



ANNUAL REPORT 2019



THE UNIVERSITY OF VERMONT
EXTENSION

Center for
Sustainable Agriculture

LETTER FROM DIRECTOR LINDA BERLIN

At the Center for Sustainable Agriculture, we share a love of the land and farming that includes a commitment to the belief that it is possible to produce food and fiber in ways that are profitable for farmers, good for communities, and in balance with our precious natural resources.

In 2019, as in past years, we have approached this work by seeking to build trusting relationships, sharing knowledge, asking questions, and addressing access to resources in an equitable way.

All of this is only possible because of the relationships of which we're a part. And because we share a commitment to deep consideration of what it means to farm the land in Vermont at this time.

We have assembled this report for you, our extended community, with two main ideas in mind: 1. To share what we are doing and what we are learning across our program areas.

2. To let you know what financial support for the Center means, and a little bit about what that investment yields.

In the following pages, we are sharing just a bit about some of the practices we are researching, the knowledge we've gained, and a few of the ways we engage in this work. We hope you'll let us know any time you'd like to know more about the work or ways to get involved.

Whether you are reading this as a partner, a donor, a participating farmer or community member, I want to thank you. Your support is an investment in an on-going relationship that the Center has with Vermont and the region.

Please do let us know what you think, and how we can continue to work together.



Through work in the areas of **Local Food** and the **New American Farmer Program** we have focused on increasing our shared understanding of what access to local, healthy food means for people of a wide range of experiences and identities.

This means seeking to understand people's values, abilities, priorities and needs across many facets of identity and experience. What values and beliefs do new members of our communities bring? How do people from other cultures experience relationships to farming and access to food? How can experienced farmers from warmer locations translate their agricultural knowledge to their new Vermont home? Can we help assure children can access healthy food at school? Below are some of the ways we sought answers to these questions in fiscal year 2019.

- Contacted and interviewed farmers from a wide range of backgrounds and identities for the *Who Farms?* project.
- Led discussion groups to help increase garden and farm productivity for resettled refugee and immigrant farmers.
- Worked with cultural liaisons to make sure workshops were culturally appropriate and translated for participants who do not speak English as a first language.
- Offered workshops to resettled refugee and immigrant farmers to help them address healthy food access through gardening skills.
- Developed new research instrument to help understand food safety and food storage among resettled refugees.
- Worked with Vermont's Farm to School network to use what we know about the Vermont schools who are successfully working with farms.
- Used results of food security survey with resettled refugees to better understand what supports are making a difference.
- Presented research on food security and food access at the national Agriculture, Food & Human Values meeting and to Kellogg Foundation Leadership Alliance
- Provided analysis of findings about how older adults living in subsidized housing do and don't access fresh healthy food.
- Provided consultation with local schools.
- Supported graduate student research on Farm to School in UVM's Master of Science in Dietetics program.

2019 KEY LEARNINGS:

"You can't serve a farmer if you can't understand what it is exactly that they are looking for or need help with at any given time. **When we include farmers at every stage of developing a project, the team is best able to really understand what help might look like,** and on great days there are breakthroughs."

- Ben Waterman, New American Farmer Coordinator,

"What I really hope that **Vermont communities know is that we are here as a team of collaborators, researchers and community members focused on understanding what makes sustainability and access possible.**"

