

# Agency of Agriculture, Food & Markets Awarded \$6.45 Million to Lead Regional Dairy Innovation Center

By Laura Ginsburg, VT Agency of Agriculture, Food & Markets

The Vermont Agency of Agriculture, Food and Markets is excited to announce its selection as one of three national USDA-selected Dairy Business Innovation Centers and will serve New England and some of New York. The original funding of \$450,000 was supplemented with an additional \$6 million with the passage of the federal budget in December .

The initial six priority areas focus on the following:

- Assistance for farmers who seek to add grazing as a production strategy;
- Processing and food safety education for cheesemakers;
- Consumer communication strategies for farmers;
- Marketing and branding assistance for value-added producers;
- Supply chain and distribution innovation;
- Market research on the potential for sheep, goat, and high-attribute



milk .  
The additional funds will allow the Agency to expand the number of projects and producers reached. Additional focus areas will be determined with producer and

### Dairy Business Training Changed

Due to a scheduling conflict, Dr. Kohl is no longer able to provide the dairy business training as previously announced. Stay tuned as the Agency is working on alternative plans and will share more details about the opportunity as soon as they are finalized.

stakeholder input .  
Receipt of these funds will allow Vermont and the region to focus on innovative ideas and projects that will give the dairy sector options . One of the most exciting opportunities of this funding is that half of the money will go out  
*continued on page 7*

AGRiVIEW

Vermont Agency of Agriculture, Food & Markets

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## The View from 116 State Street

Improving the dairy economy continues to be a major focus of the work here at the Agency of Agriculture, Food and Markets. As we closed out 2019 there was optimism that the price of milk paid to farmers was headed in the right direction but as we all know dairy pricing is volatile. Let's hope 2020 returns more money to the farmer.

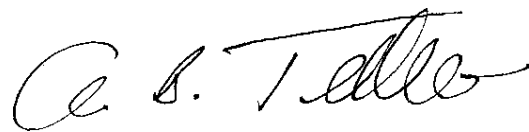
In the meantime, the Agency is involved in several projects aimed at improving the dairy industry. The Vermont Milk Commission continues to seek a long-term solution. The Milk Commission has studied milk market regulation, has a strong understanding of Vermont dairy industry history, and has been involved in developing state and national supply management proposals. We are building a coalition across the country that looks at a growth management plan. It won't be easy to get this finalized on the federal level, but farmers have told us they believe this is the best solution for dairy farmers.

The Agency, with support of the legislature, is completing a dairy market analysis that reviews state and national brand efforts, state programs to support the sector, opportunities for market development, and strategies for Vermont to capitalize on consumer trends. Additionally, Agriculture Development staff are creating a document of all state efforts to support dairy over the past ten years, which will highlight common themes and findings to better align the many groups that are discussing potential solutions for the dairy sector. The Agency has a working relationship with numerous universities and researchers who have deep knowledge of federal regulations, market impacts of various price strategies, and international

dairy systems.

The Agency has convened a Dairy Advisory Council (an outcome from the Northern Tier Dairy Summit held in April 2019), made up of several farmers across the spectrum of scales and production strategies, with the goal of having a direct line of communication for what farmers need, how the Agency can best support the sector, and as a sounding board for ideas that come forward from different groups.

The Agency also was awarded a substantial USDA grant to support dairy across Vermont and the region. Vermont was one of three states along with Tennessee and Wisconsin to be awarded this funding. This work is underway, and more details of the work will be released in the coming months. We believe this funding will help dairy farmers giving them support and options to improve their farms. Vermont could not have received this help with the continued support of dairy by Governor Scott, Senator Leahy, Senator Sanders and Rep. Welch. If you want to learn more about the project, please contact Laura Ginsburg here at the Agency. Laura wants to hear from you as this plan is rolled out to dairy farmers. You may reach Laura by email, [laura.ginsburg@vermont.gov](mailto:laura.ginsburg@vermont.gov) or by phone 802-522-2252.



Anson Tebbetts, Secretary, Agency of Agriculture, Food & Markets

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## This Month's Recipe

### Easy Chocolate Truffles

#### Ingredients:

- two 4-ounce quality chocolate bars (226g), very finely chopped (easier to melt!)
- 2/3 cup heavy cream (no substitutions here!)
- optional: 1 Tablespoon unsalted butter, softened to room temperature
- optional: 1/2 teaspoon pure vanilla extract
- toppings: unsweetened cocoa powder, sprinkles, crushed nuts, melted or tempered chocolate

#### Instructions

- Place the chocolate in a heat-proof bowl. Set aside.
- Heat the heavy cream until it is simmering. You can heat it on the stove or in the microwave.
- Add the butter, if using, to the chocolate and pour the heavy cream evenly on top. Let the warm cream and chocolate sit for 5 minutes. Add the vanilla extract then stir until the chocolate has completely

melted. Place a piece of plastic wrap directly on the surface (to avoid condensation) and refrigerate for 1-2 hours. Tip: Pour into a flat shallow dish, such as an 8x8 inch baking pan, so the mixture evenly and quickly sets.

- Scoop the set truffle mixture into 2 teaspoon-sized mounds. Maybe you have a small cookie scoop? Roll each into balls. This gets a little sticky so one option is to coat your hands with cocoa powder.
- Roll each into toppings, if desired. Truffles taste best at room temperature!
- Cover tightly and store truffles at room temperature for 3-4 days or in the refrigerator for up to two weeks.

#### Notes

- You can freeze these for up to three months with or without toppings. Thaw in the refrigerator, then bring to room temperature, if desired, before enjoying.
- Chocolate: Use pure chocolate, the

- kind sold in 4-ounce bars in the baking aisle. Do not use chocolate chips. If using milk chocolate, reduce the cream to 1/2 cup as milk chocolate is much softer than dark chocolate. Do not use white chocolate in this recipe because it's too thin.
- Heavy Cream: Heavy cream or heavy whipping cream is the only liquid that will melt the chocolate into the proper truffle consistency. Do not use half-and-half or milk.
- Butter and Vanilla Extract: Both are optional, but butter makes truffles extra creamy and vanilla extract adds wonderful flavor.
- Feel free to experiment with other flavorings rather than vanilla - raspberry, coconut, orange, peppermint, or maybe even maple extracts.
- Halved/Doubled: Recipe can easily be halved, but do not double this recipe. Instead, make two separate batches.



# New Research Shows Vermont Maple Market Conditions, Trends and Potential New Markets

*Highlights Include Health Research and New Products*

By Lauren Masseria, VT  
Agency of Agriculture, Food & Markets

In response to a work request issued by the Vermont Agency of Agriculture Food and Markets, Atlantic Corporation performed extensive market research on Vermont maple syrup and value-added maple products to determine market conditions, trends in consumer demand, and current distribution channels with an eye towards the most advantageous strategies for Vermont maple producers to be competitive in a global market. Excerpts from the report include:

- **Health Highlights:** Given that maple syrup is all natural and nutrient rich with calcium, potassium, and zinc, it has the potential to play a large part in the healthysnack trend as an alternative sweetener to sugar.
- **Health Highlights:** The maple syrup market is benefiting from growing health awareness and wellness trends and has an opportunity to become the next preferred substitute for sugar. Maple syrup contains several antioxidants reported to have anti-cancer, anti-bacterial, anti-diabetic, and anti-inflammatory compounds.
- **Health Highlights:** Dr. Navindra

Seeram, professor in the Department of Biomedical and Pharmaceutical at the University of Rhode Island, has been researching the chemical make-up of maple syrup and discovered that the chemically diverse polyphenols, vitamins, minerals, amino acids and organic amino acids that are found in maple syrup, can prevent or delay inflammatory disease such as cardiovascular disease, metabolic syndrome, and diseases of the brain.

