STATE OF MAINE
117TH LEGISLATURE

Report of the Commission to Study Options for Preserving the Dairy Industry in the State

FEBRUARY 1996

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EXECUTIVE SUMMARY

Due to the concern over the decreasing number of dairy farms and the possible changes in federal price programs, the Legislature in the Spring of 1995 approved a commission to study dairy issues.

I. Importance of dairy to the Maine economy

A. Cash receipts

Cash receipts for all agricultural commodities in Maine were $458 million in 1992, placing agriculture 8th among a listing of manufactured goods and agriculture, with 3.95% of the combined dollar value of these 2 categories, just behind textiles. Cash receipts from farm marketing of milk in Maine in 1993 were $92,384,000, accounting for 19.6% of all agricultural commodity receipts and ranking it virtually tied with potatoes and behind eggs as the commodity with the second greatest cash receipts. Unfortunately, cash receipts from milk have increased only 1.25% since 1987 against a change of 14.16% for all agricultural commodities. Maine's is the second largest dairy industry in New England.

Exhibit I

Comparison of Cash Receipts by Commodity, 1993

Commodity	1,000 Dollars	% of Total
Eggs	$ 96,420	20.4%
Potatoes	$ 93,096	19.7%
Milk	$ 92,384	19.6%
Cattle	$ 24,829	5.3%
Blueberries	$ 23,134	4.9%
Apples	$ 13,334	2.8%
Maple Syrup	$ 1,616	0.3%
All Other	$ 127,420	27.0%
TOTAL	$ 472,233	100.0%

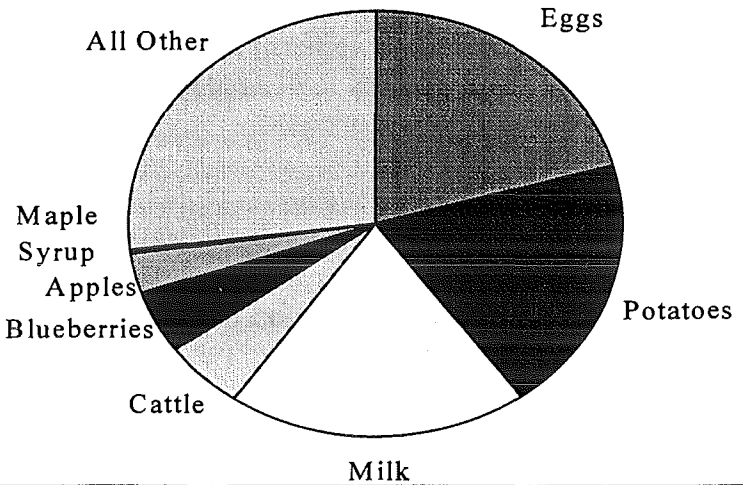


Exhibit II

Value of Products for Maine Manufactured and Agricultural Goods 1992		
Ranked by Value of Product	**Product Value**	**% of Total**
Paper	3,546,651,556	30.60%
Transportation	1,462,102,616	12.62%
Lumber and Wood Products	1,025,875,989	8.85%
Leather	946,270,822	8.17%
Food	869,685,884	7.50%
Electronic Equipment (eg. computers)	647,356,145	5.59%
Textiles	458,809,412	3.96%
Agricultural Products	**458,239,000**	**3.95%**
Machinery, including computers	403,226,260	3.48%
Printing	358,462,393	3.09%
Rubber and Plastics	356,536,758	3.08%
Fabricated Metals	280,822,942	2.42%
Chemicals	242,301,286	2.09%
Apparel	143,332,917	1.24%
Stone, Clay, Glass	112,559,498	0.97%
Furniture	95,476,035	0.82%
Miscellaneous	49,875,879	0.43%
Precision Instruments	49,269,276	0.43%
Petroleum and Coal Products	47,216,277	0.41%
Primary Metals	34,509,169	0.30%
Totals	11,588,580,114	100.00%

Sources: Census of Maine Manufacturers; New England Agricultural Statistics Service

Using the state's agricultural output multiplier of 1.657, the total contribution of Maine's dairy industry to the state's economy is $157.4 million per year. This value probably understates the true impact since the dairy industry may be more capital intensive than some other agricultural enterprises.

B. Jobs

1. The dairy industry

Current estimates are that Maine has 575 dairy farms with an average of three full time workers per farm (includes both paid and unpaid workers). Total direct dairy farm employment is thus 1,725.

2. The dairy multiplier

The indirect employment attributable to the dairy industry consists of those working not only in associated fields (feed milling, veterinary, milk hauling, dairy processing, etc.), but some in the general economy as well.

The dairy farm multiplier for indirect employment is 2.07. With this multiplier, total employment based on Maine's diary farm industry is estimated at 3,571, with the indirect jobs attributable to the dairy industry being 1,846 (total employment less direct employment, 3,571 - 1,725).

In evaluating the decline of dairy farms in Maine, it is very important to consider this multiplier effect. If, for example, a decline in dairy farm numbers resulted in the closure of one of Maine's milk processing plants, the total related employment impact would go way beyond the loss of dairy farm jobs.

Not only would the loss of dairy farms affect the related industries themselves, but the multiplier of those industries must also be considered. If a large number of dairy farms ceased operation and resulted in the closure of one of Maine's dairy processors, then the direct and indirect job loss would equal the number of employees at the plant times 2.2 (the dairy processor employment multiplier). In 1993 there were 416 employees working in Maine's four fluid milk processing plants and 68 additional employees working in ice cream and frozen yogurt products. Using the average of 104 employees per Maine milk processing plant, if one plant closed, the total job loss would be 229 (the 104 employees times the 2.2 multiplier).

C. The importance of the small farm

Maintaining the number of dairy farms, not just the number of cows, is more important to Maine than most states:

1. Dairy farms are an important, and increasingly in some cases, the only contributor to many small town economies and, accordingly, to maintaining a economically viable rural environment.

2. In a state whose economy is so tourist dependent, dairy farms provide essential components of the tourist image of the State.

3. In so heavily forested a state, farms provide one of the few opportunities for open space.

4. The same total number of cows spread out over many farms will result in more jobs than when they are concentrated on a few larger farms.

II. Findings

The following are the major findings of the Commission:

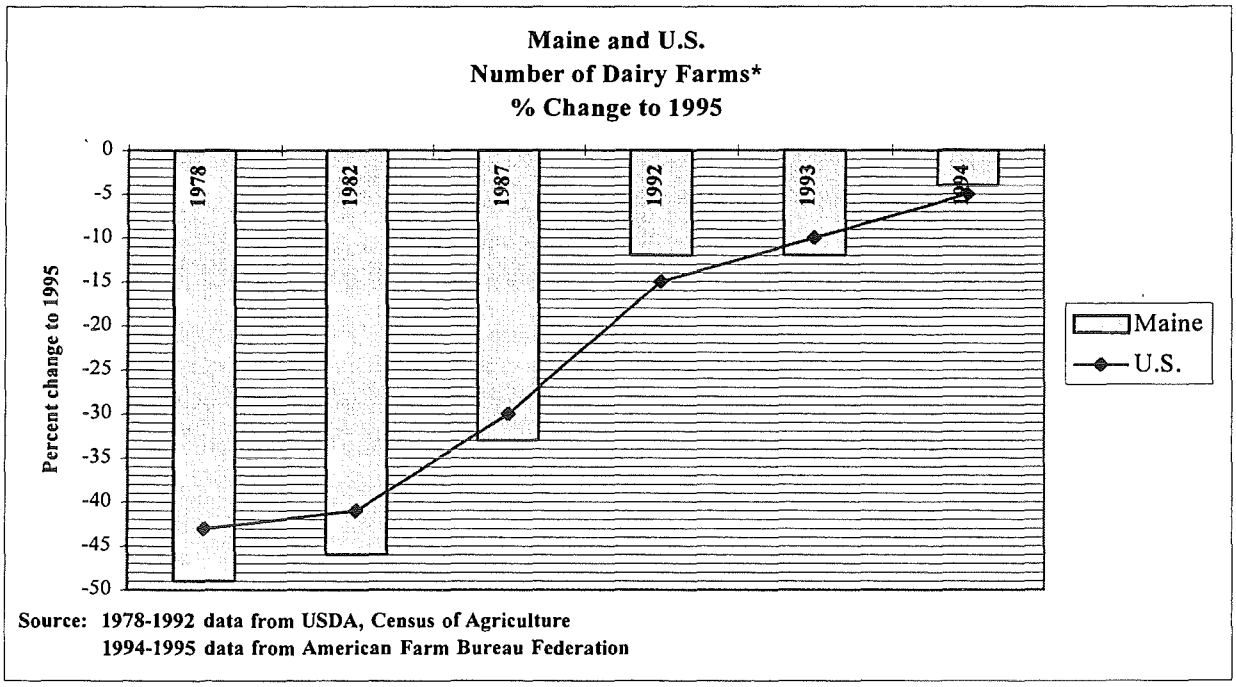
A. With its Maine Milk Commission, Milk Pool, former Dairy Stabilization Tax, and current agricultural appropriations, Maine has perhaps done more than any other states to maintain the price for fluid milk and pricing records indicate that this has been successful. In 1994, the Maine processor price was 106% of the Northeast and Maine's blend price was 108% of the Northeast.

However, it should be noted that since 1990, the Maine federal order price has dropped from $17.12 to $15.60 and the Maine blend price has dropped from $15.20 to $14.10. In 1990 the Maine federal order price was 14% more then the Northeast. It is now 6% more. The blend price was 11% more than the Northeast in 1990 and is now 8%.

B. Even with this price support effort, Maine has not escaped the problems that have plagued the traditional Midwestern and Northeastern dairy regions of the country.

1. Maine has lost 49% or 548 of its dairy farms since 1978 and 33% or 270 since 1987 compared to loses of 43% and 30% for the total United States. Maine's year-to-date loses have exceeded the national average in every year, except 1992 and 1994.

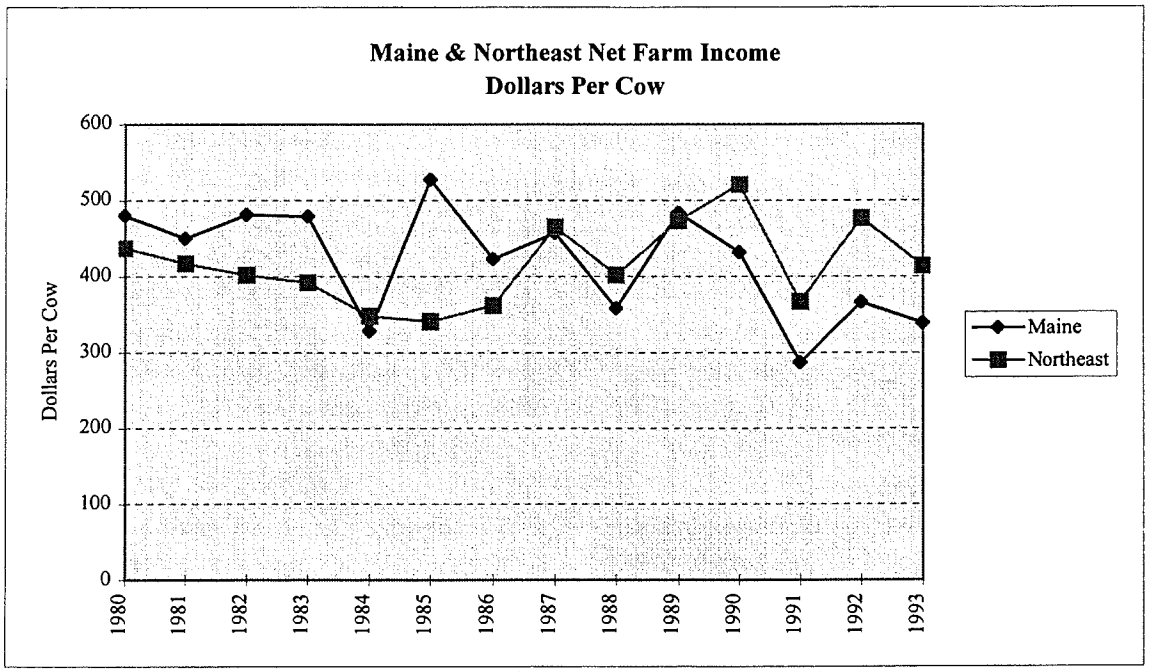
Exhibit III



Source: 1978-1992 data from USDA, Census of Agriculture
1994-1995 data from American Farm Bureau Federation

2. Maine's net farm income per cow for 1993 was 18% less than the Northeast and has been at essentially that level since 1989. Prior to 1987, Maine's income actually exceeded the Northeast average.

Exhibit IV



Source: USDA Agricultural Statistics Service and Agrifax Benchmarks

3. Maine's expenses per cow in 1993 were 111% of the Northeast, up from 102% in 1988.

C. There are certain problems unique to Maine which go a long way toward explaining the fact that the State's dairy industry continues to be troubled even with State's price advantage.

1. Poor forage quality, traditionally attributed to the climate.

2. The fact that Maine farmers are older than in most dairy states and thus less apt to make capital investments and, perhaps, less recently exposed to the many technical innovations in dairy.

3. The small size of Maine farms due to the topography of the State.

4. The fact that for many years use of feed lots was the accepted feeding practice in Maine and thus many farms don't have the land necessary for intensive grazing, which tends to be today's accepted feeding practice.

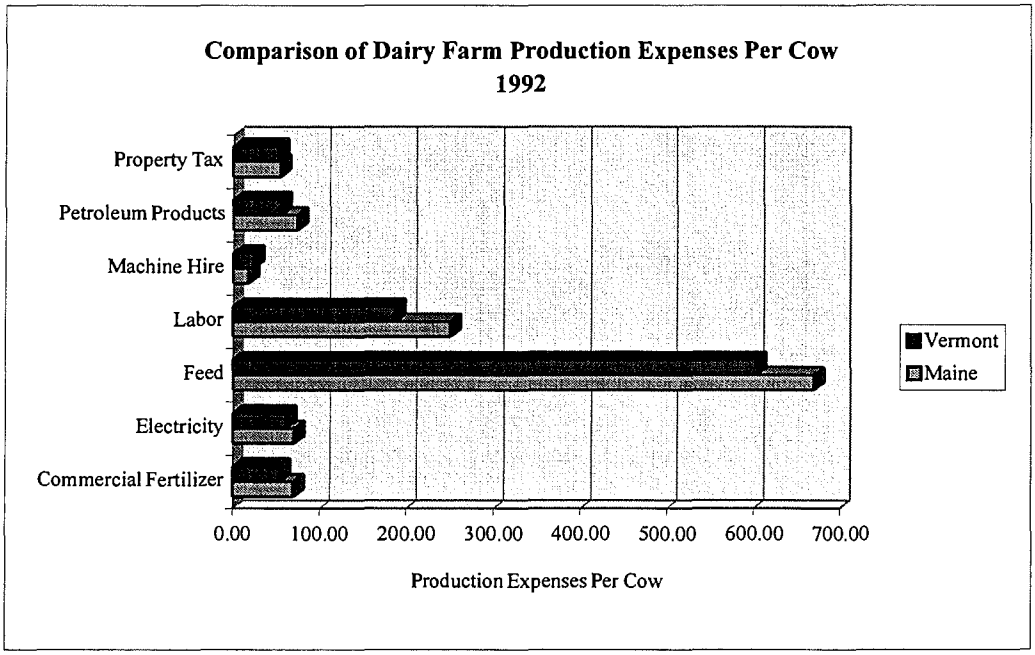
5. The geographic isolation of Maine makes feed and fertilizer costs high.

6. The declining size of the dairy industry and State budget restrictions has led to a decline in the number of Extension Service dairy specialists.

D. Industry costs

Two surveys comparing dairy farm costs per cow between Maine and Vermont indicate Maine costs to exceed those of Vermont by 10% in labor, feed, petroleum products, fertilizer and electricity.

Exhibit V



Source: USDA, 1992 Census of Agriculture

E. Research and Development support

1. Using the 5 major agricultural commodities as a universe, dairy accounts for 29% of all cash receipts but gets only 20% of the State research dollars supplied to the University of Maine Agricultural Extension Service and only 16% of all University Agricultural Experiment Station controlled R & D funds.

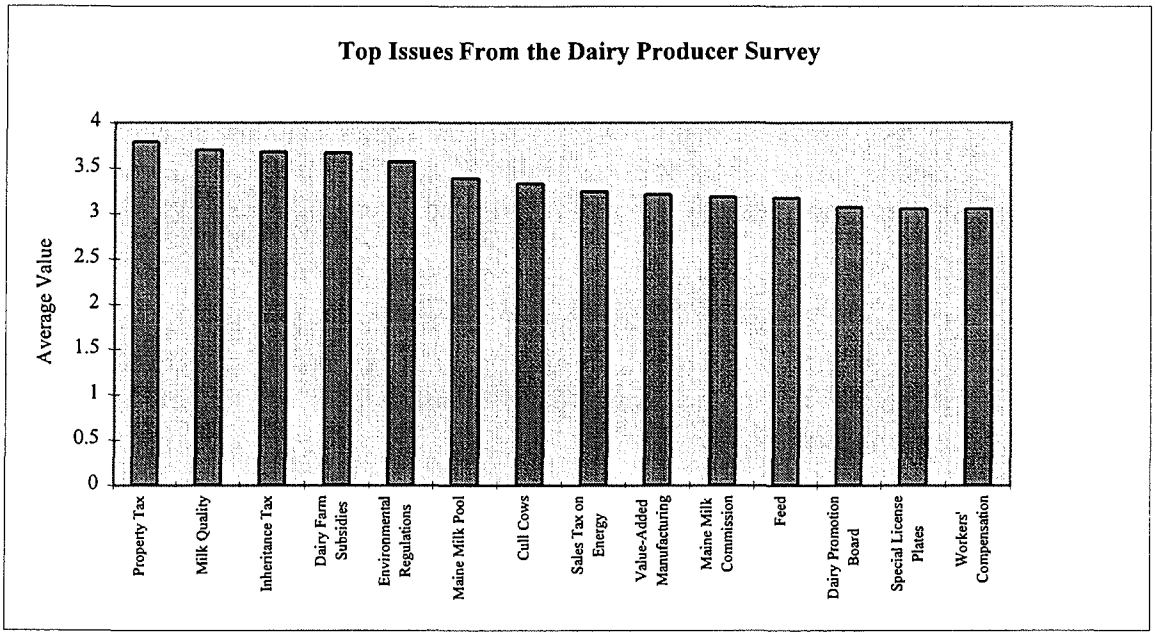
2. On a per $1,000 of sales basis Maine is last in terms of federally financed R & D expenditures compared to other leading dairy states (California, Wisconsin, New York, Pennsylvania and Vermont).

F. The industry faces uncertainty in price programs at the federal level that could affect the pricing activities of the Maine Milk Commission.

G. The high 36% response rate by producers to a Commission survey indicates grave concern about the future of the industry.

Below are short statements of the top 14 of the 44 issues that Maine Producers were asked to rate on the Commission survey. (Persons making extensive use of the data should obtain a copy of the actual questionnaire.)

Exhibit VI



Average value:

4=Very Important
3=Important
2=Not Important
1=Statement would hurt dairy industry

III. Recommendations

The following are the major recommendations of the Commission:

A. Property tax (Legislation being submitted)

Make the following amendments to the Farm and Open Space Tax Law:

1. Require that the land owner file income information with the tax assessor every 5 years instead of every year (but report any change of use by the end of the calendar year in which it occurs) and that the assessor be required to recertify the classified land every 5 years instead of every year.

2. Change the penalty for change of use/withdrawal of farmland classified for less than 5 full years from 40% of its assessed market value to the greater of the current constitutional requirement or 20% of its assessed market value.

3. Provide one penalty for farmland classified for 5 full years or more, which would be the taxes that would have been paid on the land for the past 5 years if it had been assessed at just value, less all taxes that were actually paid during those 5 years, plus interest.

4. Permit owners who are withdrawing from the program after 5 full years or more to pay the penalty owed in up to 5 annual installments.

B. Quality of milk (Legislation being submitted)

1. The Maine Dairy Promotion Board work with the Department of Agriculture, Food and Rural Resources to increase promotion of the Maine Quality Seal and make this increased promotion milk specific.

2. Transfer $50,000 from the frozen funds generated by the former Maine Dairy Stabilization Tax Program to the Dairy Promotion Board.

C. Pricing

1. The Legislature continue the dairy farm appropriation.

2. The Legislature establish a sub-floor minimum price for all fluid milk produced in Maine, which will apply to both Maine market and Boston market producers, and which will provide long term assurance that the

price paid to all Maine producers shall be at least $3.00 above the Basic Formula Price. (Legislation being submitted)

D. Energy costs. (Legislation being submitted)

1. The Department of Agriculture, Food & Rural Resources (Department of Agriculture) work with the electric utilities, the Department of Economic and Community Development (DECD) and the State Planning Office (SPO) on energy issues as they affect dairy farms.

2. Farm producing operations be exempted from the sales tax on electricity.

E. Feeding costs

1. The Agriculture, Conservation and Forestry Committee develop and see to the execution of a plan to work with other Northeast states to divide up and share agricultural research among the Land Grant Colleges in the different states with the goal of encouraging specialization and avoiding duplication. (Legislation being submitted)

2. The "Agriculture Educator" position be moved from the Department of Education to the Department of Agriculture. (Legislation being submitted)

3. A bond issue be used to capitalize a revolving loan fund for dairy programs, modeled after the Potato Marketing Improvement Fund (PMIF); Uses of this fund might be construction of storage facilities for bulk commodities and to provide financial assistance for changing machinery and buildings necessitated by a shift from feed lots to grazing. The Department of Agriculture has indicated a willingness to submit an amendment to LD 1575 "An Act to Authorize a General Fund Bond Issue in the Amount of $3,000,000 to Agricultural Enterprises in Maine" in order to implement this recommendation.

4. The Department of Agriculture work with DECD and the Agricultural Extension Service, to develop a plan, including a funding proposal, for an educational/business management outreach program to farmers, possibly modeled after and/or utilizing the Service Corps of Retired Executives (SCORE) and Small Business Development Centers (SBDC's), and possibly utilizing the frozen funds from the former Dairy Stabilization Tax Program. (Legislation being submitted)

F. Dairy promotion

1. The Department of Agriculture and the Maine Dairy Promotion Board more extensively promote the Maine quality seal. (Legislation being submitted).

2. The Maine Milk Commission in reviewing a dairy promotion for its possible effect on the minimum price should balance this against the advantages offered by the promotion. The Commission ought not to deny a promotion unless it affirmatively finds that it is destructive of the minimum price. (Legislation being submitted)

3. The Agriculture, Conservation and Forestry Committee and the full Legislature support the Dairy Promotion Board and the Dairy and Nutrition Council becoming one public instrumentality that would have authority over dairy promotion, including budget responsibility.

G. Trade with Canada

The Department of Agriculture and the Dairy Promotion Board request assistance of the State's Congressional Delegation to see that dairy products are placed under the North American Free Trade Agreement (NAFTA) with Canada. (Legislation being submitted).

INTRODUCTION

The 117th Maine State Legislature passed LD 1436, "Resolve, to Preserve the Dairy Industry in the State", as Resolves 1995, chapter 35 during its First Regular Session. (Appendix A)

This resolve established the "Commission to Study Options for Preserving the Dairy Industry in the State" (the Commission), whose mission was to study the Maine dairy industry and analyze options for ensuring its long-term stability and competitiveness. A list of commission members is in Appendix B.

Legislative interest in this study was occasioned by a perceived loss in the number of dairy farms, and the consequent loss of an important component of Maine's quality of life, and the possible changes to the Federal Milk Market Order Program. The commission's specific charge was to examine the following:

1. Strategies to reduce the cost of milk production.

2. Marketing opportunities for dairy farms.

3. Appropriations to the milk commission for distribution to dairy farms.

The Commission was funded with $8,000 from the Maine Dairy Farm Stabilization Fund. This Fund is discussed in Appendix C. Staffing to the Commission was provided by the Legislature's Office of Policy & Legal Analysis. The report was prepared by John Knox, Analyst.

STUDY METHODOLOGY

I. Meetings

The enabling legislation for this study called for appointments to be made by July 27, 1995 with the first meeting to be held by August 15, 1995 and a report and legislation to the Legislature no later than December 15, 1995. (Appendix A)

The Commission was appointed September 21st and the first meeting was held October 12th. The last meeting was January 19, 1996. The commission held eight meetings, an introductory one, four to receive public testimony, two to develop findings and recommendations, and one to review a draft of the report. Appendix D contains a list of witnesses appearing before the commission and one to review a draft of the report.

II. Research Methodology

The Commission conducted two surveys consisting of a scale on which respondents could rate the importance of 44 items. (Appendix F) One survey was conducted among commission members and one among producers. Slightly different question wording was used in each survey. The producer survey was mailed by the Department of Agriculture to 600 farmers. A 36% return rate was attained. The Commission would like to thank Vern Pierce of the University of Maine Cooperative Extension Service (Extension Service) for his assistance in designing the questionnaire and for tabulating the results.

III. Staffing

The Commission was staffed by Amy B. Holland and John B. Knox of the legislative Office of Policy & Legal Analysis. The tables and exhibits were prepared by Carrie C. McFadden of the Office of Policy and Legal Analysis.

FINDINGS & RECOMMENDATIONS

I. The Overall Status of the Maine Dairy Industry

This report is about the dairy industry in Maine. However, the Commission feels there is considerable value in seeing this in a national perspective and has included appropriate summaries in Appendix H.

A. Number of farms

(See Appendix G for methodology on this subject)

Maine has lost 49% or 558 of its dairy farms since 1978 and 33% or 270 since 1987 versus national losses of 43% and 30%. However, Maine's declines of 4% since 1994 and 12% since 1992, are smaller then the national figures and all but California of the four leading dairy states. (See Appendix G for definition. Pennsylvania figures appear questionable so they are not included).

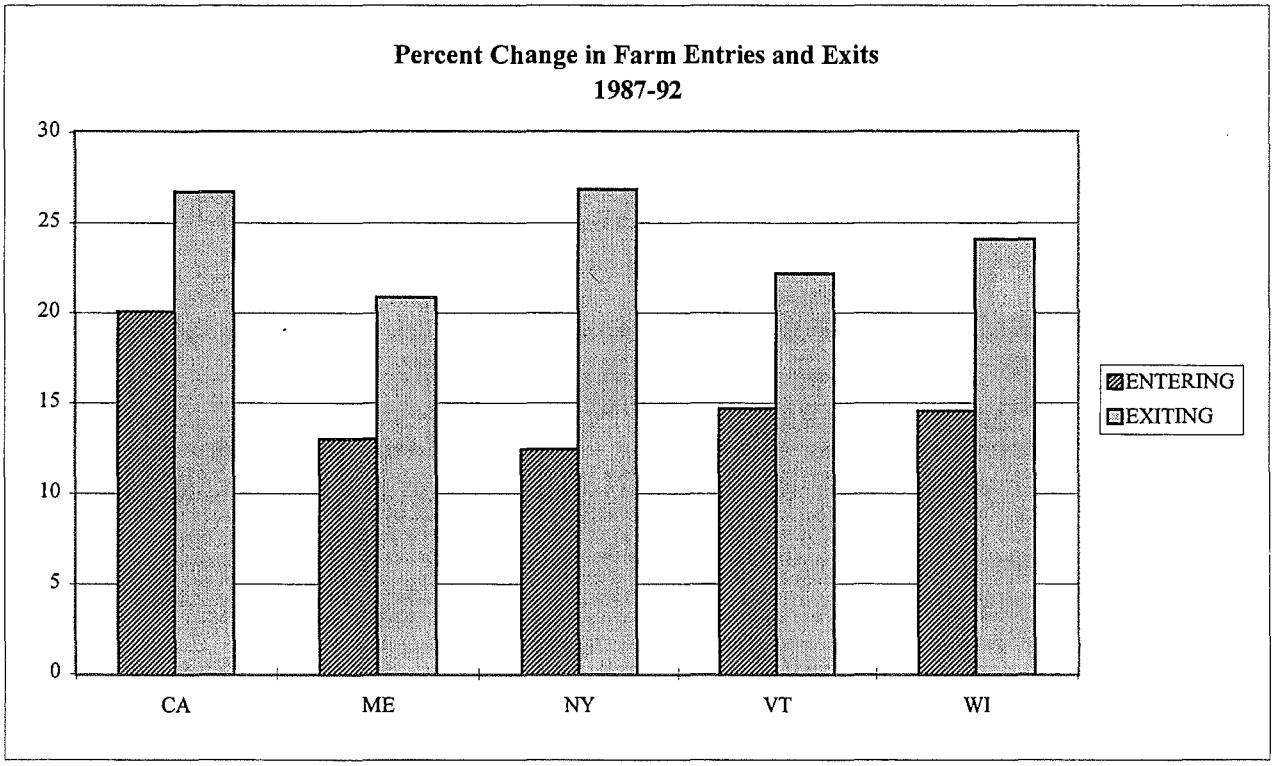
At least up to 1992, the last year data is available, the loss of dairy farms in Maine has been considerably higher then the loss of all farms. There was approximately a 42% loss in dairy farms from 1982 to 1992 versus a 17% loss for all farms.

Maine has lost a higher percentage of cows and of milk produced in the national average in any of the leading dairy states both from 1974 to 1984 to present.

There are some interesting unpublished data available from the United States Department of Agriculture which allows one to look separately on entries and exits from farming. It is for all farms, not just dairy. It shows for the period 1987-92 a net loss in Maine similar to the national figure, but below all but California of the leading dairy states. Maine has a farms gained figure of 13% versus the national figure of 16%. Maine is slightly below Vermont (15%) and about equal to the other leading dairy states, except California which is substantially higher. Maine shows an exit figure of 21% for this period, which is below the national figure of 24% and below all the leading dairy states. It would appear, then, that the issue in Maine, at least for farms in general, is to emphasize increasing entrants into the industry. (Exhibit VII).

Farm Entries and Exits
1987-92

State	Number of Farms 1992	Number of Farms 1987	Entering Farms 1987-92	% Change Since 1987	Exiting Farms 1987-92	% Change Since 1987
California	77,669	83,217	16,653	20	22,201	27
Maine	5,776	6,269	812	13	1,305	21
New York	32,306	37,743	4,675	12	10,112	27
Vermont	5,436	5,877	860	15	1,301	22
Wisconsin	67,959	75,131	10,892	14	18,064	24
U.S.	1,925,300	2,087,760	337,093	16	499,553	24



Source: U.S.D.A., unpublished data from 1992 Census of Agriculture

B. Cows per farm

1994 data from the National Agricultural Statistics Service shows Maine with 16% fewer cows per farm than the next lowest dairy state.

There is an ongoing debate in the industry as to whether large size is essential for dairy farm profitability.

The following are some interesting observations on this subject presented to the Commission by Professor Stewart Smith of the University of Maine.[35].*

"Most technologies adopted by farmers result in a shift of activity from the farm to the nonfarm sectors. That shift of activity results in a loss of returns per unit of production and leaves the farmer with excess management capacity if production is not increased.

Relieving farmers of these activities allows them to focus more of their capital and management capabilities on producing commodities, but at a reduced margin since they are getting rewarded for less activity per unit of production. Farmers who adopt technologies that simplify management per unit of production usually expand production to utilize their newly gained management capacity and offset lost margins. They will expand as long as their net return from doing so is positive.

As seen in the 1990 survey of dairy farms, Northeast Farm Surveys from the Farm Credit Banks, when considering explicit costs only, the smallest sized herds are the most efficient. However, if substantial opportunity costs are included, the larger farms are more efficient. The more recent 1994 summary shows an even stronger relationship, with the smallest sized herds having 23% less adjusted farm operating costs per cow than the next lowest cost group, but having 50% less net earnings per cow than the largest operators."

As compared to the largest farms on the processors survey, the smallest farms showed more interest in treating farm inputs the same as other industry inputs for sales tax calculations, paying farms using a component price mechanisms for nonfat components, and eliminating the government from dairy pricing. The larger farms, on the other hand, had more interest in maintaining the Milk Commission and the Promotion

* Numbers such as this throughout the report refer to items in the Bibliography.

Board, making the milk packaging competitive to other beverages, exporting to Canada, and research on shelf life.

C. Pricing

(See Appendix C for detail on Pricing.)

1. Background

There are four sets of data available for analyzing milk prices; a processor price and three categories of producer prices.

a. Processor prices

The federal Class I price for fluid milk -- The source of this price is the U.S.D.A. Agricultural Marketing Service through the regional Marketing Administrators. It is reported regionally not by State. For milk sold in Maine, the price comes from the Maine Milk Commission.

b. Producer prices

In order to understand this section it is necessary to understand several definitions. The blend price has several factors which are added or subtracted from it. There are certain payments received for milk such as over-order, quality and volume premiums, payouts from state run over-order pricing pools, and monthly distributions of cooperative earnings. There are also certain costs associated. These include hauling charges, cooperative dues, federal milk order deduction for marketing services, federally mandated assessments such as the National Promotion Program and budget deficit reductions, and advertising/promotion assessments above the national program level.

(1) Federal blend price -- This is the gross price to farmers. It does not include premiums or costs. It is reported regionally. The source is the same as the Class I price. In Maine this price comes from the U.S.D.A. Agricultural Statistics Service. In the case of Maine, it is for all Maine produced milk regardless of where it is sold.

