

The Economic Shifting Winds that continue to negatively impact the longevity of conventional dairy farming in Vermont

And

A MODEL TO ACHIEVE A SUSTAINABLE AND ECONOMICALLY VIABLE DAIRY FARM SECTOR IN THE STATE

INTRODUCTION:

Vermont is well known for its dairy farms. They have been the signature agricultural sector in the state since the mid 1800's. Today that industry is a two billion dollar economic activity that supports six thousand people and represents approximately eighty percent of the state's 1.2 billion acres of farmland. In the early 2000 period, National Geographic stated that Vermont was the number five place in the world to visit and the number one in the United States due to its working landscape and quaint villages, and that the State had a plan. That bucolic image no longer fits the reality of Vermont. Most of the cows are raised almost entirely in the barn and seldom get out on pastures. The conventional Vermont dairy industry is not only in an economic crisis, It also faces increased costs associated with the environmental cleanup of Lake Champlain.

Issues of Concern:

Conventional dairy farming, which now represents the bulk of the dairy economics in the state, is in serious economic trouble that will lead to its further decline. Since 2014 milk prices have declined by 40%. The economic downturn in 2009 was described as the worst since the Great Depression. For example, it is well known and has been well documented that:

- Dairy farming is migrating westward. "Milk production is shifting toward Western States, such as California, Indiana, New Mexico, and to larger farms. The number of farms with over 2000 head doubled from 2000 and 2006 (see USDA, ERS, Profits, Cost, and the Changing Structure of Dairy Farming); Examples of mega farms are some now being constructed or proposed in South Dakota and Oregon (30,000 cows). For more information, see recent presentation by Dr. Mark Stephenson of the University of Wisconsin in www.Farmcrediteast.com/knowledge-exchange/Webinars/2007. Farms in many of these states are getting much larger making it difficult for Vermont farmers to compete on the world stage with the lowest pricing.
- Fluid milk consumption is declining, and has been in a steady downward trend since 1945. According to research, about 1/3 of the population does not like the taste of milk, and about 1/2 prefer other beverages. Sixty-five percent think dairy farm milk from grass fed cows tastes better than grain fed. (See the Future of Dairy, Dairy Management Inc., Prepared for the Innovation Center of U.S. Dairy, Aug 2012); Unfortunately, about 85% of Vermont's milk leaves the state and Vermont is more dependent on one commodity, milk, than any other state ((see Vermont's Dairy Sector: Is There a Sustainable Future for the 800 lb. Gorilla? by Bob Parsons, Ph.D., UVM, Food System Research Collaborative). There is a very significant milk structural imbalance in Federal Order 1 with a significant decrease in Class 1, or fluid sales, and a very significant increase in Class 1V, or powder, and the dumping of milk and the structural

imbalance that exists in the market. Until this structural imbalance is addressed, farm gate milk pricing in Order 1 will be dampened. See recent Farmcrediteas.com/knowledge-exchange/Webinars/2017. Dairy Outlook Presentation by Jodi Smith, Economist for Upstate Niagara Cooperative.