- **Market Highlights:** The top market players in all categories have made efforts to shift the perception of maple syrup from a pure product to an ingredient. These companies are combining maple syrup with salad dressing, oatmeal, bacon, beans, sausage, BBQ sauce, coffee/cocktail syrup and more. These value-added products speak to the versatility of maple syrup as a sweetener and flavoring as well as creates a larger demand for the raw product.
- **Competition Highlights:** Vermont should focus on sustaining a price advantage over its chief U.S. rivals. They can do so through efficient supply side management including maximizing production, optimizing reduction technologies at low cost, utilizing efficient

packaging equipment and through increased demand by continuing to build the Vermont brand of maple syrup so consumers are willing to pay a premium for it, innovating new uses for maple syrup, and developing more value-added products.

- **Product Highlights:** From 2012 to 2016, 183 products containing maple were launched in the U.K., including meals, snacks, processed products, breakfast cereals, and sweet spreads. Additional opportunities exist in maple infused alcoholic beverages, maple water, snack foods, and other value-added products.

"Vermont's maple producers are world leaders in maple. This research will help sugar makers stay ahead

of the curve in a competitive market." said Agriculture Secretary Anson Tebbetts. "Vermonters are serving up the sweetest and natural product. This research will open up more markets for those making their living off the land."

The goal of this research is to provide Vermont maple producers a potential roadmap for moving Vermont maple forward in a global marketplace, while ensuring that Vermont maple businesses remain competitive, high-quality, and continue to support the agriculture economy. This research was the first phase of a grant funded project. Following this research, the Agency will work with Food Export Northeast to conduct three international market research reports. These reports will outline country specific import

and nutrition regulations, consumer preferences, label recommendations, and a competitive analysis which will include other brand names, packages, sizes, regular retail prices, current price specials, and shelf space allotments for similar products.

This research was prepared for the Agency with funding from the Vermont Specialty Crop Block Grant Program.

For more information and to download the research, go to <https://agriculture.vermont.gov/agency-agriculture-food-markets-news/new-research-shows-potential-new-vt-maple-markets>.

Please contact Lauren Masseria at [Lauren.Masseria@vermont.gov](mailto:Lauren.Masseria@vermont.gov) with any questions regarding this report.



# Water Quality Grants Available

By Vermont Farm and Forest Viability Program, VHCB

The Vermont Farm & Forest Viability Program, a program of the VT Housing & Conservation Board (VHCB), has grant funds available for on-farm capital improvement projects that have a positive impact on water quality.

Eligible farmers can apply for a Water Quality Grant, which provides \$5,000 to \$40,000 in funding. Matching funds are required and may include federal or state grants as well as cash, loans, and farm labor. The next application deadline is March 20, 2020. More information, eligibility requirements, and applications are available on the Viability Program website.

Water Quality Grants help farmers make water quality-related capital improvements that enhance manure management and soil health, reduce runoff, and ultimately support the long-term success of farm enterprises.

The grants assist with the costs of improvements required to comply with new regulations and are designed to complement existing federal and state grant programs.

These grants are funded by the State of Vermont through Vermont's Capital Construction and State Bonding Act.

Past projects funded with Water Quality Grants have included manure storage and



*James Jones and his daughter Nicole own and operate Jones Farm, an 80-cow dairy in Craftsbury, VT. In FY18, they received a \$39,469 Water Quality grant to install covered manure storage, which was designed by the Vermont Agency of Agriculture, Food, and Markets and also received funding from the Agency's Best Management Practices program. The project allows the farm to store manure until conditions are optimal for spreading it, and has resulted in improved soil health, animal management, farm efficiency, and reduced runoff.*

management systems, barn and barnyard improvements, grazing infrastructure, wastewater management, no-till equipment, and more.

For questions, please contact Katie Michels at [katie@vhcb.org](mailto:katie@vhcb.org) or 802-828-5587.

The Vermont Farm & Forest Viability Program provides business planning, technical assistance, and ownership transfer planning to farm, food and forest products businesses.

For more information about the Viability Program, please visit [www.vhcb.org/viability](http://www.vhcb.org/viability).

## Nutrient Management Plan Update Sessions

Did you know you need to update your Nutrient Management Plan (NMP) every year to stay in compliance with the State of Vermont Required Agricultural Practices (RAPs)? If your plan is out of date or you need assistance in updating your plan, UVM Extension can help!

If you took an NMP class through UVM and designed your plan in goCrop, please call the office where you took your original NMP class or contact your closest location (listed below). You will need manure sample results every year, soil sample results every three years, and field records of the activities you performed annually. You may also need updated rotation calculations, depending on your situation. UVM Extension can help you identify everything you need and walk you through the process of getting it accomplished.

The three office locations that can help you are: Middlebury Extension Office – 802-388-4969 or 800-956-1125, St. Albans Extension office – 802-524-6501 or 800-639-2130, and St. Johnsbury Extension office – 802-751-8307 or 800-545-8920 (800 numbers toll-free in Vermont).



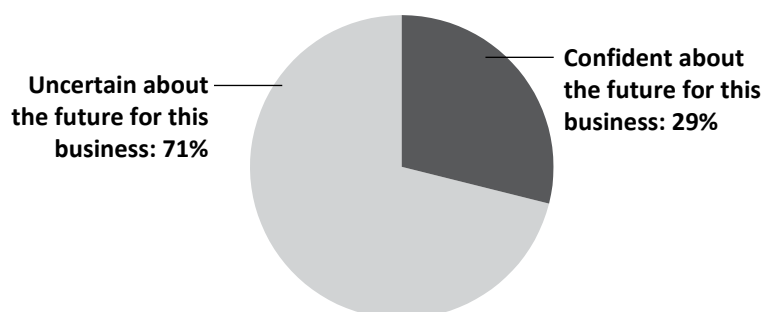
## Small Farm Business Viability

# A Survey of Vermont's Certified Small Farms: Farms Moving in Different Directions

By Mark Cannella, UVM Extension

This is the second article in a series describing results from a 2019 UVM Extension survey to Certified Small Farms (CSFO) in Vermont. The first article in last month's Agriview demonstrated farms wide adoption of conservation practices to improve water quality. The majority of respondents to this survey (86%) are dairy farms. The remaining 14% of respondents were split evenly between beef, produce, field crop or mixed operations.

The survey provides a sobering view of the small farm economic situation in Vermont. Twenty-nine percent of farms indicated they were economically viable in 2019. "Economically viable" farms are able to cover all costs, pay family labor at least an average agricultural wage and generate a profit. The majority of farms respondents (51%) say that their farms are currently sustainable with the presence of non-farm employment or



access to equity and prior savings. One in five certified small farms owners (20%) said there were not profitable and lacked the support of off-farm income or other savings.

The majority of farm owners are also very uncertain about the future of their farm business. Only 29% of farms say they are confident about the five-year outlook for their farm business.

