



farm ^{to} plate

STRATEGIC PLAN

Chapter 2

Getting to 2020: Goals for Strengthening Vermont's Food System

Version Date: May 2013



Vermont Sustainable Jobs Fund



A 10-YEAR STRATEGIC PLAN FOR VERMONT'S FOOD SYSTEM

Goals



3.1: Understanding Consumer Demand

Goal 1: Consumption of Vermont-produced food by Vermonters and regional consumers will measurably increase.

Goal 2: Consumers in institutional settings (e.g., K-12 schools, colleges, state agency cafeterias, hospitals, prisons) will consume more locally produced food.

Goal 3: Vermonters will exhibit fewer food-related health problems (e.g., obesity and diabetes).



3.2: Farm Inputs

Goal 4: Options for farmers to reduce their production expenses will be widely disseminated and utilized.

Goal 5: Agricultural lands and soils will be available, affordable, and conserved for future generations of farmers and to meet the needs of Vermont's food system.

Goal 6: Farms and other food system operations will improve their overall environmental stewardship to deliver a net environmental benefit to the state.



3.3: Food Production

Goal 7: Local food production—and sales of local food—for all types of markets will increase.

Goal 8: Vermont's dairy industry is viable and diversified.

Goal 9: The majority of farms will be profitable.

Goal 10: All Vermonters will have a greater understanding of how to obtain, grow, store, and prepare nutritional food.



3.4: Food Processing and Manufacturing

Goal 11: Vermont's food processing and manufacturing capacity will expand to meet the needs of a growing food system.



3.5: Wholesale Distribution and Storage

Goal 12: A sufficient supply of all scales and types of on-farm and commercial storage, aggregation, telecommunications, and distribution services will be available to meet the needs of increasing year-round food production and consumer demand.



3.6: Retail Distribution and Market Outlets

Goal 13: Local food will be available at all Vermont market outlets and increasingly available at regional, national, and international market outlets.



3.7: Nutrient Management

Goal 14: Organic materials from farms (e.g., livestock manure) and food scraps will be diverted from landfills and waterways and used to produce compost, fertilizer, animal feed, feedstock for anaerobic digesters, and other agricultural products.



4.1: Food Security in Vermont

Goal 15: All Vermonters will have access to fresh, nutritionally balanced food that they can afford.



4.2: Food System Education

Goal 16: Vermont K-12 schools, Career and Technical Education Centers, and institutions of higher education will offer a wide range of curricula, certificate and degree programs, and conduct research aimed at meeting the needs of Vermont's food system.



4.3: Food System Labor and Workforce Development

Goal 17: The number of locally owned and operated food system businesses in Vermont is expanding.

Goal 18: Vermont's food system establishments will provide safe and welcoming working conditions, livable wages, and have access to a skilled, reliable workforce.



4.3: Food System Business Planning and Technical Assistance

Goal 19: Business planning and technical assistance services will be highly coordinated, strategic, and accessible to Vermont's food system businesses.



4.5: Financing the Food System

Goal 20: Food system entrepreneurs and farmers will have greater access to the right match of capital (grants, loans, mezzanine debt, equity, loan guarantees, leases, and incentives) to meet their financing needs at their stage of growth and for their scale of business.

Goal 21: Private foundations, state and federal funding sources, the Vermont Legislature, the governor's administration, and food system investors will coordinate and leverage available resources to maximize the implementation of this Plan.



4.6: Food System Energy Issues

Goal 22: Food system enterprises will minimize their use of fossil fuels and maximize their renewable energy, energy efficiency, and conservation opportunities.



4.7: Food System Regulation

Goal 23: Regulations and enforcement capacity will ensure food safety, be scale appropriate, and enable Vermont food system enterprises to succeed in local, regional, national and international markets.



4.8: Food System Leadership, Communication, and Coordination

Goal 24: Vermont's governor, legislature, and state, regional, and local agencies will continue to celebrate Vermont's food system and will champion it as an economic development driver for the state.

Goal 25: Food system market development needs will be strategically coordinated.