- The globalization of the milk market is having a major role in shaping the U.S. dairy industry with production continuing shifting westward. Milk prices have declined significantly putting many Vermont dairy farms at severe financial risk. Under a model influenced by international markets, where Vermont is not a low cost producing state (USDA data), results in forcing many dairy farmers out of business. Also, a global dairy market is prone to disturbances from weather variability, changes in policy, fierce competition, and the opening or closing of trade in key countries. Note; major markets for US dairy products are Mexico, the near east and Asia. Even Farm Credit admits in a recent report (Farm Credit East, Knowledge Exchange Report, August 2016, Dairy Industry Reset Post-2014: A Time for Dairy Producers to Take Bold Action) that “it seems likely for the next few years that farm milk prices will be consistently under much greater pressure than in the recent past. ...Attrition of the national dairy herd and ultimately of farms will accelerate.” See presentation by Dr. Mark Stephenson in Farmcrediteast webinar, dairy outlook. According also to Cornell University Agricultural Economists, the wide pricing cycles in dairy pricing are getting wider and deeper...between the highs and the lows. An over-supply of production of just 2% will cause farm prices to fall by 20-30 percent under the federal market order pricing system of blended prices based upon the use of the milk.
- Costs of environmental compliance for meeting water quality rules (38 % of Phosphorus entering the lake is from agriculture, per studies) are placing increased financial pressure on Vermont dairy farms, and the resources of the State in addressing these costs are limited (see cost proposals for cleaning up Lake Champlain). It is estimated that the cost of cleanup of the lake will be in the range of 1 billion dollars over 20 years, funds that the State of Vermont does not have available.
- Vermont is at the end of the feed supply line, resulting in higher costs for dairy production. Feed and labor costs account for at least ½ of the cost of producing milk.
- Federal assistance is limited. The margin protection program does not work, and it is unlikely to any renewed federal help with be forthcoming. It is doubtful if new assistance for the dairy industry will be coming from Washington any time soon or if at all.

Vermont’s Commitment to a Working Landscape:

Vermont has a history of acting to help sustain its dairy sector (direct dollar aid, and many programs) and in promoting a working landscape. It has taken a leadership role from the beginning nationally and within the state (see history of Vermont agriculture including dairy in www.whatceresmightsay.blogspot.com). It can no longer ignore the need to address this crisis in conventional dairying for Vermont and its working landscape.

From past studies (see Vermont Council on Rural Development information on the Working Landscape), over 97% of Vermonter’s want a working landscape, and dairying is responsible for 80% of Vermont’s 1.2 million acres of farmland supports dairy.

In the Report in the Journal of Dairy Science, American Dairy Association, 2013, Invited Review: Sustainability of the US Dairy Industry, the esteemed collection of respected individual's state in the conclusion that:

"We have identified and presented several major factors affecting the future sustainability of the US dairy industry, including climate change, rapid scientific and technological innovation and advances, globalization, failure to integrate societal values, and lack of multidisciplinary research initiatives. We also argued that sustainability is more than economic profitability; it also relates to environmental and societal concerns, including the quality of life of workers and the animals in dairy farms. Public input regarding the acceptability of practices, including new technologies, is required. Sustained engagement between and among producers, various sectors of the industry, consumers, and citizens will be essential to recognize and implement more sustainable practices."

A bold new approach is needed that is consistent with Vermont values that connect farmers, the people, and consumers

A New Model for an Environmentally Sound, Economically Viable Vermont Agriculture:

This model recognizes the value that all farms contribute to our state and its working landscape. As we face a severe economic and environmental crisis in our dominant agricultural sector we have tremendous opportunity for creative and bold changes characteristic for Vermont. The plan laid out here suggests utilizing and enhancing programs that are already in place and proposes areas where resources could be re-directed to help both the farm families and natural resources upon which our working landscape depends.

Milk marketers' role in promoting a new model:

- Ben and Jerry's: The Ben and Jerry's brand was established using Vermont brand, with most of its Vermont ice cream production coming from milk within the state. After very significant pressure, the firm has begun to recognize that the current milk pricing system is broken and there is a need to "create a strong, unsustainable dairy industry in Vermont," (see Ben & Jerry's Dairy Statement: January 2017). In view of their recognition of the need for a sustainable dairy industry that can supply milk to meet their needs into the future, it is recommended that they develop a payment system for milk that will be tied to organic values that will help escape the federal order pricing system while building criteria and payments to farmers for soil health, animal welfare., labor justice, and environmental compliance.
- Commonwealth Dairy: Owned by the Ehrmann family of Germany (with a long tradition of supporting dairy farms in Germany), there is a commitment to dedicate 5% of their profit on sales of Green Mountain yogurt to the development and sustainability of the dairy industry in Vermont. The funds are managed by the Farm Viability Program of the Congress created Vermont Housing and Conservation Board, through 2018. These funds should be directed toward efforts to secure a long term sustainable and ecologically sound dairy sector in the state that follows water quality, soil health, animal welfare, and good labor practices. Funds should

also be directed toward those farms that are seeking to convert to organic, a more sustainable model than now exists with federal order pricing.

