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NEW! Young Dairy Farmer Group

Ready to cultivate success in your dairy farming journey? Join our new, vibrant community of young dairy farmers!

Whether you're planting the first seeds of your career or growing your operation, our group provides the support, resources, and camaraderie you need to thrive. Connect with peers, access expert advice, and stay ahead with the latest innovations in sustainable farming practices.

We're gathering young dairy farmers from throughout the state to create the Young Dairy Farmer Group with generous funding from the Northeast Dairy Business Innovation Center (NE-DBIC). Together, these farmers will work to address some of the biggest challenges facing their farms and the dairy industry.

As a member of our group, you will have the opportunity to:

- Learn about financial resources available to you.
- Develop farm communication plans to inform the public of the great work dairy farms do in the areas of conservation and environmental stewardship.
- Find assistance for new projects, including grant and loan research, business plan development, and grant proposal writing.
- Receive training on new technologies and practices.
- Attend farm and industry tours to learn from peers, including the Manure Expo in Auburn, NY, July 17-18 and a meet-and-greet with the Vermont Agency of Agriculture later this summer. **(cont.)**

Young Dairy Farmer (cont.)

Do you want to be a part of this exciting new initiative for young dairy farmers? Reach out today to:

Shawn Goodfellow
Program Manager for Young Farmers
Champlain Valley Farmer Coalition
shawn@cvfc-vt.com
802-349-8938 call or text

*The Young Dairy Farmer Group
is a collaborative project of Vermont's three farmer
watershed groups:*

*the Franklin Grand Isle Farmer's Watershed Alliance, the
Connecticut River Watershed Farmers Alliance, and the
Champlain Valley Farmer Coalition.*

Farm to School Internships

Sow the seeds for a rewarding future in agriculture! High school students in Addison County and northern Rutland County can apply today to join our Lake Champlain Sustainable Agriculture Education Program. It's an excellent opportunity to get hands-on farm learning!

Students in our program will:

- Meet and interact with local farmers
- Develop a broad understanding of farm operations
- Learn about agricultural practices to support water quality in the Lake Champlain Basin
- Share what they learn with young students in their district

It's a 16-hour program on a flexible schedule and students receive a \$400 stipend.

Have we piqued your interest?
Scan the QR code with your
smart device to learn more.



And please be sure to share this opportunity with the high school students in your life!

New England Leopold Conservation Award Seeks Nominees

Sand County Foundation and national sponsor American Farmland Trust present the Leopold Conservation Award to private landowners in 27 states. In New England the \$10,000 award is presented with New England Forestry Foundation. This award honors farmers and forestland owners who go above and beyond in their management of soil health, water quality and wildlife habitat on working land.

Given in honor of renowned conservationist Aldo Leopold, the award recognizes landowners who inspire others with their dedication to environmental improvement. In his influential 1949 book, *A Sand County Almanac*, Leopold called for what he called "a land ethic," an ethical relationship between people and the land they own and manage.

Nominations may be submitted on behalf of a landowner in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. Landowners may also nominate themselves. Scan the QR code with your smart device for the nomination application.



The application deadline is June 28, 2024. Applications should be emailed to award@sandcountyfoundation.org. Applications will be reviewed by an independent panel of agricultural and forestry conservation leaders from New England.



Highly Pathogenic Avian Influenza H5N1

UVM Extension, Northwest Crops and Soil Program has shared a number of resources with continued updates regarding H5N1.

Scan the QR code to view and access additional articles and resources.



Featured Farmer: Bianca Braman

VERMONT BEES, SWANTON

This spring, we sat down with one of the newest members of the Champlain Valley Farmer Coalition: Bianca Braman, beekeeper and co-owner of Vermont Bees in Swanton. We learned a lot about bees, and the environmental and economic considerations that go into beekeeping. But first! A note on terms. A colony is a group of many bees who live and work together in a hive. A hive is a home for bees. And

an apiary is a collection of colonies cared for by a beekeeper.

CVFC: How did your apiary get started?

Bianca Braman: Vermont Bees was started in 2015 by my partner, Adam Collins, and his father, Bruce. At that time, they had 12 colonies, but we've since grown to 350. We've grown by building all of our own wooden hives, splitting off small groups of bees from colonies, and rehoming them in the new hives. It's kind of like splitting off plants to grow new ones—a different process, but similar idea.

CVFC: How did you get into beekeeping?