CHAPTER 2

Getting to 2020: Goals for Strengthening Vermont's Food System

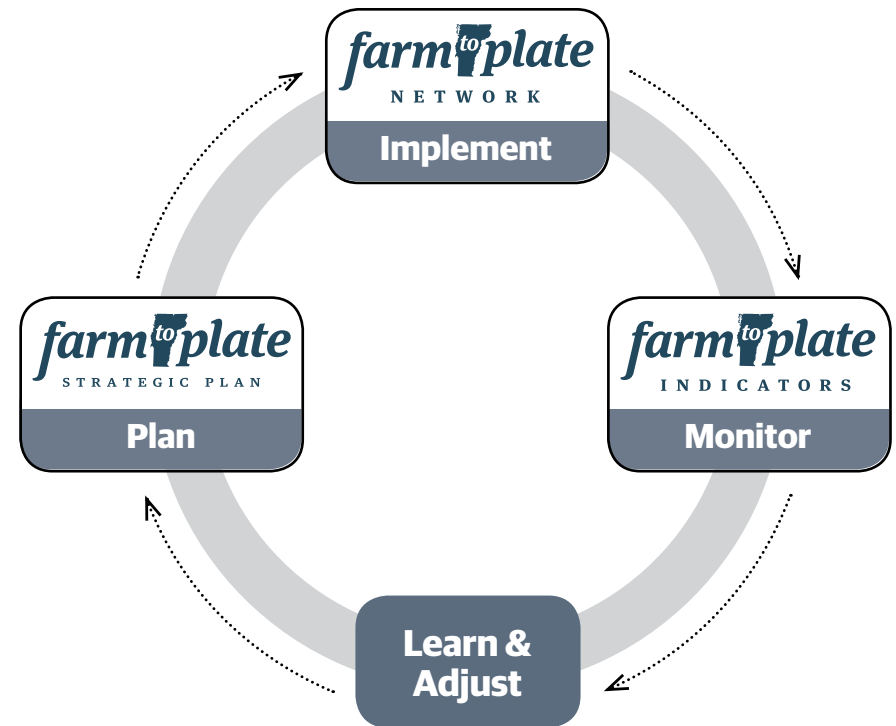
2020 GOALS, STRATEGIES, AND INDICATORS

The vision that Vermonters share about the future of agriculture and food systems is realizable, now and in the near future. It is a vision we can enact and fulfill today, through our personal choices, policy decisions, and investments.

Vermont has one of the most vibrant local food systems in the country—and many food system businesses and organizations are working to make it even better. The *Vermont Sustainable Jobs Fund* (VSJF) has embraced the “five conditions of collective impact”¹ as the organizing framework for advancing the Farm to Plate (F2P) Strategic Plan:

- 🍏 **Common agenda:** the F2P Strategic Plan articulates a shared vision and identifies ways to strengthen Vermont’s food system over the next ten years.
- 🍏 **Mutually reinforcing activities:** the F2P Network reflects and supports *existing* programs, projects, and organizations; and seeks to advance *new ideas* in a coordinated fashion.
- 🍏 **Continuous communication:** the F2P Network and the Vermont Food System Atlas provide new opportunities for communication and collaboration.
- 🍏 **Shared measurement:** The F2P Goals and measurements described in this chapter link the analysis of the Plan with the actions and progress of the Network.
- 🍏 **Backbone support:** VSJF provides logistical support to coordinate the F2P Network and maximize the collective impact of the F2P Strategic Plan, maintains the Vermont Food System Atlas, and publishes annual indicators of progress.

The collective impact framework is based on research and accumulated experiences that show that problems are best solved when businesses, nonprofits, government agencies, educational institutions, and others work



together. The following goals, objectives, strategies, and indicators—generated from our extensive research and public input collection process—aim to advance and track progress toward the vision articulated in Chapter 1.

All kinds of goals and indicators are present in our daily lives (e.g., a weight loss goal is measured with a bathroom scale). For the most part, these everyday cues are easily interpretable and intuitive (e.g., green means go, red means stop). A general rule of thumb is to create or use indicators that are simple, valid, clearly defined, reliable, measurable, and quantifiable.² In the F2P context, indicators are used to simplify and represent the complex interactions between the social, economic, and environmental components of Vermont's food system.³ Although indicators are not perfect instruments, they can measure accomplishments of past, present, and future efforts; influence public policy; facilitate partnerships; define arguments; communicate information; facilitate social learning and social change; and increase awareness about food system issues.⁴