- Dairy Cooperatives: Cooperatives currently form a function of balancing supply and demand of milk in the market with the federal market order program. Farmers receive a blended price within the order depending on how the milk is used. While some of the cooperatives encourage hedging and forward contracting by member farms, the leverage to obtain higher prices in the market is limited today due to the consolidation that has taken place on the retail side, the decline in fluid milk sales, and the increase in Class 1V utilization, and globalization. Some of the things that need to be considered for dairy cooperatives and their farmer members include:
 1. An Independent evaluation to determine if market orders benefit Vermont farmers today considering the changes taking place in markets and in milk production nationally and within the region. With a significant and ongoing decline in Class 1 sales, greater Class IV production and usage, and a supply imbalance in Order 1, Vermont farmers are not benefiting from a higher blend price as intended when the market order system was established in the region. **THE VERMONT HOUSE AND SENATE AGRICULTURE COMMITTEES SHOULD HOLD EMERGENCY HEARINGS ON THIS ISSUE AS SOON AS POSSIBLE**
 2. Use of marketing funds assessed on dairy farms in Vermont to study value of new approach to marketing Vermont products that have attributes such as soil health, GMO free, animal welfare, and environmental compliance. If 85% or so of our milk goes out of state, are consumers willing to pay a higher price for certain attributes? Need a new approach that counters the declining consumption trend in the market for fluid milk. Are new products and marketing approaches needed that can seek a higher producer prices for Vermont dairy farmers?
 3. Independent evaluation of financial models (hedging, forward contracting, etc.) that might be used by Vermont dairy cooperatives to guarantee cost of production pricing with incentives for good practices to assure better farm sustainability within the state.

Public Agency and Institution Roles:

Market and Brand Development: Studies by the VT Agency of Agriculture and Markets have already determined that the Vermont brand has significant market value. Vermont needs to put in place standards and regulatory controls on the use of the Vermont brand.

1. Determine through a study of consumer demand the interest in branded Vermont dairy products that have attributes relating to soil health, animal welfare, human capital, GMO free, and environmental compliance. Does the Vermont brand have significant market value? Vermont was a leader in addressing GMO labeling, and thus could take advantage of this marketing image and advantage as other national branded companies are now doing. Suggest a cooperative effort between Farm to Plate, the Agency of Agriculture, Vt. Dairy Marketing Funds, Farm to Plate, Dairy Cooperatives, private dairy product companies, and NOFA to determine the consumer interest and potential demand.

2. Put in place standards and regulatory controls on the use of the Vermont brand. Develop a dependable regional market for regenerative Vermont milk and other regenerative Vermont farm products that use the Vermont brand. The Vermont name and thus brand has value and should only be used by those that adhere to Vermont guidelines. Create a clearing house for the Vermont made label and standards that are enforceable.
3. Determine the potential market for an expanded organic dairy sector within the State. Organic has been a growing segment within the state and nationally, even though it represents a small amount of the Vermont milk currently. By balancing supply and demand, organic producers can achieve, through their cooperatives, a higher price. Unlike the conventional dairy pricing model, the organic milk market is balanced achieving a higher price for producers.
4. Reduce the time from the time for transition from conventional to organic dairy from three years to one year. We do not believe that the three-year period can be justified based on science; a reduction of the timeframe, along with a robust marketing study would help to better assure an increased volume of milk and dairy products at a higher price to producers.
5. Market Development: Seek out businesses that may be interested in locating to Vermont to take advantage of its brand (branding study) and supply of sustainable supply of organic milk and a sustainable dairy sector. Establish as a priority for the State Agency of Commerce and the Agency of Agriculture.

