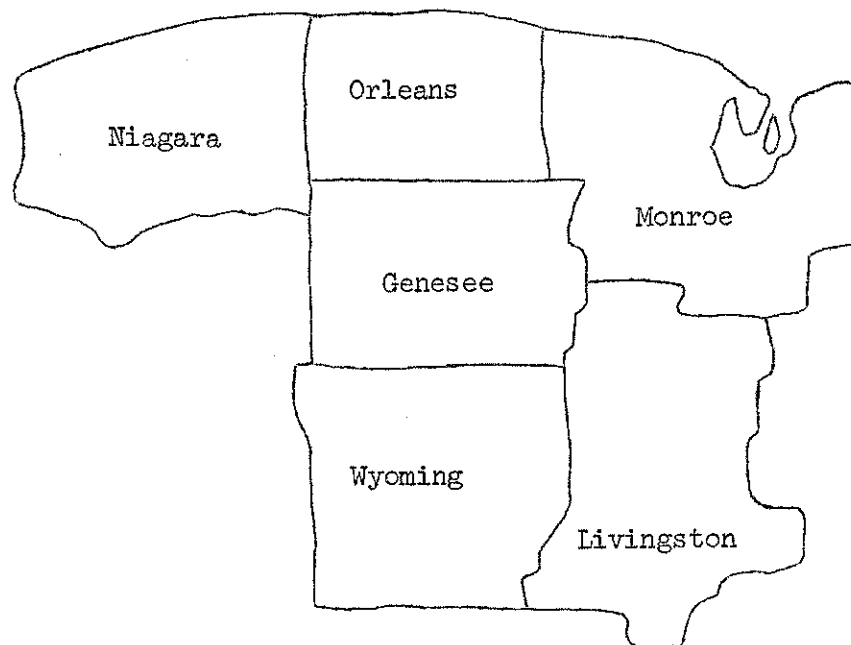


# WESTERN PLAINS REGION

## 1968 DAIRY FARM BUSINESS SUMMARY



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## WESTERN PLAINS REGION FARM BUSINESS SUMMARY - 1968

This report summarizes the records of 70 Western Plains dairy farmers who in 1968 participated in business management projects sponsored by the Cooperative Extension Service in Genesee, Livingston, Monroe, Niagara, Orleans and Wyoming Counties and the Department of Agricultural Economics at Cornell University. The data presented here do not represent the average of all dairymen in these counties but the average of a group of dairymen interested enough in their farm businesses to keep good records and take the time to study and analyze them. Averages for the groups of farms in Niagara and Wyoming Counties are included at the end of the publication. These are not to be taken as indicative of the relative profitability of dairy farming in the various counties.

One of the purposes of the business management projects is to teach and encourage farmers to keep better records. A more important purpose is to teach farmers to use the records as a basis for sound management decisions. Each farmer has the opportunity to participate for a period of time. He should learn good record keeping and learn how to analyze his business. This should enable him to use more effectively the economic and management information available from many sources, including the general farm management program offered by the Extension Service.

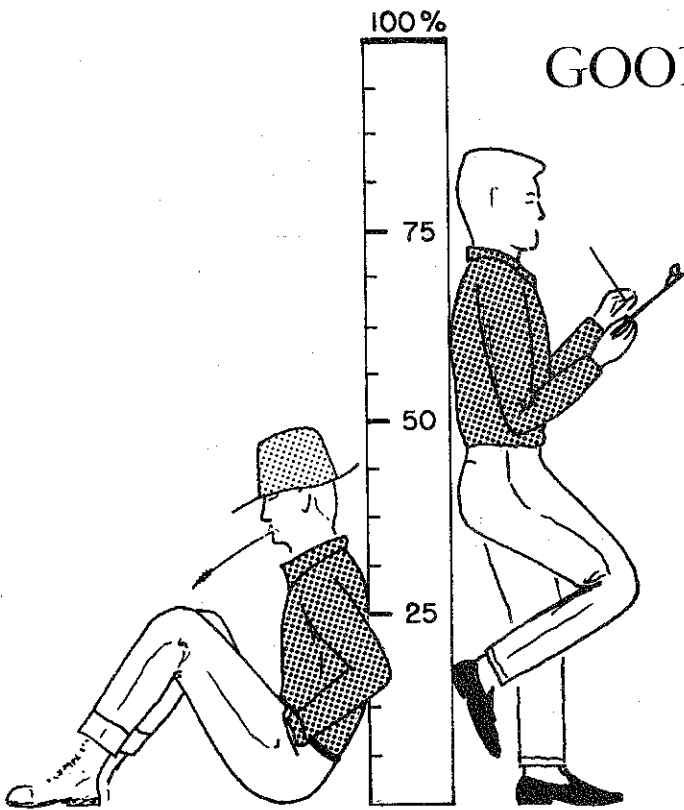
Farmers in many counties of New York State participate in business management projects similar to those in the Western Plains Region. Some of the data included in this booklet is taken from the 1967 records of 548 New York dairy farmers. This gives farmers the opportunity to compare their business with a larger group of their competitors. The larger number of farmers also makes possible the sorting of farms into groups, thereby allowing comparisons that could not be made from the relatively small number of records in any one county.

Changes in farming are taking place at a rapid pace. Research data indicate that the average number of cows per farm in New York increased from 29 in 1960 to 38 in 1967. This change is due both to the dropping out of smaller farms and to the expansion of many of those remaining. Projections based on the same research indicate that the average number of cows per farm in 1975 will be 55. The number of dairy farms in 1960 was 40,200. By 1967 it had dropped to 26,350; in 1975 it will likely be 16,500. In the future some dairymen will expand, others stay at about the same size and still others will quit farming. It is a challenge to each dairyman to decide upon the best course of action for himself and his family. A study of your business records and budgeting of some possible changes for the future will help you to make this decision.

The information in this report should be useful to farmers in the county who are not enrolled in the business management projects. It should also be helpful to persons who work with farmers, such agricultural teachers and credit representatives.

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This summary was prepared by Stuart F. Smith, Department of Agricultural Economics, Cornell University. The following Cooperative Extension Agents supervised the projects within the counties and assisted with the summarization of the records: David E. Weaver, Genesee; Peter W. Kanouse, Livingston; Herbert E. Johnson, Monroe; Kenneth G. Wooden, Niagara; Sidney C. Cleveland, Orleans; and William D. Goewey, Wyoming.



