

DAIRY FARM BUSINESS SUMMARY

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DAIRY FARM BUSINESS SUMMARY
NORTHERN HUDSON REGION, 1979

The 1979 Northern Hudson dairy farm business summary includes data from 42 Saratoga and Washington County farms. The Cooperative Extension Associations in these counties have been sponsoring farm business management projects for 25 years and the Northern Hudson regional summary has been published for 12 years.

The primary purpose of this project is to assist cooperators in farm record keeping and business analysis and thereby improve their skills as managers. This report is prepared in workbook form for use in the systematic study of individual farm business operations.

The following data gives a view of the characteristics of farms participating in the Northern Hudson Region farm management program over the last five years.

Farm Management Characteristics of
Northern Hudson Dairy Farms, 1975-1979

Item	1975	1976	1977	1978	1979
Number of farms	51	45	47	40	42
Cows per farm	73	74	74	80	73
Man equivalent	2.6	2.7	2.6	2.8	2.5
Investment per farm	\$243,600	\$264,800	\$260,000	\$326,457	\$360,955
Investment per cow	\$3,337	\$3,600	\$3,512	\$4,081	\$4,878
Milk sold per cow, lbs.	13,650	13,500	13,600	14,489	14,419
Milk sold per man, lbs.	386,300	373,900	389,400	421,491	421,040
Average price per cwt. milk sold	\$9.13	\$10.36	\$10.39	\$11.14	\$12.54
Average operating expense per cwt. milk sold	\$7.84	\$8.29	\$8.75	\$9.71	\$11.29
Labor & management income per operator	\$5,305	\$9,299	\$4,775	\$23,944	\$22,775

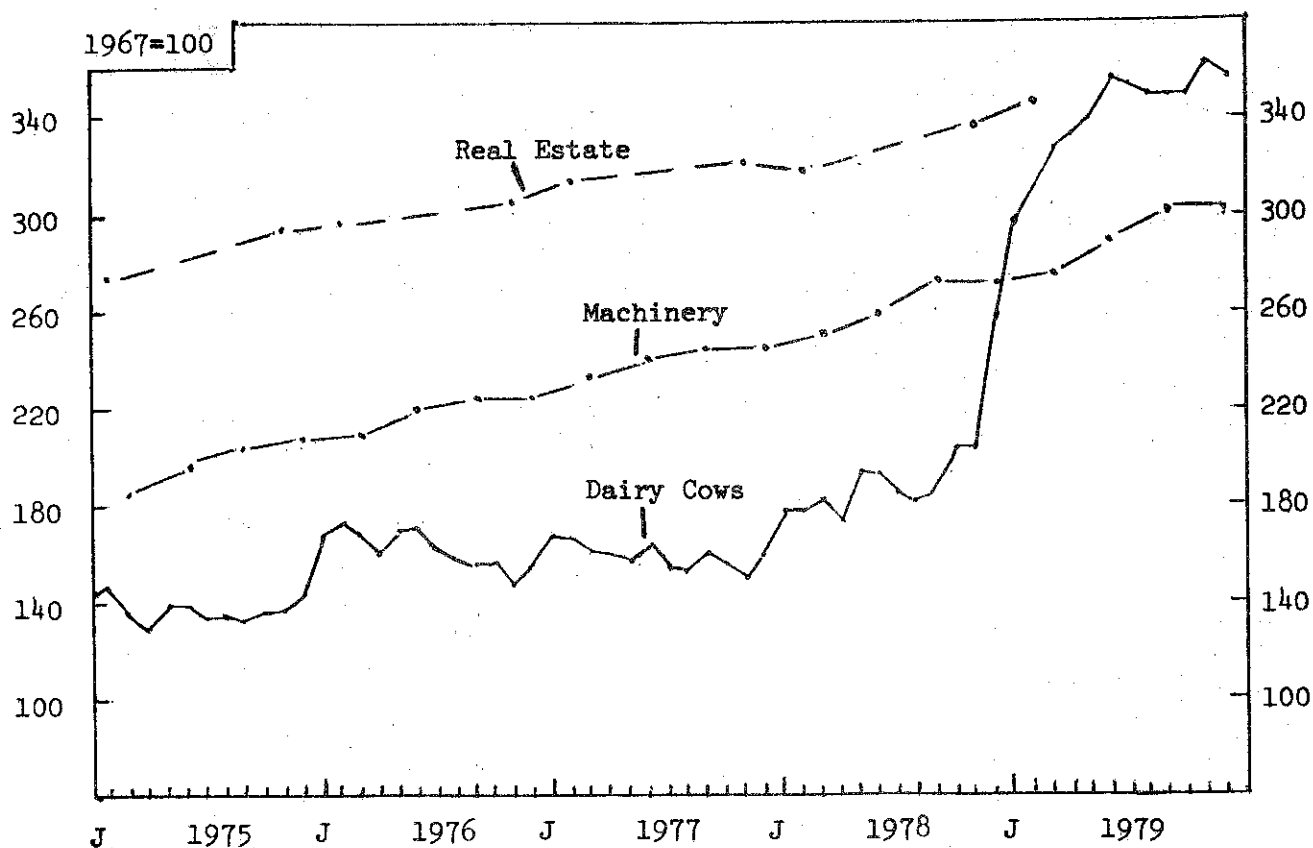
Economic conditions for dairymen have changed and the mix of farms included in the Northern Hudson regional summary has also changed since 1975. Although the average size of the farms summarized for 1979 declined, capital investment continued to climb. The average price received for milk has increased 37 percent since 1975 but operating expenses are up 44 percent over the same period.

