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# OUTLINE OF THE PROBLEM

*After the elimination of the Northeast Dairy Compact in 2002, Maine's dairy producers could no longer compete on the wholesale market with lower priced milk and milk products produced in the West. Maine's Dairy Industry needed to expand and improve efficiency and performance of new markets or face a permanent and catastrophic loss of farms and farm infrastructure.*

**Background**

Maine milk sales were the top contributor to agricultural cash receipts in 2001, accounting for $106 million of the total $483 million. This was primarily due to the base price support sustained through the Northeast Dairy Compact and, in some measure, to an expanding market for organic milk.

The loss of the Northeast Dairy Compact dealt Maine's dairy industry a mighty blow in 2002, and by the spring of 2003, the stability of Maine's dairy sector painted a very different picture. According to the Maine Dairy Industry Association, in the first six months following the elimination of the Compact, Maine's dairy farmers lost 20 million dollars and 412 operations, managing over 150,000 acres of prime agricultural land in 14 counties, were critically threatened.

Marketing realities in the commodity dairy industry have created a situation that perpetually threatens the economic viability of dairy farms. The national pricing policy, which utilizes bulk sale prices of cheese, butter and dry milk powder to determine "farm gate" milk prices, puts bulk milk producers at risk. Just a small oversupply of cheese can cause the commodity prices to fall precipitously and severely depress the price of milk in Maine at the farm level. Meanwhile, retailers selling dairy products charge consumers prices that do not reflect the low "farm gate" prices.

# ADDRESSING THE PROBLEM

**Emerging Opportunities**

While dairy farms have gone out, the number of cows statewide has remained relatively constant. Since 1996, 38,000 cows have produced an average 650 million pounds of milk per year. As Maine's dairy commodity market share diminishes, and the price per hundredweight (cwt) falls far below cost, Maine's dairy farmers have been exploring ways to modify their operations and diversify their markets to sustain long-term profitability.

Some producers have sought to reduce the cost of inputs by finding efficiencies in production. Others have been eager to improve the market value of their milk and milk products. And several, who have already become involved in value-added dairy production – and who have potential to increase their direct-market share – are eager to evaluate models of alternatives before they make permanent changes to their own infrastructure or resources. Because all of the above strategies require borrowing capital to adapt or install new processing equipment or infrastructure, Maine has spent the past 5 years assisting it's farmers with business planning services. These services are offered one-on-one, in teams, and in multi-session courses where considerable time can be spent carefully matching each farm's assets and resource potential with proven production, diversification, marketing and processing alternatives.

**Modeling Solutions**

In 2003, a grant from the USDA Agricultural Marketing Service – Federal-State Marketing Improvement Program gave the Maine Department of Agriculture, Food and Rural Resources an opportunity to focus its existing business planning and technical assistance programs to serve Maine's dairy farmers.

**Project Goals**

- *Identify new regional direct to consumer, wholesale and institutional markets for Maine milk and value-added milk products.*
- *Transition and diversify 2 dairy operations that can serve two regions.*
- *Develop regional strategies for milk distribution systems.*
- *Work to protect farmland.*

**Project Objectives**

- Conduct business planning - Farms for the Future & NxLevel "*Tilling the Soil"*
- Implement business plans on three farms. Continue to strengthen each model farm's marketing research and development skills to improve dairy farm profitability in two regions.
- Research value-added dairy products and markets.
- Provide Maine dairy producers with research and user-friendly "How to" information for improving the production, processing and direct marketing of dairy products.
- Demonstrate new processing and marketing models for regional market distribution systems.
- Publish & distribute new dairy market research manual, resource guide & model farm case studies.

**Summary**

Dairy Farms for the Future was designed to assist a targeted group of dairy farmers with researching, developing and testing new market avenues. All of Maine's dairy producers were given the opportunity to apply for technical assistance through Maine's Farms for the Future Program.

In the fall of 2003, twelve dairy farms were accepted into Farms for the Future - Phase One. Each farm participant was given assistance with assembling a team of technical advisors that would undertake research and help them develop a plan for their specific diversification idea. In the fall of 2004, three family-owned dairy operations were awarded Farms for the Future - Phase Two grants to implement their business plans. Each of these farms received additional support in the form of grants to conduct in-depth market development research. In exchange for grant funds, each of these farms has signed a 5-year non-development agreement which protects their farmland and the public investment. The Department has written brief, user friendly case studies about these farms, conducted practical new research *Diversifying Farms to Expand Direct Markets for Milk Products*, developed and easy to read/use "how to" and resource manual "*Value-added Opportunities for Maine's Dairy Farms* and updated it's searchable, on-line *Food and Farms Resource Guide.*

This report, the resources listed above, and the Rules and Regulations of Maine's Dairy Industry are now available on CD for all of Maine's dairy producers to better understand "how to" go about diversifying their own product mix and customer base.