## GOOD MANAGEMENT IS BASIC

### How do you measure up?

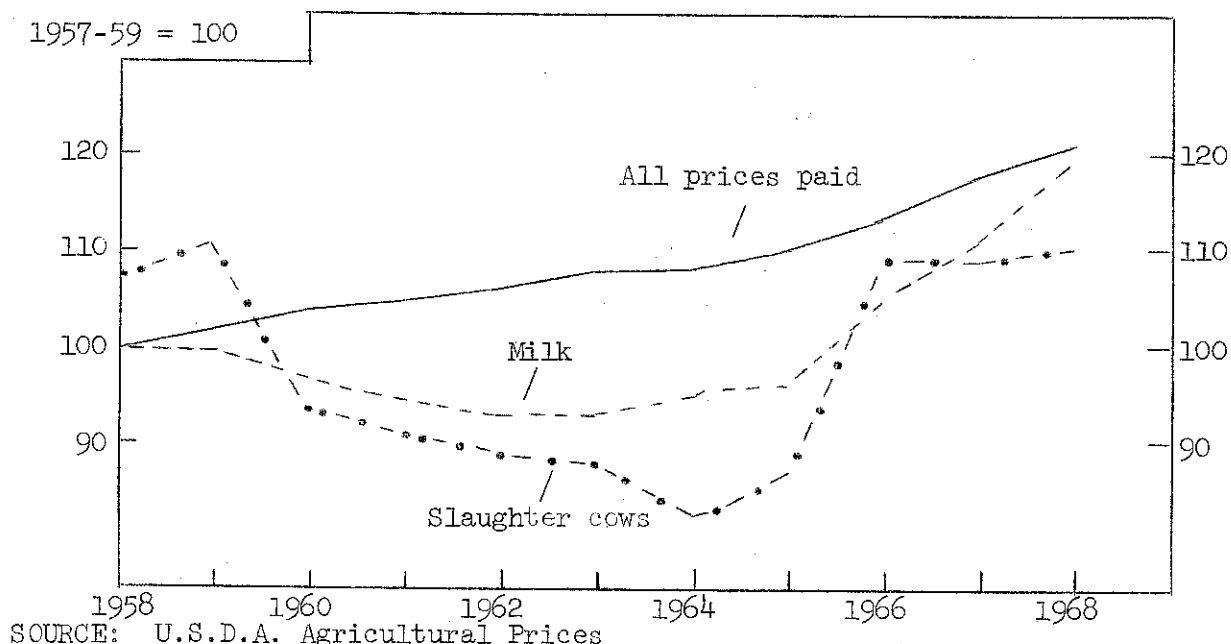
1. Have you developed a systematic approach to management problems?
2. Do you have the facts on your business?
3. Are you improving your managerial skills?

### Steps in making a management decision :

1. Locate the trouble spot (problem)
2. What is your objective? (goal)
3. Size up what you have to work with (resources)
4. Look for various ways to solve the problem (alternatives)
5. Consider probable results of each way (consequences)
6. Compare the expected results (evaluate)
7. Select way best suited to your situation (decision)
8. Put the decision into operation (action)

This workbook can help you !

## PRICES RECEIVED AND PAID BY N. Y. DAIRY FARMERS



Prices are one of the important factors affecting farm incomes. The relationship of prices received and prices paid determines the general level of farm incomes. The blended New York farm price for 3.5% milk in 1968 averaged \$5.43 per hundredweight. This was 36 cents higher than the average for 1967 and \$1.16 more than 1965. Cull dairy cow prices also were relatively good in 1968. The overall index of prices paid by New York dairy farmers continued to rise in 1968.

In recent years, prices of some farm inputs have risen while others have declined. From 1965 to 1968, farm wages rose 30 percent, dairy cows rose 34 percent, while feed declined 3 percent, and fertilizer prices declined slightly. These differences give rise to management questions concerning substitutions.

## AVERAGE YEARLY PRICES RECEIVED AND PAID BY N. Y. FARMERS, 1960-68

Year	Milk (cwt.)	Slaughter cows (cwt.)	Dairy cows (head)	Dairy ration (ton)	Wages per month with house	Prices paid by New York dairymen
1960	\$4.31	\$15.00	\$278	\$71	\$210	104
1961	4.21	14.60	260	72	213	105
1962	4.14	14.26	245	74	218	106
1963	4.10	14.01	234	76	221	108
1964	4.21	13.17	237	74	227	108
1965	4.27	13.91	238	76	235	110
1966	4.79	17.35	269	80	258	113
1967	5.07	17.33	303	80	291	118
1968*	5.43	17.58	319	74	306	121

\* Preliminary

# PART I

## SUMMARY OF THE FARM BUSINESS

The first part of this booklet is designed to enable you to summarize your business in a systematic, orderly manner. It provides an opportunity to study your physical resources, capital investment, receipts, and expenses. This is the first step to be taken in the study and analysis of your farm business.

### PHYSICAL RESOURCES

Knowledge of what resources are employed and how they are combined is fundamental to sound business planning. This includes both the physical and financial resources of the business. Below are listed the physical resources of this group of Western Plains Region dairy farms.

### FARM ORGANIZATION

Item	Average of 548 New York farms, 1967	My farm	70 Western Plains farms, 1968		
			Average	Range	
				Low	High
<u>Labor:</u>					
Man equivalent	1.9	_____	2.5	1.1	5.6
Full-time hired men			(21 farms)		
Hired men part of year			(24 farms)		
Family help			(49 farms)		
Partnership			(19 farms)		
<u>Livestock: (Av. Number)</u>					
Cows	51	_____	67	20	171
Heifers	33	_____	44	2	104
<u>Crops: (Acres grown)</u>					
Hay	79 (495)**	_____	99 (66)*	33	350
Hay crop silage***	6 (112)*	_____	7 (8)*	0	130
Corn for silage	27 (452)*	_____	48 (66)*	10	200
Corn for grain	9 (205)*	_____	28 (46)*	0	211
Oats for grain	11 (252)*	_____	27 (50)*	0	100
Wheat	N.A.	_____	18 (39)*	0	105
Other crops	6 --	_____	16 --	--	--
Total crop acres	138	_____	243	50	785

\* Number of farmers that reported each crop.

\*\* Crop data from 495 of the 548 New York farms.

\*\*\* On some farms, hay crop silage was reported as part of the hay crop.

### CAPITAL INVESTMENT

Management of the capital resource of a farm business is becoming increasingly important. To measure the complete financial progress of a dairy farm, year to year changes in the capital structure must be considered.

In this report borrowed as well as owned capital is included and the end-of-year farm inventory is used as the measure of capital investment.

#### FARM INVENTORY VALUES, end of year

Item	Average of 548 New York farms, 1967	My farm	70 Western Plains farms, 1968	
			Average per farm	Percent of total
Machinery and equipment	\$20,250	\$ _____	\$29,854	21
Cattle	22,160	_____	30,735	22
Poultry	--	_____	48	--
Other livestock	--	_____	387	--
Feed and supplies	6,840	_____	10,905	8
Land and buildings	<u>42,560</u>	_____	<u>69,860</u>	<u>49</u>
Total Investment	\$91,810	\$ _____	\$141,789	100

In many farm businesses, poor capital efficiency is a major cause of low profits. The following measures of capital efficiency will help you evaluate your overall capital management.

#### INVESTMENT ANALYSIS

Item	Average of 548 New York farms, 1967	My farm	Average of 70 Western Plains farms, 1968
Machinery and equipment per cow	\$ 397	\$ _____	\$ 446
Land and buildings per cow	\$ 834	\$ _____	\$ 1,043
Total Investment per cow	\$ 1,800	\$ _____	\$ 2,116
Total Investment per man	\$48,321	\$ _____	\$56,716
Total Investment per crop acre	\$ 665	\$ _____	\$ 619
Real Estate Investment/crop acre	\$ 308	\$ _____	\$ 305
Capital turnover*	2.5 years	_____ years	2.5 years

\* Calculated by dividing the total year end investment by the total cash receipts for the year.

