

**Report and Recommendations of the
Vermont Milk Commission**

January 2019



VERMONT

Agency of Agriculture, Food and Markets

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Executive Summary Milk Commission Report 2019

The dairy industry in Vermont in 2018 has seen farm attrition, a leveling off of dairy product processing growth and a decline in milk volume due to a fourth year of milk prices below the total costs of production as reported by USDA for 2017. These factors are having an impact on rural communities with less dairy farm income to be spent in these communities, which has a spillover effect on other forms of agriculture in our state due to the loss of local agricultural infrastructure. These rural communities are the same areas seeing population declines, declining school enrollment and a lack of people to fill existing jobs.

Secretary Tebbetts received a letter from Senator Robert Starr and Representative Carolyn Partridge on May 12, 2018 requesting the Secretary to:

“immediately convene a series of meetings with cooperative leaders to explore implementation of a comprehensive supply management plan for the Vermont dairy industry.”

The letter further requested that the supply management working group be composed of cooperative leadership and their respective economists from St. Albans Cooperative Creamery, Inc., Agri-Mark, Inc., Dairy Farmers of America and Land O’ Lakes as well as Senator Starr and Representative Richard Lawrence who both are appointed to the Vermont Milk Commission. The working groups additional charge included:

“this leadership group should consider and report back to the Vermont Milk Commission about how continued State financial support of the State’s dairy industry can serve as incentive and support for implementation of such a plan.”

The Supply Management Working Group recommended the following parameters surrounding a growth management program:

- Any dairy price stabilization program would need to be implemented at the national level.
- Dairy farmer representation is critical on a board that works with the Federal Government.
- Program must not have barriers to new farmers starting dairy farming operations.
- A two-tiered stabilization program is preferred.

The working group also had areas of concern that would need further clarification for a growth management program to be enacted at the National Level.

- A two-tier system requires a base. The established base must not take on a value of its own.
- A two-tier pricing system would stabilize not enhance overall price.
- Consumer advocates could raise the alarm that dairy products prices would rise beyond the reach of income sensitive consumers if a program is implemented.
- A national two-tier stabilization program would need to be trade compliant.

The Milk Commission took the recommended parameters from the Supply Management Working Group and makes the following proposal to the Federal Congressional Delegation.

The Milk Commission endorses a program, to the equalize the supply and demand of milk to stabilize milk volumes at the national level and stabilize milk prices, that meets the parameters of the Supply Management Working Group. The continued unabated growth in milk production across the nation is causing an extreme imbalance in milk volume as compared to domestic commercial disappearance and exports of dairy products which depress milk prices paid to farmers.

The Milk Commission recommends a Growth Management Plan that would incorporate many detailed rules and regulations but would need to include the following subject areas:

- A dairy farmer governance board working in conjunction with USDA. The National Dairy Board model could be used for farmer representation with the addition of dairy economist and two dairy processors.
- Determination of a base milk volume for individual producers
- Determination of the volume of milk required to meet domestic and export needs as well as a 30-day emergency stock of dairy products, nationally, regionally and to the individual dairy farmer
- A means to provide strong signals to individual dairy farmers that milk over the required domestic and export volume and emergency stock is not desired
- A means for new dairy farmers to join family operations and or start new individual dairy farms.
- Detailed rules and regulations for the merging of dairy farming operations, the dissolution of farm partnerships and other changes in business structures

The specific recommendations for a Growth Management Plan include:

- Implementation at a national level and must be mandatory for all dairy producers to take part.
- An administrative fee for all dairy farmers and a flat rate is supported.

The dairy industry in Vermont in 2018 has seen farm attrition and a decline in milk volume due to a fourth year of milk prices below the total costs of production as reported by USDA for 2017, and a leveling off of dairy product processing growth. The chart below shows some of the challenges for an average size Vermont Farm.

Average Vermont Dairy Farmer – 3.4 million pounds of milk and 170 milking cows

Category	Total	Total year prior	% change prior year
Milk Income – 2018 FMMO milk price	\$524,280	\$570,520	-8.1%
USDA Total Costs 2017	\$871,420	\$1,207,680	-27.8%
USDA Value of milking cows 170 cows- 2018	\$212,500	\$289,000	-26.5%
USDA Value of Springing Heifer (40/year) 2018	\$55,000	\$64,000	-14.1%
Holstein Heifer Calf (40/year) 2018	\$2,760	\$8,160	-66.2%
USDA Beef Price Cow (700 lbs. dressed weight) 2018	\$452.34	\$486.92	-3.5%
USDA Interest Expense per Cwt. 2017	\$2,380	\$1,700	40%

Lower income, lower value of cows, heifers and calves, lower beef prices and increasing interest expenses are all impacting dairy farmers ability to cash flow and access credit due to impacts on the balance sheet. Milk price predictions for 2019 indicate a slight increase in average price over 2018. The dollar increase prediction for 2019 will be helpful but not sufficient to assist all dairy farmers to cover the cost of production.

Managing milk volume growth to meet both domestic and export needs and to supply a 30-day emergency stock of dairy products is the goal of the Growth Management Plan. To manage the growth of the United States milk supply to better align the volume of milk with demand, all dairy producers will need to be actively involved in the program. An equitable program must be established for all dairy producers regardless of farm location, farm size and or business structure. The alignment of milk volume with need would reduce volatility and provide stabilization of milk prices. For these reasons, the Milk Commission endorses a program, to the equalize the supply and demand of milk to stabilize milk volumes at the national level and stabilize milk prices for all dairy farmers.

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Vermont Milk Commission Report January 2019

The dairy industry in Vermont in 2018 has seen farm attrition, a leveling off of dairy product processing growth and a decline in milk volume due to a fourth year of milk prices below the total costs of production. These factors are having an impact on rural communities with less dairy farm income to be spent in these communities. These rural communities are the same areas seeing population declines, declining school enrollment and a lack of people to fill existing jobs.

The Milk Commission continues to be very concerned with the status of the dairy industry in the state. While the Milk Commission endorses the equalization of supply and demand of milk to stabilize prices, there are other avenues that the commission will explore with the Vermont Legislature to assist Vermont dairy farmers. The loss of population and economic opportunity in Vermont's rural communities is of great concern and stabilizing the price paid to dairy farmers will provide an economic engine for some communities. The Milk Commission understands the continued challenges on all farmers in Vermont to meet the requirements to protect water quality and appreciates the investments of time and money by farmers to meet these requirements.

The Vermont Legislature is also concerned for the Vermont Dairy Industry and our Rural Communities. The Chairs of the House and Senate Committees of Agriculture requested that the Vermont Agency of Agriculture explore supply management as well as provide recommendations to the Legislature in 2019 to assist and incent the industry in Vermont. The information on supply management was to be reviewed and evaluated by the Milk Commission to provide recommendation to the Vermont Congressional delegation for a national level supply management plan. This report provides information on the status of the Vermont dairy industry at the end of 2018, a review of the work on supply management, recommendations of the Milk Commission on supply management and recommendation to the Vermont Legislature.

Overview of the Vermont Dairy Industry

The dairy industry in Vermont is facing tremendous challenges due to a fourth year of depressed milk prices. These depressed milk prices are impacting dairy farm attrition resulting in a decline in milk volume as well as a leveling off of dairy product processing growth. The Dairy Industry is of great economic importance to Vermont and has a direct impact on dairy farmers but an indirect impact on other forms of agriculture as well as Vermont rural communities. Organic along with conventional dairy farmers are challenged in this time of low milk prices and rising costs to produce the milk. Some areas of Vermont are seeing the loss of agricultural infrastructure impacting all types of farming due to a decline in dairy farm income to be spent in these communities. These rural communities are the same areas seeing population declines, declining school enrollment and a lack of people to fill existing jobs.