1979 labor and management incomes were boosted by a second consecutive year of rising cow values, and reduced by higher costs of capital. The average cattle inventory increased \$25,093 during the year, nearly \$24,000 was due to higher prices. The charge for using equity capital was raised from seven to nine percent in 1979 resulting in an increased cost of \$5,526 per farm.

This summary was prepared by Stuart F. Smith, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences, Cornell University, in cooperation with David Wood, Saratoga County Cooperative Extension and John Beucler, Washington County Cooperative Extension.

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	Value/Head	1967=100	Value/Acre	1967=100
1975	(Dec.) \$450	145	(Dec.) 222	222	(Nov.) \$543	294
1976	(Dec.) 485	156	(Dec.) 233	233	(Nov.) 562	304
1977	(Dec.) 495	160	(Dec.) 253	253	(Nov.) 593	320
1978	(Dec.) 800	258	(Dec.) 276	276	(Nov.) 629	339
1979	(Dec.) 1105	356	(Dec.) 302	302	(est.) 355	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

Business Characteristics and Resources Used

Knowledge about the availability of farm resources and their characteristics is fundamental to judging management performance. The tables on this page identify some important farm business characteristics and show the use of farm resources on this group of farms.

BUSINESS CHARACTERISTICS AND RESOURCES USED 42 Northern Hudson Region Dairy Farms, 1979

Type of Business	Number	Business Records	Number	Dairy Records	Number
Individual	31	CAMIS	16	D.H.I.C.	34
Partnership	11	Account Book	19	Owner Sampler	5
Corporation	0	Agrifax	2	Other	0
		Farm Bureau & other	5	None	3

Barn Type	Number	Milking System	Number		Number
Stanchion	20	Bucket & carry	3	Herringbone	15
Freestall	18	Dumping station	1	Other parlor	1
Other	4	Pipeline	22		

Labor Force	My Farm	Average	Land Used	My Farm	Average
Operator	_____	16 mo.	Total acres owned	_____	245
Family paid	_____	3 mo.	Total acres rented	_____	126
Family unpaid	_____	2 mo.	Total crop acres	_____	218
Hired	_____	9 mo.	Crop acres rented	_____	95
Total	_____	30 mo.			
Age of operator(s)	_____	39 years	Number of Cows	My Farm	Average
			Beginning of year	_____	73
Estimated value op's			End of year	_____	74
labor & management	_____	\$13,226	Average for year	_____	73

There were 57 operators on the 42 farms, for an average of 1.36 operators per farm. Seven of the 42 farms rented all of their cropland. Five farms rented no cropland. Nearly one-half of the land used by these farmers was rented.

