THE ECONOMIC AND FISCAL IMPACTS OF CONNECTICUT'S DAIRY INDUSTRY

DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT

and the

DEPARTMENT OF AGRICULTURE

In cooperation with

The University of Connecticut

Department of Agricultural and Resource Economics

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Executive Summary

In accordance with Public Act 08-164, *An Act Concerning Assistance for Dairy Farmers*, the Commissioners of the Departments of Agriculture and Economic and Community Development were directed to jointly make recommendations and propose legislative changes to the joint standing committee of the General Assembly having cognizance of matters relating to agriculture regarding actions that could be taken to enhance dairy farmer revenue and a detailed analysis of the positive impact the dairy industry has on the overall Connecticut economy.

Using three economic models of the Connecticut economy, the economic impact of the Connecticut dairy industry (including processing) is estimated to be between $832 million to $1.1.billion in new output (sales), that in turn generates an estimated 2,465-4,242 jobs and $145-$208 million in additional personal income. Dairy farming is the second most valuable component of Connecticut's agricultural sector. Using approximately 72,000 acres of land the dairy industry provides benefits to the character of the state and the well-being of our citizens. It is important to note that the dairy industry is not just farms and open space, it is transportation, heavy machinery, jobs in food production, manufacturing, construction and sales.

The following policy alternatives may have a positive impact on the dairy industry in Connecticut. These proposals would have to be fully explored in the legislative process to ascertain their impact on consumers and taxpayers and would require consideration of certain constitutional issues that are implicated. Consideration of these proposals will necessarily be in the context of the current state budget situation and some proposals may not be practical or advisable at this time.

- Consider language concerning milk pricing similar to Vermont's legislature and the Vermont Milk Commission Proposed Order provided any such proposed law does not violate the state or federal constitution;

- Encourage Congress to reinstate the Northeast Dairy Compact (reference C.G.S. - Chapter 430a) with due consideration to any impact on consumers;

- Revisit the recommendations as spelled out in the *Milk Regulation Board Study of the Connecticut Milk Industry Report to the Environment Committee – April 2006* (http://www.ct.gov/doag/lib/doag/pdf/mrb_study_of_ct_milk_industry_report_to_env_committee_april_2006.pdf) with due consideration to any impacts on consumers or taxpayers and provided any recommendation does not violate the state or federal constitutions;

- Consider reducing transportation costs by requiring milk dealers receiving milk for processing to pay for transportation costs from farm to plant with due consideration to any impacts on consumers or taxpayers and provided any recommendation does not violate the state or federal constitutions;

- Consider providing the fuel tax exemption up front for farmers who buy fuel in bulk with due consideration to any impacts on state revenue;

- Consider providing incentives that encourage all state and local government entities purchase Connecticut-produced agricultural products over out-of-state products as a component of an overall state policy that would encourage the purchase of all goods and services from Connecticut firms first. Evaluate the Department of Administrative Services' set-aside statute (Sec. 4a-51) to measure its efficacy in supporting the purchase of Connecticut dairy products through the purchase of milk for the school lunch program;

- Consider providing an incubator farm program to induce new farmers to sustain dairy farming and related activity in Connecticut. Models of such programs appear in Appendix D;

- Consider providing an incentive program to produce biofuel crops as cover crops or on land that is currently fallow with due consideration to the impact on the state budget;

- Consider forgiving the sales tax on (dairy industry) intermediate inputs sourced and purchased from Connecticut companies with due consideration to the impact on the state budget;

- Consider requiring the Departments of Agriculture and Economic and Community Development, in cooperation with the University of Connecticut - Extension System, to establish programs to encourage manufacturing of value-added milk and milk products. Such programs could include "best business practices," financing, market analysis, including an equipment lend/lease program for dairy farmers or producers. Such consideration shall include an analysis of any impact on the state budget;

- Consider establishing a dairy farmer tax credit similar to one established in Massachusetts and South Carolina with due consideration to the impact on the state budget. Whenever the price dairy farmers receive for milk falls below the cost of production, they could become eligible for an income tax credit. The tax credit would offset any income tax owed and if it exceeds the tax owed a payment of the income tax credit is made to the dairy farmer. The Massachusetts and South Carolina programs appear in Appendix E.

- Consider establishing a Milk Commission with broad authority to establish milk prices which milk dealers and milk handlers are required to pay milk producers provided any recommendation or implementation thereof does not violate any state or federal constitution and with due consideration to the impacts on consumers, producers and the state budget; and

- Consider continuing funding the existing farmland preservation program, which has been quite effective with due consideration to the impact on the state budget. Although the program is not specifically tailored for dairy farms, land in dairy appears to be a principal contributor to preserved farmland. None of the policy recommendations can guarantee the preservation of land in farms and some dairy farms will cease operations. Consider ways to ensure that land preserved under this program can be farmed or otherwise kept from development and remain open space in perpetuity. If existing farm operations cease, consider using the farm as an incubator or lease/grant to other farmers provided any recommendation or implementation thereof does not violate any state or federal constitution and with due consideration to the impacts on consumers, producers and the state budget.

The Economic and Fiscal Impacts of Connecticut's Dairy Industry

1. Introduction

This study estimates the impact of the dairy industry on the Connecticut economy using input-output models that account for the interrelationships between the dairy industry and other sectors as well as imports and exports of products and services. More specifically, the impacts on statewide sales are estimated in the range of $832 million to $1.1.billion, generating an estimated 2,465-4,242 jobs and $145-$208 million in additional personal income. The report estimates the non-pecuniary benefits of open space from dairy farmland to Connecticut residents at $55 million in 2007, thus contributing to the state's quality of life. Moreover, dairy farming contributes directly to Connecticut's food security.

Consisting of dairy farming and processing, the dairy industry encompasses inter-industry transactions that make their impact felt through purchases to and from other sectors in Connecticut and through imports and exports from outside the state. The economic scope of the industry can be characterized by describing the institutions that comprise the marketing channels and their interrelationships in the flow of product and services from producers to consumers.

Connecticut dairy farming, with sales of $76 million in 2007, involves 210 farms located in 75 towns. The industry relies on support services including feed suppliers such as the Central Connecticut Cooperative Farmers Association in Manchester, veterinary services such as the Connecticut Veterinary Medical Diagnostic Laboratory at the University of Connecticut (a nationally recognized center for mastitis research and knowledge), equipment manufacturers such as Engineering Services & Products Co. in South Windsor, and financial services from organizations like First Pioneer Farm Credit in Enfield.