Education and Research:

Vermont has several places of exceptional educational facilities for agriculture both public and private. There has been an attempt to create a collaborative educational structure within the state, facilitated by the Vermont Council on Rural Development. This should be strongly encouraged, so that students can take classes for credit at any of these institutions. At the public institutions created to focus on Vermont and its needs (Land Grant College of Agriculture at UVM, and Experiment Station, and Extension Service), all created by the State legislature to address the needs of Vermont agriculture and the environment, an increased focus must be on dairy sustainability and regenerative agriculture. (Note the Land Grant as well as the Experiment State were originally created by the State legislature to address these issues in Vermont).

Develop a system of collaborative teaching between the University, USDA NRCS, Agricultural Extension, Vermont state colleges to include VTC, and farmers, with research projects conducts on farms whenever possible. This system will provide the technical skills and trained regenerative organic consultants/researchers that a reinvigorated agricultural extension NRCS, and the universities and other educational institution will need for this sustainability model.

The dairy farm at Vermont Technical College, as a teaching unit, must change to organic production and should focus its attention to education around soil health and environmental stewardship and animal welfare.

At UVM Land Grant and the Experiment State, these units that have been established by the legislature and supported by public funding for a hundred and fifty-four years, and their work in the past has encouraged or enabled the expansion of CAFO animal management systems. Funding must be redirected towards soil health and regenerative environmental strategies to include carbon sequestration. Funding sources could include USDA EQUIP, CRP, EPA Lake and public water clean-up funds, and other resources.

Dairy 2020, a Reinforced Sustainable Sector

Due to the serious economic and environmental issues and the future economic sustainability of Vermont's iconic dairy industry, **the Governor with the support of the legislature should consider appointing an independent commission to make recommendations relative to the future economic viability of the dairy industry in the state of Vermont.** As noted in the Journal of Dairy Science paper, the issues today require engagement among producers, consumers, and others. Without this type of initiative, it is very doubtful that significant and needed issues will be addressed pertaining to the future of Vermont's dairy industry, and the decline in the number of farms and the importance of the industry to the state will continue to erode.

Agency of Agriculture:

Shift the focus on development away from an emphasis on conventional dairy to food sovereignty and regenerative organic dairy, beef, and vegetable production. Inaugurate a focus on the local food shed to supplement and gradually change the long-term focus on dairy pricing that is dependent on the success of international markets to a more diversified system and one not so dependent on the current Federal Order System. A Michigan State University study in 2007 (see Opportunities in Grazing Dairy Farms: Assessing Future Options, July 2, 2007) that **"an investigation of research from Michigan, the Midwest and throughout the country provides a sound basis for concluding that low-capital managed grazing dairy production offers a viable management option for small and medium sized farms. Grazing require less capital investment per cow than confinement operations and often have higher returns to assets and equity and greater net income per cow"**

Incentives to help shift Vermont farming toward economic viability and environmental sustainability:

Develop and encourage marketing incentives for environmental compliance. For example, in the 1990's the National Geographic Study of non-point source pollution recommend market incentives for environmental compliance. Under this model it would be possible, for example, for institutions like VEDA, USDA FSA, and Farm Credit to provide reduced interest rates for those farmers that achieve or meet certain standards such as those established for organic soil health, environmental compliance, labor management, economic sustainability.

Provide monetary payments for carbon sequestration for both farms and] forests within Vermont to stop the increase in atmospheric CO₂ and sequester more carbon. Recommend that this be part of the Vermont Council on Rural Development Climate Change initiative, challenge the Experiment Station to develop and vet a viable model.

Create a program to help finance and support farmers during the transition period to organic through VEDA, Vermont Housing and Conservation Board, Farm Viability program, and working landscape, and other identified sources of funding.

Vermont Housing and Conservation Board: Funding for Vermont Farmland preservation must include a criteria for organic soil health, economic sustainability, and environmental compliance. This entity was established with one of its primary purposes being in helping to create and sustain an economically viable farm sector in the State of Vermont.