Total farm inventory increased \$64,000 or 22 percent during 1979. The end of year inventory values are used in determining farm assets in this report.

CAPITAL INVESTMENT - FARM INVENTORY VALUES 42 Northern Hudson Region Dairy Farms, 1979

Item	My Farm		Average 42 Farms	
	1/1/79	1/1/80	1/1/79	1/1/80
Livestock	\$	\$	\$ 78,281	\$103,374
Feed & supplies			26,960	33,181
Machinery & equipment			55,461	71,565
Land & buildings			136,125*	152,835*
TOTAL	\$	\$	\$296,827	\$360,955

* Thirty-five owned farms averaged \$162,208 on January 1, 1979, and \$182,259 on January 1, 1980.

Machinery and Real Estate Inventory Calculations

The costs of owning machinery and real estate are charged out as depreciation, interest, insurance, taxes and maintenance. In recent years machinery depreciation has been minimized by rising market values.

MACHINERY AND EQUIPMENT DEPRECIATION 42 Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 42 Farms
Beginning inventory	\$ _____	\$55,461
Machinery purchases	_____	<u>21,389</u>
Total (1)	\$ _____	\$76,850
End of Year Inventory	\$ _____	\$71,565
Machinery sold	_____	<u>161</u>
Total (2)	\$ _____	<u>\$71,726</u>
DEPRECIATION (1 minus 2)	\$ _____	\$ 5,124
Percent Depreciation	_____ %	7%

REAL ESTATE INVENTORY CALCULATIONS 35 Owned Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 35 Farms
Beginning market value	\$ _____	\$162,208
Cost of new real estate	\$ _____	\$14,346
Less lost capital	- _____	<u>- 2,302</u>
Value of new real estate added	+\$ _____	+ 12,044
Less building depreciation	- _____	- 3,093
Less real estate sold	- _____	- 142
Total Without Appreciation	\$ _____	\$171,017
Appreciation of beginning real estate	+ _____	<u>+ 11,242</u>
End of Year Market Value	\$ _____	<u>\$182,259</u>

Lost capital is the difference between the cost of new buildings and the amount these improvements added to the value of the farm. It is not included in farm expenses, since building depreciation is based on the full cost of new buildings and will account for lost capital over the life of the building. Building depreciation was 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 6.9 percent on these farms in 1979.

Receipts

Receipts from the business should be large enough to cover the operating and overhead costs and leave a return for the operator's labor and management. Here we look at sources and amounts of receipts for this group of farms.

FARM RECEIPTS 42 Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 42 Farms	
		Amount	Percent
Milk sales	\$ _____	\$132,022	87
Crop sales	_____	2,174	1
Dairy cattle sold	_____	11,999	8
Calves & other livestock sales	_____	2,745	2
Gas tax refunds	_____	86	} 2
Government payments	_____	162	
Work off farm	_____	192	
Custom machine work	_____	472	
Other	_____	2,082	_____
Total Cash Receipts	\$ _____	\$151,934	100
Increase in livestock	_____	25,093*	
Increase in feed & supplies	_____	6,221	
TOTAL FARM RECEIPTS	\$ _____	\$183,248	

* Primarily due to higher dairy cattle prices at end of year. Total farm receipts would have averaged approximately \$159,300 per farm if the increase in inventory was limited to growth in herd size.

Total cash receipts increased more than \$6,000 per farm in 1979 compared to the 1978 Northern Hudson regional average. Milk sales were up two percent, although the farm business decreased in size.

INCOME ANALYSIS Northern Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Average price/cwt. milk sold	\$ _____	\$ 12.54	\$ 11.14
Milk sales per cow	\$ _____	\$ 1,809	\$ 1,614
Total cash receipts per man	\$ _____	\$60,774	\$53,052

The price of milk sold increased thirteen percent and milk sales per cow increased twelve percent when average data from the 1979 summary is compared with 1978.