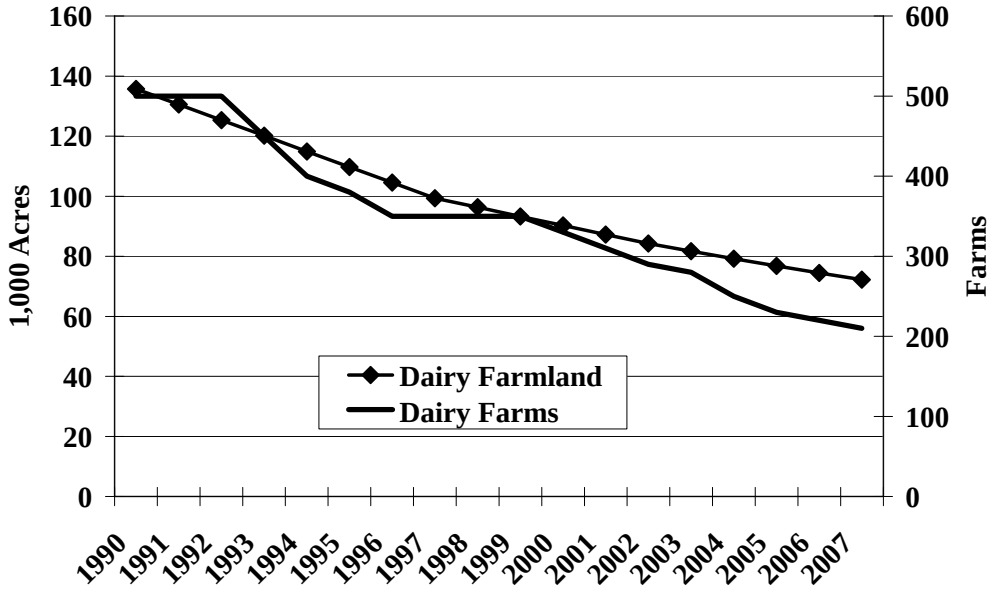
Connecticut dairy farms continue to disappear and, consequently, economic and quality of life losses have occurred throughout the state. The demand for state inputs and services used in milk production such as feed, equipment, fuel, fertilizer, and veterinary services decreases as well. The local supply of raw milk to dairy processors falls. These impacts lead to employment layoffs, increased reliance on imported raw milk, compromising food security and the reliability

of the milk supply to the state's dairy processing sector, as well as the loss of open space afforded by dairy farmland.

- As Figure 1 depicts, in 2007, Connecticut dairy farmers operated approximately 72,000 acres, accounting for 20% of the state's land in farms or 42% of total cropland. However, this represents a 47% decline from the 136,000 acres operated in 1990. Similarly, the number of dairy farms declined by nearly 60% to 210 farms remaining in the state (see Appendix A for data details).

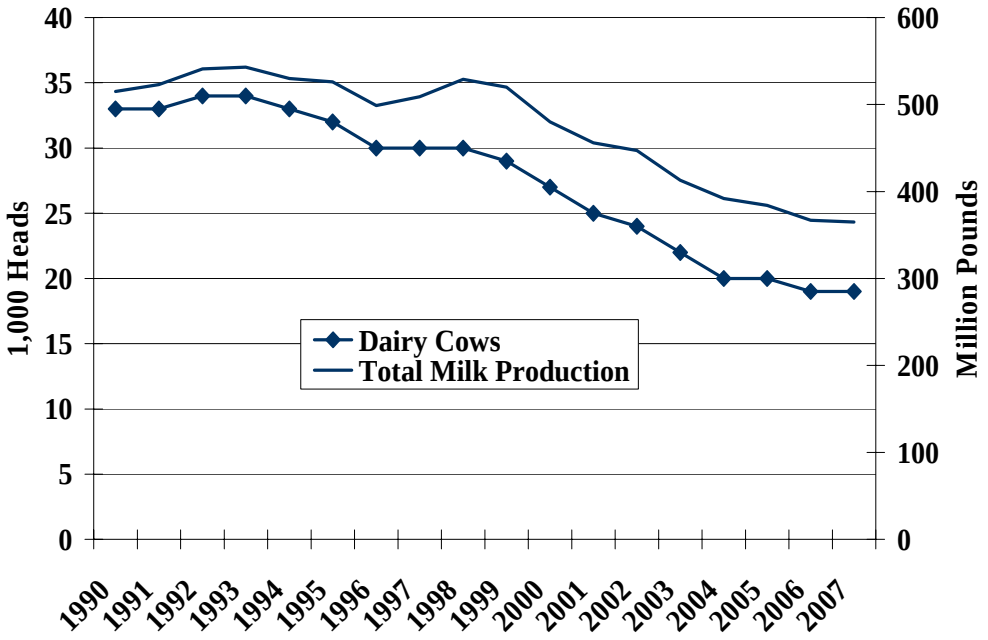
- Figure 2 illustrates that between 1990 and 2007 the number of dairy cows declined by nearly 42% while total dairy milk production declined by approximately 29%, paralleling the downward trend in dairy farms, but these losses were somewhat mitigated by increased milk productivity per cow. (USDA NASS, Connecticut Dairy Statistics, 2007)

Figure 1. Dairy Farmland vs. Dairy Farms in Connecticut, 1990-2007



Source: USDA NASS, Connecticut Dairy Statistics, 1990-2007

Figure 2. Dairy Cows vs.Milk Production, Connecticut, 1990-2007



Source: USDA NASS, Connecticut Dairy Statistics, 1990-2007

Dairy processing is a key economic activity of Connecticut's economy, with sales of nearly $497 million in 2007 and 25 establishments, ranging from small operations to prominent regional and national companies that are geographically dispersed across the state.

- Connecticut imports at least 40% of its raw milk needs (Lopez, et al., 1994), although many farmers send their milk out of state for further processing as members of regional dairy farmer cooperatives such as Agri-Mark.

- In 2007, Connecticut fluid milk manufacturers had sales of approximately $126 million and consisted of five establishments such as Guida's Milk and Ice Cream in New Britain, the largest independent dairy in New England.[1] The Farmer's Cow, an association of six farms located in Northeastern Connecticut uses Guida's Dairy to process their line of branded milk.

[1] We report the official figure from USDA NASS CT Dairy Statistics 2007; however, a company like Guida will have significant sales not just in bottled milk but also in ice cream products so that a significant portion of the milk they process goes to non-milk products that are counted elsewhere.

- Cheese and yogurt manufacturing is the leading processed dairy subsector in the state with sales at $229 million in 2007. Examples of these establishments include YoFarm in Naugatuck, the fifth largest yogurt manufacturer (by value of product) in the country, and Calabro Cheese in New Haven, which is one of the largest regional manufacturers of Italian cheeses made from milk purchased from Connecticut and Vermont dairy farmers.

- Ice cream and frozen desserts is the second largest dairy processing subsector with sales of $141 million in 2007. Examples of such establishments include Royal Ice Cream in Manchester and Carvel Ice Cream (Celebrity Foods) in New Britain.

In addition, the Connecticut dairy industry supports a network of suppliers, including companies that provide dairy farm and milk processing plant equipment and services such as Tarrayk Farm Service in Franklin, Grunder's Farm Machinery in Torrington and Servrite International in Preston. Goods and services needed to support the dairy and milk processing industry include refrigeration, electricity, real estate, transportation, packing materials, energy, sales, legal, fertilizer, seed, heavy equipment, IT and a host of others. It is worth noting that even though Connecticut is a relatively small state, it is nationally prominent in dairy processing, reflecting an industry orientation towards value-added and strategic location advantages by having ready access to major markets in the Northeastern United States.