VSJF reviewed several examples of food system indicators for the F2P Strategic Plan. For example, in 2009 the [Wallace Center at Winrock International](#) published a report, [Charting Growth: Developing Indicators and Measures of Good Food](#), that identified dozens of "health," "green," "fair," and "affordable" indicators of a "good food" system. The indicators are arranged in a kind of scorecard fashion that highlights whether particular trends are getting worse (i.e., red), the trend is unknown or mixed (yellow), or getting better (green).⁵ The [Vivid Picture](#) project of [Ecotrust](#) developed 18 goals and 63 indicators for California's food system. Their report, [Proposed Indicators for Sustainable Food Systems](#), provides rationales for each goal selected and then discusses the strengths and weaknesses of each indicator of progress for that goal.⁶

Another approach is to blend qualitative and quantitative data. For example, Ken Meter, President of the [Crossroads Resource Center](#), explains that his experience listening to "wise practitioners" (i.e., farmers) decades ago led him down a research agenda that corroborated their intuitions. Meter reports: "after extensive follow-up research over 25 years, it is clear to me that the indicator they chose—the strength of responsive local credit sources—is indeed a profound measure of the health of farm communities." In this example, Meter says, the practical experience of these farmers attuned them to indicators—the number of local lenders and the amount of local credit in circulation—that economists from USDA and other federal agencies had overlooked.⁷

[Results-based Accountability](#) is another framework that has increasingly gained traction. The RBA approach distinguishes between results for whole populations (i.e., *population*

accountability) and results for particular programs (i.e., *performance accountability*). Performance accountability refers to the fact that individuals and organizations can be assigned responsibility for specific programs and services (e.g., number of clients served by the [Vermont Agriculture Development Program](#)), while population accountability refers to the fact that no single entity is responsible for programs and services that impact entire populations (e.g., the citizens of Vermont). **The RBA framework asks three crucial questions: how much did we do? How well did we do it? Is anyone better off?**

Chapter 2 represents an amalgam of these different approaches: we have drawn on quantitative and qualitative data to answer the RBA questions, illustrate trends, and track progress toward accomplishing the 25* goals of the Farm to Plate Strategic Plan. For each goal we provide a brief synopsis—based on analyses provided in Chapters 3 and 4—that describes why the goal and associated strategies/actions are important. Each goal depicts one key indicator (i.e., a *population* indicator) that shows the major trends that we will measure in order to demonstrate progress (e.g., the trend lines should accelerate up or bend down over time if our collective activities are impactful).

For each goal we identify strategies and actions (i.e., *performance* indicators) that will collectively help Vermont build a stronger food system. These strategies and actions are illustrative of a much larger set of strategies identified in Chapters 3 and 4; and they may reflect activities already under way or activities contemplated by F2P Network Working Groups. In several instances (e.g., Goals 19, 20, 21), we may still be working on collecting baseline data.

Below each key indicator we identify additional measurements and data sources that are relevant to assessing progress toward achieving each goal. Most of these measurements and data sources are referenced in Chapters 3 and 4. All of the data collected for the F2P Strategic Plan will be available on the Vermont Food System Atlas website.

***NOTE: The original publication of Chapter 2 included 33 goals. We have subsequently reduced that number down to 25 goals.**



STRONG VERMONT FOOD SYSTEM



Chapter 3, Section 1: Understanding Consumer Demand

Goal 1: Consumption of Vermont-produced food by Vermonters and regional consumers will measurably increase.

Objective: To increase the percentage of Vermont food products consumed by Vermonters from >5% to >10%.

Synopsis

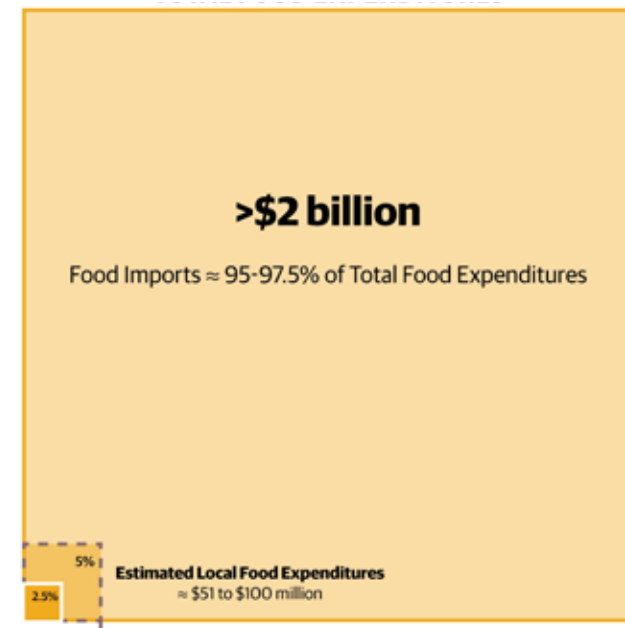
Most of the food Vermonters consume is imported from elsewhere, and food imports have increased over the past decade. But Vermont also leads the nation in a counter-movement toward local food: it has the highest per capita direct agricultural products sales (i.e., from farm stands, farmers' markets, and community supported agriculture) in the country.