Expenses

There are many opportunities for dollar leaks when cash farm expenses average \$326 per day. Classifying expenses into the categories on this page will help you identify those that may need tighter control.

FARM EXPENSES 42 Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 42 Farms	
		Amount	Percent
<u>Hired Labor</u>	\$ _____	\$ 10,763	9
<u>Feed</u>			
Dairy concentrate	_____	37,287	31
Other feed	_____	3,222	3
<u>Machinery</u>			
Machine hire	_____	1,258	1
Machinery repairs	_____	7,339	6
Auto expense (farm share)	_____	589	--
Gas & oil	_____	4,917	4
<u>Livestock</u>			
Purchased livestock	_____	6,656	6
Breeding fees	_____	1,473	1
Veterinary & medicine	_____	1,756	1
Milk marketing	_____	7,569	6
Other livestock expense	_____	4,160	3
<u>Crops</u>			
Fertilizer & lime	_____	8,416	7
Seeds & plants	_____	2,162	2
Spray, other crop expense	_____	1,741	2
<u>Real Estate</u>			
Land, building, fence repair	_____	2,092	2
Taxes	_____	2,434	2
Insurance	_____	1,895	2
Rent	_____	2,039	2
<u>Other</u>			
Telephone (farm share)	_____	473	--
Electricity (farm share)	_____	1,977	2
Interest paid	_____	6,905	6
Miscellaneous	_____	1,751	2
Total Cash Expenses	\$ _____	\$118,874	100
<u>Noncash Items</u>			
Machinery depreciation	\$ _____	\$ 5,124	
Building depreciation	_____	2,578	
Unpaid family labor @ \$450/month	_____	900	
Interest on equity capital @ 9%	_____	24,866	
Decrease in livestock & feed	_____	0	
TOTAL FARM EXPENSES	\$ _____	\$152,342	

Financial Summary of Year's Business

The results of management are reflected in the net return from the business. 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 Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 42 Farms	Average 35 Owners
Cash Farm Receipts	\$ _____	\$151,934	\$159,697
Cash Farm Expenses	_____	118,874	123,218
NET CASH FARM INCOME	\$ _____	\$ 33,060	\$ 36,479

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 a nonfarm 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 milk or purchased concentrate are expected to change significantly.

LABOR AND MANAGEMENT INCOME Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 42 Farms	
		Including Cattle Price Increase	Excluding Cattle Price Increase
Total Farm Receipts	\$ _____	\$183,248	\$159,300
Total Farm Expenses	_____	152,342	150,200
LABOR & MANAGEMENT INCOME	\$ _____	\$ 30,906	\$ 9,100
Number of operators	_____	1.36	1.36
LABOR & MANAGEMENT INCOME PER OPERATOR	\$ _____	\$ 22,775	\$ 6,691

Labor and management income is the return to the operator for his efforts in operating the business. It is computed with and without the affect of the large increase in livestock inventory caused by higher cattle prices. Dairy men who used realistic cow values in their beginning and end inventories should recognize this increase as part of the return for operating the farm. A nine percent charge for the use of the operator's equity capital 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.

Labor, management and ownership income per operator measures the combined return to the farmer for his triple role of worker-manager, financier and owner. The return here provides for the operator's living and his gain in business net worth.

LABOR, MANAGEMENT AND OWNERSHIP INCOME
Northern Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Labor & management income	\$ _____	\$30,906	\$35,916
Real estate appreciation	_____	9,369	4,854
Interest on equity capital	_____	24,866	16,355
Total Per Farm	\$ _____	\$65,141	\$57,125
Number of operators	_____	1.36	1.50
LABOR, MANAGEMENT & OWNERSHIP INCOME PER OPERATOR	\$ _____	\$48,004	\$38,083

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. Equity capital or farm net worth averaged \$276,287 per farm, (see page 9).