- Linda Berlin, Center Director,

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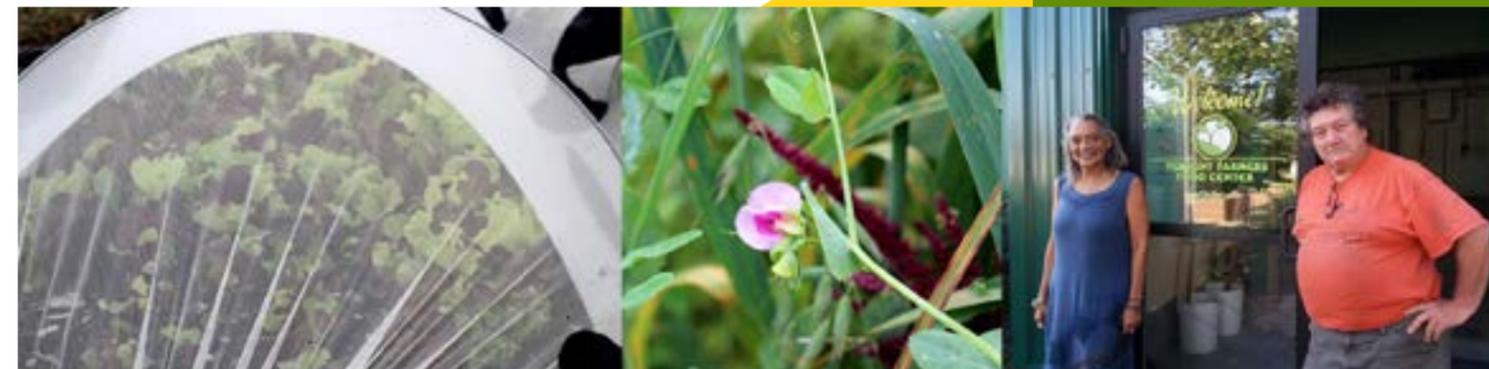
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2019 KEY LEARNINGS:

"Sustainable farming encompasses much more than farming and technical know-how. **It's also about family understanding, the help of friends and neighbors, a community of support, and an awareness of the trends gripping 2019.**"

- Suzy Hodgson,
Sustainable Agriculture
Outreach Specialist

"We know that farmers are facing the challenges of too much water and also not enough water. **We are here to help by bringing our scientific expertise to farmers' own experiences and knowledge to support resiliency in these changing times.**"

- Joshua Faulkner,
Farming & Climate
Change Coordinator

Through work in the areas of **Farming & Climate Change** and **Agricultural Enterprise**, we have prioritized offering support and sharing knowledge to help Vermont farmers survive and thrive in a changing climate.

This means understanding the science of what is happening in the soil, water, plants, animals and people who are part of Vermont's farm as we experience the impacts of a changing climate. What are the practices that increase resiliency? How can we minimize the environmental and climate impacts of Vermont's farms? What do growers and farmers need to know? What does it cost to adapt to change? Are there new varieties, crops and species to consider? Below are some of the ways we sought answers in fiscal year 2019:

- Consulted with many individual farmers about water, drainage issues, watering systems, woodchip heavy use areas, grazing systems and other approaches to support resiliency.
- Developed and shared Climate Adaptation Fellowship curriculum for farmers
- Developed a greenhouse gas emission model for farms, conducted educational games to teach high school students about climate change decision-making on farms, and presented findings at a national climate change adaptation conference in Madison, Wisconsin.
- Educated New England Extension professionals about climate change data and information.
- Helped aspiring farmers learn about climate change implications for Vermont agriculture.
- Shared key information on agriculture and climate change for the Vermont Agency of Agriculture, Food & Markets, in television and radio interviews, the legislature, and many community groups.
- Produced a livestock watering system design to help a farmer trying to improve their grazing practices.
- Provided information to farmers to help keep farmworkers safe when working in excessive heat conditions on record-breaking hot summer days.
- Shared water usage & irrigation monitoring results as part of United States Department of Agriculture research and webinar.
- Supported graduate students working in key areas of climate change adaptation and mitigation.

Pasture and Livestock Research and Outreach means we are working closely with livestock farmers to help them and their communities thrive as stewards of Vermont's working landscape.

Well-managed grazing lands are ecosystems incorporating healthy animals, plants and soil in ways that support human needs. We ask: How can farms produce food, fiber and energy while also supporting farmer profitability? What do beef farmers need to know in order to achieve profitability? How can we work across state and national borders so that grazing operations can benefit people and communities in both local and international contexts? How can farmers build their knowledge of plants in order to address the particular needs of their land and animals? How can Vermont farmers maximize land use decisions by combining enterprises in both traditional and innovative ways? To answer these, in 2019 we:

- Worked with a range of farmers throughout the Connecticut River Valley.
- Offered community workshops on how to combine grazing animals with solar array installations.
- Offered workshops on how livestock farmers can transition from a confinement approach to a grazing operation, and how experienced grazing farmers can become more sustainable and more profitable.
- How to manage pastures for horse farms.
- Appeared on many Across the Fence episodes to present on research inquiries and results.
- Brought Ranching for Profit class to Vermont in partnership with Farm to Plate as a means to provide an important tool for Vermont beef farmers to be financially profitable.
- Developed new collaborations with Uruguayan grazing farmers.
- Grew the Dairy Grazing Apprenticeship program in Vermont.
- Hosted over 300 livestock farmers and community members at the Vermont Grazing and Livestock Conference.
- Offered findings on how novel mixes of cover crops can support soil health and livestock productivity.
- Researched the benefits of grazing sheep in vineyards.
- Shared findings on how well-managed grazing increases soil organic matter from year four of an on-farm research project.
- Supported the first gathering of the New England Grazing Network.

2019 KEY LEARNINGS:

"I've learned that in my role **I have the opportunity to soften the learning curve through access to knowledge and shared experience**, and that is essential to farm success and viability."

- Laura Johnson,
Agronomy Outreach
Professional,

"**Deep and personal relationships create the ability and passion to positively affect land and human lives for the betterment of all.**"

- Jenn Colby, Pasture
Program Coordinator,



2019 KEY LEARNINGS:

"I want farmers to know that well-managed rotational grazing works - it heals degraded land, is good for animals and good for farmers' lives. I just went to visit a farm I hadn't been to for several years, and a farmer practicing this told me, 'My cows are fat and glossy, and the pastures are many times over more productive than they were in the beginning. We've almost doubled our livestock numbers.'"

-Kimberly Hagen, Pasture Program Grazing Specialist

Soil Health and **Water Quality** initiatives let us develop and share knowledge to help farmers cultivate resilience through practices and products that support healthy soil and clean water.

We ask: can technical assistance and support for basic infrastructure help farmers achieve productivity and environmental balance? What are the opportunities for agricultural products based on waste materials that are otherwise a liability for farms? What do farmers need to know about new enterprise opportunities like hemp and milkweed? What adjustments to cropping practices can support productivity and reduce negative environmental impacts? How can farmers learn from each other about new opportunities? How can farmers connect with key community stakeholders to build networks that support the goals of each? Among many other activities in the 2019 fiscal year, we:

- Worked with community groups and farmers throughout the Connecticut River watershed to support their sustainability.
- Presented on compaction best management practices at the Annual Soil & Water Conservation Society conference in Albuquerque, NM.
- Provided logistical and programmatic support for the Vermont Healthy Soils Coalition to promote learning and conversation towards the goal of increasing soil health.
- Used research results to help farmers prevent the erosion of top soil while building its health.
- Presented soil health information and techniques to members of the Veteran Farmer Coalition of Vermont.
- Provided hemp farmers with support to build healthy soil as they establish their new crop.
- Worked with hay farmers on the health of their soil and their nutrient management practices.
- Researched and interpreted findings from farms growing milkweed as a crop, focusing on harvesting methods, adaptation, market opportunities and conservation benefits.
- Gathered stakeholders in Vermont's textile and building industry to consider how to turn wool into a value-added product that would benefit sheep farmers.
- Presented to student, colleague and community groups on use of the P (phosphorous)-Index tool to help manage water quality.