Strategies / Actions

- Advance strategic partnerships between farmers, public agencies, private businesses, and nonprofit organizations through joint marketing initiatives, ad sponsorships, matchmaking events, market building, and networking opportunities.
- Identify demographics of Vermont consumers (e.g., underserved populations) and craft stories to develop "local foods," "buy local," or related messages and consumer education campaigns that will influence purchasing and eating habits.
- Conduct an assessment of how Vermont's food system businesses and industry associations market their products, where they market their products, and the size of their marketing budgets and identify opportunities for improvement (e.g., work with *Champlain College* and other institutions with strong design and marketing programs).
- Increase promotion of culinary and agri-tourism events to local and regional consumers through [Dig In Vermont](#), [Department of Tourism](#), community farm and food events, ski resort promotions, health and wellness fairs, and so on.
- Increase availability of local foods in markets typically carrying conventional foods, improve displays, and improve ability for local producers to access grocery stores.

Cross-Reference: Goal 2; Goal 3; Goal 10; Goal 13; *Chapter 3, Section 1: Understanding Consumer Demand*; Consumer Education and Marketing Working Group.

Key Indicator: Estimates of Local Food Expenditures in Vermont



Source: multiple sources.

Note: We have firm data that local food expenditures equal at least 2.5% (\$51 million) of total food expenditures in 2010 (see Goal 13). But data was unavailable from several key sources, including food distributors and grocery stores. We believe that local purchases from these sources (e.g., milk, Ben & Jerry's ice cream, Green Mountain Coffee Roasters coffee, King Arthur Flour products, apples, and maple syrup at grocery stores) may push the total from 2.5% to over 5% (\$100 million).

Measurements and Data Sources

- Amount of money spent on food in Vermont (Economic Census)
- Value of food shipments into Vermont (Commodity Flow Survey)
- Food expenditures for households by quintile of income (Consumer Expenditure Survey)
- Direct sales (Census of Agriculture, NOFA Vermont)
- Annual food system marketing budgets for state agencies (multiple sources)



Chapter 3, Section 1: Understanding Consumer Demand

Goal 2: Consumers in institutional settings (e.g., K-12 schools, colleges, state agency cafeterias, hospitals, prisons) will consume more locally produced food.

Objective: To **increase** the total amount of locally produced food purchased by Vermont K-12 public schools, colleges, the University of Vermont, hospitals, state institutions, and workplaces.

Synopsis

We currently have incomplete information, but our initial estimate is that local food expenditures make up only a small percentage of total food purchases at K-12 schools, colleges, the *University of Vermont*, state institutions, hospitals, and workplaces (see page 36). *NOFA Vermont*'s recent institutional purchasing study identified over \$11 million in spending that could potentially be replaced with local fruits, vegetables, and eggs. Many organizations and programs are currently increasing local food access at Vermont institutions.

Strategies / Actions

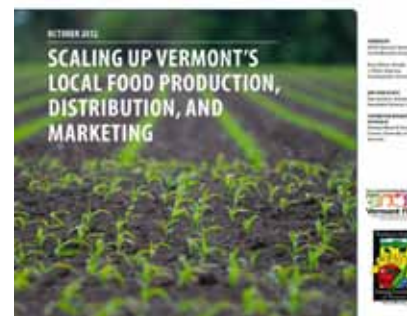
- 🍌 Review and implement findings of institutional demand study conducted by [NOFA Vermont](#).
- 🍌 Inventory and evaluate Farm to School programs at Vermont K-12 schools.
- 🍌 Expand Farm to School programs to remaining K-12 schools (i.e., approximately 120 schools).
- 🍌 Expand financial support for Farm to School programs (e.g., professional development for school employees, Farm to Cafeteria matchmaking) in order to address longstanding issues of institutional commitment, product availability, price comparability, accessing the distribution network, and food preparation time, equipment, and skill.
- 🍌 Inventory and evaluate workplace CSA programs and share findings.

