November 5, 2015

- Welcome to Vermont
- Is Vermont Unique
- Or is Vermont the Canary in the Coal Mine on Dairy Industry Trends

- The Vermont Dairy Industry
- \$2.2 billion per year impact on VT Economy
- 6,000 to 7,000 jobs from farms through ag related businesses
- Over \$3 million per day cash back into the state From Milk Sales
- Each cow \$12,500 impact on VT economy

Category	2008	2009	2010	2011	2012	2013	2014	1 <sup>st</sup> Q 2015	2 <sup>nd</sup> Q 2015	3 <sup>rd</sup> Q 2015
Ave. Milk Price	\$17.77	\$12.16	\$16.07	\$19.99	\$17.98	\$19.60	\$23.63	\$16.23	\$16.16	\$16.25
CME Class III price	\$17.44	\$11.36	\$14.41	\$18.37	\$17.44	\$17.99	\$22.34	\$15.73	\$16.24	\$16.30
MILC Payment – USDA	\$0.00	\$1.15	\$0.02	\$0.00	\$0.7281	\$0.2586	\$0.00	\$7.999 margin	\$7.504 margin \$7.995 margin	n/a
# of VT Cow Dairy Farms	1,096	1,051	1,015	996	972	939	880	863	852	842
Milk Production USDA	2.57 b lbs.	2.46b lbs.	2.52b lbs.	2.54b lbs.	2.56 b lbs.	2.615 b lbs.	2.672 billion	219 million ave/mo	227 million ave./mo.	230 million ave/mo
Ave. # of cows in VT USDA	140,000	135,000	137,000	134,000	133,000	133,000	132,00 0	132,000	132,000	132,000
Ave. # of cows/ farm	127	128	133	135	138	142	150	153	155	158
Certified Organic Cow Dairy Farms	200	200	203	204	205	198	184	184	184	185
Off-Farm Dairy Processors	29	27	26	27	29	36	58	59	59	59
On-Farm Dairy Processors	34	37	40	53	54	59	62	64	65	66
Total Dairy Processors	63	64	66	80	83	95	120	123	124	125

- •What makes Vermont Unique?
- Organic Dairy
- Bovine Growth Hormone
- Artisanal Cheese



- Organic Dairy
  - Butterworks Farm



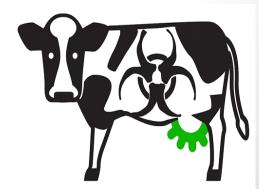
- Started in 1979 prior to even a certification program for organic dairy
- Making yogurt and selling directly to customers
- Industry started to grow in late 1990's
- Vermont highest number of organic dairies in 2012 with 205 – now 185

- Organic Dairy industry growth
  - Stonyfield Yogurt
  - Horizon Organic
  - Organic Valley
- Nationwide market
- Organic Trade Association 2014 data
  - Organic Dairy sector \$5.46 billion up 11% from 2013
- Vermont not responsible but certainly a part of the trend with early adoption with small processors like Butterworks Farm



- Bovine Growth Hormone
  - 1994 Ben & Jerry's requesting milk from cows not treated with Bovine Growth Hormone
    - Paying a premium for Bovine Growth Hormone Free milk
  - 1997 Vermont Legislature passes a voluntary labeling law for Bovine Growth Hormone free
    - Tried for a mandatory law but lost in court
    - Can voluntarily label as BGH free
    - Must have affidavit from producers supplying milk
    - Handler Affidavit that milk is segregated
    - Label must also have FDA state not significantly different

- Bovine Growth Hormone
  - Humble beginnings Ben & Jerry's
  - Stonyfield prior to being all organic
  - Fluid milk later Hood, Garelick store labels
  - Cheese last hold out.
  - Consumer demand grows
  - Current in Northeast limited to no outlet for milk produced with Bovine Growth Hormone
  - Premium eroding if not gone



- Bovine Growth Hormone
  - Farmers gave up technology to serve marketplace
  - Premium provided but eroded over time
  - Special now becomes an expectation
  - Need to find a way to maintain compensation when farmers give up technology to meet market demand

- Artisanal Cheese
  - Vermont Cheese Council is over 25 years old in Vermont
    - Started early by visionaries that thought
      Vermont could be the Napa Valley of cheese