### Moving Forward

What happens next? The widespread adoption of water quality practices over a short period of time helps show how adaptive farms can be to making changes. Farm owners are also planning on key business planning changes too. Fifty-eight percent (58%) of responding farms are likely to consider diversifying to include dif-

ferent enterprises in the next five years. Twice as many farms indicated they will consider new enterprises compared to the number of farms seeking to expand their current dairy enterprise. Farms also indicated a stronger preference for alternative crops compared to livestock enterprises. Hemp, horticultural products, cattle feed and maple production provide opportunities for farmers seeking new income streams.

Diversification may not work for everyone. The second most common business alternative selected in the survey showed that forty-two percent (42%) of small farms are likely to consider the exit and winding down of their current farm. While the majority of farms are earnestly hoping for a profitable alternative enterprise, these same farms realize that in the absence of viable plan their current farming operation could come to an end by 2025. The number of Vermont's active dairy farms has already dropped from an average of 838 farms in 2016 to approximately 667 active dairy farms in 2019. This

trend is likely to continue if farm owners cannot implement improvements to bring their farm into profitability.

The thoughtful wind-down of a business is not necessarily a "failure" in any sense. Farm business owners can make key decisions to launch new businesses, preserve long term wealth, transition ownership and facilitate the protection of working farmland in a thoughtful

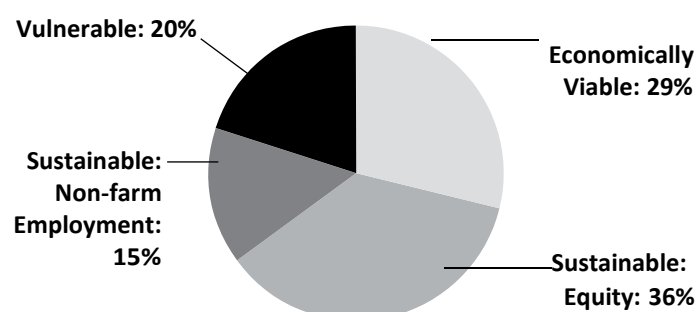
exit. UVM Extension's next article in this series will explore different ways farm owners can prepare for these changes.

UVM Extension currently offers a variety of business planning programs for Vermont farms including farm viability assistance as well as water quality business analysis. Contact Tony Kitsos for more information ([Anthony.Kitsos@uvm.edu](mailto:Anthony.Kitsos@uvm.edu)).

### For More Vermont Agricultural Community Events Visit:

- The VT Agency of Agriculture Events Calendar: <http://agriculture.vermont.gov/events/month>
- UVM Extension Events Calendars: [http://www.uvm.edu/extension/extension\\_event\\_calendars](http://www.uvm.edu/extension/extension_event_calendars)
- Vermont Farm to Plate Events Calendar: <http://www.vtfarmtoplate.com/events>
- Northeast Organic Farming Association of VT Events Calendar: <http://nofavt.org/events>
- DigIn Vermont Events Calendar: <https://www.diginvt.com/events/>
- Required Agricultural Resources (RAPs) Resources: <http://agriculture.vermont.gov/water-quality/regulations/rap>
- Agency of Ag's Tile Drain Report now available here: <http://agriculture.vermont.gov/tile-drainage>
- VAAFM annual report now available here: [http://agriculture.vermont.gov/about\\_us/budgets\\_reports](http://agriculture.vermont.gov/about_us/budgets_reports)
- Farm First: Confidential help with personal or work-related issues. More info call: 1-877-493-6216 any-time day or night, or visit: [www.farmfirst.org](http://www.farmfirst.org)
- Vermont AgrAbility: Free service promoting success in agriculture for people with disabilities and their families. More info call 1-800-639-1522, email: [info@vcil.org](mailto:info@vcil.org) or visit: [www.vcil.org](http://www.vcil.org).

For more agricultural events visit our *Funding Opportunities & Resources for Businesses* webpage at: [http://agriculture.vermont.gov/producer\\_partner\\_resources/funding\\_opportunities](http://agriculture.vermont.gov/producer_partner_resources/funding_opportunities)



# Approximately \$200,000 in Specialty Crop Block Grant Program Funds Available to Support Vermont Specialty Crop Industries

By Gina Clithero, VT Agency of Agriculture, Food and Markets

The Vermont Agency of Agriculture, Food and Markets (VAAFM) is currently accepting applications for the 2020 Vermont Specialty Crop Block Grant Program. The deadline to submit a pre-application is Wednesday, February 26th at 11:59 pm.

The Vermont Specialty Crop Block Grant Program will award grants for projects that strengthen Vermont specialty crop industries. Specialty Crops are defined as fruits, vegetables, tree nuts, dried fruits, horticulture crops (including honey, hops, and maple

syrup), and nursery crops (including Christmas trees and floriculture).

Any business, organization, or individual can apply to the Vermont Specialty Crop Block Grant Program. However, projects must benefit multiple specialty crop businesses, organizations or individuals to be eligible for funding. The Agency of Agriculture, in partnership with statewide specialty crop stakeholders, has identified the following program funding priorities for 2020:

- Research, development, and dissemination of innovative production practices to enhance farm viability and/or natural resource conservation



- Pest and disease management
- Enhancing food safety and improving the capacity of specialty crop businesses to comply with the Food Safety Modernization Act or food safety audit program requirements
- Value chain enhancement—including strengthening relationships between

producers, aggregators, processors, distributors, retail businesses, and consumers

- Technical assistance to support efficiency, conservation, business viability, beginning farmers, farm succession planning, workforce development, and address labor challenges
- Market access (local, regional, national, or international), marketing, branding, and consumer education
- Producer collaboration—including establishing or strengthening producer associations and cooperatives

## How To Apply:

Download the request for applications (RFA) at [agriculture.vermont.gov/grants/specialtycrop](http://agriculture.vermont.gov/grants/specialtycrop) and submit a pre-application by February 26, 2020. A

review committee will invite the top-ranking projects to submit full applications.

## Information Session:

VAAFM conducted an information session webinar for prospective applicants on January 24, 2020. View the recorded webinar here: [bit.ly/2020scbgpwebinar](http://bit.ly/2020scbgpwebinar).

For questions regarding this grant opportunity, please contact:

Gina Clithero  
802-585-6225

[AGR.SpecialtyCrops@vermont.gov](mailto:AGR.SpecialtyCrops@vermont.gov)

The U.S. Department of Agriculture's Agricultural Marketing Service (AMS) awards Specialty Crop Block Grants to the 50 States, the District of Columbia, and U.S. Territories. In Vermont, the Agency of Agriculture, Food & Markets administers these funds to enhance the competitiveness of Vermont specialty crops.

## For Immediate Release

The Vermont Agency of Agriculture, Food and Markets have received an application for a Milk Handlers license from the following entity: Creek Valley Farm LLC of Irasburg, Vermont to process, package, and buy and sell cheese within the State of Vermont. If anyone has germane information as to why or why not this company should or should not be licensed those comments are to be sent to:

The Vermont Agency of Agriculture Food and Markets  
Dairy Section Office  
116 State Street, Montpelier, VT 05620-2901

All written comments must be received by February 15th, 2020.

