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April, 1976

A. E. Ext. 76-17

**1975
FARM BUSINESS SUMMARY**

WESTERN
PLAINS
REGION

by

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WESTERN PLAINS REGION
DAIRY FARM BUSINESS SUMMARY
1975

This publication presents a summary of the 1975 farm business records of 40 Livingston, Wyoming, Niagara, Genesee, Monroe, and Orleans County dairy farms. These records were submitted by dairymen participating in Cooperative Extension's Farm Business Management Program. There are approximately 40 counties in New York State in which such projects are conducted in cooperation with the College of Agriculture and Life Sciences at Cornell.

The primary objectives of the business management program are to (1) assist farmers in developing and maintaining more complete farm business data for use in management decisions and (2) to help farmers improve their management skills through appropriate use of farm record data and application of modern decision making techniques. The rapidly increasing size of New York dairy farms and the dynamic nature of the environment within which they operate make farm incomes increasingly dependent upon the accuracy of management decisions. An indication of the type and magnitude of changes taking place in the Western Plains region are shown below.

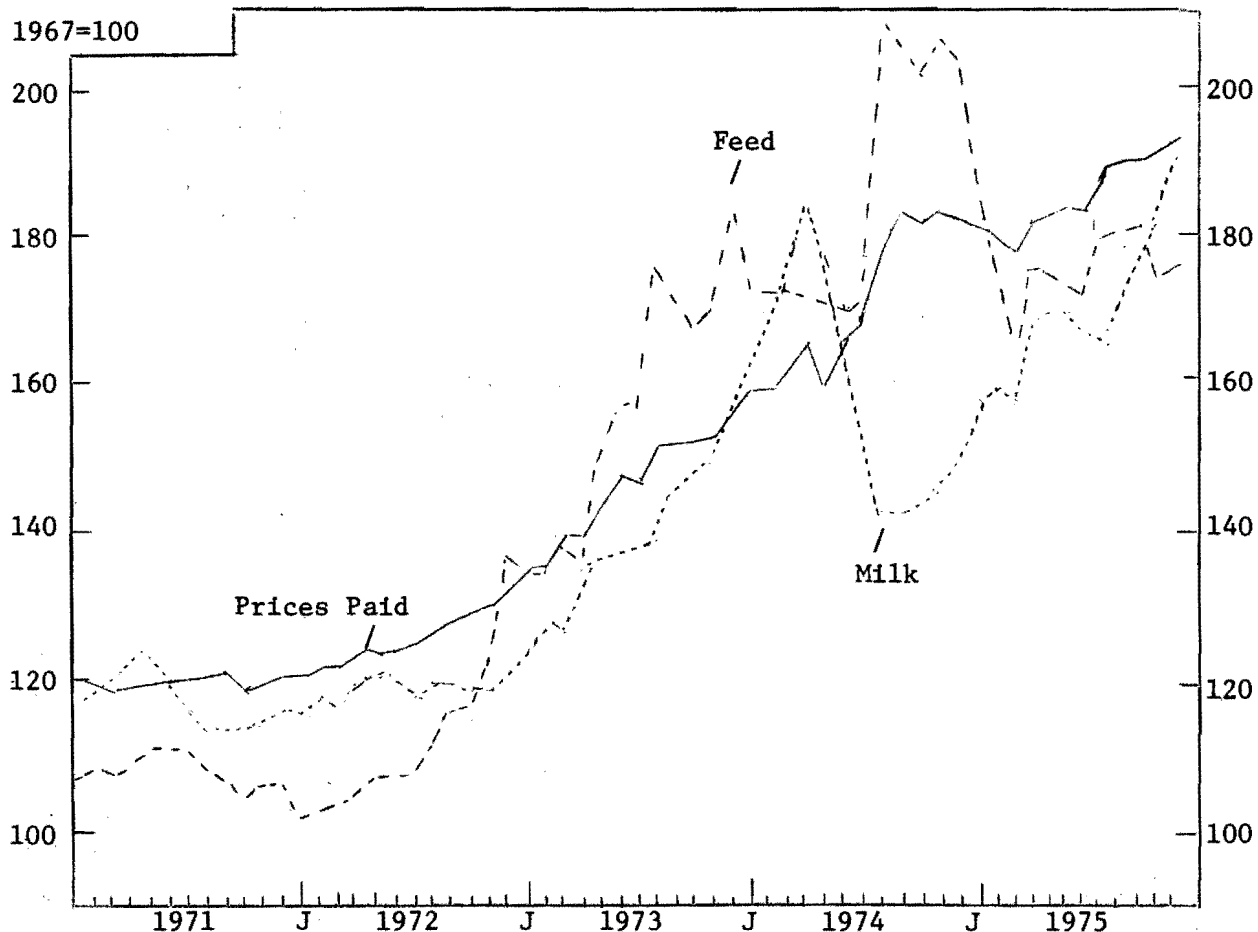
	<u>1968</u>	<u>1971</u>	<u>1974</u>	<u>1975</u>
Number of farms	70	30	32	40
Cows per farm	67	85	109	106
Machinery per farm	\$29,854	\$40,046	\$ 59,547	\$ 70,067
Investment per man	\$56,716	\$80,023	\$104,675	\$103,181
Investment per cow	\$ 2,116	\$ 2,448	\$ 3,044	\$ 3,329
Milk sold per cow (lbs.)	12,300	12,900	13,500	13,659
Milk sold per man (lbs.)	328,600	421,300	465,300	423,363
Milk price per cwt.	\$ 5.43	\$ 6.13	\$ 8.56	\$ 8.62
Feed bought per cow	117	157	299	236
Crop expense per cow	53	76	115	138
Gas and oil per cow	26	26	41	45
Fertilizer expense per acre	12	14	21	23

The economic climate for dairymen improved somewhat during 1975. Most of the improvement resulted from higher milk prices in the fall months. Hopefully, these improved price relationships will continue well into 1976.

The rapid changes in economic conditions under which dairy farmers have operated during the past few years are likely to continue, making the business of producing milk even more risky than it was in the 60's and early 70's. With both short and long run prices of milk, feed, etc. even less predictable than in the past, it becomes increasingly important for every dairyman to have available and use the kind of information presented in this summary.

This summary was prepared by Eddy L. LaDue, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences, in cooperation with David L. Thorp, Livingston County Cooperative Extension, William D. Goewey, Wyoming County Cooperative Extension, and George Allhusen, Western Plains Region Cooperative Extension Dairy and Field Crops Team.

PRICES RECEIVED AND PAID BY NEW YORK DAIRY FARMERS
(Seasonally Adjusted to Show Trends)



SOURCE: USDA Agricultural Prices.

The relative changes in prices received and paid have an important effect on dairy farm incomes. Dairy ration in 1975 averaged \$6 per ton less than in 1974, but \$16 higher than in 1973. The 1975 index of prices paid was 8 percent higher than 1974. The blend price received for 3.5 percent milk averaged \$8.64 per cwt. in 1975, up 40 cents from 1974. Milk prices improved markedly the last half of 1975.

