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Milk Production Costs: Where's the Milk and Why? A New York and Northeast Perspective

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MILK PRODUCTION COSTS: WHERE'S THE
MILK AND WHY?
A New York and Northeast Perspective

By

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May 1989

No. 89-13

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MILK PRODUCTION COSTS: WHERE'S THE MILK AND WHY?
A New York and Northeast Perspective*

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Determining the cost of production for agricultural commodities has been a challenge from the time of the first agricultural economists to the present. Reasonable and capable agricultural economists may not always agree as to the appropriate procedures to use in calculating the cost of production. I will speculate that the agricultural economists on this panel today will have utilized different methodologies for determining the cost of milk production.

Today I will be presenting data on the cost of producing milk in New York and also for the four regions of the state. The source of this data is the Dairy Farm Business Summary and Analysis Project conducted jointly by the Department of Agricultural Economics at Cornell University and Cornell Cooperative Extension County Staff across New York State. This project has existed for many years as part of a larger educational effort aimed at improving the management skills of the State's dairy farmers.

Information on the financial and production activities which occurred on the farms during the year are collected by county extension staff from cooperating farmers soon after the end of each calendar year. These data are then entered into a microcomputer program for summarization and analysis. An eleven page report is provided to the individual farmers and the data combined into county, regional and state dairy farm business summary publications.

In 1987, records from 426 specialized dairy farmers were submitted for summarization and analysis. Let me emphasize that farmers submitting records did so voluntarily. The objective of the project is to improve management

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skills of the cooperating farmers, not to determine the average cost of producing milk for a region or the state. As such, the averages obtained from the project cannot be viewed as a statistical sample or as being representative of the average of all farms in the state or region. The farms are likely a cross section of better than average commercial dairy farms in the state. With all of that said, we do however use the data to track cost of producing milk as well as production, profit and financial performance factors on the state's dairy farms.

Method of Calculating Cost of Production

The method used to compute the cost of producing milk in the project is the whole farm method (Exhibit 1). With the whole farm method, all operating expenses for the total farm are added to obtain the Total Operating Expenses. These cash operating expenses include such items as hired labor, purchased feed, fuel and oil, taxes, insurance and interest paid on debt capital. Since 1985, these expenses have been computed on the accrual basis; that is they are adjusted for changes in accounts payable, and further down in the calculation process also for changes in inventory and pre-paid expenses.

Exhibit 1: Whole Farm Procedure For Calculating Cost of Milk Production

TOTAL OPERATING EXPENSES
+ <u>TOTAL OVERHEAD EXPENSES</u>
= GROSS FARM OPERATING COST
- NON-MILK RECEIPTS
- INCREASE IN FEED & SUPPLIES INVENTORY
- <u>INCREASE IN LIVESTOCK INVENTORY</u>
= TOTAL COST OF MILK PRODUCTION

The next set of expenses included in the cost of producing milk are Overhead Expenses. These include depreciation on buildings and equipment, the value of unpaid family labor, the value of operator labor and management and the

opportunity cost of equity capital invested in the business. In 1987, income tax depreciation is used for economic depreciation, unpaid family labor is charged at \$650 per month, operators labor is charged at \$900 per month, management at five percent of cash receipts, and interest on equity capital is five percent. The five percent interest charge reflects the long term average rate that a farmer might expect to earn in comparable risk investments in a low inflation economy.

Adding Total Cash Operating Expenses and the Total Overhead Expenses results in the Gross Farm Operating Cost. On New York dairy farms, milk is not the only product produced. Cull cows, calves, crop sales and miscellaneous cash receipt items also exist on dairy farms. These receipts plus the increase in inventory of feed and supplies, and increase in livestock inventory are totaled and then deducted from the Gross Farm Operating Cost to obtain the Total Cost of Milk Production. The assumption behind subtracting the receipts for non-milk items is that they were produced at a cost equal to the amount received from their sale. The increases in inventory are removed because the costs required to produce them were included, and therefore the value of the increase in inventory needs to be subtracted to obtain the Total Cost of Milk Production.

