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CVFC Launches "NextGen" Working Group by Vijay Nazareth, Executive Director

By Vijay Nazaretni, Executive Director

At the Champlain Valley Farmer Coalition, we believe in creating a supportive environment for the next generation of farmers to thrive in Vermont. This will require a better understanding of their needs and concerns, as well as collaborative engagement to ensure those needs and concerns are addressed.

In this spirit, we recently launched the NextGen Working Group. It's all about promoting agriculture literacy, fostering workforce development and community engagement, and inviting up-and-coming farmers to create an economically thriving and environmentally sustainable farming and food system in our state.

The next generation of farmers is excited about the future, but faces mounting concerns over the profitability and sustainability as prices fluctuate, input costs rise, the labor market tightens, regulations increase, and climate change results in less predictable weather patterns. It's also not easy meeting the demands of both farm and family, particularly if you have young children. **(cont.)**

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NextGen Working Group (cont.)

What gives NextGen farmers an edge is their willingness to adopt new technologies and practices that make their farms more efficient, sustainable, environmentally friendly, and resilient to climate change. Their goal is not just to survive, but to thrive. We intend to help them achieve their goals!

There are promising new technologies-such as robotic milking operations and methane digesters-that can be profitable, generate energy, and are good for the environment. However, they require a substantial upfront investment and the financial risks can often outweigh the rewards, particularly for smaller farms. Are NextGen farmers more inclined to take these risks? Perhaps they are, but they will need financial incentives, education, and support to mitigate the risks.

The Farmer Coalition is also committed to promoting youth agriculture literacy, workforce development, and community engagement by connecting schools with farms. Mentoring programs and activities that promote conservation and environmental stewardship can be effective in engaging young people, raising awareness, and better preparing them for careers in agriculture.

The future of farming in Vermont could not be brighter! If you are a NextGen farmer, donor, partner, or educational institution, we invite you to join us on this exciting journey.

Announcing Our New Program Manager

The Champlain Valley Farmer Coalition is delighted to welcome Kate Longfield as our new Program Manager!

Kate is originally from Cambridge Massachusetts, although considers Vermont home. She is currently pursuing her master's in



Natural Resources from the University of Vermont, specializing in both agricultural science and environmental law. She completed her bachelor's of science in environmental studies from the same university, where she focused on Vermont land use, climate resilience, and policy.

Kate has served Vermont through the ECO AmeriCorps program, as Assistant Water Quality Program Coordinator for the Northwest Regional Planning Commission in St. Albans, and Assistant Planner for the Vermont Land Trust. She has worked closely with dairy, livestock, and diversified farmers, and has also lived and worked on livestock farms in New England and abroad in Australia.

Kate is thrilled to support Vermont's dedicated farmers and stewards as the Champlain Valley Farmer Coalition's new Program Manager.

Kate lives in Richmond with her partner Spencer and spends her free time hiking, skiing, and exploring the Green Mountains.



Featured Farmer: David Conant

Conant's Riverside Farm, Richmond

The more things change, the more they stay the same.

If you were to ask dairy farmer David Conant, he'd likely tell you there's a lot of truth in that old adage.

He comes from a long line of Conants who have farmed more than 500 acres of sandy loam soil along the banks of the Winooski River in Richmond.

The family's farm at this site dates back to 1846, when Samuel Conant and Harriet Pierce Conant had the good foresight to move their existing stony farm to what was then known as "the turnpike farm."

Since then, five more generations of Conants have cultivated the land.

And it is David's sincerest wish that his and his son Ransom's generations are far from being the last. that," he says. "One of the things you can do to have a better life is to leave the earth better than you found it, whether you grow a single rose or a thousand acres."

Ensuring that many more Conants to come may know the blessing of farming this healthy, verdant land has required David to get *comfortable* with something that makes him *uncomfortable*.

"I've done this for so long, I have a hard time changing my ways," David explains. "My son once told me, 'Dad, this isn't your grandfather's farm anymore."

When we visited with him on a bright October morning to learn more about his family's efforts to be innovative farmers and good stewards of the environment, it quickly became apparent David has embraced change a bit better than he lets on.

He, his son, and their employees had recently finished harvesting corn and injecting manure on all 400 acres of corn land. Manure injection is a process of applying fertilizer just below the surface that reduces nitrogen and phosphorus run-off. **(cont.)**

"This is my legacy, and I am very conscious of

David Conant (cont.)

"Our manure pit is pretty much empty right now," David tells us, "and we keep it that way in case of an extreme weather event, so it doesn't overflow."