The dairy industry in Vermont is the largest form of agriculture and related product processing based on receipts in the state. According to the USDA National Agricultural Statistics Service, receipts for milk in 2016 total \$471 million.¹ In the 2012 USDA Ag Census, total agricultural receipts for Vermont were \$776 million with milk sales totaling \$505 million of the total or 65%.² If value of cattle and calves are included, then the percentage moves to 73% of total agricultural receipts.

¹ 2016 State Agricultural Overview -Vermont. USDA National Agricultural Statistics Service
https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=VERMONT

² 2012 USDA Ag Census -Historical Highlights: 2012 and Earlier Census Years - Vermont

https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Vermont/st50_1_001_001.pdf

A study completed in 2015 using nationally collected data shows the dairy industry in Vermont has a \$2.2 billion impact on the state’s economy yearly. Dairy also brings over \$3 million each day of circulating cash into Vermont from the sale of milk from the farm as well as processed dairy products like ice cream and cheese. The dairy industry, from the farms, related industry through dairy processing provides 6,000 to 7,000 jobs in Vermont with \$360 million in wages and salaries to Vermonters.³

The dairy industry is important to the state of Vermont, but the core business of dairy farming is continually challenged with milk prices, changing weather patterns, and generational change. Milk prices paid to farmers continue to show volatility. Milk prices are shown below in table 1 for 2010 through 2018.

Table 1. Milk Prices Federal Order Statistical Uniform Price- Middlebury Location⁴

	2010	2011	2012	2013	2014	2015	2016	2017	2018
AVE. MILK PRICE	\$16.07	\$19.99	\$17.98	\$19.60	\$23.63	\$16.49	\$15.25	\$16.78	\$15.44

In 2018, 27% of dairy farms produce milk under organic standards and market the milk through organic buyers. The volume of milk produced by these farms represents approximately 9% of Vermont’s total milk volume. The prices paid for organic milk are set by contract as an over-order premium above the federally set minimum milk prices. Organic milk prices had increased steadily from 2009 through 2016 but an oversupply of milk versus market demand in 2017 have caused prices to decline. According to an economic analysis performed by Bob Parsons at the University of Vermont, from 2010 through 2016, organic prices paid to Vermont farms ranged from \$32.89 per hundredweight in 2010 to \$38.58 per hundredweight in 2016.⁵ The Milk Commission received testimony in 2017 that prices had been lowered by as much as \$5 per hundredweight. This decline in prices was also accompanied by a quota on milk production by one of the buyers of organic milk. There are no indications that organic milk prices have improved in 2018 and the quota is still in place for many organic dairy farmers. Organic dairy farmers are experiencing economic challenges in 2018 that will continue into 2019.

With the continued challenging economic situation and generational change, the number of commercial dairy operations in Vermont has declined. Correspondingly, the numbers of cows per farm has increased but the volume of milk per year did decline in 2018. Farms that have chosen to produce milk organically have remained relatively steady through the period of 2010 through 2018 but with a slight decline in 2018. Table 2 below shows the data from 2010 through 2018.

³ Milk Matters – the Role of Dairy in Vermont - <http://vermontdairy.com/>

⁴ Northeast Marketing Area Federal Milk Market Order 1 - <http://www.fmmone.com/>

⁵ E-Mail Bob Parson December 31, 2017

Table 2. Average Number of farms, Average number of cows per farm, Average number of Organic Dairy Farms and USDA National Agricultural Statistics Service Milk Production for the State⁶

Category	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ave. # of VT Cow Dairy Farms	1,015	996	972	939	880	853	838	796	725
Ave. # of cows/farm	133	135	138	142	150	155	155	162	175 E
Certified Organic Cow Dairy Farms	203	204	205	198	184	184	203	199	197
Milk Production-lbs. USDA	2.52 Billion	2.54 Billion	2.56 Billion	2.62 Billion	2.67 Billion	2.67 Billion	2.72 Billion	2.73 Billion	2.49 Billion - E

Dairy processing in Vermont continues to reap rewards for excellent dairy products from processors of all size and type. The number of dairy processors leveled off in 2018. This is the first year that the number of processors did not increase, either on-farm, where the owner milks animals and processes the milk, or off-farm, where milk is purchased and trucked in to be processed. Vermont has gained a strong reputation for high quality dairy products due to the numerous awards garnered by cheesemakers in the state as well as the cooperatives and other processors. Cheese has been a mainstay for award winning products, but all types of dairy products are now produced in Vermont and many are achieving awards for quality. Vermont still has opportunity in the production of award-winning dairy products and the access to a willing market place with the population density in Southern New England and along the Atlantic Coast.

Vermont’s dairy products continue to garner awards for excellence domestically and internationally. In 2018, ‘Harbison’ from Cellars at Jasper Hill in Vermont was named ‘Best of Show’ among 1,954 entries at the American Cheese Society’s (ACS) 2018 Judging & Competition and Second place ‘Best of Show’ went to ‘Calderwood’, also from Cellars at Jasper Hill. In all, Vermont had 15 first place winners, 9 second place winners and 9 third place winners. On the international level 2018 World Cheese Championship drew more than 3,400 entries—a record, up 15% from two years ago—from 27 countries (including the U.S.) and 32 states. The event was held in Madison, Wisconsin, March 6–8, 2018, with the winners announced at the final evening’s Cheese Champion event. Vermont brought home 16 awards for cheese and yogurt. Vermont garnered 6 best of show (first), 5 second place and 5 third place finishes. Each of these awards brings more recognition and sales for Vermont dairy products. Funding has been provided to Vermont cheese makers to assist them to take part in these national and international competitions. Table 3 show the number of dairy processors in Vermont since 2010.

⁶ USDA National Agricultural Statistics Service -Milk Production-
<https://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1103>

Table 3 – On and off- farm dairy processing in Vermont – Agency of Agriculture, Food and Markets Statistics

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Off-Farm Dairy Processors	26	27	29	36	58	64	78	78	83
On-Farm Dairy Processors	40	53	54	59	62	71	67	69	63
Total Dairy Processors	66	80	83	95	120	135	145	147	146

Using available data, it is clear that dairy farmers, on average, have had difficulty meeting the cost of producing milk in Vermont and New England. There are many different means to calculate the cost of producing milk and USDA Economic Research Service has a long history and consistent method of estimating the cost of producing milk.⁷ The USDA estimates show that farmers have been having difficulty meeting the cost of producing milk in the last 5 years. Calendar year 2018 data is expected to show another difficult year for dairy producers.

Table 4 -USDA Economic Research Service Cost of Production and Difference to value of production

	2012	2013	2014	2015	2016	2017
USDA Total Operating Costs - VT	\$21.23	\$23.48	\$22.43	\$23.18	\$21.42	\$15.49
USDA Total Costs - VT	\$34.16	\$36.58	\$35.85	\$36.91	\$35.52	\$25.63
USDA Total Gross Value of Production	\$23.05	\$24.55	\$29.25	\$21.92	\$19.96	\$23.36
USDA Difference to Operating Costs	\$1.82	\$1.07	\$6.82	\$(1.26)	\$(1.46)	\$7.87
USDA Difference to Total Costs	\$(11.11)	\$(12.03)	\$(6.60)	\$(14.99)	\$(15.56)	\$(2.27)

2018 is the fourth year in a row of extremely challenging milk prices for Vermont Dairy farmers. These low milk prices are having an impact on affiliated agricultural businesses such as feed, veterinary and equipment sales and service companies. The Milk Commission was provided a report on the state of the dairy industry at its December 12, 2018 meeting and lenders and vendors to dairy farmers both stated the economic stress for dairy farmers. Lenders are assisting dairy farmers by extending interest only payments, deferred payments and restructuring of credit for many farms. Lenders are also having difficult conversation regarding equity and the ability to continue farming at current price levels.