2. Economic Impacts

We employ three input-output models used extensively in the U.S. for economic impact studies: RIMS II[2], IMPLAN[3] and REMI[4]. These models use as input the direct sales from a sector and, through multipliers, calculate the economy-wide impacts, namely statewide sales, employment, and personal income (see RIMS II and IMPLAN multipliers in Appendix A and Rickman and Schwer, 1995 for differences in each model's methodology). Part of the difference in the results reflects assumptions with respect to how we estimate trade flows (specifically imports). Once we estimate imports, we remove them from the impact estimates. Thus, the greater the degree of

[2] From the Bureau of Economic Analysis (http://www.bea.gov/regional/rims/index.cfm).
[3] Software and data from www.implanpro.com.
[4] Software (includes data) and documentation from www.remi.com.

imports, the smaller the impacts on the state economy, though the industry benefits other regions providing supplies.

As input (the direct effect) to all three models, we use 2007 sales of $76 million of milk from dairy cows and goats (NAICS sectors 11212 and 11242) and 2007 sales of $126 million in the fluid milk manufacturing sector (NAICS 311511), 2007 sales of $229.4 million in the cheese manufacturing sector (NAICS 311513), and 2007 sales of $141.26 million in the ice cream and frozen dessert manufacturing sector (NAICS 31152). In addition, the non-pecuniary open space benefits from dairy farmland (discussed below and in Appendix B) at the state level are used as a direct input in the REMI impact estimates exclusively.

RIMS II Estimates

Table 1 shows the economic impact of dairy farming in Connecticut using RIMS multipliers. The results indicate that dairy farming sales lead to significant additional sales in other state sectors supplying the dairy farming sector, such as feed, veterinary services, fuel, electricity and real estate. Thus, according to this estimate, the dairy farming sector created nearly $152 million in statewide sales in 2007. In addition, dairy farming generated 1,027 jobs statewide with personal income increases of $22.4 million. These estimates do not include the effects of processing, food service, or retail industries that use milk presented separately.

Table 1: Impacts on the Connecticut Economy using RIMS II Multipliers, 2007

	Input	Statewide Impacts		
Activity	Direct Sales (2007 $ million)	Sales (2007 $ million)	Earnings (2007 $ million)	Jobs
Dairy Farming	75.93	151.89	22.40	1,027
Dairy Processing				
Fluid Milk	125.911	250.71	37.383	1,000
Cheese	229.411	441.39	65.107	1,952
Ice Cream & Frozen Desserts	141.259	262.76	45.175	263
Total Dairy Industry	572.511	1,106.747	170.065	4,242

Table 1 indicates that the 2007 dairy processing sales of $497 million generated $458 million in additional (new) sales in other sectors, for total economy-wide sales of $955 million attributed to

the Connecticut dairy processing sector. In addition, this sector generated 3,215 new jobs in the state with personal income gains of $148 million. Overall, the 2007 sales of the Connecticut dairy industry of $572.5 million led to statewide sales of approximately $1.1 billion, generated 4,242 jobs statewide, and contributed $170 million in personal income when the impact in other sectors are accounted for through multiplier effects. Overall, whether by individual subsectors or as an industry as a whole, dairy is a significant economic sector of the Connecticut economy reflected in these impacts.

IMPLAN Estimates

A useful feature of the IMPLAN model is that it provides estimates of fiscal impacts and detailed impacts on other state sectors (Appendix C).

Table 2 presents the estimates using IMPLAN with Regional Purchase Coefficients option. This is the more traditional approach for small areas such as counties (in this case, a small state) because the sector is wide open to trade flows and relies on interregional supplies of good and services. Thus, the multipliers of direct sales in a sector produce smaller statewide impacts than the regional supply/demand pooling presented above.

The results indicate that the impact of dairy farming on statewide sales is approximately $97.8 million, with new personal income of $11.8 million, generating 1,005 new jobs in all associated sectors supporting dairy farming. These results consider “farming” as the final demand and, therefore, do not include downstream impacts on processing and distribution. We estimate the overall impact of the industry on the Connecticut economy at $952 million in new statewide sales, $145 million in new personal income and 4,037 new jobs.

Table 2: Impacts on the Connecticut Economy using IMPLAN Regional Purchase Coefficients, 2007						
	Input	Statewide Impacts				
Activity	Direct Sales (2007$ million)	Sales (2007 $ million)	Earnings	Jobs	State & Local Taxes (2007 $ million)	Value Added
Dairy Farming	75.93	97.78	11.84	1005	3.59	43.97
Dairy Processing						
Fluid Milk	125.91	206.85	32.78	798	4.79	58.45
Cheese	229.41	406.74	54.36	1,444	8.67	95.91
Ice Cream & Frozen Desserts	141.269	240.44	46.07	790	6.25	74.78
Total Dairy Industry	572.51	951.81	145.05	4,037	23.30	229.14

From the detailed impacts on specific sectors (see Appendix C for details), sectors strongly affected by the Connecticut dairy industry include non-dairy agriculture (such as grain crops, and hay), transportation, electric power generation, real estate establishments, and wholesale trade business (such as feed meal suppliers).

REMI Estimates

In addition to using the RIMS II multipliers and the IMPLAN model to assess the economic and fiscal values of the dairy and associated processing industries on the state economy, we use the REMI model of Connecticut.[5] Note that previous studies of the dairy industry have not used REMI (Appendix A). REMI is an open economy, dynamic, input-output model with general equilibrium characteristics. This means that a shock (economic change) in one region induces the migration of capital and labor across borders and the flows of commodities into and out of the region adjust over time to a new equilibrium. For the REMI portion of this study, we counterfactually remove the dairy and associated processing industries (because they already exist) from the state economy and determine how much poorer the state would in effect be without them.

We use the open space benefits of $55 million as a non-pecuniary amenity or quality of life value as a direct effect input to REMI. We assume that the sectors removed disappear forever from the

[5] REMI model documentation is available at www.remi.com and in the 1993 seminal text (fifth printing 1997), Regional Economic Modeling, by George Treyz, Kluwer Academic Publishers.

Connecticut economy and are not replaced with alternative uses such as residential or commercial spaces (this is not an opportunity cost analysis). In this thought experiment, all activity associated with dairy farms and related manufacturing establishments ceases, while structures remain intact as well as the equipment associated with their operation.

The results of the REMI analysis show that on average each year the dairy and associated industries are responsible for 2,465 new jobs in the state, $351 million in new state gross domestic product (GDP), $208.2 million in new personal income, $832 million in new sales (output) of all firms in the state, a net loss of state revenue of $3.6 million, and a population increase of 3,900 people. The latter two results are due to the quality-of-life (open-space) benefit that REMI models that produces in-migration because the region is more attractive. Such migrants are not necessarily employed (retirees, part-year residents, and tourists), but they do demand new public services (roads, safety, health, transfers, etc.). Therefore, the net fiscal effect (new taxes less new expenditure) is negative on average each year for the period 2008 through 2050.