At that time the Agency will make a determination as to whether a hearing will be held. If we determine that a hearing is necessary and you wish to attend please write to the above address attention Dairy Section.





# Application Period Open for Vermont Businesses to Vend at Big E

By Kathryn Donovan, VT  
Agency of Agriculture, Food  
and Markets

The Vermont Agency of Agriculture, Food and Markets welcomes applications from Vermont businesses seeking to vend at the Vermont Building at the Eastern States Exposition (Big E) located in West Springfield, Massachusetts from September 18 – October 4, 2020.

The Vermont Building is one of six New England buildings on the Avenue of the States at the Big E, a 17-day fair and exposition which takes place each September. During this event, which brings in approximately 1.5 million people each year, the Vermont Building is home to a variety of Vermont food and retail businesses, which showcase the best of what Vermont has to offer.



Booth spaces are offered for both retail and food/beverage products. There are spaces for the entirety of the 17-day fair and for 8-9-day rotating spots. While most booths are inside, there are additional spaces

on the grounds for products deemed an appropriate fit.

The Agency has identified the following priorities for products at the Vermont Building for 2020: (1) Vermont-sourced ingredients and/or materials, (2)

prepared foods not requiring a hood for ventilation, (3) savory food products, and

(4) products that align with current regional/national trends.

Any business or organization will be considered eligible that is registered with the Vermont Secretary of State, has been in business for over one year, and is in good standing with the State of Vermont.

Applications are due February 17, 2020 at 11:59 pm.

Please find the Request for Application (RFA) and more details at: <https://agriculture.vermont.gov/bigevendor>.

For questions regarding this marketing opportunity, please contact Kathryn Donovan by email [kathryn.donovan@vermont.gov](mailto:kathryn.donovan@vermont.gov) or call 802-585-4571.



**Dairy Innovation Center**  
*continued from page 1*

as grants to dairy farmers and value-added processors. The influx of funding will support projects at numerous farms and processors over the next few years, while providing additional support through market research and

technical assistance.

The Dairy Business Innovation Center is launching this month; updates will be shared regularly in Agriview and online. Laura Ginsburg is the Center manager and can be contacted with any questions or comments: [laura.ginsburg@vermont.gov](mailto:laura.ginsburg@vermont.gov) or 802-522-2252





# What is Infiltration in Produce? Let's Dive In.

By Dominique Giroux, VT  
Agency of Agriculture, Food &  
Markets

If you are a dedicated reader of *Agriview*, by now you've likely seen dozens of (if not more) articles on produce safety and the Food Safety Modernization Act (FSMA) Produce Safety Rule. This month the Vermont Produce Program would like to provide readers with background information as to why Produce Safety Rule requirements are important to help protect public health. Specifically, in this article we introduce the concept of infiltration – what it is, how it occurs, what Produce Safety Rule requirements apply, and how farms work hard every day to keep fruits and vegetables safe for fresh eating.

## What is infiltration?

When produce is submerged in water (e.g. for cleaning or hydrocooling) it is possible for water to be drawn into the produce through a process called infiltration. If the water is contaminated, pathogens that can make people sick (such as *E. coli*, *Salmonella*, or *Listeria*.) can then also enter the produce. Infiltration can be influenced by several factors:

- **Temperature differential between water and produce:** If the core temperature of submerged produce is significantly warmer than the water, it can create a



Blue dye shows movement of water into warm cantaloupe after submersion in cold wash water dye.<sup>4</sup>

vacuum effect inside the produce that can cause water to be taken up into the fruit or vegetable.<sup>1</sup> Research has shown that conversely, when water temperature is greater than the core temperature of produce, the risk of infiltration is significantly less.<sup>2</sup>

- **Depth of submersion:** The deeper produce is submerged in water, the greater the risk of infiltration due to increased water pressure.
- **Time produce spends in the water:** The longer produce is in contact with the water, the greater the risk of infiltration.
- **Damaged produce:** Exposed or damaged parts of a fruit or vegetable, such as bruises, stem scars, or wounding, can act as entry points for water.<sup>3</sup> The blossom end of fruit has also shown to be a susceptible entry point for water infiltration.<sup>2</sup> Antimicrobial products, such as sanitizers, are an effective way to manage the sanitary quality of wash water and reduce the risk

of cross contamination. Sanitizer efficacy can be affected by water temperature, pH, and turbidity. Farms should become familiar with their sanitizer label and follow all application instructions.<sup>3</sup>

## What commodities are susceptible to infiltration?

The following commodities and conditions are particularly susceptible to infiltration:

- Apples, melons, peppers and spinach<sup>3</sup>, and
- Fruits and vegetables that are bruised, scarred, or otherwise damaged.

## How can farms reduce the risk of infiltration?

There are a number of ways to reduce the risk of infiltration, specifically:

- Maintain batch or recirculated wash water at no less than 10°F cooler than the core temperature of the produce.
- Avoid prolonged or deep dunk tanks to reduce water pressure.
- Monitor water turbidity (i.e. clarity), temperature, and pH, and change water

as necessary.

- Consider the risks associated with damaged produce and determine if you should discard produce that has bruising, wounds, or stem scars.
- Clean, sanitize, and dry food contact surfaces including dunk bins and washing equipment daily or as appropriate. You can read more about cleaning and sanitizing in our April 2019 article here: [go.usa.gov/xpGRQ](http://go.usa.gov/xpGRQ). (URL is case sensitive.)
- Use a sanitizer in your wash water to reduce the risk of cross contamination. Note: The Produce Safety Rule does not require farms to wash produce. As water can introduce additional produce safety risks, farms should determine if washing fresh eaten fruits and vegetables is appropriate for their operation.

## What Produce Safety Rule requirements apply?

Before we dive into some of the Produce Safety Rule

requirements, let's review a few key definitions:

- **Produce:** Any fruit or vegetable (including mixes of intact fruits and vegetables) and including mushrooms, sprouts (irrespective of seed source), peanuts, tree nuts, and herbs (21 CFR §112.3).
- **Covered Produce:** Produce that is subject to the requirements of the Produce Safety Rule (21 CFR §112.3).
- **Agricultural Water:** Water that is intended to, or likely to, contact covered produce or food contact surfaces, including water used in growing activities (including irrigation water applied using direct water application methods, water used for preparing crop sprays, and water used for growing sprouts) and in harvesting, packing, and holding activities (including water used for washing or cooling harvested produce and water used for preventing dehydration of covered produce) (21 CFR §112.3).

The Produce Safety Rule has several requirements that may reduce the risk of infiltration including the following:

- You must manage the water as necessary, including by establishing and following water-change schedules for re-circulated water, to maintain its safety

*continued on page 10*



# Agricultural Water Quality Overview for 2019

By Nina Gage, VT Agency of Agriculture, Food & Markets

2019 was a challenging year for farming in Vermont. We saw historic weather with an additional 10 inches of precipitation in the past year (a 28% increase over the past 365 day historic average). The ground was snow covered and didn't thaw from November of 2018 through late May 2019 and then we were hit with a spring that never quite dried out. Crops were planted late in the spring and we saw record flooding in the fall as soon as the corn came off the ground. Then, for the second year in a row, the snow came early. Despite unrelenting weather over the past year and tight profit margins in the dairy industry, farmers in Vermont continue to make substantial water quality improvements from infrastructure and management changes to field agronomic practices.