RETURN ON EQUITY CAPITAL
Northern Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
<u>Including Real Estate Appreciation</u>			
Labor, Mgt. & Ownership Income Per Farm	\$ _____	\$65,141	\$57,125
Less: Value of Operator's Labor & Mgt.*	_____	17,951	17,115
Return on Equity Capital	\$ _____	\$47,190	\$40,010
Rate of Return on Equity Capital	_____ %	17.1%	17.1%
<u>Excluding Real Estate Appreciation</u>			
Return on Equity Capital (from above)	\$ _____	\$47,190	\$40,010
Less: Real Estate Appreciation	_____	9,369	4,854
Return on Equity Capital	\$ _____	\$37,821	\$35,156
Rate of Return on Equity Capital	_____ %	13.7%	15.0%

* Value of operator's labor and management estimated by operators, (\$13,226) times average number of operators per farm.

Farm Family Financial Situation

The financial situation is an important part of the farm business summary. It has a direct affect on current cash outflow and future capital investment decisions. A farmer may have a good labor income, but a high debt payment schedule may seriously restrict his management flexibility.

FARM FAMILY FINANCIAL SITUATION 42 Northern Hudson Region Dairy Farms, January 1, 1980

Item	My Farm	Average 42 Farms
<u>Assets</u>		
Livestock	\$ _____	\$103,375
Feed & supplies	_____	33,182
Machinery & equipment	_____	71,565
Land & buildings	_____	152,836
Co-op investment	_____	5,647
Accounts receivable	_____	11,527
Cash & checking accounts	_____	2,203
Total Farm Assets	\$ _____	\$380,335
Savings accounts	\$ _____	\$ 2,242
Cash value life insurance	_____	2,726
Stocks & bonds	_____	3,280
Nonfarm real estate	_____	2,797
Auto (personal share)	_____	1,355
All other	_____	4,783
Total Nonfarm Assets	\$ _____	\$ 17,183
TOTAL ASSETS	\$ _____	\$397,518
<u>Liabilities</u>		
Real estate mortgage	\$ _____	\$ 55,967
Liens on cattle & equipment	_____	34,369
Installment contracts	_____	6,283
Notes & other farm debt	_____	7,429
Total Farm Liabilities	\$ _____	\$104,048
Nonfarm Liabilities	_____	1,718
TOTAL LIABILITIES	\$ _____	\$105,766
Farm Net Worth (equity capital)	\$ _____	\$276,287
Family Net Worth	\$ _____	\$291,752

Farm net worth (equity capital) averaged \$276,287 on the 42 Northern Hudson Region farms, \$42,600 more than the farm net worth reported on January 1, 1979 by the 40 farms summarized for 1978. Farm net worth is total farm assets less total farm liabilities. Family net worth is total assets less all liabilities reported.

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

Payment ability is calculated in the following table. Interest paid is added to net cash farm income because planned or budgeted debt payments will include interest as well as principal. Estimate family living expenses for your farm to calculate cash available for debt payment and capital purchases made in cash.

Debt payments planned for 1980 are the scheduled debt payments as of January 1980. Some farms in New York have scheduled debt payments exceeding 30 percent of the milk receipts. Committing 30 percent or more of the milk income to debt payments can put a "big squeeze" on cash available for operating the business and family living.

FINANCIAL MEASURES AND DEBT COMMITMENT
42 Northern Hudson Region Dairy Farms, January 1, 1980

Item	My Farm	Average 42 Farms
<u>Payment Ability</u>		
Net cash farm income	\$ _____	\$33,060
Add: Interest paid	_____	6,905
CASH AVAILABLE FOR DEBT SERVICE & LIVING	\$ _____	\$39,965
Less: Family living expenses	_____	14,238*
CASH AVAILABLE FOR DEBT PAYMENTS & CAPITAL PURCHASES	\$ _____	\$25,727
<u>Scheduled Annual Debt Payments</u>		
Real estate mortgage	\$ _____	\$ 6,343
Cattle & equipment liens	_____	11,374
Installment contracts	_____	1,976
Notes & other	_____	2,135
TOTAL PAYMENTS PLANNED, 1979	\$ _____	\$21,828
<u>Measure of Debt Commitment & Equity Position</u>		
Scheduled debt payments per cow	\$ _____	\$ 295
Scheduled debt payments as % of milk sales	_____ %	17%
Farm debt per cow	\$ _____	\$ 1,406
Percent equity (total)	_____ %	73%

* Estimated at \$6,000 per family (assuming 1.36 families per farm and one family per operator), plus four percent of cash farm receipts.