Vendors working with dairy farmers reported excessive accounts receivable and the potential that corporate ownership may begin making decisions on extensions of credit to dairy farmers. One feed vendor stated that the parent company is taking out loans to cover accounts receivable to remain in operation. Dairy farmers, over the years, have become adept at reducing expenditures when milk prices are low and repaying open accounts when the milk price recovers. 2018 is the fourth year of low milk prices and many dairy farmers are struggling with the ability to repay past due accounts.

Lenders also provided evidence at the December meeting that dairy farmer balance sheets were eroding due to changes in value of cattle. Dairy farmers across the country are experiencing low milk prices and dairy cattle replacement markets are showing extremely low cow prices. Table 5 shows changes in milking cow, Springing

⁷ USDA Economic Research Service- Milk Cost of Production Estimates - <https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/>

Heifers and Holstein calf prices since 2013 and the impact in value to the balance sheet to an average Vermont farm with 170 cows. The reduction in value of cattle impacts a farms ability to borrow more money due to a decrease in the value of the collateral (dairy animals).

TABLE 5 - NASS Agricultural Prices – Dairy cow replacements, Springing Heifers and Heifer Calves ⁸

	2013	2014	2015	2016	2017	2018
milking cattle – October	\$1,510	\$2,030	\$1,870	\$1,720	\$1,700	\$1,250
170 cows	\$256,700	\$345,100	\$317,900	\$292,400	\$289,000	\$212,500
Springing Heifers	\$1,325 - \$1,625	\$1,400 - \$2,300	\$1,300 - \$2,025	\$1,150 - \$1,850	\$850 - \$1,600	\$700 - \$1,375
40 heifers/year	\$53,000 to \$65,000	\$56,000 to \$92,000	\$52,000 to \$81,000	\$46,000 to \$74,000	\$34,000 to \$64,000	\$28,000 to \$55,000
Holstein Heifer Calves – 80 – 130 bs	\$131	\$316	\$372	\$259	\$204	\$69
40 calves / year	\$5,240	\$12,640	\$14,880	\$10,360	\$8,160	\$2,760
Balance Sheet value of animals	\$326,940	\$449,740	\$413,780	\$376,760	\$361,160	\$270,260

Beef prices are also lower than in previous years. USDA collects data on beef prices nationally and TABLE 6 shows a decline in many prices for October 2013 through October 2018.⁹ These decline in prices also impact dairy farmers if they choose to send a cow, heifer or calf to slaughter. In the past, dairy farmers could sell a cow, calf or heifer to slaughter and the income could assist with the payment of bills, covering short term cash flow issues. The average price for a cow in 2018 through October is \$64.62 per hundredweight and an average cow sent to slaughter weighs approximately 600 to 700 pounds (dressed weight). This provides a gross income of \$387.72 to \$452.34 but in many instances, hauling and slaughter costs are deducted from the gross income, leaving dairy farmers with very little income from the sale of a cow to beef. The option to sell cows, calves or heifers to slaughter to generate short term cash is severely limited.

⁸ NASS Agricultural Prices – Dairy cow replacements, Springing Heifers and Heifer Calves - <https://usda.library.cornell.edu/concern/publications/c821gj76b?locale=en&page=5#release-items>

⁹ USDA NASS -All Beef Cattle, Calves, Cows, and Steers & Heifers - United States https://www.nass.usda.gov/Charts_and_Maps/graphics/data/priceca.txt

TABLE 6 – USDA NASS -All Beef Cattle, Calves, Cows, and Steers & Heifers - United States per hundredweight

<i>Year</i>	All Beef Cattle	Calves	Cows	Steers & Heifers
2013	124.67	174.25	82.29	126.33
2014	152.83	254.58	108.23	154.33
2015	147.92	263.00	104.11	149.33
2016	120.08	162.58	74.89	121.67
2017	120.17	165.17	69.56	121.92
2018	115.90	167.80	64.62	118.00

A final issue impacting dairy farmers financial situation is rising interest rates. Interest rates are shown as a cost of production, have increase substantially over the last 5 years according to USDA Cost of Production data.¹⁰ These increases continue to impact cost of producing milk and the ability to borrow additional capital for operating and potential capital improvement.

TABLE 7 -USDA Interest on Operating Capital

	Interest on operating capital	Impact on average size farm 3.4 million pounds of milk/year
2013	\$0.01/cwt.	\$340
2014	\$0.01/cwt.	\$340
2015	\$0.02/cwt.	\$680
2016	\$0.05/cwt.	\$1,700
2017	\$0.07/cwt.	\$2,380

Low dairy farm income also has an impact on rural communities. Using cost of production information from USDA and the average milk production volume for 2013 through 2017 the following are estimated expenditures certain categories which can impact local ag related businesses.¹¹ The cost of production data from USDA was multiplied by the average state volume of milk for 2013 through 2017 at 2,628,000,000 pounds.

TABLE 8 - USDA Select Cost of Production categories estimated expenditures

	2013	2014	2015	2016	2017
Purchased Feed	\$295,912,800	\$310,104,000	\$292,496,400	\$286,452,000	\$156,628,800
Veterinary and medicine	\$21,024,000	\$22,075,200	\$23,126,400	\$23,652,000	\$13,140,000
Fuel, lube, and electricity	\$35,478,000	\$35,478,000	\$23,126,400	\$20,761,200	\$27,594,000
Repairs	\$25,228,800	\$26,017,200	\$26,280,000	\$26,542,800	\$27,068,400
Hired labor	\$34,164,000	\$36,529,200	\$37,843,200	\$39,945,600	\$65,962,800
Total	\$411,807,600	\$430,203,600	\$402,872,400	\$397,353,600	\$290,394,000

¹⁰ USDA Economic Research Service- Milk Cost of Production Estimates - <https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/>

¹¹ USDA Economic Research Service- Milk Cost of Production Estimates - <https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/>

Purchased feed, Veterinary and medicine, fuel, lube and electricity, repairs and hired labor all can impact local businesses and the local community. The data shows that purchased feed has declined substantially from 2014 through 2017. Some of this change can be attributed to changes in feed prices but also farmers decreasing the amount of feed purchased to save money. The difference between 2016 and 2017 is dramatic showing a decline of over \$129,000,000. Another heavily impacted category is Veterinary and medicine with a decline of over \$10 million between 2016 and 2017. This estimated decline in spending impacts local communities with potential layoffs at feed mills in Vermont as well as Veterinary clinics that struggle to remain open or to attract new veterinarians to practices in Vermont.

Rural Communities have been struggling in Vermont for several years. There are concerns for employment, economic health and school enrollment. Agriculture and farming are of economic and social importance to rural communities contributing through purchases at local businesses, taxes (even with abatement program) and support for schools, emergency services and town government. One rural county in particular, Caledonia County has seen declines in population, declines in young farmers and the number of commercial dairy farms.

TABLE 9 Population and dairy farm number changes – Caledonia County¹²

	2013	2014	2015	2016	2017	% change 2013 - 2017
Caledonia - total population	31,157	30,981	30,780	30,333	30,164	-3.19%
Caledonia 20 - 24 yr. pop.	2,006	2,004	1,940	1,921	1,800	-10.27%
Caledonia 25 - 29 yr. pop.	1,614	1,630	1,597	1,602	1,614	0.0%
Caledonia 30 - 34 yr. pop.	1,703	1,666	1,650	1,539	1,545	-9.3%
# of dairy farms ave. /yr.	76	73	71	65	62	-18%

USDA Agricultural Census also collects information regarding the age of the principle operator of the farm. USDA Census data from 2007 and 2012 shows a decline in principle operators of all types of farms in Caledonia County for younger farmers. Young families are important to rural communities and the rural economies of this state.