In sum, based on the three sets of estimates presented (RIMS II, IMPLAN, and REMI), the impact of the dairy industry on the state economy is between $832 million and $1.1 billion in new statewide sales, and 2,465-4,242 new jobs with household earnings (new personal income) of $145-$208 million. *These results are conservative to the extent that we have not captured the effects of federal subsidies and conservation payments to farmers that would enhance these results.*

Non-Market Benefits of Dairy Farms

Previous studies in New England (Lopez, et al., 1994; Johnston, et. al., 2001) point out that farmland markets fail to account for the contribution of open space in terms of non-market amenity benefits that accrue to non-farm residents but are lost with conversion of agricultural land to urban and related uses. These benefits include ecological benefits such as air and water improvements, soil erosion and water loss prevention, climate control, and species preservation. They also include social benefits such as culture/education, aesthetics, and recreational use. Because there are no markets for open space benefits, there is no data readily available. However, survey results used for open space valuation via households' willingness to pay (WTP)

for a public good or service aggregate to obtain the total value of the good or resource to the community or state.

For Connecticut, we estimate these benefits at $55 million in 2007 (see Appendix B for details). This represented $762 in benefits per acre in dairy farmland, which is conservative relative to the findings of previous studies (see Table B1 in Appendix B).

Another social and economic benefit of increasing concern, food security, was not included in the analyses because representative data are not available. However, given that Connecticut suffers from an increasing milk production deficit, as milk has to be imported to fill its consumption and processing needs, the reversal of dairy farming's decline is imperative for food security purposes and for ensuring reliable milk supplies for the dairy processing sector. In addition, the strong preference of residents for locally-produced milk and dairy products, whether due to environmental reasons such as carbon footprints and support for local food systems and open space, or because of freshness, quality, or food safety, is an additional aspect that could not be included but that deserves careful consideration by policy makers.

3. Conclusion

This study provides three sets of estimates of the overall impact of the dairy industry on the Connecticut economy. This impact ranges from *$832 to $1.1 billion in statewide sales*, depending on the model used and assumptions made. In addition, estimates of jobs affiliated with the industry range between 2,465 and 4,242. Household earnings range between $145 and $201 million. Associated local and state taxes are estimated at $23 million. REMI estimates small negative net state revenue based on the increased attractiveness of the state that induces migration and the concomitant increased demand for public services without necessarily increased employment.

Although dairy farms are critically important in their local economies, their economic contribution goes beyond the farm gates. They confer non-market amenity benefits through preservation of ecological quality, social benefits and historical context that the people of the state value. We estimate these public benefits at $55 million or $762/acre for 2007.

In sum, dairy is important as an economic sector as well as a major land steward in the state that in addition to its economic contribution improves the quality of life for all Connecticut residents.

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APPENDIX A: DAIRY STATISTICS

Dairy Farm Statistics

Except for dairy acreage, the number of goats and cash receipts from dairy goats, all values used in the graphs and analysis are from government sources. The values of dairy acreage and goats for non-census years were determined using linear interpolation of data points from USDA censuses in 1992, 1997, and 2002. According to the Connecticut Department of Agriculture, average milk production per dairy goat is approximately 1,210 lbs per year. The USDA reported that in 2007 farmers received an estimated $35.56 per 100 lbs. of goat milk, which is an annual average as prices fluctuate seasonally. Using this information, we estimate cash receipts for previous years and adjust using prices received by farmers for fluid milk in Connecticut. The results and other statistics appear in Table A1.

Table A1. Dairy Farm Production in Connecticut, 1990-2007

Year	Dairy Farms	Land in Dairy (1,000 acres)	Dairy Cows (1,000 head)	Number of Goats	Milk Production (million lbs)		Cash Receipts from Goat Milk ($1,000)	Cash Receipts from Cow Milk ($1,000)
					Goat Milk	Cow Milk		
1990	500	136	33	413	0.50	515	103	72,765
1991	500	131	33	479	0.58	523	91	67,670
1992	500	125	34	545	0.66	541	118	73,640
1993	450	120	34	603	0.73	543	121	71,349
1994	400	115	33	669	0.81	530	143	72,240
1995	380	110	32	735	0.89	526	143	72,208
1996	350	105	30	802	0.97	499	227	78,957
1997	350	99	30	868	1.05	509	211	76,132
1998	350	96	30	543	1.02	529	265	86,295
1999	350	93	29	818	0.99	520	249	83,268
2000	330	90	27	793	0.96	480	176	67,166
2001	310	87	25	769	0.93	456	231	72,722
2002	290	84	24	744	0.90	447	133	58,476
2003	280	82	22	719	0.87	413	143	55,760
2004	250	79	20	694	0.84	392	236	67,124
2005	230	77	20	669	0.81	384	211	62,865
2006	220	74	19	645	0.78	367	152	52,272
2007	210	72	19	620	0.75	365	267	75,658

Source: USDA NASS, Connecticut Dairy Statistics, 1990-07; USDA NASS, Census of Agriculture, 1992, 1997, and 2002; Wayne Kasacek, Connecticut Department of Agriculture.

For comparison, below is a list of recent studies on the impact of the dairy industry on state economies, both for dairy farming and for the whole industry including dairy processing. We measure the impact by the increase in sales of all industries in the state.

Table A2. Studies on State Level Impacts of the Dairy Industry

Study & Sector	Model	State	Total Sales Impact ($ million)	Impact per 1,000 Cows ($ million)
Dairy Farming Only				
Flanders et al., 2006	IMPLAN	Georgia	540	6.20
Cabrera et al., 2008	IMPLAN	New Mexico	2,099	6.14
Buland et al., 2001	IMPLAN	Erath County, Texas	643	6.62
Cryan, 2004	RIMS II	Connecticut	147	7.72
Lee & Leonard, 2004	RIMS II	Connecticut	137	7.23
This Study	RIMS II	Connecticut	152	7.97
This Study	IMPLAN	Connecticut	98	5.15
This Study	REMI	Connecticut	-	-
Dairy Industry				
Dryer, 2008	RIMS II	California	61,400	33.87
This Study	RIMS II	Connecticut	1,107	58.26
This Study	IMPLAN	Connecticut	952	50.1
This Study	REMI	Connecticut	832	43.79

Note: Benchmark values of past studies are inflated to reflect equivalent 2007 values.

RIMS II Multipliers

Provided by the U.S. Bureau of Economic Analysis, these are estimates of regional input-output multipliers for any state, county, or combination of states or counties. The multipliers estimate the impact from changes in final demand on one or more regional industries in terms of output, employment, and labor earnings. The multipliers emanate from estimates of local area personal income and on the national input-output accounts (BEA)

Those multipliers below for 2005 (the latest available) were used in the calculations in Table 1:

Table A3: RIMS II Multipliers for the Dairy Industry, 2005

	Multipliers		
	Output	Earnings	Jobs
Dairy Farming	2.003	0.295	13.549
Fluid Milk	1.991	0.297	7.945
Cheese	1.924	0.284	8.507
Ice Cream & Frozen desserts	1.860	0.320	7.368

Note: The specific multipliers used for dairy farming are those for Cattle Ranching and Farming, code 11200, which is the best proxy for dairy farming (BEA).