Bianca: I've always been interested in insects. When I was seven years old, I was really into monarch butterflies. I was raising them in buckets and tagging them for their trip south to track their movement and their health. Later, in my early twenties, I joined a beekeeping club in the Adirondacks. I eventually got my own bees and was doing it as a hobby, when I realized, "Oh! This is a career choice!" Around this time, I met Michael Palmer of French Hill Apiaries in St. Albans. I started working for Michael, which is where I met Adam. Mike has more than 50 years of beekeeping experience, and he's been a wonderful mentor to both Adam and me. In 2019, I started working with Adam and Bruce at Vermont Bees, and became a third owner in 2021.

CVFC: What is your role at Vermont Bees?

Bianca: As a part-owner, I'm involved in everything! I'm the lead in queen production and accounting, but other than that, Adam and I split all the other responsibilities.

CVFC: What does a typical day look like for you?

Bianca: It varies so much throughout the season. Typically, we get up pretty early and head to our shop, which is 10 minutes from our **(cont.)**

Braman (cont.)

home. All of our bee supplies are there, as well as our woodshop. Depending on the time of year and what needs to happen, we may spend all day in the woodshop, or we'll head to our bee territory.

CVFC: Where's your bee territory?

Bianca: Beekeeping is not what you envision when you think of other types of farming. We are located on many farms over a few hundred square miles. We're in the Champlain Valley, but we're in the Champlain Valley of both Vermont and New York. We have 22 apiaries, each one with 15 or more colonies. That means we have around 350 colonies, and we hope to grow to 700-1000.

“Honey from Vermont has been voted twice in the world beekeeping competition as the best honey in the world.”

BIANCA BRAMAN, VERMONT BEES

CVFC: Why do you have apiaries spread out over many farms instead of one?

Bianca: Bees forage, they say, up to five miles of their hive, but really it's more like within a mile-and-a-half. Given the way humans populate the earth, there's just not going to be enough forage to sustain that many colonies in one area. Certainly, there are monoculture farms, especially in the western United States and Canada, where there's a lot of plants—say, apple trees—and you can have a lot of colonies. But here in Vermont, where we rely on wildflowers, we spread out the bees so that they can find enough food to forage and keep themselves healthy. It also lowers disease spread. There's a lot of research showing that having too many colonies together can increase pest and disease spread, as you would imagine with any creature.

CVFC: What makes Vermont honey so special?

Bianca: Our honey is exceptional. Honey from Vermont has been voted twice in the world beekeeping competition as the best honey in the world. I've personally tried a lot of honey, and honey from the Champlain Valley is just so good. It's a multi-floral blend. It ends up being smooth because you'll have a honey that's a little bitter, a honey that's a little sweet. All of these things combine on your taste buds to have a much smoother taste that's bright and floral. You can taste all of these hundreds of flowers in every spoonful. And it has a beautiful color. We're very lucky here, it's a very special thing.



CVFC: Do you sell anything else besides honey?

Bianca: We also sell queen bees to other beekeepers. We have a breeding program and select queens for their healthiness and general fitness. Because the queen is the reproductive system of the hive, she can influence the genetics of the entire hive. **(cont.)**

Braman (cont.)

CVFC: Are there practices in beekeeping to support a healthy environment, in general, and water, soil, and climate, in particular?

Bianca: In beekeeping, there's not a lot that we do that has a direct influence on water and soil. At the same time, we are responsible for crop pollination and general awareness of environmental health and environmental issues. At Vermont Bees, we do all of our work by hand, which means we're an artisanal operation. This gives us close involvement with our bees and their products, and gives a good perspective on the environment and climate change. We're very aware of the changes over the past 15 years. It seems drastic to us because we're working outside. And so we're constantly trying to minimize our impact on the earth and the bees, which is easier for us because we're a small farm.

CVFC: Could you speak a little bit about the changes you've observed over the past 15 years and what you think are the drivers behind those changes?

Bianca: Human population growth is one change. More people moving into the state and population growth in general is decreasing the amount of open land with wildflowers for insect forage. The climate is fluctuating, too. It's definitely warmer here than when I was growing up.



CVFC: What impact does a warming climate have on bees?

Bianca: Bees do better when it's warmer, but the ancillary issues that come with a warming climate is hard on them. More people means more pesticide use, and therefore a lot more movement of bees. They're kind of like trees—they prefer to live in one spot.

“More people moving into the state and population growth in general is decreasing the amount of open land with wildflowers for insect forage.”

BIANCA BRAMAN, VERMONT BEES

CVFC: The last two summers in Vermont were polar opposites. Summer 2022 was hot and dry. And, of course, last summer, we were soaked! What impacts do extreme weather patterns have on bees?