(2) The Agricultural Statistics Service "Blend Price" -- This price is similar to the Agricultural Marketing Services price except that it includes premiums and is reported by State. This is the blend price used in Maine.

(3) Mailbox price -- In 1995 the Agricultural Marketing Service introduced a mailbox price. This is the net price the farmer receives after additions for premiums and deductions for costs. In Maine these costs items are not deducted, so that the blend price and the mailbox price are the same in Maine.

2. Analysis

Except in the case of the mailbox prices, the following analysis covers data back to 1980.

a. Federal Order Price

Maine's federal order price for 1994 was 6% greater then the price for the Northeast. Maine has always been above the federal order. This reached a peak of 14% greater then the federal order in 1989.

On an absolute basis, the price peaked in 1990 at $17.12 per hundred weight and since has been in the range from the 1994 price of $15.60 down to $15.07. (Exhibit VIII)

b. Blend Price

(The Agricultural Statistics Blend Prices was used for this analysis since it has Maine data in it.)

Maine's blend price for 1994 was 8% above the national average. It has always been above the national average and reached its peak of 12% in 1991. On an absolute basis, Maine's price has declined 7% since its peak in 1990. (Exhibit IX)

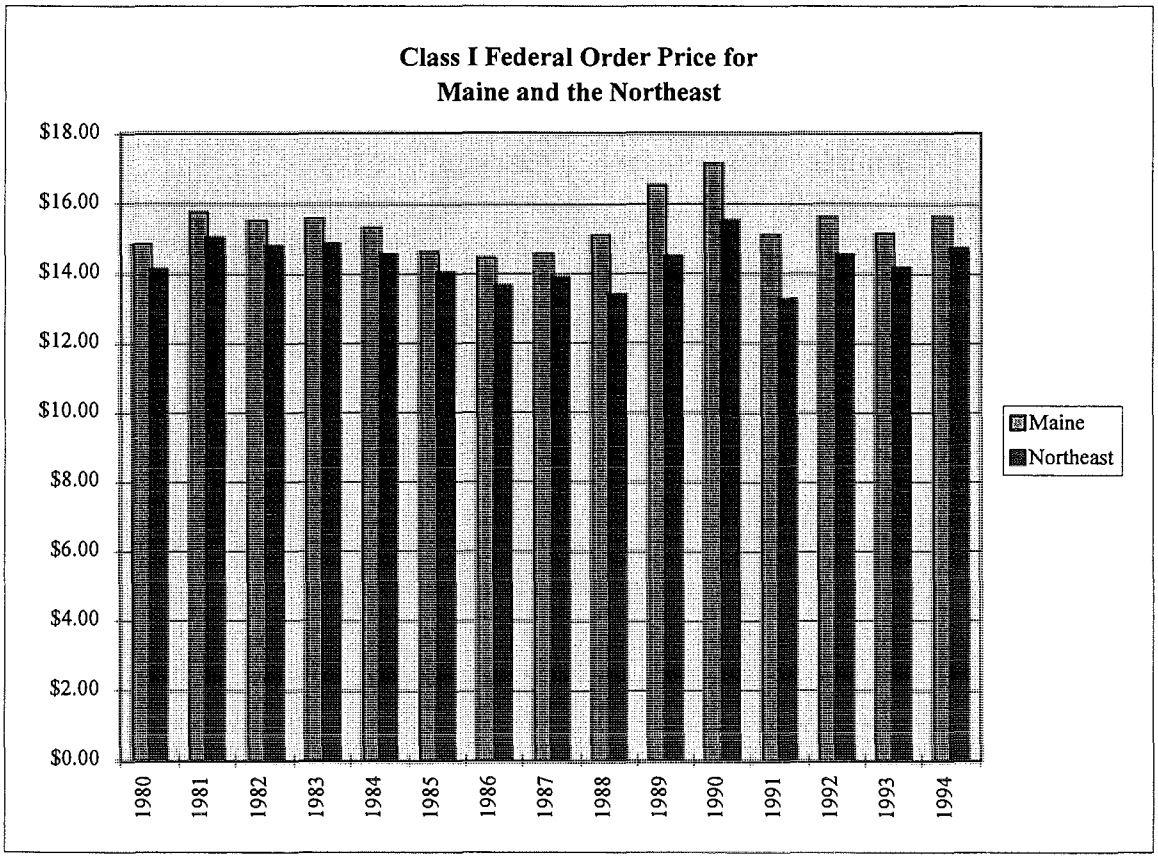
c. Mailbox Price --

Maine's blend price is 20% greater than the Northeast mailbox price which is the price after costs are taken out. (See Section 1 Background for methodology).

Exhibit VIII

Class I Federal Order Price 1980-1994

	Maine	% Change (To 1994)	Northeast	% Change (To 1994)	Maine as % of Northeast
1980	$14.81	5.33	$14.09	4.26	105%
1981	15.72	-0.76	15.00	-2.07	105%
1982	15.48	0.78	14.76	-0.47	105%
1983	15.54	0.39	14.82	-0.88	105%
1984	15.27	2.16	14.52	1.17	105%
1985	14.59	6.92	14.00	4.93	104%
1986	14.42	8.18	13.62	7.86	106%
1987	14.53	7.36	13.86	5.99	105%
1988	15.06	3.59	13.38	9.79	113%
1989	16.50	-5.45	14.46	1.59	114%
1990	17.12	-8.88	15.49	-5.16	111%
1991	15.07	3.52	13.23	11.04	114%
1992	15.58	0.13	14.51	1.24	107%
1993	15.11	3.24	14.14	3.89	107%
1994	15.60	0.00	14.69	0.00	106%



Source: USDA Agricultural Marketing Service

Blend Price

	Maine	% Change (1980 Baseline)	% Change (To 1994)	Annual % Change	Maine as % of U.S.	Vermont	% Change (1980 Baseline)	% Change (To 1994)	U.S.	% Change (1980 Baseline)	% Change (To 1994)
1980	$13.90	----------	1.44	----------	107%	13.40	----------	1.49	13.05	----------	-0.31
1981	14.80	6.47	-4.73	6.47	107%	14.30	6.72	-4.90	13.77	5.52	-5.52
1982	14.70	5.76	-4.08	-0.68	108%	14.10	5.22	-3.55	13.61	4.29	-4.41
1983	14.70	5.76	-4.08	0.00	108%	14.20	5.97	-4.23	13.58	4.06	-4.20
1984	14.50	4.32	-2.76	-1.36	108%	14.00	4.48	-2.86	13.46	3.14	-3.34
1985	13.70	-1.44	2.92	-5.52	107%	13.30	-0.75	2.26	12.76	-2.22	1.96
1986	13.50	-2.88	4.44	-1.46	108%	13.10	-2.24	3.82	12.51	-4.14	4.00
1987	13.80	-0.72	2.17	2.22	110%	13.20	-1.49	3.03	12.54	-3.91	3.75
1988	13.40	-3.60	5.22	-2.90	109%	12.80	-4.48	6.25	12.26	-6.05	6.12
1989	14.60	5.04	-3.42	8.96	108%	14.10	5.22	-3.55	13.56	3.91	-4.06
1990	15.20	9.35	-7.24	4.11	111%	14.40	7.46	-5.56	13.74	5.29	-5.31
1991	13.80	-0.72	2.17	-9.21	112%	13.00	-2.99	4.62	12.27	-5.98	6.03
1992	14.50	4.32	-2.76	5.07	110%	13.80	2.99	-1.45	13.15	0.77	-1.06
1993	14.00	0.72	0.71	-3.45	109%	13.40	0.00	1.49	12.84	-1.61	1.32
1994	14.10	1.44	0.00	0.71	108%	13.60	1.49	0.00	13.01	-0.31	0.00

Source: USDA Agricultural Statistics Service

EXHIBIT IX

d. Retail price --

The minimum retail price for milk in Maine has declined from $25.12 per hundred weight in 1992 to $24.77 per hundred weight in 1994. The Commission was unable to obtain historical data of this type from other areas of the country.

According to the International Association of Milk Control Agencies, as of the week of August 7, 1995, the whole milk supermarket price was $2.18 per gallon in Portland, putting it under the U.S. average of $2.57 and under all the other 6 cities listed except Madison, Wisconsin.

e. Comparison of different prices --

(1) Blend and Federal -- in 1994 the blend price in Maine was 90% of the federal order price compared to 89% for the total Northeast. Over the years, Maine's ratio of blend to federal has exceeded the Northeast every year but two, and has averaged 2%. On an absolute basis, the ratio in Maine peaked at 95% in 1987.

(2) Retail and Blend -- Maine's retail price was 176% of the blend price in 1994. With the exception of a slight dip from 1993 to 1994, this ratio has increased steadily from the level of 160% in 1990.

(3) Blend and mailbox --
(Refer to Exhibits X, XI and XII.)

(a) While the Northeast and Maine are virtually tied at 89-90% in their relation of the blend price to the federal order price, the Northeast mailbox price is only 80% of the federal price.

(b) While Maine's blend price is 108% of the Northeast blend, it is 120% of the Northeast mailbox price.

(c) The Northeast mailbox price is 90% of the Northeast blend price.

D. Farm investment

1. Maine's dairy farm assets per cow are 82% of the Northeast average. Vermont's are 90% of the Northeast average. Maine's machine & equipment assets per cow are 70% of the Northeast average.

2. Maine's total liability per cow is 52% of the Northeast average. (Appendix K)

E. Expenses and Profitability

Maine's expenses per cow were 111% of the Northeast in 1993 versus 102% in 1988.

Although Maine's price received per hundred weight (CWT) of milk by farmers is greater than other states, the profitability of Maine's dairy farms is not. (Exhibit XIII)

Agrifax indicates that in 1993 Maine had a lower return on equity (ROE) and on assets (ROA) than the Northeast average. However, the individual states of New York & Pennsylvania had a lower return on equity than Maine.

Looking at all farms, not just dairy, USDA reports in Maine higher returns on both ratios than the national average. USDA breaks these returns down into current income and real capital gains. Maine is lower on the current income ratios but higher on the real capital gains ratios. (Appendix L)

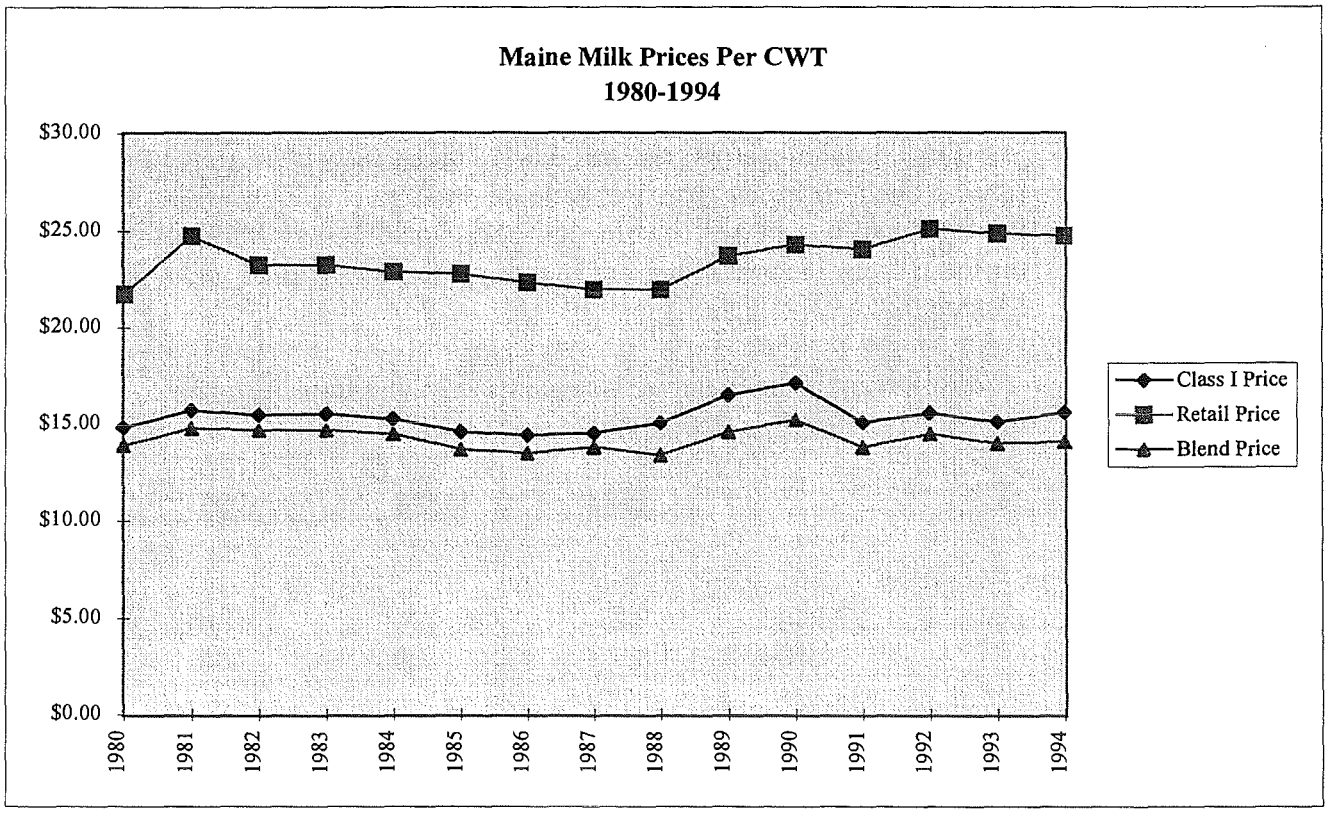
Following is the trend on these items in Maine from Agrifax, indicating some slight improvement since 1988.

		1983	1988	1993
ROA				
	Maine	2.2	1.3	1.6%
	Northeast	3.2	3.0	2.6
ROE	Maine	.7	-.5	.5
	Northeast	-.6	1.1	.9

Exhibit X

Maine Milk Prices-Class I, Retail and Blend 1980-1994

Year	Total Class I Price Per CWT	As % of Blend	% Change From BaseYr.	Minimum Retail Price Per CWT	As % of Blend	Blend Price Per CWT	% Change From BaseYr.
1980	$14.81	107%	5.33	$21.74	156%	$13.90	1.44
1981	$15.72	106%	-0.76	$24.77	167%	$14.80	-4.73
1982	$15.48	105%	0.78	$23.26	158%	$14.70	-4.08
1983	$15.54	106%	0.39	$23.26	158%	$14.70	-4.08
1984	$15.27	105%	2.16	$22.91	158%	$14.50	-2.76
1985	$14.59	106%	6.92	$22.79	166%	$13.70	2.92
1986	$14.42	107%	8.18	$22.33	165%	$13.50	4.44
1987	$14.53	105%	7.36	$21.98	159%	$13.80	2.17
1988	$15.06	112%	3.59	$21.98	164%	$13.40	5.22
1989	$16.50	113%	-5.45	$23.72	162%	$14.60	-3.42
1990	$17.12	113%	-8.88	$24.30	160%	$15.20	-7.24
1991	$15.07	109%	3.52	$24.07	174%	$13.80	2.17
1992	$15.58	107%	0.13	$25.12	173%	$14.50	-2.76
1993	$15.11	108%	3.24	$24.88	178%	$14.00	0.71
1994	$15.60	111%	0.00	$24.77	176%	$14.10	0.00



Sources: International Association of Milk Control Agencies; USDA Agricultural Statistics Service; Maine Milk Commission

Exhibit XI

Blend Price as Percent of Federal Order Price

	Maine			Northeast		
	Blend	Federal Order	Blend as % of Federal Order	Blend	Federal Order	Blend as % of Federal Order
1980	13.90	14.81	94%	13.06	14.09	93%
1981	14.80	15.72	94%	13.90	15.00	93%
1982	14.70	15.48	95%	13.61	14.76	92%
1983	14.70	15.54	95%	13.39	14.82	90%
1984	14.50	15.27	95%	13.38	14.52	92%
1985	13.70	14.59	94%	12.67	14.00	91%
1986	13.50	14.42	94%	12.43	13.62	91%
1987	13.80	14.53	95%	12.55	13.86	91%
1988	13.40	15.06	89%	12.22	13.38	91%
1989	14.60	16.50	88%	13.45	14.46	93%
1990	15.20	17.12	89%	13.05	15.49	84%
1991	13.80	15.07	92%	12.07	13.23	91%
1992	14.50	15.58	93%	13.08	14.51	90%
1993	14.00	15.11	93%	12.79	14.14	90%
1994	14.10	15.60	90%	13.10	14.69	89%

Sources: USDA Agricultural Statistics Service; USDA Agricultural Marketing Service; Maine Milk Commission

Exhibit XII

Maine & Northeast Pricing Comparison

	Maine Blend as % of Federal Order	Northeast Blend as % of Federal Order	Northeast Mailbox as % of Federal Order	Maine Blend as % of Northeast Blend	Maine Blend as % of Northeast Mailbox	Northeast Mailbox as % of Blend
1994	90%	89%	80%	108%	120%	90%

Sources: USDA Agricultural Statistics Service; USDA Agricultural Marketing Service; Maine Milk Commission

Mailbox price is average of the first 9 months of the year.

Exhibit XIII

Total Cash Operating Expenses -- Per Cow

	Maine		*Northeast*		*Maine vs. % NE*
		% vs. 1993		*% vs. 1993*	
1983	$2079	+26%	$1993	+18%	104%
1988	$2062	+27%	$2028	+16%	102%
1993	$2612		$2361		111%

Source: Agrifax

Maine's net farm income and net farm earnings per cow were from 1990 to 1993 approximately 80% of the Northeast average and below any of the major dairy states in that area. Most analyses of the Northeast dairy industry project an improvement in dairy farm finances. From its peak in 1989 of $484 per cow, Maine income fell to $339 in 1993 a 30% loss. During the same period in the Northeast income decreased 12%. (Exhibit IV in Executive Summary)

Exhiibt XIV shows the trend for price, expenses, income and farms all in one place (see next page).

F. Age of farmer

The Commission had considerable concern with the advanced and increasing age of the average dairy farmer. As of 1992, the average dairy farmer age in Maine was 51.8 years and, while this is less than the average for all Maine farms, it is 6% greater than the national average of 49.0 and greater than any of the leading dairy states except California. (It should be noted that about half of this 6% difference in average dairy farmer age between Maine and the United States is due to the fact that the general population in Maine is about 3% older than the national average.)

Maine's average dairy farmer age increased 2.2 years since 1982 compared, for example, to Vermont which increased 1.4 years. (Exhibit XV)

In the producer survey, younger farmers were more apt to consider as important access to credit, exporting milk, dealing directly with milk haulers, and eliminating government involvement in milk pricing than the older farmers, while the latter considered as more important compensation for not using rBST, maintaining the Dairy & Nutrition Council and extending the shelf life of milk and, to a lesser extent, maintaining the Milk Commission and the Promotion Board then did the younger farmers.

Exhibit XIV

Percent Change Base Year to Current

	Federal Order Price per CWT (Current = '94)	*Farm Operating Expenses per Cow Current = '93*	*Income Per Cow Current = '93*	*# Dairy Farms Current = '95*
1987	7.36%	28%	-26%	-33%
1988	3.59%	24%	-5%	-25%
1989	-5.45%	18%	-30%	-18%
1990	-8.88%	5%	-22%	-15%
1991	3.52%	14%	-18%	-10%
1992	0.13%	1%	-7%	-12%
1993	3.24%	NA	NA	-12%
1994	NA	NA	NA	-4%

Source: Operating expenses and income -- Agrifax, Dairy Farms -- 1987 = U.S.D.A. (adjusted), 1988-91 = Maine Department of Agriculture, 1992 - 95 = American Farm Bureau

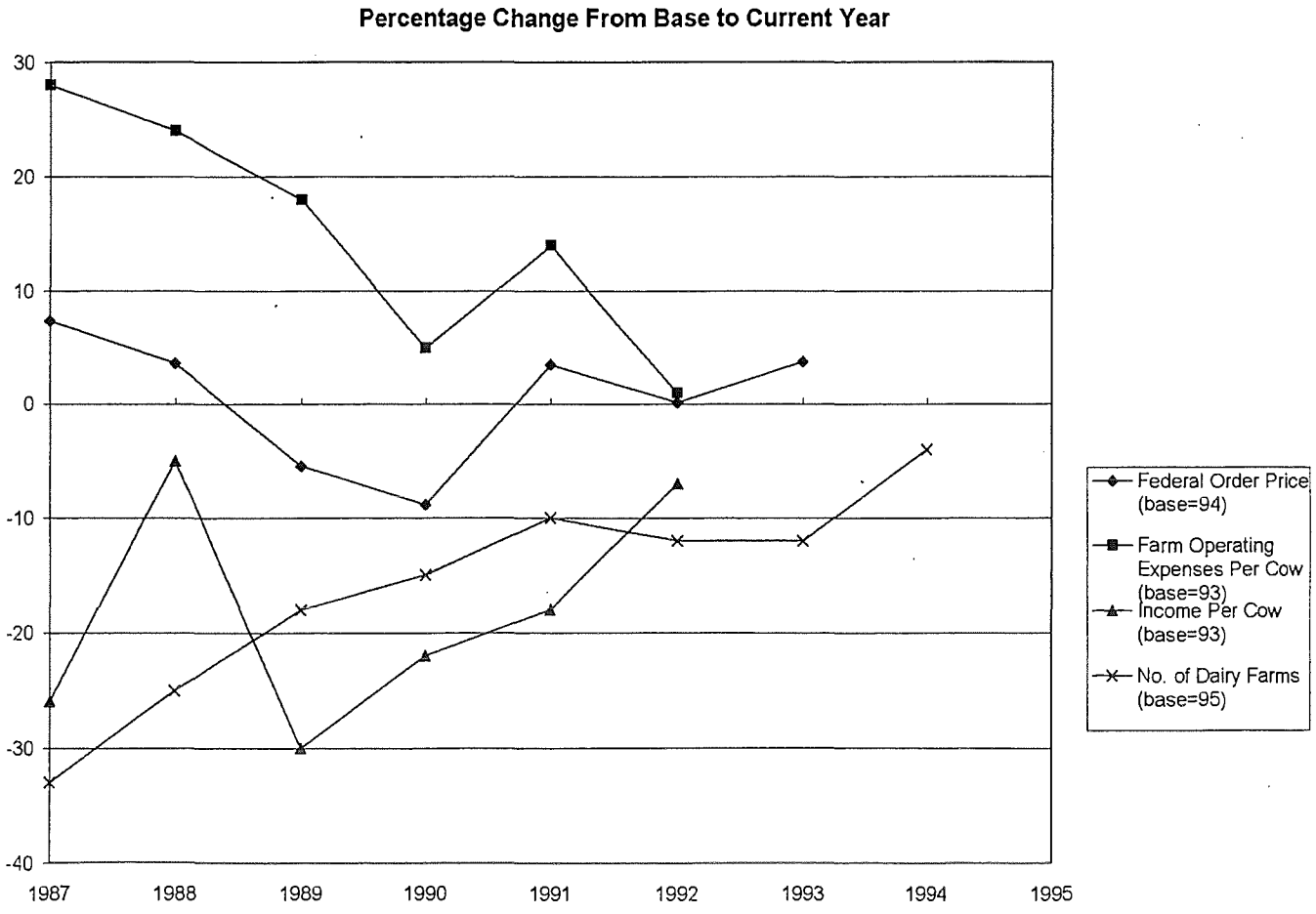
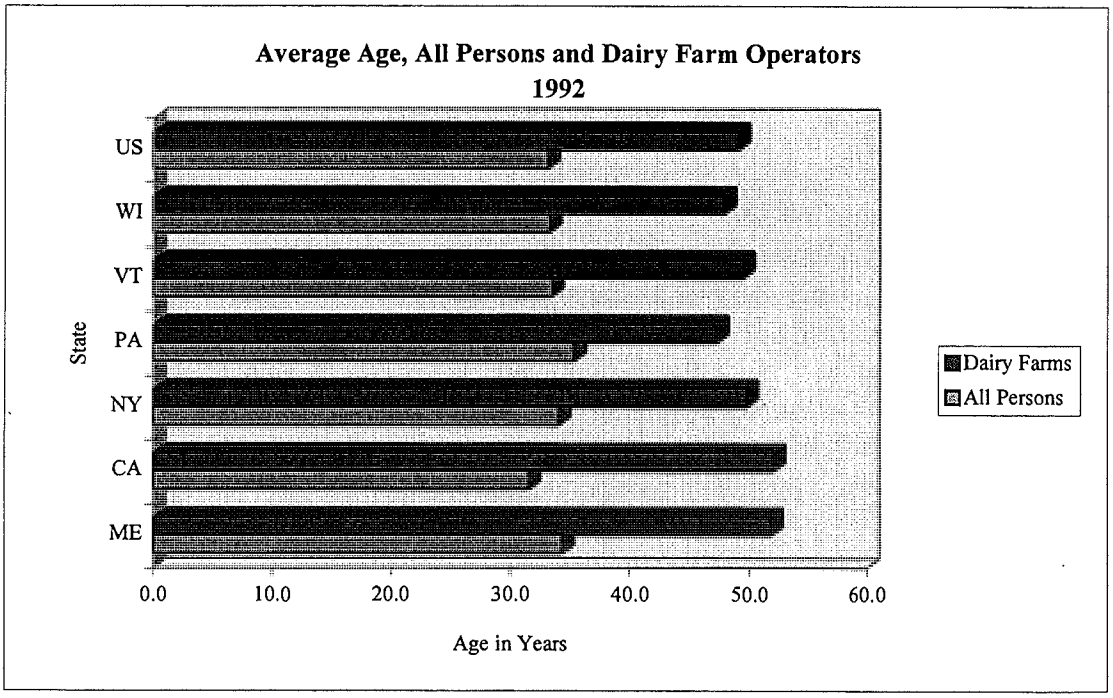


Exhibit XV

Average Age of Farm Operator				
State	All Persons 1992	All Farms 1992	Dairy Farms 1982	Dairy Farms 1992
Maine	34.3	53.0	49.6	51.8
California	31.5	53.6	NA	52.0
New York	34.0	52.6	NA	49.7
Pennsylvania	35.3	52.2	NA	47.2
Vermont	33.4	51.4	48.0	49.4
Wisconsin	33.2	51.2	NA	47.8
National	33.1	53.3	50.5	49.0



Source: 1982, 1992 Census of Agriculture, Table. *Summary by Standard Industrial Classification of Farm*

G. Importance of dairy to the Maine economy

1. The industry itself.

Cash receipts for all agricultural commodities in Maine were $458 million in 1992, placing agriculture 8th among a listing of manufactured goods and agriculture, with 3.95% of the combined dollar value of these 2 categories, just behind textiles. A 1992 study showed that agriculture's share of total gross product in the State ranked Maine 24th among all states in terms of the importance of agriculture to the state economy.

Cash receipts from farm marketing of milk in Maine in 1993 were $92,384,000, accounting for 19.6% of all agricultural commodity receipts and ranking it virtually tied with potatoes and behind eggs as the commodity with the second greatest cash receipts. Maine cash receipts for milk have increased 1.25% since 1987 against an increase of 14.16% for all agricultural commodities resulting in a decrease in milk's share from 22% in 1987. (Refer to Exhibits I, XVI, XVII, and XVIII).

While dairy farming is important to Maine, Maine's dairy industry is not a large segment of the national market. For example, Maine ranked 36 in the number of milk cows, while Vermont, for example, ranked 17th. Milk accounts for 69% of all commodity receipts in Vermont. (Appendix M)

2. The multiplier effect of the industry. The following estimate of the effect the dairy industry has on the Maine economy was prepared by George Criner, Associate Professor, Department of Resource Economics and Policy, University of Maine. The Commission thanks Professor Criner for his efforts.

"Current estimates are that Maine has 575 dairy farms with an average of three full time workers per farm (includes both paid and unpaid workers). Total dairy farm employment is thus 1,725.

Exhibit XVI

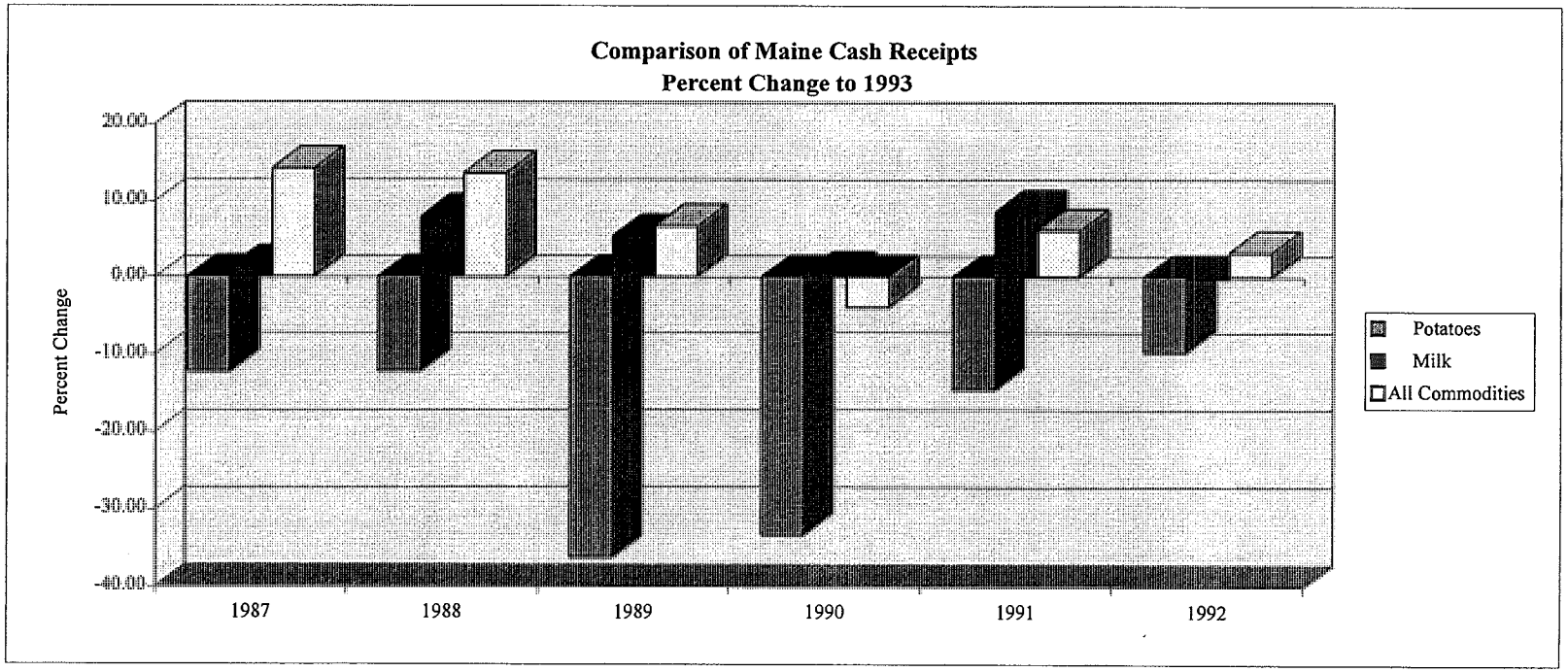
Rank of states by size of sector in state's economy, as determined by share of Gross State Product, 1992

STATE	SERVICES	FINANCE, INSURANCE & REAL ESTATE	MANUFACTURING	WHOLESALE TRADE	AGRICULTURE
Ala.	32	44	12	28	21
Alaska	49	49	48	50	29
Ariz.	12	15	39	30	26
Ark.	43	45	10	37	8
Calif.	6	6	36	20	22
Colo.	10	21	40	21	25
Conn.	5	3	19	16	15
Del.	47	1	16	48	40
Fla.	3	10	44	11	20
Ga.	29	31	25	1	27
Hawaii	7	12	49	47	34
Idaho	38	25	28	34	4
Ill.	15	13	23	3	33
Ind.	39	38	2	31	28
Iowa	42	29	11	13	5
Kan.	34	37	21	9	7
Ky.	44	47	7	41	12
La.	40	43	20	39	36
Maine	20	17	27	35	24
Md.	4	11	42	27	43
Mass.	2	8	24	12	48
Mich.	27	27	3	18	39
Minn.	23	18	14	4	15
Miss.	48	41	8	43	13
Mo.	21	32	17	8	23
Mont.	30	26	45	33	6
Neb.	35	22	38	6	3
Nev.	1	2	50	46	47
N.H.	16	7	13	36	44
N.J.	9	9	29	2	30
N.M.	26	42	41	45	18
N.Y.	5	5	37	19	49
N.C.	46	46	1	25	19
N.D.	36	35	46	5	2
Ohio	28	30	6	17	37
Okla.	31	16	33	29	14
Ore.	25	19	26	7	9
Pa.	11	14	18	24	41
R.I.	8	4	15	40	45
S.C.	45	48	5	44	35
S.D.	41	5	43	22	1
Tenn.	22	39	3	14	31
Texas	24	33	32	15	30
Utah	17	34	35	26	32
Vt.	14	16	22	32	16
Va.	19	28	31	38	38
Wash.	18	23	30	10	14
W.Va.	37	40	34	42	42
Wis.	33	20	4	23	17
Wyo.	50	50	47	49	10

Source: Northeast-Midwest Institute, from Bureau of Economic Analysis data

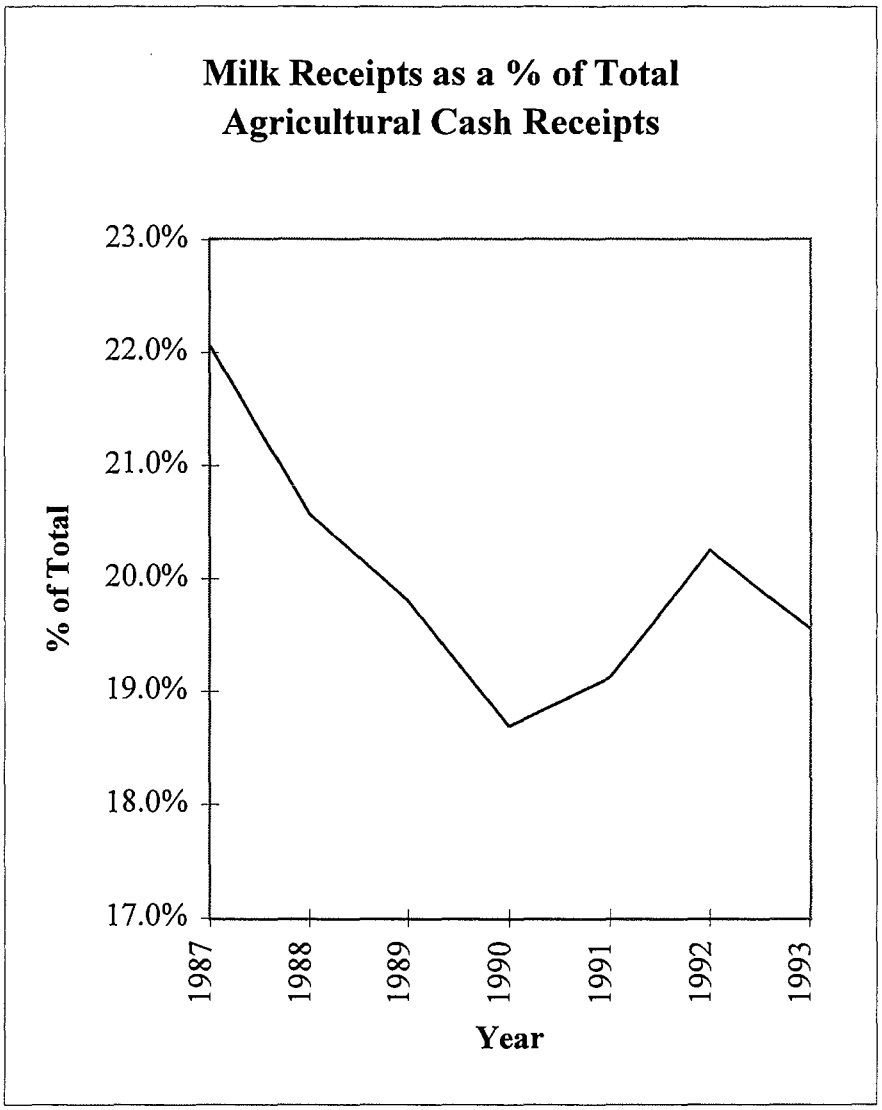
Comparison of Maine Cash Receipts, 1987-1993

Commodity	1987	% Change (To 1993)	1988	% Change (To 1993)	1989	% Change (To 1993)	1990	% Change (To 1993)	1991	% Change (To 1993)	1992	% Change (To 1993)	1993
	1,000 Dollars												
Potatoes	106,183	-12.32	106,083	-12.24	145,954	-36.22	139,508	-33.27	109,030	-14.61	103,108	-9.71	93,096
Milk	91,243	1.25	85,550	7.99	87,629	5.43	91,940	0.48	85,060	8.61	92,595	-0.23	92,384
All Commodities	413,649	14.16	415,849	13.56	442,450	6.73	491,917	-4.00	444,833	6.16	457,171	3.29	472,233



Prepared by the Office of Policy and Legal Analysis

Exhibit XVIII



Employment multipliers are used to estimate total employment based on direct employment in an industry. Thus, it is possible to calculate the total employment based on those directly working on Maine's dairy farms. The 1,725 dairy farm workers are considered the direct employment attributable to the dairy industry. The indirect employment attributable to the dairy industry are those working not only in associated fields (veterinary, milk hauling, dairy processing, etc.), but some in the general economy as well. The indirect employment is calculated as the total employment less the direct employment.