# WHERE THE MONEY CAME FROM

A successful farm business requires a level of gross earnings great enough to pay all costs, both operating and overhead, and leave a margin for the operator's labor. Here we examine the sources of receipts for this group of dairy farms.

## FARM RECEIPTS

Item	Average of 548 New York farms, 1967	My farm	70 Western Plains farms, 1968	
			Average per farm	Percent of total
Milk sales	\$32,347	\$ _____	\$44,636	80
Livestock sold	3,283	_____	4,670	9
Egg sales	--	_____	198	--
Crop sales	133	_____	3,814	7
Miscellaneous*	<u>1,032</u>	_____	<u>2,314</u>	<u>4</u>
TOTAL CASH RECEIPTS	\$36,795	\$ _____	\$55,632	100
Increase in inventory	<u>7,514</u>	_____	<u>8,812</u>	
TOTAL FARM RECEIPTS	\$44,309	\$ _____	\$64,444	

\* Includes work off farm, conservation payments, refunds, etc.

Increases in inventory resulting from more cows, more machinery and equipment, additions to buildings or a better feed situation are a normal occurrence in most "going" farm businesses and are considered as farm receipts. These items could have been sold and turned into cash receipts, but instead the operator decided to invest this additional capital in his business. The cost of producing or acquiring these items normally is included in the farm expenses.

The increase in inventory on these farms was made up of the following: Equipment - \$2,164, Livestock - \$4,165, Feed and Supplies - \$470, Land and Buildings - \$3,075. On some farms, the increase in inventory was more than could actually be justified. For example, cow values on some farms were increased markedly from the beginning to the end of the year. In some cases, insufficient depreciation was taken on equipment. In summary, the \$10,104 average increase in inventory may overstate the actual increase in value of assets on these farms during 1968.

## SELECTED INCOME FACTORS

	Average of 548 New York farms, 1967	My farm	70 Western Plains farms, 1968
Average price per cwt. of milk sold	\$ 5.25	\$ _____	\$ 5.43
Milk sales per cow	\$ 634	\$ _____	\$ 666
Total cash receipts per man	\$19,366	\$ _____	\$22,253

# WHERE THE MONEY WENT

Some farmers may be able to increase profits by reducing costs. This requires a complete knowledge of what the business expenses are. With the large amount of cash flowing through a farm business today it is important that the farm operator study his expenses closely. Here is an opportunity for you to see how you're doing.

## FARM EXPENSES

Item	Average of 548 New York farms, 1967	My farm	70 Western Plains farms, 1968	
			Average per farm	Percent of total
Hired labor	\$ 2,147	\$ _____	\$ 4,590	15
Dairy feed bought	8,440	_____	7,860	25
Other feed bought (includes hay)	200	_____	221	1
Machine hire	179	_____	548	2
Truck, tractor, machinery expense	1,310	_____	2,417	8
Auto expense (farm share)	219	_____	198	1
Gasoline and oil	922	_____	1,723	6
Breeding fees	347	_____	440	1
Veterinary and medicine	529	_____	738	2
Other dairy, livestock expense	1,461	_____	2,527	8
Lime & fertilizer	1,511	_____	2,861	9
Seeds and plants	414	_____	783	2
Spray, other crop expense	364	_____	895	3
Building, fence expense	611	_____	796	3
Taxes, insurance	1,431	_____	2,386	8
Electricity, telephone (farm share)	628	_____	765	2
Miscellaneous	580	_____	1,263	4
TOTAL CASH OPERATING EXPENSES	\$21,293	\$ _____	\$31,011	100
New machinery	5,128	_____	6,942	
New buildings, improvements	2,867	_____	3,578	
Livestock purchased	1,432	_____	2,121	
Unpaid family labor	825	_____	789	
Decrease in inventory	--	_____	--	
TOTAL FARM EXPENSES	\$31,545	\$ _____	\$44,441	



# FINANCIAL SUMMARY OF THE YEAR'S BUSINESS

There are several ways of measuring the returns from a farm business. These measures have been developed for specific purposes. The measure selected at any one time will depend on the purpose for which it is to be used.

Three measures are used here. The first is "Farm Cash Operating Income". The second, "Labor Income", is a measure of the returns to the operator for his labor and management. The last one is "Return on Investment".

## FARM CASH OPERATING INCOME

Item	Average of 548 New York farms, 1967	My farm	Average of 70 Western Plains farms, 1968
Total Cash Receipts	\$36,795	\$ _____	\$55,632
Total Cash Operating Expenses	- 21,293	- _____	- 31,011
FARM CASH OPERATING INCOME	\$15,502	\$ _____	\$24,621
Less: Family Living Expense*	- 6,011	- _____	- 7,020
Amount available for debt pay- ments and purchase of capital items	\$ 9,491	\$ _____	\$17,601

\* Estimated cash living expenses @ \$5,400 per operator. The 548 New York farms averaged 1.1 operators per farm and the 70 Western Plains farms averaged 1.3 operators per farm.

"Farm Cash Operating Income" is the amount of money available from the farm business for family living, debt payments, and purchases of new capital items such as equipment, real estate, and livestock.

The "cash flow" of a farm business is important to the operator and his family in planning for capital purchases, debt payments and living expenses. However, the above measures are not good indicators of the profitability of your farm business. This is because you may increase the amount of cash available during the year by selling off or using up some of your farm property or, more likely, you decrease the amount of cash available by investing more dollars in your business during the year. Labor Income is a much better measure of what the business did for you during the year.

## LABOR INCOME

Item	Average of 548 New York farms, 1967	My farm	Average of 70 Western Plains farms, 1968
Average capital investment	\$88,050	\$ _____	\$137,383
TOTAL FARM RECEIPTS	\$44,309	\$ _____	\$64,444
TOTAL FARM EXPENSES	- 31,542	- _____	- 44,441
FARM INCOME	\$12,764	\$ _____	\$20,003
Interest on capital at 5%	- 4,402	- _____	- 6,869
LABOR INCOME per farm	\$ 8,362	\$ _____	\$13,134
Number of operators	610	_____	92
LABOR INCOME per operator	\$ 7,511	\$ _____	\$ 9,993

"Labor Income" is a measure used to determine the return the farm operator receives for his labor and management. It is the amount left after paying all farm expenses, and deducting charges for unpaid family labor and for interest on all of the capital invested in the farm business. Labor Income is the measure most commonly used when studying or comparing farm businesses.

Interest payments and payments on debts are not included in the farm expenses. To make all farms comparable, a five percent interest charge on the average capital investment (average of beginning and end inventories) is deducted in calculating Labor Income.

In addition to Labor Income, the family has "farm privileges" such as the use of a house and farm produced food. These items may amount to \$1,000 or more per year.

## RETURN ON INVESTMENT

Item	Average of 548 New York farms, 1967	My farm	Average of 70 Western Plains farms, 1968
Farm Income	\$12,764	\$ _____	\$20,003
Value of Operator's Labor*	- 6,011	- _____	- 7,020
Return on Investment	\$ 6,753	\$ _____	\$12,983
Rate of Return on Capital	7.7%	_____%	9.5%

\* \$5,400 per year. There were 92 operators on the 70 Western Plains dairy farms.

