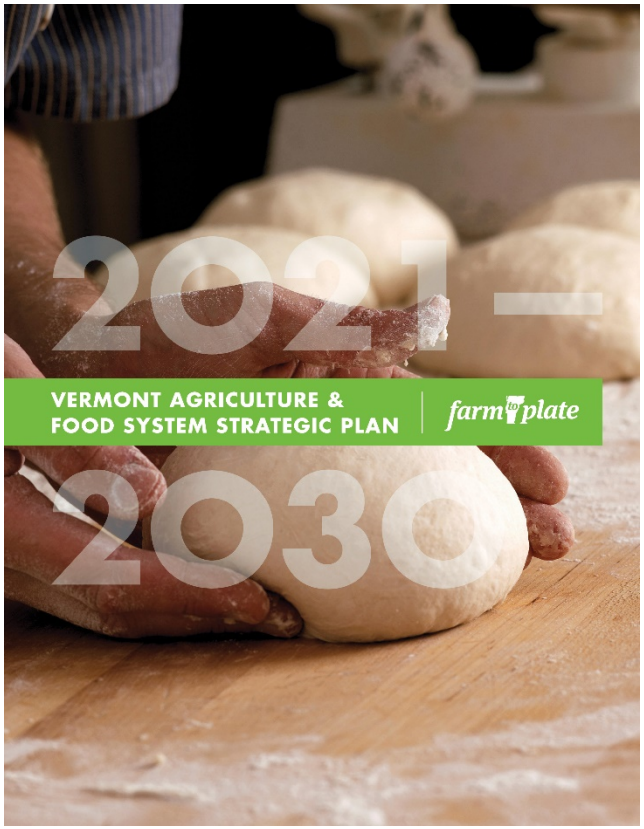
Vermont Agriculture & Food System Strategic Plan 2021-2030



Presentation to VT CAC

March 8, 2021

www.vtfarmtoplate.com/plan

farm to plate
STRENGTHENING VERMONT'S FOOD SYSTEM

Presentation Flow

- History & Legislative Outcomes
- Stakeholder Engagement & Plan Writing Process
- Goals & Objectives of Interest
- Priority Strategies of Interest
- Product, Market & Issue Briefs of Interest
- F2P Network Connection
- Q/A

Land Acknowledgement

We are on the land which has served as a site of meeting and exchange among indigenous peoples for thousands of years and is the home of the Western Abenaki People. The Farm to Plate Network honors, recognizes, and respects these peoples, especially the Abenaki, as the traditional stewards of the land and waters. In that spirit, we acknowledge that we are guests in this land. We need to respect and help protect the lands within our use. Those who will implement this Strategic Plan have a responsibility to help make this truth visible, to support efforts toward indigenous sovereignty and well-being, and to dismantle the legacies of colonialism here in Vermont.

Legislative Outcomes & Goal Categories

Vermont Agriculture and Food System Strategic Goals

Fifteen strategic goals articulate the results we will achieve by 2030, in service to the Vermont Legislature's intended outcomes for the Vermont Farm to Plate Investment Program:

1. Increase sustainable economic development and create jobs in Vermont's food and farm sector
2. Improve soils, water, and resiliency of the working landscape in the face of climate change
3. Improve access to healthy local foods for all Vermonters