The dairy farm employment multiplier is 2.07. With total dairy employment at 1,725, the total employment based on Maine's dairy farm industry is 3,571 (the 1,725 dairy workers times 2.07). The number of indirect jobs attributable to the dairy industry is 1,846 (total employment less direct employment, 3,571 - 1,725).

The economic models used to estimate the dairy farm multipliers assume that no major industry changes have occurred. If, for example, a decline in dairy farm numbers resulted in the closure of one of Maine's milk processing plants, the total related employment impact would not be reflected in the numbers given. To account for such an impact, the dairy processor employment multiplier must be considered.

If a large number of dairy farms ceased operation and resulted in the closure of one of Maine's dairy processors, then the direct and indirect job loss would equal the number of employees at the plant times 2.2 (the dairy processor employment multiplier). In 1993 there were 416 employees working in Maine's four fluid milk processing plants and 68 additional employees working in ice cream and frozen yogurt products (Census of Maine Manufacturers). Using the average of 104 employees per Maine milk processing plant, if one plant closed, the total job loss would be 229 (the 104 employees times the 2.2 multiplier).

In recent years the total farm value of raw milk produced in the state has been around $95 million per year. Using the state's agricultural output multiplier of 1.657, the total contribution of Maine's dairy industry to the state's economy is $157.4 million per year. This value probably understates the true impact since the dairy industry may be more capital intensive than some other agricultural enterprises.

In addition, there is no way to quantify the many intangible benefits which the industry plays in maintaining the state's quality of life, or the industry's positive contribution to tourism. The dairy industry is an

integral component of Maine's rural nature. Many rural sociologist have noted the benefits of rural environments. Farms are an important contributor to many small town economies. Small towns and Maine's farms play an important role in the state's tourism industry."

H. Research & Development support of the industry

1. By the Department of Agriculture

Dairy accounts for 29% of the sales of the 5 major agricultural commodities, but only 20% of the Department of Agriculture research dollars supplied to the Extension Service at the University of Maine are spent on dairy issues. All other commodities get above their share, except eggs. (Appendix N)

2. By the University of Maine

a. Using the 5 major agricultural commodities as a universe, dairy accounts for 29% of all cash receipts but only 16% of all Experiment Station controlled R & D funds.

b. Dairy contributes 3% of all R & D money spent on it. The average for the 5 commodity groups is 15%, with a range of 10% for potatoes, down to 0% for poultry.

c. With 29% of all commodity sales, dairy accounts for 3% of all commodity groups' contributions to all R & D expenditures.

3. By the federal government

Per $1,000 of sales is probably the best way of looking at total federal financed R & D expenditures data compared to the 5 leading dairy states. Maine is 6th overall (virtually a tie with Vermont) and 5th in all individual categories except Hatch Act expenditures, where it is last. The 6th ranked state is Vermont for extension (virtually a tie) and special research grants. Vermont is tied with New York for the sixth place in competitive research grants. (Appendix O)

II. Overall Findings

The Commission finds that:

A. Dairy farms across the United States are under pressure from the growth of large farms in the Southwest and West Coast.

B. This situation is compounded in Maine by problems unique to Maine such as:

1. Poor forage quality, traditionally attributed to the climate.

2. The fact that Maine farmers are older than in most dairy states and thus less apt to be willing to make capital investments and, perhaps, less recently exposed to the many technical innovations in dairy.

3. The small size of Maine farms due to the topography of the State.

4. The fact that for many years use of feedlots was the accepted feeding practice in Maine and thus many farms do not have the land necessary for intensive grazing, which tends to be today's accepted practice.

5. The geographic isolation of Maine makes feed and fertilizer costs high.

6. The declining size of the dairy industry and State budget restrictions has led to a decline in the number of Extension Service dairy specialists.

C. In an attempt to compensate for these problems, actions taken by the Maine Milk Commission have resulted in Maine farmers generally receiving higher prices than farmers in other states.

D. However, those prices are declining on an absolute and comparative basis.

E. Maine's higher prices have not saved Maine from the loss of farms that is being experienced nationally and has not been adequate to compensate for Maine's higher production costs, particularly in labor, feed, petroleum products, electricity, and fertilizer.

F. The federal market order program may well be subject to several changes that could effect Maine and could result in the long run in the loss of Maine's ability to provide its farmers with higher dairy prices.

G. The number of farms is important to Maine, not just the number of cows. Small dairy farms are one of the backbones of the Maine way-of-life and

they also create more employment than is created by the same number of cows spread over fewer larger farms.

H. Some small dairies in Maine will probably not survive unless there are significant increases in expenditures by the Agriculture Experiment Station and the Agricultural Extension Service to improve and assist the adoption of technical innovation by small farmers.

III. Findings & Recommendations on Individual Issues*

Section Format: *The Commission utilized the results of the producers' questionnaire in structuring its discussion of study conclusions and recommendations. The Commission elected to deal with the top 14 of the total of 43 items. This section will discuss these items. It will also deal with items which appeared in the top 5 on the Commission questionnaire or the USDA or Agrifax analyses of costs did not appear in the producers' top rankings. Lastly, it will deal with two issues that met neither criteria but about which the Commission wanted to make a recommendation. After each item is indicated its ranking on the other three data sources where those exist, together with the exact wording. The cost surveys, because they are confined to cost, contain only about one-third the number of items of the questionnaires. The rank in the cost survey is the difference between Maine and the Northeast (Agrifax) and Maine and the total United States (USDA). A high rank means that Maine's cost per cow is greater than the control area, the higher the rank (1 = high) the greater the difference. (For a more detailed discussion of the issues in this paragraph and survey results see Appendices F and G.)*

The material under each issue will contain: (1) a section dealing with information obtained about the issue through secondary research, testimony and commission discussion; (2) a section listing the options that the commission was presented with for dealing with each issue; (3) a section listing commission findings; and (4) commission recommendations, if any.

A. Producer Issues

These are in the order in which the producers ranked them with one exception. The wording is that used in the study.

---

* This section contains details on the Commission recommendations. A summary of all of them is in Section IV. The only other set of detailed recommendations concerning dairy farms is in the 1987 work of the Northeast Dairy Council[26] and the 1991 follow-up of the Northeast Dairy Industry Leadership Group.[25] A summary is in Appendix C and the Commission considers them well worth your attention.

1. Granting farmers property tax relief to allow assessment of the value of the land in its current use.

Source	Wording	Rank	% of Total Farm Cost
Commission issues	Property Tax	3 (among 44 issues)	N/A
	Assessment of Farm Property	6	N/A
Agrifax	Taxes	11 (among 17 items)	2
USDA	Property Tax	7 (among 18 items)	3

a. Research results

(1) Taxes in general

(a) Per Capita

While it is felt that the percent of personal income is a better way to evaluate taxes, per capita information is also being presented because: (1) many people think in these terms; and (2) an additional year of data is available.

In 1993, Maine's total state and local taxes per capita were below the national average and below the 5 leading dairy states. Maine's state and local property tax exceeds the national average & two of the 5 leading dairy states, i.e., Vermont & New York. It is tied with Wisconsin. (Exhibit IXX)

(b) As a percent of personal income

As a percent of personal income, Maine's total state & local taxes exceed the national average and two of the 5 leading dairy states, California & Pennsylvania. Maine's property and individual income taxes exceed the national average. Sales tax is at the average & corporate income is below. Maine's property tax exceeds all but Wisconsin & California of the 5 leading dairy states.

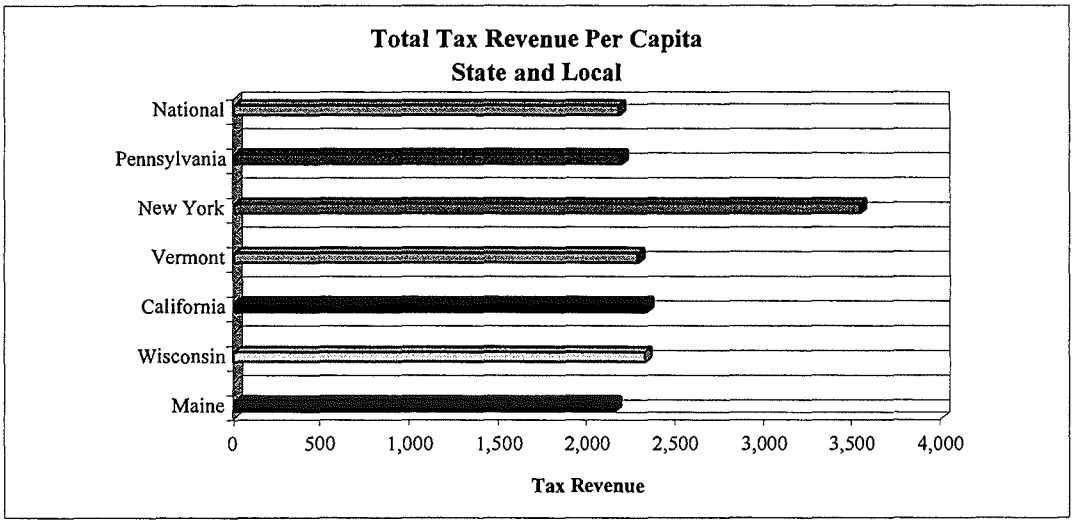
Based only on state taxes, Maine exceeds the national average on all but corporate income tax. Maine's state sale tax is higher than any of the 5 leading dairy states. (Exhibit XX)

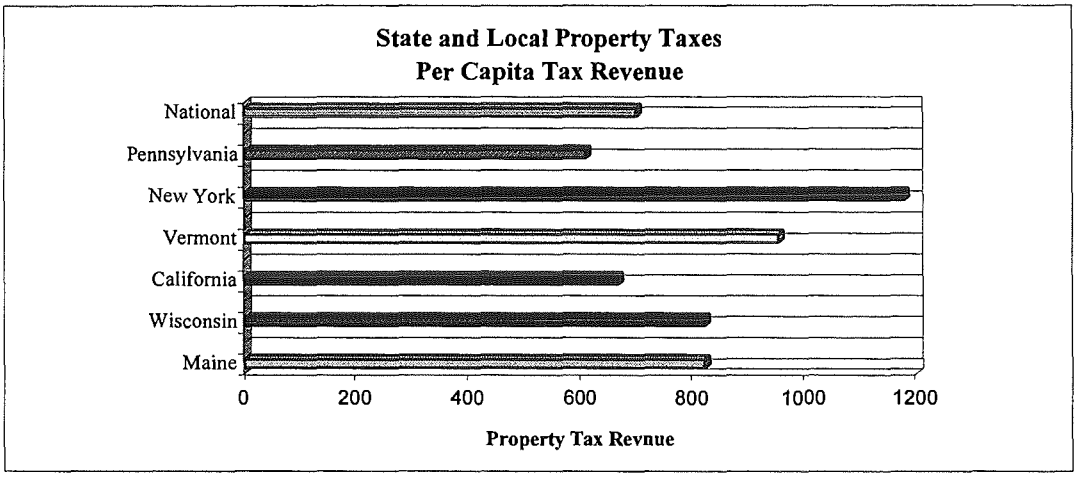
Exhibit IXX

Per Capita Taxes - 1993

Maine and Leading Dairy States

State	Total Tax Revenue		Sales		Property	State Income	
	State & Local	State	State & Local	State	State & Local	Corporate	Individual
Maine	2,150	1,423	464	517	822	60	496
Wisconsin	2,323	1,577	442	448	821	98	683
California	2,332	1,561	606	534	667	151	551
Vermont	2,283	1,376	275	280	954	57	496
New York	3,537	1,724	611	346	1,179	145	843
Pennsylvania	2,191	1,380	378	401	609	122	387
National	2,178	1,370	513	445	700	94	436



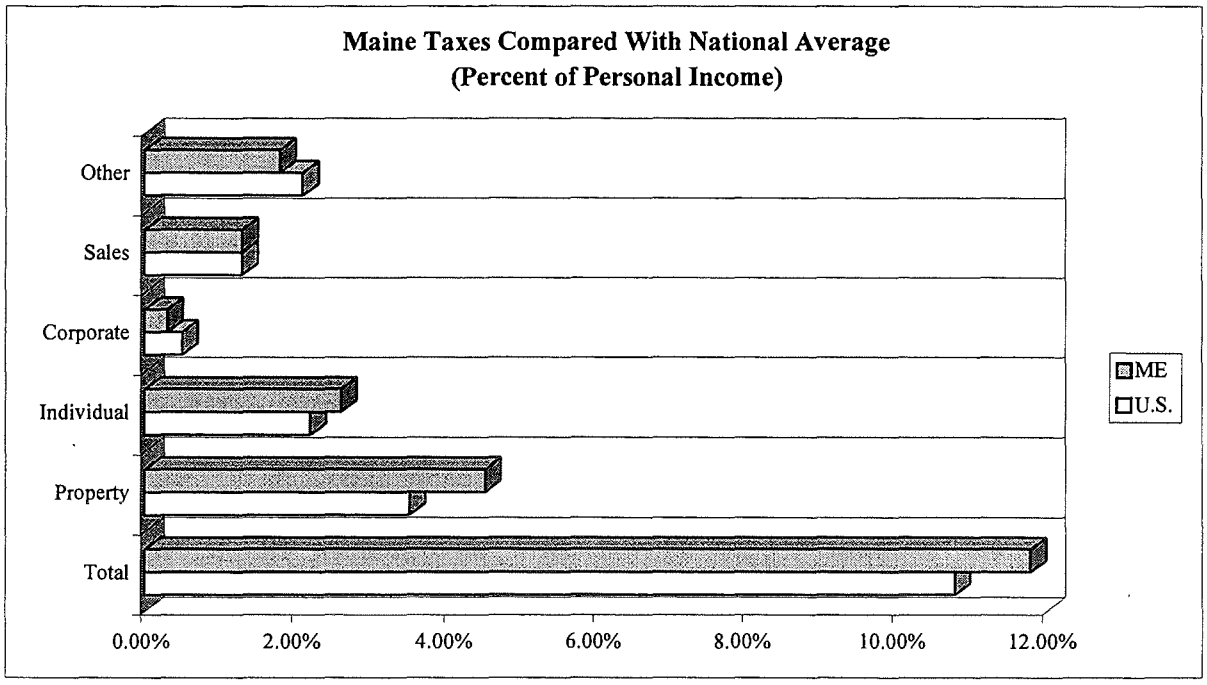


Source: State Rankings, 1995

Exhibit XX

State & Local Tax Revenues
As Percent of Personal Income - 1992

State	Total	Property	Income		Sales	Other
			Individual	Corporate		
ME	11.80%	4.50%	2.60%	0.30%	1.30%	1.80%
WI	12.20%	4.00%	3.30%	0.50%	1.20%	1.80%
CA	10.90%	3.10%	2.60%	0.70%	1.00%	1.70%
VT	12.10%	5.10%	2.50%	0.70%	2.00%	2.80%
NY	14.70%	4.90%	4.20%	1.00%	1.40%	2.00%
PA	10.60%	2.90%	2.60%	0.70%	1.10%	2.50%
U.S.	10.80%	3.50%	2.20%	0.50%	1.30%	2.10%



Source: Significant Features of Fiscal Federalism, Advisory Commission on Intergovernmental Relations, 1994

(2) Farmland tax

(a) What is known about property tax on farms?

Maine's property tax on agricultural real estate per acre is double the national average but less than 5 leading dairy states (California, New York, Pennsylvania, Vermont and Wisconsin). On the basis of $100 of market value it is higher than the national average but lower than 3 (Wisconsin, Vermont & New York) of five leading dairy states. (Exhibit XXI)

All farm machinery used in production of hay up to $10,000 is exempt, except self-propelled vehicles.

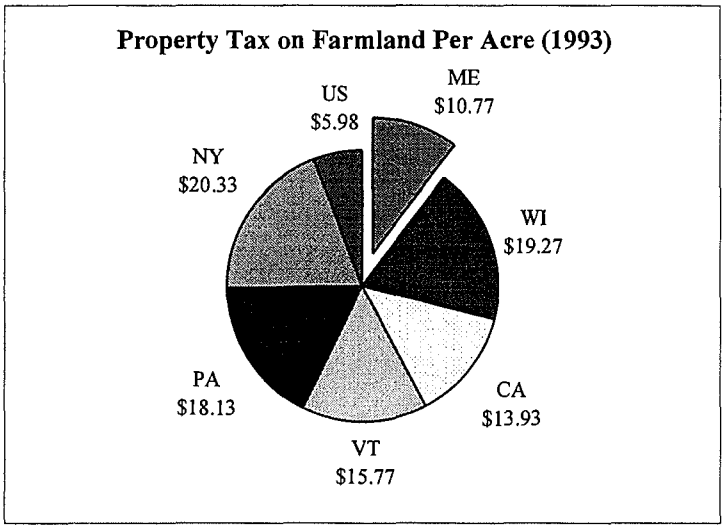
(b) Maine's Preferential Assessment Program

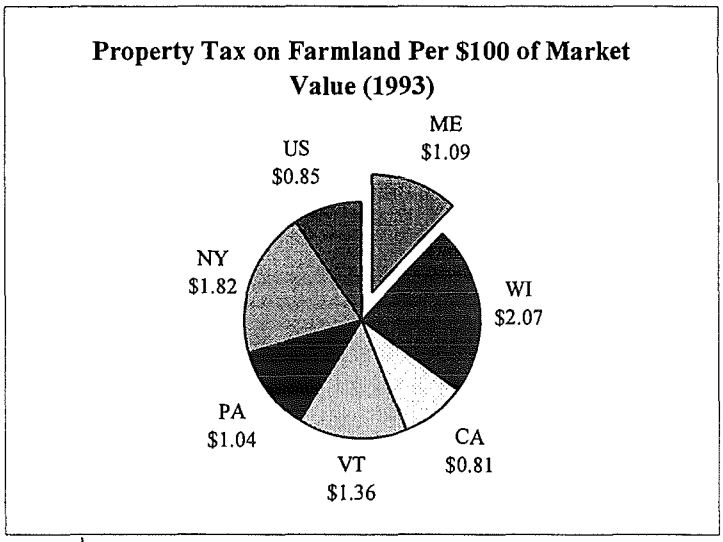
By declaring their property to be farmland and meeting certain conditions, Maine farmers may have their property taxed as farmland, not the higher and best use rate. There are penalties which are triggered by withdrawal from the program. These are 40% of the currently assessed value of the property if withdrawal is in the first 5 years, the difference between the taxes already paid and those that would have been due if the property was withdrawn between 5 and 10 years after joining the program and the difference between these two taxes for the last 5 years if leaving the program after 10 years.

The Commission had considerable discussion as to whether current law requires the penalty after withdrawal from the program or only after change of use. The Constitution states (Article IX, Section 8) "the 5 years preceding the change of use". Statutory law in the 1st paragraph of 36 MRSA §1112 uses the term change in use while the 2nd paragraph says removal from the program. The Bureau of Taxation Property Tax Bulletin #18, August 20, 1993, states that penalties shall be applied as a result of change in use and withdrawal.

Exhibit XXI

Property Tax on Farmland			
State	Per Acre (1993)[1]	Per $100 of Market Value (1993)[1]	Per Cow (1992)[2]
Maine	$10.77	$1.09	$55.08
Wisconsin	$19.27	$2.07	$86.53
California	$13.93	$0.81	$16.78
Vermont	$15.77	$1.36	$52.73
Pennsylvania	$18.13	$1.04	$50.16
New York	$20.33	$1.82	$74.40
National	$5.98	$0.85	





Source: [1]Economic Research Service, Agricultural Real Estate Tax Survey
[2]Census of Agriculture

It appears to the Commission that much of the argument for penalizing a farmer upon withdrawal from the program is based on intent, i.e. what would be the purpose of withdrawing from the program but not changing use. The Commission might suggest that if a farmer withdraws from the program, keeps the land in farming for 5 years and pays the highest and best use rate, then the farmer, under provisions of the Constitution, would owe no penalty if the land's use was changed after 5 years because there would be no difference in taxes paid and those that would have been due for the 5 years preceding change of use.

(c) How does Maine's participation in its preferential assessment (use value assessment) program compare with other states?

In 1985, the only comparative data available, the percent of participating farm acreage ranged from 143% to 5% (Maine). Three states were over 100% due to different definitions of farmland, and/or inclusion of open space and forest land. Vermont's participation was 15%, Pennsylvania 24% and New York 26%. In 1992, Maine's participation rate was 10%. (Exhibit XXII)

(d) Do other states do anything really different from Maine?[56, 58]

(i) Both Michigan & Wisconsin have "circuit breaker" programs in which the credit is made to the farm's income tax, not the property tax. These are based on the relationship of the farm's property tax to the income tax and, in the case of Wisconsin, are on a sliding scale based on the level of income. Vermont, on the other hand, reimburses municipalities for lost property tax. Penalties are paid into a reimbursement fund.[4]

(ii) Some 16 states, a somewhat dated report says, make program participation involuntary.

(iii) Nineteen states have no penalty provision for withdrawal.

(iv) Instead of using a roll-back penalty some states, including Vermont, use a capital gains tax on land or a transfer tax penalty, which is usually a percent of the selling price. Generally, the penalty percent declines over time.

Exhibit XXII

Farmland Tax Program in Selected States

STATE	DATE OF DATA	TOTAL FARM ACRES	NUMBER OF PARCELS	NUMBER OF ACRES	PERCENT OF AREA	REDUCTION IN ASSESSED VALUE
		In Program				
Connecticut	1983	444,242	NA	399,888	90%	NA
Delaware	1983	655,465	4,900	N/A		309,845,000
Maine	1985	1,392,674 *	1318	75,265	5%	10,993,214
Maryland	1983	2,557,728	55,235	3,646,091	143%	NA
Massachusetts		612,819		Not centrally reported		
New Hampshire	1984	469,582	22,535	400,000,000 (Est.)	85%	NA
New Jersey	1982	916,331	31,131	1,246,629	136%	NA
New York	1984	9,189,559	26,801	2,400,000	26%	687,083,685
Pennsylvania	1985	8,297,713	22,212	2,012,655	24%	800,643,826
Rhode Island		62,466		Not centrally reported		
Vermont	1986	1,574,441	3,500	235,000	15%	4,325,000
West Virginia	1982	3,558,051	22,000	3,800,000	107%	NA

* This is an approximation developed from actual data for 1982 & 1987

Source: University of Vermont, Agricultural Experiment Station; Use Value Assessment of Land in the Northeast, Bulletin 694, May 1987.

Maine Farmland Acres in Tax Law Participation as Percent of Total Farmland Acres

Year	Maine Total Farmland Acres	Maine Farmland Acres in Tax Law Participation	Participation Acres as Percent of Total Acres
1992	1,258,297	118,837	9.44%
1987	1,342,588	75,810	5.65%

Source: Municipal Statistical Summary, *Current Use Tax Law Participation,* Property Tax Division, Bureau of Taxation.
Census of Agriculture, *State Data 1997 and 1992*

(v) Some states have automatic renewal.

(vi) In Connecticut, if a person takes part in the purchase of a development rights program that person obtains the favorable tax provisions without any penalty.

(vii) Massachusetts at one time had a program which gave local government a refusal option on farmland sale and sometimes up to 80% state aid to meet a developer's offer.

(e) What are some other more minor program variations?[56]

The exhibits in this section are based on old information (1987) but it is felt still serve the purpose for which used.

(i) Most states provide some sort of assistance to local assessors.

(ii) Nine of 12 Northeastern states have used the income capitalization approach to determination of use value. In 10 of the 12 states local assessors determine land use values.

(iii) Five of the 12 Northeastern states eventually have the penalty reduced to zero.

(iv) At one time, half of the Northeastern states required no annual renewal action of the landowner.

(f) How do other states handle the penalty situation?

As of 1994, 19 states had no penalty.[58] Below are the penalties for Vermont, Pennsylvania and New York (not necessarily current).[56]

Vermont	Penalty for land use change: 10% of fair market value on day of use change; paid to use tax reimbursement fund, not to taxing district.
Pennsylvania	Rollback tax: 7 years of added tax that would have been paid without program, plus interest.

New York	Rollback tax: 5 years of added tax that would have been paid without program; if 8-year commitment on use is broken, two times full value tax plus the full value tax for 1 year.

(g) What patterns are there in property taxation?[58]

(i) There is a lower rate of taxation per $100 of market value on large holdings than on small holdings.

(ii) Residence on the farm appears to account for substantial differences in taxes per acre and also some difference in taxes per $100 of value. The tax-per-acre rate differences may reflect the presence of buildings, hence higher taxes, by on-farm residents and the lack of buildings on land owned by "not-on-farm" residents. Differences become even more visible when operators are compared with nonoperators.

(iii) Rates of taxation descrease as the age of operator owners increase and increase as the age of nonoperators increases.

(h) Are there any recommendations available from studies on this subject?

The only study that the Commission is aware of is "Use Value Assessment of Agricultural Land in the Northeast" Agricultural Experiment Station, University of Vermont, May 1987.[56] Some of its observations follow:

"(i) Penalties. If landowners view as excessive any land use change taxes of 10% or more of the purchase price, they may decide not to enter the program.

Although there is wide participation in use value assessment programs in most Northeast states, the penalties for withdrawal do not appear to be very effective in slowing the movement of farmland into urban uses. The pull of the market and opportunity costs of using land with high development potential for agriculture are substantially greater than the penalties for opting out once the land is in a program.

The withdrawal penalties are particularly ineffective where development values are substantial. The price realized by

the farmer will be discounted by the cost of the penalties to be incurred but often will still be high enough to entice the farmer to sell.

A reasonable response to ineffective withdrawal penalties is to increase the penalties. States are constrained from doing this by the desire to see the programs used by large numbers of farmland owners to achieve the stated purpose of the programs. States apparently assume that when penalties for withdrawal are sufficiently high to actually discourage use change, the number of landowners who enter the program will be small. No state has tried effective penalty levels to test this assumption. Penalties may have more influence on selling decisions by owners of farmland beyond the fringes of urban development. Where development values are low, the withdrawal penalty is likely to be high relative to the price differential between development and farm value. In these situations, the penalty represents a higher proportion of the total price. Unfortunately, farmland is likely to be more plentiful in these areas, and the marginal benefit of preserving extra farmland will be low.

(ii) Assessment. New York's experiences with centralized assessment based on an elaborate income capitalization methodology has resulted in dramatic fluctuations in values that have generated serious public dissatisfaction with the program. Those states that provide local assessors with a rather narrow range of carefully justified recommended values for various land uses and soil types probably have found the most effective level of state involvement. This statement assumes normal supervision of local assessors in all their activities, including use value, by state agencies. However, use value practitioners should be the best informed on the most relevant techniques and obvious data limitations. The advisability of using enterprise budgets, USDA state income and expense estimates, farm accounting records, state surveys, etc., needs to be routinely explored in participating states. Likewise, appropriate interest rates for the capitalization formula also should be evaluated; i.e.; real vs. nominal interest rates, and current rates vs. average rates for 5 or more years.

Preferential assessments for agricultural land may increase the return to farmland and, thus, its capitalized value. The

higher values, in turn, will raise the tax base and taxes so that the net return, after taxes, to farming will become what they would have been without the preferential assessment.

(iii) Applications. Opportunities exist for reducing the paperwork associated with programs in several states. Annual applications might be eliminated. Definitions of eligible land also could be simplified in several states so that less complex application forms would be needed.

(iv) Enrollment. A program based on automatic enrollment of all farmland (carefully defined), combined with sufficiently high penalties for use change, could be effective, fair, and simple to administer.

(v) Property Tax and Income Tax. An income tax credit program whereby tax relief is "based on household income rather than land values" is well suited to states where real estate taxes seem excessive even with use value assessment, or where the tax shifts resulting from use value assessment are inequitable.

Although the preservation of farmland is primarily a state concern, only one state, Vermont, shifts the burden of paying the taxes not paid by the farmland owners to the state level. All 11 other states shift it to other taxpayers in the local (town, city, or county) tax district.. This results in a substantial "free-rider" effect in which taxpayers in districts with little or no farmland in the program share in the benefits of preservation with no payment, while those in districts with significant acreage in the program may be paying more than their fair share. If the state reimbursed local taxing districts for the lost taxes, equity might be enhanced further.

(vi) Effect of Use Value Assessment. Do the preferential tax procedures influence the rates of taxation? Of the 19 states with a purely preferential treatment (no rollback) of agricultural land use, 9 had tax rates per $100 of value below the midpoint of rates (69 cents), and 10 had tax rates above the midpoint. The relation between preferential assessment and tax rates of the states is not obvious."

(i) What about farm buildings?[4]

Under New York's Real Property Tax Law, a 10-year property tax exemption is allowed on newly or reconstructed farm buildings and structures. As stated by the State Board of Real Property Services, qualifications include when the building or structure is used 1) in the raising and production for sale of agricultural or horticultural commodities, or necessary for their storage for sale at a future time, or 2) to provide housing for regular and essential employees and their immediate families who are primarily employed in connection with the operation of lands actively devoted to agricultural and horticultural use.

This exemption allows owners to depreciate the building or structure over a ten-year period and, thereby, considerably decrease its value for the period that it is taxable property.

Maine has no special treatment for farm buildings.