Bianca: Dry weather is really hard on the bees. As you can imagine, they're so reliant on water. They're this delicate tiny thing and they need water to function well, like all of us do. You would think bees wouldn't have liked last summer with all of the rain, but they did super well in the valley. The plants were giant and full of nectar. The bees did great, and they're having an easy winter because they have so much food and the temperature didn't drop below zero in the valley. Of course, that's going to lead to more ticks this summer...

CVFC: It gives you a lot of appreciation for the delicate balance of nature. Bees are like the canary in the coal mine.

Bianca: Absolutely. Like I said, I, as a beekeeper, may not not have a lot of direct impact on water and soil. But having this knowledge of the outdoors and spreading that knowledge **(cont.)**

Braman (cont.)

is impactful in its own way.

CVFC: Let's shift gears slightly for a moment. You talk about creating a life for the bees that is very similar to what they would experience naturally. You have this very hands-on, artisanal operation that's small, which has a lot of environmental benefits baked into it. What are the challenges you encounter as a result of having this gentler approach to beekeeping?

“Bees do better when it’s warmer, but the ancillary issues that come with a warming climate is hard on them. More people means more pesticide use, and therefore a lot more movement of bees.”

BIANCA BRAMAN, VERMONT BEES

Bianca: The methods we have chosen for farming are not necessarily as lucrative as a larger-scale pollination-based farming. While we're passionate about our methods, it's challenging financially at times. We're stationary and we winter here, and we don't have a second season to make the extra money by bringing them south for pollination. In turn, putting food on our table comes from the bees being healthy and the honey that they make. We're totally focused on their health, which is an incredible thing for our relationship with the creature. But in modern beekeeping, to keep bees alive, it's hard. The average losses in Vermont are 35-85%. We come in at the low side of those losses often because we're really careful, but there's a lot that you're up against that you don't have any control over.

CVFC: You're so passionate about how you farm, and you acknowledge there are some economic drawbacks to that. Are there things you're able to do that support you economically, but still allow you to farm in alignment with what you value?

Bianca: Diversification is part of it, having different things to sell, like queens and candles, in addition to honey. There's certainly an instability for our type of farming for the first 15-20 years, because we're constantly growing, growing, growing. At the same time, by starting small versus going all in, it has meant we've been able to grow into our shoes instead of having to jam our feet in. It's more economically sustainable this way. Once you get past the point of constantly expanding, you can have your community developed around the products you're selling. Our honey is in a bunch of stores, and if we lost one, it wouldn't be the end of the world because we have some security built in. Whereas in the beginning, it was really risky and scary, and we always had a second job.

CVFC: You've taken your time to grow in a way that is both sustainable for you and the environment. Why is it important to you as a farmer to be a good steward of the environment?



Bianca: It's a difficult balance because farmers are pressed to make more food for our growing population. Being aware of our impacts to the environment and mitigating those impacts constantly is of utmost importance. Working with such a delicate creature and seeing the Earth from this perspective, I can see **(cont.)**

Braman (cont.)



that there's nothing more important than preserving it.

CVFC: Have you received any awards or special recognition for your work?

Bianca: We just received a Working Lands Enterprise Initiative grant to expand production of our honey. It will increase our production by 100%. It's a beautiful piece of machinery that will last me the rest of my career. It's all automated and it will save our bodies.

CVFC: You recently became a member of the Farmer Coalition. What inspired you to join us?

Bianca: I'm the Vice President of the Vermont Beekeepers Association, which is one of the oldest bee clubs in the United States and is very well regarded. We have 700 members. They sent us a notice about the Farmer Coalition. My partner and I have been wanting to connect with other farmers forever. What are the dairy farmers up to? The veggie farmers? And we can share a little bit about what we're doing.

CVFC: What advice would you give to another farmer (or beekeeper!) who's trying to figure out how best to support the environment through their practices?

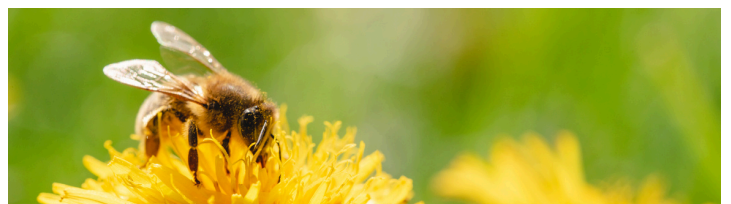
Bianca: Everybody's so different, and I don't know everybody's struggle. But, as people who work outside and work with the land and with other creatures, we are learning another language. We develop an instinctiveness around the earth, what's good for the planet, and what's good for everybody else (other than humans). It sometimes isn't the easiest thing, but we can make a difference as farmers. I think we need to support each other!