## Public and Private Contributions to the Project

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|---|---|
| USDA Agricultural Marketing Service - Federal-State Market Improvement Program | $ 47,787.94 |
| State of Maine Department of Agriculture, Food and Rural Resources | $ 153,052.17 |
| Coastal Enterprises Inc., Program Administration – Farms for the Future Program | $ 12,000.00 |
| Smiling Hill Farm/Silvery Moon Creamery, Kay Ben Farm, Barker Farm | $ 507,241.00 |

The above list does not include hours of in-kind match time and leadership provided by the following agencies and organizations:
Coastal Enterprises, Inc.; Maine Association of Soil and Water Conservation Districts; Maine Farmland Trust; Maine Dairy Industry Association; Maine Organic Farmers and Gardeners; University of Maine & Maine Agricultural Center; University of Maine Cooperative Extension; University of Maine Small Business Development Centers; USDA – Natural Resources Conservation Service; USDA – NRCS Heart of Maine Resource Conservation and Development Council; and the USDA – NRCS Time and Tide Resource Conservation and Development Council.

## Results and Conclusions

**Business Planning and Market Development**

The technical support for business planning and market development was one of the most successful elements of this project. Each of the fifteen (15) Phase One farms benefited from looking closely at their resource potential - financial, physical and managerial - to analyze whether their farm was ready and they were capable of developing a new farm enterprise and product market.

Four of these 15 farms successfully competed for a $25,000 grant to implement their plan. Each of these farms found that the development of the business plan improved their ability to access capital through loans, especially when the lender lacked experience with the proposed new farm enterprise. Through the planning processes these producers gained a new confidence that came in handy during Phase Two. All producers found that they had to make some adjustments in their plans when they encountered false assumptions or unexpected outcomes.

The three owner/operators of the Model Farms (see below) venture found that the most "meaningful" market research that could be done was that research that they did for themselves. Through this project, it became very clear that Maine's Farms for the Future Program was not doing enough in terms of teaching techniques for market research, development and promotion. Based upon this project and the Model Farm experience, the Department is modifying the Farms for the Future Program to provide farmers with options and resources to undertake or to hire consultants to help them conduct much more extensive market research, development and promotion.

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Whether commodity or niche market producer, many more of Maine's farmers confess they hate the paperwork of developing a business plan, but they "love what they learned in the process." Overall they praise the networking opportunities and mutual support that occurs in the NxLevel business planning course. Group activities in this course have helped to dispel some misinformation and close some information gaps about organic and conventional milk production. As milk producers pull together to sustain their way of life and farming, both groups realize that the development of value-added enterprises, such as the organic milk market, can benefit all.

**Market Research**

The need to conduct research and gather a profile of Maine's value-added dairy enterprises was clear from the beginning of the project. At that time, a small number of farmers had already begun to investigate several opportunities, such as transitioning to organic milk production. In that case, the market proved early on that organic milk production could be a profitable option, especially when Hood H.P. LLC. entered the market in Maine and further boosted the price for organic milk.

Other dairy farms however were interested in processing fluid milk on the farm; making butter, cheese and ice cream; or diversifying livestock and livestock byproducts like compost, and they lacked concrete evidence of an emerging or stable market. The cheese market was especially problematic to characterize. Dairy value-added "entrepreneurs" who were experimenting with cheese recipes while testing markets and competing with cheese from other states and other countries, found it difficult to accurately define and capture their direct markets.

Through the research done for the Dairy Farms for the Future Project, Maine now offers:

*Diversifying Farms to Expand Direct Markets for Milk Products* is market research for many milk products including all types of cow, goat and sheep milk cheeses that might be produced in Maine.

*Value-Added Opportunities for Maine's Dairy Farms* a "how to" guide and resource manual for developing and marketing value-added dairy products.

The Department also undertook an e-mail survey of 200 producers with retail stores to assess their interest in selling locally sourced, value-added dairy products in their stores. Despite a small number of respondents (24), the information provided the Department with a limited profile of the farm stores with a wide variety of products that are interested in buying and selling Maine value-added dairy products.

- Quality of product, consistent product availability and ease of placing orders and getting deliveries was most important.

- Price was moderately important.

- Apple farms seem to be leading the way in establishing diversified farm stores in Maine. Six of the stores that responded to the survey are apple producers who are interested in finding sources for bottled milk and value-added dairy products.

