____
Percent feed is of milk receipts	31%	31%	_____%
Hay equivalent per cow (tons)	8.0	8.4	_____
Crop acres per cow	3.1	3.0	_____
Lime and fertilizer per crop acre	$18	$25	$_____
Heifers as % of cow numbers	63%	67%	_____%

Machinery, Labor and Miscellaneous Costs

Labor and machinery operate as a "team" on a modern farm. The challenge is to get an efficient combination that will give a reasonable cost per unit of output.

LABOR & MACHINERY COSTS
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Total machinery[1/]	$17,934	$19,397	$
Machinery cost per cow	280	318	
Machinery costs per crop acre	89.22	105.42	
Total labor costs[2/]	16,897	17,588	
Labor costs per cow	264	288	
Labor costs/cwt. milk	1.95	2.05	
Labor & machinery costs/cwt. milk	4.02	4.32	

[1/] Machinery depreciation, interest on the average machinery inventory, machine hire, machinery repairs, farm share of auto expense and gas and oil are all included.

[2/] Includes hired labor, paid family labor, unpaid family labor and operator's labor.

Other livestock expenses per cow include dairy supplies, bedding and DHIC fees but exclude breeding fees and milk marketing. Real estate expenses include repairs, taxes, insurance and rent. Veterinary and medicine costs per cow and other livestock expenses per cow are two of the most comparable cost figures discussed in this workbook since they are independent of crop enterprises.

Total farm expenses per cow were 19 percent higher in 1979 than in the farms summarized in 1978.

MISCELLANEOUS COSTS CONTROL MEASURES
Northern New York Dairy Farms, 1978 & 1979

Item	Average 134 Farms 1978	Average 111 Farms 1979	My Farm 1979
Veterinary & medicine per cow	$26	$33	$
Other livestock expense per cow	50	56	
Real estate expense per cow	93	108	
Total farm expenses per cow	1,559	1,857	

Other livestock expenses per cow include dairy supplies, bedding and DHIC fees but exclude breeding fees and milk marketing. Real estate expenses include repairs, taxes, insurance and rent.

How Does Your Management Measure Up?

After you have entered your farm business data on the previous pages of this workbook, summarize the facts by listing the strong and weak points below. Your business factors that exceed the regional average should be listed as strong points, factors that are close to the regional average should be identified as average, and factors that are below average should be listed under need improvement.

The Farm Business Chart on the opposite page can also 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 problems, consider alternative ways of solving each problem. Each alternative should be studied in detail. A budget can be used for projecting the likely results of each alternative.

A third and probably the best comparison that you should make can be accomplished by comparing your current business factors with your farm data from previous years. Page 26 is provided for this purpose. Answer the following questions to help evaluate the progress your business is making.

1) Do numbers of cows, heifers, labor force and crop acres make up a well balanced unit of resources?

2) Have rates of production increased each year?

3) When will milk output per man reach 600,000 pounds?

4) Have increases in costs per cow been limited to the effects of inflation?

5) Is growth in Net Worth keeping up with increased capital investment?

6) Is net cash farm income increasing fast enough to meet your needs?

7) Have you reached the business goals set for 1979 and set new goals for 1980?

Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing a business to determine the strong and weak points. The figure at the top of each column is the average of the top 10 percent of the 527 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.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
527 New York Dairy Farms, 1978

Size of Business			Rates of Production			Labor Efficiency	
Man Equiv-alent	No. of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crops Per Acre	Tons Corn Silage Per Acre	Cows Per Man	Pounds Milk Sold Per Man
5.0	168	2,333,700	17,100	4.4	20	44	631,900
3.4	106	1,499,800	15,800	3.4	17	37	518,900
2.9	83	1,188,200	15,200	3.0	16	33	473,100
2.5	70	1,004,200	14,700	2.7	15	31	434,000
2.3	62	875,000	14,100	2.5	14	29	403,100
2.0	55	769,700	13,600	2.3	13	27	373,500
2.0	50	671,400	13,000	2.1	12	25	340,700
1.7	44	578,000	12,400	1.9	11	23	306,000
1.5	39	487,500	11,300	1.7	9	21	264,200
1.2	31	352,100	9,400	1.2	6	17	192,400