(3) Options

The following options were presented to the Commission regarding the State's Preferential Assessment Program for farms:

(a) Tax farms on the same basis as the tree growth tax

(b) Separate farm tax laws from open space laws

(c) Make farm & open space property tax program penalties the same

(d) Increase State Tax Assessor education efforts

(e) Issue a Tax Assessor bulletin updating the dairy farm section of the State Assessor's Manual

(f) Eliminate the need for an annual income report

(g) Make the program involuntary

(h) Base penalty for use change on a percent of the sale price

(i) Have the State refund the lost property tax money to municipalities

(j) Credit the farmer's income tax, not the property tax

(k) Have the penalty for change of use eventually reduced to zero

(l) Make the penalty only for change of use, not for withdrawal and continuing same use

There was also an option for increasing the $10,000 personal property tax exemption level.

b. Findings

The commission finds that the property tax is a major burden to dairy farmers, for many of whom their current overall financial situation is already marginal. The commission further finds that the penalties of the current Farm and Open Space Law are so severe as to restrict use of that program.

c. Recommendations

The commission recommends that the Farm and Open Space Tax Law be amended to:

(1) require that the owner file income information with the assessor every 5 years instead of every year (but report any change of use by the end of the calendar year in which it occurs) and that the assessor be required to recertify the classified land every 5 years instead of every year

(2) change the penalty for change of use/withdrawal from 40% of assessed fair market value to the greater of the constitutional requirement or 20% of its assessed fair market value

(3) provide one penalty for farmland classified for 5 full years or more which would be the taxes that would have been paid on the land for the past 5 years if it had been assessed at just value, less all taxes that were actually paid during those 5 years, plus interest

(4) permit owners who are withdrawing from the program after 5 full years or more to pay the penalty owed in up to five equal installments

2. Paying dairy farms premiums for good quality milk

	Question	Rank
Commission Information	Better Milk	22

a. Research Results

(1) Cooperative Extension at the University of Vermont considers the following to be criteria for milk quality:

- Bacteria under 20,000/ml.
- Somatic cell count under 200,000/ml.

- Preliminary incubation under 25,000/ml.

(2) The Northeast Dairy Industry Leadership Group made the following recommendations:

- The average somatic cell count can be reduced by lowering the maximum permissible level, and by establishing economic incentives to dairy farmers. A level of 500,000 or less is recommended.
- Redesign, test, and retest plant operations to remove opportunities for post-pasteurization contamination.
- Improve the plant-to-consumer fluid milk and dairy product delivery, storage, and display system.

b. Findings

The commission finds that:

(1) Maine milk is very satisfactory. There is no need or opportunity for improvement.

(2) The salient features are that:

- it's a Maine product
- it's fresh
- it generally has a lower bacteria count than milk produced in other states
- it doesn't contain bovine sematotropyn (rBST)

(3) There has been inadequate promotion of the Maine Quality Seal.

(4) Such promotion as there has been has not dealt adequately with the salient points about the product.

c. Recommendations

(1) Increase promotion of the Maine Quality Seal.

(2) Transfer $50,000 from the Dairy Stabilization Tax Fund for this promotion.

(3) Make some of this promotion milk specific.

(4) Focus the advertising on Maine residents.

(5) Make the principal focus of the advertising that the milk is a Maine product.

3. Reducing inheritance tax impact on my (i.e., the producer's) ability to pass the farm onto the next generation.

	Question	Rank
Commission issues	Inheritance Tax	19

a. Research Information

None was presented.

b. Findings

The commission is concerned by the advanced and increasing average age of Maine farmers and their apparent failure to pass on the farm to the next generation on a timely basis. One disadvantage of this practice is the departure of the younger generation when the ownership is not passed on. The aging of the farm population was considered to be one reason for the lack of participation in the Farm and Open Space Program.

The Commission did not see a change in the inheritance tax law as a way to remedy this situation.

c. Recommendations

The Commission had no recommendations on this subject.

4. Maintaining the General Fund Appropriation to Maine Dairy Farmers.

	Question	Rank
Commission issue	General Fund Appropriation to Maine Dairy Farmers	25

(While imprecise, both the Producer Survey and the Commission Survey referred to the Dairy Farmer Appropriation in the language with which the farmers seem most conversant, the Producer Survey calling it the Milk Handling Tax and the Commission Survey calling it the Milk Handling Fee.)

a. Research Background

For information on the complicated system of milk pricing, see Appendix C.

In 1995 the Legislature passed two independent appropriations from the General Fund to be distributed as monthly subsidies to Maine dairy farmers: P.L., 1995, Chapter 5, § A-1 (effective February 17, 1995) ($5,500,000 over four months) and P.L. 1995, Chapter 368, §B-1 (effective June 29, 1995) ($3,600,000 over 15 months). The two

separate appropriations from the General Fund total $5,550,000 in subsidies to Maine dairy farmers over an 19 month period. These General Fund appropriations were the subject of the Commission Survey question.

A third law enacted by the Legislature in 1995 was the Milk Handling Tax Law, 36 M.R.S.A. §§4771-4773. P.L. 1995, ch. 2, § 5 (effective January 17, 1995). This law contains a single element: a tax paid into the General Fund. As with the 1991 Act that was declared unconstitutional, this law assesses an evenhanded tax on the handling of milk in Maine, regardless of the source of that milk, which tax is ultimately paid by consumers. The method of collection and the tax rate is the same as the 1991 Act. The most important difference between the two laws is that the Milk Handling Tax Law directs that all tax proceeds are to be deposited into the State's General Fund. The Milk Handling Tax Law has a sunset provision of August 1, 1996. This law is the sole statute challenged by Cumberland Farms, Inc., in a lawsuit filed in 1995, which is still pending.

b. Findings

The Commission finds that the General Fund Appropriation to Maine dairy farmers is an important safety net for the industry at a time when the milk marketing order situation is up in the air and when a proposed compact of the Northeast states to regulate fluid milk prices has also been derailed by Congress, at least temporarily.

c. Recommendation

The Commission recommends that:

(1) The General Fund Appropriation to Maine dairy farmers be continued, unless there are decisions on the federal level that would make this unnecessary or undesirable.

(2) The Legislature should establish a sub-floor minimum price for fluid milk sales of all milk produced in Maine, which will apply to both Maine market and Boston market producers, and which will provide long term assurance that the price paid to all Maine producers be at least $3.00 above the Basic Formula Price established on the basis of information collected by the National Agricultural Statistical Service of the United States Department of Agriculture and announced

by the Dairy Division of the Agricultural Marketing Service of the United States Department of Agriculture.

5. Maintaining low larm costs to meet environmental and land use regulation.

	Question	Rank
Commission issue	Environmental Regulation	16
	Land Use Regulation	19

a. Research Information

None was presented.

b. Findings

The Commission finds that on occasion agricultural interests aren't represented adequately when environmental laws and rules are considered.

c. Recommendation

All proposed environmental rules affecting agriculture be brought to the attention of the Agriculture, Conservation and Forestry committee and the Department of Agriculture.

6. Maintaining the Maine Milk Pool.

	Question	Rank
Commission issue	Milk Pooling	10

a. Research Information

Information on the Milk Pool is in Appendix C.

b. Findings

The Commission was satisfied with the functioning of the Milk Pool.

c. Recommendations

The Commision had no recommendations.

7. Develop marketing options for (i.e., the producers) cull cows.

Commission Survey - Not included

a. Research Data

No data was collected on this subject.

b. Options

(1) The Agricultural Extension Service suggested the following:

Sell the cows co-operatively

Fatten them before selling them

(2) The study of the Dairy Industry Leadership Group suggested analyzing the potential for building and operating efficient strategically located slaughter and meat processing plants in the Northeast.

c. Finding

The Commission found that this is an individual marketing issue that did not fall under its charge.

d. Recommendation

There were no recommendations.

8. Making sales tax on energy between farms and other industries equal.*

	Question	Rank	% of Total Costs
Commission Survey	Energy Costs	2	NA
Agrifax	Utilities	7	3%
	Gasoline Fuel & Oil	6	3%
USDA	Electricity	5	4%
	Gasoline	4	2%
	Diesel Fuel	2	2%
	LP Gas	9	1%

* Unfortunately none of the other studies included the energy tax and the producers' survey didn't include energy costs. Therefore, this section will deal with both.

a. Research Information

(1) Energy costs

Maine's electricity costs are considerably above the national average but not way out of line compared to the Northeastern dairy states. More detailed analyses follows:

(a) Maine uses more energy per capita than any of a group of five leading dairy states.

(b) Hydro-electric's share of energy consumption in Maine is almost 3 times the national average but is less than Vermont and tied with California.

(c) Maine's spending on electricity per million BTU's is again greater than the national average but less than any of five leading dairy states except California. It is roughly the same as Pennsylvania.

(d) On a cost per KWH basis, residential rates in Maine are 115% of commercial versus 107% nationally and also in Vermont.

(e) USDA shows high petroleum product costs in Maine. Department of Energy data does not show comparatively high petroleum costs in Maine, but shows high comparative use compared to lower priced coal and natural gas.

(f) Maine's per capita federal rural electric and phone loan guarantees are less than the national average but greater than California, New York and Pennsylvania.
(Refer to Exhibits XXIII, XXIV, XXV, and XXVI)

(2) Sales tax

Ninety-five percent of the sales price of all fuel and electricity purchased for use at a manufacturing facility is exempt from sales tax in Maine. Electricity used in agriculture is not considered as being used in production and, therefore, is not included in the sales tax exemption.

EXHIBIT XXIII

ENERGY USAGE & ELECTRIC COSTS

State	Per Capita BTU Energy Use 1991 000's	Hydro Electric as a % of Energy Use - 1992	Average Cost of Electricity Dollars Per KWH -1991	Spending on Electricity Per Million BTU's 1990
Maine	292,880	14%	$8.42	$22.42
Wisconsin	285,425	2%	$5.45	$15.77
California	235,537	14%	$9.27	$25.98
Vermont	232,394	17%	$8.05	$24.24
New York	197,151	8%	$9.79	$27.51
Pennsylvania	292,242	0%	$8.00	$22.46
National	N/A	5%	$6.76	$19.33

Sources: Edison Electric Institute, Statistical Yearbook
U.S. Department of Energy, State Energy Price & Expenditure Report

Exhibit XXIV

Cost Per Million BTU's - 1992

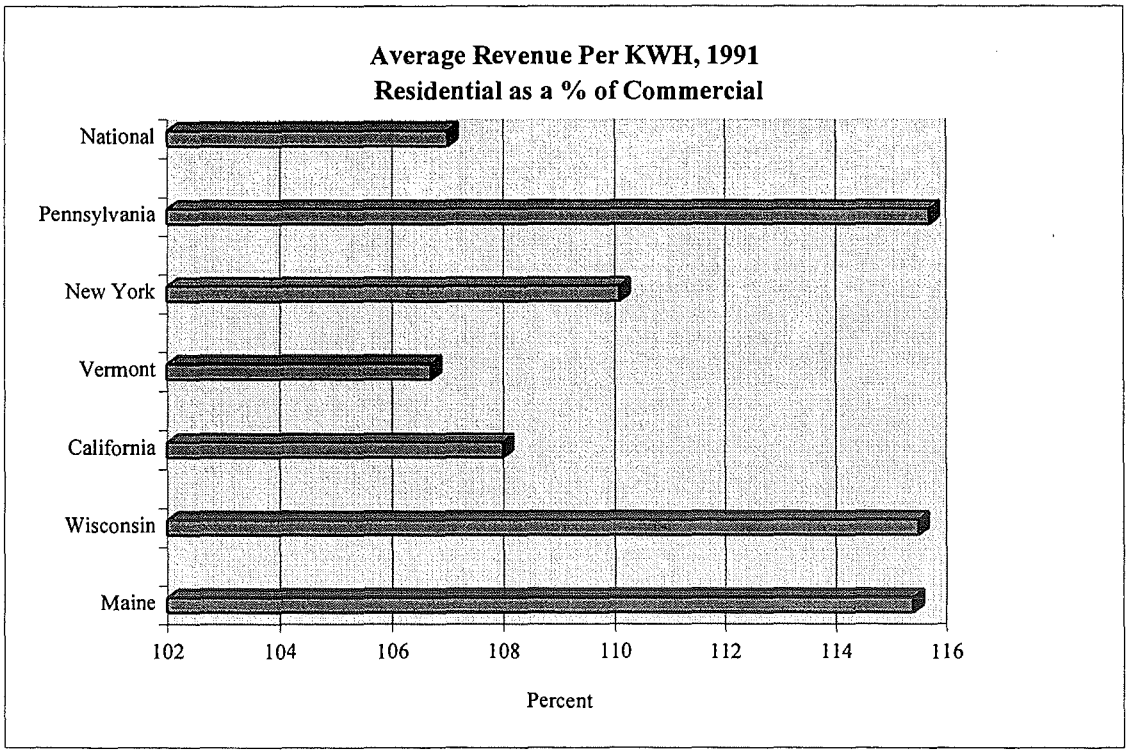
State	Coal	Electricity	Industrial Electricity	Natural Gas Industries	Petroleum 1990
Maine	$2.67	$26.52	$20.23	$4.09	$7.04
Wisconsin	1.38	16.12	11.72	3.35	8.63
California	1.83	28.39	22.24	3.57	7.28
Vermont	2.91	25.86	21.37	3.29	9.29
New York	1.56	29.86	19.05	4.79	7.16
Pennsylvania	1.54	23.61	18.21	3.02	8.29
National	1.45	20.06	14.18	2.91	7.54

Source: State Rankings 1994. Petroleum = States in Profile, 1993

Exhibit XXV

Average Revenue Per KWH
1991

State	Residential	Commercial	Industrial	Average	Residential as a % of Commercial
Maine	$10.50	$9.10	$6.70	$8.60	115.4
Wisconsin	6.70	5.80	4.00	5.50	115.5
California	10.80	10.00	7.60	9.40	108.0
Vermont	9.50	8.90	7.00	8.60	106.7
New York	12.00	10.90	6.20	9.80	110.1
Pennsylvania	9.60	8.30	6.30	8.00	115.7
National	8.00	7.50	4.80	6.70	107.0

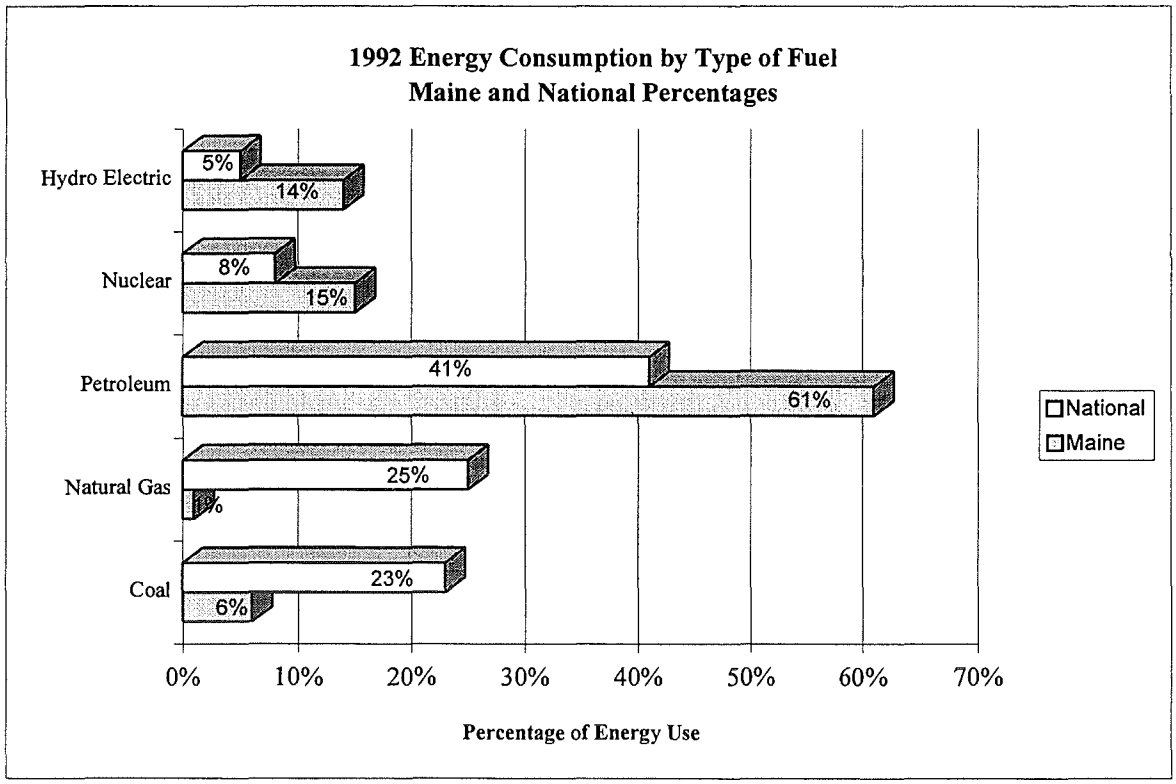


Source: States in Profile

Exhibit XXVI

Energy Consumption - Percent by Fuel Source - 1992
(All energy used, including that used to refine other products)

State	Coal	Natural Gas	Petroleum	Nuclear	Hydro Electric
Maine	6%	1%	61%	15%	14%
Wisconsin	28%	24%	34%	9%	2%
California	1%	29%	46%	5%	14%
Vermont	0%	5%	57%	29%	17%
New York	9%	27%	44%	7%	8%
Pennsylvania	39%	20%	38%	18%	0%
National	23%	25%	41%	8%	5%



Source: States in Profile, U.S. Data on Demand, Inc., and Social Policy Research, Inc. 1995

(3) Central Maine Power Co.

The Commission had two presentations by representatives of Central Maine Power Company (CMP). In a letter to the Commission Elizabeth Laiho, CMP's Manager of Commercial Services, indicated that the company would work on the following that relate to dairy farms:

(a) Stray voltage - This is low level electric voltage received by cows in the dairy barn and results in a decrease of milk output. CMP currently has a pilot program in which, after receiving an inquiry from the State veterinarians, they send an engineer to do a voltage check and install a blocker, if necessary. CMP indicated that they will meet with the veterinarians and review this issue and the pilot program. They will also mount an informational campaign on this subject.

(b) Diesel rates - CMP will review their diesel deferral rate to see if it applies to dairy farms. The deferral rate refers to the rate offered industries, such as saw mills, when diesel represents a competitive threat to electric usage. Diesel fuel, while only representing 2% of farm costs, ranks number 2 in a comparison of Maine costs with national figures.

(c) Residential versus commercial rates - CMP will initiate a program to assure that farms are on the rate plan that would be lowest in cost for them.

CMP also indicated verbally that some help to small farms relative to the demand charge would be coming in the spring of 1996. Demand charge refers to the charge to a consumer on a commercial plan that represents the cost of the generating capacity needed to meet the highest demand of the consumer during the billing period. This is not to be confused with the small number of dairy farms that may be on a metered use residential plan in which they pay more for energy used during CMP's peak time of day. CMP also represented, verbally, that they would consider giving dairies priority when there is a power outage.

b. Options

(1) Eliminate the sales tax on electricity for dairy farms.

(2) Work with CMP to eliminate demand charges.

(3) Follow up with CMP on diesel rates.

(4) Put together a small industry group to work with CMP.

(5) Develop a program with Bangor Hydro similar to that with CMP.

(6) Require SPO to act as catalyst for bringing natural gas to Maine.

(7) The Department of Agriculture to work with the Department of Inland Fisheries and Wildlife and the Department of Conservation on a program that would reward farms that maintain open space and provide opportunities for hunters.

c. Findings

The Commission finds that:

(1) High electric costs in Maine are a serious problem to the dairy industry, which is already under considerable financial pressure.

(2) The cost of electricity is further compounded by the sales tax on electricity, which dairy farms pay because they do not receive the abatement for electricity used in production.

(3) Demand charges are particularly onerous to dairy farms because their 2 milking periods a day set a high demand level.

d. Recommendations

The Commission recommends that:

(1) the Department of Agriculture work with the electric utilities, the DECD and the State Planning Office to: (a) follow up on the Commission's discussions with CMP; and (b) have similar discussion with other energy suppliers, including natural gas; and (c) to work on all energy issues as they affect dairy farms.

(2) farm production operations be excluded from the sales tax on electricity.

9. Develop additional value-added dairy product manufacturing in New England

	Rank
	9
Appointing a work group to study and develop value-added markets for Maine dairy products	15

As indicated, the producers' questionnaire had two questions dealing with value added products and they are treated together in this section.

	Question	Rank
Commission issue	Value-Added Products	29

a. Research information

The Commission gathered no information on this subject other than learning from the Extension Service that all value-added research activity in New England for dairy products is primary the responsibility of the University of Vermont. That University publishes an annual project report and semi-annual newsletters.[1]

b. Findings

The Commission finds:

(1) That value-added products represent a way to obtain higher prices for milk.

(2) That with research on value-added products being done at an out-of-state university, there is concern that there may not be adequate communication between researchers and the Maine dairy industry.

c. Recommendations

The Department of Agriculture:

(1) Coordinate with the following agencies: the Agricultural Extension Service and the Agricultural Experiment Station, the Maine Science & Technology Foundation, the Commission on

[1] The University indicates that those wishing to get on their mailing list should get in touch with Professor Catherine Donnelly, Division of Agriculture, Natural Resources and Extension, 601 Main Street, Burlington, VT 05401-3439.

Biotechnology and Genetic Engineering, and the Department of Economic & Community Development to: (a) learn the new product dairy interests of Maine businesses; (b) work cooperatively with other states, particularly Vermont, to develop products.

2) Keep dairy industry businesses aware of value-added research and development activities .

10. Maintaining the Maine Milk Commission.

This issue was ranked higher by the older operators and operator of larger farms.

	Question	Rank
Commission issue	The Milk Commission	16

a. Research Information

The responsibility of the Commission is to establish and change the minimum wholesale and retail prices for the sale of milk within the State. Not less than once every 3 years, the Commission is required to conduct independent studies of the economics and practices of the milk industry in order to assist the Commission in establishing minimum prices.

For additional information relative to the findings and recommendations of this section, see Section 12 concerning the Dairy Promotion Board.

b. Findings

The Milk Commission may on occasion may be unnecessarily restrictive on dairy promotions.

c. Recommendation

The Commission should consider the advantages of a dairy promotion in addition to reviewing its possible effect on the minimum price. The Commission ought not to deny a promotion unless it affirmatively finds that it is destructive of the minimum price.

11. Making the price of feed more reflect its value to my operation.

	Question	Rank
Commission Issues	Feed Costs	1
	Cooperative Buying	5
	Growing vs. Buying Feed	13
	Technical Assistance	25
	Nutrition	30
	Pasturing	38
	Sustainable Agriculture	41

Other Producer Issues	Rank
Making the price of feed more reflect its value to my (i.e. the respondent's) operation	11
Increasing the awareness and use of cooperative input buying among producers to lower input costs	22
Developing a clearinghouse for input purchases that would allow producers to buy in larger quantities and lower input costs	23
Increasing educational programs on providing a cost efficient balanced diet for my cows	27
The Department of Agriculture increasing their services in providing information on input purchasing and marketing opportunities	28
Increasing educational programs about the cost and benefits of growing versus buying feed	32
The State making available more technical and management assistance training	39

	Questions	Rank	% of Total Costs
Agrifax	Feed Costs	4	35%
USDA	Feed Costs for Livestock & Poultry	11	37%
	Commercially Mixed Formula Feed costs	1	27%

The Commission focused on two diverse options regarding feed costs: (1) purchasing commodities and (2) intensive grazing. However, as it did throughout all its discussions, the Commission emphasized on the issue of feeding that there is no one answer for all farms; each farm has its own needs and characteristics.

a. Research Information

(1) Nationally[22A]

Encouraged by tax policies, low-interest loans, advertising, and professional advice during the 1970s, farmers incurred large debts by investing heavily in machinery, facilities, and expansion of tillage cropping into previously uncultivated erodable land, to take advantage of high crop and milk prices. But the promise of profits and low labor demand didn't hold true. During the 1980s, commodity prices dropped to less than half their 1980 value, and farm prosperity turned into economic recession. As a result, farmers, especially dairy farmers, are caught in a cost-price squeeze situation, in which higher operating costs together with lower prices for their products have resulted in greatly reduced profit margins.

(2) In Maine[11]

Maine is located in the far northeast corner of what is agriculturally considered the hay and pasture region of the United States. This area includes 15 states from Maine south to northwestern Virginia, eastern Ohio, most of Wisconsin and Michigan, and a portion of Minnesota.

From an agroecological perspective, the region is delineated by characteristics of the climate, soil, and topography which severely limit or preclude the cost effective production of crops requiring intensive annual tillage operations, lengthy growing seasons, or more productive soil types. However, these same characteristics are extremely favorable for the production and utilization of grasses and legumes. Historically, one of the primary reasons the dairy and livestock industries developed and prospered in the Northeast and upper Midwestern states was because farmers recognized, early on, the economic advantages of using low cost but high quality pasture and hay in their feeding programs. In more recent years, however, despite the cost effective advantage of utilizing these naturally adapted crops, farmers turned away from their use in favor of crops that appeared to be capable of producing higher yields, greater quality, or were better suited to confinement feeding programs. Unfortunately, the economics involved with producing these crops on many of the region's farms has all too often been overlooked.

b. Basic data

(1) Feeding practices

(a) Maine pays more per CWT of feed and per CWT of milk. (Exhibit XXVII)

(b) The Northeast has lower feeding costs per CWT than the upper midwest and Pacific regions. The Northeast is the highest of the 3 regions in the prices of concentrates and silage. There is no state data. (Exhibit XXVIII)

(c) Maine is higher than any of the 5 leading dairy states on the following:

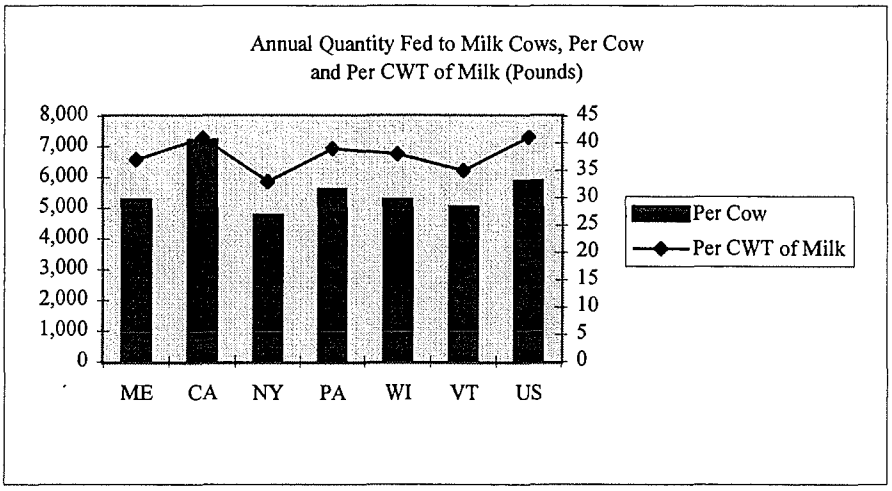
- Dairy farms with, and percentage of total acres in, harvested tame hay

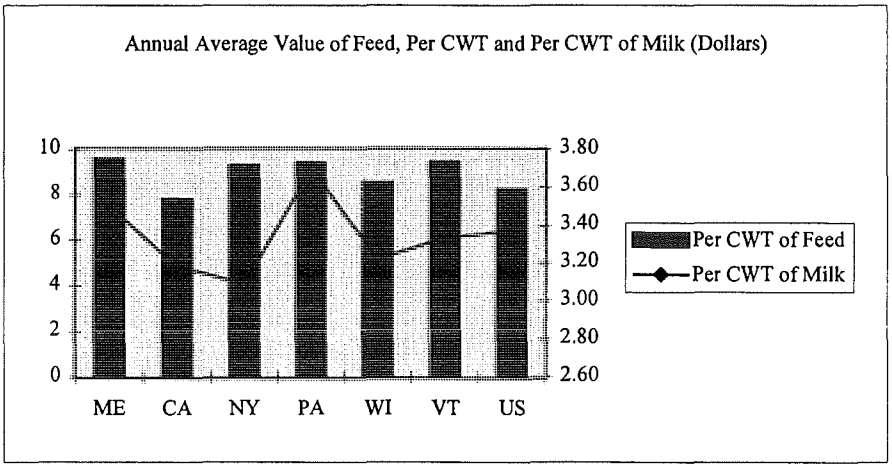
- Dairy farms with pasture land

Exhibit XXVII

Annual Quantity and Value of Grain and Other Concentrates Fed to Milk Cows, By States, 1989

State	Annual Quantity Fed To Milk Cows		Annual Average Value of Feed Per CWT of Feed	Annual Average Feed Value Per CWT of Milk
	Per Cow	Per CWT of Milk		
	Pounds		Dollars	
Maine	5,240	37	9.54	3.50
California	7,190	41	7.77	3.18
New York	4,740	33	9.26	3.09
Pennsylvania	5,590	39	9.37	3.70
Wisconsin	5,240	38	8.49	3.22
Vermont	5,010	35	9.40	3.33
National	5,854	41	8.20	3.37



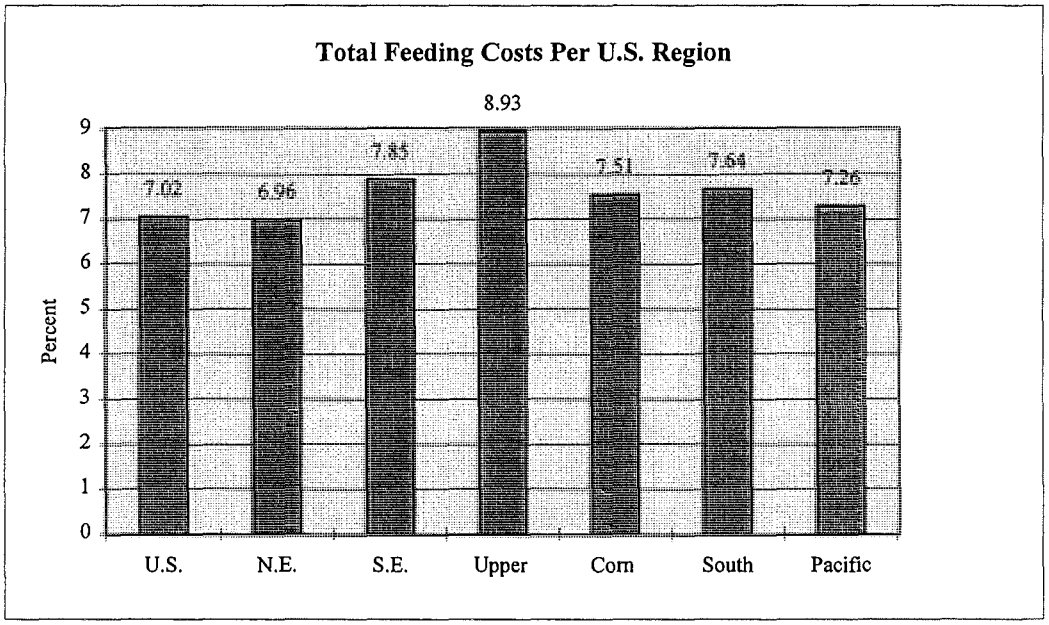


Source: Agricultural Statistics Board. NASS, USDA. *Milk Production 1990*.

Exhibit XXVIII

Feed Costs per CWT in U.S. Regions

FEED	U.S.	N.E.	S.E.	Upper MW	Corn Belt	South Plains	Pacific
Concentrates	3.69	3.56	5.54	3.77	4	5.19	2.97
By-products	0.21	0.04	0.45	0.11	0.24	0.18	0.43
Liquid Whey	0.1	0.12	0.04	0.14	0.21	0.01	0.04
Hay	1.59	1.37	0.73	1.15	1.62	2.05	2.58
Silage	1.43	1.85	1.02	1.66	1.29	0.1	1.03
Pasture and other forage	0.11	0.02	0.07	0.1	0.15	0.11	0.21
Total Feed costs	7.02	6.96	7.85	8.93	7.51	7.64	7.26



Source: USDA Census of Agriculture

(d) Maine is lower than any of those 5 states on the following:

- Dairy farms with, and % of total acres in, harvested corn for silage or green chop

- Tied with Vermont for dairy farms with, and percent of total acres in, harvested corn for grain or seed. (Exhibit XXIX)

(2) Feed costs analysis

According to a study from Penn State University, considered from a per-cow perspective, purchased feed cost, and net dairy income, increases as the amount of milk sold per cow increases. However, the same trend does not hold for purchased feed costs per cwt of milk sold. Milk sold per cow generally increased with additional expenditures for purchased feed. Data indicates a rather clear (and direct) relationship between cash costs per cwt of milk sold and outlays for purchased feed. An increase in cash cost per cwt of milk sold also increases purchased feed per cwt of milk sold. Net dairy income per cow declines as outlays for purchased feed and total cash costs increase.