ANALYSIS OF THE FARM BUSINESS

Research has shown that certain factors controlled by management affect farm incomes. In analyzing a farm business, we examine the factors of size, rates of production, labor efficiency, capital efficiency and cost control.

Size of Business

Studies have shown that, in general, larger farms pay better. 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. It is imperative to remember, however, all large farms are not profitable and big size without good management can lead to big trouble!

MEASURES OF SIZE OF BUSINESS Northern Hudson Region Dairy Farms, 1978 & 1979

Measure	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Number of cows	_____	73	80
Number of heifers	_____	47	55
Pounds of milk sold	_____	1,052,600	1,159,100
Man equivalent	_____	2.5	2.8
Total work units	_____	797	888
Total acres of crops	_____	218	239

The average Northern Hudson New York farm summarized for 1979 had nine percent less cows and crop acres than the farms summarized for 1978.

In the table below, the 527 New York farms for 1978 are sorted by number of cows and the labor income is shown for each size group. In general, the large farms paid better, but, variability of income was significant.

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 & over	29	6	45,387	329

Rates of Production

Crop yields and rates of animal production are factors that affect farm incomes. In the table below, we examine the crops grown and yields along with the pounds of milk sold per cow.

CROP YIELDS AND MILK SOLD PER COW 42 Northern Hudson Region Dairy Farms, 1979

Crop	My Farm		Average of Farms Reporting		
	Acres	Yield	Farms Reporting	Acres	Yield
Dry hay	_____	_____	34	54	(combined
Hay crop silage	_____	_____	34	80	below)
Corn silage	_____	_____	41	72	14.2 ton
Grain corn	_____	_____	21	67	93.6 bu.
Oats	_____	_____	3	41	54.0 bu.

Hay equivalent:					
All hay crops	_____	_____	39	110	2.8 ton
All hay & silage	_____	_____	42	180	3.6 ton
Milk sold per cow	_____	_____			14,419 lbs.

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. All 42 farms produced one or a combination of forage crops in 1979. Eighty-one percent of the farms produced hay crop silage and all but one grew corn silage.

The hay crop yields reported in 1979 were eight percent higher than in 1978 but corn silage yields were four percent lower than those reported last year. Milk sold per cow declined 70 pounds in 1979.

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 & Management 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 & over	66	65	499	21,590	438

Labor Efficiency

Labor utilization is an important factor in milk production. Several measures of accomplishment per man or labor efficiency are shown below.

MEASURES OF LABOR EFFICIENCY Northern Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Man equivalent	_____	2.5	2.8
Cows per man	_____	29	29
Pounds of milk sold per man	_____	421,040	421,491
Work units per man	_____	319	323

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. There was no change in cows per man when the average for 1979 is compared with the average of the 1978 farms.

Pounds of milk sold per man is the single best 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. The farms included in the 1979 summary were slightly less efficient than those in the 1978 study as milk output per man decreased 451 pounds.

It is important to look at other measures 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.

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 & Management 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 & over	30	120	14,500	34,840	413

Capital Efficiency

Capital is a key resource and a manager must continually 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 analyzed on page 10. It's possible for the 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".

MEASURES OF CAPITAL EFFICIENCY Northern Hudson Region Dairy Farms, 1979

Item	My Farm	Average 42 Farms	Average 35 Owners
Farm capital per man	\$ _____	\$144,382	\$146,663
Farm capital per cow	\$ _____	\$ 4,878	\$ 5,238
Land & buildings per cow	\$ _____	\$ 2,065	\$ 2,367
Land & buildings per crop acre owned	\$ _____	\$ 1,243	\$ 1,240
Machinery investment per cow	\$ _____	\$ 967	\$ 1,013
Capital turnover	_____	2.0 years	2.1 years

Land and building investment per crop acre owned shows the relationship between investment in land and buildings. The farmer who owns little cropland but invests in 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".