Cost of Production in New York

The Total Cost and Operating Cost of Milk Production on New York farms participating in the project over the past ten years reached their peak in the years 1981 through 1984 (Table 1). Note: Operating Cost is calculated as Total Cost minus Overhead Costs. Total Cost was about \$14.80 and Operating Cost about \$10.20 per cwt. The cost of producing milk has steadily fallen since that time. In 1987, the last full year where complete data is available, Total Cost was \$13.60 per cwt. and Operating Cost \$9.32 per cwt. One has to go back to 1980 and earlier years before milk production costs were lower than in 1987.

(Detailed data on cost of producing milk in New York is contained in Appendix Table 1).

Table 1: Ten Year Comparison of Average Cost of Producing Milk on New York Farms, 1978-1987

Year	Total Cost	Operating Cost
	----- \$/cwt. -----	
1987	13.60	9.32
1986	13.90	9.56
1985	14.31	9.70
1984	14.88	10.26
1983	14.74	10.21
1982	14.88	10.19
1981	14.82	10.05
1980	13.32	8.64
1979	11.80	7.80
1978	10.91	7.23

Source: New York Dairy Farm Business Summary data.

Cost of producing milk varies considerably by region in the state (Table 2). In 1987, the low cost regions for milk production were the Western Plain and Central, and Northern New York regions while the higher cost region were the Oneida-Mohawk and Hudson, and Plateau region. (Detailed data on the cost of producing milk by region is contained in Appendix Tables 2 - 5).

Table 2: Average Cost of Producing Milk, Four Regions of New York, 1987

Region ¹	Total Cost	Operating Cost
	----- \$/cwt. -----	
Oneida-Mohawk & Hudson	14.72	10.17
Plateau	13.89	9.38
Western Plain & Central	12.83	8.94
Northern New York	13.27	8.84

Source: New York Dairy Farm Business Summary data.

¹See Figure 1 for description of regions.

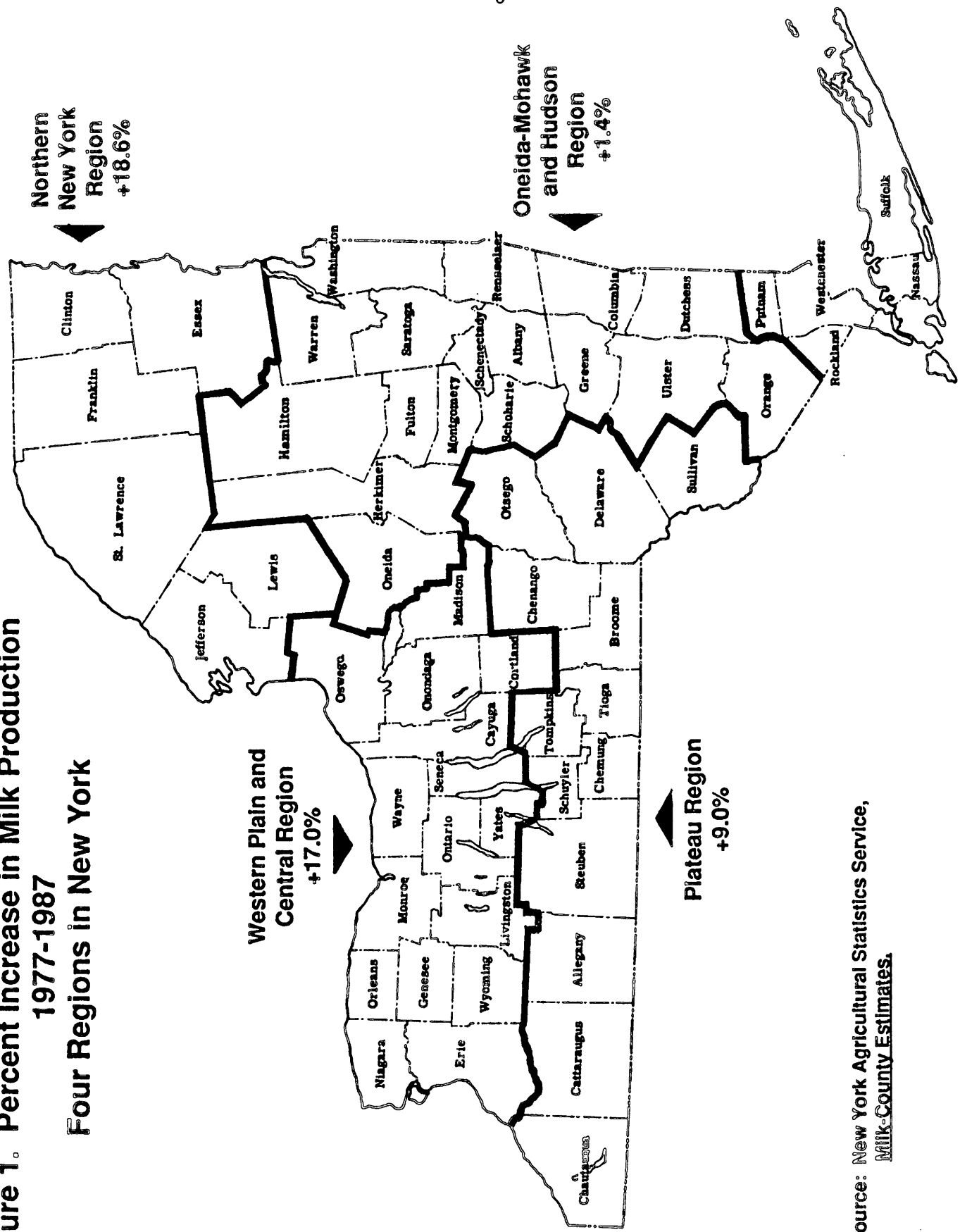
Total Milk Production and Number of Cows