Feed Bought		Machinery Cost	Labor and Machinery Cost	Feed and Crop Expense Per
Per Cow	% of Milk Receipts	Per Cow	Per Cow	Cwt. Milk
$178	13%	$151	$382	$2.36
263	20	197	443	2.98
322	24	226	482	3.24
371	26	250	517	3.48
398	28	271	541	3.67
424	30	288	565	3.85
455	32	311	598	4.04
489	34	338	636	4.29
539	37	376	695	4.62
644	43	476	826	5.27

The cost control factors are ranked from low to high, but the lowest cost is not necessarily the most profitable. Many things affect the level of costs, and these items must be taken into account when analyzing the factors.

This chart can be used to analyze a dairy business by drawing a line through the figure in each column which represents the level of management for this farm.

FARM BUSINESS SUMMARY BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Capital Investment (end of year)				
Livestock	$ 35,739	$ 52,755	$ 65,255	$ 78,468
Feed and supplies	8,173	13,258	19,892	28,543
Machinery and equipment	30,530	42,334	56,067	70,121
Land and buildings	89,130	119,477	144,548	187,022
TOTAL INVESTMENT	$163,572	$227,824	$285,762	$364,154
Receipts				
Milk sales	$ 44,369	$ 64,277	$ 88,791	$113,625
Dairy cattle sold	3,822	5,553	8,146	9,008
Other livestock sales	1,260	1,481	1,623	2,366
Crop sales	327	610	855	659
Miscellaneous receipts	1,474	1,612	1,969	2,739
Total Cash Receipts	$ 51,252	$ 73,533	$101,384	$128,397
Increase in livestock	9,421	13,303	15,071	17,986
Increase in feed & supplies	1,470	2,855	4,074	4,797
TOTAL FARM RECEIPTS	$ 62,143	$ 89,691	$120,529	$151,180
Expenses				
Hired labor	$ 1,371	$ 2,682	$ 5,625	$ 9,875
Dairy feed	12,936	18,960	24,903	31,012
Other feed	830	1,067	1,242	1,048
Machine hire	299	476	637	1,081
Machinery repair	2,287	3,202	4,783	6,270
Auto expense (farm share)	281	308	283	374
Gas and oil	1,534	1,996	2,823	3,497
Purchased animals	2,402	3,242	2,776	1,885
Breeding fees	606	912	1,085	1,338
Veterinary and medicine	841	1,236	1,559	1,953
Milk marketing	1,218	1,581	2,516	3,161
Other livestock expense	1,734	2,543	3,185	4,233
Fertilizer and lime	1,922	2,788	4,508	6,902
Seeds and plants	612	1,044	1,525	2,101
Spray and other crop expense	327	744	877	1,455
Land, bldg, fence repair	1,085	1,091	1,708	2,158
Taxes and insurance	2,304	3,068	3,752	4,805
Electric & phone (farm share)	1,218	1,622	2,098	2,548
Interest paid	3,190	5,806	7,232	8,654
Miscellaneous expenses	885	1,467	2,190	3,321
Total Cash Expenses	$ 37,882	$ 55,835	$ 75,307	$ 97,671
Machinery depreciation	3,077	4,280	5,626	6,504
Building depreciation	1,283	1,835	2,574	2,957
Unpaid family labor	1,700	1,700	1,275	850
Interest on equity @ 7%	8,070	10,171	12,801	17,303
Decrease in feed & supplies	--	--	--	--
TOTAL FARM EXPENSES	$ 52,012	$ 73,821	$ 97,583	$125,285
Financial Summary				
Total Farm Receipts	$ 62,143	$ 89,691	$120,529	$151,180
Total Farm Expenses	52,012	73,821	97,583	125,285
Labor & Mgt. Income	$ 10,131	$ 15,870	$ 22,946	$ 25,895
Number of operators	1.03	1.10	1.24	1.28
LABOR & MGT. INCOME/OPERATOR	$ 9,865	$ 14,480	$ 18,505	$ 20,246