ABOUT THE CENTER'S FUNDING

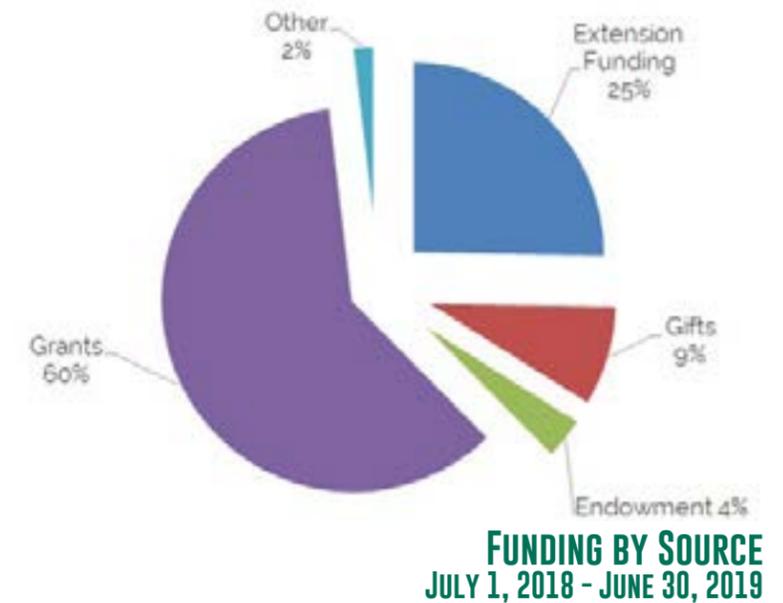
Extension Funding is a combination of federal and state dollars that UVM receives as a land grant university.

Grants are from government sources and private foundations.

Endowment income is the interest that is earned from generous donations made to the Center by donors who wanted to ensure that important work can continue in perpetuity.

Gifts are donations to the Center's annual fund raising appeals, or those made spontaneously.

Other means monies received through the sale of books, videos, DVDs, and event registration.



UNDERSTANDING THE CENTER'S EXPENSES

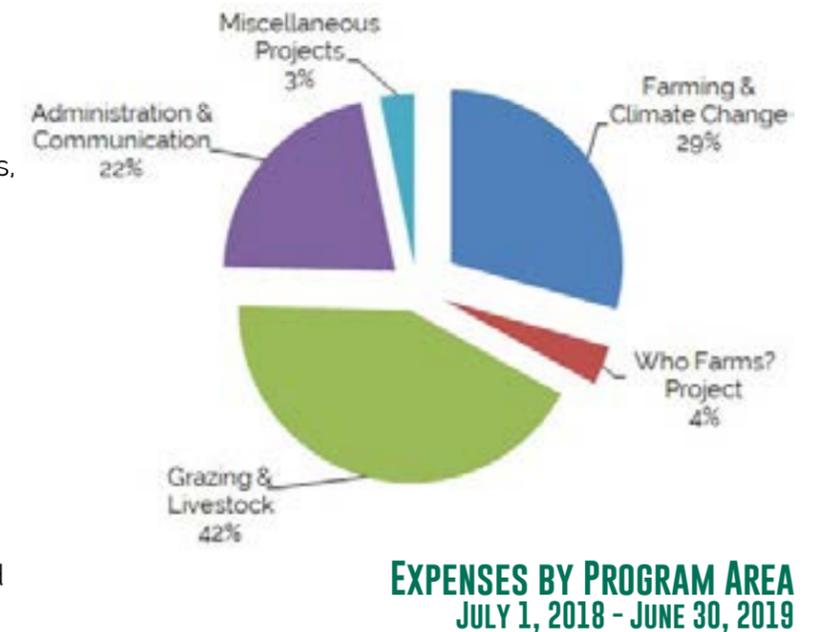
Grazing & Livestock represents salaries and program costs for the Center's largest program, with five staff and faculty members who engage in research, outreach, collaboration and technical assistance with farmers around the state.

Farming & Climate Change expenses represent the research, outreach, publications, collaborations, and technical assistance provided through the Farming & Climate Change program.

Administration & Communications monies support leadership, collaboration, development, grants management, financial oversight, support for program staff, outreach and customer service, and allow us to produce the Center's newsletters, calendars and annual report.

Who Farms? expenses supported the second year of this collaborative farmer storytelling project.

Miscellaneous Projects include work on New Farmer, food access, local food, and other projects.



About the photos in this report: The front cover image is from a workshop in which participants learned what's involved in turning the waste product of sheared sheep wool into pellets to use in vegetable cultivation. The back cover shows the diverse edible plants growing on a New American farmer's land. Both were taken by Jenny Brown, as are most of the images in these pages. Learn more about the images in the online version of this report on the Center's website: <http://go.uvm.edu/susagctr>



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