AVERAGE YEARLY PRICES RECEIVED AND PAID BY N.Y. FARMERS, 1965 to 1975

Year	Milk (cwt.)	Slaughter Cows (cwt.)	Dairy Cows (head)	Dairy Ration (ton)	Wages per Month With House	Prices Paid by New York Dairymen 1967=100
1965	\$4.27	\$13.90	\$238	\$73	\$236	93
1970	5.89	20.70	353	78	356	113
1971	6.02	21.20	372	83	375	120
1972	6.25	24.50	410	85	393	126
1973	7.30	32.80	494	119	418	146
1974	8.24	28.02	509	141	435	172
1975*	8.64	20.62	419	135	NA	186
1976	—	—	—	—	—	—

* Preliminary.

SUMMARY OF THE FARM BUSINESS

Information on the availability of farm resources and their 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 function called farm organization. The tables on this page show some important farm business characteristics, the number of farms reporting these characteristics, and the average use of farm resources.

FARM ORGANIZATION
40 Western Plains Dairy Farms, 1975

Type of Business	Number	Business Records	Number	Dairy Records	Number
Individual	26	CAMIS	9	D.H.I.C.	18
Partnership	11	Account Book	12	Owner Sampler	11
Corporation	3	Agrifax	8	Other	6
Other	0	Farm Bureau	1	None	5
		Agway	3		
		Other	7		

Barn Type	Number	Milking System	Number	Number	
Stanchion	11	Bucket & carry	1	Herringbone	21
Freestall	28	Dumping station	4	Other parlor	5
Other	1	Pipeline	9		

Labor Force	My Farm	Average	Land Used	My Farm	Average
Operator		16 mo.	Total acres owned		287
Family paid		4 mo.	Total acres rented		219
Family unpaid		3 mo.	Total crop acres		369
Hired		18 mo.	Crop acres rented		181
Total		41 mo.			
Age of operator(s)		42	Number of Cows	My Farm	Average
			Beginning of year		103
Estimated value op's labor & management		\$12,406	End of year		111
			Average for year		106

There were 12 businesses with 2 operators making a total of 52 operators on the 40 farms or 1.3 operators per farm. Three of the 40 farms rented all their cropland. Thirty-nine farms rented some cropland.

Total farm inventory increased \$30,156 or 9.3 percent during 1975. The end of year farm inventory values are used in determining farm assets in this report.

CAPITAL INVESTMENT - FARM INVENTORY VALUES
40 Western Plains Dairy Farms, 1975

Item	My Farm		Average 40 Farms	
	1/1/75	1/1/76	1/1/75	1/1/76
Livestock	\$ _____	\$ _____	\$ 72,140	\$ 78,431
Feed & supplies	_____	_____	36,952	38,861
Machinery & equipment	_____	_____	61,584	70,067
Land & buildings	_____	_____	152,047	165,520
TOTAL	\$ _____	\$ _____	\$322,723	\$352,879

Machinery and Real Estate Inventory Calculations

Capital outlays for machinery and buildings usually occur in large uneven amounts, but assets depreciate gradually over a period of time. Machinery depreciation has been calculated below and is included as a farm expense.

MACHINERY & EQUIPMENT DEPRECIATION
40 Western Plains Dairy Farms, 1975

Item	My Farm	Average 40 Farms
Beginning Inventory	\$ _____	\$61,584
Machinery Purchases	_____	<u>15,724</u>
Total (1)	\$ _____	\$77,308
End of Year Inventory	\$ _____	\$70,067
Machinery Sold	_____	<u>468</u>
Total (2)	\$ _____	<u>\$70,535</u>
DEPRECIATION (1 minus 2)	\$ _____	\$ 6,773
Percent Depreciation	_____	9%

REAL ESTATE INVENTORY CALCULATIONS
40 Western Plains Dairy Farms, 1975

Item	My Farm	Average 40 Farms
Beginning Market Value	\$ _____	\$152,047
Cost of New Real Estate	\$ _____	\$10,133
Less Lost Capital	- _____	<u>- 913</u>
Value of New Added	+\$ _____	+ 9,220
Less Building Depreciation	- _____	- 4,343
Less Real Estate Sold	- _____	<u>- 0</u>
Total Without Appreciation	\$ _____	\$156,924
Appreciation of Beginning Real Estate	+ _____	<u>+ 8,596</u>
End of Year Market Value	\$ _____	<u>\$165,520</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 six percent on these farms in 1975.

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
40 Western Plains Dairy Farms, 1975

Item	My Farm	Average 40 Farms	
		Amount	Percent
Milk sales	\$ _____	\$124,742	86
Crop sales	_____	6,143	4
Dairy cattle sold	_____	6,625	5
Calves & other livestock sales	_____	2,113	2
Gas tax refunds	_____	281	} 1
Government payments	_____	797	
Work off farm	_____	382	
Custom machine work	_____	397	
Other	_____	<u>2,816</u>	<u>2</u>
Total cash receipts	\$ _____	\$144,296	100
Increase in livestock	_____	6,291	
Increase in feed & supplies	_____	<u>1,909</u>	
TOTAL FARM RECEIPTS	\$ _____	\$152,496	

In a normal year most going farm businesses are expanding and therefore have an increase in inventory due to more livestock and crops raised. These increases are included in the farm receipts since the costs of producing or acquiring these assets are in the expenses.

Cow numbers increased by eight head and dairy cattle values recovered enough to cause an average increase in livestock of \$6,291. The 1975 crop season was good and although feed prices were down by the end of the year there was an average increase in feed and supply inventories of \$1,909.

INCOME ANALYSIS

Item	My Farm	Western Plains Average	
		40 Farms, 1975	32 Farms, 1974
Average price/cwt. milk sold	\$ _____	\$ 8.62	\$ 8.56
Milk sales per cow	_____	\$ 1,177	\$ 1,158
Total cash receipts/man	_____	\$42,192	\$46,434

Expenses

There are many opportunities for dollar leaks when cash farm expenses average \$299 per day. Classifying expenses into the categories on this page will help you identify those that need tighter control.