FARM BUSINESS SUMMARY BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: 85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
Capital Investment (end of year)					
Livestock	$ 97,347	$121,909	$119,719	$141,329	$190,365
Feed and supplies	30,205	35,548	41,538	45,886	64,626
Machinery and equipment	74,732	87,843	93,068	99,001	132,126
Land and buildings	207,813	233,434	253,252	280,079	367,009
TOTAL INVESTMENT	$410,097	$478,734	$507,577	$566,295	$754,126
Receipts					
Milk sales	$131,892	$154,734	$178,211	$209,111	$292,088
Dairy cattle sold	12,876	14,438	12,279	17,746	23,754
Other livestock sales	2,776	4,671	2,549	3,182	5,066
Crop sales	1,537	1,051	1,479	944	2,102
Miscellaneous receipts	2,717	3,977	3,514	5,236	7,646
Total Cash Receipts	$151,798	$178,871	$198,032	$236,219	$330,656
Increase in livestock	22,212	35,079	29,387	34,682	46,650
Increase in feed & supplies	2,474	8,471	5,959	3,937	9,566
TOTAL FARM RECEIPTS	$176,484	$222,421	$233,378	$274,834	$386,872
Expenses					
Hired labor	$ 12,139	$ 14,607	$ 18,495	$ 24,385	$ 41,507
Dairy feed	36,223	48,215	46,532	58,126	78,730
Other feed	2,093	3,096	3,003	2,422	3,797
Machine hire	1,325	1,025	950	972	3,918
Machinery repair	8,028	8,105	9,079	12,487	15,440
Auto expense (farm share)	584	523	448	379	572
Gas and oil	4,808	4,963	5,854	6,361	9,147
Purchased animals	2,219	8,158	4,912	4,120	9,642
Breeding fees	1,764	1,938	2,186	2,640	3,151
Veterinary and medicine	2,419	2,870	3,102	4,394	4,704
Milk marketing	4,026	3,733	5,333	5,473	9,729
Other livestock expense	4,170	5,089	5,572	6,937	9,295
Fertilizer and lime	7,551	7,293	7,886	9,950	16,339
Seeds and plants	2,415	2,844	2,785	3,767	5,176
Spray and other crop expense	1,583	2,026	2,815	3,429	4,364
Land, bldg., fence repair	2,524	1,957	2,740	4,565	4,788
Taxes and insurance	5,970	5,919	7,178	8,028	11,419
Electric & phone (farm share)	3,176	3,258	3,914	3,406	5,161
Interest paid	10,676	13,477	12,395	14,610	20,567
Miscellaneous expenses	3,854	4,016	5,995	5,297	8,626
Total Cash Expenses	$117,547	$143,112	$151,174	$181,748	$266,072
Machinery depreciation	9,155	9,979	9,912	10,443	15,674
Building depreciation	3,284	5,885	4,293	7,095	7,289
Unpaid family labor	850	1,700	425	425	850
Interest on equity @ 7%	19,641	21,224	24,274	28,063	32,855
Decrease in feed & supplies	--	--	--	--	--
TOTAL FARM EXPENSES	$150,477	$181,900	$190,078	$227,774	$322,740
Financial Summary					
Total Farm Receipts	$176,484	$222,421	$233,378	$274,838	$386,872
Total Farm Expenses	150,477	181,900	190,078	227,774	322,740
Labor & Mgt. Income	$ 26,007	$ 40,521	$ 43,300	$ 47,064	$ 64,132
Number of operators	1.38	1.25	1.58	1.44	1.41
LABOR & MGT. INCOME/OPR	$ 18,818	$ 32,417	$ 27,440	$ 32,752	$ 45,387