GOAL CATEGORIES

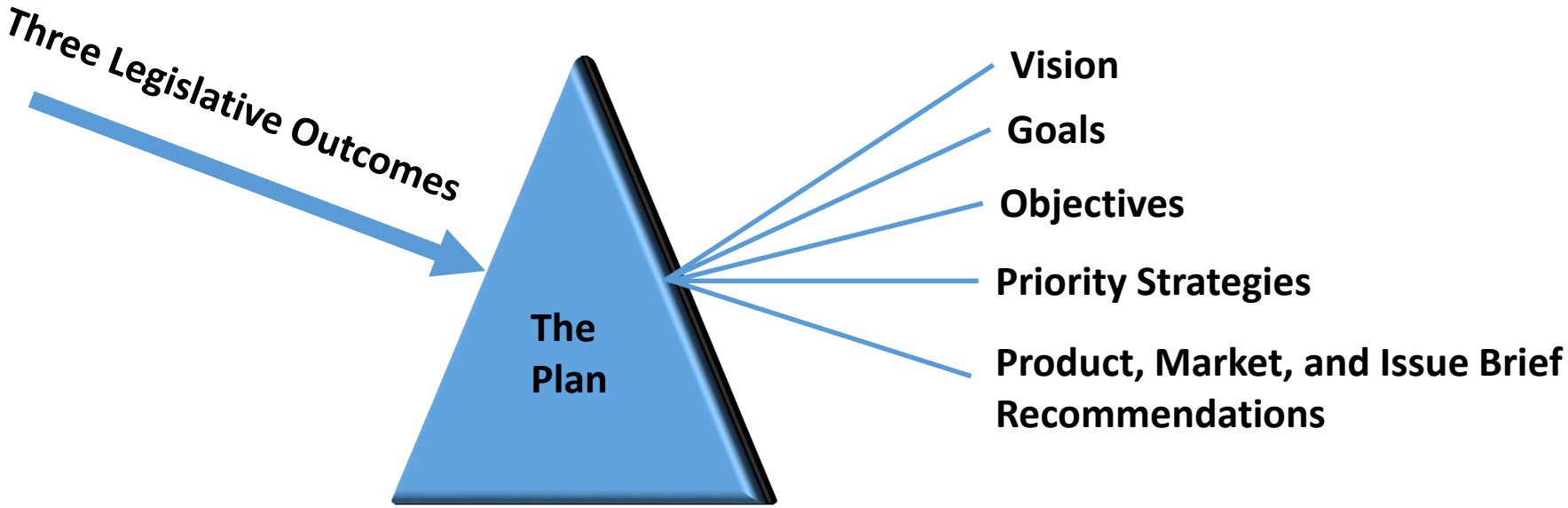
Goals are divided into four categories. The first three correspond with the three legislative outcomes. The fourth is our commitment to racial equity.

- Sustainable Economic Development
- Environmental Sustainability
- Healthy Local Food for All Vermonters
- Racial Equity

18 Month Strategic Plan Development Process

- 1,500+ Vermonters provided some form of input
  - Input on aspects of the Plan during 3 years of F2P Network Gatherings and Leadership Team retreats
  - 52 lead authors + 111 contributors wrote 54 Product, Market and Issue Briefs
  - Survey of Vermonters – 1,100 responses
  - 13 industry focus group sessions (e.g., dairy watershed groups, beef producers, farmers market managers, cheese producers, fruit & veg growers, etc.)
- Vision statement for 2030
- 15 Goals
- 87 Objectives to measure progress towards Goals
- 34 Priority Strategies distilled from 276 recommendations across the 54 Briefs

Understanding the Plan: Prism for Legislative Outcomes



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15 Strategic Goals

ENVIRONMENTAL SUSTAINABILITY GOALS

6. Vermont farm and food businesses will increase carbon sequestration and reduce food system-related greenhouse gas emissions, and are able to adapt to climatic changes due to global warming, including floods, droughts, extreme storms, and pest and disease pressures.

7. Vermont farm stewardship is increasing ecological diversity and improving soil and water quality, and farm stewards are supported, compensated, and recognized for their positive contributions to the environment and public good.

8. Vermont's agricultural land remains in productive agricultural use, access to that land is more affordable and equitable, and land-use planning decisions maintain and promote a strong and viable food system.

9. Edible food, food scraps, and other food residuals are used for their highest purpose, and not considered waste.

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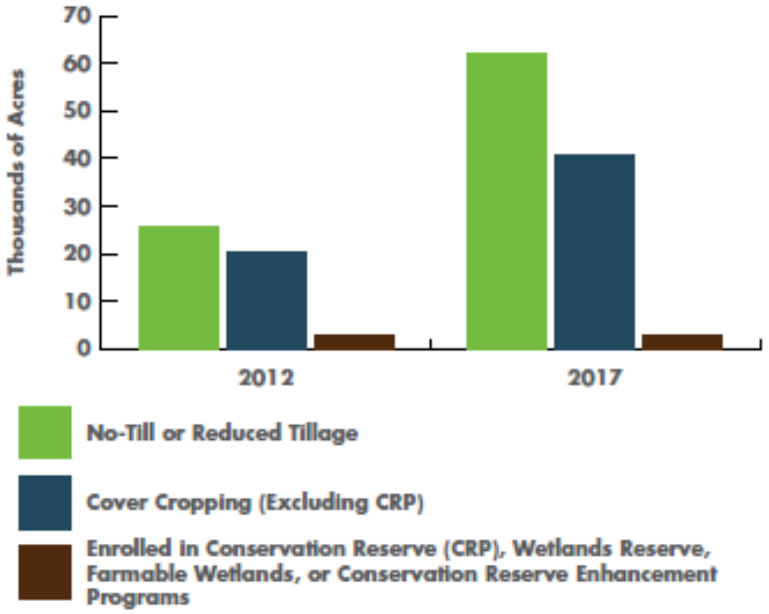
GOAL 6: Vermont farm and food businesses will increase carbon sequestration and reduce food system-related greenhouse gas emissions, and are able to adapt to climatic changes due to global warming, including floods, droughts, extreme storms, and pest and disease pressures.