TABLE 10 – USDA Ag Census Data Caledonia County ¹³

USDA Ag Census data	under 25			25 - 34		
	2007	2012	% change 2007 - 2012	2007	2012	% change 2007 to 2012
Caledonia	7	0	-100.0%	33	32	-3.0%

All types of farming have an economic impact on rural communities and dairy farms are the largest source of gross receipts. From the Ag Census data, Caledonia county had a market value of milk in 2012 of \$25.7 million from 76 farms. This is an average market value per dairy farm of \$337,855 per farm. The 2017 Ag Census is

¹² Vermont Population Estimates and Census Data - Vermont Department of Health - <http://www.healthvermont.gov/health-statistics-vital-records/vital-records-population-data/vermont-population-estimates>

¹³ 2012 USDA Ag Census -Historical Highlights: 2012 and Earlier Census Years - Vermont

https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Vermont/st50_1_001_001.pdf

not out yet but an estimate of the market value of milk from the now 62 farms on average would be \$20.9 million a decline in market value in this county of almost \$5 million.

Utilizing the Secretary of State's business registry, there are several dairy related businesses that have closed in the last 10 years. These includes businesses such as a dairy equipment repair service, a tractor sales and service, building and farm supply store and a feed and nursery business. These businesses supported the dairy industry but also other types of agriculture in the county. These business closings impact the rural community, other types of agriculture and dairy farmers. All agricultural businesses in Caledonia county must travel further for services.

It is not fair to link all the population concerns of Caledonia County to changes in the dairy industry but the decline in the number of dairy farms in Vermont does have an economic impact on all people who live in rural communities due to reduced dairy farmer income and expenditures.

SUPPLY AND DEMAND

On the national level, milk volume is above national demand for milk and dairy products and this imbalance is impacting Vermont dairy farmers, both organic and conventional, through access to the organic market and depressed prices.

In the organic milk market, supply is greater than demand. To add more milk to the organic supply, buyers must work with farmers to transition to organic production methods which could take as long as three years depending on the farm's current management practices. Due to the requirement for transition to organic milk production, milk buyers must project supply needs out three years into the future. National supply of organic milk is tracked by USDA Agricultural Marketing Service and a report from December 14, 2018 shows total organic milk products sales, for October 2018 were 228 million pounds, up 4.7 percent from October 2017 and up 0.7 percent, January-October this year, compared with the same period in 2017.¹⁴

Market demand did not materialize at the rate expected and at this time, there is more organic milk than is needed. Testimony provided to the Milk Commission stated that this imbalance may take two to three years to resolve in the organic market. Organic buyers have requested that dairy farmers in transition wait until market forces change prior to being added to the organic market. This is adding economic stress to some dairy farms that are waiting to access the organic dairy market.

On the national level, conventional milk volume is above national demand for milk and dairy products. According to US Dairy Export Council, for the first 10 months of 2018, exports represented 16.3% of milk solids output.¹⁵ Export markets are important to the dairy industry but can be unreliable with world wide fluctuations in supply and demand.

On the global market, tariffs and the implementation of retaliatory tariffs are at the top of the list for impacts to the marketplace. Mexico and China both still have retaliatory tariffs on US Dairy Products. According to US Dairy Export Council, China imports of basic commodities improved in July – up about 8%, but the United

¹⁴ USDA Agricultural Marketing Service Organic Dairy Market Overview, December 14, 2018

https://www.ams.usda.gov/mnreports/md_da900.txt

¹⁵ US Dairy Export Council - GLOBAL DAIRY MARKET OUTLOOK U.S. Exports - <http://www.usdec.org/research-and-data/market-information/us-export-data>

States lost business, primarily to EU suppliers, but also to New Zealand and Argentina.¹⁶ The China market is important to Vermont for dried whey exports with one cooperative paying ½ of the extra tariff to maintain their market share. Mexico is an important market for US Cheese although not directly impacting Vermont processors.

Global impacts to markets come from a variety of countries and regions of the world. The European Union dairy industry is the largest producer of milk and dairy products. In 2018, the European countries experienced extremely hot weather and drought concerns into the fall. The heat and drought issues have abated and milk and dairy product production is on track for another year of growth providing ample products for export.

Australia also had drought issues in 2018 and milk and dairy product production were limited. New Zealand did not suffer from drought and grazing conditions were considered excellent and milk and dairy product production are expected to be strong through the New Zealand grazing season. New Zealand dairy products are available to fill the needs of the Chinese and Asian Markets, if US dairy products are at a premium due to tariff issues.

South America also has an impact on global dairy supply. The two main exporting countries – Argentina and Uruguay, increased milk production by over 8% in 2018 and these countries have dairy products to export.¹⁷

There is some hope that the global market for dairy products will come into greater alignment in 2019 through slower milk growth in the European Union and the United States but inventories of dairy products are still large and will continue to place downward pressure on prices and markets.

The Milk Commission and the Dairy Supply Management Working Group heard from many participants regarding the imbalance between supply and demand of milk. In the last 5 years, the supply of milk and dairy products has continued to grow in the United States. USDA calculates the commercial disappearance of dairy products on a milk equivalent skim solids basis, which includes farm production, imports and commercial disappearance both domestically and through exports shown in TABLE 11. This data shows continued growth in farm production beginning at 201 billion pounds in 2013 and ending at 215 billion in 2017. Imports to the United States have grown beginning at 5.3 billion in 2013 and ending at 6.1 billion in 2017.

The commercial disappearance of dairy products has not kept pace with the increased farm production and imports of dairy products. Domestic disappearance has increased beginning in 2013 with 167 billion to 178 billion pounds in 2017. Commercial exports have also increased from 2013 to 2017 – 39 to 41 billion pounds. The total supply of dairy products on a skim equivalent basis for 2017 was 230 billion pounds and the total disappearance was 218 billion pounds, the excess overflowing into 2018 as ending stocks. Ending stocks of dairy products have grown from 7.6 billion pounds in 2013 to 11.8 billion pounds in 2017. Domestic Commercial Disappearance and Exports are not keeping pace with the farm milk supply leading to ever increasing ending stocks of dairy products.