CVFC: Those are excellent points you bring up. Everybody's farm is different. Just look at the differences in soil types between Addison County and Chittenden County near the Winooski River. Usually, farmers will say it's about experimentation. We're all happy to support one another and share knowledge. But, ultimately, it's going to come down to trial-and-error on your own farm, and figuring out what works best for all of the variables you have.

“Working with such a delicate creature and seeing the Earth from this perspective, I can see that there's nothing more important than preserving it.”

BIANCA BRAMAN, VERMONT BEES

Bianca: Exactly! It's important to be open-minded, progressive, and accepting of what other people's needs are, as long as they're not directly harming you. Farmers are trying to do the best thing for everyone by making food for people and by caring for the future. I don't think you would ever meet a farmer that's consciously trying to hurt somebody else. We're working with a really good group of people to support the environment.



Welcome, Shawn!



We're stoked to welcome Shawn Goodfellow as the newest member of the Champlain Valley Farmer Coalition team! He will serve as our Young Farmer Program Manager.

Having grown up on a cow calf beef farm in Quebec, Shawn's roots in farming run deep. He developed a passion for agriculture and machinery that has shaped his journey ever since. He earned a Bachelor of Science in Agriculture from McGill University in Montreal, and went on to work for agricultural equipment dealerships in Quebec, Illinois, Colorado, and Vermont. These roles not only honed his technical expertise but also provided invaluable insights into the varied needs and practices of farmers across different landscapes.

Shawn moved to Vermont in 2006. He purchased a small farm where he grows and sells dry hay. Now, as the Young Farmer Program Manager, Shawn is thrilled to embark on a new chapter dedicated to nurturing the next generation of agricultural leaders. He is committed to empowering young dairy farmers, equipping them with the tools, knowledge, and support they need to thrive in this dynamic industry.

Welcome New Members

Thank you to these farmers for joining the Champlain Valley Farmer Coalition to support our mission!

**New Leaf Organics
Grass Cattle Company**

Join Our Monthly Board Meetings

Our Board of Directors meets the first Wednesday of each month at 9:30 a.m., with options to attend in person at UVM Extension in Middlebury or on Zoom. All CVFC members are invited to attend; members of the public may join at 10:00. If you would like to attend these meetings virtually, email info@cvfc-vt.com and we'll send you the link.



5 Things We Heard at Our Dairy Sustainability Workshop

More than 70 farmers, industry experts, research scientists, and policy makers joined us on April 10 for "Dairy Sustainability: Climate, Soil, & Water," a day-long workshop we co-hosted with University of Vermont Extension and Cornell PRO-DAIRY in Middlebury.

Workshop highlights included climate and environmental leadership, whole farm environmental assessments, managing enteric emissions, climate-smart manure management, building sustainability and resiliency in **(cont.)**

Workshop (cont.)

dairy cropping systems, and Vermont resources and policy.

It was a very robust agenda, to say the least, and we're very grateful to all of the scientists who shared their latest research with us. We recognize the risk climate change poses for agriculture and the role we need to play to reduce our greenhouse gas emissions.

We learned a tremendous amount during our time together, and we're going to share *just* five things that stand out to us.

1. If you were to look at a pie chart of total U.S. greenhouse gas emissions (GHGs) by sector, you would see agriculture is responsible for 10%. You'd see transportation at 28%, electric power at 25%, industry at 23%, and residential and commercial at 13%. If agriculture is the smallest slice of pie, then why does it always feel like everyone is picking on farmers? Of the three

greenhouse gases—carbon dioxide, methane, and nitrous oxide—methane and nitrous oxide are the ones most prevalent in agriculture. To boot, methane has a global warming potential (GWP) 27-30 times greater than carbon dioxide, while nitrous oxide has a GWP 273 times greater. In turn, agriculture's 10% packs a big punch. The good news? This means farmers have the greatest opportunity to contribute to global cooling by focusing on reducing their methane emissions. It's been suggested that if we can make significant progress on methane in the short-term, we can have more time to get a handle on carbon emissions in the long-term.