FARM EXPENSES
40 Western Plains Dairy Farms, 1975

Item	My Farm	Average 40 Farms	
		Amount	Percent
<u>Hired Labor</u>	\$ _____	\$ 15,415	14
<u>Feed</u>			
Dairy Concentrate	_____	25,015	23
Other Feed	_____	637	1
<u>Machinery</u>			
Machine Hire	_____	1,026	1
Machinery Repairs	_____	7,053	6
Auto Expense (farm share)	_____	309	--
Gas & Oil	_____	4,809	4
<u>Livestock</u>			
Purchased Livestock	_____	4,217	4
Breeding Fees	_____	1,383	1
Veterinary & Medicine	_____	2,434	2
Milk Marketing	_____	4,495	4
Other Livestock Expense	_____	3,514	3
<u>Crops</u>			
Fertilizer & Lime	_____	8,664	8
Seeds & Plants	_____	3,144	3
Spray, Other Crop Expense	_____	2,810	3
<u>Real Estate</u>			
Land, Building, Fence Repair	_____	2,158	2
Taxes	_____	3,124	3
Insurance	_____	1,724	2
Rent	_____	3,263	3
<u>Other</u>			
Telephone (farm share)	_____	321	--
Electricity (farm share)	_____	1,960	2
Interest Paid	_____	9,764	9
Miscellaneous	_____	2,023	2
Total Cash Expenses	\$ _____	\$109,262	100
<u>Non-Cash Items</u>			
Machinery Depreciation	_____	\$ 6,773	
Building Depreciation	_____	4,343	
Unpaid Family Labor	_____	1,050	
Interest on Equity Capital @ 7%	_____	17,382	
Decrease in Livestock and Feed	_____	0	
TOTAL FARM EXPENSES	\$ _____	\$138,810	

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 Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms, 1975	Average 32 Farms, 1974
Cash Farm Receipts	\$ _____	\$144,296	\$147,196
Cash Farm Expenses	_____	<u>109,262</u>	<u>113,834</u>
NET CASH FARM INCOME	\$ _____	\$ 35,034	\$ 33,362

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.

LABOR AND MANAGEMENT INCOME Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms, 1975	Average 32 Farms, 1974
Total Farm Receipts	\$ _____	\$152,496	\$161,384
Total Farm Expenses	_____	<u>138,810</u>	<u>140,627</u>
LABOR & MANAGEMENT INCOME	\$ _____	\$ 13,686	\$ 20,757
Number of Operators	_____	1.3	1.5
LABOR & MGT. INCOME/OPERATOR	\$ _____	\$ 10,528	\$ 14,132

Labor and management income is the return to the operator for his efforts in operating the business. A 7 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. Labor and management income is the measure used most commonly when comparing farm businesses.

The average 1975 labor and management income per operator for the farm businesses included in the summary was somewhat lower than that experienced by a similar group of farms for 1974. The major factor causing this decline was a much lower increase in feed and supplies inventory. In 1974 feed and supplies inventory increased by \$9,783. In 1975 this increase was only \$1,909.

Labor, management, and ownership income per operator reflects 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
Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms, 1975	Average 32 Farms, 1974
Labor & management income	\$ _____	\$13,686	\$20,757
Real estate appreciation	_____	8,596	7,031
Interest on equity capital	_____	<u>17,382</u>	<u>16,182</u>
Total per farm	\$ _____	\$39,664	\$43,970
Number of operators	_____	1.3	1.5
LABOR, MANAGEMENT AND OWNERSHIP INCOME/OPERATOR	\$ _____	\$30,511	\$29,937

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.

RETURN ON EQUITY CAPITAL
Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
		<u>Including Real Estate Appreciation</u>	
Labor, Mgt. & Ownership Income/Farm	\$ _____	\$39,664	\$43,970
Less: Value of Operator's Labor & Mgt.*	_____	<u>16,128</u>	<u>15,942</u>
Return on Equity Capital	\$ _____	\$23,536	\$28,028
Rate of Return on Equity Capital	_____%	9.5%	12.1%
		<u>Excluding Real Estate Appreciation</u>	
Return on Equity Capital (from above)	\$ _____	\$27,258	\$28,028
Less: Real Estate Appreciation	_____	<u>8,596</u>	<u>7,031</u>
Return on Equity Capital	\$ _____	\$14,940	\$20,997
Rate of Return on Equity Capital	_____%	6.0%	9.1%

*Value of operator's labor and management estimated by operators, page 3, multiplied by 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 with a good labor income may find his management flexibility restricted by an excessively high debt repayment schedule.

FARM FAMILY FINANCIAL SITUATION
40 Western Plains Dairy Farms, January 1, 1976

Item	My Farm	Average 40 Farms
<u>Assets</u>		
Livestock	\$ _____	\$ 78,432
Feed and supplies	_____	38,862
Machinery and equipment	_____	70,067
Land and buildings	_____	165,521
Co-op investment	_____	11,511
Accounts receivable	_____	12,028
Cash and checking accounts	_____	3,193
Total Farm Assets	\$ _____	\$379,614
Savings accounts	_____	2,471
Cash value life insurance	_____	3,758
Stocks and bonds	_____	942
Non-farm real estate	_____	1,525
Auto (personal share)	_____	872
All other	_____	2,477
Total Non-farm Assets	\$ _____	\$ 12,045
TOTAL ASSETS	\$ _____	\$391,659
<u>Liabilities</u>		
Real estate mortgage	\$ _____	\$ 49,277
Liens on cattle & equipment	_____	59,078
Installment contracts	_____	493
Notes and other farm debt	_____	22,451
Total Farm Liabilities	\$ _____	\$131,299
Non-farm Liabilities	_____	9
TOTAL LIABILITIES	\$ _____	\$131,308
Farm Net Worth (equity capital)	\$ _____	\$248,315
Family Net Worth	\$ _____	\$260,351

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 1976 are the scheduled debt payments as of January 1976. Some farms in the group had scheduled debt payments exceeding 35 percent of the milk receipts. Committing this much cash inflow to debt payments put a "big squeeze" on cash available for operating the business and family living.

FINANCIAL MEASURES & DEBT COMMITMENT
40 Western Plains Dairy Farms, January 1, 1976

Item	My Farm	Average of 40 Farms
<u>Payment Ability</u>		
Net cash farm income	\$ _____	\$35,034
Add: Interest paid	_____	<u>9,764</u>
CASH AVAILABLE FOR DEBT SERVICE & LIVING	\$ _____	\$44,798
Less: Family living expenses	_____	<u>13,000*</u>
CASH AVAIL. FOR DEBT PYMT. & CAP. PURCH.	\$ _____	\$31,798
<u>Scheduled Annual Debt Payments</u>		
Real estate mortgage	\$ _____	\$ 6,329
Cattle and equipment liens	_____	14,864
Installment contracts	_____	288
Notes and other	_____	<u>5,856</u>
TOTAL PAYMENTS PLANNED 1975	\$ _____	\$27,337
<u>Measure of Debt Commitment & Equity Position</u>		
Scheduled debt payments per cow	\$ _____	\$ 258
Scheduled debt payments as % of milk sales	_____%	22%
Farm debt per cow	\$ _____	\$ 1,239
Percent equity (total)	_____%	66%

*Estimated at \$10,000 per family and one family per operator.

ANALYSIS OF THE FARM BUSINESS

Research and experience has shown that certain factors controlled by management affect farm incomes. In analyzing a farm business, we examine it in terms of these basic factors. This will be done on the pages that follow.

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 (milk) on which to make a profit. However, if a large farm is poorly operated, the losses also will be larger.

MEASURES OF SIZE OF BUSINESS
Western Plains Dairy Farms, 1975 & 1974

Measure	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
Number of cows	_____	106	109
Number of heifers	_____	79	81
Pounds milk sold	_____	1,447,900	1,474,900
Man equivalent	_____	3.4	3.2
Total work units	_____	1,211	1,252
Total acres of crops	_____	369	355

Volume of output is one measure of size. In the table below, the 628 New York farms summarized for 1974 are sorted by number of cows and the labor income is shown for each size group. In general, the large farms paid better.