The State's 2019 fiscal year (FY2019) began July 1, 2018 and ended June 30, 2019. During this time, the Vermont Agency of Agriculture, Food and Markets (VAAFM) and partner organizations statewide have worked with many farmers across the state to plan and implement conservation practices to improve water quality.

The Agency has a comprehensive approach working with farmers that includes inspections and enforcement to ensure compliance

with state agricultural water quality regulations, but also offers a host of financial and technical assistance programs to aid farmers in improving water quality.

The Agency regulates farms based on size, ensuring that all farms follow the RAPs, as well as MFO or LFO Permits, as applicable. Farms that are not in compliance with the RAPs or Permit requirements may receive enforcement actions. There was a total of 115 enforcement actions in FY2019 from the Agency.

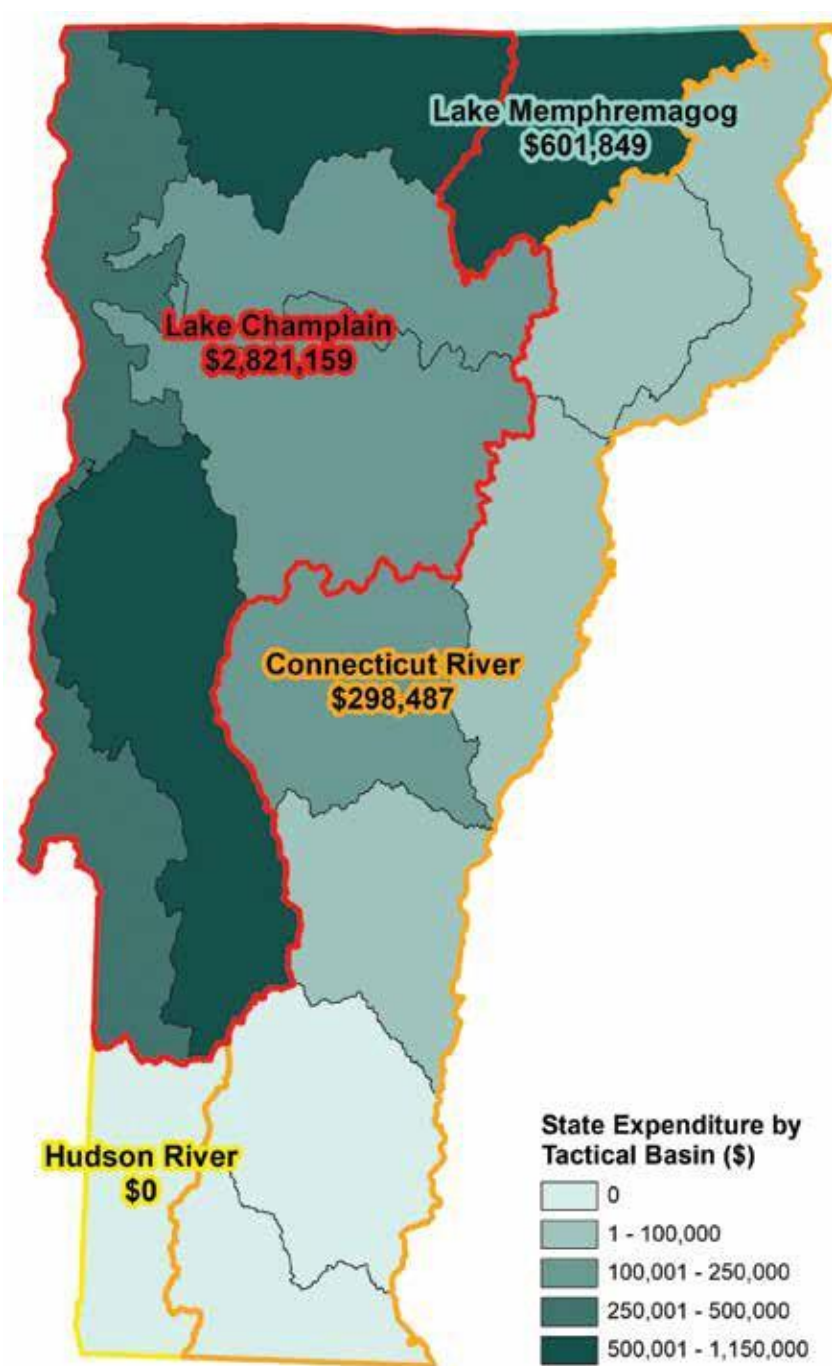
There were a total of 571 farm water quality investigations and inspections. In addition, 669 site visits were conducted by the Agency's engineering and technical assistance staff to aid in complying with state agricultural water quality regulations and reducing risk to water quality. Technical assistance efforts by partners funded by the agency also supported 779 additional outreach and water quality technical assistance visits to farms.

Farmers worked with Agency's Farm Agronomic Practices (FAP) program to implement 11,490 acres of agronomic practices within FY19 such as cover cropping and manure injection. Farmers worked with the Best Management Practices (BMP) program for implementation of 85 structural best practices within FY19 including waste storage facilities, heavy use area protection, and clean water diversion projects.

Farmers are engaged in

meeting state water quality goals and continue to find innovative strategies to implement on-farm conservation practices. The Agency and its partners have hosted more than 230 educational event opportunities statewide during FY19 providing 627.3 hours of educational opportunities for Vermont farmers, with more than 8541 total attendees at these events.

In total, the Agency's water quality financial assistance programs in FY19 invested \$4.8 million in state funds for on-farm implementation compared to \$3.2 in FY2018. Even more impressive, Vermont farmers invested nearly \$1 million in cost-share contributions or in-kind work towards implementation of VAAFM-funded water quality improvements. The Agency also acknowledges that there are a considerable number of water quality projects and agronomic practices implemented on farms with federal financial assistance funding, as well as, by farmers without any state or federal financial assistance. Overall, water quality improvements within the agricultural sector on farms in Vermont



accounts for more estimated total phosphorus load reductions than any other land use sector (stormwater, transportation, natural resources) within the Lake Champlain Basin from 2016 to 2019. Within FY19, the agricultural sector was responsible for 97% of all phosphorus reductions reported through the State Clean Water Fund Investment Report.

The Agency would truly like to thank each and every farmer for continuing to steward the land of Vermont, and for making water quality a priority.

If you have questions about water quality regulations, technical or financial assistance, inspections or enforcement, please contact the Agency Water Quality Division at 802-828-2431.

**Produce Safety Rule**

*continued from page 8*

and adequate sanitary quality and minimize the potential for contamination of covered produce and food contact surfaces with known or reasonably foreseeable hazards (for example,

hazards that may be introduced into the water from soil adhering to the covered produce) (21 CFR §112.48(a)).

- You must visually monitor the quality of water that you use during harvest, packing, and holding activities for covered

produce (for example, water used for washing covered produce in dump takes, flumes, or wash tanks, and water used for cooling covered produce in hydrocoolers) for buildup of organic material (such as soil and plant debris) (21 CFR

§112.48(b)).

- You must maintain and monitor the temperature of water that is appropriate for the commodity and operation (considering time and depth of submersion) and is adequate to minimize the potential for infiltration of microorganisms of public health significance into covered produce (21 CFR §112.48(c)).
- You must monitor any treatment of agricultural water at a frequency adequate to ensure that the treated water is consistently safe and of adequate sanitary quality for its intended use (21 CFR §112.43(b)).