OBJECTIVES:

- Investment in climate-related research, and adaptive practices, programs, and infrastructure will increase.
- The total acreage in adaptive conservation practices will increase by 35%.
- Aggregate greenhouse gas emissions from agriculture will decrease by 15%.
- Aggregate greenhouse gas emissions from non-farm food enterprises will decrease.

EXAMPLE INDICATOR:

Vermont Farm Acreage Under Select Conservation Practices



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GOAL 7: Vermont farm stewardship is increasing ecological diversity and improving soil and water quality, and farm stewards are supported, compensated, and recognized for their positive contributions to the environment and public good.

OBJECTIVES:

- The Lake Champlain Total Maximum Daily Load (TMDL) goals for agricultural pollutants will be met.
- River and stream miles impaired or altered by agriculture will decrease by 20%.
- A statewide soil health database and monitoring program will be established.
- At least 95% of Vermont's federal appropriation for Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP) will be obligated each year.
- The pounds of pesticides used per year will decrease by 20%.
- The total acreage and number of farms enrolled in the Vermont Environmental Stewardship Program will increase.
- Vermont will establish a Payment for Ecosystem Services (PES) program or join a regional PES program.
- The percentage of Vermont residents reporting that agriculture has a positive impact on environmental quality will increase.
- Vermont will establish a baseline measurement of carbon sequestered on farmland.
- The number of farms utilizing state water quality programs intended to expand nutrient and manure management practice implementation will increase.

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GOAL 8: Vermont's agricultural land remains in productive agricultural use, access to that land is more affordable and equitable, and land-use planning decisions maintain and promote a strong and viable food system.

OBJECTIVES:

- Total acres of conserved farmland will increase by 30,000 acres.
- The total acreage of actively farmed prime agricultural soils and soils of statewide significance will be maintained or increase.
- The per acre cost of agricultural land will stabilize or increase no more than 10% by 2030.
- The percentage of beginning farmers in Vermont reporting farmland is affordable will increase.
- The number of farmers utilizing the Vermont Land Trust's Farmland Access Program and other land access-oriented programs will increase.
- Data points and ways to measure racial equity in relation to farmland access and land-use planning decisions will be identified and created, under BIPOC leadership.
- By 2030 the total area of farmland converted to urban and highly developed (UHD) land use and/or low-density residential (LDR) will not exceed 5,000 acres.

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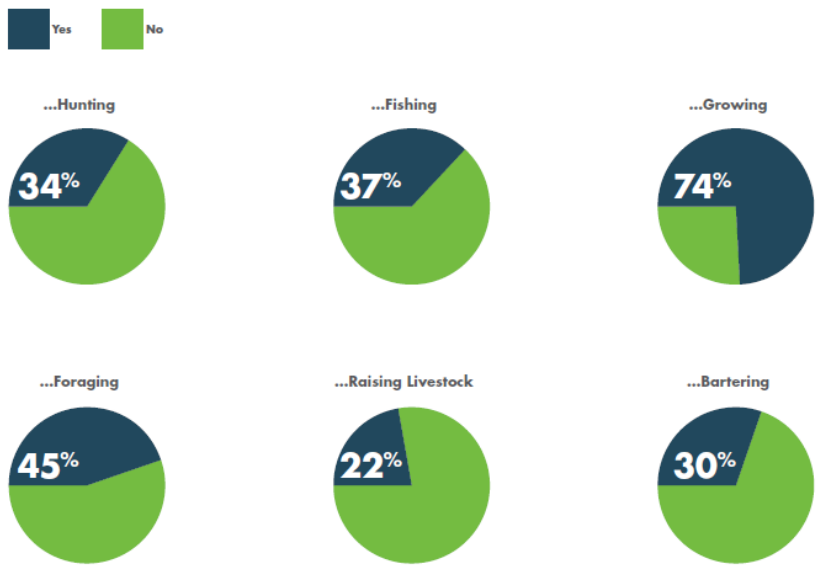
GOAL 13: All people in Vermont can access the knowledge, skills, and resources to select, grow, hunt, fish, forage, process, store, and prepare local food.