IMPLAN Multipliers

The multipliers below for 2007 were used in the calculations in Table 2

Table A4: IMPLAN Multipliers using Regional Purchase Coefficients, 2007

	Multipliers		
	Output	Earnings	Jobs
Dairy Farming	1.288	0.156	13.230
Fluid Milk	1.643	0.260	6.336
Cheese	1.773	0.237	6.294
Ice Cream & Frozen desserts	1.702	0.326	5.594

Note: The specific multipliers used for dairy farming are those for Dairy Cattle and Milk Production, code 12 in IMPLAN (2004).

APPENDIX B: OPEN SPACE BENEFITS FROM DAIRY FARMLAND

Previous studies of the value of open space in other states indicate strong willingness to pay (WTP) for farmland preservation in urbanizing areas. Table B1 summarizes WTPs for various states.

Table B1. Estimates of Amenity Benefits from Farmland Preservation in Other States

Author and Issue	Area	Average WTP per acre/household/year (2007$)	Aggregate WTP (2007$)
Cho et al. (2005) Rural homeowners' WTP for land conservation easements	Macon County, North Carolina	$0.23-$0.25	–
Johnston et al. (2001) Preserve farmland from development	Suffolk County, New York	$.05-$.20	$1,631.52/acre/year
Johnston et al. (2001) Preserve farmland from development	Southold, New York	$0.17	$1,443.69/acre/year
Beasley et al. (1998) Preserve farmland from development	Alaska	$.15-$.29	$999.38/acre/year
Rosenberger and Walsh, (1997) Preserve western ranchland from development	Colorado	$.10–$.17	–
Ready et al. (1997) Prevent development of horse farm	Lexington, Kentucky	$0.01	–
Vieth et al. (1995) Preserve farmland from development	Oahu, Hawaii	$0.31	–
Halstead, (1984) Prevent farmland from development	Massachusetts	$0.02-$0.06	–

In this study, we proceed in three steps to estimate the open space benefits from dairy farmland in Connecticut:

Step 1: WTP Data from Surveys. The data used in this study came from WTP surveys carried out by Johnston *et al*. (2007, 2008) in six Connecticut towns. Table B2 summarizes the data:

Table B2. Farmland Amenity Benefits Estimates for Six Connecticut Towns

Study & the issue	Town	Average WTP per Household Per/acre/year (2007$)	Town-level WTP Per acre/year (2007 $)
Johnston et al.(2008) Willingness to Pay for rural farmland preservation	Brooklyn, CT	$0.171	$463
	Pomfret, CT	$0.281	$422
	Thompson, CT	$0.093	$345
	Woodstock, CT	$0.337	$506
Johnston et al.(2007) Willingness to Pay for rural farmland preservation	Mansfield, CT	$0.69	$2,029
	Preston, CT	$0.15	$430

Step 2: WTP in 75 Connecticut Towns. Following Lopez et al. (1994), the data from Table B2 were used to estimate town-level WTP in 75 towns where dairy farms were located, using town-level open space, population and per capita income to extrapolate to the state level. The results are:

Table B3. Dairy Farmland Amenity Benefits for 75 Connecticut Farms, 2007

Town	Average WTP per household/acre/year	Town-level WTP per household acre/year (2007$)	Town	Average WTP per household acre/year (2007$)	Town-level WTP per household acre/year (2007 $)
Ashford	0.19	323	New Milford	0.16	1,630
Bethany	0.28	510	Newtown	0.19	1,637
Bethlehem	0.27	349	North Branford	0.23	1,216
Bolton	0.27	551	North Canaan	0.22	314
Bozrah	0.26	241	North Stonington	0.18	341
Bridgewater	0.29	215	Norwich	0.17	2,757
Brooklyn	0.22	594	Old Lyme	0.24	742
Canaan	0.22	101	Oxford	0.27	914
Canterbury	0.20	358	Plainfield	0.17	983
Canton	0.23	844	Pomfret	0.20	304
Colchester	0.18	981	Preston	0.20	392
Columbia	0.25	491	Redding	0.25	740
Cornwall	0.19	120	Salem	0.24	342
Coventry	0.19	847	Salisbury	0.15	278
Durham	0.27	652	Sharon	0.17	217
East Haddam	0.16	557	Simsbury	0.21	1,798
East Windsor	0.21	885	Somers	0.27	845
Eastford	0.24	156	South Windsor	0.24	2,207
Ellington	0.19	1,037	Southbury	0.18	1,360
Enfield	0.19	3,258	Sprague	0.28	323
Farmington	0.22	2,129	Sterling	0.25	296
Franklin	0.27	193	Stonington	0.17	1,341
Goshen	0.21	235	Suffield	0.21	1,010
Granby	0.20	775	Thomaston	0.29	884
Griswold	0.18	801	Thompson	0.16	595
Hampton	0.26	188	Torrington	0.15	2,236
Hebron	0.21	672	Union	0.24	72
Kent	0.18	219	Voluntown	0.20	199
Lebanon	0.18	467	Wallingford	0.19	3,217
Ledyard	0.19	1,030	Warren	0.26	133
Lisbon	0.26	422	Washington	0.20	293
Litchfield	0.16	545	Watertown	0.20	1,708
Lyme	0.22	193	Willington	0.19	471
Mansfield	0.26	1,454	Windham	0.20	1,740
Middletown	0.16	3,163	Woodbridge	0.30	964
Monroe	0.25	1,649	Woodbury	0.19	722
Morris	0.26	251	Woodstock	0.17	488
New Hartford	0.21	499	Simple Average	0.22	849

Step 3: WTP at the State Level. This involved first estimating land in dairy at the county level by allocating total state dairy land to counties based on the number of dairy farms in each county based on a list of addresses of dairy farmers. WTP at the county level was obtained by multiplying the number of acres in dairy by the average county-level WTP per acre, that we compute by aggregating the estimates for each of the 75 towns and weighting them by population. The open space benefits from dairy lands add up to $55 million for the state in 2007. The estimated state benefit from open space amounts to $762.38 per acre in dairy (about $0.15 per pound of milk).

Table B4. Yearly Open Space Benefits (2007$) Derived from Dairy Farmland

County	Dairy Farms	Dairy Farm Acreage 2007 (est.)	Avg. WTP/acre/ year/household	Avg. WTP/acre/ Year	Amenity Benefit/year
Fairfield	3	1,099	$0.228	$1,342	$1,475,260
Hartford	14	5,129	$0.214	$1,613	$8,273,925
Litchfield	49	17,951	$0.209	$ 576	$10,345,200
Middlesex	4	1,465	$0.197	$1,458	$2,135,759
New Haven	12	4,396	$0.243	$1,363	$5,993,490
New London	49	17,950	$0.213	$6,723	$12,075,030
Tolland	24	8,792	$0.226	$ 716	$6,291,050
Windham	42	15,386	$0.205	$ 544	$8,429,811
Total:	197	72,168			**$55,019,529**

APPENDIX C: ECONOMIC IMPACTS TO RELATED INDUSTRIES

This appendix presents detailed IMPLAN estimates of the economic impacts of individual state dairy subsectors on related state sectors, considering the subsector as the "final demand" and thus not including impacts on buyers and users of the product.