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.

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 & over	29	3,800	1,800	680	28

Cost Control

The control of costs could be a dominant factor in the success of modern commercial dairy operations. Feed, machinery and labor costs are major items examined in detail. However, it is important to check all cost items both large and small.

Feed Costs

Feed purchased is the largest single expenditure category on the dairy farm. These Northern Hudson Region dairy farmers put 31 cents of every dollar spent during 1979 into purchased dairy feed. Feed costs can be controlled by making sure that only required nutrients are fed and that required nutrients are purchased from their most economical source.

The crop program has an important influence on purchased feed costs. Both roughages and grains grown have a bearing on the purchased feed items. 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 Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Feed bought per cow	\$ _____	\$ 511	\$ 451
Crop expense per cow	\$ _____	\$ 169	\$ 151
Feed bought per cwt. milk	\$ _____	\$3.54	\$3.11
Feed & crop expense per cwt. milk	\$ _____	\$4.71	\$4.15
Percent feed is of milk receipts	_____ %	28%	28%
Hay equivalent per cow (tons)	_____	8.8	8.9
Crop acres per cow	_____	3.0	3.0
Lime & fertilizer per crop acre	\$ _____	\$ 39	\$ 31
Heifers as percent of cow numbers	_____ %	64%	69%

Feed bought per cow increased 13 percent in 1979 compared to the amount spent in 1978. Feed bought increased 43 cents per hundredweight of milk sold although the farms summarized for 1978 and 1979 spent the same proportion of their milk check to buy dairy feed.

Crop expenses per cow increased 12 percent in 1979 although forage production decreased one percent per cow. There were .64 heifers for every cow in 1979, a decrease of .05 heifers per cow from 1978.

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 AND MACHINERY COSTS Northern Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Total machinery ^{1/}	\$ _____	\$24,943	\$20,340
Machinery cost per cow	\$ _____	\$ 342	\$ 254
Machinery costs per cwt. of milk	\$ _____	\$ 2.37	\$ 1.75
Total labor costs ^{2/}	\$ _____	\$21,663	\$22,810
Labor costs per cow	\$ _____	\$ 297	\$ 285
Labor costs per cwt. of milk	\$ _____	\$ 2.06	\$ 1.97
Labor & machinery costs/cwt. of milk	\$ _____	\$ 4.43	\$ 3.72

^{1/} Machinery depreciation, nine percent 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 and paid family labor, plus unpaid family labor valued at \$425 per month and operator's labor valued at \$650 per month.

Machinery costs roared out of control in 1979 as they increased 35 percent per cow and per hundredweight of milk sold. Gasoline and oil expenses increased 40 percent over 1978 and are expected to double in 1980.

MISCELLANEOUS COSTS CONTROL MEASURES Northern Hudson Region Dairy Farms, 1978 & 1979

Item	My Farm	Average 42 Farms 1979	Average 40 Farms 1978
Veterinary & medicine per cow	\$ _____	\$ 24.05	\$ 22.23
Other livestock expense per cow	\$ _____	\$ 56.99	\$ 44.55
Real estate expense per cow	\$ _____	\$115.89	\$110.51
Total farm expense per cow	\$ _____	\$ 2,087	\$ 1,704

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.

Total farm expenses were \$383 per cow higher in 1979 for an increase of 22 percent over 1978.

YEARLY FINANCIAL PLANNING AND ANALYSIS
42 Northern Hudson Region Dairy Farms, 1979
Average: 73 Cows, 14,419 lbs. Milk Per Cow, \$12.54 Per Cwt.