Agricultural Practices, and co-management of natural resources and food safety, and 30 produce farms have opted to receive an On-Farm Readiness Review to discuss areas for improvement in food safety practices with Produce Safety Rule experts.

**References**

1. Cornell College of Agriculture and Life Sciences. "Postharvest Water." *National Good Agricultural Practices Program*, [gaps.cornell.edu/educational-materials/decision-trees/postharvest-water](https://gaps.cornell.edu/educational-materials/decision-trees/postharvest-water).
2. Buchanan, R. L., S. G. Edelson, R. L. Miller, and G. M. Sapers. 1998. "Contamination of Intact Apples after Immersion in an Aqueous Environment Containing Escherichia coli O157:H7," *Journal of Food Protection* 62(5):444-450.
3. University of Massachusetts Amherst. "Infiltration," *The Center for Agriculture, Food and the Environment* 14 May 2018, [ag.umass.edu/vegetable/fact-sheets/infiltration](https://ag.umass.edu/vegetable/fact-sheets/infiltration).
4. Produce Safety Alliance. *Produce Safety Alliance Grower Training Course Version 1.1*. Cornell University, 2017.

*Citations referenced in this article refer to specific sections in the Produce Safety Rule. These citations and additional subparts of the Produce Safety Rule can be accessed via the Electronic Code of Federal Regulations at [go.usa.gov/xQjSt](https://www.ecfr.gov). (URL is case sensitive.)*

*Funding for development of the Vermont Produce Program was made possible, in part, by the Food and Drug Administration through grant PAR-16-137. The views expressed in written materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does any mention of trade names, commercial practices, or organization imply endorsement by the United States Government.*

## 2020 2nd Annual Industrial Hemp Conference

Thursday, February 20, 2020

9:00 a.m. To 5:00 p.m.

The University of Vermont Extension Northwest Crops & Soils Program and Vermont Agency of Agriculture, Food and Markets are hosting the 2nd Annual Industrial Hemp Conference on February 20, 2020.

The conference will include education and information sharing opportunities on industrial hemp including current research, basic agronomics, farmer experiences with growing hemp, harvest and post-harvest considerations, legalities of growing, marketing and economics. There are 22 presentations covering all aspects of growing hemp!

A live broadcast will be offered to those who cannot attend in-person.

Thursday, February 20, 2020

9:00 a.m. to 5:00 p.m.

8:00 a.m. Registration and Exhibits open

DoubleTree by Hilton, 870 Williston Rd, S. Burlington, VT

**Keynote Speakers**

Dr. Jay Noller is a recognized global leader in hemp research, leading scientific discovery for more than four years in Oregon and all over the world. Regularly tapped to speak at major conferences and symposiums and for national and international governments on hemp and its potential research implications, Dr. Noller is well-regarded by many as one of the world's premier experts in hemp.



Sunsoil CBD founders **Alejandro Bergad** and **Jacob Goldstein** will share their story of how they came to be, from breeding their own seeds, to farming organically, to extracting naturally, and launching in national retailers during the lunch presentation.

**What farms must follow Produce Safety Rule requirements?**

Produce farms covered by the Produce Safety Rule must follow its requirements and will receive routine inspections to ensure compliance. Not every produce farm is covered by this regulation; some farms are eligible for an exemption or excluded based on size or crops. If you have questions about how the Produce Safety Rule applies to your farm contact the Vermont Produce Program at [AGR.FSMA@vermont.gov](mailto:AGR.FSMA@vermont.gov) or (802) 828-2433.

**How are Vermont produce farms taking steps to keep produce safe?**

Vermont produce farms are actively engaged in food safety practices. Over 90 Vermont produce growers have attended the Produce Safety Alliance Grower Training Course which provides information about produce safety, the Produce Safety Rule, Good



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**Cattle**

4 year old black angus proven bull for sale . Good bloodlines . Excellent temperament . \$2,500 delivered price . Call 802-558-8196 or 802-265-3078 for more info .

12 - 2 month old Holstein heifer calves . \$200 each or make an offer on all . We milk 200 cows and have too many . 802-375-5795 .

350+ cow and 200+ young stock barn/farm facility available for rent . Complete dairy farm with modern double 10 Boumatic parlor . No livestock included . All buildings have slatted floors, no alley scraping necessary . Headlocks in all livestock barns, mattresses, curtains, 2 bulk milk tanks . 700 acres of feed for purchase . Rent, buy or will consider raising young stock for other farmers . Let's discuss the possibilities . 802-533-2984

**Equipment**

Hay elevator - 15 ft, by Snowco, GE motor S-line; 11(eleven) Utility Gates by Tractor Supply ( 50" high - 4at 8 ft, 5 at 4 ft, 1 -6 ft, 1- 10 ft) . One 16 gal heated tub, a 4 .5 gal Fortex bucket, and various stock tanks . Call 802-694-1602 or emailbonnehagenfarm@gmail .com .

2 Gehl forage boxes 970 and 980 on heavy running gear, 2 manure spreaders: NI 3932 and Kuhn tandem, Uebler 810 feed cart . I can be reached at 802-230-8525 .

International 843 4 row narrow combine cornhead; 3250 Reel Auggie Mixer on gas 1995 Ford 450; Used Agway water bowls . Call for prices 802-770-0959 .

John Deere 4420 4wd combine, 2800 hours, two heads in good shape . \$15,000 ph 802-442-5353 .

3 pt hitch wood splitter, Farming wench, Empyre Pro Outdoor Wood Furnace, two 550 gal fuel tanks and two 275 gal fuel tanks . 802-746-8979

Free old tires, good for farm use only . Call 603-256-8422 .

1949 Farmall H good paint and tires, runs well . 802-592-3356 .

Sled used for gathering sap . Made by Ben Thresher in Barnet . 802-592-3356 .

New Holland 900 Forage Harvester . Excellent condition/field ready . Tandem axles . All tires new or like new . Has been very well maintained and always stored indoors . Metal Alert III, electrical control box . Price \$12,000 . Westfield, VT, Orleans County . 802-355-3496 . jcouture@maplesyrupvt.net .

1 new 12-4-28 tire . Also, Farmall H good condition - paint & tires . 802-592-3356

Reel Auggie 3250 mixer with scales on F-450 truck; IH 843 4 row narrow corn head; IH 7ft window head off 881 Harvester . Rutland, 802-770-0959

375 gal full tank \$100 . CMT bale wrapper \$250 . 2 bottom plow \$75 . 802-426-3339

3000 gallon mueller bulk tank with 2-5 horsepower compressor . 802-487-4467

2500 Winco Generator (On wheels with hook up) . 16 ft hay elevator . 20 ft hay elevator . 24 ft hay elevator (excellent condition) . 92 ft hay elevator . All have been sanded, primed & painted . 9 ton Brock grain bin (good shape) . 12 ton Brock Grain bin . Ford 501 mower . 7 ft back blade (good condition) . 802-624-0143, 802-895-4683

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Square baled hay - top quality, vof certified organic, generous sized . 1st cut \$4.50/bale, 2nd cut \$5.50/bale at the barn in Barnet . 802-592-3088 .