COWS PER FARM AND LABOR AND MANAGEMENT INCOME
628 New York Dairy Farms, 1974

Number of Cows	Number of Farms	Percent of Farms	Labor & Management Income Per Operator
Under 40	87	14%	\$ 259
40 - 54	173	27	2,176
55 - 69	135	21	2,580
70 - 84	76	12	3,642
85 - 99	42	7	8,866
100 - 114	36	6	6,118
115 - 129	25	4	7,822
130 - 149	17	3	10,783
150 & over	37	6	19,679

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 & MILK SOLD PER COW
40 Western Plains Dairy Farms, 1975

Crop	My Farm		Average of Farms Reporting		
	Acres	Yield	Farms Reporting	Acres	Yield
Dry hay	_____	_____	40	68	(combined
Hay crop silage	_____	_____	34	112	below)
Other hay crops	_____	_____	5	12	
Corn silage	_____	_____	39	91	14.2 tn.
Grain corn	_____	_____	33	99	81.0 bu.
Oats	_____	_____	22	28	77.1 bu.
Wheat	_____	_____	25	36	41.1 bu.

Hay equivalent:					
All hay crops	_____	_____	40	154	3.5 tn.
All hay & silage	_____	_____	40	243	3.9 tn.
Milk sold per cow	_____	_____			13,659 lbs.

Tons of hay equivalent of all hay and silage is a measure of the overall rate of roughage production for all the acres used for roughage crops. One ton of hay equivalent is equal to one ton of dry hay containing 88 to 90 percent dry matter.

The hay crop yields reported by this group of farms were about the same as those reported in 1974. Corn grain and silage yields were up slightly. Milk sold in 1974 averaged 13,531 pounds per cow.

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

MILK SOLD PER COW & LABOR INCOME
628 New York Dairy Farms, 1974

Pounds of Milk Sold Per Cow	Number of Farms	Number of Cows	Feed Bought Per Cow	Labor Income Per Operator
Under 10,000	83	57	\$229	\$ 3,581
10,000 - 10,999	77	62	271	572
11,000 - 11,999	97	66	307	687
12,000 - 12,999	120	76	325	5,227
13,000 - 13,999	125	78	330	8,374
14,000 - 14,999	82	80	360	9,649
15,000 - 15,999	33	90	373	15,707
16,000 & over	11	74	477	11,045

Labor Efficiency

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

MEASURES OF LABOR EFFICIENCY Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
Man Equivalent	_____	3.4	3.2
Cows Per Man	_____	31	34
Lbs. Milk Sold Per Man	_____	423,363	465,268
Work Units Per Man	_____	354	395

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 a decrease of three cows per man when the average for 1975 is compared with the average of the 1974 farms.

Pounds of milk sold per man is the 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 1975 summary were not as efficient as those in the 1974 study. Milk sold per man was nearly 42,000 lbs. below the 1974 average.

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 628 New York Dairy Farms, 1974

Pounds of Milk Sold Per Man	Number of Farms	Number of Cows	Lbs. Milk Per Cow	Labor & Management Income Per Operator
Under 250,000	92	43	10,300	-\$ 2,882
250,000 - 299,999	86	56	11,700	1,172
300,000 - 349,999	109	64	11,900	3,055
350,000 - 399,999	104	70	12,600	3,530
400,000 - 449,999	93	70	11,300	5,675
450,000 - 499,999	60	98	13,300	13,062
500,000 - 599,000	66	109	13,700	11,328
600,000 and over	18	135	13,700	19,553

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 analyzed on page 10. It is possible for the business to be under capitalized. However, investing too much capital per productive unit is a more common problem. The only way a farmer can get a good return on capital invested in his business is to "put it to work".

MEASURES OF CAPITAL EFFICIENCY
Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
Farm Capital Per Man	\$ _____	\$103,181	\$104,675
Farm Capital Per Cow	\$ _____	3,329	3,044
Land & Buildings Per Cow	\$ _____	1,562	1,413
Land & Buildings/Crop Acre Owned	\$ _____	880	794
Machinery Investment Per Cow	\$ _____	661	546
Capital Turnover	_____ yrs.	2.3 yrs.	2.1 yrs.

Land and building investment per crop acre owned shows the relationship between investments in land and buildings. 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".

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
628 New York Dairy Farms, 1974

Number of Cows	Number of Farms	Capital Investment Per Cow		
		Total	Real Estate	Machinery
Under 40	87	\$3,688	\$2,160	\$628
40 - 54	173	3,310	1,763	658
55 - 69	135	3,454	1,870	633
70 - 84	76	3,209	1,696	582
85 - 99	42	3,149	1,669	533
100 - 114	36	3,293	1,644	590
115 - 129	25	3,123	1,583	535
130 - 149	17	2,957	1,461	509
150 & over	37	2,898	1,468	444

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.

Feed Costs

Feed is the largest single expense item on dairy farms. For the 40 Western Plains farms, purchased feed accounted for 23 percent of the cash expenses. Crop expenses accounted for another 13 percent.

The crop program has an important influence on purchased feed costs. Increasing the amount of roughage and/or grain grown on the farm will reduce the quantity of feed to be purchased. However, this will reduce the total cost of feeding the animals only if the cost of growing feed on the farm is less than the cost of purchased feed. Also, the number of heifers being raised on the farm will affect the total feed cost per cow or hundredweight of milk sold. The overall feed situation must be examined and evaluated as a "system".

FEED COSTS AND RELATED MEASURES
Western Plains Farms, 1975 & 1974

Item	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
Feed purchased per cow	\$ _____	\$ 236	\$ 299
Crop expense per cow	\$ _____	\$ 138	\$ 115
Feed bought per cwt. milk	\$ _____	\$1.73	\$2.21
Feed & crop expense per cwt. milk	\$ _____	\$2.74	\$3.06
Percent feed is of milk receipts	_____ %	20%	26%
Hay equivalent per cow (tons)	_____	9.0	8.5
Crop acres per cow	_____	3.5	3.3
Lime and fertilizer per crop acre	\$ _____	\$ 23	\$ 21
Heifers as % of cow numbers	_____ %	75%	74%

Several factors are known to have an important influence on feed and crop expense per hundredweight of milk. Early cutting of hay and hay crop silage increases the amount of protein and energy that can be supplied by forage. Feeding according to production so that cows in early lactation are not underfed and cows in late lactation are not overfed increases the efficiency of concentrate use. Feeding a balanced, least-cost ration reduces the cost of the concentrate required to meet the cow's needs.