"Return on Investment" is calculated by deducting from the "farm income" a charge for the operator's labor. This return is then divided by the average capital investment for the year to arrive at the rate of return on investment.

## PART II ANALYSIS OF THE FARM BUSINESS

A farmer's success depends on the resources available to him and his ability to manage the use of these resources. He must understand and apply basic principles of farm management.

Farm management studies indicate that certain business factors are related to labor income. Four important factors are size of business, labor efficiency, rates of production, and cost control. The averages presented here are not intended to represent what is "best". They are to help you see how your farm business compares with those of a group of your competitors.

### SIZE OF BUSINESS

In general, large farms pay better than small farms. Larger farms make it possible to use equipment and other items of production more efficiently. However, some 40 cow farms make larger incomes than others with 100 cows. This can happen when other factors are not in balance with size of business.

### MEASURES OF SIZE OF BUSINESS

Item	My farm	Average per farm	
		70 Western Plains farms, 1968	548 New York farms, 1967
Number of cows	_____	67	51
Pounds of milk sold	_____	821,400	616,600
Man equivalent	_____	2.5	1.9
Total work units	_____	891	594

In the following table, the New York dairy farms have been sorted into various size groups. For each size group the average labor income per operator is shown. Sorting the farms in this manner shows the relationship between size of business and labor income.

### COWS PER FARM AND LABOR INCOME 548 New York Dairy Farms, 1967

Number of cows	Number of farms	Labor income per operator
Under 25	22	\$ 3,560
25-39	176	5,350
40-54	170	7,380
55-69	104	8,800
70-84	38	11,020
85-99	11	11,790
100 and over	27	13,360

### RATES OF PRODUCTION

High rates of production of both animals and crops are very important to the success of a farm business. However, when high crop and animal yields are achieved without regard to costs, net income is reduced. In general, it pays to increase yields up to the point where the last unit of input (such as feed or fertilizer) is just paid for by the increase in output due to this last unit of input.

### MEASURES OF RATES OF PRODUCTION

Item	My farm	Average per farm	
		70 Western Plains farms, 1968	548 New York farms, 1967
Pounds of milk sold per cow	_____	12,300	12,100
Tons of hay per acre	_____	3.3	2.6
Tons of corn silage per acre	_____	16	17
Bushels of oats per acre	_____	76	50
Bushels of corn grain per acre	_____	76	80

The relationship of production per cow to labor income on three sizes of farms is shown in the following table for 548 New York dairy farms in 1967.

### MILK SOLD PER COW AND LABOR INCOME 548 New York Dairy Farms, 1967

Pounds milk sold per cow	114 farms with less than 35 cows		252 farms with 35-54 cows		182 farms with 55 cows and over	
	Percent of farms	Labor income	Percent of farms	Labor income	Percent of farms	Labor income
Less than 10,000	15	\$2,588	12	\$4,325	10	\$ 8,818
10,000-10,999	18	4,311	13	5,399	9	6,636
11,000-11,999	25	5,246	23	6,085	23	9,141
12,000-12,999	20	4,773	18	7,285	20	10,831
13,000-13,999	11	5,347	19	7,838	24	11,418
14,000 & over	11	6,687	15	9,814	14	12,375

LABOR EFFICIENCY

Labor is one of the limiting resources on many dairy farms. Efficient use of labor tends to add to the profitability of a farm business. The productivity of labor can be increased by use of modern equipment and buildings. However, one must be careful not to invest in equipment or buildings that add little to productivity in relation to their cost.

## MEASURES OF LABOR EFFICIENCY

Item	My farm	Average per farm	
		70 Western Plains farms, 1968	548 New York farms, 1967
Number of cows per man	_____	27	27
Pounds of milk sold per man	_____	328,600	324,500
Work units per man	_____	356	313

The relationship between milk sold per man and labor income is illustrated in the table below.

MILK SOLD PER MAN AND LABOR INCOME  
548 New York Dairy Farms, 1967

Pounds milk sold per man	114 farms with less than 35 cows		252 farms with 35-54 cows		182 farms with 55 cows and over	
	Percent of farms	Labor income	Percent of farms	Labor income	Percent of farms	Labor income
Under 200,000	24	\$3,073	5	\$3,521	2	\$ 4,334
200,000-299,999	49	4,745	37	5,647	16	7,561
300,000-399,999	25	6,235	35	7,291	53	9,370
400,000 & over	2	6,499	23	9,090	29	13,513

## COST CONTROL

Obtaining high production at reasonable cost is one of the keys to a profitable farm business. The exact level of production items to be used to obtain the greatest net return is difficult to determine. The averages presented here may help you find some of the weaknesses in the cost structure on your farm.

### FEED COSTS

Feed bought is the largest single expense item on most dairy farms. The success of a dairy farm manager depends to a large degree on his ability to provide a good feeding program for his herd at reasonable cost. Because the feeding program includes both purchased and homegrown feed, and both roughage and concentrates, it is not easy to locate the weak spots in efforts to control feed costs. The items on this page all have a bearing on feed costs, and may be helpful in planning a more efficient feeding program.

#### SELECTED FACTORS RELATED TO FEED COSTS

Item	My farm	Average per farm	
		70 W. Plains farms, 1968	548 New York farms, 1967
<u>Purchased Feed</u>			
Dairy feed bought	\$ _____	\$ 7,860	\$ 8,440
Feed bought per cow	\$ _____	\$ 117	\$ 165
Feed bought as % of milk receipts	_____ %	18%	26%
Feed bought per cwt. of milk sold	\$ _____	\$ 0.96	\$ 1.37
<u>Roughage Harvested (hay equivalent)</u>			
Hay (tons)	_____	322 tons	182 tons
Hay crop silage (____ tons ÷ 3)	_____	42 tons	13 tons
Corn silage (____ tons ÷ 3)	_____	254 tons	136 tons
Total tons hay equivalent	_____	618 tons	331 tons
Tons hay equivalent per cow	_____	9.2 tons	6.5 tons
<u>Other Considerations</u>			
Total acres in crops per cow	_____	3.6 acres	2.5 acres
Lime & fertilizer expense/cow	\$ _____	\$ 43	\$ 30
Lime & fertilizer expense/crop acre	\$ _____	\$ 12	\$ 12
Heifer number as % of cow numbers	_____ %	66%	65%

The above measures of harvested roughage consider only the quantity. Quality is also significant and has a bearing on purchased feed and milk production.

# FARM POWER AND MACHINERY COSTS

On today's dairy farms, power and machinery costs account for a large part of the total costs. For this group of farms, power and machinery costs were 23 percent of the total farm expenses.