Item	Average Per Cow	My Farm, Per Cow	Cows Total	Goal
CASH RECEIPTS				
Milk sales	\$1,809	\$	\$	\$
Crop sales	30			
Dairy cattle	164			
Calves & other livestock	38			
Other	41			
Total Cash Receipts	\$2,082	\$	\$	\$
CASH EXPENSES				
Hired labor	\$ 147	\$	\$	\$
Dairy concentrate	511			
Hay & other	44			
Machine hire	17			
Machine repair & auto expense	109			
Gas & oil	67			
Breeding fees	20			
Vet & medicine	24			
Milk marketing (ADA, dues, hauling)	104			
Other livestock expense	57			
Fertilizer & lime	115			
Seeds & plants	30			
Spray & other	24			
Land, bldg., fence repair (owner)	31			
Taxes (owner)	37			
Insurance (owner)	27			
Rent (owner)	20			
Telephone (farm share)	6			
Electricity (farm share)	27			
Miscellaneous	24			
Total Cash Expenses ^{1/}	\$1,441	\$	\$	\$
Total Cash Receipts	\$2,082	\$	\$	\$
Total Cash Expenses ^{1/}	-1,441	-	-	-
Net Cash Flow	\$ 641	\$	\$	\$
Cash Family Living Expense ^{2/}	- 195	-	-	-
Amount Left for Debt Service, Capital				
Investment & Retained Earnings	\$ 446	\$	\$	\$
Scheduled Debt Service	- 295	-	-	-
Available for Capital Investment ^{3/}	\$ 151	\$	\$	\$
Planned Cattle Purchase				
Planned Equipment Purchase				
Borrowed Funds Needed ^{4/}		\$	\$	\$

- 1/ Interest paid excluded from cash expenses as it is contained in Scheduled Debt Service. Purchased livestock are also excluded.
2/ Estimated: \$6,000 per family and four percent of cash receipts.
3/ Retained earnings are \$0.
4/ May be replaced by equity capital.

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	Labor and	Feed and Crop
Per Cow	% of Milk Receipts	Cost Per Cow	Machinery Cost Per Cow	Expense Per 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
<u>Size of Business</u>				
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)
<u>Rates of Production</u>				
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
<u>Labor Efficiency</u>				
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
<u>Feed Costs</u>				
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
<u>Machinery and Labor Costs</u>				
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
<u>Capital Efficiency</u>				
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
<u>Other</u>				
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
<u>Size of Business</u>					
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)
<u>Rates of Production</u>					
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
<u>Labor Efficiency</u>					
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
<u>Feed Costs</u>					
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
<u>Machinery and Labor Costs</u>					
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
<u>Capital Efficiency</u>					
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
<u>Other</u>					
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
<u>Assets</u>					
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
<u>Liabilities</u>					
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
<u>Financial Measures</u>					
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
<u>Size of Business</u>				
Number of cows	_____	_____	_____	_____
Number of heifers	_____	_____	_____	_____
Pounds of milk sold	_____	_____	_____	_____
Man equivalent	_____	_____	_____	_____
Acres of crops	_____	_____	_____	_____
<u>Rates of Production</u>				
Lbs. milk sold per cow	_____	_____	_____	_____
Tons hay crops per acre	_____	_____	_____	_____
Tons corn silage/acre	_____	_____	_____	_____
<u>Labor Efficiency</u>				
Cows per man	_____	_____	_____	_____
Lbs. milk sold per man	_____	_____	_____	_____
<u>Cost Control</u>				
Feed bought per cow	\$ _____	\$ _____	\$ _____	\$ _____
Machinery cost per cow	\$ _____	\$ _____	\$ _____	\$ _____
Labor cost per cow	\$ _____	\$ _____	\$ _____	\$ _____
<u>Capital Efficiency</u>				
Farm capital per cow	\$ _____	\$ _____	\$ _____	\$ _____
Land & bldgs. per cow	\$ _____	\$ _____	\$ _____	\$ _____
Machinery investment per cow	\$ _____	\$ _____	\$ _____	\$ _____
<u>Price</u>				
Price per cwt. milk	\$ _____	\$ _____	\$ _____	\$ _____
<u>Financial Summary</u>				
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?