Table C1: Impact Dairy Farming on Major Sectors, 2007

	Sales (2007 $ million)	Earnings (2007 $ million)	Jobs	Value Added (2007 $ million)
Dairy Cattle and Milk Production	76.01	4.19	848	30.66
Agriculture (exclude dairy)	1.13	0.32	23	0.45
Construction	0.44	0.21	4	0.23
Food Manufacturing	0.31	0.03	0.40	0.05
Transportation and Utilities	1.01	0.39	7	0.54
Information Services	0.41	0.10	1	0.19
Real Estate Establishment	2.42	0.40	16	2.07
Other Finance Sectors	2.30	0.67	7	1.45
Veterinary Services	1.89	0.85	23	0.93
Public Administration	0.24	0.10	1	0.14
Wholesale Trade Business	3.51	1.38	15	2.33
Retail Trade	0.71	0.34	10	0.56
Electric Power Generation	1.58	0.33	2	1.14
Other Sectors	5.83	2.54	49	3.28
Total	97.78	11.85	1,005	44.02

Table C2: Impact of Fluid Milk Manufacturing on Major Sectors, 2007

	Sales (2007 $ million)	Earnings (2007 $ million)	Jobs	Value Added (2007 $ million)
Dairy Cattle and Milk Production	26.61	1.47	297	10.73
Agriculture (exclude dairy)	0.41	0.12	9	0.19
Electric Power Generation	2.35	0.49	2	1.69
Construction	0.93	0.44	8	0.50
Fluid Milk Manufacturing	130.08	13.67	208	18.65
Other Food Manufacturing	2.79	0.19	3	0.50
Transportation and Utilities	3.22	1.30	24	1.73
Information Services	1.60	0.39	4	0.73
Real Estate Establishment	2.40	0.38	15	1.97
Other Finance Sectors	4.88	1.27	12	3.12
Veterinary Services	0.68	0.31	8	0.34
Management of Companies	3.53	1.92	11	2.38
Food Services and Drinking Places	1.12	0.41	19	0.58
Public Administration	0.54	0.21	3	0.29
Wholesale Trade Business	6.55	2.58	28	4.35
Retail Trade	2.07	0.90	25	1.45
Other Sectors	17.10	6.75	122	9.26
Total	206.85	32.78	798	58.45

Table C3: Impact of Cheese Manufacturing on Major Sectors, 2007				
	Sales (2007 $ million)	Earnings (2007 $ million)	Jobs	Value Added (2007 $ million)
Dairy Cattle and Milk Production	51.23	2.82	571	20.67
Agriculture, Forestry, and Fishing	0.79	0.23	16	0.35
Electric Power Generation	3.84	0.79	4	2.77
Natural Gas Distributed	1.44	0.22	1	0.52
Construction	1.49	0.71	12	0.80
Cheese Manufacturing	264.40	19.62	352	23.00
Other Food Manufacturing	5.99	0.60	9	1.02
Transportation and Utilities	6.28	2.54	46	3.38
Information Services	2.56	0.64	6	1.16
Insurance carriers	1.28	0.42	3	0.65
Monetary authorities	1.15	0.57	8	0.86
Non-depository credit institutions	1.13	0.49	3	0.76
Real Estate Establishments	4.28	0.68	26	3.51
Other Finance Sectors	4.38	0.52	3	2.77
Veterinary Services	1.23	0.59	16	0.64
Management of Companies	5.03	2.72	15	3.38
Public Administration	0.92	0.36	4	0.50
Wholesale Trade Business	17.16	6.77	74	11.39
Retail Trade	3.71	1.61	45	2.61
Other Sectors	28.45	11.48	227	15.18
Total	406.74	54.36	1,444	95.91

Table C4: Impact of Ice Cream Manufacturing on Major Sectors, 2007				
	Sales (2007 $ million)	Earnings (2007 $ million)	Jobs	Value Added (2007 $ million)
Dairy Cattle and Milk Production	5.88	0.32	66	2.37
Agriculture (exclude dairy)	1.78	0.21	8	0.39
Electric Power Generation	2.91	0.60	3	2.10
Construction	1.34	0.64	11	0.71
Ice Cream Manufacturing	147.39	17.33	290	26.42
Other Food Manufacturing	15.40	1.18	18	2.71
Transportation and Utilities	3.10	1.28	24	1.72
Information Services	2.85	0.73	7	1.27
Real Estate Establishments	2.86	0.45	18	2.35
Other Finance Sectors	6.37	1.56	14	4.04
Veterinary Services	0.51	0.23	6	0.25
Management of Companies	7.29	3.95	22	4.90
Food Services and Drinking Places	1.47	0.54	25	0.76
Public Administration	0.64	0.26	3	0.35
Wholesale Trade Business	11.90	4.69	51	7.90
Retail Trade	3.31	1.44	40	2.33
Other Sectors	25.44	10.68	184	14.24
Total	240.44	46.07	790	74.78

Table C5: Overall Impact of the Dairy Industry on Major Sectors, 2007

	Sales (2007 $ million)	Earnings (2007 $ million)	Jobs	Value Added (2007 $ million)
Dairy Cattle and Milk Production	159.73	8.80	1,781	64.43
Agriculture (exclude dairy)	4.11	0.88	55	1.37
Electric Power Generation	10.69	2.21	10	7.70
Construction	4.20	1.99	35	2.23
Ice Cream Manufacturing	147.39	17.33	290	26.42
Fluid Milk Manufacturing	130.08	13.67	208	18.65
Cheese Manufacturing	264.40	19.62	352	23.00
Other Food Manufacturing	24.49	2.00	30	4.27
Transportation and Utilities	13.61	5.51	100	7.37
Information Services	7.42	1.85	19	3.36
Real Estate Establishments	11.96	1.90	74	9.89
Other Finance Sectors	17.94	4.02	36	11.37
Veterinary Services	4.30	1.12	31	1.23
Management of Companies	15.85	8.59	49	10.66
Food Services and Drinking Places	4.24	1.55	71	2.19
Public Administration	2.35	0.93	11	1.28
Wholesale Trade Business	39.13	15.43	168	25.96
Retail Trade	9.80	4.29	120	6.95
Other Sectors	81.82	33.13	494	44.75
Total	951.82	145.06	4037	273.17

APPENDIX D: INCUBATOR FARM MODELS

INCUBATOR FARM SUMMARY

Paul Hubbard, Research Assistant
Community Food and Agriculture Coalition of Missoula County
2006

Wanted: Beginning Farmers

With the average age of Missoula County's producers at 57—up from 49 in 1982—we need beginning farmers and ranchers. But we don't need just any crop of young producers. Agriculture is a tough business, and the situation demands that the next generation of farmers and ranchers know how to produce and market food, as well as balance the books and manage a viable business. Who will be the next generation of farmers and ranchers? Where will they gain the prerequisite experience, knowledge and skills?