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
Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
Total Machinery ^{1/}	\$ _____	\$24,578	\$23,032
Machinery Cost Per Cow	_____	232	211
Machinery Costs/Cwt. Milk	_____	1.70	1.56
Total Labor Costs ^{2/}	_____	24,465	23,418
Labor Costs Per Cow	_____	231	215
Labor Costs/Cwt. Milk	_____	1.69	1.59
Labor & Machinery Costs/Cwt. Milk	_____	3.39	3.15

^{1/} Machinery depreciation, 7 percent interest on the average machinery inventory, machine hire, machinery repairs, farm share of auto expense and gas and oil are all included.

^{2/} Hired labor, family labor, and operator's labor valued at \$500 per month.

Both labor and machinery costs were higher in 1975 than in 1974. Western Plains farms summarizing in 1975 had labor and machinery costs of \$.24 per hundredweight of milk higher than that experienced by those farms summarizing in 1974.

MISCELLANEOUS COSTS CONTROL MEASURES
Western Plains Dairy Farms, 1975 & 1974

Item	My Farm	Average 40 Farms 1975	Average 32 Farms 1974
Veterinary & Medicine Per Cow	\$ _____	\$22.96	\$23.08
Other Livestock Expense Per Cow	_____	33.15	32.18
Real Estate Expense Per Cow	_____	96.88	88.96
Total Farm Expenses Per Cow	_____	1,310	1,290

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 \$20 per cow higher in 1975 than in 1974.

Family Living Expenditures

For business financial planning, the family living expenses must be considered along with the farm expenses. Below is a summary of the living expenditures for families in Minnesota who recorded their living expenses as part of their farm business management project.

FAMILY LIVING EXPENDITURES 102 Minnesota Farm Families, 1974

Item	My Family	Average of 102 Families	
		Amount	Percent
Number in family	_____	4.3	
<u>Living Expenses</u>			
Food and meals bought*	\$ _____	\$ 2,171	22
Medical and hospital insurance	_____	1,101	11
Clothing and clothing materials	_____	930	10
Church and welfare	_____	776	8
Furnishings and equipment	_____	948	10
Operating and supplies	_____	748	7
Upkeep on dwelling	_____	247	3
Personal share of auto expense	_____	534	6
Gifts and special events	_____	551	6
Education	_____	397	4
Recreation	_____	654	7
Personal care and spending	_____	401	4
Electricity & phone (home share)	_____	226	2
TOTAL LIVING EXPENSES	\$ _____	\$ 9,684	100
Taxes	_____	2,733	
Life insurance	_____	1,241	
Dwelling improvements	_____	1,189	
Home share of new autos	_____	636	
Other savings and investments	_____	1,830	
TOTAL FAMILY EXPENDITURES	\$ _____	\$17,313	

<u>Sources of Family Income</u>			
Return from farm business	\$ _____	\$32,264	
Income from outside investments	_____	1,031	
Other personal income	_____	1,130	

SOURCE: Minnesota Econ. Info. Reports ER75-2 and ER75-3.

* In addition, the family used farm produce valued at \$518.

The average living expenses for 93 Minnesota families in 1973 was \$8,265. The average for 1974 was \$9,684 or an increase of 17 percent.

Many factors affect the expenditures of an individual family. The number in the family, ages of children, health problems, and special interests are examples. When comparing a family with the averages, these factors should be taken into consideration.

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 chart shows how far the individual farm is above or below the midpoint of the 628 farms for each factor. The figure at the top of each column is the average of the top 10 percent of the 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 628 New York Dairy Farms, 1974

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	171	2,282,600	15,500	4.7	22	46	592,200
3.3	108	1,400,700	14,300	3.8	17	38	491,600
2.8	85	1,085,000	13,700	3.2	16	35	441,900
2.4	71	901,900	13,200	2.9	15	33	406,500
2.2	63	775,900	12,700	2.7	14	30	374,000

2.0	57	687,800	12,200	2.5	13	29	346,100
1.9	50	608,800	11,700	2.3	12	26	318,200
1.6	46	534,300	11,000	2.0	10	24	287,300
1.4	40	448,100	10,200	1.8	9	22	249,200
1.2	31	314,500	8,300	1.4	6	17	183,500

Feed Bought Per Cow	% Feed is of Milk Receipts	Machinery Cost Per Cow	Labor and Machinery Cost Per Cow	Feed and Crop Expense Per Cwt. Milk			
\$136	14%	\$101	\$273	\$2.03			
205	21	139	320	2.51			
240	25	160	348	2.72			
269	27	177	371	2.93			
298	29	190	391	3.12			

323	31	206	414	3.30			
353	34	223	440	3.50			
382	36	243	469	3.71			
423	39	269	509	4.00			
518	47	355	617	4.70			

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.

Use this chart to analyze your dairy business by drawing a line through the figure in each column which represents your level of management.

Item	Year			
	1964	1969	1973	1974
Number of farms	434	511	609	628
<u>Financial Summary</u>				
Average capital invested	\$57,187	\$116,525	\$195,322	\$221,974
Total farm receipts	\$25,634	\$59,662	\$84,682	\$92,108
Total farm expenses	\$19,551	\$42,293	\$72,570*	\$86,315*
Labor income per operator	\$2,958	\$7,885	\$10,195	\$4,880
<u>Size of Business</u>				
Number of cows	40	60	69	72
Pounds of milk sold	450,400	761,700	851,900	905,800
Crop acres	104	159	198	213
Man equivalent	1.7	2.1	2.2	2.4
Total work units	507	692	750	792
<u>Rates of Production</u>				
Milk sold per cow	11,260	12,700	12,350	12,580
Tons hay per acre	2.0	2.8	2.6	2.6
Tons corn silage per acre	12	16	13	14
<u>Labor Efficiency</u>				
Cows per man	24	29	32	30
Pounds milk sold per man	264,900	362,700	392,600	374,300
Work units per man	298	330	346	327
<u>Cost Control Factors</u>				
Machinery cost per cow	\$109	\$167	\$183	\$201
Machinery cost/cwt. milk	\$.97	\$1.32	\$1.49	\$1.60
Feed bought per cow	\$155	\$180	\$278	\$318
Feed bought/cwt. milk	\$1.38	\$1.42	\$2.25	\$2.53
Feed & crop expense/cwt. milk	\$1.65	\$1.68	\$2.81	\$3.26
% Feed is of milk receipts	31%	24%	31%	30%
<u>Capital Efficiency</u>				
Total investment per man	\$34,493	\$57,724	\$95,667	\$95,683
Total investment per cow	\$1,466	\$2,020	\$3,009	\$3,216
Machinery investment/cow	\$315	\$452	\$527	\$572
Total investment/cwt. milk	\$13	\$16	\$24	\$26
<u>Other</u>				
Price per cwt. milk sold	\$4.40	\$5.80	\$7.30	\$8.57
Acres hay crops	71	81	116	117
Acres corn silage	19	42	57	61
Total acres in crops/cow	2.6	2.6	2.9	3.0
Fertilizer & lime expense/crop acre	\$9	\$13	\$16	\$20
Farm income per cow	\$152	\$290	\$262	\$291
Labor income per cow	\$81	\$154	\$176	\$80

* Includes interest paid, interest on equity capital, and building depreciation which were not included in total farm expenses prior to 1973.