¹⁶ US Dairy Export Council – Global Dairy Market Outlook - September 26, 2018 - http://blog.usdec.org/usdairyexporter/analysis-long-term-dairy-trade-tactical-cyclical-0?_ga=2.206615632.21773010.1545936376-1895237972.1515790493

¹⁷ US Dairy Export Council – Global Dairy Market Outlook - September 26, 2018 - http://blog.usdec.org/usdairyexporter/analysis-long-term-dairy-trade-tactical-cyclical-0?_ga=2.206615632.21773010.1545936376-1895237972.1515790493

TABLE 11 – USDA Annual commercial (com.) disappearance (disapp.), milk in all products, milk-equivalent skim-solids basis, 2013 – 2017 (millions of pounds) ¹⁸

		Farm Production					Commercial Use			
Year	Beginning com. stocks [A]	Production	Farm use	Marketings [B]	Imports [C]	Total supply [A+B+C]	Domestic com. Disapp.	Com. exports ²	Total com. Disapp.	Ending com. stocks ³
2013	7,973	201,231	976	200,255	5,311	213,539	167,414	38,548	205,962	7,577
2014	7,577	206,054	964	205,090	5,627	218,294	169,822	39,038	208,860	9,434
2015	9,434	208,597	968	207,629	5,986	223,049	176,561	37,337	213,898	9,151
2016	9,151	212,405	993	211,412	6,500	227,063	178,486	39,052	217,538	9,525
2017	9,525	215,466	979	214,487	6,053	230,065	177,556	40,715	218,271	11,794

Excess stocks of dairy products put downward pressure on dairy product prices and farm milk prices. USDA also compiles data on cold storage of agricultural products across the United States. The amount of natural cheese (American, Swiss and other) in storage as of November 30, 2018 was 1.4 billion pounds. This is an increase of 7 percent from the amount of natural cheese in storage as of November 2017 at 1.26 billion pounds.¹⁹ With this amount of natural cheese in storage, buyers of milk for cheese have the upper hand, refusing to purchase milk until the price is in their favor. **This overburden of stock and the imbalance of supply and demand continues to cause downward pressure on milk prices paid to farmers.**

Recommendations of the Supply Management Working Group

At the end of the 2018 Legislative Session, Secretary Tebbetts received a letter from Senator Robert Starr and Representative Carolyn Partridge on May 12, 2018 requesting the Secretary to:

“immediately convene a series of meeting with cooperative leaders to explore implementation of a comprehensive supply management plan for the Vermont dairy industry.

The letter further requested that the supply management working group be composed of cooperative leadership and their respective economists from St. Albans Cooperative Creamery, Inc., Agri-Mark, Inc., Dairy Farmers of America and Land O’ Lakes as well as Senator Starr and Representative Richard Lawrence who both are appointed to the Vermont Milk Commission. The working groups additional charge included:

¹⁸ U.S. Dept. of Agriculture: National Agricultural Statistics Service, Farm Service Agency, Foreign Agriculture Service, and Economic Research Service calculations; U.S. Dept. of Commerce, Bureau of the Census; and California Dept. of Food and Agriculture. - <https://www.ers.usda.gov/webdocs/DataFiles/48685/CmDsMilkNew.xlsx?v=42898>

¹⁹ USDA Cold Storage Report, December 21, 2018 <https://downloads.usda.library.cornell.edu/usda-esmis/files/pg15bd892/x920g214x/dz010v38k/cost1218.pdf>

“this leadership group should consider and report back to the Vermont Milk Commission about how continued State financial support of the State's dairy industry can serve as incentive and support for implementation of such a plan.

The Supply Management Working group was composed of the following individuals:

Name	Organization	Title
Leon Berthiaume	St. Albans Cooperative Creamery, Inc.	General Manager
Kiersten Bourgeois	St. Albans Cooperative Creamery, Inc.	Business Development Manager
Bill Cummings	Dairy Farmers of America	Vice President, Northeast Area Operations
Chris Allen	Dairy Farmers of America	Senior Director of Dairy Marketing
Catherine DeRonde	Agri-Mark, Inc.	Economist
Bob Wellington	Agri-Mark, Inc.	Vice President, Economics & Policy
Darin Hansen	Land O Lakes	Member Relations
Senator Bobby Starr	VT Senator	
Representative Richard Lawrence	VT Representative	
Anson Tebbetts	VT Agency of Agriculture, Food & Markets	Secretary
Diane Bothfeld	VT Agency of Agriculture, Food & Markets	Director of Administrative Services & Dairy Policy

The Supply Management working Group met on May 29, 2018 and October 5, 2018. Many of the members of the working group also attended the regional meeting sponsored by Agri-Mark on August 13, 2018. Milk Commission members were invited to attend Supply Management Working Group meetings, and several did attend.

Agri-Mark, Inc. hosted a regional meeting on **August 13, 2018** in Albany, New York which was attended by over 400 people. The meeting was attended by dairy farmers from the region as well as Wisconsin, Pennsylvania and California, dairy cooperative representatives, dairy processors, state legislators and congressional staff. Presentations were made on the following topics by the following speakers:

- Making the Dairy Farm Dilemma Clear - Robert Wellington, Agri-Mark, Inc.
- Supply Programs of the Past - Catherine de Ronde, Agri-Mark, Inc.
- Current Approaches for Dealing with Surplus Milk - Ben Laine, CoBank
- Supply Control Lessons from other Commodities - Marlis Carson of the National Council of Farmer Cooperatives (NCFC) and Attorney Todd Eskelson
- Overview of Canada's Dairy System - Nick Thurler, Dairy Farmers of Ontario Canada

The meeting also included presentations of different supply management proposals by varying groups and organizations. These presentations listed above, and the proposals are available on-line at <https://www.dairyproposals2018.com/> .

The Supply Management Working Group had its final meeting on October 5, 2018 where they reviewed three supply management proposals and determined major parameters for a national program. There was concern

from the group that a specific plan would not be helpful for the Milk Commission or the Federal Congressional Delegation, knowing that the legislative process would alter a specific proposal.

The Milk Commission met on December 12, 2018 to hear the recommendations of the Supply Management Working Group and to discuss these recommendations. The Milk Commission has considered the recommendations and formulated a plan to be shared with the Vermont Congressional delegation on a potential supply management program. The Milk Commission has also formulated a plan to share with the Vermont Legislature on how to support the Vermont Dairy Industry and incent continued action toward implementation of a supply management system at a national level.

The Supply Management Working Group Parameters for a Growth Management Plan.

The working group determined that any Growth Management Plan must be done at the National level. There were concerns from the group that regional level program would not manage enough milk volume to moderate volatility in the milk price. A regional program would also exacerbate regional difference in milk production, management and political differences within the dairy industry.

The working group considered the administration of a Growth Management Plan. The group recommends extensive farmer representation on a board that works with the Federal Government, USDA Farm Services Agency is preferred, to determine the rules, implementation and dispute resolution of the program.

The working group acknowledges that the next generation of dairy farmers is a critical aspect of any Growth Management Plan and any proposed program could not have barriers to new farmers starting dairy farming operations. A program must provide a defined method for new and beginning farmers to take part with no barriers of cost or access to a base milk volume.

The working group reviewed all the different price stabilization and inventory control programs presented at the August 13th meeting as well as proposals submitted at a later date through the website. After this review, the working group determined that a two-tiered system for pricing was preferred. This could include a set price for the first-tier volume of milk and a lower price rate on milk volume produced in the second tier. There are many details to a two-tier system that would need to be determined but the working group concluded that this system would provide the greatest potential to stabilize milk prices nationally.

The working group also had areas of concern that would need further clarification for a Growth Management Plan be enacted at the National level. A two-tier system usually includes some form of base to compare production levels for the first and second tiers. The group expressed concerns that the established base not take on a value of its own. The group also expressed concerns surrounding the existence of the base if the owner of the farm ceases milk production. These concerns would need to be addressed as the details of a two-tier system were debated and formalized.

Another area of concern for the working group, was to reiterate that a two-tier pricing system would not enhance overall price but would mitigate the high and low-price spikes experienced by dairy farmers throughout the country. Even though the high and low-price spikes would be mitigated, it was also a concern of the working group that consumer advocates, at the Federal Level, would raise the alarm that dairy products prices would rise beyond the reach of income sensitive consumers. This lobbying effort could increase the challenges at the Federal Level for adoption of a Dairy Price Stabilization plan. If a Growth Management Plan was implemented at the National level, there are also concerns for international trade compliance that would need to be explored.

Recommendations of the Vermont Milk Commission on a Growth Management Plan

The Milk Commission reviewed the recommendations from the Supply Management Working group and endorses the equalization of supply and demand of milk to stabilize milk volume and prices at the national level.