The regions where the cost of producing milk is the lowest have had the greatest percentage increases in milk production over the last ten years (Figure 1). The Northern New York Region increased total production 18.6 percent and Western Plain and Central Region increased 17 percent. The higher cost regions, the Oneida-Mohawk and Hudson and the Plateau Region increased 1.4 and 9 percent respectively. Even with these changes in milk production, the two low cost regions and the two high cost regions each account for half the total milk production in the state. The state as a whole increased milk production 11.1 percent over this ten year period (Table 3).

The number of cows has decreased in all regions over the last ten years (Table 3). The two high cost of production regions experienced the greatest reduction in number of cows. The Oneida-Mohawk and Hudson Region reduced cow numbers 13.1 percent and the Plateau Region 8.4 percent respectively. The two low cost regions had reductions in cow numbers of only about 1 percent.

The reasons for the shifts in milk production are primarily that the Western Plain and Central Region has better soil resources, more contiguous land is available to support larger units and a surplus of grain and forages is produced. Northern New York does not have high quality soils, but costs, especially real estate are low, and the soils are best suited to forage production with few agricultural alternatives for the resources.

**Figure 1. Percent Increase in Milk Production
1977-1987
Four Regions in New York**



Source: New York Agricultural Statistics Service,
Milk-County Estimates.

Table 3: Milk Production and Number of Milk Cows in Four New York Regions, 1977 and 1987

Region ¹	Milk Production		Percent Change
	1977	1987	
	(million pounds)		
Plateau	2,904.4	3,164.5	+9.0
Western Plain & Central	2,989.9	3,497.3	+17.0
Northern New York	1,797.4	2,131.1	+18.6
Oneida-Mohawk & Hudson	<u>2,510.7</u>	<u>2,546.6</u>	<u>+1.4</u>
TOTALS	10,202.4	11,339.5	+11.1

Region ¹	Number of Milk Cows		Percent Change
	1977	1987	
	(number of head)		
Plateau	262,900	240,700	-8.4
Western Plain & Central	256,700	254,800	-0.7
Northern New York	167,900	165,800	-1.3
Oneida-Mohawk & Hudson	<u>224,400</u>	<u>194,900</u>	<u>-13.1</u>
TOTALS	911,900	856,200	-6.1

Source: New York Agricultural Statistics Service, Milk-County Estimates.

¹See Figure 1 for description of regions.

In the Northeast region, half the states have had significant declines in milk production and half have been steady or increasing over the past 20 years (Table 4). Massachusetts, New Jersey and Rhode Island have had significant reductions in milk production, while Pennsylvania and Vermont have had significant increases. The Northeast as a percent of the United States total milk production has decreased slightly from 21 percent down to 20 percent over the past 20 years.

The reduced supply of milk in New England is stimulating milk production in New York. Farmers close to major highways (I-88 and the New York Thruway) in Eastern New York are increasing production to meet the demands of the New England market. The higher prices for milk shipped into New England at least partially offset the higher production costs in Eastern New York.