The Conants had also begun planting cover crops on all of their cropland. Cover crops help fields hang onto their soil and nutrients during Vermont's harsh winters and rainy springs. On 100-150 acres of the cropland, the Conants are double-cropping rye and triticale, a hybrid of wheat and rye that has a higher yield and forage quality.

Meanwhile, David and Ransom were patiently waiting to resume their fourth and fifth cuts of hay following a couple days of precipitation. While wet hay leads to mold, decay, and even combustion, driving equipment on wet fields is not ideal, either. That contributes to soil compaction, which results in reduced rates of water drainage and filtration, and makes it difficult for seeds to germinate.

David and his family are certain not to take the health of their soil for granted.

"We are truly blessed to have the cropland we do," he says, "When it's really dry, like this summer, our soil holds moisture quite well. And when it's really wet, we can handle the water."

The water not only comes from rain eventswhich have grown more significant in recent years due to climate change-but also from the Winooski River, which runs through the farm.

"We are concerned about the river and its health. We think about it every day," David shares. "We manage our soils and our nutrients to protect the river. That's one of the biggest challenges we have."

Perhaps the largest project the Conants have



Ransom Conant, the next generation of Conant farmers. (courtesy)

undertaken to protect water quality and soil health at their farm is their manure management system.

Ten years ago, they presented a plan to the Vermont Agency of Agriculture, Food & Markets (VAAFM) and the Natural Resources Conservation Service (NRCS) to build a manure pit, establish transfer lines for a dragline system, and install a pipe under the river to pump manure to another large parcel of their farm.

Initially, they received a lot of support from VAAFM and NRCS for the first two phases of the project, but the third phase required more learning and understanding.

"Everybody had to educate themselves about how effective and safe the pipe would be," David explains. "It took about three years to do our research, then we all understood how important the project could be." **(cont.)**

"One of the things you can do to have a better life is to leave the earth better than you found it, whether you grow a single rose or a thousand acres."

DAVID CONANT, CONANT'S RIVERSIDE FARM

David Conant (cont.)

The Conants are very appreciative of VAAFM and NRCS' support.

"Without their engineering expertise, financial support, and the people who've taken an interest in what we want to do, we wouldn't be where we are today," David says. "It has allowed us to manage our manure and nutrients better."

"As a group of farmers, we are so much more aware of the issues we face and how they're looked upon by the general public and state agencies. It has allowed us that contact and ability to be informed."

DAVID CONANT, CONANT'S RIVERSIDE FARM

David also attributes their success to their active participation in the Champlain Valley Farmer Coalition. He was a founding member of the group 10 years ago and continues to serve on the board to this day.

"As a group of farmers, we are so much more aware of the issues we face and how they're looked upon by the general public and state agencies," David says. "It has allowed us that contact and ability to be informed."

Based on his own experience, David encourages other farmers who want to adopt more innovative and costly farming practices to do their research. "Get involved. Be informed. If it's a capital improvement, be aware of the programs out there that will aid you in putting practices in place. There are programs and people who can assist you," he points out.

And while the future of agriculture in Vermont feels murky, David is nonetheless optimistic. He already can see how decades of changing practices are improving conditions around his farm. "When I was a kid, no one ever swam in the river," he says. "You wouldn't believe what went by!"

And now?

David's grandchildren and employees swim in the river, at a place they have affectionately nicknamed *Playa del Farmin'*, a twist on the coastal resort town of Playa del Carmen in Mexico.

"We've always said success is measured by a bulk tank full of milk and a barn full of hay. But it's not that way anymore," David says. "Things have changed."

Indeed they have, David. Indeed they have.



David Conant (left) with wife Deb, daughter-in-law Alison, and son Ransom (courtesy)

Farmer-to-Farmer Workshop at Foster Bros.

The Champlain Valley Farmer Coalition kicked off our new Farmer-to-Farmer Workshop Series at Foster Brothers Farm in Middlebury on September 6. For our first event, we welcomed Dan Mower, Territory Sales Manager for Pivot Bio.

When Dan Mower first heard of Pivot Bio's alternative to synthetic nitrogen fertilizer several years ago, he was initially skeptical. "It's too good to be true," he thought.

Nitrogen is a critical building block for all life, including plants. Farmers have come to rely on synthetic nitrogen fertilizer in order to feed the world's growing population. Unfortunately, the production of synthetic nitrogen accounts for 2% of all greenhouse gas emissions, and much of it winds up in our waterways, lakes, and oceans.

To address these mounting concerns, the founders of Pivot Bio created a product that aims to boost farmer productivity, reduce greenhouse gas emissions, improve air and water quality, and sustainably feed the world's increasing population.