- Artisanal Cheese
  - Rapid rise in dairy processors
    - In 2008 63 dairy processors
    - 2015 125 dairy processors
    - Majority are on-farm and small processors less than 500 pounds per day



- Artisanal Cheese
  - National and International Award winning products
  - American Cheese Society 2015
    - Harbison from Jasper Hill third place overall
      - Vermont had cheese over 30 makers entered and garnered numerous awards
    - 2014 Best of Show Farm for City Kids Foundation with Tarentaise Reserve
    - 2014 World Championship Cheese competition
      - 5 best of class awards for Cabot and Jasper Hill





- Artisanal Cheese
  - Buy Local
  - Premium Product with Premium Price
    - Allowing some very small farmers to make a living and flourish
  - Credit to our Vermont Dairy Inspection Staff
    - Assist all dairy processors to get started
    - Strong regulation makes for excellent, consistent dairy products – including cheese
  - Artisanal Cheese continues to grow and change in US
  - Expected to decrease imports of specialty cheese specialty cheeses made locally instead



- What's Next for Vermont and the US Dairy Industry
  - Animal Well-being
  - GMO Labeling
  - Green Milk

- Animal Well-being
  - On-farm animal management
  - FARM Program from National Milk Producers
    Federation
  - Caring Dairy Program with Ben & Jerry's
    - For farms in the program no tail docking as of 2016
    - Premium one time for stopping the practice
  - Expectation that fluid milk processors are next
    - farmers giving up a management practice will there be premiums or just an expectation



- GMO Labeling
  - Vermont passed a GMO labeling law in 2013
    - produced with genetic engineering
    - may be produced with genetic engineering
  - Rules written and approved to take affect July 1, 2016
  - Lawsuit from Grocery Manufactures Association
    - Recent ruling rules can take affect while lawsuit continues
    - Expect implementation July 1, 2016

- GMO Labeling
  - Dairy Products and Vermont GMO Labeling
    - Milk as it comes form the cow is exempt
    - Does not address what the cow ate
    - Enzymes are exempt rennet
    - Other additives may require labeling
      - High Fructose Corn Syrup in chocolate milk

- GMO Labeling
  - Whole Foods requirement for labeling by 2018
    - Dairy products
      - All aspects must be GMO free
      - Concerned with what the cow eats
      - Rennet must be from a non-GMO source
      - All additives must be GMO free
      - All must be in place to be able to label GMO free
    - Whole Foods seeing consumer move toward products that are labeled GMO free

- GMO Labeling
  - Whole Foods
  - Challenge to Farmers and Vermont Cheese Makers
    - Access to Market Whole Foods a major market for VT Cheesemakers
    - Access to non-GMO feed but not Organic Feed (price and availability)
    - Availability of seeds to plant non-GMO crops
      - Lose some water quality techniques
    - Third party verification of all claims



- GMO Labeling
  - Whole Foods
    - Benefit of market access and GMO free claim
    - Is this enough compensation to farmers?
    - Will the market drive labeling faster than any law?
  - What companies or retailers will be next?
    - Trader Joe's
    - Healthy Living

- Green Milk
  - Not just for St. Patrick's Day
  - Environmentally sound management on dairy farms
    - Meeting Water Quality Standards
    - Creating Renewable Energy from manure digesting
    - Practices on farms to reduce Green House Gas Emissions

- Green Milk
  - Marketing milk that is produced by these farms
  - Further segmentation of the fluid milk market
    - Organic
    - Pasture/Grass Based
    - Green Environmentally Sound milk
  - Will there be a premium for the farmer for these attributes
  - How long will premiums last?



- Vermont may be unique
- Early adopters or leaders of consumer trends
  - Organic
  - Bovine Growth Hormone Free
  - Artisanal Cheese

- Vermont as the Canary in the Coalmine
  - Animal Well-Being
  - GMO Labeling
  - Green Milk
  - More and more demands on farmers and dairy processors to meet market demand
    - Demand becomes expectation
    - Willingness to pay premium erodes
    - How to insure that farmers obtain fair share of the market hype and money around market demand

- Welcome you to Vermont for Dairy Practices
  - Encourage you to experience as much of our great state as possible while here
  - Talk to the locals to find out how unique our state is in its opinions and devotion to the food produced here
  - Find that Vermont is the canary in the coal mine for the next food trends for the rest of the US
  - But keep working to ensure that the processors and the farmers benefit from these upcoming changes