FARM BUSINESS SUMMARY BY HERD SIZE
628 New York Dairy Farms, 1974

Item	Farms With:			
	Less Than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
<u>Capital Investment (end of year)</u>				
Livestock	\$ 21,278	\$ 31,450	\$ 42,334	\$ 51,267
Feed and supplies	7,521	9,432	15,710	18,560
Machinery and equipment	20,092	30,275	38,630	43,633
Land and buildings	69,120	81,110	114,041	127,209
TOTAL INVESTMENT	\$118,011	\$152,267	\$210,715	\$240,669
<u>Receipts</u>				
Milk sales	\$ 31,538	\$ 48,189	\$ 63,537	\$ 79,361
Livestock sales	3,297	4,098	6,015	6,209
Crop sales	269	462	497	705
Miscellaneous receipts	777	871	1,166	1,297
Total Cash Receipts	\$ 35,881	\$ 53,620	\$ 71,215	\$ 87,572
Increase in livestock	--	--	--	--
Increase in feed & supplies	2,023	2,533	4,658	5,800
TOTAL FARM RECEIPTS	\$ 37,904	\$ 56,153	\$ 75,873	\$ 93,372
<u>Expenses</u>				
Hired labor	\$ 1,026	\$ 2,216	\$ 4,114	\$ 5,734
Dairy feed	9,877	14,843	18,544	24,407
Other feed	302	413	488	902
Machine hire	216	396	412	698
Machinery repair	1,340	2,134	2,821	3,396
Auto expense (farm share)	210	277	325	281
Gas and oil	1,126	1,602	2,127	2,601
Purchased animals	2,123	1,577	3,332	2,603
Breeding fees	345	556	768	857
Veterinary and medicine	421	705	973	1,091
Other livestock expense	1,359	2,352	2,824	3,502
Fertilizer and lime	1,163	2,199	3,435	4,585
Seeds and plants	420	696	1,052	1,228
Spray and other crop expense	392	668	887	1,021
Land, bldg., fence repair	565	1,021	1,321	1,407
Taxes and insurance	1,461	2,025	2,625	3,349
Electricity & phone (farm share)	741	1,023	1,253	1,564
Interest paid	2,276	3,390	4,629	5,930
Miscellaneous expenses	501	1,040	1,317	1,728
Total Cash Operating Expenses	\$ 25,864	\$ 39,133	\$ 53,247	\$ 66,884
Machinery depreciation	2,549	3,675	4,434	5,556
Real estate depreciation	1,000	1,512	2,026	2,516
Unpaid family labor	1,050	1,400	1,400	1,050
Interest on equity @ 7%	5,965	7,036	9,847	11,072
Decrease in livestock	1,208	1,097	1,921	1,552
TOTAL FARM EXPENSES	\$ 37,636	\$ 53,853	\$ 72,875	\$ 88,630
<u>Financial Summary</u>				
Total Farm Receipts	\$ 37,904	\$ 56,153	\$ 75,873	\$ 93,372
Total Farm Expenses	37,636	53,853	72,875	88,630
Labor & Mgt. Income	\$ 268	\$ 2,300	\$ 2,998	\$ 4,742
Number of operators	1.03	1.06	1.16	1.30
LABOR & MGT. INCOME/OPERATOR	\$ 259	\$ 2,176	\$ 2,580	\$ 3,642

FARM BUSINESS SUMMARY BY HERD SIZE
628 New York Dairy Farms, 1974

Item	Farms With:				
	85 to 99 Cows	100 to 114 Cows	115 to 129 Cows	130 to 149 Cows	150 or More Cows
<u>Capital Investment (end of year)</u>					
Livestock	\$ 63,035	\$ 77,954	\$ 84,644	\$ 93,890	\$131,637
Feed and supplies	23,207	33,161	37,999	42,295	62,532
Machinery and equipment	48,499	61,978	65,217	70,295	87,410
Land and buildings	151,861	172,663	193,152	201,596	289,284
TOTAL INVESTMENT	\$286,602	\$345,756	\$381,012	\$408,076	\$570,863
<u>Receipts</u>					
Milk sales	\$100,468	\$120,484	\$137,008	\$159,490	\$226,325
Livestock sales	8,345	11,963	10,849	13,348	18,940
Crop sales	696	972	1,243	1,500	4,742
Miscellaneous receipts	1,146	1,806	2,258	2,903	4,226
Total Cash Receipts	\$110,655	\$135,225	\$151,358	\$177,241	\$254,233
Increase in livestock	--	--	218	327	--
Increase in feed & supplies	4,768	10,867	9,384	12,496	19,840
TOTAL FARM RECEIPTS	\$115,423	\$146,092	\$160,960	\$190,064	\$274,073
<u>Expenses</u>					
Hired labor	\$ 8,498	\$ 12,760	\$ 14,307	\$ 17,335	\$ 29,179
Dairy feed	28,028	36,015	40,502	46,982	62,516
Other feed	1,239	2,154	3,537	1,436	4,864
Machine hire	568	553	856	1,656	3,000
Machinery repair	3,892	5,646	6,582	7,595	10,597
Auto expense (farm share)	370	259	352	391	361
Gas and oil	2,807	3,467	4,300	4,900	6,592
Purchased animals	3,396	4,257	3,678	10,031	7,945
Breeding fees	1,191	1,414	1,419	1,838	2,007
Veterinary and medicine	1,360	1,779	2,163	2,763	3,827
Other livestock expense	4,076	6,294	5,342	8,303	10,053
Fertilizer and lime	5,601	7,264	8,453	10,099	14,206
Seeds and plants	1,370	1,782	2,435	2,112	3,464
Spray and other crop expense	1,194	2,434	2,165	2,297	4,076
Land, bldg., fence repair	1,699	2,718	1,853	2,209	3,603
Taxes and insurance	3,980	4,889	4,721	5,390	7,911
Electric & phone (farm share)	1,862	2,185	2,198	2,623	3,405
Interest paid	6,409	7,803	8,893	11,881	14,368
Miscellaneous expenses	2,129	2,777	3,736	4,804	6,793
Total Cash Operating Exp.	\$ 79,669	\$106,450	\$117,492	\$144,645	\$198,767
Machinery depreciation	6,205	6,607	8,393	7,261	10,275
Real estate depreciation	3,401	4,506	3,982	5,175	7,056
Unpaid family labor	700	700	1,400	700	700
Interest on equity @ 7%	13,052	16,574	18,742	17,704	27,922
Decrease in livestock	577	2,929	--	--	642
TOTAL FARM EXPENSES	\$103,604	\$137,766	\$150,009	\$175,485	\$245,362
<u>Financial Summary</u>					
Total Farm Receipts	\$115,423	\$146,092	\$160,960	\$190,064	\$274,073
Total Farm Expenses	103,604	137,766	150,009	175,485	245,362
Labor & Mgt. Income	\$ 11,819	\$ 8,326	\$ 10,951	\$ 14,579	\$ 28,711
Number of operators	1.33	1.36	1.40	1.35	1.46
LABOR & MGT. INCOME/OPERATOR	\$ 8,866	\$ 6,118	\$ 7,822	\$ 10,783	\$ 19,679