Incubator Farms: the concept

One strategy to help educate aspiring producers and establish their businesses is an incubator farm. The basic concept is that the program hosts and trains farmers as they grow food, share equipment, establish their markets, and learn from their mistakes, successes, and fellow producers. Then, once their businesses are viable, they spin off from the incubator farm and find their own land.

Intervale Center: a snapshot

The Intervale Center's main objective is to create a more closed-loop food system for Chittenden County, VT.[6] Their main strategy: viable business models. The incubator program at the Intervale started in 1994 to help farmers build track records, implement business plans, gain a good sense of the market and what their farming skill set is, before they venture off and have their own farms. These are important skills to running a farm successfully, but also help farmers approach banks for loans when they need the capital to start anew on their own land. In addition, it creates a community of support while they are developing their enterprise.

Today, thirteen farm businesses are cultivating a total of 115 acres at the Intervale. There are 3 phases in the incubator farm program: incubator (1-3 years), enterprise (3-5 years), and mentor (5+ years). The Center covers 20% of the fees (leasing land, equipment, and greenhouse/cooler space, utilities and water costs) for the farmers in the incubator phase, just to give them a little leg up. Incubators are on a yearly lease of land and review their operation as a business with Intervale staff. After 3 years, they can continue farming and sharing resources as an enterprise farmer. Enterprise farmers pay 100% of the fees, as they have a proven record of accomplishment, and are extended to a 2-year lease.

By the fifth year, farmers are usually itching to find their own land and retain all of their sweat equity. Still, some stay longer and become mentor farms to help the incubators.

[6] Most information is taken from conversations with Lindsey Ketchel, program Director of the Intervale Center. Also, see: http://intervale.org/.

Other examples

To illustrate the range of how other incubator farm programs have taken shape, below are a few more examples:

The **Agriculture and Land-Based Training Association**, located in the Salinas Valley, CA starts their incubator program with a 6-month intensive training on sustainable production methods, taught in Spanish. Then, the aspiring farmers begin on a 1/2 acre, and ALBA teaches various local marketing approaches.[7]

The **UC Farm Incubator Project** has established two incubator farms. In Fresno County, it has tried to address the abundance of small farms with limited resources by developing a 20-acre incubator farm. Participants farm one to three acres and receive technical training during a two-year program. The programs are presented in various languages, including Hmong and Lao. The Center also serves as a one-stop-shop where farmers can attend computer classes and get information about loans and recordkeeping.[8] In Humbolt County, on eight acres of prime farmland, eight one-acre subleases were created for new growers to test their ideas for crops, since it is very difficult to find small parcels to rent.[9]

The **New American Sustainable Agriculture Project** (NASAP) has established two incubator farms in Maine to help immigrant farmers learn how to apply their existing farming skills to a new climate and to develop small businesses. The first incubator farm was on five acres in Lewiston, Maine. Initially, 16 families farmed on small cooperative plots and shared a larger plot for experimental farm trials. With its ten current farmers – half Somali and half Latino – the site was reconfigured into an enterprise model, allowing farmers to use larger individual plots to generate more income. The second farm was developed in Westbrook. Approximately 40 farmers currently participate in NASAP, about half of whom hope to start farming businesses on their own land.[10]

Still, similar models exist—such as **Raft Swamp Farms** in Hoke County, NC, which follows Intervale's example,[11] the **South Side Community Land Trust's** Farm Business Incubator program in Cranston, RI.[12]

[7] http://www.albafarmers.org/
[8] "Small Farm 'Incubator Project' Helps Fresno County Farmers," 2003, *University of California Delivers*. http://ucanr.org/delivers/impactview.cfm?impactnum=87.
[9] "Farm Incubator Project in Humboldt County," 2005 *University of California Delivers*. http://ucanr.org/delivers/impactview.cfm?impactnum=45.
[10] "USDA Community Food Project Grantee Organization Profile," 2003, *Food Security Learning Center*. http://www.worldhungeryear.org/cfp/cfp_display.asp?ria_ndx=508.
[11] http://www.raftswampfarms.org/.
[12] http://www.southsideclt.org/urban/incubator.php

Other Models of Incubator Farms or New Farmer Training Programs:

Nuestras Raices (Holyoke, MA): Started as an urban gardening program with the Puerto Rican community. Now includes an incubator farm, Tierra de Oportunidades, as well as a community kitchen, bakery, restaurant, youth program, etc.www.nuestras-raices.org/

Southside Community Land Trust (Providence, RI): Also started with community gardens, expanded to include environmental programs, city farm. http://users.ids.net/~sclt/

New Entry Sustainable Farming Project (Tufts University with farms in Dracut and other towns): Trains immigrant and refugee farmers in agriculture with an 18-week program. At the end of 18 weeks, the farmers should have in hand a production plan, business plan, and marketing plan, and be ready to farm on a small scale at the incubator farm. At the end of 3 years, the project helps the new farmer become established on other land (generally rented from local farmers). http://nutrition.tufts.edu/research/nesfp/.

APPENDIX E: DAIRY FARMER TAX CREDIT PROGRAMS

South Carolina Dairy Tax Credit Update

The SC Dairy Tax Credit Program paid out $2,167,500 to 79 dairies in SC in 2005. Three quarters of the 2005 calendar year qualified for the credit because at farm price of milk was below the production price calculated by formula for the program in 2005.

In 2006 with prices down it is expect that in all likelihood the states' dairy farmers will qualify for all four quarters of the calendar year. This program has been very timely in helping dairy farmers during a time when prices started to drop again. The Department of Agriculture has worked out a good system of administration between them and the Department of Revenue to facilitate the Dairy Tax Credit Program.

There have been very few problems in getting the program working and getting the funds to the farmers. The Dairy Tax Credit Program is working well.
Larry J. Boyleston
Director, Business and Government Relations
SC Department of Agriculture

Income tax credit for milk producer
SECTION 41. Article 25, Chapter 6, Title 12 of the 1976 Code, is amended by adding:
"Section 12-6-3590. (A) A resident taxpayer engaged in the business of producing milk for sale is allowed a refundable income tax credit based on the amount of milk produced and sold. The credit may be claimed against the taxes due pursuant to Section 12-6-510 or 12-6-530. The credit is allowed when the USDA Class I price of fluid milk in South Carolina drops below the production price anytime during the taxable year.
(B) The Department of Agriculture shall promulgate regulations to implement the provisions of this section, including the establishment of the production price, which must consider the following factors, including but not limited to:
(1) the average price of milk in the top five states where milk is imported to South Carolina;
(2) the average transportation cost of importing milk from those five states; and
(3) the cost of production in South Carolina.
(C)(1) Each qualifying taxpayer is eligible for a ten thousand dollar tax credit based on the production and sale of the first five hundred thousand pounds of milk sold below the production price over a calendar year. The credit must be prorated on a quarterly basis.
(2) For each additional five hundred thousand pounds of milk sold below the production price, there is allowed an additional credit of five thousand dollars, also prorated on a quarterly basis.
(D) If no taxes are due, or the credit exceeds the tax liability of the taxpayer for the taxable year, the amount of the credit or excess over the tax liability must be refunded to the taxpayer. The South Carolina Commissioner of Agriculture shall certify to the Department of Revenue that producers claiming credits have met the eligibility requirements provided in this section.
(E) The credit allowed pursuant to this section must be reviewed after it has been in place for two taxable years."