OBJECTIVES:

- At least 90% of Vermonters will hunt, fish, forage, grow, or barter local food each year.
- At least 75% of K–12 schools will integrate Farm to School education into their curriculum.
- An assessment tool and metrics to track agricultural literacy will be established.
- More Vermont residents who desire to produce their own food will have the ability to do so.

EXAMPLE INDICATOR:

Percent of Vermonters that Acquired Local Food in 2019 through...



Product Briefs

We developed briefs covering 24 products ranging from our largest commodity sector (dairy) to nascent specialty crops (grains, hemp) to emerging livestock opportunities (grass-fed beef, goats). A consistent theme evident in each brief is the need for additional business and technical assistance for producers, farmer-to-farmer peer educational opportunities, improved product marketing (especially to out-of-state markets), and further development of production standards.

Market Briefs

Vermont food producers sell their products in a wide range of market channels. The stage of business development and scale of the operation often inform which market channel(s) a producer pursues. From direct-to-store deliveries and farmers markets with their higher margins, to institutions and wholesale grocery stores where margins may be smaller but larger volumes can be sold, Vermont food producers continue to adapt to an ever-changing marketplace influenced by large-scale industry consolidation across the United States.

Many of the recommendations found in these seven briefs identify similar issues, such as the need for workforce development, marketing, distribution, technical assistance, and support with food safety regulations.

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Issue Briefs

These 23 briefs encompass topics ranging from water quality and climate change, to consumer demand and food access, supporting farmers and food entrepreneurs with access to business assistance and the right forms of capital as well as the increased need for assistance with intergenerational transfers of land and businesses. A number of the recommendations contained in these briefs will require collaboration with other networks of organizations (e.g., child care and health care networks) in order to address the challenges faced by many farm and food enterprises in Vermont.

VERMONT FOOD SYSTEM PLAN PRODUCT BRIEF

farm to plate
STRENGTHENING VERMONT'S FOOD SYSTEM

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

PRODUCT:
Agroforestry

What's At Stake?

Vermont's 4.465 million acres of forest cover around 73% of its territory.[1] If we are to address the critical moment facing Vermont agriculture, sustainable agroforestry should be among the solutions considered and implemented. Done well, it can enhance Vermont's working landscape, supporting farmers' livelihoods, local economies, and our natural ecosystems. This short, medium, and long-term strategy can provide additional food, fiber, timber, carbon sequestration, water quality, habitat restoration, and increased livestock comfort and yields, but will need institutional support to provide farmers with sufficient capacity, expertise, and financing. Further, agroforestry can be part of an effective payment for ecosystem services system for Vermont's agricultural working lands and economy.

Current Conditions

Agroforestry (agriculture and forestry) is the deliberate, integrated management of trees, crops, and sometimes livestock within the same area. It can enhance agricultural lands and complement natural forests, and produce food, feed, fiber, fuel, and timber products. Five agroforestry practices are recognized by the USDA including riparian forest buffers, alley cropping, windbreaks, forest farming, and silvopasture.[2] Agroforestry provides multiple environmental benefits and is an effective climate change mitigation strategy[3]. Agroforestry can sequester thousands of tons of carbon annually, at a conservative rate of one ton per acre per year.

Existing cropland and pastureland production can be ecologically and economically enhanced with appropriate agroforestry implementation. Agroforestry can increase farm business revenue when farmers complement feed, food, or fiber production by adding timber and/or other forest products as another crop from the farm. Agroforestry helps farmers adapt to climate change by integrating more trees and more diverse tree crops that can tolerate new climate conditions, for example grazing animals in well-managed marginal forest lands converted to silvopasture. Agroforestry products can include mushrooms and maple syrup, nuts, fruits, and wood products. Using management-intensive grazing, silvopasture may increase viable grazing capabilities. Silvopasture[4] is one of the agroforestry practices done in Vermont, with 4.6% of Vermont's woodland acres grazed.[5]

Vermont officially encourages two practices, riparian buffers and windbreaks, through Natural Resources Conservation Service (NRCS) payments. Windbreaks can increase crop yields 5% to 45%,[6] and reduce climate stress in livestock, increasing their performance. Energy savings in buildings sheltered by windbreaks range from 10% to 40% annually.[7] Adding additional practices to NRCS programs would benefit the sector.