The Milk Commission continues to be very concerned with the status of the dairy industry in the state. While the Milk Commission endorses the equalization of supply and demand of milk to stabilize prices, there are other avenues that the commission will explore. The loss of population and economic opportunity in Vermont's rural communities is of great concern and stabilizing the price paid to dairy farmers will provide an economic engine for some communities. The Milk Commission understands the continued challenges on all farmers in Vermont to meet the requirements to protect water quality. The investments of time and money by farmers to meet these requirements must be supported by and communicated to all Vermonters.

The Milk Commission endorses a program to equalize the supply and demand of milk to stabilize milk volumes at the national level and stabilize milk prices that meet the parameters of the Supply Management Working Group. The continued unabated growth in milk production across the nation is causing an extreme imbalance in milk volume as compared to domestic commercial disappearance and exports of dairy products. The continuing growth of milk production nationwide has resulted in ever growing dairy product inventories and year end stocks which depress milk prices paid to farmers. Managing milk volume growth to meet both domestic and export needs and to supply a 30-day emergency stock of dairy products is the goal of the growth management plan. To manage the growth of the United States milk supply to better align the supply of milk with the demand of milk, all dairy farmers will need to be actively involved in the program. An equitable program must be established for all dairy farmers regardless of farm location, farm size and or business structure. The alignment of milk volume with need would reduce volatility of milk prices. The Milk Commission makes the following recommendations to the Federal Congressional Delegation surrounding a Milk Volume Growth Management Program.

The Milk Commission recommends a Growth Management Plan that would need to include many detailed rules and regulations but would need to include the following topic areas:

- A dairy farmer governance board working in conjunction with USDA
- Determination of a base milk volume for individual producers
- Determination of the volume of milk required to meet domestic and export needs nationally, regionally and to the individual dairy farmer
- A means to provide strong signals to individual dairy farmers that milk over the required domestic and export volume is not desired
- A means for new dairy farmers to join family operations and or start new individual dairy farms
- Detailed rules and regulations for the merging of dairy farming operations, the dissolution of farm partnerships and other changes in business structures

The Milk Commission recommends that a Growth Management Plan must be implemented at a national level and must be mandatory for all dairy producers to take part.

The Growth Management Plan would have an administrative fee for all dairy farmers and a flat rate is supported. The Milk Commission does not support an administrative fee that is based per hundredweight of

milk due to the concern that a fee based on milk volume would draw a distinction between large and small farms within the program.

The Plan must be transparent and governed by dairy farmers from across the country and managed by USDA through the Farm Services Agency. A Growth Management Plan must have farmer representation in development, implementation and management. Representation should include regional representation by dairy farmers. A model could be the National Dairy board which is comprised of 12 regions with one dairy farmer representing each region. Dairy farmers could be nominated to serve on this board by cooperatives, state governments and or individuals but the decision for inclusion would be made by the USDA Secretary of Agriculture. The Milk Commission supports adding a nationally recognized dairy economist and 2 dairy processors to this group, but the number of members should not exceed fifteen. The Milk Commission recommends that the plan would be developed, implemented and managed by the USDA Farm Services Agency in conjunction with a dairy farmer governing board. Dairy farmer representation will be key to this program and the organizational skills of USDA Farm Services Agency will assist to manage the regulatory aspects of this program.

The Milk Commission recommends The Growth Management Plan be a two-tier system of volume and price. The components of a two-tier system include administration of the program through farmer representation, an established base volume of milk, pricing levels for each tier of milk, determination of the triggers for the program, new farmer access to the program and a determination of program rules for farm sales, family member involvement and changes to ownership structure such as partnership, corporations etc.

A two-tier system as part of the Growth Management Plan would need to establish a base milk volume. There are several ways to establish a base and the Milk Commission supports reviewing the past three years of individual farm milk production volume and selecting the highest milk volume year of the three. This would become the individual dairy farm base. The Milk Commission supports dropping the oldest year and reviewing the most current three years by the governing board. The establishment of the base for comparison should look at the highest year of the past three consecutive years to remove outliers of weather or financial impacts to milk production. The Milk Commission strongly recommends that the base not take on value and farmers cannot individually swap or trade base volume. The Milk Commission also strongly recommends that if a dairy farmer ceases milk production, that the base is dissolved, and it not reassigned.

The highest milk volume of the past three years would also be used by the governing board in the determination of the milk volume required to meet domestic and export needs as well as provide a 30-day emergency stock of dairy products for the country. The USDA Farm Services Agency in consultation with the governing board will forecast the market for fluid milk and manufactured dairy products (total commercial disappearance) that includes both the domestic market and exports for the following year. The highest milk volume for individual dairy farmers will be considered the current level of milk production and the governing board will determine if changes in U.S. milk production are needed to fulfill the market needs the following year.

Each year a dairy farmer would be assigned a prescribed milk volume that would either be level, above or below the highest milk volume of the last three years. This individual volume would meet the national needs for milk and dairy products as determined by the governing Board and would be reviewed every 6 months. Once established, The Growth Management Plan would compare quarterly the current milk production to quarterly prescribed base milk production. It is important to the Milk Commission that the volume of milk for the nation more closely aligns with the demand for milk for domestic consumption and support established export markets as well as provide an emergency stock of dairy products for 30 days. Comparing the current

milk volume to the base on a quarterly basis will provide information to the farmer on progress within the plan on milk volume. The Milk Commission does not support monthly comparison of current milk volume to the prescribed base due to administrative requirements as well as the potential monthly changes to milk production due to weather, feed and economic factors.

Transparency within the system will be important for dairy farmers. Clear signals are needed that milk volume over the prescribed base is not desired. A two-tier system as a part of the Growth Management Plan would need to provide that strong signal on tier two milk over the prescribed base. The value of the tier two milk must be known by farmers in advance. One method would be to tie the two-tier price to the USDA announced All Milk Price. The table below shows a possible means to set the tier two price – TABLE 12.

Table 12 – Proposed Trigger for Growth Management Plan

USDA All Milk Price	Tier Two per CWT.- over base milk only
Greater than \$20.00	\$0
\$18.00 to \$19.99	\$4
\$17.00 to \$17.99	\$5
\$16.00 to \$16.99	\$6
\$15.00 to \$15.99	\$7
Below \$15.00	\$8

The Milk Commission does not support tying the two-tier system to the USDA Milk Feed Ratio as a means to trigger the second-tier payment level or milk volume level. This calculation is used by some dairy farmers and farm lenders as a benchmark for farm profitability and the ability to expand dairy operations – when the milk to feed ratio is a low number (less than 2), it is more favorable to expand. Price is a more widely used barometer for dairy farmers than the Milk to Feed Ratio.

The Milk Commission does not support assigning all farms in the nation a set base and then all other milk is in tier two. For example, one proposal provided at the Albany, NY Dairy meeting this summer, prescribed that every dairy farmers would receive a base of 1 million pounds and would receive a tier one price equal to the cost of production for a farm of that size. If the farm produced milk over that volume, the remaining funds in the federal order after paying each farm for the million pounds would be divided equally. In many cases this second tier payment would not be transparent or predictable for farmers. The Milk Commission does not support this approach.

In the Growth Management Plan, for milk volume above the prescribed base on a quarterly basis, the rate shown in TABLE 12 would be charged to the milk volume depending on the all milk price. The milk volumes would be compared on a quarterly basis and the quarter would be settled 90 days after the quarter ends. If an individual farm is over the prescribed base in the quarter, the rate would be applied to the pounds over and the money would be deducted from individual farmer milk check in the following quarter, equal amounts in each check for the three months. The deducted funds would be collected and pooled for the calendar year at USDA Farm Services Agency. These funds would be returned to individual farms that remained at the prescribed level or below for the calendar year based on actual milk volume. If the individual dairy farm went over the prescribed base for one or more quarters but was able to manage milk volume for the remainder of the year and the yearly volume meets or is less than the prescribed volume, the farmer could take part in the distribution of collected funds.