## POWER AND MACHINERY COSTS\*

Item	My farm	Average per farm	
		70 W. Plains farms, 1968	548 New York farms, 1967
Beginning inventory	\$ _____	\$27,404	\$17,808
New machinery bought	_____	<u>6,942</u>	<u>5,128</u>
Total	\$ _____	\$34,346	\$22,936
End inventory	\$ _____	\$29,854	\$20,251
Machinery sold	_____	<u>159</u>	<u>131</u>
Total	\$ _____	<u>\$30,013</u>	<u>\$20,382</u>
Depreciation	\$ _____	\$ 4,333	\$ 2,554
<hr/>			
Depreciation	\$ _____	\$ 4,333	\$ 2,554
Interest at 5% av. inventory	_____	1,431	952
Gas and oil	_____	1,723	922
Machinery and repairs	_____	2,417	1,310
Bale ties	_____	99	84
Milk hauling	_____	1,286	424
Other machine hire	_____	548	179
Auto expense (farm share)	_____	198	219
Electricity (farm share)	_____	<u>626</u>	<u>510</u>
TOTAL MACHINERY COSTS	\$ _____	\$12,661	\$ 7,154
Gas tax refunds	\$ _____	\$ 134	\$ 93
Income from machine work	_____	<u>282</u>	<u>97</u>
Total	- _____	- <u>416</u>	- <u>190</u>
NET MACHINERY COST	\$ _____	\$12,245	\$ 6,964
<hr/>			
Net machinery cost per cow	\$ _____	\$ 183	\$ 137
Net machinery cost per crop acre	\$ _____	\$ 50	\$ 56
Net machinery cost per man	\$ _____	\$ 4,898	\$ 3,665
Net machinery cost/cwt. milk sold	\$ _____	\$ 1.49	\$ 1.13

\* Does not include insurance, housing, or farm labor on repairs

### LABOR AND MACHINERY COSTS

Most farm operators justify major machinery purchases as a way to save labor and increase productivity. How well labor and machinery are combined has an important bearing on farm profits.

#### LABOR AND POWER AND MACHINERY COSTS

Item	My farm	Average per farm	
		70 W. Plains farms, 1968	548 New York farms, 1967
Value of operator's labor	\$ _____	\$ 7,097	\$ 6,011
Hired labor	_____	4,590	2,147
Unpaid family labor	_____	789	825
TOTAL LABOR COSTS	\$ _____	\$12,476	\$ 8,983
Net power and machinery cost	_____	12,245	6,964
TOTAL LABOR & MACHINERY COST	\$ _____	\$24,721	\$15,947
<hr style="border-top: 1px dashed black;"/>			
Total per cow	\$ _____	\$ 369	\$ 313
Total per crop acre	\$ _____	\$ 102	\$ 116
Total per man	\$ _____	\$ 9,888	\$ 8,393
Total per cwt. milk sold	\$ _____	\$ 3.01	\$ 2.59

The following table shows the relationship of machinery costs to labor income on the 548 dairy farms in 1967.

#### MACHINERY COST PER COW AND LABOR INCOME 548 New York Dairy Farms, 1967

Machinery cost per cow	Percent of farms	Labor income
\$225 & over	1	\$2,430
\$200 - \$224	7	5,276
\$175 - \$199	10	5,871
\$150 - \$174	17	7,370
\$125 - \$149	24	7,524
\$100 - \$124	26	8,406
\$75 - \$99	13	8,690
Less than \$75	2	8,672



FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS  
548 New York Dairy Farms,\* 1967

Size of Business		Rates of Production			Labor Efficiency	
No. of cows	Pounds milk sold	Pounds milk sold per cow	Tons hay per acre	Tons corn silage per acre	Cows per man	Pounds milk sold per man
105	1,269,200	15,300	4.1	25	43	531,700
70	900,700	14,000	3.3	21	35	428,900
59	739,600	13,300	3.0	20	32	385,600
54	653,300	12,900	2.8	18	29	357,800
48	582,400	12,500	2.5	17	27	334,400
-----						
44	530,400	11,900	2.3	16	26	313,400
40	467,600	11,500	2.1	15	24	288,200
36	421,500	11,000	1.9	14	22	260,100
32	361,900	10,200	1.4	12	20	228,400
25	262,600	8,500	.8	9	17	179,500

\* These farms are considerably above the average for all farms in New York State. For example, the average number of cows for the 548 farms was 46 compared with 38 for all farms in the State.

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 average of the 548 farms for each factor.

The figure at the top of each column is the average of the top ten percent of the farms for that factor. For example, the figure 105 at the top of the column headed "No. of Cows" is the average number of cows on the ten percent of the farms with the most cows. The other figures in each column are the average for the second ten percent, third ten percent, etc. The figure at the bottom of each column (25 for No. of Cows) is the average for the ten percent of the farms which ranked lowest in that factor.

Each column of the chart is independent of the others. The farms which are in the top ten percent for one factor would not necessarily be the same farms which make up the top ten percent for any other factor.

This chart is used in analyzing a particular dairy business by drawing a line through the figure in each column which shows where the farm being analyzed stands for that factor. This helps identify the strengths and weaknesses. Summarize these and list them at the bottom of page 17.

### COST CONTROL FACTORS

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

<u>Cost Control</u>			
Feed bought per cow	% Feed is of milk receipts	Feed and crop expense per cwt. milk	Machinery cost per cow
\$ 75	13%	\$1.07	\$ 82
110	18	1.32	98
128	21	1.46	109
143	23	1.58	118
157	25	1.68	129
-----			
173	27	1.79	141
187	29	1.90	150
204	32	1.99	162
225	34	2.12	180
260	39	2.37	217

#### Factors Affecting Feed Cost:

tons hay equivalent per cow  
quality of forage  
ratio of cows to heifers  
lbs. milk sold per cow  
quantity of home grown grain  
average price of milk

#### Factors Related to Machinery Costs:

amount of machinery  
use made of machinery  
substitution of machinery for labor  
new vs. old machinery  
mechanical skill of operator

### STRONG AND WEAK POINTS

After analyzing the business and determining changes to be considered, each possible change should be studied in detail. The work sheet or budgeting form found on pages 22 and 23 can be used for projecting the likely results of each alternative.

#### STRONG POINTS:

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#### WEAK POINTS:

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FARM BUSINESS SUMMARY BY HERD SIZE  
548 New York Dairy Farms, 1967