**Model Farms**

Three dairy farms received FSMIP funds to pay for the time and labor involved in researching and writing their business and marketing plans. All three farms conducted additional market research focused specifically on product improvement and market development.

The FSMIP model farm criteria were determined by a 16-member project Steering Committee that included personnel from the dairy industry, the University of Maine, Cooperative Extension and the USDA- NRCS. Once criteria were established announcements were sent to 400 dairy farms. More than 20 farms requested applications; fifteen of those farms entered Phase One business planning. Six completed business plans and applied for Phase Two plan implementation grants; four received Phase Two grants and three also received FSMIP grants. An appointed Review Panel selected the three model FSMIP farms. The panel was comprised of a conventional dairy farmer, a former legislator, a former Commissioner of Agriculture, a vice president of Farm Credit of Maine, and a small fruit and vegetable farmer.

***Smiling Hill Farm*** established a 50/50 general partnership agreement with ***Silvery Moon Creamery*** and developed a line of prize-winning pasteurized, raw milk and aged cheeses. With the new brand of the Silvery Moon Creamery reaching new specialty food markets, Smiling Hill Farm is exploring ways to extend the market reach of the farm's bottled milk, butter and ice cream products. Smiling Hill Farm and Silvery Moon Creamery:

- Conducted market research to refine pricing and distribution costs for eleven (11) artisanal cheese products.
- Attended national trade group conferences such as offered this July by the American Cheese Society.
- Developed simple, environmentally-conscious packaging, logo and label.
- Developed and produced trade show display materials such as large-format photography and brochures.
- Expanded Silvery Moon Creamery name recognition and branding by distributing product sample packs.
- Developed printed and electronic press kits for website and conducted "Meet the Cheesemaker" events.
- Hosted numerous farm tours to tell their story, from business planning & market research to diversification and product distribution.

***Kay Ben Farm*** diversified beyond milk by developing ***Benson Farm Earth Products*** a line of two soil amendments created from seafood residuals from Portland and dairy cow manure. Eddie and Becki Benson:

- Researched and developed packaging, logo and label design for two composted cow manure products - "Surf n'Turf" and "Super Soil"
- Researched and expanded wholesale, retail and direct target markets in Southern Maine.
- Formed a sales team to call and visit all nurseries and home & garden centers in five counties.

***Kay Ben Farm*** and ***Benson Farm Earth Products*** also:

- Developed advertising strategies and promotional materials to attract landscaping businesses and home/garden owners.
- Attended a trade show involving home and garden products. Visited two major on-farm New England compost manufacturers.
- Distributed brochures, product samples and "trinkets" such as a magnet, pen or key chain to tradeshow and other wholesale contacts.

***Barker Farm*** explored four diversification strategies for their farm, including organic milk production, beef marketing, rye grass seed production and corn pellet fuel manufacturing. David and Vick Barker:

- Attended meetings of Maine Organic Milk Producer's and Maine Organic Farmers and Gardeners.
- Analyzed costs and benefits of transitioning to organic milk production.
- Met with other diversified dairy farmers who were processing, packaging and selling beef to wholesale and retail markets.
- Researched and developed their own local direct market for their beef.
- Undertook a field demonstration of the rye grass seed.
- Conducted extensive research into the corn pellet fuel manufacturing process, met with potential fuel buyers and developed a completely new business and marketing plan for this new enterprise.
- Applied for a SARE grant to continue research on the efficiency and environmental benefits of this alternative fuel.

**All three model farms have created a new network of suppliers and consumers that support their farms.**

Silvery Moon Creamery is now marketing high quality, cow's milk cheeses in partnership with Smiling Hill Farm reaching Maine and New England markets. Smiling Hill Farm and Silvery Moon Creamery are seeking conventional and organic milk producers who want to process their own milk line at Smiling Hill Farm and sell some of the milk for new cheeses in the Creamery.

Kay Ben Farm through Benson Farm Earth Products is filling a void left by compost bagging operations and has built a wholesale market for bulk compost. They deliver to garden centers, landscapers, and home gardeners. They have also developed a large wholesale account with an intensive lettuce growing operation. Benson Farm Earth Products is also being paid to haul compost ingredients - leaves and lawn waste- from two municipalities, and seafood residuals – to the farm.

Barker Farm is raising and selling beef that is grown on their own grain. They discovered that their corn silage could also be used for pellets in wood stoves. They visited wood pellet manufacturers and found that a demand exists, and production is feasible for the farm. The Barkers have identified ten other regional dairy farms that would like to sell silage corn to the Barkers.