(3) Other studies

The Northeast Dairy Leadership Group in its 1991 report stated that in order to maintain small dairy farms an increase in expenditures for research and extension will be required in order to improve the ability of small farms to adopt technological innovation and for the development of programs by USDA, the Land Grant Colleges and the dairy cooperatives to assist farmers in this adoption.

c. Alternative feeding methods[12B, 15, 32]

(Additional information is in Appendix I)

Use of Land in Dairy Farms

	MAINE	CALIFORNIA	NEW YORK	PENNSYLVANIA	VERMONT	WISCONSIN
% Dairy Farms with Harvested Cropland	96%	56%	97%	96%	95%	96%
% Dairy Farms with Harvested Corn for Silage or Green Chop	50%	36%	78%	80%	55%	78%
% Dairy Farms with Harvested Corn for Grain or Seed	N/A	2%	28%	69%	N/A	71%
% Dairy Farms with Harvested Hay	94%	44%	95%	93%	94%	94%
% Dairy Farms with Harvested Tame Hay	66%	N/A	N/A	N/A	57%	N/A
% Dairy Farms with Pasture Land	75%	34%	66%	66%	72%	58%
Acres with Harvested Cropland	113,280	338,012	2,006,345	1,706,460	359,404	5,172,949
Acres with Harvested Corn for Silage or Green chop	24,130	127,373	479,662	298,436	79,863	782,684
Acres with Harvested Corn for Grain or Seed	N/A	4,598	219,611	399,605	N/A	1,341,160
Acres with Harvested Hay	96,396	215,970	1,322,397	916,366	301,947	2,874,761
Acres with Harvested Tame Hay	47,508	N/A	N/A	N/A	106,877	N/A
Acres with Pasture Land	26,753	102,732	397,653	281,221	104,996	626,689
% Total Acres with Harvested Cropland	44%	40%	53%	62%	44%	98%
% Total Acres with Harvested Corn for Silage or Green Chop	9%	15%	13%	11%	10%	15%
% Total Acres with Harvested Corn for Grain or Seed	N/A	1%	6%	15%	N/A	25%
% Total Acres with Harvested Hay	37%	26%	35%	33%	37%	54%
% Total Acres with Harvested Tame Hay	18%	N/A	N/A	N/A	13%	N/A
% Total Acres with Pasture Land	10%	12%	10%	10%	13%	12%

Source: 1992 Census of Agriculture.

(1) Buying commodities in bulk

(1) May be required when roughage sources become restricted.
(2) Offers an area where savings can be obtained.
- price differential generally more than sufficient to cover storage costs.

(2) Total mix rations[6A, 12A, 18]

Total mixed rations (TMR) blend all feed stuffs (forage, grain, protein, minerals) so that each mouthful is a balanced ration and animals are allowed continuous access to the formulated diet.

(3) Intensive Pasture Management [1B, 6B, 22A, 52]

During the 1950's dairy farms were famous for their 'green pastures,' but over the past 40 years, pasture use has declined as most farmers switched to year round feeding of mechanically harvested forages in an attempt to minimize production fluctuations due to variability in feed quality. In recent years, due to skyrocketing capital and repair costs for machinery, higher fuel prices, plummeting milk prices and the introduction of improved electric fencing and pasture management technology, an increasing number of Northeastern farmers have come full circle and are again emphasizing pastures in their forage systems. Intensive pasturing means subdividing the pasture into a large number (generally 20 or more) of individual paddocks which are stocked heavily for short periods.

d. Changing feeding methods

(1) Support groups

The state of Wisconsin has several modest efforts which assist farmers to transition or incorporate alternative, more sustainable systems. For example, they offer a modest "mentoring" program, where farmers well versed in alternative systems work with farmers who want to transition.

They support networks of farmers who are using alternative systems so they have access to the best information possible. They provide training sessions for extension agents, so all dairy personnel are familiar with intensive grazing systems. They also support an annual farmer run "grazer conference.

According to the USDA, Pasture-User Support Groups provide for effective farmer-to-farmer sharing of new grazing management skills. Members learn from each other about how to switch dairy management to make pasture the primary nutritional input. During the growing season, members take turns hosting monthly farm pasture walks to discuss pasture conditions and herd feeding situations. In Vermont, a pasture adviser visits each farm every three weeks to provide technical assistance.

Forty-five farmers from seven Vermont counties enrolled in such groups in '95. Each paid $300 for the service, which continues with funds from SARE and the W.K. Kellogg Foundation.[5]

(2) Pro-Dairy

Seventeen states currently have some type of dairy farm management education, often called PRO-DAIRY. It generally has its roots in the Extension Services of the State's land grant university. Cornell, which pioneered this concept, reports the following advantages of participation:[6A]

- 183 lbs. more milk per cow per year
- 52¢ less cost per 100 pounds of milk
- $11,000 more income per participating farm
- 59% increase in return in 1995

In Vermont, the courses meet all day for 1 day a week for 4 weeks. The fee is $150.

Maine currently has a smaller scale program similar to PRO-DAIRY, but not called that. Those in charge have some concern about attendance at classes and about the small size of the dairy specialist staff at the Maine Extension Service.

The Northeast Dairy Leadership Group made a recommendation for such a program in its 1991 report.[25]

(3) Agricultural educator

7 MRSA §241 requires the Department of Agriculture to cooperate with the Department of Education to teach, within the present subjects taught in Maine schools, basic agriculture such as agriculture and economics, the dynamics of world hunger, and agriculture and history.

There is currently in the Department of Education an "Educator Specialist II -- Agriculture & Natural Resources", who is the person who, among other things, works with the Department of Agriculture on these issues. This person provides support and assistance for agriculture, environment and natural resources education. As required under 20-A MRSA §253(6) the Agricultural and Natural Resources Education Technical Assistance Program provides for program quality, curriculum and staff development oversight to ten different agriculture and natural resources education programs currently offered through the applied technology regions and centers. The program also provides for School-to-Work and general agriculture and natural resources assistance to secondary schools.

(4) The Land Grant College System

(i) Stewart Smith, Professor of Sustainable Agriculture Policy, University of Maine[35]

In a paper presented to the Commission, Professor Smith made the following points: (1) that the practice of intensive grazing using sustainable agriculture practices can enlarge the dairy farms portion of the total dairy industry pie; the other pieces being supplier and processors, with resultant improvement in the Maine quality of life; and (2) none of the alternative practices necessary for sustainable agriculture will develop without a change in the Land Grant University (LGU) research agenda and in other public policies towards agriculture.

"Support of a farming based agenda is a research imperative for the LGUs, which must find a way to assess their research projects with respect to sector bias.

They should direct public funds away from technologies that shift activity from farmers to nonfarm firms, unless there is no alternative technology that might be developed which would be generally of equal efficiency.

A number of policies need changing to remove the bias against integrated sustainable systems. In addition, and more important to your (i.e., the Commissions) assignment, you should take care not to make matters worse for the Maine dairy farming industry. If you recommend programs to give industrial dairy farmers assistance, be sure you provide equal assistance to those you want to adopt more agrarian systems. For example, if you recommend a program of state financial assistance to construct commodity storages for farmers, you should recommend a similarly effective program for those farmers who want to transition to intensive grazing systems. This might include programs to help absorb their obligations on assets they will no longer need with the grazing systems, or assistance in providing financing for assets needed in the new systems.

While financial assistance programs may be useful for transitions, the major needs will be in generating and providing information to farmers of options that will allow them to maintain a larger share of returns to the food and agricultural system. This is a joint effort by those involved in technology development and information dissemination. The state obviously has a role to play here, since the state provides substantial funding for agricultural research and extension (although as we have seen it is less than the national average).

Since the Maine Legislature does not line item the University budget, a policy that is eminently sensible although it may be frustrating to you at times, changing research and extension directions will have to be accomplished in other ways. The Agriculture Department could offer technology grants (or contracts) for research and education consistent with the desires of the Legislature. This was done at one time with a "technology transfer" program. In the current financial environment these funds would come at the expense of competing programs, but you might be surprised how little money would be required to get a number of

farmers and faculty experimenting with ways to draw more activities back to the farm."

(ii) Northeast Regional Council[26]

Toward 2005", the 1987 publication of the Northeast Regional Council, made the following points relative to the Land Grant College System and agriculture:

- Coordination among the teaching, research and extension functions of land grant universities has eroded, diminishing the effectiveness of technology transfer. This coordination is essential to maintain the competitiveness of agriculture and forestry in the Northeast.

- The majority of Northeast states cannot maintain a land grant university that provides teaching, research and extension programs in all aspects of agriculture and forestry. The Task Force believes that Northeast agriculture and forestry would benefit more from strong, specialized agricultural colleges than from weaker comprehensive programs.

- Diminished public funds as well as reduced enrollments in colleges of agriculture are creating financial problems for the land grant system. Public funds are expected to continue to diminish in real terms over the next 20 years. Land grant universities that rely on tuition and federal formula funding as an important source of support are currently forced to reduce research, teaching and extension programs. Likely increases in both public support and enrollments will not provide adequate funding for the system to continue to contribute to the growth of agriculture and forestry. The executive and legislative branches of state and federal governments should recognize that the system's research and extension services require secure, long-term support to assure productivity and prosperity in agriculture and forestry.

- The current faculty reward system is heavily weighted in favor of research which produces results that can be published in scientific journals.

Inaccurately, less importance is placed on problem-solving research, extension and teaching.

- Congressional and legislative agricultural policies have been crisis-oriented rather than long-term solutions or ways to exploit opportunities. Colleges of agriculture should work more closely with state and federal legislators to develop public policy for the long-term planning and capital investment necessary for agriculture and forestry to remain competitive.

- By 2005, agriculture and forestry will include a large number of very small, part-time or subsistence farms, a small number of very large, highly industrialized farms and a larger group of moderately-sized farms. The ratio of farmers under 30 to those over age 65 has declined significantly. Land grant universities and their colleges of agriculture must recognize the different needs of these groups."

e. Options

The following options were presented to the Commission:

(1) Feed Costs

(a) FAME to create a program to finance construction of storage for purchasing commodities in bulk, either for individual farms or cooperatively.

(b) State to allow shipment of grain on open barges.

(c) State to assist in developing mechanized forage businesses.

(d) Extension to emphasize forage quality and forage programs.

(e) State to financially assist farmers changing from one feed program to another.

(f) Department of Transportation to attempt to solve the higher costs occasioned by the fact that feed is handled by three railroads and to try to coordinate shipments bound for the mid-west in order to utilize feed cars on their return trip.

(2) Management Assistance/Education

Have Extension develop a "Pro-Dairy" along the following lines:

- Take the program to the farmer
- Put together one or more of the following groups:
  - state experts available for individual farm on invitation
  - those who currently service the farm
  - farmers (user groups)
- Utilize the practices of the State's best farms for the program
- Enlist farm banks to encourage farmers to adopt better practices

f. Findings

The Commission finds that:

(1) the Maine topography results in smaller farms which in turn results in:

(a) problems relative to bulk commodity purchasing
(b) inability to attain economies of scale
(c) the impracticality of the adoption of certain new technologies

(2) the quality of forage in Maine is poor.

(3) Some Maine dairy farms do not have the land required for pasturing because for a time that was not the recommended feeding regimen.

(4) Extension programs dealing with feeding are traditionally not very well attended.

(5) The dairy specialist staff at Extension is down to three people.

(6) Maine had only 3 projects funded by federal Cooperative Extension in 1994. (All, however, were on the general subject of feeding.)

(7) Maine's isolated location results in higher prices for feed and fertilizer.

g. Recommendations

The Commission recommends that:

(1) The Agriculture, Conservation and Forestry Committee develop and see to the implementation of a plan in which the State will work cooperatively with the other New England governors to apportion agricultural research among the Land Grant Colleges in the different

states with the goal of encouraging specialization and avoiding duplication.

(2) The Agriculture Educator be transferred from the Department of Education to the Department of Agriculture.

(3) A bond issue used to capitalize a revolving loan fund for dairy programs, modeled after the Potato Marketing Improvement Fund (PMIF), be sent to referendum; Uses of this fund might be to provide capital for the construction of storage facility for bulk commodities and assist farms in making the changes in machinery, buildings and equipment required by a shift from feed lot feeding to intensive pasturing. (The Department of Agriculture has indicated a willingness to submit an amendment to LD 1575, "An Act to Authorize a General Fund Bond Issue in the amount of $3,000,000 to Agricultural Enterprises in Maine", in order to implement the Commission recommendation.)

(4) The Department work with DECD to develop an educational/business management outreach program for farmers, possibly modeled after and/or utilizing the Service Corps of Retired Executives (SCORE) and Small Business Development Centers (SBDC's) and possibly utilizing funds remaining from the former Dairy Farm Stabilization Program.

(5) The Department to work with the Agricultural Experiment Station and the Agricultural Extension Service to develop and introduce a better quality forage and to provide farmers guidance in feeding, particularly in grazing.

12. Maintaining the Dairy Promotion Board.

This issue received a higher rate from older farmers and those with larger farms.

	Question	Rank
Commission issue	Dairy Promotion Board	16

a. Research Information

According to Maine law, the Dairy Promotion Board is to foster promotional and research programs of the industry. In its spending decisions, the Board is to consider the relative effectiveness of the various programs for which funding is being considered.

It is unlawful for any seller of milk to engage in a practice destructive of the scheduled minimum prices; including any discount, rebate, advertising allowance or combination price of milk with any other commodity. There may be some confusion as to whether the individual promotion activities are prohibited completely or only when impacting the scheduled prices. The Milk Commission is to enforce this prohibition.

A purchaser may tender a coupon that isn't brand specific, is redeemable for cash and if the total value to be paid by the consumer is not less than the established minimum retail price.

b. Options

The following options were presented to the Commission:

(1) That some of the restrictions on dairy marketing be lifted.

(2) That the Dairy Promotion Board become a public instrumentality.

(3) That the composition of the Dairy Promotion Board be changed to get more marketing expertise, e.g. University of Maine, an advertising agency representative, an advertising person from a dairy processor.

(4) That farmers be allowed to send their promotion fee to the federal program if they are unhappy with State efforts.

(5) That the Congressional delegation be petitioned to have the NAFTA with Canada include dairy.

(6) That management by objective and cost/benefit analysis be instituted for dairy promotion activities.

c. Findings

The Commission finds that:

(1) there is inadequate use of the Maine Seal in conjunction with milk promotion.

(2) there needs to be more consideration given to the meaning of the seal in conjunction with milk promotion.

(3) the Board should not be a State agency.

d. Recommendations

The Commission recommends that:

(1) the Department and the Maine Dairy Promotion Board more extensively promote the Maine quality seal.

Fifty thousand dollars ($50,000) be transferred from the funds of the former Dairy Stabilization Program.

(2) the Department consider eliminating color requirements for the quality seal.

(3) the Agriculture, Conservation and Forestry Committee and the full Legislature support the Diary Promotion Board and the Dairy and Nutrition Council becoming a public instrumentality in which these organizations have budgetary & administrative control.

(For a recommendation on the legality of promotions see Section 10 concerning the Maine Milk Commission.)

13. Developing special license plates for farm trucks that are less expensive than commercial trucks

This question was not dealt with in the Commission survey or either of the cost analyses.

a. Research Information

Currently in Maine, 29-A MRSA §505 provides for farm truck registration at about 60% of the rate of commercial trucks. There are currently approximately 6,000 farm truck registrations. The registration fee is based on gross weight, i.e. a loaded truck. A farmer can pay varying fees over the year depending on the purpose for which the truck is being used.

b. Findings

The Commission found that no legislative action was required on this issue.

c. Recommendations

The Commission recommends that the agency responsible for motor vehicle licensing insure that dairy farmers are aware of the availability of those licenses.

14. Changing the Workers' Compensation regulations to increase the minimum number of employees for farmers that must participate in the program.

	Question	Rank
Commission Survey	Workers' Compensation	19

1. Research Information
   None were developed.

2. Findings and Recommendations
   The Commission took no action on this item.

B. Issues appearing in other studies

This section deals with any issues that were ranked in the top five on the Commission survey on Agrifax or USDA cost analyses and were not ranked in the top items by the producers' survey.

1. Machine Hire

	Question	Rank	% of Total Expenses
Agrifax	Machine Hire	1	2
USDA	Custom Work, Rental Machinery Equipment	14	1

Neither of the commission surveys dealt with this issue

The Commission took no action on this item.

2. Labor

	Question	Rank	% of Total Expenses
Agrifax	Labor	2	21
USDA	Hired Labor	3	13
Producer issues	Labor Cost	30	N/A
	Labor Supply	33	N/A

Commission issues	Cost, Availability, Productivity	25	N/A

a. Research information

(1) Agrifax indicates the following:

	Maine	Northeast	Vermont
Worker Equivalents	4	3	3
Cows Per Worker	35	36	42
Lbs. of Milk Per Worker	617,135	653,683	729,497
Crop Acres Per Worker	85	97	84

(Appendix P)

(2) According to USDA, Maine's machine value per farm is 91% of the U.S. average and lower than any of the 5 leading dairy states with Pennsylvania being closest. Maine is 93% of Vermont on this measure. (Exhibit XXX)

(3) A study from Cornell suggests the following labor goals.

	Tiestall	Freestall
Cows/worker	30	45
Pounds/cow	2 x 18,000[1]	2 x 18,000
Pounds/worker	2 x 540,000	2 x 800,000

[1] 2 x = 2 feedings per day

(4) A study from Penn State University makes the following points:[29]

(a) Total labor use generally increased as pounds of milk sold per cow increased

(b) As pounds of milk per cow increased, pounds of milk sold per worker equivalent also increased

(c) With the data grouped by milk sales per cow, the most profitable farms were those in the highest producer group. (Maine herds are about average producers.)

(d) If the data are grouped by herd size, the farms with the highest labor and management return per worker equivalent were those with 150-199 cows, the second largest group.

Machinery and Equipment on Dairy Farms

	MAINE	CALIFORNIA	NEW YORK	PENNSYLVANIA	VERMONT	WISCONSIN	UNITED STATES
Machine Value Per Farm	$84,445	$164,921	$100,264	$87,079	$90,035	$93,964	$92,624
% Farms with motortrucks, including pickups	93%	97%	92%	79%	88%	94%	91%
% Farms with wheel tractors	98%	97%	98%	94%	98%	98%	96%
% Farms with grain and bean combines	4%	3%	20%	29%	3%	37%	32%
% Farms with cottonpickers and strippers	0%	2%	0%	0%	0%	0%	0.1%
% Farms with mower conditioners	87%	15%	88%	83%	83%	85%	74%
% Farms with pickup balers	87%	14%	89%	87%	81%	85%	78%

Source: 1992 Census of Agriculture.

EXHIBIT XXX

The 1991 study of the Dairy Industry Leadership Group found that production per worker and per cow in the Northeast is lagging and found that farm labor will be a substantive limiting factor for dairying.[25]

(b) Findings and Recommendations

The Commission recognized the issue of labor cost but could determine no way to deal with it.

3. Transportation

	Question	Rank	% of Total Expenses
Agrifax	Freight & trucking	3 (Northeast) 8 (Vermont)	6
USDA	N/A	N/A	N/A
Producer issues	Deal direct with haulers	26	N/A
	Increasing rail transportation & reducing its cost	38	N/A
Commission issue	Transportation	13	N/A

a. Research Information

The Dairy Industry Leadership Group recommended the preservation, where economically feasible, of a rail network capable of serving the industry.[25]

b. Findings and Recommendations

The Commission felt that these cost differentials on transportation were due to Maine's distance from its markets and saw no action that could be taken.

4. Pricing

	Question	Rank
Commission Issues	Milk Pricing	4
Producer Issues	Eliminating the Government's Involvement in the Pricing of Dairy Products.	35

a. Research background

Background data on pricing is found in Appendix C.

Under the current milk pricing system, Maine dairy farmers ("producers") are subject to two separate pricing schemes. The Maine Milk Commission establishes minimum prices for fluid milk product that must be paid to Maine market producers, or producers whose milk is sold to handlers for resale within Maine to Maine consumers. Federal Order No. 1 establishes minimum prices for fluid milk that must be paid to Boston market producers, including Maine producers whose milk is sold to handlers for resale on the Boston market.

Because of acquisitions by out-of-state companies and other activities in the market place, there is currently uncertainty among Maine market producers regarding whether the producers to whom they sell will remain subject to the Maine Milk Commission or whether they will become subject to Federal Order No. 1. Producers are concerned that, under Federal Order No. 1, price levels may become insufficient to make it economically feasible to continue dairy farming in Maine.

b. Findings

The Commission finds that the present climate of uncertainty in the Maine dairy industry is making it difficult for producers to forecast their future economic returns and to plan long term capital investments without some assurance that the price of milk will remain at a level that will ensure that dairy farming in Maine will remain economically feasible. The Commission further finds that costs unique to Maine dairy farms make pricing in excess of the federal level to be necessary for the industry's profitability.

c. Recommendations

The Committee recommends that the Legislature establish a sub-floor minimum price for fluid milk sales of all milk produced in Maine, which will apply to both Maine market and Boston market producers, and which will provide long term assurance that the price paid to all Maine producers shall be at least $3.00 above the Basic Formula Price.

C. Other issues

1. Trade with Canada

Even though it was not particularly highly ranked on either the total sample of producers or commission members survey, the Commission elected to discuss the issue of trade with Canada and NAFTA & GATT. Older farmers ranked this issue thirteenth.

	Question	Rank
Commission Issues	NAFTA/GATT	8
	Trade with Canada	13
Producer Issues	Exporting Fluid Milk to Canada	27

a. Research Information

Although the United States is the world's third largest producer of milk, it plays a relatively small role in most foreign dairy export markets.

According to many leading dairy processors and producers, two interrelated factors have impeded the industry's ability to more effectively expand and compete in global markets. First, while there is some sentiment among producers for maintaining high support price levels, leaders of both industry sectors agree that the price support program results in U.S. prices that very often exceed world market prices. Therefore, even if export opportunities for bulk dairy products exist, U.S. dairy processors would have little incentive to sell on the world market without export subsidies. In addition, federal policies do not encourage the production of products that are always in greatest demand or meet consumers' preferences, such as specialty cheeses.

Second, these leaders believe the U.S. dairy industry has placed more emphasis on production than on marketing and has not developed a marketing mind-set that focuses on global consumers' preferences. Instead, it has adapted to the existing federal support environment,

including import restrictions, and emphasized domestic commercial sales and sales to the federal government under the price support program.

Regarding trade in poultry and dairy products, the United States and Canada have a fundamental disagreement on the status of commitments under NAFTA and the relationship of those commitments to the Uruguay Round (UR) agreement. The United States believes the NAFTA provisions that gradually eliminate all existing tariffs and prohibit any new tariffs should apply to the high Canadian poultry and dairy product tariffs which resulted from UR "tariffication." Canada maintains it does not have to reduce its new tariffs beyond the minimum 15 percent Uruguay Round requirement. On January 22, 1996 Canada and the United States agreed to a five-member binational panel which will rule on the legality of the new Canadian tariffs which call for increases as great as 351%. The panel is expected to take up to five months to complete this work.

Seeking greater access to the roughly $10-billion Canadian market, the United States argues that those tariffs violate a commitment Canada made in the original 1988 free-trade agreement to phase out all tariffs within a decade and not to impose any new ones.

And ad hoc coalition of U.S. companies and organizations estimates that an open border would result in chicken products and as much as $4-billion in new dairy industry exports.

The dispute itself cuts to the very heart of Canada's so-called supply management system, which regulates farm incomes for more than 35,000 Canadian farmers and grocery prices for millions of consumers by keeping most imports out of the country -- including U.S. product. Under Canada's supply-managed system, dairy and poultry farmers produce only as much as Canadian consumers are predicted to eat. Critics like the Consumers' Association of Canada say that policy has resulted in prices 50 per cent higher in Canada than in the United States.

Canada contends that the tariffs, introduced at the beginning of last year, merely put into effect commitments it made at the last round of agricultural trade talks under the General Agreement on Tariffs and Trade (GATT), now the World Trade Organization. The old border quotas were replaced with prohibitive tariffs. Furthermore, it argues that those multilateral deals on agricultural -- and any that replaced them were agreed to in NAFTA.

b. Findings

The Commission finds that it could be very advantageous to Maine dairy farmers to have trade restrictions with Canada further reduced.

c. Recommendation

The Commission recommends that the Maine Dairy Promotion Board and the Department of Agriculture lobby the State's congressional delegation to have dairy products included in the North American Free Trade Agreement (NAFTA) with Canada.

2. Farm Clearinghouse

a. Research Information

No research information was developed.

b. Findings

The Commission finds that, in spite of the low profitability of dairy farms in Maine, there are still those, especially from out of State, who want to live the lifestyle associated with farming. It is often difficult for these people to obtain easy access to information on farms for sale, particularly, when these people aren't very knowledgeable about the State and do not have a fixed area in which they must live.

c. Recommendations

The Commission recommends that the Department of Agriculture create a farm clearinghouse which would provide a central registration location for potential buyers and sellers.

IV. Summary of Recommendations

A. Property tax within Farm and Open Space Laws

1. Require that the owner file income information with the assessor every 5 years instead of every year (but report any change of use by the end of the calendar year in which it occurs) and the assessor be required to recertify the classified land every 5 years instead of every year.

2. Change the penalty for change of use/withdrawal of farmland classified for less than 5 full years from 40% of its assessed fair market value to the greater of 20% of its assessed fair market value or the constitutionality required penalty.

3. Provide one penalty for farmland classified for 5 full years or more, which would be the taxes that would have been paid on the land for the past 5 years if it had been assessed at just value, less all taxes that were actually paid during those 5 years, plus interest.

4. Permit owners who are withdrawing from the program after 5 full years or more to pay the penalty owed in up to 5 annual installments.

B. Better milk

The Commission made no recommendations as to improving milk quality, but did make recommendations on better marketing of the current product. (See Section L)

C. Inheritance tax impact

The Commission had no findings or recommendations on this subject.

D. Pricing

1. Take Legislative action necessary to continue the Agriculture Appropriation, unless decisions at the federal level make this unnecessary or undesirable.

2. The Legislature establish a sub-floor minimum price for fluid milk sales of all milk produced in Maine, which will apply to both Maine market and Boston market producers, and which will provide long term assurance that the price paid to all Maine producers shall be at least $3.00 above the Basic Formula Price.

E. Environmental Regulation

The Department of Environmental Protection bring all proposed environmental rules affecting agriculture to the attention of the Agriculture, Conservation & Forestry Committee and the Department of Agriculture.

F. Maine Milk Pool

The Commission was satisfied with the functioning of the Milk Pool.

G. Cull cows

The Commission found that this is an individual marketing issue that did not fall under its charge.

H. Energy costs

1. The Dept. of Agriculture work with the electric utilities, the Department of Economic & Community Development and the State Planning Office: (a) to follow up on the Commission's discussions with Central Maine Power; (b) to have similar discussion with other energy suppliers, including natural gas; and (c) to work on all energy issues as they affect dairy farms.

2. Farm production operations be excluded from the sales tax on electricity.

I. Value-added products

1. The Department of Agriculture:

a. coordinate with the following agencies: the Agricultural Extension Service and the Agricultural Experiment Station, the Maine Science & Technology Foundation, the Commission on Biotechnology and Genetic Engineering, and the Department of Economic & Community Development to: (1) learn the new product dairy interests of Maine businesses; and (2) work cooperatively with other states, particularly Vermont, to develop products;

b. keep dairy industry businesses aware of value-added research and development activities.

J. Maine Milk Commission

The Commission in reviewing a dairy promotion for its possible effect on the minimum price should balance this against the advantages offered by the promotion . The Commission ought not to deny a promotion unless it affirmatively finds that it is destructive of the minimum price.

K. Feed

1. The Committee on Agriculture, Conservation and Forestry develop a plan by which the State will work with other Northeastern states to apportion agricultural research among the Land Grant Colleges in the different states with the goal of encouraging specialization and avoiding duplication

2. The Agriculture Educator be transferred from the Department of Education to the Department of Agriculture

3. A bond issue used to capitalize a revolving loan fund for dairy programs, modeled after the Potato Marketing Improvement Fund (PMIF) be sent to referendum. Uses of this fund might be to provide capital for the construction of storage for bulk commodities and to assist farms in making the changes in machinery, buildings and equipment required by a shift from feed lot feeding to intensive grazing. (The Department of Agriculture has agreed to submit an amendment to LD 1575, "An Act to Authorize a General Fund Bond issue in the amount of $3,000,000 to Agricultural Enterprises in Maine" which would implement the Commission's recommendations.)

4. The Department work with DECD and the Agricultural Extension Service to develop a plan for an educational/business management outreach program for farmers, possibly modeled after and/or utilizing the Service Corps of Retired Executives (SCORE) and Small Business Development Centers (SBDC's) and possibly using funds available from the former Dairy Farm Stabilization Program.

5. The Department to work with the Agricultural Experiment Station and the Agricultural Extensive Service to develop a better quality forage and to provide farmers guidance in feeding, particularly in grazing.

L. Dairy Promotion Board

1. The Department and the Maine Dairy Promotion Board more extensively promote the Maine quality seal.

2. The Agriculture, Conservation and Forestry Committee and the full Legislature support the Diary Promotion Board and the Dairy and Nutrition Council becoming a public instrumentality which would have complete responsibility for promotion and budgeting

3. The Department consider eliminating color requirements on the use of the Maine Quality Seal

4. Fifty thousand dollars ($50,000) be transferred from the frozen funds of the former Dairy Stabilization Program for the seal promotion program.

M. Special license plates

The Commission felt there was already adequate provisions for special license plates.

N. Workers' Compensation

The Commission took no action on this item.

O. Machine hire

The Commission took no action on this item.

P. Labor

The Commission recognized the issue of labor cost but could determine no way to deal with it.

Q. Transportation

The Commission felt that the cost differentials for transportation and also some of those for feed and fertilizer were due to Maine's distance from its markets and saw no action that could be taken.

R. Trade with Canada

The Commission recommends that the Maine Dairy Promotion Board and the Department of Agriculture lobby the State's congressional delegation to have dairy products included in the North American Free Trade Agreement (NAFTA) with Canada.

S. Farm Clearinghouse

The Commission recommends that the Department of Agriculture create a farm clearinghouse which would provide a central registration location for potential buyers and sellers of farms.

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APPENDIX A

Enabling Legislation

APPROVED | CHAPTER

JUN 27 '95 | 35

BY GOVERNOR | RESOLVES

STATE OF MAINE

IN THE YEAR OF OUR LORD
NINETEEN HUNDRED AND NINETY-FIVE

H.P. 1021 - L.D. 1436

Resolve, to Preserve the Dairy Industry in the State

Emergency preamble. Whereas, Acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, dairy farms provide a wholesome milk supply, enhance the scenic beauty of the State by preserving open space and provide a living for farmers and the businesses that support them; and

Whereas, it is therefore imperative that the State support the continuation of dairy farming; and

Whereas, the high operating costs of the State's dairy farms, combined with the low price of milk, are forcing the State's dairy farmers out of business; and

Whereas, a long-term approach is necessary to address the needs of the State's dairy industry; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore, be it

Sec. 1. Study commission established. Resolved: That the Commission to Study Options for Preserving the Dairy Industry in the State, referred to in this resolve as the "commission," is established; and be it further

Sec. 2. Membership. Resolved: That the commission consists of 13 members, as follows:

1. Five Legislators, at least 2 of whom must be members of the Joint Standing Committee on Agriculture, Conservation and Forestry, appointed jointly by the President of the Senate and the Speaker of the House of Representatives; and

2. The following 8 members, appointed by the Governor:

A. One representative of the Department of Agriculture, Food and Rural Resources;

B. One dairy farmer who supplies the Maine market;

C. One dairy farmer who supplies the Boston market;

D. One dairy farmer who supplies the co-op market;

E. One representative of a milk processing operation;

F. One representative of a bank or firm that provides farm financing, with expertise in the milk industry;

G. One representative from the Department of Economic and Community Development; and

H. One representative of a company or firm that supplies dairy farmers with equipment or feed, or both; and be it further

Sec. 3. Appointments; first meeting; chair. Resolved: That all appointments must be made no later than 30 days following the effective date of this resolve. The appointing authorities shall notify the Executive Director of the Legislative Council upon making their appointments. The Chair of the Legislative Council shall call the commission together for its first meeting no later than August 15, 1995. At the first meeting, the commission shall select a chair from among its legislative members; and be it further

Sec. 4. Duties. Resolved: That the commission shall study the situation of the Maine dairy industry and analyze options for ensuring the long-term stability and competitiveness of the industry. In conducting the study, the commission shall examine the following issues:

1. Strategies to reduce the costs and maximize the efficiencies of milk production;

2. Marketing opportunities for the State's dairy farms;

3. Appropriations to the Maine Milk Commission for distribution to dairy farmers; and

4. Any other topics the commission by majority vote determines relevant to its study.

In examining these issues, the commission shall solicit the input of all interested parties and industries; and be it further

Sec. 5. Staffing assistance. Resolved: That the commission may request staffing assistance from the Legislative Council. Upon request, the Department of Agriculture, Food and Rural Resources shall cooperate fully with the commission in providing assistance or data to facilitate the commission's work; and be it further

Sec. 6. Report. Resolved: That the commission shall submit its findings, together with any necessary implementing legislation, to the Second Regular Session of the 117th Legislature and to the Joint Standing Committee on Agriculture, Conservation and Forestry no later than December 15, 1995; and be it further

Sec. 7. Reimbursement. Resolved: That members of the commission who are Legislators are entitled to receive the legislative per diem as defined in the Maine Revised Statutes, Title 3, section 2, for each day's attendance at commission meetings. Nonlegislative members are entitled to receive per diem reimbursement in the amount of the legislative per diem. All members of the commission receive reimbursement for travel and other necessary expenses, upon application to the Executive Director of the Legislative Council. The Executive Director of the Legislative Council shall administer the commission's budget; and be it further

Sec. 8. Transfer of funds. Resolved: That the Department of Agriculture, Food and Rural Resources shall transfer up to $8,000 from the Maine Dairy Farm Stabilization Fund to the Legislature toward the actual expenses incurred by the commission; and be it further

Sec. 9. Allocation. Resolved: That the following funds are allocated from Other Special Revenue funds to carry out the purposes of this resolve.