Item	My farm	Farms with less than 25 cows	25 to 39 cow farms	40 to 54 cow farms
<u>Capital Investment (end of year)</u>				
Machinery and equipment	\$ _____	\$ 7,043	\$13,981	\$18,627
Livestock	_____	8,141	14,234	19,749
Feed and supplies	_____	2,560	4,178	5,964
Land and buildings	_____	20,075	25,878	36,695
TOTAL INVESTMENT	\$ _____	\$37,819	\$58,271	\$81,035
<u>Receipts</u>				
Milk sales	\$ _____	\$12,511	\$20,464	\$28,963
Livestock sold	_____	1,283	2,154	2,932
Crop sales	_____	67	117	155
Miscellaneous receipts	_____	413	756	840
Total Cash Receipts	\$ _____	\$14,274	\$23,491	\$32,890
Increase in inventory	_____	1,912	4,012	6,004
TOTAL RECEIPTS	\$ _____	\$16,186	\$27,503	\$38,894
<u>Expenses</u>				
Hired labor	\$ _____	\$ 189	\$ 572	\$ 1,397
Dairy feed	_____	3,352	5,593	7,558
Other feed	_____	65	159	189
Machine hire	_____	98	115	189
Machinery repair	_____	426	847	1,130
Auto expense (farm share)	_____	165	177	236
Gas and oil	_____	469	691	828
Breeding fees	_____	156	245	312
Veterinary and medicine	_____	243	338	484
Other livestock expense	_____	482	870	1,181
Lime and fertilizer	_____	451	855	1,316
Seeds and plants	_____	134	245	385
Spray and other crop expense	_____	95	227	313
Land, bldg., fence repair	_____	178	428	484
Taxes and insurance	_____	663	931	1,288
Elec. and tel. (farm share)	_____	293	450	558
Miscellaneous expenses	_____	151	345	551
Total Cash Operating Exp.	\$ _____	\$ 7,610	\$13,088	\$18,399
New machinery	_____	1,908	3,491	4,379
New real estate	_____	210	1,105	2,282
Purchased livestock	_____	380	802	1,207
Unpaid family labor	_____	675	836	888
TOTAL FARM EXPENSES	\$ _____	\$10,783	\$19,322	\$27,155
<u>Financial Summary</u>				
Total Farm Receipts	\$ _____	\$16,186	\$27,503	\$38,894
Total Farm Expenses	_____	10,783	19,322	27,155
Farm Income	\$ _____	\$ 5,403	\$ 8,181	\$11,739
Interest on av. capital @ 5%	_____	1,843	2,813	3,902
Labor Income per Farm	\$ _____	\$ 3,560	\$ 5,368	\$ 7,837
Number of operators	_____	20	169	194
LABOR INCOME PER OPERATOR	\$ _____	\$ 3,560	\$ 5,337	\$ 7,191

FARM BUSINESS SUMMARY BY HERD SIZE  
548 New York Dairy Farms, 1967

Item	My farm	55 to 69 cow farms	70 to 84 cow farms	Farms with 85 or more cows
<u>Capital Investment (end of year)</u>				
Machinery and equipment	\$ _____	\$ 24,315	\$ 28,152	\$ 41,815
Livestock	_____	26,994	34,251	48,451
Feed and supplies	_____	7,973	10,922	16,886
Land and buildings	_____	49,347	66,075	108,048
TOTAL INVESTMENT	\$ _____	\$108,629	\$139,400	\$215,200
<u>Receipts</u>				
Milk sales	\$ _____	\$ 38,862	\$ 51,004	\$ 71,452
Livestock sold	_____	3,625	4,574	8,334
Crop sales	_____	152	153	60
Miscellaneous receipts	_____	1,369	1,400	2,098
Total Cash Receipts	\$ _____	\$ 44,008	\$ 57,131	\$ 81,944
Increase in inventory	_____	10,167	11,066	21,171
TOTAL RECEIPTS	\$ _____	\$ 54,175	\$ 68,197	\$103,115
<u>Expenses</u>				
Hired labor	\$ _____	\$ 2,661	\$ 5,422	\$ 8,421
Dairy feed	_____	9,971	13,218	18,058
Other feed	_____	251	149	404
Machine hire	_____	231	261	222
Machinery repair	_____	1,464	2,040	3,342
Auto expense (farm share)	_____	210	255	328
Gas and oil	_____	1,033	1,365	1,798
Breeding fees	_____	438	526	619
Veterinary and medicine	_____	618	918	1,063
Other livestock expense	_____	1,809	2,417	3,811
Lime and fertilizer	_____	1,808	2,261	4,110
Seeds and plants	_____	511	532	1,018
Spray and other crop expense	_____	493	575	762
Land, bldg., fence repair	_____	824	893	1,325
Taxes and insurance	_____	1,603	2,251	3,263
Elec. and tel. (farm share)	_____	733	952	1,251
Miscellaneous expenses	_____	624	1,175	1,199
Total Cash Operating Exp.	\$ _____	\$ 25,282	\$ 35,210	\$ 50,994
New machinery	_____	6,911	6,593	10,827
New real estate	_____	4,054	4,205	9,693
Purchased livestock	_____	1,676	1,947	4,398
Unpaid family labor	_____	847	608	731
TOTAL FARM EXPENSES	\$ _____	\$ 38,770	\$ 48,563	\$ 76,643
<u>Financial Summary</u>				
Total Farm Receipts	\$ _____	\$ 54,175	\$ 68,197	\$103,115
Total Farm Expenses	_____	38,770	48,563	76,643
Farm Income	\$ _____	\$ 15,405	\$ 19,634	\$ 26,472
Interest on av. capital @ 5%	_____	5,177	6,693	10,231
Labor Income per Farm	\$ _____	\$ 10,228	\$ 12,941	\$ 16,241
Number of operators	_____	123	49	55
LABOR INCOME PER OPERATOR	\$ _____	\$ 8,481	\$ 10,300	\$ 12,107

SELECTED BUSINESS FACTORS BY HERD SIZE  
548 New York Dairy Farms, 1967

Item	My farm	Farms with less than 25 cows	25 to 39 cow farms	40 to 54 cow farms
Number of farms		20	168	178
<u>Size of Business</u>				
Number of cows		21	33	46
Pounds of milk sold		241,700	395,600	558,800
Crop acres		57	92	121
Man equivalent		1.2	1.4	1.7
Total work units		245	401	544
<u>Rates of Production</u>				
Milk sold per cow		11,500	12,000	12,100
Tons hay per acre		2.4	2.3	2.5
Tons corn silage per acre		15	16	14
Bushels of oats per acre		54	45	49
<u>Labor Efficiency</u>				
Cows per man		18	24	27
Pounds milk sold per man		201,400	282,600	328,700
Work units per man		204	286	320
Crop acres per man		48	66	71
<u>Feed Costs</u>				
Feed purchased per cow	\$	\$ 160	\$ 169	\$ 164
Crop expense per cow	\$	\$ 32	\$ 40	\$ 44
Feed & crop expense per cow	\$	\$ 192	\$ 209	\$ 208
Feed cost per cwt. milk	\$	\$ 1.39	\$ 1.41	\$ 1.35
Feed & crop expense/cwt. milk	\$	\$ 1.67	\$ 1.75	\$ 1.71
% Feed is of milk receipts	%	29%	27%	26%
Hay equivalent per cow		6.3	6.5	6.7
Crop acres per cow		2.7	2.8	2.6
Fertilizer & lime/crop acre	\$	\$ 8	\$ 9	\$ 11
<u>Machinery Costs</u>				
Total machinery costs	\$	\$ 2,905	\$ 4,861	\$ 6,133
Machinery cost per cow	\$	\$ 138	\$ 147	\$ 133
Machinery cost per man	\$	\$ 2,421	\$ 3,472	\$ 3,608
Machinery cost per cwt. milk	\$	\$ 1.20	\$ 1.23	\$ 1.10
Machinery cost per crop acre	\$	\$ 51	\$ 53	\$ 51
<u>Capital Efficiency</u>				
Investment per man	\$	\$31,516	\$41,622	\$47,668
Investment per cow	\$	\$ 1,801	\$ 1,766	\$ 1,762
Investment per cwt. milk sold	\$	\$ 16	\$ 15	\$ 15
Land and buildings per cow	\$	\$ 956	\$ 784	\$ 798
Machinery investment per cow	\$	\$ 335	\$ 424	\$ 405
Return on investment	%	--	4.7%	7.2%
<u>Other</u>				
Price per cwt. milk sold	\$	\$ 5.18	\$ 5.17	\$ 5.18
Acres hay and hay crop silage		43	62	73
Acres corn silage		6	14	23