All three farms hosted on-farm tours and participated in meetings to share their stories of planning, research, trial and error with other producers. They are three real life examples of "how to" diversify a farm and expand direct markets in Maine.

**Development of Educational Materials and Resources**

This project included developing new materials for farmers, including an updated *Food and Farms Resource Directory* for value-added dairy operations, and a new Business Planning Guide and Outline workbook/template to help farmers write a complete business plan. These resources have already helped a number of farms, and with the development of the CD reference disk, will be readily accessible to many more farmers in the future. It is clear that the information age and the technology of the internet is not accessible to all of Maine's agricultural community. Printed versions of these materials will be made available upon request. Future participants in Farms for the Future and NxLevel business planning courses will enable the Department to continue testing and improving both resources.

**Partnerships**

Projects like the Dairy Farms for the Future Project continue to improve Maine's agricultural associations and agencies capacity to meet Maine's farmers' business planning and market development needs. Closer connections now exist between the traditional Small Business Development Centers, field-based specialists with Cooperative Extension, staff in USDA agencies and researchers at the University of Maine and Maine's Agricultural Experiment Stations.

The Dairy Farms for the Future Project has provided an overall opportunity for many partners to combine and focus our technical assistance programs and research objectives to hone in on the needs of one industry. From this experience of piggybacking Farms for the Future and NxLevel, conducting a dairy products focus group, developing user-friendly resource materials and filling in key "missing pieces" of research, we see that we are on track with supporting the industry.

## Other Events that Benefited the Project

The year that the Dairy Farms for the Future Project began, Governor John E. Baldacci issued a Dairy Relief Plan to provide short-, mid- and long-term assistance to Maine's dairy farmers. A total of $3,725,000 was distributed to Maine's dairy farmers between April and September in 2003. Another $1.3 million was used to guarantee any commercial bank's deferral of up-to-12 months of principal and interest payments on loans to eligible farmers. And a Task Force studied and reported to the Governor on how best to bring stability and long-term competitiveness to Maine's dairy industry. The Task Force recommendations asked for more assistance with market development, research on value-added production systems and tax reform.

The loss of the Northeast Dairy Compact made every farmer painfully aware of the risks of producing a single commodity. More dairy farms are now focused on closing the gap between their production costs and their milk checks. They are seeking information that will help them look at economies of scale. They are seeking ways to modify their operations and add value to their milk products. They are seeking assistance with identifying and expanding direct, niche, retail and wholesale markets in Maine.

The University of Maine is actively researching alternative agricultural marketing and processing. It has begun a multi-year research project to determine the effect of regional grocery store chains on wholesale outlets for value-added food products. In 2002 the University completed a FSMIP project that characterized the constraints and opportunities for farm food processors to access regional and other markets.

The Department and its many partners, particularly the Heart of Maine – NRCS Resource Conservation and Development Council and Coastal Enterprises, Inc., have demonstrated their ability to provide solutions, farm by farm. The NxLevel "Tilling the Soil" course has evolved from a single classroom and is now broadcast through the State's new Asynchronous Transfer Mode distance learning facility to several other sites. In 2006 certain topics were taught on-line. Each mode – in the classroom, the ATM classroom or the virtual classroom - allows Maine's agricultural producers to fit the course into their schedules and benefit from talking with, and learning from one another.

Farmers' success through the Farms for the Future (FFF) has inspired others to enroll. To date 122 producers/farmers have gone through the Phase One – business planning and 62 hove received implementation grants. According to program data, an average farm will increase net annual income by over $34,000 within 3.4 years of the entering Phase One.

The Legislature and the Department of Agriculture, Food and Rural Resources have reviewed the successes of the Farms for the Future Program and the NxLevel – Tilling the Soil business planning course and have invested a total $2,250,000 in these programs.

The Department's Maine agricultural product branding and promotional campaign is connecting more Maine farmers with consumers. Market research in 2001 showed that 43 percent of consumers surveyed recognize the "*get real, get maine*" logo and the value of buying local products. Currently more than 400 producers utilize the "*get real, get maine*" promotional materials at farm stands, farmers markets and specialty food stores. The campaign continues to penetrate significant wholesale milk and milk product markets. Gifford's Ice Cream, Oakhurst Dairy and Borealis Breads, all large-scale producers, have integrated the campaign logo into their product packaging design. Many small and medium scale producers use the stick-on "*get real get maine*" label they purchase from the Department.

Farm Fresh Connection (FFC), a new nonprofit organization, provides market access for Maine produce to colleges, restaurants, hospitals and retail outlets in Maine. With more dairy farms able to provide a mix and steady supply of milk products, more efforts like FFC will evolve to serve milk products to regional institutional markets.