Table 4: Northeast Milk Production, By State, 1967-1987

State	1967	1977	1987
	(million pounds)		
Connecticut	693	624	567
Delaware	140	139	139
Maine	607	638	671
Maryland	1,516	1,575	1,508
Massachusetts	737	597	504
New Hampshire	368	339	323
New Jersey	879	549	432
New York	10,455	10,224	11,362
Pennsylvania	7,111	7,791	10,183
Rhode Island	87	57	40
Vermont	1,830	2,100	2,410
West Virginia	<u>446</u>	<u>333</u>	<u>349</u>
Total Northeast	24,869	24,966	28,488
New York as Percent of Northeast	42.0%	41.0%	39.9%
Northeast as Percent of U.S.	21.0%	20.3%	20.0%

Source: USDA, NASS, Milk Production, Disposition and Income.

Summary

Total milk production has been increasing over the last 20 years in New York and the Northeast, yet decreasing slightly as a percent of the total U.S. production. In recent years milk production has been relatively flat in New York and the Northeast. The cost of producing milk on New York farms has been decreasing since 1981. It is speculated, however, that the cost of producing milk started back up again in 1988. Milk is and will be produced where the cost of production is low and where the urban pressures which drive up land values are not present.

Appendix Tables 1-5

Appendix Table 1. AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT NEW YORK DAIRY FARMS, 1978 TO 1987

Item	1978	1979	1980	1981	1982	1983	1984	1985*	1986*	1987*
<u>Operating Expenses</u>										
Hired labor	\$.89	\$.99	\$ 1.09	\$ 1.20	\$ 1.29	\$ 1.25	\$ 1.39	\$ 1.38	\$ 1.38	\$ 1.49
Purchased feed	3.11	3.37	3.60	3.62	3.40	3.59	3.46	3.10	3.21	3.30
Machinery repairs & rent	.65	.69	.75	.81	.81	.77	.80	.79	.75	.88
Auto expenses (farm share)	.04	.04	.04	.04	.04	.04	.03	.03	.04	.04
Fuel, oil & grease	.34	.43	.54	.62	.59	.49	.50	.48	.34	.35
Replacement livestock	.36	.50	.29	.23	.19	.16	.10	.10	.13	.13
Breeding fees	.13	.15	.16	.18	.19	.19	.20	.20	.19	.19
Veterinary & medicine	.19	.22	.24	.28	.29	.28	.29	.27	.28	.28
Other dairy expenses	.67	.74	.82	.89	1.02	1.47	1.58	1.33	1.37	1.27
Lime & fertilizer	.53	.62	.66	.72	.71	.63	.66	.62	.48	.51
Seeds & plants	.18	.20	.20	.23	.23	.21	.22	.24	.22	.21
Spray & other crop expense	.13	.16	.16	.21	.18	.19	.20	.23	.19	.20
Land, building, fence repair	.19	.21	.21	.22	.21	.18	.18	.17	.16	.20
Taxes	.27	.28	.31	.35	.34	.34	.33	.34	.33	.35
Insurance	.18	.20	.24	.23	.23	.21	.20	.22	.22	.22
Telephone (farm share)	.04	.04	.04	.05	.05	.05	.04	.05	.05	.04
Electricity (farm share)	.19	.21	.24	.27	.30	.31	.32	.32	.34	.34
Interest paid	.83	1.00	1.17	1.43	1.54	1.40	1.40	1.25	1.18	1.04
Misc. (including rent)	.28	.31	.37	.41	.43	.44	.44	.40	.41	.45
Total	\$ 9.20	\$10.36	\$11.13	\$11.99	\$12.04	\$12.20	\$12.34	\$11.52	\$11.27	\$11.49
<u>Overhead Expenses</u>										
Depreciation: mach. & bldgs.	\$.94	\$ 1.06	\$ 1.43	\$ 1.56	\$ 1.60	\$ 1.56	\$ 1.65	\$ 1.64	\$ 1.54	\$ 1.43
Unpaid labor	.13	.13	.14	.14	.14	.12	.12	.12	.13	.10
Operator(s) labor	.93	.91	1.05	.99	.93	.89	.87	.97	.86	.87
Operator(s) management	.60	.68	.72	.76	.75	.76	.76	.72	.71	.74
Interest on farm eq. cap. (5%)	1.08	1.22	1.34	1.32	1.27	1.20	1.22	1.16	1.10	1.15
Total	\$ 3.68	\$ 4.00	\$ 4.68	\$ 4.77	\$ 4.69	\$ 4.53	\$ 4.62	\$ 4.61	\$ 4.34	\$ 4.28
Gross Farm Operating Cost	\$12.88	\$14.36	\$15.81	\$16.76	\$16.73	\$16.73	\$16.96	\$16.13	\$15.61	\$15.77
<u>Less: Non-milk cash receipts</u>	1.46	1.78	1.67	1.58	1.47	1.49	1.74	1.58	1.52	1.84
Increase in feed & supplies	.40	.40	.43	.11	.03	.26	.18	.06	.07	.23
Increase in livestock	.11	.38	.39	.25	.35	.24	.16	.18	.12	.10
TOTAL COST OF MILK PRODUCTION	\$10.91	\$11.80	\$13.32	\$14.82	\$14.88	\$14.74	\$14.88	\$14.31	\$13.90	\$13.60
OPERATING COST OF MILK PRODUCTION	\$7.23	\$7.80	\$8.64	\$10.05	\$10.19	\$10.21	\$10.26	\$9.70	\$9.56	\$9.32
AVERAGE FARM PRICE OF MILK	\$10.51	\$11.90	\$12.81	\$13.66	\$13.56	\$13.64	\$13.49	\$12.90	\$12.65	\$12.89
Return per cwt. to operator labor, capital, & management	\$2.21	\$2.91	\$2.60	\$1.91	\$1.63	\$1.75	\$1.46	\$1.44	\$1.42	\$2.05
Rate of return on farm eq. cap.	3.1%	5.4%	3.1%	0.6%	-0.2%	0.4%	-0.7%	-1.1%	-0.7%	1.9%