Direct Market Brief

Bottlenecks & Gaps

- Increased consumer demand for local food has resulted in distributors and retailers with vast marketing resources claiming products are "local," even if their claims are not in line with customer expectations. This puts downward price pressures on farmers and challenges their viability.
- Direct market farmers are now competing against large companies able to capture customers looking for convenience through new marketing models such as online ordering, meal kits, and home delivery.
- Direct market farmers often lack the marketing skills, technology, broadband access, and funding necessary to reach modern consumers in this competitive environment.
- Many farmers markets lack resources to support professional staff, which impacts their capacity for marketing, managing vendors, securing stable locations, handling legal issues, providing good consumer experiences, etc.

Opportunities

- Consumer trends show people are looking for a relational form of food purchasing. Vermont can capitalize on these trends with increased marketing for, and storytelling about, direct markets (see *Consumer Demand* brief).
- Collaborative marketing is already happening at various levels (statewide, regional, groups of farmers) and can be built upon to support individual producers and farmers markets unable to compete with the marketing savvy of large companies.
- Online technology exists that can enable local producers to grow their web presence and reach a potential new customer base.
- Direct markets that participate in public health and/or food access programs such as SNAP/3SquaresVT, EBT incentive programs, etc., ensure that all Vermonters can access local food from direct markets and producers can receive income from federal food assistance programs (see *Food Access and Farm Viability* brief).

Climate Change Brief

Recommendations

- Fund a training program to be given to all agricultural service providers on the observed and projected changes in Vermont's climate, how it can affect agriculture, and basic adaptation principles. What is learned in these trainings can then be shared with their farm clients. Existing farmer networks can be utilized for climate change outreach and education, especially through peer-to-peer connections.
- Further investigate market mechanisms and existing systems, nationally and internationally, including voluntary, bilateral, and compliance, for providing payments to Vermont farmers for sequestering carbon and reducing greenhouse gas emissions.
- Investigate innovative funding mechanisms for assisting with implementation of climate change adaptation practices (such as cover crops and building organic matter in soil), crop insurance for diversified Vermont-scale farms, and emergency recovery following extreme weather events, so that we are better prepared to respond when climate change related events occur. Even with technical assistance program support, some water quality Best Management Practices (BMPs) that assist with climate change resiliency are still financially out of reach for many farms.
- By 2023, create carbon sequestration offsets protocols within Vermont's rules for the Regional Greenhouse Gas Initiative and the emerging, analogous Transportation Climate Initiative.

Payment for Ecosystem Services Brief

Recommendations

(These recommendations are based on the multi-stakeholder PES Working Group report.)

- Continue to support the Payment for Ecosystem Services Working Group, which is poised to be a central point of coordination and connection among the many needed research and design efforts. These efforts should focus on PES approaches that regrow or sustain Vermont's natural resource base so that it provides at least three ecosystem services: water quality, flood resilience, and climate stability. Estimated cost: $90,000.
- Undertake an evidence-based review of existing research on soil health, to advance understanding of soil health and the services it provides. Research by what metrics soil health should be measured, and identify the ecosystem services that arise from those metrics. To be led by UVM. Estimated cost: $30,000.
- Fund independent research to review, evaluate, and compare existing tools for PES monitoring and modeling which could be used in Vermont. Then, identify, describe, and provide an initial evaluation of new and emerging technologies and programs for measuring and monitoring ecosystem services. Potentially performed by UVM. Estimated cost: $30,000.
- Based on the research reviews noted above, prepare a Request for Proposals for the development of a specific tool to quantify multiple ecosystem services from Vermont farms, which draws on real-time data and monitoring to pay farmers for producing clear, measurable outputs. Estimated cost: $250,000.
- Expand the Vermont Environmental Stewardship Program (VESP) to provide farmer participation stipends for benchmarking and education. Estimated cost $50,000.
- Sustain funding for existing programs which enable farmers to invest in the management changes that lead to increased ecosystem services. This includes cost sharing, grants, technical assistance, education, easements, and the Current Use tax incentive.

Water Quality Brief

Farm to Plate is Vermont's food system plan being implemented statewide to increase economic development and jobs in the farm and food sector and improve access to healthy local food for all Vermonters.