VEDA Agricultural loans: Must include provisions for regenerative organic soil health, good labor practices, environmental compliance, and economic sustainability.

The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 made Chapter 12 of the Bankruptcy provisions for Farmers and Fishers permanent. It allows farmers and fishers to reorganize their debts and puts most of the control in their hands, instead of the banks. Currently, the Vermont division of the federal bankruptcy court overseeing chapter 12 cases is helping farmers reorganize their debt over a 3-5-year period. This program can greatly aid Vermont dairy farmers who want to restructure their debt and convert to organic production. However, farmers wishing to convert and restructure their debt need organic market contracts to qualify.

Farmworker Issues:

Recognize the farm labor are major issues that confront many conventional dairy farms in Vermont and this may be impacted by recent immigration issues. Policies and programs to address labor practices for these guest workers should be developed considering the need for their employment while recognizing their rights. Vermont can be a leader in protecting the rights of these very valued guest workers. Follow the lead of other states, like California and Ohio, which also value their farm workers by creating a Farmworker bill of rights.

Soils for Food Security and Climate

The State of Vermont should sign onto the 4/1000 initiative and developed ways to measure the progress. The Legislature should pass legislation committing the state to this initiative with specific standards and requirements. The “4/1000 Initiative: Soils for Food Security and Climate” aims to ensure that agriculture plays its part in combating climate change.... The initiative consists of a voluntary action plan under the Lia-Paris Action Agenda (LPAA), backed up by an ambitious research program. The aim of the initiative is to demonstrate that agriculture, and agricultural soils can play a crucial role where food security and climate change are concerned. Scientific studies have found that an annual increase of 0.4% of carbon stored in soils would make it possible to stop the present increase in atmospheric CO₂, which is a major contributor to the greenhouse effect and climate change.

Commitment to organic for Vermont

.. The State of Vermont should commit to actions and programs that will result in a significant percent of its farms becoming organic by 2018 as a way to address increased soil health, reduction in chemical use, water quality, and better economic sustainability: Information on the economic, environmental and social value, impact, and costs and strategies can be learned from places like Denmark and Bhutan where that transition is taking place. Market research is needed to determine the increased consumer

demand within the local and regional markets for this increased volume. Dependence on the existing Federal Order System, as noted, is leading to further decline in Vermont dairy sector (number of farms) and greater economic stress. The State should seek information from both Denmark and Bhutan on their initiatives and the value they bring to both producers and consumers. Market promotion will need to shift from exclusively conventional milk, to a high quality, Vermont organic milk, and other higher valued products related to a sustainable dairy sector.

CONCLUSION: Vermont has many hard-working dairy farmer and their families. Unfortunately, the conventional pricing model is broken and has been for some time. The state and farmers within the state are in a position, working with others, to chart their own economic destiny for the future. It will take collaboration among many (as indicated in the Journal of Dairy Science article), but can be achieved, we believe, for many. The legislative can help encourage and promote the programs and concepts addressed in this model. The status quo from an economic perspective is not sustainable for many of the conventional dairy farms going forward.

Like in the past, the State can be known as a leader by developing a sustainable or regenerative dairy and farmer sector within the state. It however will take leadership and collaboration as suggested in the December 6th letter to Governor Phil Scott (see attached letter). ***It is time for Vermont to demonstrate that it can sustain and improve an industry, the landscape (soil health) and the environment and improve water quality that is so important in so many ways. Seeking greater predictability and stability in milk pricing and profitable markets for Vermont milk and milk products has been a long-term objective, and now is the time to act with a vision to reach this objective. This long term dairy crisis under the conventional milk pricing model enables us to take stock of our dilemma and our opportunities.***

Vermont has the rare opportunity of helping rescue its largest agricultural industry and to plot a future agriculture for the state that is uniquely Vermont. Clean food, clean water, respect of labor, care for animals, profitable farms, bucolic pastures, all the images that American have of Vermont.