SELECTED BUSINESS FACTORS BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Number of farms	73	156	104	68
Size of Business				
Number of cows	33	46	61	75
Number of heifers	22	31	41	54
Pounds of milk sold	426,800	624,700	855,100	1,085,500
Man equivalent	1.6	1.8	2.3	2.6
Total work units	370	512	677	839
Total crop acres	111	147	199	244
(Crop acres rented)	(17)	(29)	(50)	(70)
Rates of Production				
Milk sold per cow	12,930	13,600	14,000	14,500
Tons hay crops per acre	2.1	2.3	2.4	2.6
Tons corn silage per acre	13.0	13.2	13.3	14.2
Bushels of oats per acre	55	72	58	61
Labor Efficiency				
Cows per man	21	25	27	29
Pounds milk sold per man	270,100	341,400	380,000	420,700
Work units per man	234	280	301	325
Feed Costs				
Feed purchased per cow	$392	$412	$408	$413
Crop expense per cow	$87	$99	$113	$139
Feed cost per cwt. milk	$3.03	$3.04	$2.91	$2.86
Feed & crop exp./cwt. milk	$3.70	$3.77	$3.72	$3.82
% feed is of milk receipts	29%	29%	28%	27%
Hay equivalent per cow	7.8	8.3	8.5	8.8
Crop acres per cow	3.4	3.2	3.3	3.3
Fertilizer & lime/crop acre	$17	$19	$23	$28
Machinery and Labor Costs				
Total machinery costs	$9,501	$13,110	$17,825	$22,372
Machinery cost per cow	$288	$285	$292	$298
Machinery cost/cwt. milk	$2.23	$2.10	$2.08	$2.06
Labor cost per cow	$329	$279	$273	$273
Labor cost per cwt. milk	$2.55	$2.05	$1.95	$1.89
Capital Efficiency				
Investment per man	$103,500	$124,500	$127,000	$141,100
Investment per cow	$4,800	$4,850	$4,600	$4,860
Investment per cwt. milk	$38	$36	$33	$34
Land & buildings per cow	$2,620	$2,540	$2,330	$2,490
Machinery investment/cow	$900	$900	$900	$935
Capital turnover	2.6	2.5	2.4	2.4
Other				
Price per cwt. milk sold	$10.40	$10.29	$10.38	$10.47
Acres hay crops	85	99	123	140
Acres corn silage	22	37	52	66
Inventory changes 1978*:				
Number of cows	0	0	0	+1
Invt. value per cow**	+$277	+$348	+$243	+$229

* Change from 1/1/78 to 1/1/79.
** Livestock inventory includes heifers.

SELECTED BUSINESS FACTORS BY HERD SIZE
527 New York Dairy Farms, 1978

Item	Farms with: 85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
Number of farms	34	28	19	16	29
Size of Business					
Number of cows	91	106	121	138	195
Number of heifers	72	77	90	90	124
Pounds of milk sold	1,240,100	1,482,800	1,699,200	1,999,300	2,651,400
Man equivalent	2.8	3.4	3.5	3.8	5.4
Total work units	1,014	1,183	1,333	1,487	2,064
Total crop acres	271	331	361	382	506
(Crop acres rented)	(83)	(115)	(159)	(111)	(212)
Rates of Production					
Milk sold per cow	13,600	14,000	14,000	14,500	13,600
Tons hay crops per acre	3.0	2.5	2.6	2.5	2.6
Tons corn silage/acre	14.1	13.6	14.4	14.6	14.4
Bushels oats/acre	52	52	64	66	73
Labor Efficiency					
Cows per man	32	31	35	36	36
Pounds milk sold/man	438,200	433,600	485,500	522,000	489,200
Work units per man	358	346	381	388	381
Feed Costs					
Feed purchased per cow	$398	$455	$385	$421	$404
Crop expense per cow	$127	$115	$111	$124	$133
Feed cost per cwt. milk	$2.92	$3.25	$2.74	$2.91	$2.97
Feed & crop exp./cwt. milk	$3.85	$4.07	$3.53	$3.76	$3.95
% feed is of milk receipts	27%	31%	26%	28%	27%
Hay equivalent per cow	8.7	8.9	8.8	8.2	7.7
Crop acres per cow	3.0	3.1	3.0	2.8	2.6
Fertilizer & lime/crop acre	$28	$22	$22	$26	$32
Machinery and Labor Costs					
Total machinery costs	$28,917	$30,361	$32,366	$37,230	$53,376
Machinery cost per cow	$318	$286	$267	$270	$274
Machinery cost/cwt. milk	$2.33	$2.05	$1.90	$1.86	$2.01
Labor cost per cow	$257	$246	$258	$260	$274
Labor cost/cwt. milk	$1.89	$1.76	$1.84	$1.79	$2.01
Capital Efficiency					
Investment per man	$144,900	$140,000	$145,000	$147,900	$139,100
Investment per cow	$4,410	$4,470	$4,100	$4,000	$3,800
Investment/cwt. milk	$33	$32	$30	$28	$28
Land & buildings/cow	$2,235	$2,180	$2,000	$2,000	$1,840
Machinery investment/cow	$800	$820	$750	$700	$660
Capital turnover	2.3	2.2	2.2	2.1	1.9
Other					
Price per cwt. milk sold	$10.64	$10.44	$10.49	$10.46	$11.02
Acres hay crops	141	180	194	198	234
Acres corn silage	80	110	115	130	185
Inventory changes 1978*:					
Number of cows	+3	+1	+4	+1	+3
Invt. value per cow**	+$212	+$320	+$212	+$239	+$222