SELECTED BUSINESS FACTORS BY HERD SIZE  
548 New York Dairy Farms, 1967

Item	My farm	55 to 69 cow farms	70 to 84 cow farms	Farms with 85 or more cows
Number of farms		102	39	41
<u>Size of Business</u>				
Number of cows		60	77	112
Pounds of milk sold		743,200	949,600	1,323,700
Crop acres		134	197	220
Man equivalent		2.1	2.7	3.4
Total work units		689	903	1,244
<u>Rates of Production</u>				
Milk sold per cow		12,400	12,300	11,800
Tons hay per acre		2.8	2.6	3.0
Tons corn silage per acre		17	16	18
Bushels oats per acre		55	52	49
<u>Labor Efficiency</u>				
Cows per man		29	29	33
Pounds milk sold per man		353,900	351,700	389,300
Work units per man		328	335	366
Crop acres per man		64	73	65
<u>Feed Costs</u>				
Feed purchased per cow	\$	\$ 166	\$ 172	\$ 161
Crop expense per cow	\$	\$ 47	\$ 44	\$ 53
Feed & crop expense per cow	\$	\$ 213	\$ 216	\$ 214
Feed cost per cwt. milk	\$	\$ 1.34	\$ 1.39	\$ 1.36
Feed & crop expense/cwt. milk	\$	\$ 1.72	\$ 1.75	\$ 1.81
% Feed is of milk receipts	%	26%	26%	25%
Hay equivalent per cow		6.3	7.0	6.1
Crop acres per cow		2.2	2.6	2.9
Fertilizer & lime/crop acre	\$	\$ 13	\$ 11	\$ 19
<u>Machinery Costs</u>				
Total machinery costs	\$	\$ 8,244	\$10,790	\$14,377
Machinery costs per cow	\$	\$ 137	\$ 140	\$ 128
Machinery cost per man	\$	\$ 3,926	\$ 3,996	\$ 4,229
Machinery cost per cwt. milk	\$	\$ 1.11	\$ 1.14	\$ 1.09
Machinery cost per crop acre	\$	\$ 62	\$ 55	\$ 65
<u>Capital Efficiency</u>				
Investment per man	\$	\$51,728	\$51,630	\$63,294
Investment per cow	\$	\$ 1,810	\$ 1,810	\$ 1,921
Investment per cwt. milk sold	\$	\$ 15	\$ 15	\$ 16
Land and buildings per cow	\$	\$ 822	\$ 858	\$ 965
Machinery investment per cow	\$	\$ 405	\$ 366	\$ 373
Return on investment	%	8.2%	9.2%	8.9%
<u>Other</u>				
Price per cwt. milk sold	\$	\$ 5.23	\$ 5.37	\$ 5.40
Acres hay and hay crop silage		79	109	125
Acres corn silage		28	47	55

## Considering a Change in the Dairy Business

Describe change: \_\_\_\_\_

List possible alternative changes : (use additional worksheets to analyze these alternatives) \_\_\_\_\_

## I. Basic nature of proposed change

	<u>Present</u>	<u>Change</u>	<u>Future with change</u>
Number of cows	_____	_____	_____
Number of youngstock	_____	_____	_____
Production per cow	_____	_____	_____
Labor force (man equiv.)	_____	_____	_____

## II. Estimated forage requirements and production:

No. of cows \_\_\_\_\_ x \_\_\_\_\_ tons hay equivalent = \_\_\_\_\_ tons  
 No. of youngstock \_\_\_\_\_ x \_\_\_\_\_ tons hay equiv./head = \_\_\_\_\_ tons  
 total hay equiv. requirement \_\_\_\_\_ tons

Allocate total hay equivalent requirement to hay and silage production:

Total hay equiv. required \_\_\_\_\_ = \_\_\_\_\_ hay tons + \_\_\_\_\_ tons hay equiv.  
 as silage

Tons hay equiv. as silage \_\_\_\_\_ x 3 = \_\_\_\_\_ tons silage

Estimate needed crop acres and changes from present:

<u>Future crop</u>	<u>Proposed Production</u>	<u>Estimated Yield</u>	<u>Acres Needed</u>	<u>Change in acres (list as plus or minus)</u>
Hay	_____	_____	_____	_____
Hay crop silage	_____	_____	_____	_____
Corn silage	_____	_____	_____	_____
Other forage	_____	_____	_____	_____
Grain	_____	_____	_____	_____

## III. Additional forward planning steps and pointers

1. List new capital items associated with the change including land, buildings, machinery and cattle. Estimate their cost.
2. Estimate changes in receipts and expenses (Part IV) considering all input and production items that are affected by the change under consideration. Adjust present figures if anticipated price changes are used in the budget.
3. When analyzing the effects of the proposed change, fulfillment of non-monetary goals may be considered.
4. More than one alternative change should be considered.

## IV. Estimating changes in receipts and expenses

	<u>Present</u>	<u>Net change (plus or minus)</u>	<u>Future with change</u>
A. <u>Receipts</u>			
Milk sales, gross	\$ _____	\$ _____	\$ _____
Livestock sales	_____	_____	_____
Crop sales	_____	_____	_____
Miscellaneous receipts	_____	_____	_____
Total Cash Receipts	\$ _____	\$ _____	\$ _____
Increase in inventory	_____	_____	_____
Total Farm Receipts	\$ _____	\$ _____	\$ _____
B. <u>Expenses</u>			
Hired labor	\$ _____	\$ _____	\$ _____
Feed bought	_____	_____	_____
Machine hire	_____	_____	_____
Machinery repairs	_____	_____	_____
Auto expense (farm share)	_____	_____	_____
Gasoline and oil	_____	_____	_____
Breeding fees	_____	_____	_____
Veterinary and medicine	_____	_____	_____
Other livestock expense	_____	_____	_____
Lime and fertilizer	_____	_____	_____
Seeds and plants	_____	_____	_____
Spray, other crop expense	_____	_____	_____
Land, building, fence expense	_____	_____	_____
Taxes, insurance	_____	_____	_____
Electricity, telephone (farm share)	_____	_____	_____
Miscellaneous	_____	_____	_____
Total Cash Operating Exp.	\$ _____	\$ _____	\$ _____
New machinery and real estate	_____	_____	_____
Livestock purchases	_____	_____	_____
Unpaid family labor	_____	_____	_____
Decrease in inventory	_____	_____	_____
Total Farm Expenses	\$ _____	\$ _____	\$ _____
C. <u>Financial Summary</u>			
Capital Investment	\$ _____		\$ _____
Total Farm Receipts	\$ _____		\$ _____
Total Farm Expenses	_____		_____
Farm Income	\$ _____		\$ _____
Interest on Capital	_____		_____
LABOR INCOME	\$ _____		\$ _____



Selected Competitive Dairy Areas

A good manager aims to know how his business stands in relation to his competition both at home and in other dairy areas. The table below presents data from four states. These data were taken from reports on farm business management projects similar to the ones in New York. Some measures have been adjusted so that they are comparable for the four states.