*Includes cash expenses plus changes in accounts payable and cash receipts plus changes in accounts receivable.
Source: New York Dairy Farm Business Summary data.

Appendix Table 2: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT
PLATEAU REGION* DAIRY FARMS, NEW YORK, 1983-1987

Item	1983	1984	1985**	1986**	1987**
<u>Operating Expenses</u>					
Hired labor	\$ 1.12	\$ 1.09	\$ 1.19	\$ 1.22	\$ 1.35
Purchased feed	3.91	3.82	3.45	3.34	3.45
Machinery repairs & rent	0.71	0.78	0.76	0.78	0.88
Auto expenses (farm share)	0.05	0.05	0.05	0.05	0.06
Fuel, oil & grease	0.51	0.52	0.50	0.38	0.37
Replacement livestock	0.16	0.10	0.10	0.14	0.14
Breeding fees	0.19	0.21	0.19	0.19	0.19
Veterinary & medicine	0.26	0.23	0.25	0.26	0.26
Other dairy expenses	1.38	1.56	1.27	1.31	1.21
Lime & fertilizer	0.60	0.67	0.62	0.51	0.54
Seeds & plants	0.21	0.20	0.22	0.22	0.21
Spray & other crop expense	0.16	0.18	0.21	0.19	0.20
Land, building, fence repair	0.17	0.18	0.15	0.15	0.19
Taxes	0.35	0.37	0.37	0.37	0.38
Insurance	0.21	0.21	0.22	0.22	0.22
Telephone (farm share)	0.05	0.05	0.05	0.05	0.05
Electricity (farm share)	0.31	0.34	0.34	0.37	0.38
Interest paid	1.32	1.31	1.19	1.10	1.00
Miscellaneous (including rent)	<u>0.42</u>	<u>0.46</u>	<u>0.39</u>	<u>0.41</u>	<u>0.40</u>
Total	\$12.09	\$12.33	\$11.50	\$11.25	\$11.47
<u>Overhead Expenses</u>					
Depreciation: mach. & bldgs.	\$ 1.65	\$ 1.73	\$ 1.72	\$ 1.60	\$ 1.44
Unpaid labor	0.15	0.17	0.14	0.16	0.13
Operator(s) labor	1.00	1.04	1.04	0.96	0.99
Operator(s) management	0.75	0.76	0.72	0.70	0.73
Interest on farm eq. cap. (5%)	<u>1.22</u>	<u>1.30</u>	<u>1.23</u>	<u>1.20</u>	<u>1.22</u>
Total	\$ 4.78	\$ 5.00	\$ 4.85	\$ 4.62	\$ 4.51
Gross Farm Operating Cost	\$16.87	\$17.33	\$16.35	\$15.86	\$15.98
<u>Less: Non-milk cash receipts</u>	1.56	1.85	1.69	1.42	1.76
Increase in feed & supplies	0.31	0.14	0.09	0.20	0.22
Increase in livestock	<u>0.11</u>	<u>0.09</u>	<u>0.18</u>	<u>0.15</u>	<u>0.11</u>
TOTAL COST OF MILK PRODUCTION	\$14.88	\$15.25	\$14.38	\$14.09	\$13.89
OPERATING COST OF MILK PROD.	\$10.10	\$10.25	\$ 9.53	\$ 9.48	\$ 9.38
AVERAGE FARM PRICE OF MILK	\$13.49	\$13.34	\$12.76	\$12.49	\$12.76
Return per cwt. to oper. labor, capital, & management	\$ 1.59	\$ 1.20	\$ 1.37	\$ 1.25	\$ 1.81
Rate of return on farm equity capital	-0.7%	-2.3%	-1.6%	-1.7%	0.4%