An Example for an average size Vermont Farm.

An average size Vermont Farm milks 170 cows and produces 3.4 million in pounds of milk. The volume of milk required for 2019 in the growth management plan for this Vermont farm is 3.3 million pounds. This is lower than the farms base milk production.

Month	Milk produced	Prescribed Base	Difference
January	278,000	275,000	3,000
February	270,000	275,000	-5,000
March	279,000	275,000	4,000
	827,000	825,000	2,000

The farm was over base for the first quarter of 2019 by 2,000 pounds. The average predicted milk price for the quarter is \$16.13 and the rate for tier two milk would be \$6/cwt. The farm would see a deduction in the milk checks for July, August and September of \$40 per month to cover the \$120 owed for tier two milk. These funds would be remitted to USDA Farm Services Agency and pooled nationally.

Month	Milk Produced	Prescribed Base	Difference
April	277,000	275,000	2,000
May	272,000	275,000	-3,000
June	271,000	275,000	-4,000
	820,000	825,000	-5,000
Month	Milk Produced	Prescribed base	Difference
July	275,000	275,000	0
August	274,000	275,000	-1,000
September	273,000	275,000	-2,000
	822,000	825,000	-3,000
Month	Milk Produced	Prescribed Base	Difference
October	274,000	275,000	-1,000
November	273,000	275,000	-2,000
December	273,000	275,000	-2,000
	820,000	825,000	-5,000

The farm is able to manage its milk volume for the remainder of 2019 and the total milk volume is 3,289,000 which is below the prescribed base of 3.3 million pounds. The farm can take part in the redistribution of the collected funds with other producers who either maintained or decreased milk volume at or below the prescribed base, using the actual pounds of milk produced for the calendar year. There is no specific refund for the money paid in for the first quarter when pounds were over the prescribed base.

The Milk Commission does not support the refund of quarterly payments for tier two milk if the farm is within the limits of the prescribed base for the entire year. Dairy farms will need to manage quarterly milk production to the prescribed base but can take part in the distribution of funds for the calendar year. This distribution of

funds at year end for farms that maintained or decreased milk production versus prescribed base is not expected to be a one for one match to the funds collected for tier two milk.

The Growth Management Plan should not have barriers for new dairy farmers to begin operations or for a family member to join an existing dairy farm. New dairy farmers should be encouraged to begin operations in all regions of the country due to the average age of dairy farmers continuing to rise. The Milk Commission recommends that new dairy farmers starting standalone businesses should be assessed the flat fee to take part in the program and assigned a milk volume for the first 12 months of the program. The Milk Commission recommends 2 million pounds be assigned to the new farmers for taking part in the program for the first 12 months as the prescribed base. Once the new farm is in the second 12 months of farming, the farm takes part in the program as all other farmers would with actual milk production to compare to the prescribed base.

Dairy farming is a capital-intensive operation and it is difficult for new farmers to begin production on their own. Many choose to join existing family operations. The definition of a family member would need to be determined but, the Milk Commission recommends that when a family member joins an existing dairy operation, 2 million pounds be added to the farm's base milk volume. The addition of milk volume to the marketplace will be taken into account in the next calendar year when the calculation of milk requirements are tabulated.

The Milk Commission determined that 2 million pounds was a fair starting amount of milk for a new dairy farmer based on Vermont information. The majority of startup farms in Vermont are between 50 and 100 cows. The Milk Commission concedes that more information is needed on the average size of new start-up dairy farming operations across the country to determine a more accurate and equitable start-up milk volume for the nation. The ability for new dairy farmers to begin milk production in the nation is extremely important and a set volume assigned as the prescribed base for the first year would be a benefit to new farmers. The Milk Commission would recommend that the USDA Farm Services Agency and the governing Board use all available information to set a prescribed base for new dairy farmers.

Administration of a two-tier system as a part of the Growth Management Plan would need to occur at the national level and the Milk Commission supports USDA Farm Services Agency in that role. Dairy cooperatives, marketing associations and independent milk buyers will also need to play a role in assisting dairy farmers in providing milk pounds for verification as well as making deductions from milk check and remitting funds to USDA to assist with the administration of this plan.

The Growth Management Plan will need to determine how changes in farm ownership will be managed. The Milk Commission supports detailed rules and regulations that provide specifics for multiple farm owners, partnership and corporation type business structures. The Milk Commission recommends that the farmer governing board be involved in the writing of these rules and regulations but that the USDA Farm Services Agency acts to resolve any disputes surrounding the rules and regulations.

The Milk Commission recognizes that realigning milk volume with domestic and export demand as well as providing a 30-day emergency stock of dairy products will be a process that will not be accomplished in the short term but could take one or more years. The realignment of milk volume will stabilize milk price volatility but will not guarantee a specific price level for dairy farmers. While the proposed recommendations are for a mandatory program across the nation for all dairy farmers, each individual dairy farmers will be able to make management decisions on how to meet the prescribed milk volume for the calendar year.

Recommendations to the Vermont Legislature

The situation for the Vermont Dairy Industry is difficult to solve at the State Level. The Vermont Milk Commission has discussed several options for state action and three options are shown below that will assist dairy farmers through a show of support for the industry and will increase consumption of real dairy products in our state.

Truth in Labeling - The dairy industry believes that Food and Drug Administration (FDA) has the authority to mandate label changes for nut and plant-based beverages to remove the word milk from their labels. The FDA has been taking comments on this issue and has been slow to act. The Milk Commission requests that the Vermont House and Senate Committees of Agriculture write comments to the FDA on the concerns with inaccurate labeling of all products sold in state must meet the standard of identity to carry the label of milk, cheese, butter, ice cream and yogurt. Comments are due to FDA on January 28, 2019.

All Fat Levels of Milk In Schools and State Feeding Programs - The Milk Commission's has a recommendation for dairy products for Vermont Schools and all state owned and operated facilities that serve meals. The Milk Commission recommends a full range of dairy products at all fat levels be offered at Vermont Schools and other facilities, such as state prisons, that serve meals. For Vermont Schools, there are reimbursements for milk through the USDA Feeding Programs, but part of the requirements is to provide not more than 1 percent fat milk, plain or flavored. The Milk Commission recommends in addition to 1 percent and skim, that whole milk and 2 percent milk, plain and flavored, be offered at all Vermont Schools and if these products cause a financial issue with USDA reimbursement, that the State of Vermont fund the difference. The Milk Commission also recommends that fluid milk of all fat levels be provided to all facilities that serve meals and that the state of Vermont increase funding to allow for fluid milk to be served. Assistance with this initiative will be needed from the Vermont Department of Education and the New England Dairy Promotion Board.