We seek to promote a collaborative model for change. Our concerns aim to address economic crisis of the Vermont dairy industry. But equally, our concerns are about the climate and environmental changes that must be addressed. **With the programs and actions addressed in this paper, farmers can better contribute to the cleanup of the LAKE, RECEIVE BETTER MILK PRICING, SEQUESTER CARBON, and BE PART OF THE SOLUTION INSTEAD OF BEING CHALLENGED FOR THEIR CONTRIBUTIONS TO THE PROBLEM.**

Those farm leaders of the past who had witnessed the demise of the world lading merino sheep industry in Vermont, the loss of the butter market where Vermont too was a world leader, stated in the history books that 'Vermont farmers should never compete with the west on a commodity basis, but most always develop products for the growing markets in the northeast, and that will take constant study.'

Also, the 1932 study, Rural Vermont A program for the future, stated that Vermont is best suited to a grassland economy, as the soils are best suited for grass growing. "The Soils of Vermont are best suited to grass. Although they are not inherently as fertile as the Prairie Region or the Great Plains of the West, the humid climate of Vermont prevents serious checks to grass growth from droughts and fosters a luxuriant grass cover through the season. The soils of Vermont, as grasslands, are better than most of the soils of New England and compare favorably with those of any section of the Eastern United States."

As Jack Lazor of Butterworks Farm states so well, "Vermont should declare itself a sustainable state. We are so gung ho about renewable energy, why not do the same thing for carbon sequestration on our farms and soils. It is obvious that federal agricultural policy when it comes to dairying is not working."

BRIEF BACKGROUND ON ROGER ALLBEE

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Born and raised on a farm in Brookline, Vermont

Education: B.S. University of Vermont, M.S. University of Massachusetts, Agricultural and Marine Economics

Work History:

- Marine Extension Specialist, Cornell University
- 208 Program Director, Vermont Water Quality Non-point source program
- Consultant to Governor’s Current Use Advisory Committee, 1979
- Professional Staff Member, Committee on Agriculture, U.S. Congress(for Congressman Jim Jeffords of Vermont (responsible for national dairy policy)
- Member of Senior Management Team, Farm Credit Banks and Bank for Cooperatives for Northeast USA
- CO-Owner of Ag Tec, firm involved in developing markets for U.S produced agricultural products in foreign and emerging markets(appointed to Animal and Animal Products Trade Advisory Committee to U.S. Secretary of Agriculture and USA Trade Advisor, Past Chair of Committee);
- Senior Business Consultant, member of Washington, D.C. Law firms’ International Practice Group, responsible for international trade and agricultural policy; (participant in Seattle Round of Multi-National Trade Negotiations under WTO);
- Executive Director of USDA Farm Service Agency for Vermont;
- Secretary of Agriculture, Food and Markets for State of Vermont;
- Past Special Advisor on Agriculture to former President of Vermont technical College (on creating an Institute for Applied Agriculture and Food Systems)
- Currently CEO of Grace Cottage Hospital and Rural Health Center

Achievements, Honors and Awards:

- Inducted into Vermont Agriculture Hall of Fame
- Finalist for Vermonter of the Year, Burlington Free Press, 2009
- Vermont Farm Bureau, Keith Wallace Award, 2014
- Honor Award, Soil and Water Conservation Society of America
- Outstanding Alumni Award, UVM College of Agriculture and Life Sciences
- Elected to Farm Foundation Roundtable, National Group of U.S. Agricultural leaders
- Alpha Zeta Agricultural Honor Society, University of Vermont

Noted:

- Selected as member of Blue Ribbon Commission on National Soil and Water Quality Issues by Farm Foundation and American Farmland Trust;
- Chair of the Working Landscape Council of the Vermont Council on Rural Development;

- Invited Member of the Market Incentives Workgroup, National Geographic Society's Forum on Non-Point Source Water Pollution;
- Member of the National Rural Development Task Force of the National Cooperative Business Association

Military Service: Captain, U.S. Army, during the Vietnam period