2019 1st cut Timothy and clover hay \$ 5 .00 a bale plus delivery fee . Call 603-256-8422

**Addison County**

Large squares available in Addison, Vt . Hay is stored under cover . Looks like a long winter ahead of us . Call now and make sure you have enough . Contact S . L . Moore at 802-463-3875 .

1st cut 4x5 round bales never wet . Good horse & cow hay . 802-948-2627 or 802-558-0166

Certified organic, small square bales always stacked and stored under cover, 35-40lbs/bale . \$4/bale, discounts available for large quantities . Call 802-989-0781 for inquiries .

Hay for Sale in Addison, VT . Large square bales and small squares . \$50-60 for Large, \$3.50-4.50 for Small . Delivery available . Call Jack 802-989-8968 .



Hay for sale . \$3.25 bale . 802-377-5455

73 1st cut 5ft diameter round bales . \$30-\$35 . Orwell 802-948-2211

Straw for sale - \$7/bale for 50 or more . \$8/bale for less than 50, \$6/bale for all in the barn, approx. 350 . from our winter rye harvest in August . certified organic . Thornhill Farm, Greensboro Bend, 05842, todd@thornhillfarmvermont .com, 802-441-3176

**bennington County**

Corn Silage 1000 ton plus . Haylage 500 ton plus . Round bales 4x4 . Square bales small . 802-394-2976

**CAledonia County**

Square baled hay- Top quality, VOF certified organic, generous sized . 1st cut \$4.50/bale, 2nd cut \$5.50/bale at the barn in Barnet . 802-592-3088 .

**ChiTTenden County**

Round bales for horses . Clean first cut timothy mixed grass,

quality net wrapped 4' X 5' bales . Never wet . \$45 . each . 802- 879-0391 Westford .

15 large 5x5 round bales mixed grass w/some timothy + clover 800+lbs \$50 ea . call 899-4126 or e-mail

**Franklin County**

Good Quality Hay 1c & 2c from western US & Canada . Alfalfa orchard & orchard sweet grass 18 to 20% plus protein large bales & organic by trailer loads . Large or small square bales of straw whole or processed at farm we load on direct delivery by trailer load . Mountain View Dairy Farm, 802-849-6266 .

**IAmoille County**

Organic baled straw . \$5 .50/bale . Certified Organic . Valley Dream Farm, Cambridge, VT . 802-644-6598 . email: valleydream@myfairpoint .net .

**orAnge County**

2019 first cut square hay bales for sale . \$4 .00 per bale . Delivery available . Bonnie Kennedy, Chelsea, Vt . 802-685-2292 .

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#### Orleans County

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small squares, round bales, wrapped or unwrapped, straw and switch grass. Call Richard at 802-323-3275.

Organic Certified Silage for Sale: We will deliver from our farm or you can come and pick up. Call for prices and delivery charge. 1-802-744-2444 or 802-274-4934 or 802-744-6553.

2nd & 3rd cut haylage and corn silage for sale. Call Peter Gebbie 802-533-2984, leave a message.

#### rutland County

First cut 4x5 round bales. 802-265-4566

Good quality 1st and 2nd round bales available, wrapped and dried. Please call 802-446-2435.

#### Washington County

200 - 4x4 round wrapped bales 1st \$45. 802-229-9871

#### Windham County

2017 4x4 wrapped baleage 1st & 2nd cutting certified organic good quality \$40 per bale 802-254-6982

Hay for sale 4x4 wrapped dairy quality @ \$45 1st cut square bales never wet good horse hay @ \$5. 802-387-4412.

Livewaterfarm@comcast.net

1st cut 4x5 round bales. Don

Pettis, 802-265-4566.

2018 4x4 wrapped baleage.

June cut. Certified organic, never wet. \$40.00 per bale, quantity discount. 802-254-6982.

1st cut hay. Good horse hay. \$4.50 bale 802-254-5069.

#### Windsor County

HAY FOR SALE-100 Square Bales, Reading, Windsor County Vt. \$3.50 per bale at the barn. Call 802-484-7240

4x5 dry round bales \$45.00 delivery available. 802-457-1376

Rolling Meadows Farm: square bales in the field or barn \$4.00. Delivery can be arranged at \$5.50. Very nice

hay from fertilized fields in the South Woodstock and Reading area. Call 802-484-5540 or goodfarmvt@gmail.com. Ask for David.

1st. cut dry round bales for sale. Never been rained on, stored under cover. 1st cut: \$50. Haylage bales for sale @ \$45. Rte. 5, Weathersfield Bow. 802-546-4340.

Dry round horse hay, \$50/bale. 200 bales left. Call 802-356-5030.

#### Swine

Piglets for sale. Born Aug 5 wormed and ironed. \$65.00 each. Call 603-256-8422

#### Employment

High-Tunnel/Hoophouse/Greenhouse Construction - Spring 2020 - Building season runs roughly April - November throughout Vermont and across New England. Candidate is ideally located in the Central VT/ Mad River Valley/Northfield/Roxbury/Randolph/Montpelier area. Dependable, punctual, flexible, detail oriented, hardworking skilled workers only. Good pay for the right person. Go to [www.vineripe.net/employment](http://www.vineripe.net/employment) for more information.

## Bake for Family Fun Month

We hope you find time to bake with your family on a regular basis, and if not, perhaps this recipe will inspire you to divide up the tasks and enjoy a warm treat, as part of your breakfast (if you stick with the yogurt topping option) or dessert (replacing the yogurt with some vanilla ice cream). Get creative and swap out honey and use maple syrup instead for example. Most of all, have fun creating something delicious together.

— Recipe courtesy of New England Dairy.

### Baked Apples with Cinnamon Yogurt Topping

#### Ingredients

- 4 Granny Smith or Gala apples (peeled or unpeeled)
- ¼ cup unsweetened apple juice or apple cider
- ¼ cup brown sugar
- 2 tablespoons cornstarch
- ½ teaspoon cinnamon
- ¼ teaspoon nutmeg
- ¼ teaspoon salt

#### Yogurt Topping:

- 2 ½ cups low-fat plain yogurt
- 1 tablespoon honey
- ¼ teaspoon cinnamon

1. Preheat oven to 350 degrees Fahrenheit. Spray an 8x8-inch baking dish with nonstick cooking spray; set aside.

2. Core and thinly slice apples. Place apples in a medium bowl and toss with apple juice. Mix brown sugar, cornstarch, cinnamon, nutmeg and salt



together in a small bowl. Sprinkle over apples and stir gently until apples are coated.

3. Pour apples into prepared baking dish. Bake 40 minutes or until apples are slightly browned at edges and sauce is bubbling.

4. For the cinnamon yogurt topping: Line a colander

with several paper towels and place over a bowl to catch drips. Pour yogurt into colander and allow to drain, refrigerated, about 30 minutes. Spoon yogurt into a small bowl and stir in honey and cinnamon. For each serving, top 1/4 of the warm apples with 1/4 of the yogurt topping



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# Agency's Trade Show Assistance Grants Program Accepting Applications

By Kathryn Donovan, VT  
Agency of Agriculture, Food & Markets

The Vermont Agency of Agriculture, Food and Markets welcomes applications from Vermont agricultural and forestry businesses for Trade Show Assistance Grants.