1995-96

AGRICULTURE, FOOD AND RURAL RESOURCES, DEPARTMENT OF

Maine Dairy Farm Stabilization Fund

All Other	$10,000

Allocates funds to be paid to the Northeast Interstate Dairy Compact committee, a Vermont nonprofit corporation, for the purpose of encouraging approval by the United States Congress of the Northeast Interstate Dairy Compact.

DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES TOTAL	$10,000

LEGISLATURE

Commission to Study Options for Preserving the Dairy Industry in the State

Personal Services	$3,630
All Other	4,370

Provides funds to the Commission to Study Options for Preserving the Dairy Industry in the State for the per diem of legislative members, expenses of all members and miscellaneous commission expenses.

LEGISLATURE TOTAL	$8,000

TOTAL ALLOCATION	$18,000

Emergency clause. In view of the emergency cited in the preamble, this resolve takes effect when approved.

APPENDIX B

Members

APPENDIX B

COMMISSION TO STUDY OPTIONS FOR PRESERVING THE DAIRY INDUSTRY

(Chapter 35, RESOLVES 1995)

MEMBERSHIP

Joint Appointments by the President and Speaker

Sen. Willis A. Lord
P.O. Box 14
North Waterboro, ME 04061

Sen. Jill M. Goldthwait
22 Albert Meadow
Bar Harbor, ME 04609

Rep. Marge L. Kilkelly
P.O. Box 180
Wiscasset, ME 04578

Rep. Robert W. Spear
14 Eugley Hill Road
Nobleboro, ME 04555

Rep. Thomas M. Tyler
9 Deerfield Drive
Windham, ME 04062

Appointed by the Governor

John H. Richards Department of Agriculture 28 State House Station	Dept. of Agriculture, Food and Rural Resources
Jeffrey Bragg RFD #1, Box 5860 Waterville, ME 04901	Supplier to Maine Market
Rosemarie Salaoutis P.O. Box 1750, RR #1 Burnham, ME 04922	Supplier to Boston Market
Adrian E. Wadsworth HCR 70, Box 60 N. Turner, ME 04282	Supplier to the Co-op Market
Stanley T. Bennett, II 364 Forest Avenue Portland, ME 04101	Milk Processing Operations
Richard D. Robertson 640 Maine Street Monmouth, ME 04259	Farm Financing Bank
Mary Ellen Johnston Dept. of Economic & Community Development 59 State House Station	Dept. of Economic & Community Development
Peter B. Chapman 65 North Town Farm Road Oxford, ME 04270	Equipment & Feed Supplier

APPENDIX C

PRICING

APPENDIX C

The Dairy Pricing System

1. Nationally [54]

The U.S. dairy pricing system was created over 50 years ago to ensure adequate milk supplies, stable prices for consumers, and economic stability for producers. The pricing system is carried out by two federal dairy programs administered by the U.S. Department of Agriculture (USDA): the Milk Marketing Order Program and the Price Support Program. Federal milk marketing orders specify practices, terms and conditions of sale, and prices. Each order contains two basic sets of provisions. One set fixes the minimum prices that milk processors must pay. The other set specifies how the returns for selling milk are to be distributed among producers.

Federal market orders are voluntary--producers must choose by a two-thirds vote to have a market order apply to their specific regional area of the country before it becomes effective. Market orders apply only to milk eligible for fluid use.

Under the federal price support program, USDA stands ready to buy, at designated prices, bulk cheese, butter, and nonfat dry milk that are offered to it for sale. Federal outlays for these purchases depend on the extent to which milk production exceeds commercial purchases. Assuming a relatively stable commercial demand for dairy products, high support prices generally lead to high milk production, which leads to surpluses and more government purchases.

Milk is the only commodity with both order pricing and price support programs, resulting in one of the most complex agricultural support programs. The dairy industry, however, has changed significantly since federal involvement in it began, and the milk marketing order and price support programs have contributed to incentives to produce more milk than can be marketed, causing periodic surpluses of dairy products. As a result, government costs grew to over $2.7 billion in fiscal year 1983. Since that time, the Congress has taken a number of actions to reduce government costs and to make the dairy industry depend less on federal financial support and involvement.

The federal dairy program is built around the establishment of minimum prices paid to milk producers and dairy processors. Milk marketing orders set minimum prices that processors must pay dairy farmers for Grade A milk, which is the only milk used for fluid milk products. These orders, entered into voluntarily by dairy farmers, regulate about 72 percent of all milk produced in this country. The remaining 28 percent falls under state orders or is not regulated at all. In addition, the price support program sets prices for processors' sale of dairy products to the federal

government; these prices tend to act as a minimum price for dairy products in the commercial market.

The market environment in which federal dairy programs operate has changed dramatically since their inception. The program components that were necessary in previous decades may be unnecessary today. In this context, two issues could be addressed by the Congress as it considers federal dairy policy during the reauthorization of the farm bill in 1995. First, there are some who feel that the premises for pricing milk under federal milk marketing orders are outdated and have resulted in both excess production and the unfavorable treatment of some producers. Second, there is some feeling that the dairy price support program creates barriers to the U.S. dairy industry's becoming more market-oriented to maintain its viability.

2. The Northeast [54]

The dairy industry in the Northeastern United States, including New England, is characterized by substantial interstate movement of fluid milk, both from the dairy farm to the processing/bottling plant, and from the plant to the ultimate consumer.

Currently, and for many years, the Agriculture Secretary has issued and enforced one milk marketing order for virtually all of New England--the "New England Federal Milk Marketing Order #1" (hereinafter "Order #1" or the "New England" federal order). The Order #1 marketing area includes all or portions of the states of Massachusetts, Rhode Island, Connecticut, Vermont and New Hampshire, but not parts of Maine.

The way in which federal milk marketing orders maintain uniform prices to handlers for milk utilized in the same use class and, at the same time, eliminates any incentive for dairy farmers to engage in destructive internecine competition for the higher-priced fluid milk outlets is known in the industry as marketwide pooling," and has remained relatively unchanged since the promulgation of the first federal milk marketing order for the Boston metropolitan area in 1937.

For present purposes, the marketwide pooling program may be summarized as follows: Milk packaged for consumption in fluid form ("Class I" milk) commands the highest price in the marketplace. Under the marketwide pooling provisions of federal orders, all dairy farmers supplying handlers in a federally-regulated market share proportionately in the benefit of that higher-priced Class II use, and conversely share proportionately in the burden of carrying the market's "surplus" or lower-class uses, because all producers supplying the market are paid the same "blend" price which, subject to certain differentials not here relevant, reflects the marketwide weighted average "use values" of raw milk purchased by all the handlers regulated by the Order. But all handlers pay for their raw milk in accordance with their own "use value." This is accomplished by the "producer settlement fund," administered by the federal milk market administrator, pursuant to which each handler, in addition to

paying the "blend" price directly to farmers, either makes a monthly payment into, or draws a payment from, that fund depending upon whether its particular "use value" is more than or less than the marketwide average Class I utilization. Because Class I utilization of handlers regulated by the New England federal order hovers around 50%, the "blend" price received by producers supplying raw milk to federally-regulated handlers will be about midway between the applicable Class I and "surplus" prices.

Federally-regulated handlers, i.e., those involved primarily in the processing and packaging of raw milk for consumption in fluid form, thus make two separate payments for their raw milk: (i) they pay directly to their dairy farmers at least the monthly "blend" price as determined by the federal milk marketing administrator; and (ii) they make a separate payment into the "producer settlement fund" of the difference between their own "use value" and the marketwide average of all handlers' use values. Thus, it is the act of disposing of (selling) the finished product as Class I milk (rather than the purchase of the raw milk itself) which triggers, and determines the amount of, the second of the two payment obligations.

The pattern of unitary federal minimum producer price regulation described above reflects the essentially interstate character of commerce in the fluid milk industry throughout New England. Of the six New England states, only the two most sparsely populated--Maine and Vermont are "export" states, i.e., dairy farmers within those two states produce far more milk than is consumed as fluid milk therein; and this excess milk production is exported across state lines and sold to handlers who bottle milk for consumers in the four other, more densely populated New England states.

3. Maine's milk pricing system prior to 1991[54]

As stated above, the New England ("Order #1") federal milk marketing area includes virtually all of Massachusetts, Rhode Island and Connecticut, some of the more densely-populated portions of Vermont and New Hampshire, but no part of Maine. Maine has "opted out" of the federal order milk marketing program; instead, its Milk Commission ("Commission"), establishes minimum producer prices for milk produced on Maine dairy farms and sold for consumption as Class I milk in the State. In so doing, Maine employs a system known as "individual handler" pooling, pursuant to which Maine producers supplying state-regulated handlers/processors are paid in accordance with that plant's Class I utilization. Because the average Class I utilization of state-regulated Maine handlers ranges between 85% and 95%, the Maine dairy farmers that supply Maine's processors/handlers will receive a significantly higher price per hundredweight than the rest of New England, even at the identical Class prices.

Roughly, 60% of the milk produced on Maine dairy farms is shipped out-of-state fluid milk processing plants regulated under the New England Federal Order. In

industry parlance, those Maine farmers are referred to as "Boston market" or "New England market" shippers or producers. The other 40% or so of Maine produced milk is sold to milk plants located within the State of Maine under the Maine order, and processed primarily for consumption as fluid milk by consumers within the State. Maine dairy farmers supplying those Maine processing plants generally are referred to as "Maine market" shippers or producers.

By remaining outside of the federal system, Maine's producers have historically enjoyed the "higher prices" that accrue from the Maine program. Milk production in excess of in-state Class I consumption (about 60% of the total milk produced on Maine's dairy farms) is marketed under the regional federal order "pool," thus, on occasion, lowering the blend prices received by all other New England dairy farmers.

Because those "Boston market" shippers historically received blend prices which were considerably below the prices received by "Maine market" shippers, from time to time internecine friction erupted among Maine's dairy farmers. Those intramural problems were solved in 1984 when the State of Maine created the "Maine Milk Pool" which, in practical effect, provided for a "reblending" of the proceeds of Maine's Class I milk sales among <u>all</u> Maine dairy farmers regardless of whether they were Boston market or Maine market shippers.

The Maine Milk Pool, administered by the Maine Milk Commission, operates as follows: both Boston market and Maine Market shippers receive directly from their handlers (whether federal regulated or subject to the Maine Milk Commission) the substantial equivalent of the federal order blend price at the "Boston City" zone. In addition, Maine handlers make a monthly payment into the Maine Milk Pool, equal to the difference between that federal order blend price and the Maine dealers' blend, the latter being much higher than the former due to the much higher Class I utilization of Maine handlers. The moneys thus paid into the Maine Milk Pool are distributed monthly by the Maine Milk Commission to Maine dairy farmers in proportion to their marketing of milk during the particular month for which the pool is established.

4. The current situation in Maine

The Maine Milk Commission has the authority to establish and change the minimum wholesale and retail prices to be paid to producers, dealers and stores for milk handled within the State (7 MRSA §2954).

The commission meets each month to set minimum farm, wholesale, and retail prices for Class I milk. The wholesale farm price, paid to producers, is based on the prevailing Federal Milk Order No. 1 price. The commission recognizes a premium that reflects the costs of producing milk in Maine, which is added to the federal order price to arrive at the minimum price to be paid to Maine producers. The premium is currently 25¢ for Class I milk.

Once the farm price is set, the minimum wholesale prices paid to dealers are set based on the farm price plus a margin that reflects the cost of processing milk in the State. The wholesale price must provide a just and reasonable return to dealers. The margin is established approximately every 3 years, and is currently about 51¢ per gallon.

The retail price is then set based on the minimum wholesale price plus a margin that provides a just and reasonable rate of return to retailers. The retail margin is also reconsidered every 3 years to reflect the cost of handling milk, and is currently about 19¢ per gallon.

In July 1991, Maine enacted the "Dairy Farm Stabilization Act, 36 M.R.S.A. §§ 4541-4546 ("1991 Act") (repealed by P.L. 1995 Ch. 2, § 4). The 1991 Act created a program combining two elements: an evenhanded tax paid into a dedicated account, and a subsidy to Maine dairy farmers from that dedicated account.

1) The tax was imposed on the handling of packaged milk sold at retail in Maine, regardless of the source of that milk The amount of tax was added to the minimum dealer price, and hence was automatically build into the minimum retail price paid by consumers. If the dealer was situated in the State, the dealer was responsible for collecting and forwarding the amount of the tax to the State Tax Assessor on a monthly basis. If the dealer was out-of-state, then the retailer was responsible for collecting and forwarding the tax. The tax proceeds were deposited into a dedicated account called the Maine Dairy Farm Stabilization Fund.

2) The subsidy portion of the 1991 Act directed that he bulk of the Fund monies were to be transferred to the Commissioner of Agriculture, Food and Rural Resources for distribution to Maine dairy farmers "equally per hundred weight on the basis of their production during the prior month" in the form of monthly subsidies.

5. Possible changes

During recent sessions of Congress in conjunction with the 1995 Farm Bill, there have been proposals to eliminate and radically consolidate the pricing and pooling provisions of the Federal Milk Orders, including a proposal to preempt state orders. The eventual disposition of this issue could not be judged at the time the Commission concluded its work.

APPENDIX D

WITNESSES

APPENDIX D

COMMISSION WITNESSES

David Allen, Director	Governmental & Regulatory Affairs, CMP
Peter Beaulieu, Director	Sales/Excise Tax Div., Bureau of Taxation
William Bell, Executive Director	New England Feed Council
Peter Gordon, Account Rep.-Dairy	Central Maine Power
Daniel Heon, Technical Sales Manager	New England Feed Co.
Geoff Herman	Maine Municipal Association
Elizabeth Laiho, Manager	Commercial Services, Central Maine Power
Harold Larrabee, Chair	Maine Dairy Promotion Board
Russell Libby	MOFGA
Ed McLaughlin, Commissioner	Dept. of Agriculture, Food & Rural Res.
Ken Olson, Dairy Specialist	American Farm Bureau
Daniel Peaco, Manager	University of Maine
Larry Record, Director	Property Tax Division, Bureau of Taxation
Stewart Smith, Professor	Sustainable Agriculture Policy, U of M
Robert Spear, Chair	Dairy Industry Study
Charles Strout, General Manager	Blue Seal Feeds
Calvin Walker, Dairy Specialist	Extension Service
Robert Wellington	Agri-Mark
David Wadsworth, General Manager	Agway, Inc.
Michael Wiers, Chair	Maine Milk Commission

APPENDIX E

1991 LEADERSHIP GROUP RECOMMENDATIONS

APPENDIX E

Dairy Industry Leadership Group Recommendations

In 1991, the Northeast Dairy Industry Leadership Group recommended the following goals and objectives for the industry in the Northeast. [28]

(1) Improve Competitive Position of Northeast Dairy Farmers -- Improve the adoption rate of current and new technology, and superior production and farm business management practices in order to increase the average production and output per worker to equal or exceed interregional competitive standards. Encourage structural changes which will improve the income and profitability for Northeast dairy farmers. Improve production efficiency throughout the Region by other northeastern states adopting a Pro-Dairy type program similar to that now moving forward in New York with leadership to be provided by the land grant colleges and related state extension services.

(2) Market Enhancement -- Use current and new technologies to improve present and develop new dairy products. Improve milk processing and dairy products manufacturing efficiency. Encourage joint efforts between private sector and university centers of expertise. Develop new uses for dairy products, especially butterfat. Recognize, support, and cooperate with regional dairy centers. Develop regional marketing systems. Pay increased attention to marketing research and to responding early and with diligence to changes in consumer preference.

(3) Improve Milk Handling Efficiency -- Change the current system of milk collection and delivery. Through cooperative agreements, joint ventures and new technologies, reduce the number of vehicles and miles traveled for milk assembly and over-the-road movement. Adopt new technologies that are emerging which will facilitate reducing the amount of water in milk to reduce volume and cost as it is transported from farm-to-plant and plant-to-plant.

(4) Milk Quality Improvement -- Milk quality throughout the continuum from cow to consumer must be enhanced. The average somatic cell count can be reduced by lowering the maximum permissible level, and by establishing economic incentives to dairy farmers. Redesign, test, and retest plant operations to remove opportunities for post-pasteurization contamination. Improve the plant-to-consumer fluid milk and dairy product delivery, storage, and display system.

(5) Regional Regulations Uniformity -- Foster uniform sanitary regulations and inspections for the production and processing of milk. Adopt a single standard of

identity for each dairy product. Standardize animal health regulations to permit free flow of animals and products throughout the Region.

(6) Land Grant College Specialization -- Maintain strong research, teaching and extension programs for discovering and testing cost effective technology, training future dairy industry leaders, producers, processors, and delivering efficient systems for crop and milk production, processing and distribution. Create a coordinated system in which each state college of agriculture specializes in one or more of its strongest programs. Generate funds to strengthen research and development work in these need areas at appropriate Northeast land grant colleges. Consolidate and strengthen Extension servicing on-farm needs of dairymen. In order to more effectively conserve dwindling financial resources, other states should look to Cornell and Penn State as key providers in many aspects of dairy science across research, extension, and resident education.

(7) Promotion Agencies -- Consolidate generic promotion agencies to avoid inefficient use of funds and effort.

(8) Milk Prices -- Implement more uniform raw milk prices throughout the Region and make a comprehensive effort to improve prices to producers, recognizing that such price improvements must be tempered by the possibility of losing markets to milk from other regions if the pricing structure becomes non-competitive.

(9) Northeast Dairy Cooperatives -- Cooperatives must exert more influence in pricing policies. There must be more joint ventures between and among dairy cooperatives. Cooperatives must improve milk handling ability and reduce balancing costs. They must identify real reasons why independent dairymen do not join cooperatives. There must be a common Northeast strategy for all dairy cooperatives. There must be a study of the possibility of reducing the current number of marketing cooperatives in the Northeast, giving special consideration to steps that would strengthen markets within the entire Region.

A 1987 study from the Northeast Regional Council made the following additional recommendations. [26]

(1) Through proper extension and management of credit, discourage the expansion of milk production in marginal areas or on marginal farms.

(2) Analyze the potential for building and operating efficient, strategically located slaughter and meat processing plants in the Northeast.

(3) Maintain an adequate system of farm-to-market roads and bridges. Seek to preserve, where economically feasible, a rail network capable of moving carload lots of feed, seed, and fertilizer into dairy regions.

(4) Further develop markets for surplus grade and registered dairy cattle both in the Southeast and overseas. Consider an agricultural trade fair to bring foreign buyers together with northeastern dairy breeders.

(5) Choose, establish, and promote heavily a few brand names of high quality northeastern dairy products. Focus on market penetration of the Southeast, as well as increasing market share in the Northeast and other regions. Manufacture some varieties of cheese and yogurt now manufactured in Europe.

(6) Research and develop new varieties of cheese and fermented products using new starters developed by biotechnology. Research and develop new milk-based beverages with long shelf-life to compete with soft drinks. Further develop unique dairy products to meet specialized nutritional needs.

(7) Minimize seasonal variations in milk production in order to insure more uniform processing schedules and lower plant costs.

APPENDIX F

F. Survey Information

F-1 Commission Survey
F-2 Producer Survey
F-3 Dairy Farm Production Expenses
F-4 Comparison of Dairy Farm Production Expenses Per Cow
F-5 Dairy Farm Costs of Production, Maine and the Northeast

Rating of Issues for Commission Study By Rank Order

Rank Order	Respondent Choices for Questions Asked: 7=Extremely Interested, 5=Very Interested, 4=Quite Interested, 3=Some-What Interested, 2=Not Very Interested, 0=Not Interested At All	Average Value
1	Feed Costs	6.10
2	Energy Costs	5.90
3	Property Tax	5.80
4	Milk Pricing	5.50
5	Cooperative Buying	5.40
6	Assessment of Farm Property	5.30
7	Sales Tax	5.20
8	NAFTA/GATT	5.00
9	Marketing Assistance	4.90
10	Management Assistance	4.70
11	Milk Pooling	4.70
12	Dairy Infrastructure	4.60
13	Trade with Canada	4.50
14	Growing v. Buying Feed	4.50
15	Transportation	4.50
16	Environmental Regulation	4.40
17	Dairy Promotion Board	4.40
18	Milk Commission	4.40
19	Workers' Compensation	4.30
20	Inheritance Tax	4.30
21	Land Use Regulation	4.30
22	Bank Credit	4.20
23	Better Milk	4.20
24	Dairy & Nutrition Council	4.20
25	Technical Assistance	4.10
26	Labor Cost/Availability/Productivity	4.10
27	Department of Agriculture	4.10
28	Milk Handling Fee	4.10
29	Value Added Products	4.00
30	Nutrition	3.90
31	Co-ops	3.80
32	Herd Size	3.70
33	BST	3.60
34	Genetic Technology	3.60
35	Processors	3.60
36	Experiment Station	3.50
37	Dept. of Animal & Veterinary Science	3.40
38	Pasturing	3.20
39	Raising v. Buying Cows	3.20
40	Vo-Tech Schools	3.10
41	Extension Service	2.90
42	Sustainable Agriculture	2.90
43	Seasonal Drying Off	2.50
44	Truck Size	2.40
	Other (Specify)	

Rating of Issues for Commission Study By Subject Area

Rank Order	Respondent Choices for Questions Asked: 7=Extremely Interested, 5=Very Interested, 4=Quite Interested, 3=Some-What Interested, 2=Not Very Interested, 0=Not Interested At All	Average Value
6	Assessment of Farm Property	5.30
22	Bank Credit	4.20
23	Better Milk	4.20
33	BST	3.60
31	Co-ops	3.80
5	Cooperative Buying	5.40
24	Dairy & Nutrition Council	4.20
12	Dairy Infrastructure	4.60
17	Dairy Promotion Board	4.40
27	Department of Agriculture	4.10
37	Dept. of Animal & Veterinary Science	3.40
2	Energy Costs	5.90
16	Environmental Regulation	4.40
36	Experiment Station	3.50
41	Extension Service	2.90
1	Feed Costs	6.00
34	Genetic Technology	3.60
14	Growing v. Buying Feed	4.50
32	Herd Size	3.70
20	Inheritance Tax	4.30
26	Labor Cost/Availability/Productivity	4.10
21	Land Use Regulation	4.30
10	Management Assistance	4.70
9	Marketing Assistance	4.90
18	Milk Commission	4.40
28	Milk Handling Fee	4.10
11	Milk Pooling	4.70
4	Milk Pricing	5.50
8	NAFTA/GATT	5.00
30	Nutrition	3.90
38	Pasturing	3.20
35	Processors	3.60
3	Property Tax	5.80
39	Raising v. Buying Cows	3.20
7	Sales Tax	5.20
43	Seasonal Drying Off	2.50
42	Sustainable Agriculture	2.90
25	Technical Assistance	4.10
13	Trade with Canada	4.50
15	Transportation	4.50
44	Truck Size	2.40
29	Value Added Products	4.00
40	Vo-Tech Schools	3.10
19	Workers' Compensation	4.30
	Other (Specify)	

Rating of Issues From the Dairy Producer Survey
By Rank Order

Respondent Choices for Questions Asked: 4=Very Important, 3=Important, 2=Not Important, 1=This Statement Would Actually Hurt the Dairy Industry.	Average Value	All Respondents Rank Order	Respondents Under 50 Years Old Rank Order	Respondents 50 Years and Older Rank Order
Granting farmers **property tax** relief to allow assessment of the value of the land in its current use.	3.79	1	1	1
Paying dairy farmers premiums for good **milk quality**.	3.70	2	2	4
Reducing **inheritance tax** impact on my ability to pass the farm to the next generation.	3.68	3	3	1
Maintaining the milk **handling tax** (formerly known as the vendor fee).	3.67	4	4	3
Maintaining low farmer costs to meet **environmental** and land use **regulations**.	3.57	5	5	5
Maintaining the **Maine milk pool**.	3.39	6	6	6
Develop additional marketing options for my **cull cows**.	3.33	7	8	7
Making **sales tax on energy** between farms and other industries equal.	3.24	8	9	8
Develop additional **value-added** dairy product **manufacturing** in New England.	3.21	9	6	11
Maintain the **Maine Milk Commission**.	3.18	10	14	8
Making the price of **feed** more reflect it's value in my operation.	3.17	11	10	10
Maintaining the **Dairy Promotion Board**.	3.07	12	19	11
Developing **special license plates** for farm trucks that are less expensive than commercial trucks.	3.05	13	21	14
Changing the **Workers' Compensation** regulations to increase the minimum number of employees for farmers that must participate in the program.	3.05	13	20	15
Treating farm inputs the same as other industry inputs for **sales tax** calculations.	3.04	15	18	17
Appointing a working group to study and develop **value-added markets** for Maine dairy products.	3.04	15	12	18
Compensating Maine dairy farmers for not being allowed to use **BST** in herds.	3.03	17	26	11
Paying Dairy Farmers using a component pricing mechanism **for nonfat components.**	3.01	18	15	20
Developing a **clearinghouse for input purchases** that would allow producers to buy in larger quantities and lower input costs.	2.99	19	15	21
Increasing the **access of credit** for farmers with good management skills and sound credit worthiness.	2.98	20	11	23
Changing the packaging of fluid milk to compete with other fluid drinks.	2.96	21	26	19
The University of Maine providing more useful **research** to help increase the **profitability** of our industry.	2.93	22	21	24
Increasing awareness and use of **cooperative input buying** among producers to lower input cost.	2.93	22	23	22
Maintaining the **Dairy and Nutrition Council**.	2.93	22	34	16
Exporting fluid milk to Canada.	2.88	25	13	26

APPENDIX F-2

Respondent Choices for Questions Asked: 4=Very Important, 3=Important, 2=Not Important, 1=This Statement Would Actually Hurt the Dairy Industry.	Average Value	All Respondents Rank Order	Respondents Under 50 Years Old Rank Order	Respondents 50 Years and Older Rank Order
Allowing farmers to **deal directly with milk haulers** to improve the competitiveness of hauling and potentially lower the cost of hauling.	2.85	26	15	29
Increasing educational programs on providing a cost efficient **balanced diet** for my cows.	2.81	27	24	27
The Maine Department of Agriculture increasing their services in providing **information on input purchasing** and **marketing opportunities** for dairy producers.	2.77	28	30	25
Eliminating the Government's involvement in the **pricing** of dairy products.	2.77	28	24	32
Finding a way to reduce the **cost** of trained hired **labor.**	2.74	30	33	27
University of Maine Cooperative Extension providing more educational programs in **financial management.**	2.73	31	28	31
Increasing educational programs about the **cost and benefits of growing versus buying feed.**	2.70	32	29	34
Increasing the **supply of trained labor** for part-time and full-time help.	2.68	33	30	35
University of Maine Cooperative Extension providing more educational programs in **production management.**	2.67	34	30	36
Continuing research to extend the **shelf life** of milk.	2.62	35	40	30
Increasing educational programs about the cost and benefits of **raising versus buying cows.**	2.60	36	35	38
Develop an industry for economically using **manure** produced on our farms.	2.60	36	39	32
Increasing access to **rail transportation** and reducing the cost of it.	2.58	38	38	37
The State making available more **technical and management assistance training.**	2.52	39	36	39
Increasing educational programs about the **cost and benefits of diversification.**	2.52	39	36	39
Increasing awareness and use of **seasonal milking.**	2.19	41	41	41
Promoting the use of **reproductive technologies** such as embryo transfer, embryo splitting and cloning in the Maine dairy industry.	2.13	42	42	42
Increasing each farmer's **herd size.**	1.63	43	43	43

Prepared by: Dr. Vern Pierce, Farm Business Management and Marketing Specialist
University of Maine Cooperative Extension
Responses: 217
Under 50 Sample: 101
50 Years and Older Sample: 116
Surveys Mailed: 600
Return Rate: 36.2%

Rating of Issues From Dairy Producer Survey

1/24/96

Respondents By Farm Size

Question Number	Respondent Choices for Questions Asked: 4= Very Important, 3= Important, 2= Not Important, 1= This Statement Would Actually Hurt The Dairy Industry.	Small (<50 cows)	Small Rank (<50 cows)	Medium (50-90 cows)	Medium Rank (50-90 cows)	Large (>90 cows)	Large Rank (> 90 cows)
9	Granting farmers property tax relief to allow assessment of the value of the land in its current use.	3.73	1	3.84	1	3.86	1
11	Reducing inheritance tax impact on my ability to pass the farm to the next generation.	3.62	3	3.69	4	3.82	2
43	Maintaining the milk handling tax (formerly known as the vendor fee).	3.53	4	3.82	2	3.73	3
2	Maintaining low farmer costs to meet environmental and land use regulations.	3.46	5	3.69	5	3.67	4
10	Paying dairy farmers premiums for good milk quality.	3.73	2	3.72	3	3.6	5
28	Maintaining the Maine milk pool.	3.42	6	3.3	9	3.49	6
25	Maintaining the Maine Milk Commission.	2.96	19	3.31	8	3.47	7
23	Maintaining the Dairy Promotion Board.	2.88	23	3.14	11	3.35	8
35	Develop additional marketing options for my cull cows.	3.28	7	3.42	6	3.3	9
7	Changing the Workers' Compensation regulations to increase the minimum number of employees for farmers that must participate in the program.	2.98	18	3.03	16	3.23	10
37	Changing the packaging of fluid milk to compete with other fluid drinks.	2.88	24	2.94	22	3.19	11
33	Develop additional value-added dairy product manufacturing in New England.	3.18	10	3.31	7	3.17	12
3	Compensating Maine dairy farmers for not being allowed to use BST in herds.	2.93	20	3.11	13	3.14	13
1	Developing special license plates for farm trucks that are less expensive than commercial trucks.	3	15	3.07	14	3.14	14
26	Maintaining the Dairy and Nutrition Council.	2.79	26	2.97	21	3.14	15
29	Exporting fluid milk to Canada.	2.66	31	3.03	17	3.13	16

6	Making sales tax on energy between farms and other industries equal.	3.19	8	2.42	40	3.13	17
8	Making the price of feed more reflect it's value to my operation.	3.19	9	3.2	10	3.12	18
18	Increasing the access of credit for farmers with good management skills and sound credit worthiness.	3.07	13	2.82	27	3.06	19
14	Appointing a working group to study and develop value-added markets for Maine dairy products.	3.02	14	3.11	12	3.02	20
12	Treating farm inputs the same as other industry inputs for sales tax calculations.	3.17	11	2.89	23	3.02	21
13	The University of Maine providing more useful research to help increase the profitability of our industry.	2.92	21	2.89	24	3	22
41	Developing a clearinghouse for input purchases that would allow producers to buy in larger quantities and lower input costs.	3	17	3	19	2.98	23
5	University of Maine Cooperative Extension providing more educational programs in financial management.	2.65	32	2.73	30	2.9	24
20	Increasing the awareness and use of cooperative input buying among producers to lower input cost.	2.89	22	3.01	18	2.89	25
31	Increasing educational programs on providing a cost efficient balanced diet for my cows.	2.74	27	2.88	26	2.88	26
16	Increasing the supply of trained labor for part-time and full-time help.	2.56	36	2.73	31	2.85	27
36	Continuing research to extend the shelf life of milk.	2.46	38	2.71	32	2.83	28
4	University of Maine Cooperative Extension providing more educational programs in production management.	2.62	33	2.62	35	2.83	29
17	Finding a way to reduce the cost of trained hired labor.	2.7	29	2.74	28	2.81	30
30	Paying Dairy Farmers using a component pricing mechanism for nonfat components.	3.1	12	3.05	15	2.79	31
38	Allowing farmers to deal directly with milk haulers to improve the competitiveness of hauling and potentially lower the cost of hauling.	2.8	25	2.99	20	2.77	32
40	Increasing access to rail transportation and reducing the cost of using it.	2.45	40	2.66	33	2.74	33

42	Develop an industry for economically using manure produced on our farms.	2.59	35	2.54	39	2.72	34
22	The Maine Department of Agriculture increasing their services in providing information on input purchasing and marketing opportunities for dairy producers.	2.73	28	2.89	25	2.71	35
32	Increasing educational programs about the cost and benefits of growing versus buying feed.	2.69	30	2.73	29	2.69	36
34	Increasing educational programs about the cost and benefits of raising versus buying cows.	2.62	34	2.55	38	2.66	37
15	The State making available more technical and management assistance training.	2.45	39	2.58	37	2.61	38
27	Eliminating the Government's involvement in the pricing of dairy products.	3	16	2.64	34	2.54	39
39	Increasing educational programs about the cost and benefits of diversification.	2.54	37	2.58	36	2.42	40
24	Promoting the use of reproductive technologies such as embryo transfer, embryo splitting and cloning in the Maine dairy industry.	2.07	42	2.23	41	2.14	41
19	Increasing the awareness and use of seasonal milking.	2.35	41	2.11	42	2.04	42
21	Increasing each farmer's herd size.	1.42	43	1.71	43	1.96	43
		94	94	69	69	49	49