*Includes Allegany, Broome, Cattaraugus, Chautauqua, Chemung, Chenango, Delaware, Otsego, Schuyler, Steuben, Sullivan, Tioga, and Tompkins Counties.

**Includes cash expenses plus changes in accounts payable and cash receipts plus changes in accounts receivable.

SOURCE: New York Dairy Farm Business Summary data.

Appendix Table 3: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT WESTERN
PLAIN AND CENTRAL REGION* DAIRY FARMS, NEW YORK, 1983-1987

Item	1983	1984	1985**	1986**	1987**
<u>Operating Expenses</u>					
Hired labor	\$ 1.51	\$ 1.67	\$ 1.69	\$ 1.72	\$ 1.79
Purchased feed	3.37	3.15	2.69	3.03	3.12
Machinery repairs & rent	0.81	0.87	0.84	0.77	0.90
Auto expenses (farm share)	0.03	0.02	0.02	0.02	0.03
Fuel, oil & grease	0.47	0.47	0.46	0.33	0.35
Replacement livestock	0.16	0.09	0.10	0.13	0.05
Breeding fees	0.19	0.20	0.19	0.19	0.19
Veterinary & medicine	0.32	0.34	0.31	0.33	0.32
Other dairy expenses	1.39	1.48	1.17	1.29	1.15
Lime & fertilizer	0.62	0.62	0.61	0.49	0.52
Seeds & plants	0.22	0.23	0.27	0.24	0.24
Spray & other crop expense	0.23	0.21	0.29	0.21	0.23
Land, building, fence repair	0.15	0.15	0.15	0.17	0.24
Taxes	0.28	0.26	0.28	0.27	0.30
Insurance	0.18	0.17	0.20	0.19	0.19
Telephone (farm share)	0.03	0.03	0.03	0.04	0.03
Electricity (farm share)	0.28	0.29	0.30	0.30	0.30
Interest paid	1.52	1.47	1.40	1.24	1.08
Miscellaneous (including rent)	0.45	0.43	0.40	0.42	0.50
Total	\$12.22	\$12.14	\$11.40	\$11.37	\$11.54
<u>Overhead Expenses</u>					
Depreciation: mach. & bldgs.	\$ 1.54	\$ 1.56	\$ 1.56	\$ 1.49	\$ 1.46
Unpaid labor	0.06	0.06	0.05	0.05	0.05
Operator(s) labor	0.60	0.57	0.62	0.58	0.61
Operator(s) management	0.75	0.75	0.71	0.72	0.74
Interest on farm eq. cap. (5%)	1.10	1.06	1.00	0.97	1.03
Total	\$ 4.05	\$ 4.01	\$ 3.94	\$ 3.80	\$ 3.89
Gross Farm Operating Cost	\$16.28	\$16.15	\$15.34	\$15.17	\$15.42
<u>Less:</u> Non-milk cash receipts	1.59	1.79	1.57	1.82	2.03
Increase in feed & supplies	0.32	0.32	0.07	0.07	0.41
Increase in livestock	0.34	0.30	0.25	0.18	0.15
TOTAL COST OF MILK PRODUCTION	\$14.02	\$13.75	\$13.46	\$13.10	\$12.83
OPERATING COST OF MILK PROD.	\$ 9.97	\$ 9.74	\$ 9.52	\$ 9.30	\$ 8.94
AVERAGE FARM PRICE OF MILK	\$13.43	\$13.26	\$12.69	\$12.56	\$12.76
Return per cwt. to oper. labor, capital, & management	\$ 1.86	\$ 1.90	\$ 1.56	\$ 1.72	\$ 2.30
Rate of return on farm equity capital	2.3%	2.7%	1.1%	2.2%	4.7%