## 1967 DAIRY FARM BUSINESS SUMMARY DATA

Selected Factors	New York	Southern Michigan	Vermont	Connecticut
Number of farms	548	290	127	25
Crop acres	138	259	NA	NA
Man equivalent	1.9	2.2	2.0	2.1
Number of heifers	33	NA	35	40
Number of cows	51	54	53	66
Lbs. milk sold/ farm	616,600	657,640	608,560	811,460
Lbs. milk sold/ man	324,500	298,930	304,300	386,400
Lbs. milk sold/ cow	12,100	12,180	11,480	12,290
Milk sales/ cow	\$635	\$670	\$635	\$736
Av. price/ cwt. milk	\$5.25	\$5.50	\$5.53	\$5.99
Purchased feed/ cow	\$165	\$96	\$190	\$228
Taxes/ cow	\$17	\$17	NA	NA
-----				
<u>Capital Investment</u>				
Land & buildings	\$42,560	\$87,000	\$46,540	\$66,360
Machinery & equipment	\$20,250	\$23,400	\$13,440	\$17,760
Livestock	\$22,160	\$21,400	\$20,020	\$26,770
Feed & supplies	\$ 6,840	\$11,000	\$ 5,890	\$ 8,420
Investment/ man	\$48,320	\$64,910	\$42,940	\$56,820
Investment/ cow	\$ 1,800	\$ 2,640	\$ 1,620	\$ 1,810
-----				
<u>Financial Summary</u>				
Total farm receipts	\$44,309	\$45,002	\$42,810	\$51,494
Total farm expenses	\$31,545	\$31,112	\$32,322	\$37,712
Farm income	\$12,764	\$13,890	\$10,488	\$13,782
Interest at 5%	\$ 4,402	\$ 7,140	\$ 4,294	\$ 5,966
Labor income/ farm	\$ 8,362	\$ 6,750	\$ 6,194	\$ 7,816
Labor income/ operator	\$ 7,511	\$ 6,193	\$ 5,631	\$ 6,513

## FARM BUSINESS SUMMARY

30 Wyoming County Dairy Farms - 1968

<u>Capital Investment</u>		<u>1/1/68</u>	<u>1/1/69</u>	<u>Receipts</u>	
Machinery and equipment		\$20,946	\$23,050	Milk sales	\$37,974
Livestock		20,439	26,504	Livestock sold	3,929
Feed and supplies		8,864	9,482	Egg sales	442
Land and buildings		50,126	51,947	Crop sales	1,786
TOTAL INVESTMENT		\$103,975	\$110,983	Miscellaneous receipts	1,757
				Total Cash Receipts	\$45,888
<u>Expenses</u>				Increase in inventory	7,008
Hired labor		\$ 2,209		TOTAL FARM RECEIPTS	\$52,896
Dairy feed		7,490		<u>Financial Summary</u>	
Other feed		302		Total Farm Receipts	\$52,896
Machine hire		337		Total Farm Expenses	33,607
Machine expense		1,626		Farm Income	\$19,289
Auto expense		184		Interest	5,374
Gas & oil		1,270		LABOR INCOME per farm	\$13,915
Breeding fees		362		Number of operators	39
Veterinary & medicine		670		LABOR INCOME per operator	\$10,707
Other livestock		1,822		<u>Business Factors</u>	
Lime & fertilizer		1,932		Number of cows	59
Seeds and plants		617		Number of heifers	36
Spray, other crop		651		Man equivalent	2.0
Building expense		702		Total work units	746
Taxes, insurance		1,859		Lbs. of milk sold	700,000
Electricity, telephone		655		Lbs. milk sold per cow	11,900
Miscellaneous expense		865		Lbs. of milk sold per man	350,000
Total Cash Expenses		\$23,553		Cows per man	29
New machinery		\$ 5,345		Percent feed is of milk receipts	20%
Real estate		2,092		Feed bought per cow	\$ 127
Livestock purchases		1,637		Hay equiv. per cow	8.1
Unpaid labor		980		Machinery cost per cow	\$ 148
Decrease in inventory		---		Lime & fertilizer per crop acre	\$ 11.17
TOTAL FARM EXPENSES		\$33,607		Avg. milk price	\$ 5.42

<u>Crops Grown</u>			
<u>Crop</u>	<u>Acres per farm</u>	<u>Yield per acre</u>	<u>Total crop</u>
Hay	85	3.2 t.	271 t.
Corn silage	39	15.7 t.	614 t.
Corn grain	9	88 bu.	797 bu.
Oats	23	70 bu.	1,642 bu.
Wheat	7	42 bu.	291 bu.
Other	10	---	---
Total acres of crops 173			

## FARM BUSINESS SUMMARY

14 Niagara County Dairy Farms - 1968

Capital Investment

	<u>1/1/68</u>	<u>1/1/69</u>
Machinery and equipment	\$24,760	\$26,825
Livestock	26,934	29,710
Feed and supplies	9,380	9,598
Land and buildings	57,644	59,508
TOTAL INVESTMENT	\$118,718	\$125,641

Expenses

Hired labor	\$ 4,831
Dairy feed	6,554
Other feed	29
Machine hire	805
Machine expense	2,770
Auto expense	197
Gas & oil	1,683
Breeding fees	411
Veterinary & medicine	752
Other livestock	2,965
Lime & fertilizer	2,898
Seeds and plants	725
Spray, other crop	1,360
Building expense	707
Taxes, insurance	2,086
Electricity, telephone	738
Miscellaneous expense	838
Total Cash Expenses	\$30,349
New machinery	\$ 7,360
Real estate	2,175
Livestock purchases	777
Unpaid labor	450
Decrease in inventory	---
TOTAL FARM EXPENSES	\$41,111

Receipts

Milk sales	\$38,235
Livestock sold	4,522
Egg sales	---
Crop sales	7,475
Miscellaneous receipts	1,692
Total Cash Receipts	\$51,924

Increase in inventory 6,923

TOTAL FARM RECEIPTS \$58,847

Financial Summary

Total Farm Receipts	\$58,847
Total Farm Expenses	41,111

Farm Income \$17,736

Interest 6,109

LABOR INCOME per farm \$11,627

Number of operators 16

LABOR INCOME per operator \$10,174

Business Factors

Number of cows 55

Number of heifers 47

Man equivalent 2.4

Total work units 942

Lbs. of milk sold 709,400

Lbs. milk sold per cow 12,900

Lbs. of milk sold per man 295,600

Cows per man 23

Percent feed is of milk receipts 17

Feed bought per cow \$ 119

Hay equiv. per cow 11.0

Machinery cost per cow \$ 253

Lime &amp; fertilizer per crop acre \$ 11.28

Avg. milk price \$ 5.39

Crops Grown

<u>Crop</u>	<u>Acres per farm</u>	<u>Yield per acre</u>	<u>Total crop</u>
Hay	101	3.2 t.	346 t.
Hay crop silage	2	6.4 t.	13 t.
Corn silage	44	17.5 t.	770 t.
Corn grain	38	72 bu.	2,763 bu.
Oats	29	73 bu.	2,132 bu.
Wheat	23	40 bu.	912 bu.
Other crops	20	--	--
Total acres of crops	257		