Prepared by:
Dr. Vern Pierce, Farm Business Management and Marketing Specialist
University of Maine Cooperative Extension
Responses: 217
Surveys Mailed: 600
Response Rate: 36.2 %

Dairy Farm Production Expenses

	Maine 1987	Maine 1992	United States 1992
Total Dairy Farm Production Expenses	$ 73,131,000	$ 76,335,000	$15,049,674,000
Average per farm	$ 83,963	$ 117,983	$ 133,077
Percent of Total Production Expenses:			
Feed for livestock and poultry	34.1%	36.9%	36.3%
Hired farm labor	13.2%	13.3%	9.9%
Repair and maintenance	7.9%	6.9%	6.7%
Interest expense	4.6%	4.3%	6.9%
Petroleum Products	4.2%	4.1%	3.5%
Electricity	3.7%	3.9%	3.1%
Commercial fertilizer	4.3%	3.9%	3.9%
Property taxes	3.0%	3.0%	2.6%
Livestock and poultry purchased	4.0%	2.8%	6.0%
Cash rent	1.1%	1.4%	2.9%
Customwork, rental of machinery/equipmen	1.0%	1.0%	1.5%
Seeds, bulbs, plants and trees	0.8%	0.9%	1.8%
Agricultural chemicals	1.1%	0.9%	1.6%
Contract labor	0.6%	0.5%	0.5%
All other farm production expenses	16.5%	16.1%	13.0%
	100%	100%	100%

Source: U.S. Department of Commerce, *1987 Census of Agriculture, Vol.1, Part 19 Maine* and *1992 Census of Agriculture, Vol.1, Part 19 Maine and Part 51 United States.*

Comparison of Dairy Farm Production Expenses Per Cow (Index National = 100)

	National 1992	Maine 1992	Maine Index (ntl=100)
Number of Milk Cows	8,845,791	42,117	
Production Expenses Per Cow:			
[1]Commercially mixed formula feed	302.00	489.00	1.62
Hired farm labor	168.07	241.73	1.44
[2]Gasoline & gasohol	21.00	29.00	1.38
Electricity	53.33	71.02	1.33
Other farm production expenses	220.74	292.38	1.32
Property taxes	43.95	55.08	1.25
Petroleum products	59.47	74.20	1.25
[2]LP gas	9.00	11.00	1.22
[2]Diesel fuel	29.00	33.00	1.14
Repair & maintenance	113.46	125.01	1.10
Feed for livestock & poultry	617.46	669.33	1.08
Contract labor	8.30	8.93	1.08
Commercial fertilizer	66.41	70.61	1.06
Customwork, rental of machinery/equip.	24.76	18.33	0.74
Interest expense	116.81	77.17	0.66
[2]Natural gas	1.00	0.59	0.59
Agricultural chemicals	27.51	15.67	0.57
Cash rent	48.71	26.14	0.54
Seed, bulbs, plants & trees	30.47	16.05	0.53
Livestock & poultry purchased	101.89	50.83	0.50
Total Expenses Per Cow	**2,063.34**	**2,375.07**	**1.15**

[1] Subcategory of "Feed for livestock & poultry"

[2] Subcategory of "Petroleum products"

Source: U.S. Department of Commerce 1987 and 1992 Census of Agriculture

Dairy Farm Costs of Production, Maine and the Northeast (Agrifax)

	1993 Production Costs Per Cow					Percent Change	
	MAINE	NORTHEAST	MAINE INDEX	MAINE AS % OF	NORTHEAST AS % OF	1988 to 1993	
Number of Farms Surveyed	21	731				MAINE	NORTHEAST
Production Expenses:	(Dollars Per Cow)		(Northeast =100%)	TOTAL	TOTAL		
Machine Hire	57	30	190%	2%	1%	200%	67%
Labor	545	332	164%	21%	14%	58%	19%
Freight & Trucking (Marketing	159	118	135%	6%	5%	57%	26%
Feed	911	704	129%	35%	30%	23%	13%
Supplies	136	111	123%	5%	5%	13%	247%
Fuel and Oil	70	69	101%	3%	3%	0%	13%
Utilities	77	79	97%	3%	3%	45%	25%
Insurance	64	69	93%	2%	3%	39%	47%
Vet, Med. and Breeding	83	92	90%	3%	4%	30%	-7%
Fertilizers & Lime	69	80	86%	3%	3%	-10%	-17%
Repairs	135	164	82%	5%	7%	11%	12%
Taxes	60	76	79%	2%	3%	0%	-18%
Rent	49	69	71%	2%	3%	40%	-1%
Other	79	113	70%	3%	5%	-2%	146%
Seed and Plants	26	40	65%	1%	2%	44%	111%
Interest	68	141	48%	3%	6%	-24%	-5%
Chemicals & Spray	14	32	44%	1%	1%	40%	60%
Replacement Cows	10	42	24%	0%	2%	-17%	-43%
TOTAL	**2,612**	**2,361**	**111%**	**100%**	**100%**	**27%**	**16%**

Source: Agrifax, *1988 and 1993 Comparative Earnings Statement, Maine*; and Agrifax, *1988 and 1993 Northeast Dairy Farm Summary*

APPENDIX G

Research Methodology

RESEARCH METHODOLOGY

I. Secondary Research

Commission staff conducted considerable secondary research. This report has a bibliography which contains the various citations. Through all the analysis of the data, the term "leading dairy states" is used. In this report it refers to California, New York, Pennsylvania, Wisconsin, and Vermont. Strictly speaking Minnesota is the fifth state in size, but Vermont was substituted because of its similarity to Maine. Particular emphasis was placed on the following:

1. Number of farms and cows and amount of milk produced

   The standard source for this data, since 1991, has been statistics from the American Farm Bureau which are published in Hourd's Dairyman. The unit measure is the herd, which is defined as any activity that has a state permit to sell milk. This is also the basis on which figures available from the Maine Department of Agriculture are calculated. Minimum use was made of the Department of Agriculture's data because it does not include comparable data from other states. However, the figures are very close to the Farm Bureau figures.

   Because the Farm Bureau has only recently begun to conduct its surveys, use was also made of figures from the United States Department of Agriculture (USDA); National Economic Statistics Service. Their unit of measure is the operation, which means any farm with more than 50% of its cash receipts from milk. There is one year of overlap between the American Farm Bureau Data and the U.S.D.A. data (1992). The U.S.D.A. data showed 2% fewer farms in Maine and 13% fewer nationally. To develop a trend, the U.S.D.A. data prior to 1992 was increased by those percentages.

2. Farm costs

   The generally accepted data here is from the Northeast Dairy Farm Summary of the Farm Credit Bank of Springfield, commonly referred to as Agrifax. It has the following limitations:

   a. It deals only with the Northeast.

   b. Because of its small sample size, it generally groups states, although some individual state data is provided. The Maine sample size has declined so much Agrifax would not provide Maine data for 1994.

c. Its sample consists of the more successful dairy farms. (In the opinion of the committee member who represents the dairy financing industry, two of the farms are so atypical as to unacceptably skew the 1993 data.)

Because of these limitations, this study also uses cost data from the United States Department of Commerce's Bureau of the Census "Census of Agriculture." The major disadvantage of this material is that it is only collected every five years, with the last one being in 1992.

Both these surveys have about 18 items, as opposed to some 44 items in the Commission surveys, and this should be taken into account in considering issue rankings presented in this study.

A third data source has traditionally been a 1991 study by Russell Libby, at that time Research Director of the Department of Agriculture. This study was not utilized because more recent data are available and because it was not directly comparable to other state data from other sources.

3. Specific recommendations

The Commission determined that by far the best secondary sources of recommendations for dealing with the industry problems came from:

a. Northeast Regional Council, Toward 2005, June 1987

b. The Northeast Dairy Industry Leadership Group, A Focus Report Directed to Genesis-Activity-Future, March 1991

The second reference was essentially an outgrowth of the first.

Number of Dairy Farms
(USDA Data adjusted to Farm Bureau Data)

	MAINE			U.S.		
Year	USDA	USDA Adjusted	Farm Bureau	USDA	USDA Adjusted	Farm Bureau
1978	1,140	1,167	N/A	168,473	194,836	N/A
1982	1,077	1,103	N/A	164,472	190,209	N/A
1987	862	883	N/A	138,311	159,954	N/A
1992	654	670	670	113,412	131,159	131,159
1993	N/A	N/A	670	N/A	N/A	124,942
1994	N/A	N/A	614	N/A	N/A	117,732
1995	N/A	N/A	592	N/A	N/A	111,825

Source: 1978-1992 data from USDA, Census of Agriculture
1994-1995 data from American Farm Bureau Federation

APPENDIX H

Status of National and Northeast Dairy Industries

APPENDIX H

Decline in the Number of Farms & Overall Status of the Industry

1. Nationally

   a. Number & size of farms and amount of milk [31]

   Nearly half of the U.S. dairy herd was concentrated in large dairy farms (with 100 or more milk cows) in 1993. These large dairies represented just 13.6 percent of all U.S. farms with milk cows, but they were responsible for about 50 percent of total milk production. New technologies have required extensive capital investment that is most feasible for large dairy operations. Since 1977, farms with fewer than 30 milk cows have declined continuously as a share of all farms with milk cows. The share of farms with 30-49 milk cows gradually increased until 1990, but then began a slow decline. The share of farms with 50 or more milk cows increased in recent years, with farms having 100 or more milk cows increasing most in both number and share of all farms with milk cows. The largest farms are increasing most in the West and Southwest. The traditional milk-producing states of the Northeast and Lake States have seen their share of milk production become stable and then decline in recent years. While this data is only through 1993, the Commission feels safe assuming that these broad trends will continue.

   California, Wisconsin, New York, Pennsylvania, and Minnesota are currently the five leading milk-producing States. Except for California, however, these States will see their relative shares of total U.S. milk output decline. California's dairy industry has grown rapidly during the last 30 years and will probably become the largest producer on an annual average basis in 1994. New Mexico's dairy industry also has good prospects to become one of the top 10 producers in the next few years.

   The West and Southwest have accounted for an increasing share of total U.S. milk production. Increased demand for locally produced milk due to rapid population growth and the cost incentives associated with milder climates encouraged the growth of very large specialized dairies in Southern and Central California, Arizona, New Mexico, Texas, and Florida. Dairy herds of 700 to 1,500 cows are more common in those areas than elsewhere.

b. Reasons for changes in number of farms

(The following deals with all farms, not just dairy farms).

The number of U.S. farms has fallen by over two-thirds from a peak of 6.8 million in 1935. Most of the decline occurred during the 1950's and 1960's, when farm numbers shrank more than 100,000 each year. Much of this decrease was due to ample off-farm employment opportunities and continued mechanization of farm operations.

During the late 1970's, a surge in the number of farms with less than 50 acres nearly offset the steady decline in mid-sized farms (50-999 acres). This nearly halted the net decline in total farm numbers, with the Census reporting a total decline of just 17,000 between 1978 and 1982.

The decline in farm numbers resumed again as the farm sector faced a financial crisis in the mid-1980's, with real interest rates soaring, farmland values plummeting, and farm exports dropping. The period saw increased bankruptcies, foreclosures, and forced liquidations of farm property.

With improvement of farm returns and financial conditions in the late 1980's and early 1990's, many expected the loss of farms to slow. However, the decline in farm numbers continued unabated between 1987 and 1992. This suggests that much of the decline in farm numbers over the past decade was part of a long-term structural trend, rather than simply a response to shortrun financial conditions.

From 1978 to 1982, farm entries and exits were almost equal, with an estimated 99,000 entries each year and 103,000 exits. From 1982 to 1987, farm exits rose slightly, to 105,000 per year, but entries fell about 25 percent, to 75,000 per year. Thus the accelerated decline in farm numbers in the mid-1980's was due primarily to the decrease in entrants, combined with a steady flow of exiting farms. From 1987 to 1992, farm entries dropped further, to less than 67,000 per year, while exits fell just slightly to about 99,000 per year.

Traditionally, most of the entering farms have been operated by persons under age 35, while the bulk of exiting farms have been operated by those 65 years of age and over. But recently, entry has fallen fastest for farms operated by those under 35.

Low prices for many commodities, higher real borrowing expenses, rising land values, and lower birth rates since the early 1960's are all factors in the reduction in farm entrants.

For farm exits, the most noticeable change in the 1992 Census was among farmers 35-44 years old. This age group may have been the most vulnerable to financial stress during the 1980's, which may partially explain their increased rate of exit. Many of these mid-career farmers expanded their operations in the late 1970's when farmland values and nominal interest rates were high. The 35-44-year-old group tends to be most reliant on debt. Because of the rapid inflation during much of this period, real interest rates were low by historical standards, making borrowing attractive. In addition, as long as asset values continued to rise, capital gains from selling land were possible. This also induced many nonfarm investors to purchase farmland, contributing to the surge in small farms during the 1970's. In the early 1980's, these farmers held large debts while the value of their farmland and other farm assets plummeted, leading many to financial insolvency.

Some older farmers may have postponed exiting in the mid-1980's because of depressed prices for farm assets at that time. The fall in asset value reduced the net worth of most farms and made liquidation of farmland and other farm assets difficult.

The substantial decline in the rate of young people entering farming and the growing number of farmers nearing retirement have generated concern about the future of U.S. farming.

Slow growth in farm prices, farm income, and farmland values sends a negative signal to many potential farm entrants. The result is a smaller number of farms--but a farm base that is highly productive. As long as per-unit costs decrease when farms become larger, farm numbers are likely to continue falling significantly.

c. Milk per cow

During 1977-93, milk per cow rose by 39 percent, reaching 15,554 pounds per year. Total milk output in the United States rose to 150,954 million pounds in 1993. Milk output per cow has been increasing at a very steady rate for many years. Output per cow has grown more rapidly than milk consumption per capita, resulting in a gradual trend toward reduced cow numbers.

Changes in output per cow vary regionally. The Pacific region's output per cow has been about 30 percent higher than the national average and 50 percent higher than that of the lowest producing region. Climatic conditions contribute to some of these differences, but the main factors seem to be related to progressiveness, philosophy, and quality of management demonstrated by different dairy farmers. These factors directly impact technology adoption and the size of dairy farms. Generally, larger dairy farms experience lower production costs. [38]

d. Technological advances

Technological achievements have significantly influenced the structural changes in the U.S. dairy farm industry. Capital-intensive technologies for milking and feeding have generally increased the minimum economically feasible size of a dairy operation, increased production efficiency, and influenced specialization. Genetic improvements, higher rates of concentrate feeding, and better feeding management have also helped increase milk production per cow. [31]

Emerging technology and environmental concerns will affect the location and structure of dairy farming in the near future. Environmental regulations on air quality, water quality, and waste handling may limit the type of milk production technologies that can be used, especially in regions where the largest dairy herds are highly concentrated. The most dramatic impact will be due to rBST, a growth hormone which increases milk production. Claims have been made that rBST is unsafe in consumer food products, an unsafe technology for cows, and a technology that will economically destroy many traditional farms. Emerging technologies (including rBST), industry economics, and current dairy policy will merely accelerate an existing trend--the pressure on traditional farms to grow or exit the industry. The trend toward large-scale, more specialized farming is expected to continue. [38]

This transformation of farming has resulted in increasing specialization and the structural incorporation of industrially derived products such as pesticides, fertilizers and veterinary medicines into production systems. The loss of many small family farms and the increase in the size of those remaining are consequences of agricultural industrialization. This transformation can be expected to continue despite increasing concern about negative consequences for the natural environment and for certain segments of rural society. [20]

e. Possible management & policy changes [38]

If desired, it is possible to at least slow the trend toward fewer total cows and larger dairy farms. However, such change may be costly. To keep smaller, traditional farms in the industry will require increased expenditures for research and extension to improve technology adoption, the development of technology improvement strategies by USDA, Land Grant universities and farm cooperatives, and increased funds to support the price of milk at a level that will allow these farms to compete. Policymakers will need to weigh the benefits of traditional farms with these costs in determining the policy path to follow in the 1990s. This is particularly the case for dairy farms where a large share of feed supplies are purchased.

2. The Northeast

a. The current situation

Dairy farms in the traditional milk producing regions are expected to lose considerable equity under these conditions of change in management and technology. Pacific and Southeast farms, although still profitable, are expected to operate much closer to their respective break-even points. But if the Upper Midwest and Northeast regions are to maintain their roles as the "dairy States," major changes in scale of operation, technology adoption, philosophy and quality of management and, perhaps, policy may be required. [38]

Dairy processing in the Northeast presently is confronted with the challenge of intensive external competition for the profitable manufacture and sale of most finished dairy products. The Northeast's ability to meet this competitive threat is diluted by excess capacity and the predominance of relatively small-scale, obsolescent processing facilities in both the fluid milk and manufacturing sectors. The marketing system is fragmented and needs restructuring. Environmental and zoning regulations appear to be inhibiting needed industry investments. [26]

Dairy farming is the dominant form of agriculture in large parts of the Northeast. There are ecological reasons for this dominance, having to do with soil and site limitations, climate, and the ability of ruminant livestock to convert perennial forage grasses and legumes into high quality food for people. "Anyone concerned with sustaining a viable, environmentally sound agriculture in the Northeast must be concerned about the fate of the producers of ruminant livestock in the region, particularly the dairymen, who farm most of the agricultural landscape in the Northeast." [20]

Milk produced in the Northeast could continue to decline if business is conducted as it has been in the past. If this were to be the trend, then it will reach a critical point where it will drop rapidly because there will not be enough to support the agribusiness infrastructure. This need not be the case, however. There needs to be more focus on expansion in Northern New York, Vermont and in parts of New Hampshire and Maine. These states have the resources. They have good land to grow crops, they have plenty of water, and there is space and land that is still reasonably priced and they are located in a region that is comparatively close to a dense and relatively affluent population and a region that has a deficit production of milk, i.e. it consumes more than it produces. There is a growing demand in the Northeast for new specialty dairy products, especially exotic cheeses and cultured items. The bulk of the dairies producing the majority of the milk would be in the 200 to 300 cow size. The 60 to 100 cow dairies will continue, but there will be off-farm income and the debt load will be very low. [36]

The major industry study in 1987 by the Northeast Regional Council indicated the following as being key concerns relative to the future of dairy farming in the Northeast and they seem as true today as then. [26]

"(1) The milk marketing system is fragmented and has high assembly, operating, and sales costs. Excess capacity exists.

(2) Too many dairy cooperatives are heavily leveraged with low producer equity. Often directors and management have excellent production experience, but are not strong in financial or marketing expertise.

(3) Local, poorly advertised brands cannot successfully compete with carefully selected, high-quality brands that are advertised regionally and nationally.

(4) There is concern about the maintenance and, in some cases, expansion of high-caliber teaching, research, and extension.

(5) Production per cow and per worker in the Northeast are lagging the nation as a whole.

(6) Farm labor will be a substantive limiting factor for Northeast dairying."

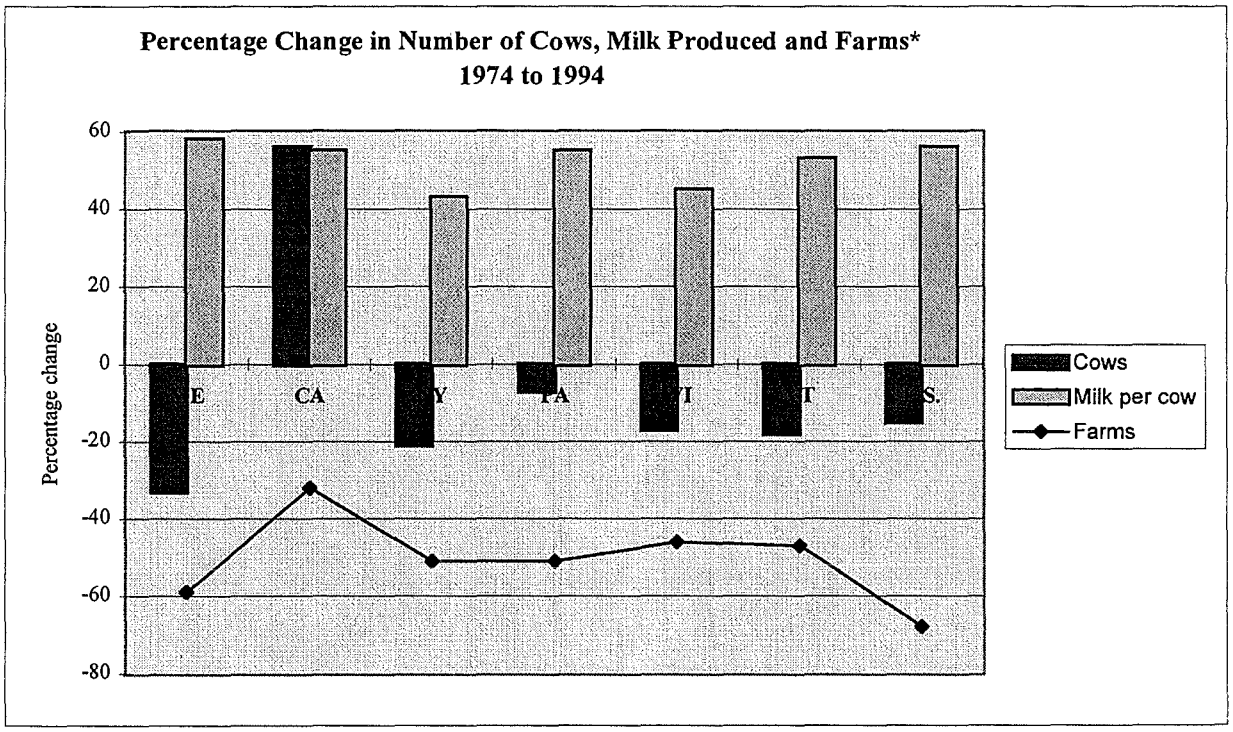
Cows, Milk, Operations
Percent Change Over Time

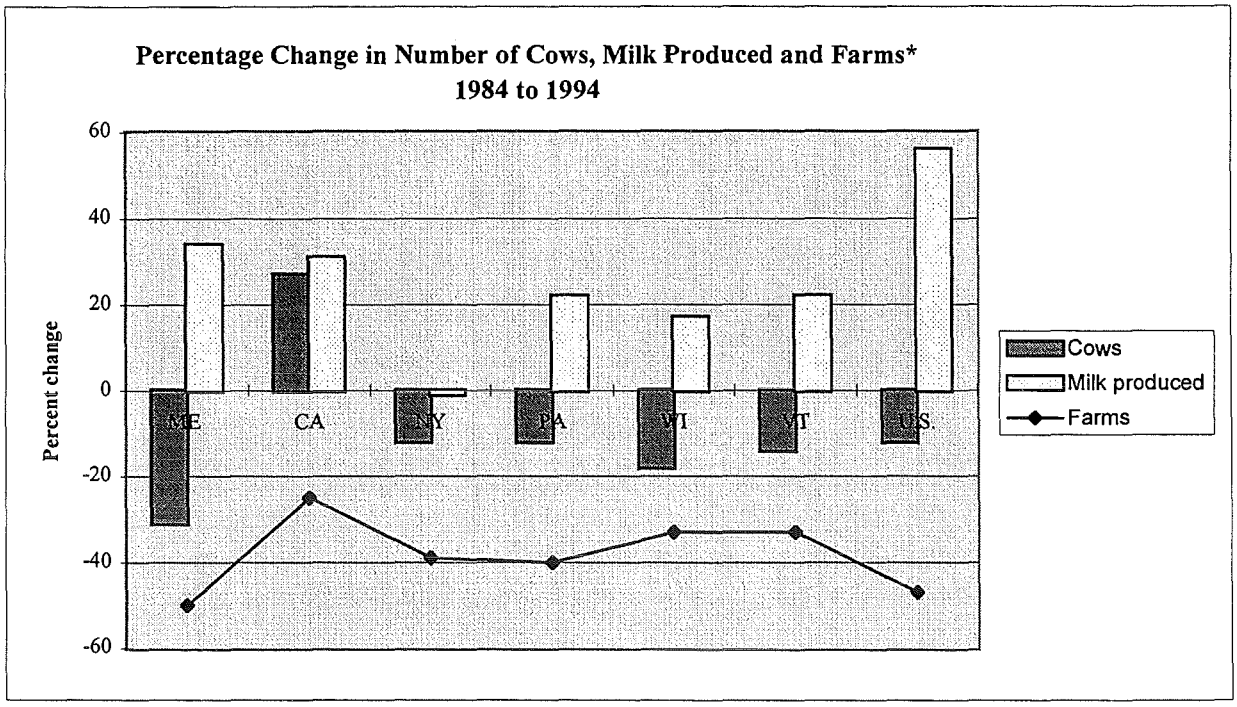
	Maine			California			New York			Pennsylvania			Wisconsin			Vermont			U.S.		
	1974	1984	1994	1974	1984	1994	1974	1984	1994	1974	1984	1994	1974	1984	1994	1974	1984	1994	1974	1984	1994
Number of Cows (1,000 head)	60	58	40	797	978	1,245	905	904	711	687	729	639	1,801	1,828	1,494	193	183	158	11,230	10,793	9,525
Percent Change ('74 baseline)	----------	-3	-33	----------	23	56	----------	-0.11	-21	----------	6	-7	----------	1.50	-17	----------	-5	-18	----------	-4	-15
Percent Change ('84 baseline)	----------	----------	-31	----------	----------	27	----------	----------	-21	----------	----------	-12	----------	----------	-18	----------	----------	-14	----------	----------	-12
Milk Produced (million pounds)	611	694	639	10,596	15,292	25,019	9,822	11,443	11,428	6,980	9,423	10,230	18,713	23,501	22,412	1,945	2,311	2,452	115,586	135,351	153,621
Percent Change ('74 baseline)	----------	14	5	----------	44	136	----------	17	16	----------	35	47	----------	26	20	----------	19	26	----------	17	33
Percent Change ('84 baseline)	----------	----------	-8	----------	----------	64	----------	----------	0	----------	----------	9	----------	----------	-5	----------	----------	6	----------	----------	13
Milk Produced Per Cow (pounds)	10,183	11,966	16,074	13,295	15,636	20,544	10,853	15,719	15,491	10,160	12,926	15,740	10,390	12,856	15,047	10,078	12,628	15,407	10,293	12,541	16,011
Percent Change ('74 baseline)	----------	18	58	----------	18	55	----------	45	43	----------	27	55	----------	24	45	----------	25	53	----------	22	56
Percent Change ('84 baseline)	----------	----------	34	----------	----------	31	----------	----------	-1	----------	----------	22	----------	----------	17	----------	----------	22	----------	----------	56
[1] **Number of Operations**	2,200	1,800	900	5,900	5,300	4,000	22,000	17,500	10,700	25,500	21,000	12,500	54,000	43,000	29,000	4,500	3,600	2,400	470,240	282,430	149,990
Percent Change ('74 baseline)	----------	-18	-59	----------	-10	-32	----------	-20	-51	----------	-18	-51	----------	-20	-46	----------	-20	-47	----------	-40	-68
Percent Change ('84 baseline)	----------	----------	-50	----------	----------	-25	----------	----------	-39	----------	----------	-40	----------	----------	-33	----------	----------	-33	----------	----------	-47

[1] This is the number of operations not the number of herds

Source: USDA National Agricultural Statistics Service

Prepared by the Office of Policy and Legal Analysis





*Farms is defined as those operations with at least 50% of their business in agriculture.

Source: USDA National Agricultural Statistics Service

APPENDIX I

Alternative Feeding Methods

APPENDIX I

ALTERNATIVE FEEDING METHODS

(i) Buying commodities in bulk

a) Requirements

- May have to take on functions that feed dealer typically performs, e.g. purchasing, quality, storage and formulation
- Requires, ideally, a commodity shed capable of accepting truck loads (20 tons), with high ceiling, concrete floor, access for trucks and bucket loaders
- Need herd size of more than 68 cows or a storage facility that costs less than $15,000. (University of Wisconsin)
- Needs price differential of $65 for 120 cows and $15,000 in storage facilities
- Consider whether other uses of money may yield a higher return

(b) Advantages

- Increased flexibility of feeding program
- Ability to purchase feed at seasonal low

(c) Disadvantages

- Investment interest, storage cost, spoilage, etc. may cancel the cost advantage
- Savings in price can go against the purchasers

(ii) Total Mixed Rations

(a) Requirements

- Must compare with alternative uses of the invested funds

(b) Advantages

- Increased milk production
- Improved management of purchased feed
- Improved butterfat test (potential)
- Reduction in metabolic health problems
- Maximum utilization of stored forages and grains
- Reduction in feed waste
- Feed input cost and output response are closely monitored

(c) Disadvantages

- Exclusion or difficulty with baled hay
- Fixed equipment cost
- Grouping and cow traffic
- Increased service fees
- Feed storage
- Feed moisture variation
- Labor
- Very sensitive to poor management

(iii) Intensive Pasture Management

The material in this section is from the Universities of New Hampshire, Vermont, and Wisconsin. With the exception of labor costs, there is essential agreement among the material from the 3 universities.

(a) Requirements

- more attention to fencing
- demands flexible management skills, particularly, in dealing with a dynamic, biological system
- close observation of the pastures
- solid understanding of the principles of rotational grazing
- an appreciation for soil-plant-animal interactions
- access to drinking water

(b) Advantages

- saves $1.56 per cwt on feed. Increases income over feed cost by $149 per cow. (University of New Hampshire)
- reduced grain costs
- improved herd health
- improved heat detection
- lower machine cost and repair bills
- less time spent on the tractor and more time spent with the family
- maximized feed availability
- Refusals due to manure, urine and trampled grass are minimized due to the short duration animals spend in an area
- Reduced needs for forage storage
- Fewer manure handling problems
- Increased yields of digestible dry matter
- Increased production per cow and per acre on 1/3 to 1/2 of the farms
- decreased costs of cropping, harvesting, storage, feeding, and manure handling
- premium price for high quality milk (low somatic cell count) from pastured cows
- feeding costs only 1/6 as much as confinement feeding
- Cows will eat up to 50% more pasture forage than previously thought
- Supplemental energy keeps production strong

(c) Disadvantage

- None of the referenced studies mentioned disadvantages.

(d) Labor

- more labor to constantly move animals (University of New Hampshire)
- lower labor (Penn State University)
- solves problems of excessive work load (University of Vermont)
- lower hired labor requirements (University of Vermont)

APPENDIX J

Recommended Legislation

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 7 MRSA §241, first ¶, as enacted by PL 1989, c. 194, is amended to read:

The Commissioner of Agriculture, Food and Rural Resources shall appoint, subject to the Civil Service Law, an Education Specialist II or agricultural education consultant. The person appointed shall:

Sec. 2. 7 MRSA §241, sub-§1, as enacted by PL 1989, c. 194, is amended to read:

1. Public awareness. Produce ~~audio-visual~~ audiovisual materials, facilitate public service programming, prepare written materials, organize a speakers' bureau and otherwise educate the public. The ~~commissioner~~ appointee, in carrying out these duties, shall address the following needs: maintaining a lasting and sustainable agriculture; protecting our critical rural infrastructures; guaranteeing continued and effective production and marketing of fresh fruits, vegetables and livestock; preserving prime farmland; conserving our soils and water; and generally ensuring the quality of life in rural Maine.

Sec. 3. 20-A MRSA §253, sub-§6, as amended by PL 1985, c. 785, Pt. A, §78, is repealed.

Sec. 4. Appropriation. The following funds are appropriated from the General Fund to carry out the purposes of this Act.

	1996-97
AGRICULTURE, FOOD AND RURAL RESOURCES, DEPARTMENT OF	
Administration - Agriculture	
Positions - Legislative Count	(1.0)
Personal Services	$56,591
All Other	1,500
Provides funds for the transfer of one Education Specialist I position from the Department of Education, Division of Applied Technology.	
DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES TOTAL	$58,091

EDUCATION, DEPARTMENT OF

Division of Applied Technology

Positions - Legislative Count	(-1.0)
Personal Services	($56,591)
All Other	(1,500)

Deappropriates funds for the transfer of one Education Specialist II position to the Department of Agriculture, Food and Rural Resources, Administration - Agriculture program.

DEPARTMENT OF EDUCATION TOTAL	($58,091)
TOTAL APPROPRIATIONS	$-0-

STATEMENT OF FACT

This is one of 6 bills submitted by the Commission to Study Options for Preserving the Dairy Industry in the State.

This bill transfers the position of agricultural education consultant, established under the Department of Education by the Maine Revised Statutes, Title 20-A, section 253, subsection 6, to the Department of Agriculture, Food and Rural Resources to facilitate and administer the department's educational programs.

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 36 MRSA §1752, sub-§9-B, as amended by PL 1989, c. 501, Pt. V, §5, is further amended to read:

9-B. Production. "Production" means an operation or integrated series of operations engaged in as a business or segment of a business ~~which~~ that transforms or converts personal property by physical, chemical or other means into a different form, composition or character from that in which it originally existed.

Production includes manufacturing, processing, assembling and fabricating operations ~~which~~ that meet the definitional requisites and, notwithstanding other provisions of this section, also includes farm production operations.

Production does not include biological processes, wood harvesting operations, the severance of sand, gravel, oil, gas or other natural resources produced or severed from the soil or water, or activities such as cooking or preparing drinks, meals, food or food products by a retailer for retail sale. The foregoing are examples of activities that are not included within the term "production."