*Includes Cayuga, Cortland, Erie, Genesee, Livingston, Madison, Monroe, Niagara, Onondaga, Ontario, Orleans, Oswego, Seneca, Wayne, Wyoming, and Yates Counties.

**Includes cash expenses plus changes in accounts payable and cash receipts plus changes in accounts receivable.

SOURCE: New York Dairy Farm Business Summary data.

Appendix Table 4: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT NORTHERN NEW YORK REGION* DAIRY FARMS, 1983-1987

Item	1983	1984	1985**	1986**	1987**
<u>Operating Expenses</u>					
Hired labor	\$ 1.00	\$ 0.94	\$ 0.97	\$ 1.01	\$ 1.17
Purchased feed	3.74	2.95	3.19	3.25	3.48
Machinery repairs & rent	0.67	0.57	0.66	0.66	0.77
Auto expenses (farm share)	0.05	0.04	0.05	0.05	0.04
Fuel, oil & grease	0.44	0.36	0.40	0.29	0.29
Replacement livestock	0.18	0.12	0.11	0.18	0.16
Breeding fees	0.18	0.15	0.19	0.17	0.19
Veterinary & medicine	0.28	0.23	0.29	0.26	0.26
Other dairy expenses	1.22	1.14	1.35	1.17	1.12
Lime & fertilizer	0.50	0.44	0.53	0.34	0.42
Seeds & plants	0.18	0.16	0.19	0.14	0.16
Spray & other crop expense	0.17	0.13	0.17	0.13	0.15
Land, building, fence repair	0.20	0.17	0.17	0.15	0.18
Taxes	0.34	0.29	0.38	0.40	0.35
Insurance	0.23	0.18	0.25	0.26	0.26
Telephone (farm share)	0.05	0.04	0.06	0.05	0.05
Electricity (farm share)	0.33	0.27	0.34	0.38	0.35
Interest paid	1.25	1.04	1.18	1.21	1.04
Miscellaneous (including rent)	<u>0.38</u>	<u>0.27</u>	<u>0.30</u>	<u>0.33</u>	<u>0.35</u>
Total	\$11.41	\$ 9.50	\$10.76	\$10.46	\$10.79
<u>Overhead Expenses</u>					
Depreciation: mach. & bldgs.	\$ 1.68	\$ 1.31	\$ 1.63	\$ 1.50	\$ 1.54
Unpaid labor	0.21	0.16	0.22	0.26	0.13
Operator(s) labor	1.04	0.86	1.18	1.12	1.03
Operator(s) management	0.73	0.60	0.70	0.67	0.71
Interest on farm eq. cap. (5%)	<u>1.30</u>	<u>0.98</u>	<u>1.15</u>	<u>1.03</u>	<u>1.01</u>
Total	\$ 4.96	\$ 3.91	\$ 4.87	\$ 4.58	\$ 4.43
Gross Farm Operating Cost	\$16.37	\$13.41	\$15.64	\$15.04	\$15.22
Less: Non-milk cash receipts	1.31	1.38	1.38	1.26	1.65
Increase in feed & supplies	0.27	-0.02	0.27	-0.24	0.12
Increase in livestock	<u>0.26</u>	<u>0.10</u>	<u>0.22</u>	<u>0.04</u>	<u>0.18</u>
TOTAL COST OF MILK PRODUCTION	\$14.53	\$11.95	\$13.77	\$13.98	\$13.27
OPERATING COST OF MILK PROD.	\$ 9.57	\$ 8.04	\$ 8.90	\$ 9.40	\$ 8.84
AVERAGE FARM PRICE OF MILK	\$13.29	\$13.19	\$12.63	\$12.23	\$12.60
Return per cwt. to oper. labor, capital, & management	\$ 1.84	\$ 3.69	\$ 1.89	\$ 1.07	\$ 2.08
Rate of return on farm equity capital	0.2%	11.3%	0.1%	-3.5%	1.7%

*Includes Clinton, Essex, Franklin, Jefferson, Lewis, and St. Lawrence Counties.