* Change from 1/1/78 to 1/1/79.
** Livestock inventory includes heifers.

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
527 New York Dairy Farms, January 1, 1979

Item	Farms with: Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Number of farms	73	156	104	68
Assets				
Livestock	$ 35,740	$ 52,755	$ 65,255	$ 78,470
Feed and supplies	8,174	13,258	19,892	28,543
Machinery & equipment	30,530	42,335	56,068	70,121
Land and buildings	89,130	119,478	144,549	187,022
Co-op investment	838	2,393	2,585	3,794
Accounts receivable	3,226	4,828	6,532	8,284
Cash & checking accounts	1,275	1,374	1,971	2,617
Total Farm Assets	$168,913	$236,421	$296,852	$378,851
Savings accounts	2,336	3,254	4,117	3,505
Cash value life insurance	2,376	1,886	2,570	3,131
Stocks and bonds	982	520	1,808	3,695
Nonfarm real estate	2,201	2,698	3,157	4,945
Auto (personal share)	969	1,032	962	1,042
All other	3,816	3,620	4,336	4,843
Total Nonfarm Assets	$ 12,680	$ 13,010	$ 16,950	$ 21,161
TOTAL ASSETS	$181,593	$249,431	$313,802	$400,012
Liabilities				
Real estate mortgage	$ 27,851	$ 53,975	$ 63,209	$ 77,966
Liens on cattle & equipt.	18,893	29,321	38,989	40,351
Installment contracts	1,567	1,913	2,363	2,447
Other loans over 7 years	720	1,317	2,591	2,185
Other loans 1 to 7 years	2,696	2,481	3,040	5,201
Other loans less than 1 year	201	517	1,372	1,787
Feed store & other accounts	1,693	1,592	2,414	1,725
Total Farm Liabilities	$ 53,621	$ 91,116	$113,978	$131,662
Nonfarm Liabilities	412	587	711	729
TOTAL LIABILITIES	$ 54,033	$ 91,703	$114,689	$132,391
Farm Net Worth (Equity Capital)	$115,292	$145,305	$182,874	$247,189
FAMILY NET WORTH	$127,560	$157,728	$199,113	$267,621
Financial Measures				
Percent equity	70%	63%	63%	67%
Farm debt per cow	$1,577	$1,898	$1,809	$1,755
Available for debt service and living	$16,555	$23,498	$33,303	$39,376
Scheduled annual debt payment	$9,140	$14,216	$19,411	$23,752
Scheduled debt payment/cow	$269	$296	$308	$317
Scheduled debt payment as percent of milk check	21%	22%	22%	21%

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
527 New York Dairy Farms, January 1, 1979