2. In order for agriculture to reduce its GHGs and have an influence on mitigating global climate change, farmers will need a lot of tools in their box. Improving soil health practices, manure management, and enteric emissions are the main areas of focus. Among the options for reducing enteric emissions—which **(cont.)**

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Workshop (cont.)

account for ~70% of agriculture's methane emissions—is using feed additives, such as 3-nitrooxypropanoal (also known as 3NOP). Research suggests 3NOP is effective at suppressing the enzyme in a cow's rumen that produces methane. A cow would need to consume ¼ teaspoon of 3NOP per day to reduce her methane emissions by up to 30%. The feed additive is authorized for use in 45 countries around the world, and while it is not yet authorized in the United States, trials are underway.

3. Cornell University works directly with farmers across New York to determine sustainability Key Performance Indicators (KPIs) that allow farms to compare themselves to others and to monitor their performance over time with respect to nutrient mass balances (NMBs), GHGs, and above-ground biodiversity. These whole-farm environmental assessments give farmers a tool to guide improvements, increase farm efficiency, and demonstrate good practices to consumers and the general public. Dairy farms who have participated in NMBs in recent years have been shown to produce more than 50% more milk per acre with 36% improvement in phosphorus-use efficiency.

4. Farmers not only have an influence on climate change, we are also influenced by climate change. Likewise, we cannot manage the weather, but we can manage for the weather. Improving our soil health practices, for example, means we're creating soils more resilient to extreme weather events, like flooding and drought, which are becoming more common. In fact, farmers who experienced both Hurricane Irene in 2011 and catastrophic flooding in 2023 and had implemented climate smart soil health practices in the interim, reported greater resiliency in their fields. Similarly, Addison County farmers who adopted tile drainage as part of their overall soil health practices

experienced greater crop yield from their heavy clay soils.

5. We might get a phone call from Dr. Heather Darby if we don't share this one! Meadow fescue, orchardgrass, timothy, and smooth brome grass and the soils they grow in all do better if we don't cut them too short. Why? The amount of leaf volume removed is inversely proportional to root growth and health. This impacts soil health, compaction, microbial activity, taking up nutrients, climate resilience, and more. Raising the cutter bar is one the simplest things we can do to promote sustainability and efficiency.

Medium Farm Operation General Permit Public Comment Period

The Vermont Agency of Agriculture, Food & Markets (VAAF) is updating the guidelines for the Medium Farm Operations (MFO) General Permit. The public can provide feedback on these updates until June 23.

Two meetings will be held for discussions, both offered in person and via Microsoft Teams. The first public hearing will be held at the St. Albans City Hall in St. Albans on May 21, 3:00 - 6:00 p.m. and the second hearing will be held at the Isley Public Library in Middlebury on May 23, 3:00 - 6:00 p.m.

By law, the MFO guidelines must be revised every five years, with the last update in 2018. These updated rules will be in effect from 2024 to 2029.

Scan the QR code with your smart device to review the proposed changes which focus on making the



Public Comment (cont.)

guidelines more clear and removing unnecessary repetitions found in the Required Agricultural Practices (RAPs) and other Vermont statutes.

Comments may be submitted electronically to agr.wqpermits@vermont.gov or in writing to:

VAAFM
Attn: Water Quality Program
116 State St
Montpelier, VT 05620

Once the public comment period closes on June 23rd, VAAFM will review all comments before finalizing the updated MFO guidelines.

Annual Calendar of Funding Opportunities

Stay on top of all the latest funding opportunities for agriculture! The Vermont Agency of Agriculture, Food & Markets has a calendar available on their website so you can see all of the programs in the year to come.

Scan the QR code with your smart device or view and bookmark the calendar by visiting:



<https://agriculture.vermont.gov/grants/calendar>



North American Manure Expo

July 17-18
Auburn, NY

The Expo offers two full days of tours, demonstrations, education sessions and networking, all delivering the latest and greatest in manure management solutions and technologies in the heart of the Finger Lakes region.

Day one includes offsite tours that showcase the innovative manure practices of the northeast, on-site demonstrations dedicated to agitation and safety, and plenty of industry networking.

Day two features educational sessions by industry experts, followed by solid and liquid manure application demonstrations, including a dragline application in corn and grassland injection.

Registration is now open for tours and expopasses. Take advantage of our early-bird rates (that end June 15) and secure your spot on your preferred tour!

Scan the QR code with your smart device and register today!



Save the Date!

UVM Extension
Annual Crops & Soils Field Day
Thursday, July 25, 2024

Thank You!



AGENCY OF AGRICULTURE, FOOD & MARKETS
www.Agriculture.Vermont.gov