**Includes cash expenses plus changes in accounts payable and cash receipts plus changes in accounts receivable.

SOURCE: New York Dairy Farm Business Summary data.

Appendix Table 5: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT ONEIDA-MOHAWK AND HUDSON REGION* DAIRY FARMS, NEW YORK, 1983-1987

Item	1983	1984	1985**	1986**	1987**
<u>Operating Expenses</u>					
Hired labor	\$ 1.26	\$ 1.44	\$ 1.38	\$ 1.27	\$ 1.37
Purchased feed	3.49	3.43	3.27	3.37	3.30
Machinery repairs & rent	0.84	0.81	0.80	0.74	0.92
Auto expenses (farm share)	0.03	0.03	0.03	0.03	0.05
Fuel, oil & grease	0.53	0.55	0.52	0.37	0.35
Replacement livestock	0.16	0.09	0.10	0.08	0.23
Breeding fees	0.21	0.22	0.20	0.19	0.20
Veterinary & medicine	0.27	0.28	0.25	0.23	0.25
Other dairy expenses	1.77	1.90	1.60	1.68	1.63
Lime & fertilizer	0.73	0.76	0.69	0.54	0.53
Seeds & plants	0.20	0.23	0.24	0.22	0.20
Spray & other crop expense	0.17	0.22	0.21	0.19	0.18
Land, building, fence repair	0.21	0.20	0.21	0.19	0.17
Taxes	0.40	0.36	0.38	0.34	0.37
Insurance	0.21	0.23	0.22	0.25	0.24
Telephone (farm share)	0.05	0.05	0.06	0.07	0.06
Electricity (farm share)	0.33	0.35	0.34	0.33	0.33
Interest paid	1.41	1.48	1.16	1.17	1.02
Miscellaneous (including rent)	0.49	0.48	0.47	0.44	0.50
Total	\$12.76	\$13.11	\$12.15	\$11.70	\$11.87
<u>Overhead Expenses</u>					
Depreciation: mach. & bldgs.	\$ 1.43	\$ 1.68	\$ 1.66	\$ 1.51	\$ 1.29
Unpaid labor	0.11	0.10	0.10	0.12	0.10
Operator(s) labor	0.98	0.93	1.08	1.00	1.03
Operator(s) management	0.78	0.78	0.75	0.73	0.76
Interest on farm eq. cap. (5%)	1.26	1.32	1.36	1.22	1.37
Total	\$ 4.56	\$ 4.81	\$ 4.95	\$ 4.58	\$ 4.55
Gross Farm Operating Cost	\$17.32	\$17.92	\$17.10	\$16.28	\$16.42
<u>Less: Non-milk cash receipts</u>	1.39	1.59	1.57	1.35	1.74
Increase in feed & supplies	0.13	0.15	-0.09	0.09	0.03
Increase in livestock	0.22	0.08	0.11	0.09	-0.07
TOTAL COST OF MILK PRODUCTION	\$15.59	\$16.10	\$15.51	\$14.76	\$14.72
OPERATING COST OF MILK PROD.	\$11.03	\$11.29	\$10.56	\$10.17	\$10.17
AVERAGE FARM PRICE OF MILK	\$14.25	\$14.10	\$13.51	\$13.25	\$13.46
Return per cwt. to oper. labor, capital, & management	\$ 1.68	\$ 1.04	\$ 1.19	\$ 1.45	\$ 1.90
Rate of return on farm equity capital	-0.3%	-2.6%	-2.4%	-1.2%	0.4%

*Includes Albany, Columbia, Dutchess, Fulton, Greene, Herkimer, Montgomery, Oneida, Orange, Rensselaer, Saratoga, Schenectady, Schoharie, Ulster, and Washington Counties.

**Includes cash expenses plus changes in accounts payable and cash receipts plus changes in accounts receivable.

SOURCE: New York Dairy Farm Business Summary data.

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