Grants for Upgrades and Installation of Energy Efficiency Program - The Milk Commission would also like to recommend that the Energy Efficiency Utilities (Efficiency Vermont) institute a granting program to assist dairy farmers to upgrade or add an additional bulk tank, milk chillers, plate coolers and heating and cooling systems for barns (heat pumps). Older bulk tanks, being run at capacity, strain the capability of the bulk tank as well as cause operation of the compressor units for cooling at a maximum level. The installation of larger tanks and or a second tank would eliminate the need for the daily pick-up of milk. Moving to every other day pick up would decrease the number of truck trips to individual dairy farms reducing greenhouse gas emissions and greenhouse gas miles. Dairy farms can also save electricity by installing a milk chiller and or upgrading the plate coolers on the farm. Many plate coolers were installed many years ago and upgrades are needed. Milk chillers provide large volume capacity for milk cooling especially when the farm is large enough to load milk directly onto a tractor trailer at milking time. Some farm barns need heating and cooling especially for young animals. Young calves as well as other immature livestock could benefit from the installation of heat pumps for cooling in the summer and warmth in the winter. A granting program for all these upgrades and installations, paying up to 75% of the costs with a 25% dairy farmer share, which could be in-kind, would be of great benefits to farmers, the electric grid and the environment.

The Milk Commission also recommends the following to the Vermont Legislature:

- Protect the Use Tax Abatement (Current Use) Program by not allowing changes that will increase the farmer cost.

- Carbon Tax – the Milk Commission is concerned with the cost to farming if a carbon tax is implemented. Farming can have greenhouse gas and climate change benefits, but the practices associated with mitigating greenhouse gas effects and climate change benefits from farms will take investment by farmers. Do not impact farmers twice by implementing a carbon tax and placing requirements on farmers to implement practices to reduce greenhouse gas emissions or mitigate climate change.
- Don't over regulate – the Required Agricultural Practices were implemented in 2016 and are relatively new. All farmers should be allowed to work on adopting and adapting to these practices without continued updates and changes to these regulations. Do not implement regulations that will raise costs to dairy farmers.
- The Legislature should consider providing incentives and assistance for dairy processing facilities to be developed and to upgrade facilities. The investments for dairy processing require significant investment and grant amount may need to be enhanced. The Milk Commission applauds the Working lands Enterprise Board for providing a larger dairy innovation grant opportunity in 2018 with awards occurring in 2019. The Milk Commission recommends that funding levels are further enhanced for the Working Lands Enterprise program for 2019 and 2020 to continue the work in the dairy industry.
- Broadband coverage for the state – There is still a lack of reliable broadband coverage throughout the state. Agriculture has ever growing needs for high speed broadband coverage for using the internet to price and market products and inputs as well the use of precision agriculture. The technology exists to use precision agriculture to pinpoint fertilizer and herbicide applications if the broadband capability was available. Rural communities as well as farmers need stronger broadband coverage in the state. The Legislature should continue to provide funding and incentives to expand reliable broadband coverage throughout Vermont.

Conclusion

The Vermont Dairy industry continues to be challenged by low milk prices which are causing farm attrition that impacts our rural communities. The Vermont Legislature requested that a Supply Management Working group be established to provide recommendations to the Vermont Milk Commission on milk volume, price and other activities that the Vermont Legislature could take to support the dairy industry. The Supply Management working group provided broad parameters to the Milk Commission which were used to determine a Growth Management Plan that will be shared with the Federal Congressional Delegation.

The ever-growing supply of milk and dairy products in the United States has become burdensome on milk prices. Individual dairy farmers in Vermont are making difficult choices to continue in dairy farming or to end milking cows. The control of the supply of milk and dairy product inventories is gaining traction across the nation. Over 400 dairy farmers met in Albany, New York this summer to discuss supply management and there are on-going movements in Wisconsin and California on this topic. Several Dairy Cooperatives have but in place their own cooperative specific two -tier pricing programs to manage the supply of milk. These programs pay the federal order price for the first tier of milk and then a substantially lower price for the second tier of milk. In many cases, the second-tier price is the price that dairy cooperative can sell this excess milk, many times to the lowest bidder.

With this upswell in interest in managing the supply of milk and the request of the Vermont Legislature, the Milk Commission provides these recommendations to the Vermont Congressional Delegation understanding that any legislative process will be a series of adjustments and compromises. The Milk Commission hopes that

these recommendations can be used as guidance for a national Milk Volume Growth Management plan and Commissions is willing to work closely with the Congressional Delegation once this legislation is introduced.

The Milk Commission also has provided recommendations to the Vermont Legislature for actions that can be taken or to closely monitor legislative proposals to not place any new economic burden on farmers in the state. Providing more choices of fat levels of milk in schools and state facilities that serve meals as well as increasing the types of energy efficiency projects that are eligible for grant funding would be strong signals of support to the dairy industry in Vermont.

The Vermont Milk Commission continues to be very concerned with the status of the dairy industry in the state. While the Milk Commission endorses the equalization of supply and demand of milk to stabilize prices, there are other avenues that the commission will explore with the Vermont Legislature. The loss of population and economic opportunity in Vermont's rural communities is of great concern and stabilizing the price paid to dairy farmers is a step toward greater income and economic development in many of these communities.

References

1. 2016 State Agricultural Overview -Vermont. USDA National Agricultural Statistics Service https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=VERMONT
2. 2012 USDA Ag Census -Historical Highlights: 2012 and Earlier Census Years - Vermont https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Vermont/st50_1_001_001.pdf
3. Milk Matters – the Role of Dairy in Vermont - <http://vermontdairy.com/>
4. Northeast Marketing Area Federal Milk Market Order 1 - <http://www.fmmone.com/>
5. E-Mail Bob Parson December 31, 2017
6. USDA National Agricultural Statistics Service -Milk Production- <https://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1103>
7. USDA Economic Research Service- Milk Cost of Production Estimates - <https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/>
8. NASS Agricultural Prices – Dairy cow replacements, Springing Heifers and Heifer Calves - <https://usda.library.cornell.edu/concern/publications/c821gj76b?locale=en&page=5#release-items>
9. USDA NASS -All Beef Cattle, Calves, Cows, and Steers & Heifers - United States https://www.nass.usda.gov/Charts_and_Maps/graphics/data/priceca.txt
10. USDA Economic Research Service- Milk Cost of Production Estimates - <https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/>
11. USDA Economic Research Service- Milk Cost of Production Estimates - <https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/>
12. Vermont Population Estimates and Census Data - Vermont Department of Health - <http://www.healthvermont.gov/health-statistics-vital-records/vital-records-population-data/vermont-population-estimates>
13. 2012 USDA Ag Census -Historical Highlights: 2012 and Earlier Census Years - Vermont https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Vermont/st50_1_001_001.pdf
14. USDA Agricultural Marketing Service Organic Dairy Market Overview, December 14, 2018 https://www.ams.usda.gov/mnreports/md_da900.txt

15. US Dairy Export Council - GLOBAL DAIRY MARKET OUTLOOK U.S. Exports - <http://www.usdec.org/research-and-data/market-information/us-export-data>
16. US Dairy Export Council – Global Dairy Market Outlook - September 26, 2018 - http://blog.usdec.org/usdairyexporter/analysis-long-term-dairy-trade-tactical-cyclical-0?_ga=2.206615632.21773010.1545936376-1895237972.1515790493
17. US Dairy Export Council – Global Dairy Market Outlook - September 26, 2018 - http://blog.usdec.org/usdairyexporter/analysis-long-term-dairy-trade-tactical-cyclical-0?_ga=2.206615632.21773010.1545936376-1895237972.1515790493
18. U.S. Dept. of Agriculture: National Agricultural Statistics Service, Farm Service Agency, Foreign Agriculture Service, and Economic Research Service calculations; U.S. Dept. of Commerce, Bureau of the Census; and California Dept. of Food and Agriculture. - <https://www.ers.usda.gov/webdocs/DataFiles/48685/CmDsMilkNew.xlsx?v=42898>
19. USDA Cold Storage Report, December 21, 2018 <https://downloads.usda.library.cornell.edu/usda-esmis/files/pg15bd892/x920g214x/dz010v38k/cost1218.pdf>