B. Notwithstanding the general effective date of this act, this SECTION is effective for taxable years beginning after 2004.

Massachusetts Dairy Farmer Tax Credit

The Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs

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Dairy Farm Revitalization Task Force Files Final Report

Panel calls for income-tax credit for dairy farmers in times of need, as well as product promotion and renewable energy efforts

BOSTON – The Dairy Farm Revitalization Task Force, a panel appointed by Governor Patrick and legislative leaders in the wake of a state of emergency declared in the industry in May and $3.6 million in relief funds appropriated and distributed to farmers impacted by high costs and low milk prices, today submitted to the Legislature a final report calling for an income tax credit for dairy farmers that kicks in when milk prices fall below the costs of production, along with other measures to promote the long-term viability of dairy farming in Massachusetts.

The Task Force also called for legislation to create a Massachusetts Dairy Promotion Board, an act that would redirect funds currently contributed by Massachusetts farmers to a regional board to develop promotional, research, and nutritional programs and put these funds to work for the Massachusetts dairy industry. Agricultural tourism and international trade are also identified as options worth exploring for Massachusetts dairy farmers, along with renewable energy opportunities such as anaerobic methane digesters, biocrops and biofuels, and wind energy, which would cut production costs and create new products.

The report is the product of seven public meetings held last fall. The Patrick Administration is working with legislative leaders, including legislative members of the Task Force, to draft the legislation called for by the Task Force.

"Governor Patrick and Secretary Bowles consider the survival and vitality of the dairy industry essential for the Massachusetts landscape," said Philip Griffiths, Undersecretary for Environment in the Executive Office of Energy and Environmental Affairs and co-chairman of the Task Force. "We count on dairy farms to produce milk for our families and protect our rural landscape. The recommendations of the Dairy Revitalization Task Force take us a long way toward preserving this vital industry for generations to come."

The proposed tax credit is based on a similar provision in South Carolina, which provides relief in years when the wholesale price of milk, which is set by the federal government, is below local production costs. The Department of Agricultural Resources would be charged with developing regulations to ensure that the cost of the tax credit to the state ranged from zero in years when milk prices are sufficient to cover Massachusetts farmers' production expenses (as they were in 2007) to no more than $4 million.

The Task Force also recommends that the Commonwealth make use of funds Massachusetts farmers are required by Federal Dairy Promotion and Research Order to contribute for national dairy promotion research activities. Dairy farmers have the option of contributing up to 10 cents of a required 15 cents per hundred pounds of milk produced to a qualified state or regional program for state or regional promotion and research. Many Massachusetts dairy farmers contribute to the New England Dairy and Food Council, which is qualified regional program. The Task Force recommends that, as a part of creating greater opportunities for Massachusetts dairy farmers, a state-qualified milk promotion and research program should be established.

In addition, the Task Force calls for the Massachusetts Division of Energy Resources, the Massachusetts Renewable Energy Trust, and other entities to increase their outreach and assistance to Massachusetts dairy and other farmers to explore ways the Commonwealth's agricultural industry could make use of renewable energy technologies in order to reduce production costs and develop new products.

"Massachusetts dairy farmers cannot survive without protection from year-to-year price fluctuations based on the economics of dairy farms in other parts of the country," said Assistant Commissioner Scott Soares of the Department of Agricultural Resources and co-chairman of the Task Force. "The Task Force's recommendations move us toward a future of security and opportunity for the Massachusetts dairy farmer."

The Department of Agricultural Resources issued a Declaration of Emergency for the dairy farmers of Massachusetts on May 10. The declaration was based on a Petition for Relief submitted by farmers in January and two daylong public hearings on the petition, the last of which took place March 29. The Declaration of Emergency described a situation in 2006 of heavy rains in the spring, which destroyed early plantings and delayed later planting; of historically low farm milk prices; and of rapidly rising production costs due to energy and feed-corn price increases.

In the wake of the Declaration, Governor Patrick filed, and the Legislature approved, a supplemental appropriation of $3.6 million in relief for Massachusetts dairy farmers, which was distributed by formula based on 2006 production. The supplemental budget also created the Task Force, which was charged with developing recommendations for the long-term viability of the Massachusetts dairy industry.

Currently, there are 183 licensed dairy farms in Massachusetts. Active dairy farms have been declining at an average rate of 6 percent per year over the past half century – down from 6,760 in 1950 to 183 as of June 2007 – but the number of Massachusetts dairy farm has remained constant since the Department of Agricultural Resources distributed emergency aid last summer and the Task Force began its deliberations on the future of the dairy industry.

"The dairy industry has many benefits for the Commonwealth, from milk production and preserving open space to contributing to the health of other farms that depend on it," said Senator Stan Rosenberg, one of six lawmakers who served on the Task Force. "There's a lot at stake here and we need to be aggressive about implementing our plans to safeguard this industry because the next economic downturn could be just around the corner."

"It was the goal of the task force to find solutions for long term sustainability for our dairy farmers in the Commonwealth and I believe this report is the right step in accomplishing our key objective," said Senator Stephen Brewer. "I have been working with farmers since July 2006 to secure supplemental funding and to ensure that the dairy farms, and agriculture as a whole, continue to be a part of the Massachusetts economy. I am thrilled to be a part of this project and I look forward to working with my colleagues to continue in assisting the farming community."

"Participating in the Dairy Task Force has certainly been a rewarding experience," said Senator Michael Knapik. "Dairy farms across our state are operating in an increasingly competitive marketplace and I am hopeful this coalition between our dairy farmers and policymakers will continue to advocate for this important sector."

"After extensive deliberations of the task force, we have put forth in our report a number of recommendations that we believe will strengthen and help sustain the dairy industry in the Commonwealth, including a commitment to preserving open spaces, ensuring adequate supplies of fresh milk at local dairies, as well as built-in mechanisms to provide relief and stability to dairy farmers and their families," said Representative Daniel Bosley.

"Dairy farming is a critical part of our state's agricultural economy, and also preserves thousands of acres of open space and natural resources," said Representative Stephen Kulik. "The work of the Dairy Task Force has produced solid recommendations that address the many challenges that face our dairy farmers throughout Massachusetts. The Legislature will now work to bring stability to milk prices, support energy efficiency on the farm, and enhance marketing of fresh local milk which is so important to our state's consumers. We must do everything possible to ensure that dairy farming has a healthy future in Massachusetts."

"All of us on the commission are hopeful that our efforts will contribute to the preservation of our dairy farmers," said Representative Lewis Evangelidis. "Our farms are a huge part of our Massachusetts heritage and provide tremendous benefits to all of our communities."

# # #