That's an ambitious goal, to say the least.

But Mower was convinced when he started receiving positive feedback from the farmers who had purchased the product through him. In fact, he opted to leave his role as an Independent Sales Representative at his father's seed agency to work for Pivot Bio directly.

This is the story Mower shared to a group of Farmer Coalition members and friends gathered at Foster Brothers Farm on a drizzly September morning. Foster Brothers is one of 5 farms in Addison County experimenting with Pivot Bio's product, known as PROVEN 40. All together, these 5 farms are testing the product on 6 fields covering 5,153 acres.

George Foster decided to give the product a shot because he was aware of another farm over in New York that had used it with great success.

So, let's address the holstein in the room: What is PROVEN 40? (cont.)



Workshop (cont.)

PROVEN 40 is a liquid containing two different kinds of microbes. Farmers apply the product in-furrow at the time of planting, or they can put PROVEN40 OS directly on-seed. As the seeds germinate, the microbes from PROVEN 40 attach themselves to the root structure. They feed on the exudates released by the roots and convert atmospheric Nitrogen (N2) into ammonia (NH3). This means that each plant has access to Nitrogen everyday throughout the growing season, with peak nitrogen production when the crops need it the most.

Data from field trials conducted nationwide by Pivot Bio suggest that corn plants treated with PROVEN 40 have more nitrogen in the corn plant, more biomass and higher leaf chlorophyll concentrations than untreated corn plants. More biomass, of course, means more silage for livestock in the food bunk.



Corn treated with PROVEN 40 Untreated corn at Foster Bros. at Foster Bros.

Treated plants sampled in Addison County, in particular, had:

- 30.52% more in-plant nitrogen during the vegetative phases, and 7.44% more in the reproductive phases
- 27% more overall fresh weight biomass in the vegetative phases and 5% more in the reproductive phases
- 10% more chlorophyll concentration in the vegetative phases and 1% more in the reproductive phases

The Champlain Valley farmers in attendance, who contend with heavy clay soil, as well as significant rain events induced by climate change, had quite a few questions for Dan. Does it matter what kind of soil you apply it to? According to Dan, PROVEN 40 performs consistently across all soil types and topographies.

How does PROVEN 40 perform during heavy rain? Data collected by Pivot Bio suggest that the product does not runoff or leach like synthetic nitrogen products. Provided that the soil is healthy enough to absorb the rain, the microbes will continue to flourish. However, the microbes will not survive when covered by standing water for 24-48 hours.

For his part, Foster is "very impressed" with how PROVEN 40 has performed on his corn.

"The treated corn doesn't have the drought stress that the non-treated corn has," he observed. Foster plans to use PROVEN 40 again next year on more acreage.

As with the adoption of any new agricultural technology, practice, or product, we encourage our farmers to do their own due diligence to determine what will work best for them and their farms.

To learn more about Pivot Bio's PROVEN 40, scan the QR code and visit them on the web.



Northeastern Farmers Face New Challenges With Severe Drought

"Farming is challenging, and it's becoming even more challenging as climate change takes place," says Brian Kemp, President of the Champlain Valley Farmer Coalition and organic beef farmer at Mountain Meadows Farm in Sudbury.

That's the key takeaway in a summer article from the Associated Press, highlighting the challenges farmers are facing throughout the Northeast due to an extreme drought brought on by climate change.

Here in Vermont, farmers experiencedlow crop yield and quality, especially hay and corn for livestock, including dairy cows, according to Anson Tebbetts, Vermont's Secretary of Agriculture, Food & Markets. In Vermont, dairy creates \$2 billion in economic activity per year.

Coupled with the rising costs of fuel and fertilizer, the economic outlook is grim, especially if farmers must purchase additional livestock feed to supplement what they could not grow themselves.

These challenges speak to why the Farmer Coalition added "climate smart farming" to our mission statement earlier this year. Agricultural practices that protect water quality and support healthy soils are a part of climate mitigation, too. Climate smart farming also recognizes that farmers will need to continue to adapt their practices in order to thrive in a changing climate.

To learn more about the challenges farmers are facing during the drought, scan the QR code with the camera on your device and read the full AP article.



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, email info@cvfc-vt.com and we'll send you the link.

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. View and bookmark the calendar at **agriculture.vermont.gov/grants/calendar.**



Thank You!



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Our mission to assist all farmers in implementing innovative agricultural practices that enhance water quality, soil health, climate smart farming, and their economic resiliency in the Champlain Valley is generously supported by the Vermont Agency of Agriculture, Food & Markets.

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