SELECTED BUSINESS FACTORS BY HERD SIZE
628 New York Dairy Farms, 1974

Item	Farms with:			
	Less Than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Number of farms	87	173	135	76
<u>Size of Business</u>				
Number of cows	32	46	61	75
Number of heifers	22	33	43	56
Pounds of milk sold	375,000	567,800	751,600	928,600
Man equivalent	1.5	1.8	2.2	2.4
Total work units	364	516	681	842
Crop acres	102	140	192	234
<u>Rates of Production</u>				
Milk sold per cow	11,700	12,300	12,300	12,400
Tons hay crops per acre	2.3	2.4	2.4	2.4
Tons corn silage per acre	13.4	13.2	13.3	12.9
Bushels of oats per acre	57	58	56	56
<u>Labor Efficiency</u>				
Cows per man	21	25	28	31
Pounds milk sold per man	250,000	310,300	346,400	383,700
Work units per man	243	282	314	348
<u>Feed Costs</u>				
Feed purchased per cow	\$309	\$323	\$304	\$325
Crop expense per cow	\$62	\$77	\$88	\$91
Feed cost per cwt. milk	\$2.63	\$2.61	\$2.47	\$2.63
Feed & crop exp./cwt. milk	\$3.16	\$3.24	\$3.18	\$3.36
% Feed is of milk receipts	31%	31%	29%	31%
Hay equivalent per cow	7.4	7.9	8.2	8.0
Crop acres per cow	3.2	3.0	3.1	3.1
Fertilizer & lime/crop acre	\$11	\$16	\$18	\$20
<u>Machinery and Labor Costs</u>				
Total machinery costs	\$6,796	\$10,099	\$12,691	\$15,465
Machinery cost per cow	\$212	\$220	\$208	\$206
Machinery cost/cwt. milk	\$1.81	\$1.78	\$1.69	\$1.67
Labor cost per cow	\$252	\$220	\$205	\$190
Labor cost per cwt. milk	\$2.15	\$1.78	\$1.66	\$1.54
<u>Capital Efficiency</u>				
Investment per man	\$78,674	\$83,206	\$97,104	\$99,450
Investment per cow	\$3,688	\$3,310	\$3,454	\$3,209
Investment per cwt. milk	\$31	\$27	\$28	\$26
Land & buildings per cow	\$2,160	\$1,763	\$1,870	\$1,696
Machinery investment/cow	\$628	\$658	\$633	\$582
Capital turnover	3.1	2.7	2.8	2.6
<u>Other</u>				
Price per cwt. milk sold	\$8.41	\$8.49	\$8.45	\$8.55
Acres hay crops	71	89	112	136
Acres corn silage	20	36	52	65
Inventory changes 1974:*				
Number of cows	+1	+2	+2	+5
Inv. value per cow**	-\$55	-\$53	-\$53	-\$67

* Change from 1/1/74 to 1/1/75.

** Livestock inventory includes heifers.

SELECTED BUSINESS FACTORS BY HERD SIZE
628 New York Dairy Farms, 1974

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	42	36	25	17	37
<u>Size of Business</u>					
Number of cows	91	105	122	138	197
Number of heifers	63	82	85	95	126
Pounds of milk sold	1,176,400	1,393,900	1,588,900	1,812,800	2,590,400
Man equivalent	2.8	3.3	3.8	3.8	5.3
Total work units	973	1,179	1,329	1,487	2,122
Crop acres	237	318	340	379	551
<u>Rates of Production</u>					
Milk sold per cow	12,900	13,300	13,000	13,100	13,100
Tons hay crops per acre	3.3	2.9	3.0	3.0	3.1
Tons corn silage/acre	13.9	15.1	12.8	14.9	13.7
Bushels oats/acre	64	60	62	75	73
<u>Labor Efficiency</u>					
Cows per man	32	32	33	36	38
Pounds milk sold/man	415,700	418,589	423,700	473,300	493,400
Work units per man	344	354	354	388	404
<u>Feed Costs</u>					
Feed purchased per cow	\$308	\$343	\$332	\$340	\$317
Crop expense per cow	\$90	\$109	\$107	\$105	\$110
Feed cost per cwt. milk	\$2.38	\$2.58	\$2.55	\$2.59	\$2.41
Feed & crop exp./cwt. milk	\$3.08	\$3.41	\$3.37	\$3.39	\$3.25
% Feed is of milk receipts	28%	30%	30%	29%	28%
Hay equivalent per cow	8.0	8.6	8.0	8.5	7.8
Crop acres per cow	2.6	3.0	2.8	2.7	2.8
Fertilizer & lime/crop acre	\$24	\$23	\$25	\$27	\$26
<u>Machinery and Labor Costs</u>					
Total machinery costs	\$17,082	\$20,622	\$24,746	\$26,409	\$36,415
Machinery cost per cow	\$188	\$196	\$203	\$191	\$185
Machinery cost/cwt. milk	\$1.45	\$1.48	\$1.56	\$1.46	\$1.41
Labor cost per cow	\$189	\$204	\$198	\$189	\$195
Labor cost/cwt. milk	\$1.46	\$1.54	\$1.52	\$1.44	\$1.48
<u>Capital Efficiency</u>					
Investment per man	\$101,273	\$103,831	\$101,603	\$106,547	\$108,736
Investment per cow	\$3,149	\$3,293	\$3,123	\$2,957	\$2,898
Investment/cwt. milk	\$24	\$25	\$24	\$23	\$22
Land & buildings/cow	\$1,669	\$1,644	\$1,583	\$1,461	\$1,468
Machinery investment/cow	\$533	\$590	\$535	\$509	\$444
Capital turnover	2.5	2.4	2.4	2.1	2.1
<u>Other</u>					
Price per cwt. milk sold	\$8.54	\$8.64	\$8.62	\$8.80	\$8.74
Acres hay crops	124	162	163	174	234
Acres corn silage	69	86	111	131	181
Inventory changes 1974:*					
Number of cows	+3	+4	+8	+7	+7
Inv. value per cow**	-\$29	-\$55	-\$43	-\$32	-\$27

* Change from 1/1/74 to 1/1/75.