Item	Farms with: 85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
Number of farms	34	28	19	16	29
Assets					
Livestock	$ 97,349	$121,910	$119,720	$141,329	$190,366
Feed and supplies	30,206	35,549	41,539	45,886	64,626
Machinery & equipment	74,733	87,844	93,069	99,001	132,127
Land and buildings	207,814	233,435	253,252	280,080	367,010
Co-op investment	5,970	5,439	8,301	8,186	12,723
Accounts receivable	10,338	10,866	20,992	18,651	24,789
Cash & checking accounts	1,929	2,476	4,846	5,012	3,992
Total Farm Assets	$428,339	$497,519	$541,719	$598,145	$795,633
Savings accounts	4,607	4,087	3,571	3,327	2,497
Cash value life insurance	3,013	7,869	2,509	4,274	3,698
Stocks and bonds	3,118	4,885	1,465	5,580	4,771
Nonfarm real estate	2,058	250	7,236	15,656	15,442
Auto (personal share)	561	1,206	816	1,134	2,131
All other	3,191	3,780	2,942	4,281	9,901
Total Nonfarm Assets	$ 16,548	$ 22,077	$ 18,539	$ 34,252	$ 38,440
TOTAL ASSETS	$444,887	$519,596	$560,258	$632,397	$834,073
Liabilities					
Real estate mortgage	$ 80,379	$109,060	$105,786	$119,664	$172,762
Liens on cattle & equipt.	52,117	62,451	74,989	70,337	129,739
Installment contracts	2,163	3,762	2,755	2,366	3,763
Other loans over 7 years	3,663	719	2,184	687	10,191
Other loans 1 to 7 years	6,754	10,783	3,793	1,666	5,731
Other loans less than 1 year	828	2,184	1,895	625	1,995
Feed store & other accounts	1,846	5,361	3,540	1,902	2,088
Total Farm Liabilities	$147,750	$194,320	$194,942	$197,247	$326,269
Nonfarm Liabilities	276	324	3,476	687	1,724
TOTAL LIABILITIES	$148,026	$194,644	$198,418	$197,934	$327,993
Farm Net Worth (Equity Capital)	$280,589	$303,199	$346,777	$400,898	$469,364
FAMILY NET WORTH	$296,861	$324,952	$361,840	$434,463	$506,080
Financial Measures					
Percent equity	67%	63%	65%	69%	61%
Farm debt per cow	$1,572	$1,799	$1,572	$1,379	$1,623
Available for debt service and living	$44,922	$49,231	$59,244	$69,078	$85,141
Scheduled annual debt payment	$27,466	$33,068	$36,631	$31,485	$56,418
Scheduled debt payment/cow	$292	$306	$295	$220	$281
Scheduled debt payment as percent of milk check	21%	21%	21%	15%	19%

PROGRESS OF THE FARM BUSINESS

Comparing your business with that of other farmers is one part of a business checkup. It is equally important to compare your current year's business with that of earlier years to show the progress you are making, and to plan ahead, by setting business targets or goals.

Item	1977	1978	1979	1980 Goal
Size of Business				
Number of cows				
Number of heifers				
Pounds of milk sold				
Man equivalent				
Acres of crops				
Rates of Production				
Lbs. milk sold per cow				
Tons hay crops per acre				
Tons corn silage/acre				
Labor Efficiency				
Cows per man				
Lbs. milk sold per man				
Cost Control				
Feed bought per cow	$	$	$	$
Machinery cost per cow	$	$	$	$
Labor cost per cow	$	$	$	$
Capital Efficiency				
Farm capital per cow	$	$	$	$
Land & bldgs. per cow	$	$	$	$
Machinery investment per cow	$	$	$	$
Price				
Price per cwt. milk	$	$	$	$
Financial Summary				
Net cash farm income	$	$	$	$
Total farm receipts	$	$	$	$
Total farm expenses	$	$	$	$
Labor & mgmt. inc./oper.	$	$	$	$
Farm Net Worth	$	$	$	$

Are you satisfied with your progress? Have you set a realistic goal for 1980?