The Vermont Agency of Agriculture, Food & Markets (VAAFM) facilitates, supports, and encourages the growth and viability of agriculture in Vermont while protecting the working landscape, human health, animal health, plant health, consumers, and the environment.

This brief was prepared by:
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To read other food system briefs, visit:
vtfarmtoplate.com/plan

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Priority Strategies of Interest: Water, Soil, Climate

25. Map Vermont's agricultural land base and production capacity, including geographic data about predicted climate change impacts, aggregation and distribution infrastructure, and regional dietary needs. This information will help inform community land use decisions and the use of state funding and incentives. 6 8 10 12 14

26. To better prepare for and respond to climate change-related events, investigate innovative funding mechanisms for climate change adaptation practices (e.g., cover crops, building organic matter in soil), crop insurance for diversified Vermont-scale farms, and emergency recovery following extreme weather events. 3 6 7

27. Continue to support the Payment for Ecosystem Services (PES) Working Group, which is poised to be a central point of coordination and connection among the many needed PES research and design efforts. These efforts should focus on PES approaches that regrow or sustain Vermont's natural resource base so that it provides at least three ecosystem services: water quality, flood resilience, and climate stability. 3 6 7

28. Fund scientific research into how various agricultural practices affect soil and water quality, and how the impacts of these practices can be measured and valued in a Payment for Ecosystem Services program. 6 7 9

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Table of Priority Strategies with Source Reference

26. To better prepare and respond to climate change-related events, investigate innovative funding mechanisms for climate change adaptation practices (e.g., cover crops, building organic matter in soil), crop insurance for diversified Vermont-scale farms, and emergency recovery following extreme weather events.	• *Agroforestry* Brief: Recommendation #2 • *Agroforestry* Brief: Recommendation #3 • *Bees and Honey* Brief: Recommendation #5 • *Climate Change* Brief: Recommendation #2 • *Climate Change* Brief: Recommendation #3 • *Climate Change* Brief: Recommendation #4 • *Maple* Brief: Recommendation #6 • *Payment for Ecosystem Services* Brief: Recommendation #6 • *Water Quality* Brief: Recommendation #4
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Possible F2P Network Focus Areas

- Climate, Soil & Environment (+ food waste)
- Land Access, Conservation, Ownership
- Technical and Business Assistance / Support
- Financing & Funding Gaps
- Policy
- Racial Equity
- Food Security … Health
- Food / Ag Literacy
- Workforce Development / Labor
- Marketing
- Supply / Value Chain Development
  (e.g., meat processing infrastructure, beef, grains, goats)
- Market Channel Incentives / Support
- Cross Sector Issues

Which focus areas are possible intersections with VTCAC Strategic Plan?

THANK YOU for this opportunity to speak to you.

What are your questions?

Download the Plan – as a whole or just the parts you are interested in here: www.vtfarmtoplate.com/plan

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15 Strategic Goals

SUSTAINABLE ECONOMIC DEVELOPMENT GOALS

1. Food system economic output, employment, and establishments in Vermont will increase.
2. Demand for Vermont food will increase.
3. Vermont's production portfolio is more diverse, farm and food businesses of all types will increase their economic viability, and businesses have equitable access to capital and to production, processing, aggregation, and distribution infrastructure appropriate to their needs.
4. Vermont food system jobs provide livable wages, safe, healthy, and supportive workplace conditions, and access to health care and other benefits.
5. Vermont farms and food system businesses have sufficient, diverse, and reliable employees, and there are accessible and equitable opportunities in Vermont to gain the knowledge and skills for food system careers.

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15 Strategic Goals

HEALTHY LOCAL FOOD FOR ALL VERMONTERS GOALS

10. The amount of Vermont-grown food that fulfills the dietary and cultural needs of people in Vermont will increase.

11. All people in Vermont increasingly have the financial resources to access local food, including through programs that provide support for purchasing local food.

12. All people in Vermont are able to access locations in which local food is sold, served, or provided.

13. All people in Vermont can access the knowledge, skills, and resources to select, grow, hunt, fish, forage, process, store, and prepare local food.

14. Vermont's food system is resilient and able to provide adequate and accessible healthy local food in the face of emergencies—including climate-related natural disasters.

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15 Strategic Goals

RACIAL EQUITY GOAL

15. **Food system organizations and stakeholders prioritize racial equity and actions to eradicate structural racism in their work, are accountable to Black, Indigenous, People of Color (BIPOC) leadership, and support BIPOC participation and representation.**