STATEMENT OF FACT

This bill is one of six submitted by the Commission to Study Options for Preserving the Dairy Industry in Maine.

This bill includes farm production under the definition of production for purposes of dealing with the sales and use tax. This qualifies a farm as a manufacturing facility and thus qualifies it for the exemption from electricity sales tax given by the Maine Revised Statutes, Title 36, section 1760, subsection 9-D.

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 36 MRSA §1109, sub-§5, as amended by PL 1977, c. 467, §10, is further amended to read:

5. Owner obligation. If the owner or owners of any parcel of land subject to taxation under this subchapter fail to submit the schedules under the foregoing provisions of this section, or fail to respond, within 60 days of receipt, to written questions or interrogatories of the assessor, or fail within 60 days of receipt of notice as provided in this section~~,~~ to appear before the assessor to respond to questions or interrogatories, or fail to provide information after notice duly received as provided under this section, ~~such~~ that owner or owners ~~shall be~~ are deemed to have waived all rights of appeal.

It ~~shall be~~ is the obligation of the owner or owners to report to the assessor any change of use or change of classification of land subject to taxation hereunder by the end of the calendar year in which the change occurs and to file ~~annually~~ by April 1st of every 5th year with the assessor a determination of the gross income realized each of the previous ~~year~~ 5 years from acreage classified as "farmland."

If the owner or owners fail to report to the assessor as required by the foregoing paragraph, the assessor may collect ~~such~~ those taxes as that should have been paid, shall collect the penalty provided in section 1112 and shall assess an additional penalty of 25% of the foregoing penalty amount. The assessor may waive the additional penalty for cause.

Sec. 2. 36 MRSA §1109, sub-§6, as amended by PL 1977, c. 467, §11, is further amended to read:

6. Recertification. The assessor shall determine ~~annually~~ every 5 years whether any classified land continues to meet the requirements of this subchapter. ~~Each year~~ Every 5 years the assessor shall recertify any classifications made under this subchapter. If any classified land no longer meets the requirements of this subchapter, the assessor shall either remove the classification or, if ~~he deems~~ the assessor considers it appropriate, allow the land to have a provisional classification as detailed in subsection 2.

Sec. 3. 36 MRSA §1112, 2nd ¶, as amended by PL 1989, c. 555, §19, is further amended to read:

For land classified as farmland under this subchapter for less than 5 full years, the penalty ~~shall be~~ is equal to 40% the greater of 20% of its assessed fair market value at the time the

land is removed from the program or the amount necessary to meet the requirements of the Constitution of Maine, Article IX, Section 8. For land that has been classified as farmland under this subchapter for ~~more than~~ 5 full years ~~but less than 10 full years, the penalty shall be full recapture of the taxes that would have been paid on the land for all the years it was in the program, less all taxes that were paid during those years and interest at the rate set by the town during those years on delinquent taxes. For land that has been classified as farmland under this subchapter for more than 10 full years~~ or more, the penalty ~~shall be~~ is the recapture of the taxes that would have been paid on the land for the past 5 years if it had not been classified under this subchapter, less all taxes that were actually paid during those 5 years and interest at the rate set by the town during those 5 years on delinquent taxes. An owner of farmland that has been classified under this subchapter for 5 full years or more may pay any penalty owed under this paragraph in up to 5 equal annual installments with interest at the rate set by the town to begin 60 days after the date of assessment. Notwithstanding section 943, for an owner paying a penalty under this procedure, the period during which the tax lien mortgage, including interest and costs, must be paid to avoid foreclosure, and expiration of the right of redemption is 48 months from the date of the filing of the tax lien certificate instead of 18 months.

STATEMENT OF FACT

This bill is one of 6 pieces of legislation submitted by the Commission to Study Options for Preserving the Dairy Industry in the State.

Currently, persons who withdraw their land from the provisions of the farmland tax law within the first 5 years of enrolling are penalized 40% of the assessed value. This bill changes this penalty to the greater of 20% of the assessed value or the minimum penalty established in the Constitution of Maine. The constitutional requirement is the difference between the tax paid and the tax that would have been due if the property were not in the program plus interest on this difference.

The current penalty for withdrawing land that has been in the program for more than 5 years but less than 10 years is recapture of the taxes due since the land was in the program. The penalty for withdrawal of land in the program for more than 10 years is recapture of the taxes for the past 5 years. This bill makes the penalty for any withdrawal after more than 5 years the recapture of taxes for the past 5 years. The bill allows the owner to pay the penalty in 5 annual installments and extends the

time to redeem after the filing of a tax lien from 18 months to 48 months if the owner pays in installments.

Lastly, this bill also changes the required income reporting and certification for those in the program from every year to every 5 years.

Emergency preamble. Whereas, Acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the Commission to Study Options for Preserving the Dairy Industry in the State has developed a number of findings that require timely action by the Department of Agriculture, Food and Rural Resources; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore, be it

Sec. 1. Agricultural research. Resolved: That the Commissioner of Agriculture, Food and Rural Resources, in this resolve referred to as the "commissioner," shall assist the joint standing committee of the Legislature having jurisdiction over agricultural matters, as the committee requests, to work with other northeastern states on the development and implementation of a program to apportion agricultural research among the land grant colleges in the different states with the goal of encouraging specialization and avoiding duplication; and be it further

Sec. 2. Energy costs. Resolved: That the commissioner shall work with the utility companies, the Department of Economic and Community Development and the State Planning Office to:

A. Follow up on the commission's discussions with Central Maine Power Company;

B. Have similar discussions with other energy suppliers, including suppliers of natural gas; and

C. Identify and attempt to resolve suppliers' other energy issues as they affect dairy farms; and be it further

Sec. 3. Value-added products. Resolved: That the commissioner shall coordinate with the Cooperative Extension Service, the Maine Agricultural Experiment Station, the Maine Science and Technology Foundation, the Commission on Biotechnology and Genetic Engineering and the Department of Economic and Community Development to learn the new dairy product interests of businesses in this State and to work cooperatively with other states, particularly Vermont, to develop products and that the commissioner keep dairy industry businesses aware of value-added research and development activities; and be it further

Sec. 4. Promotion regulation. Resolved: That the commissioner shall work with the Maine Milk Commission to see that dairy promotions are rejected only when there has been an affirmative finding that the promotion is destructive of minimum milk prices; and be it further

Sec. 5. Farm clearinghouse. Resolved: That the commissioner shall establish a clearinghouse at which persons interested in selling farms and persons interested in buying farms may register those interests; and be it further

Sec. 6. Support groups. Resolved: That the commissioner shall work with the Department of Economic and Community Development and the Cooperative Extension Service to develop a plan to provide on-site farm management mentoring and support to dairy farms, possibly modeled after or utilizing the Service Corps of Retired Executives or the small business development centers and possibly utilizing the undistributed funds from the Maine Dairy Farm Stabilization Fund; and be it further

Sec. 7. Environmental rules. Resolved: That the commissioner shall work with the Department of Conservation and the Department of Environmental Protection to ensure that proposed rules that affect agriculture be brought to the attention of the Department of Agriculture, Food and Rural Resources and the joint standing committee of the Legislature having jurisdiction over agricultural matters; and be it further

Sec. 8. Trade with Canada. Resolved: That the commissioner shall work with the Maine Dairy Promotion Board to request that Maine's Congressional delegation attempt to ensure that dairy products are made part of the North American Free Trade Agreement with Canada; and be it further

Sec. 9. Feeding. Resolved: That the commissioner shall request the Maine Agricultural Experiment Station and the Cooperative Extension Service to assist farmers in developing less costly feeding programs with particular emphasis on better quality forage and the use of intensive grazing; and be it further

Sec. 10. Status reports. Resolved: That the commissioner shall provide the joint standing committee of the Legislature having jurisdiction over agricultural matters with a written status report concerning the assignments made in this resolve by January 1st of each year. Copies must be sent to the Executive Director of the Legislative Council and the State Law Library. Each report must contain an estimate of when each item will be accomplished and set a program and goals for the following year. Reports after the first report must additionally report on activities of the past year and progress in meeting goals set in

the previous report. At the request of the receiving committee, the commissioner shall present an oral report of this information.

In addition to the state report requirements of this section, the following activities have specific deadlines as indicated:

A. The commissioner shall submit a complete plan, including funding recommendations, for on-site farm support groups, as required in section 6, to the joint standing committee of the Legislature having jurisdiction over agricultural matters by January 1, 1997; and

B. In accordance with section 8, within 30 days of the effective date of this resolve, the commissioner shall communicate with the congressional delegation concerning placing dairy products in the North American Free Trade Agreement with Canada.

Emergency clause. In view of the emergency cited in the preamble, this resolve takes effect when approved.

STATEMENT OF FACT

This resolve is one of 6 pieces of legislation being submitted by the Commission to Study Options for Preserving the Dairy Industry in the State. It requires that the Commissioner of Agriculture, Food and Rural Resources accomplish the following:

1. Assist the joint standing committee of the Legislature having jurisdiction over agricultural matters in developing a plan with other northeastern states to apportion agricultural research among the various land grant universities;

2. Work on dairy farm energy issues;

3. Improve communication regarding value-added dairy products;

4. Ensure that the Maine Milk Commission is not being overly restrictive in approving dairy promotions;

5. Establish a clearinghouse for those desiring to sell and those desiring to buy farms;

6. Develop a program for on-site management advice for dairy farms;

7. Ensure that dairy interests are aware of proposed environmental rules that might affect the dairy industry; and

8. Request Maine's Congressional delegation to attempt to have dairy products placed under the North American Free Trade Agreement with Canada. The action or trade with Canada must be initiated within 30 days of the effective date of this resolve and the plan for on-site management advice must be completed by January 1, 1997. The remaining activities require a yearly status report until accomplished. No date for final accomplishment is given.

Emergency preamble. Whereas, Acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the future of Maine's dairy farms is threatened by possible changes in the Federal Milk Marketing Order program, increasing competition from other regions of the country and increasing prices for fertilizer and feed; and

Whereas, it is believed that the Maine Certification Trademark, referred to in this resolve as the "Maine Quality Seal," connotes the important benefits of freshness and high quality of home-produced dairy products; and

Whereas, it is believed that there has recently been inadequate promotion of the Maine Quality Seal; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore, be it

Sec. 1. Additional promotion. Resolved: That the Maine Dairy Promotion Board, referred to in this resolve as the "board," shall increase the promotion of the Maine Quality Seal in relation to Maine dairy products; and be it further

Sec. 2. Seal color. Resolved: That the Commissioner of Agriculture, Food and Rural Resources shall determine whether the color guidelines regarding the seal can be relaxed or eliminated; and be it further

Sec. 3. Promotion goals. Resolved: That the board shall set specific goals for this promotion in keeping with the overall objectives of increasing consumer awareness of the seal to result in greater use of the seal by milk processors. One goal must be the desired objective regardless of funding and one goal must be the objective obtainable with existing funding. The board shall conduct activities that are necessary to set these goals and measure the program against those goals; and be it further

Sec. 4. Review. Resolved: That the board shall give the Commissioner of Agriculture, Food and Rural Resources the opportunity to review and comment on all activities required by this resolve. If the board becomes a nongovernmental agency, the commissioner shall work with the board to complete the activities of this resolve; and be it further

Sec. 5. Deadline. Resolved: That the board shall begin additional promotion of the Maine Quality Seal no later than 180 days after the effective date of this resolve; and be it further

Sec. 6. Transfer of funds. Resolved: That the Department of Agriculture, Food and Rural Resources shall transfer $50,000 from the Maine Dairy Farm Stabilization Fund to the Maine Dairy Promotion Board to be used toward the expenses incurred for promotion of the Maine Quality Seal; and be it further

Sec. 7. Allocation. Resolved: That the following funds are allocated from Other Special Revenue funds to carry out the purposes of this resolve.

	1996-97
AGRICULTURE, FOOD AND RURAL RESOURCES, DEPARTMENT OF	
Maine Dairy Promotion Board	
All Other	$50,000
Provides funds transferred from the Maine Diary Farm Stabilization Fund to the Maine Dairy Promotion Board to increase promotion of the Maine Quality Seal for the Maine dairy industry.	

Emergency clause. In view of the emergency cited in the preamble, this resolve takes effect when approved.

STATEMENT OF FACT

This resolve is one of 6 bills submitted by the Commission to Study Options for Preserving the Dairy Industry in the State.

This resolve requires the Maine Dairy Promotion Board to increase promotion of the Maine Quality Seal for dairy products. It requires the setting of specific goals for the promotion and an evaluation of the promotion against these goals. Fifty thousand dollars is transferred from the Maine Dairy Farm Stabilization Fund to be used toward the expenses for this promotion.

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 7 MRSA c. 606 is enacted to read:

CHAPTER 606

SUBFLOOR MINIMUM PRICE FOR FLUID MILK

§3011. Definitions

As used in this chapter, unless the context otherwise indicates, the following terms have the following meanings.

1. Basic formula price. "Basic formula price" means the basic formula price established on the basis of information collected by the National Agricultural Statistics Service and announced by the Dairy Division of the Agricultural Marketing Service of the United States Department of Agriculture.

2. Boston market producer. "Boston market producer" means any Maine milk producer selling to a dealer marketing milk subject to the New England Milk Marketing Order or any agricultural cooperative that buys milk from or handles milk for such a producer and sells it to such a dealer.

3. Class I milk. "Class I milk" means milk purchased from:

A. A Maine market producer that is classified as Class I milk by the Maine Milk Commission; and

B. A Boston market producer that is classified as Class I milk under 7 Code of Federal Regulations, Part 1001, Sections 1001.1 to 1001.86.

4. Dealer. "Dealer" means any person or entity who purchases or receives milk from a producer within the State for processing and sale within or outside the State, including Maine market dealers and Boston market dealers as defined in Chapter 611.

5. Maine market producer. "Maine market producer" means any Maine milk producer selling to a dealer marketing milk on the Maine market or any agricultural cooperative that buys milk or handles milk for such a producer and sells it to such a dealer.

§3012. Subfloor minimum price established

Notwithstanding chapters 603 and 611, the subfloor minimum price established by this section applies to all purchases of Class I milk by a dealer from a producer located in this State, including Maine market producers and Boston market producers.

For the purchase of Class I milk in any calendar month, the subfloor minimum price is $3 above the basic formula price announced during the calendar month that is 2 months earlier than the calendar month of purchase. The subfloor minimum price applicable to the purchase of Class I milk under this chapter does not preclude the establishment of a higher minimum price by the Maine Milk Commission or applicable federal regulations.

§3013. Payment of subfloor minimum price to producers

1. Maine market producers. If the subfloor minimum price applicable to the purchase of Class I milk from a Maine market producer exceeds the minimum price established by the Maine Milk Commission under chapter 603 applicable to that purchase, the dealer purchasing the Class I milk shall make the payments required for that Class I milk under chapters 603 and 609. Any additional amount that the dealer is required to pay at the subfloor minimum price established by this chapter must be paid directly to the Boston market producer from which the milk is purchased.

2. Boston market producers. If the subfloor minimum price applicable to the purchase of Class I milk from a Boston market producer exceeds the minimum price established pursuant to federal regulations applicable to that purchase, the dealer purchasing that Class I milk shall make the payments required for that Class I milk under applicable federal regulations. Any additional amount that the dealer is required to pay at the subfloor minimum price established by this chapter must be paid directly to the Boston market producer from which the milk is purchased.

§3014. Injunctions and civil penalties

1. Injunction. The Superior Court has jurisdiction, upon complaint filed by the Maine Milk Commission or any person authorized to act for the commission, to restrain or enjoin any person from committing any act not in compliance with this chapter. If it is established upon hearing that the person named in the complaint has been or is committing any act not in compliance with this chapter, the court shall enter a decree requiring payment of any amounts due under this chapter and enjoining that person from further violations. The existence of other civil or criminal remedies is not a defense to a contempt proceeding based on violation of an injunction issued under this section. The commission or its authorized agent may not be required to give or post a bond when making an application for an injunction under this section.

2. Civil penalties. A person who violates any provision of this chapter is subject to the following civil penalties, payable to the State:

A. For the first violation, a forfeiture not to exceed $1,000; and

B. For each subsequent violation, a civil penalty not to exceed $2,000.

This fine is recoverable by the commission or its authorized agent in a civil action. All fines collected by the commission must be paid to the Treasurer of State for deposit in the General Fund.

STATEMENT OF FACT

This bill is submitted by the Commission to Study Options for Preserving the Dairy Industry in the State under the authority of Resolve 1995, chapter 35.

Under the current milk pricing system, the State's dairy farmers, known as "producers," are subject to 2 separate pricing schemes. The Maine Milk Commission establishes minimum prices for fluid milk that must be paid to Maine market producers, or producers whose milk is sold to dealers for resale within Maine to Maine consumers. Federal Order No. 1 establishes minimum prices for fluid milk that must be paid to Boston market producers, including Maine producers whose milk is sold to dealers for resale on the Boston market.

This bill establishes a subfloor minimum price for fluid milk sales of all milk produced in Maine, which will apply to both Maine market and Boston market producers and provide long term assurance that the price paid to all Maine producers is at least $3 above the Basic Formula Price established on the basis of information collected by the National Agricultural Statistics Service of the United States Department of Agriculture and announced by the Dairy Division of the Agricultural Marketing Service of the United States Department of Agriculture.

APPENDIX K

Agrifax Financial Analysis

Dairy Farm Financial Analysis, Maine and the Northeast (Agrifax)

	1993		MAINE	% CHANGE 1988 to 1993	
	MAINE	NORTHEAST	INDEX	MAINE	NORTHEAST
Number of Farms Surveyed	21	731	(Northeast =100%)	1988=39	1988=523
Average No. of Cows	142	122	116%	23%	17%
Pounds of Milk Sold	2,468,539	2,234,834	110%	43%	33%
Pounds of Milk Sold Per Cow	17,419	18,254	95%	16%	13%
Total Crop Acres	341	332	103%	20%	13%
Crop Acres Per Cow	2.4	2.7	89%	-4%	-4%
Tons of Hay Per Acre	4.6	3.9	118%	39%	22%
Tons of Corn Silage Per Acre	15.6	15.1	103%	-1%	3%
Worker Equivalents	4	3	118%	3%	3%
Cows Per Worker	35	36	97%	21%	13%
Pounds of Milk Sold Per Worker	617,135	653,683	94%	40%	28%
Crop Acres Per Worker	85	97	88%	18%	8%
Feed Cost Per Cow	$ 911	$ 704	129%	23%	13%
Feed as a % of Milk Income	33.1%	29%	114%	-1%	-1%
Feed & Crop Expense / Cow	$ 1,020	$ 856	119%	21%	11%
Youngstock as a % of Cows	57.4%	73%	79%	-32%	-2%
	Dollars Per Cow				
Value of Farm Production	2,982	2,824	106%	22%	14%
- Adj. Farm Operating Expense	2,814	2,613	108%	24%	16%
Net Farm Earnings	168	211	80%	7%	-8%
Net Farm Earnings	168	211	80%	7%	-8%
+ Net Nonfarm Income	33	52	63%	-37%	68%
- Family Living & Taxes	174	219	79%	-2%	6%
Net Earnings	27	44	61%	-16%	-19%

Prepared by the Office of Policy and Legal Analysis

	1993		MAINE	% CHANGE 1988 to 1993	
	MAINE	NORTHEAST	INDEX	MAINE	NORTHEAST
Number of Farms Surveyed	21	731	(Northeast =100%)	1988=39	1988=523
Cattle Sales	210	199	106%	136%	12%
Crop Sales	51	43	119%	-52%	59%
Assets Per Cow:					
Total Current Assets	$ 836	$ 874	96%	-5%	0%
Total Intermediate Assets	$ 2,473	$ 3,057	81%	7%	15%
Total Fixed Assets	$ 2,721	$ 3,442	79%	19%	6%
Total Assets	$ 6,030	$ 7,373	82%	10%	9%
Liabilities Per Cow:					
Total Current Liabilities	$ 57	$ 386	15%	-46%	32%
Total Intermed. Term Liabilities	$ 573	$ 929	62%	-4%	29%
Total Long-Term Liabilities	$ 536	$ 926	58%	-27%	2%
Total Liabilities	$ 1,166	$ 2,241	52%	-19%	16%
Current Ratio	14.6	2.3	635%	74%	-23%
Percent Net Worth Per Cow	80.7%	70%	115%	9%	-3%
Return on Assets	1.6%	2.6%	62%	-99%	-13%
Return on Equity	0.5%	0.9%	56%	-101%	-18%
Average Farm Debt Per Cow	$ 1,145	$ 2,193	52%	-17%	16%
Labor & Family Living / Cow	$ 719	$ 551	130%	37%	14%
	Dollars Per Cwt.				
Actual Milk Price	14.54	13.23	110%	N/A	1%
Cash Required	16.77	15.56	108%	N/A	3%
Break-Even Milk Price	14.12	13.11	108%	N/A	4%
Cash Margin	0.42	0.12	350%	N/A	-69%

Source: Agrifax, *1988 and 1993 Comparative Earnings Statement, Maine*; and Agrifax, *1988 and 1993 Northeast Dairy Farm Summary*

APPENDIX L

Economic Indicators of the Farm Sector

Economic Indicators of the Farm Sector

State	Liquidity			Efficiency				Leverage index	Solvency		Profitability						Net farm income to gross cash farm income
											Rates of return on assets from---			Rates of return on equity from---			
	Farm Business debt service coverage	Debt Servicing	Times interest earned	Gross ratio	Interest to gross cash farm income	Asset turnover	Net cash farm income to debt		Debt to assets	Debt to equity	Current income	Real capital gains	Total	Current income	Real capital gains	Total	
	Ratio			Percent				Ratio	Percent								
Maine	41.3	70.5	3.4	10.3	13.6	2.2	13.5	15.7	15.0	17.7	2.2	4.9	7.1	1.3	6.2	7.6	30.2
National	16.0	19.0	3.1	1.6	4.7	2.1	2.4	4.5	16.0	19.0	3.0	1.5	4.5	2.1	2.4	4.5	22.0
Maine as % of Natl.	258%	371%	110%	644%	289%	105%	563%	349%	94%	93%	73%	327%	158%	62%	258%	169%	137%

Source: *Economic Indicators of the Farm Sector. State Financial Summary 1993.* U.S. Department of Agriculture. Table 24, Farm Financial Ratios.

APPENDIX M

National Rank of Commodities by State

APPENDIX M

NATIONAL RANK OF COMMODITIES BY STATE, 1993

COMMODITY	UNIT	Connecticut		Maine		Massachusetts	
		Production/ Inventory	U.S. Rank	Production/ Inventory	U.S. Rank	Production/ Inventory	U.S. Rank
		1,000		1,000		1,000	
Crop Production:							
Dry Hay, All	tons	163	45	399	42	186	44
Corn for Silage	tons	741	27	495	32	459	33
Tobacco, All	pounds	2,413	15	--	--	694	16
Oats	bushels	--	--	1,950	20	--	--
Fall Potatoes	cwt	--	--	19,890	** 7	645	21
Sweet Corn [1/]	cwt	217	16	--	--	446	12
Tomatoes [1/]	cwt	--	--	--	--	88	17
Apples	42-lb bu	583	28	1,310	21	1,405	19
Peaches [2/]	48-lb bu	75	28	--	--	35	30
Pears	tons	1,250	** 9	--	--	--	--
Cranberries	barrels	--	--	--	--	1,880	** 1
Maple Syrup	gallons	10	** 10	113	** 3	33	** 9
Wild Blueberries	pounds	--	--	64,787	** 1	--	--
Livestock & Poultry Inventory: [3/]							
Cattle, All	head	73	44	117	43	69	45
Milk Cows	head	33	38	40	36	30	39
Sheep	head	10.6	39	20	33	17.4	35
Hogs	head	5.5	47	10	44	24	43
Hens & Pullets [4/]	birds	3,851	21	4,854	19	769	40

COMMODITY	UNIT	New Hampshire		Rhode Island		Vermont	
		Production/ Inventory	U.S. Rank	Production/ Inventory	U.S. Rank	Production/ Inventory	U.S. Rank
		1,000		1,000		1,000	
Crop Production:							
Dry Hay, All	tons	140	46	15	48	654	38
Corn for Silage	tons	296	38	38	46	1,218	20
Tobacco, All	pounds	--	--	--	--	--	--
Oats	bushels	--	--	--	--	--	--
Fall Potatoes	cwt	--	--	226	23	--	--
Sweet Corn [1/]	cwt	--	--	--	--	--	--
Tomatoes [1/]	cwt	--	--	--	--	--	--
Apples	42-lb bu	869	25	126	36	905	24
Peaches [2/]	48-lb bu	--	--	--	--	--	--
Pears	tons	--	--	--	--	--	--
Cranberries	barrels	--	--	--	--	--	--
Maple Syrup	gallons	66	** 7	--	--	310	** 1
Wild Blueberries	pounds	--	--	--	--	--	--
Livestock & Poultry Inventory: [3/]							
Cattle, All	head	51	47	7.5	50	285	41
Milk Cows	head	20	45	2.3	49	161	17
Sheep	head	8.4	41	--	--	24.4	32
Hogs	head	8.5	46	5	48	4.5	49
Hens & Pullets [4/]	birds	168	46	211	45	71	47

** *Ranks in top ten nationwide*

APPENDIX N

State Research and Development Expenditures

Analysis of Industry Research and Development Expenditures for Selected Agricultural Commodities Fiscal Year 1993-94

Industry	Industry % of cash receipts for all agricultural commodity groups	% of industry contribution to total R&D expenditure on that industry	% of industry contribution to selected agricultural commodities industry contributions	% of selected experiment station controlled funds spent on that industry	% of selected experiment station R&D funds spent on that industry	% of State R&D funds spent on that industry
Potatoes	28.9%	9.8%	87.7%	58.4%	59.7%	51.8%
Apples	3.8%	2.8%	3.0%	7.4%	7.0%	11.3%
Blueberries	7.2%	8.4%	2.0%	16.0%	16.1%	13.9%
Dairy Cattle & Milk	28.8%	3.2%	7.3%	15.8%	15.0%	19.5%
Poultry & Eggs	31.3%	0%	0%	2.4%	2.2%	3.5%

Note: Columns may not total 100% due to rounding.

Sources: U.S. Department of Agriculture, Current Research Information System Orono, Maine. Fiscal Year 1994
New England Agricultural Statistics, 1993. New England Agricultural Statistics Service

APPENDIX O

Federal Research and Development Expenditures

Research & Development Per Farm Expenditures
1992

State	No. of Farms	Federal R&D Expenditures								Total Federal R&D Expenditures	Total R&D Per Farm Expenditure
		Extension Activities	Per Farm Expenditure	Hatch Act	Per Farm Expenditure	Special Research Grants	Per Farm Expenditure	Competitive Research Grants	Per Farm Expenditure		
Maine	6,800	3,013,000	$443	1,686,036	$248	1,666,729	$245	360,483	$53	6,726,248	$989
California	76,000	12,151,000	$160	4,744,994	$62	2,776,219	$37	11,344,134	$149	31,016,347	$408
New York	38,000	13,702,000	$361	5,059,911	$133	3,604,025	$95	6,115,278	$161	28,481,214	$750
Pennsylvania	51,000	13,006,000	$255	5,642,512	$111	1,442,468	$28	2,656,537	$52	22,747,517	$446
Wisconsin	79,000	10,447,000	$132	4,671,758	$59	666,301	$8	5,017,424	$64	20,802,483	$263
Vermont	6,500	2,953,000	$454	1,334,854	$205	1,944,186	$299	121,070	$19	6,353,110	$977

Source: USDA National Agricultural Statistics Service

Research & Development Expenditures Per $1,000 of Sales
1992

State	Total Sales 1992	Federal R&D Expenditures								Total Federal R&D Expenditures	Total R&D Expenditures Per $1,000 of Sales
		Extension Activities	Per $1,000 of Sales	Hatch Act	Per $1,000 of Sales	Special Research Grants	Per $1,000 of Sales	Competitive Research Grants	Per $1,000 of Sales		
Maine	$430,324,000	3,013,000	$143	1,686,036	$255	1,666,729	$258	360,483	$1,194	6,726,248	$64
California	$17,051,912,000	12,151,000	$1,403	4,744,994	$3,594	2,776,219	$6,142	11,344,134	$1,503	31,016,347	$550
New York	$2,622,001,000	13,702,000	$191	5,059,911	$518	3,604,025	$728	6,115,278	$429	28,481,214	$92
Pennsylvania	$3,570,191,000	13,006,000	$275	5,642,512	$633	1,442,468	$2,475	2,656,537	$1,344	22,747,517	$157
Wisconsin	$5,259,670,000	10,447,000	$503	4,671,758	$1,126	666,301	$7,894	5,017,424	$1,048	20,802,483	$253
Vermont	$415,253,000	2,953,000	$141	1,334,854	$311	1,944,186	$214	121,070	$3,430	6,353,110	$65

Sources: USDA National Agricultural Statistics Service
1992 Census of Agriculture - State Data

APPENDIX P

Agrifax Dairy Farm Benchmarks

1993 AGRIFAX DAIRY FARM BENCHMARKS
COMPARATIVE BALANCE SHEET

	Maine	Vermont	New York	Pennsylvania
Average No. of Cows	142	122	126	102
ASSETS		DOLLARS PER COW		
Cash	140	19	228	96
Accts Receivable	188	199	combined	149
Produce/Sale	23	0	NA	24
Produce/Farm Use	433	370	NA	610
Supplies/Prepaid Exp	30	26	62	50
Other Current Assets	19	133	100	105
TOTAL CURRENT ASSETS	836	746	852	1,034
Dairy Livestock	1,327	1,451	1,470	1,641
Mach & Equipment	913	1,188	1,295	1,495
Other Intermediate Assets	233	373	270	185
TOTAL INTERMEDIATE ASSETS	2,473	3,012	3,035	3,320
Farm Real Estate	2,656	3,552	3,058	4,304
Other Fixed Assets	65	25	44	91
TOTAL FIXED ASSETS	2,721	3,577	3,102	4,394
TOTAL ASSETS	6,031	7,336	6,989	8,748
LIABILITIES AND NET WORTH				
Accts Payable	29	77	62	71
Farm Credit Short-term Loans	17	51	86	2
Curr. Por. - I.T.	0	246	NA	6
Curr. Por. - L.T.	0	36	NA	1
Other Current Liab	12	19	288	196
TOTAL CURRENT LIABILITIES	57	429	436	277
Farm Credit I.T. Loans	408	775	752	18
Other I.T. Liabilities	165	134	176	1,021
TOTAL INTERMED TERM LIABILITIES	573	909	928	1,039
Farm Credit L.T. R/E Loans	244	769	608	123
Other L.T. Liabilities	292	235	271	1,058
TOTAL LONG-TERM LIABILITIES	536	1,004	879	1,181
TOTAL LIABILITIES	1,166	2,341	2,243	2,497
NET WORTH	4,865	4,995	4,746	6,252
TOTAL LIABILITIES & NET WORTH	6,031	7,336	6,989	8,748
Percent Net Worth	80.7	68.1	68.0	71.5
Return on Assets	1.6	3.0	2.9	1.6
Return on Equity	0.5	1.4	1.2	-0.2

Source: Dairy Farm Benchmarks by State, The Northeast Dairy Farm Summary

1993 AGRIFAX DAIRY FARM BENCHMARKS
BUSINESS EVALUATION FACTORS

	Maine	Vermont	New York	Pennsylvania
Average No. of Cows	142	122	126	102
No. of Bred Heifers	24	30	NA	24
No. of Other Youngstock	57	47	NA	35
Youngstock % of Cows	57.4	63.3	78.0	57.7
Total Crop Acres	340.8	244.7	345	333.6
Crop Acres Per Cow	2.4	2.0	2.7	3.3
Pounds of Milk Sold	2,468,539	2,136,277	2,335,123	1,779,580
Milk Sold Per Cow	17,419	17,516	18,549	17,479
Worker Equivalents	4.0	2.9	3.6	3.0
Milk Sold Per Worker	617,135	729,499	653503	586,308
Cows Per Worker	35	42	35	34
Crop Acres Per Worker	85	84	97	110
Feed Cost Per Cow	911	723	698	620
Feed % of Milk Income	33.1	30.0	28	26.3
Feed/Crop Exp. Per Cow	1,020	820	855	818
Labor & Family/Cow	719	462	556	550
Cash Farm Exp./Cwt.	15	12.95	NA	13.27
Ave Farm Debt Per Cow	1,145	2,320	2194	2,411
Working Capital	110,399	38759	NA	77,067
Current Ratio	14.6	1.7	NA	3.7
		DOLLARS PER FARM		
Cash From Operations	34,201	41,808	NA	37,056
Net Nonfarm Income	4,639	7,307	NA	6,726
Capital Sales	1,665	7,575	NA	3,383
Ttl Cash Available for Debt Payment & Captl Purch	40,506	56,689	NA	47,165
Capital Purchases	45,251	51,533	NA	52,892
		DOLLARS PER CWT.		
Actual Milk Price (a)	14.54	13.40	13.05	13.47
Cash Required	16.77	15.75	NA	16.33
-Other Income	2.66	2.31	NA	3.10
Break-Even Milk Price (b)	14.12	13.44	NA	13.23
Cash Margin (a-b)	0.42	-0.04	NA	0.24

Source: Dairy Farm Benchmarks by State, The Northeast Dairy Farm Summary