** Livestock inventory includes heifers.

FARM FAMILY FINANCIAL SITUATION
591* New York Dairy Farms, January 1, 1975

Item	Farms with:			
	Less than 40 Cows	40 to 54 Cows	55 to 69 Cows	70 to 84 Cows
Number of farms	82	162	126	71
Assets				
Livestock	\$ 21,366	\$ 31,402	\$ 42,081	\$ 50,934
Feed and supplies	7,633	9,424	15,817	18,439
Machinery & equipment	20,042	30,391	39,185	43,569
Land and buildings	69,237	81,277	114,869	129,309
Co-op investment	1,047	1,588	2,956	3,533
Accounts receivable	1,892	2,943	4,236	5,083
Cash & checking accounts	1,003	955	1,450	1,602
Total Farm Assets	\$122,220	\$157,980	\$220,594	\$252,469
Savings accounts	1,767	2,544	3,035	1,960
Cash value life insurance	1,645	1,922	2,152	2,730
Stocks and bonds	1,621	1,236	623	2,043
Nonfarm real estate	2,442	1,836	2,808	2,133
Auto (personal share)	581	752	878	928
All other	2,635	1,107	3,908	2,787
Total Nonfarm Assets	\$ 10,691	\$ 9,397	\$ 13,404	\$ 12,581
TOTAL ASSETS	\$132,911	\$167,377	\$233,998	\$265,050
Liabilities				
Real estate mortgage	\$ 21,453	\$ 32,111	\$ 43,666	\$ 51,764
Liens on cattle & equipt.	11,018	17,790	25,747	29,983
Installment contracts	2,106	2,279	3,981	2,477
Notes & other farm debts	2,651	5,231	7,923	8,838
Total Farm Liabilities	\$ 37,228	\$ 57,411	\$ 81,317	\$ 93,062
Nonfarm Liabilities	348	460	409	767
TOTAL LIABILITIES	\$ 37,576	\$ 57,871	\$ 81,726	\$ 93,829
Farm Net Worth	\$ 84,992	\$100,569	\$139,277	\$159,407
(Equity Capital)				
FAMILY NET WORTH	\$ 95,335	\$109,506	\$152,272	\$171,221
Financial Measures				
Percent equity	72%	65%	65%	65%
Farm debt per cow	\$1,128	\$1,222	\$1,312	\$1,225
Available for debt service and living	\$12,189	\$17,914	\$22,574	\$26,891
Scheduled annual debt payments	\$6,193	\$9,408	\$13,015	\$16,695
Scheduled debt payment per cow	\$188	\$200	\$210	\$220
Scheduled debt payment as % milk check	20%	20%	20%	21%

* 37 of the 628 farms did not report.

FARM FAMILY FINANCIAL SITUATION
591 New York Dairy Farms, January 1, 1975

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	39	35	24	17	35
Assets					
Livestock	\$ 61,916	\$ 78,086	\$ 83,738	\$ 93,890	\$130,800
Feed and supplies	23,318	33,229	37,275	42,295	62,121
Machinery & equipment	49,326	61,988	65,462	70,295	85,731
Land and buildings	153,332	170,311	198,867	201,597	292,981
Co-op investment	3,915	6,223	8,614	9,031	11,968
Accounts receivable	7,035	9,349	10,675	13,687	21,889
Cash & checking accounts	1,770	2,068	1,393	1,412	4,267
Total Farm Assets	\$300,612	\$361,254	\$406,024	\$432,207	\$609,757
Savings accounts	3,137	3,140	4,622	2,197	2,435
Cash value life insurance	3,193	3,298	1,850	3,157	2,774
Stocks and bonds	1,929	1,844	1,975	2,425	4,561
Nonfarm real estate	315	1,965	12,839	15,600	5,167
Auto (personal share)	1,138	1,103	1,518	950	923
All other	1,360	1,945	4,601	735	2,310
Total Nonfarm Assets	\$ 11,072	\$ 13,295	\$ 27,405	\$ 25,064	\$ 18,170
TOTAL ASSETS	\$311,684	\$374,549	\$433,429	\$457,271	\$627,927
Liabilities					
Real estate mortgage	\$ 56,996	\$ 68,547	\$ 69,418	\$ 79,271	\$ 98,356
Liens on cattle & equipt.	41,332	44,641	55,508	65,832	66,034
Installment contracts	3,358	3,728	6,484	6,718	6,628
Notes and other farm debts	11,108	11,592	5,616	27,466	30,189
Total Farm Liabilities	\$112,794	\$128,508	\$137,026	\$179,287	\$201,207
Nonfarm Liabilities	45	1,091	1,442	420	3,051
TOTAL LIABILITIES	\$112,839	\$129,599	\$138,468	\$179,707	\$204,258
Farm Net Worth (Equity Capital)	\$187,818	\$232,746	\$268,998	\$252,920	\$408,550
FAMILY NET WORTH	\$198,845	\$244,950	\$294,961	\$277,564	\$423,669
Financial Measures					
Percent equity	64%	65%	68%	61%	67%
Farm debt per cow	\$1,239	\$1,212	\$1,123	\$1,299	\$1,043
Available for debt service and living	\$37,145	\$36,769	\$41,587	\$44,468	\$70,173
Scheduled annual debt payments	\$18,517	\$22,884	\$24,324	\$31,406	\$38,119
Scheduled debt payment per cow	\$203	\$216	\$199	\$228	\$198
Scheduled debt payment as % milk check	18%	19%	18%	20%	17%

Selected Competitive Dairy Areas

Dairy business summary data from four states are presented below. These were taken from reports on farm business management projects similar to the ones in New York. An examination of these data will show how New York's dairy operations compare with those in competing areas.

1974 DAIRY FARM BUSINESS SUMMARY DATA

Item	New York	Maine	Vermont	Wisconsin
Number of farms	628	68	123	814
<u>Size of Business</u>				
Number of cows	72	77	67	50
Total crop acres	213	255	178	194
Pounds of milk sold	905,800	954,269	813,636	603,849
Man equivalent	2.4	2.9	2.2	1.8
<u>Rates of Production</u>				
Milk sold per cow	12,580	12,442	12,122	12,024
Tons hay per acre	2.6	2.6	2.0	3.7
Tons corn silage per acre	14	14	15	12
<u>Labor Efficiency</u>				
Cows per man	30	27	30	28
Pounds milk sold per man	374,300	331,496	363,918	335,027
<u>Cost Control Factors</u>				
Feed bought per cow	\$318	\$420	\$354	\$228
% Feed is of milk receipts	30%	36%	33%	23%
Fertilizer & lime per cow	\$60	\$72	\$50	\$53
Taxes per cow	\$25	\$22	\$26	\$32
Veterinary per cow	\$16	\$15	\$14	NA
Labor costs per cow	\$201	\$223	\$198	\$210
<u>Capital Efficiency</u>				
Total capital investment	\$231,553	\$194,410	\$167,103	\$142,033*
Total investment per cow	\$3,216	\$2,535	\$2,490	\$2,840*
Machinery investment/cow	\$572	\$450	\$410	\$524
<u>Prices</u>				
Price/cwt. 3.5% milk sold	\$8.57	\$9.40	\$8.95	\$8.07
<u>Financial Summary</u>				
Total farm receipts	\$92,108	\$103,927	\$81,044	\$73,823
Total farm expenses	\$86,315	\$95,639	\$72,968	\$60,144
Labor income per operator	\$4,880	\$8,288	\$8,076	\$12,435

SOURCE: 1974 ELFAC Dairy Farm Business Analysis, NEC-70, June 1975 (Maine & Vermont).
Wisconsin Report of 1974 Farm Record Summaries, August 1975.

* Depreciated values.