The Working Lands Enterprise Initiative has

set aside \$30,000 to be distributed on a first come first serve basis to support yearly marketing plans for Vermont businesses with reimbursement directly to Vermont businesses to exhibit at trade shows outside of Vermont.

Funding may be used for the following approved expenses: travel; marketing assets and booth design;

registration fees; booth fees; furnishings; utilities; shipping/freight; other marketing costs. This grant may fund up to five years of attendance at a single trade show. Applicants may include up to five trade shows in their yearly marketing plan, requesting between \$2,000 - \$5,000 in eligible reimbursements for the year.

Eligible applicants are Vermont-based agricultural and forestry businesses that meet the following criteria:

1. Business is registered with the Vermont Secretary of State and has been in business for over one (1) year with an address indicating that they perform substantial functions in Vermont.
  2. Business has three or more wholesale accounts.
  3. Business meets one of the following two criteria:
    - i. 50% or more of their product ingredients/components are from Vermont
    - ii. The product, if substantially transformed, was transformed in Vermont.
- Applications will be

accepted on a rolling basis and will be reviewed—and funds will be distributed—to all eligible applicants in the order in which they were received until funds are depleted. The first review will include all applications submitted by January 31, 2020. Following that, reviews will be conducted quarterly.

For more information about this grant and the Request for Applications, please visit: <https://agriculture.vermont.gov/grants/tradeshow>

For questions regarding this grant opportunity, please contact Kathryn Donovan by email [kathryn.donovan@vermont.gov](mailto:kathryn.donovan@vermont.gov) or call 802-585-4571.





# Terry McKenna Retiring

By Dr. Katherine McNamara,  
VT Agency of Agriculture,  
Food & Markets

Long time Agency of Agriculture, Food & Markets employee, Terrance McKenna, will be hanging up his scabbard, knives and boots after 20+ years of service to the State of Vermont. Terry began his career with the Meat Inspection Section on July 19, 1999 after spending 20 years as a meat cutter for Hannaford. He has enjoyed the daily variety and travel the job required, as it gave him the opportunity to see all the corners of Vermont. When asked about his job over the years, Terry said, "The absolute best part of this job has been the support

and friendships that I have made among the Agency's meat inspection section staff over the years. We are a group of unique individuals who have continued to make the Vermont Meat Inspection a respected program within the industry. Even more importantly in my opinion, we are always willing to provide support for one and other. I have felt from day one that I would always have the training and tools provided to perform my duties, but even more than that, I would have the support if I felt discouraged or overwhelmed. I have always felt 100% comfortable being open and honest with any of my supervisors or peers. That being said, I am going

to miss my friends at 116 State Street."

We certainly are going to miss Terry too! In May 2020, he and Colleen, his wonderful wife and best friend of 10 years, will be heading to Apex, NC to be closer to family, to enjoy a warmer climate, and to have plenty of time visit and enjoy their seven fantastic children and seven beautiful grandchildren, who are scattered across the country. While they intend to work a little to stay busy, they also plan on enjoying the outdoors and having more time for Terry to indulge in his interest of collecting and shooting vintage US military firearms.

Thank you for your service to the Agency and the industry Terry!



## VTeen 4-H Science PaTHwayS café Mapping the Earth from Above

Saturday, February 8, 2020, 5:00-7:00 pm

University of Vermont, Davis Center, Mansfield Dining Room

FREE pizza and drinks • Open to all youth in grades 7-12

Register at <https://feb2020cafe.eventbrite.com> no later than February 5



VTeen 4-H Science  
Pathways Café

From drones to micro satellites to 3D lasers scanners, we can map our planet from above in new and exciting ways. Come and learn the secrets of field of study known as "remote sensing." You will get hands-on experience with cutting-edge drones, learn how to interpret satellite imagery that senses light that we as humans cannot see, and visualize Vermont's hidden landscape in 3D.

### About Our Speaker

Jarlath O'Neil-Dunne is the Director of the University of Vermont's Spatial Analysis Laboratory. He uses imagery from drones, planes, and satellites to help understand our changing planet. On any given day you can find his team mapping New York City's trees from 3D LiDAR scans to using drones to map flood damage.

What is a Teen Science Café? It is a free, fun way for teens to explore science,



engineering and technology with local scientists, engineers and technology

experts. Teens participate in informal discussions and hands-on activities to learn

about different topics. And, there is always free food! Planned and run by teens for teens.

Questions? Contact [lauren.traister@uvm.edu](mailto:lauren.traister@uvm.edu)

To request a disability-related accommodation to participate in this program, please contact the 4-H Office at 802-888-4972 or [lauren.traister@uvm.edu](mailto:lauren.traister@uvm.edu) by January 24, 2020 so we may assist you.

[www.uvm.edu/extension/youth](http://www.uvm.edu/extension/youth)



# Getting Started Birding in Vermont

By Vermont Fish & Wildlife

## Time of Year

**B**irding can be enjoyable year-round. Many new birders find the winter to be a good time to start, as the number of bird species to keep track of is fewer and beginning birders can focus on the more recognizable birds, such as chickadees and nuthatches.

The spring migration (March-May) will bring a rush of different species that are either just passing through Vermont to destinations elsewhere or those that are only beginning their search for a suitable nesting site. Because birds are on the move during this time being able to identify them by silhouette and flight patterns is very useful.

Late May and early June is when males of most species are singing enthusiastically as they court females and defend their territory. Active singing can be heard into early July but most nest are well established so singing will taper off quickly this month.

By August your birding skills should focus on habitat, flight patterns, and silhouettes as the birds are usually very quiet but active. As September approaches many species are preparing to migrate south for the winter. Hummingbirds, for example are often on their way to Central America by Labor Day.

For many species, the males molt to their non-breeding plumage. This can be an added challenge to

identification but like any avocation it is only enriched when the challenge is accepted.

Autumn is a very popular time to watch for migrating waterfowl, especially Canada and Snow Geese. Many resident Canada Geese can be observed in September (and before) but October is when the migrant geese begin their journey south from Canada.

Many species of migrating hawks can be observed in October too. Perhaps the most notable are the Broad-winged Hawks who can often be seen in the hundreds as they 'kettle' on thermals above Vermont ridgetops. Lake Champlain is one of the best locations to see a wide variety of ducks, geese, brant, swans, loons, eagles, and a wide variety of other migrant bird species.

## Time of Day

Mornings are usually the best time to start your birding trek. Most bird species are governed by daylight and have been sedentary on their roosts during the night. Morning in late May and June usually means the birds will become active as early as 4:30 am.

It is typical for them to remain actively singing until late morning but the weather will influence their enthusiasm. Calm days with plenty of sunshine is best. Windy and rainy weather is more likely to 'put birds down' for a while.

Birding can also be rewarding in the evening around sunset, especially during the summer months. Many birds have a brief period of activity just before

dark.

Some species are known for their night time songs and vocalizations. The Eastern Whip-poor-will is probably the most famous for being a night time singer but a variety of owl species sing and call at night.

## Resources

For some tips to get you started in birding, from where and when to go, to information on joining a

birding group.

- Binoculars
- Get a Field Guide
- What to Look For
- Join a Group
- Additional Resources
- Top 10 Wildlife Management Areas For Birding

Go to Vermont Birding please visit Vermont Fish & Wildlife website. <https://vtfishandwildlife.com/watch-wildlife/bird-watching/getting-started-birding>



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