Cross-Reference: Goal 1; Goal 3; Goal 10; Goal 13; *Chapter 3, Section 1: Understanding Consumer Demand*; Consumer Education and Marketing Working Group.

Key Indicator: Institutional Purchases (Minimum Estimates)

Total	Total Expenditures	Total Locally Sourced	Opportunity Gap
FRUITS	\$5,005,000	\$757,038	\$4,292,963
VEGETABLES	\$8,637,500	\$1,970,563	\$6,666,938
EGGS	\$345,000	\$90,991	\$254,009
Total	\$14,032,500	\$2,818,592	\$11,213,910

Source: NOFA Vermont, 2012



Measurements and Data Sources

- 🍌 Number of Farm to School programs by area (Vermont farm to school network)
- 🍌 Local food expenditures and total food expenditures at all educational institutions (multiple sources)
- 🍌 Local food expenditures and total food expenditures at hospitals (multiple sources)
- 🍌 Local food expenditures and total food expenditures at state institutions (multiple sources)



Chapter 3, Section 1: Understanding Consumer Demand

Goal 3: Vermonters will exhibit fewer food-related health problems (e.g., obesity and diabetes).

Objective: To decrease the number of new cases of diabetes and the percentage of Vermonters considered obese and overweight.

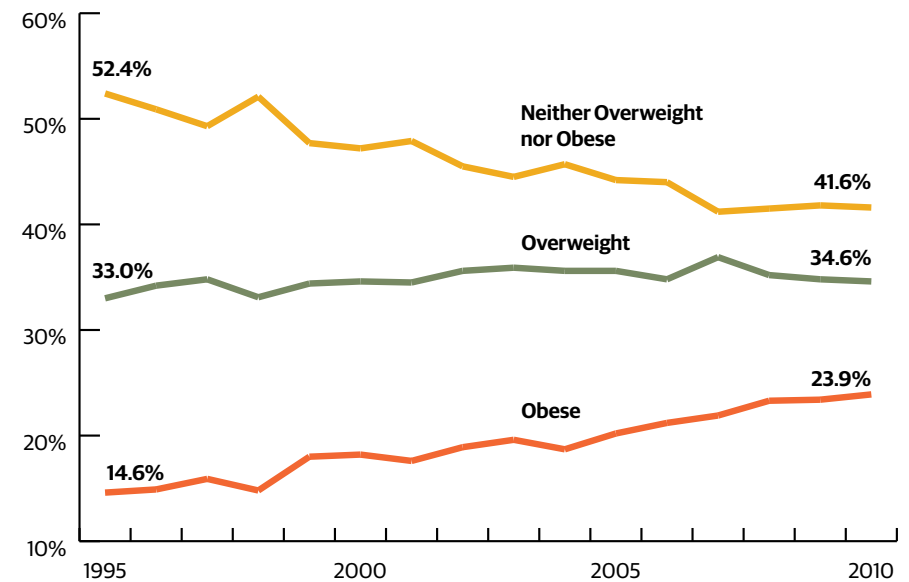
Synopsis

The increased availability of cheaper food, larger portion sizes, the reliance on high-calorie ingredients, and other lifestyle choices have led to a suite of health problems for Americans. According to the *Centers for Disease Control and Prevention*, 35.7% of adult Americans (over 78 million people) were considered obese in 2009-2010, and 17% of children and adolescents ages 2 to 19 were obese. In 2010, 58.5% of Vermont adults were considered overweight or obese. The *University of Vermont's James M. Jeffords Vermont Legislative Research Service* estimates that obesity costs the state \$615 million annually. Obesity also increases the risk of many serious health conditions, including heart disease and type 2 diabetes.

Strategies / Actions

- 🍌 Review the findings and legislative priorities put forth by the [Vermont Healthy Weight Initiative Working Group](#) and by the [Vermont Attorney General](#) and identify actions for the Farm to Plate Network to take.
- 🍌 Review "[Vermont Programs Related to Obesity](#)" and collect additional information on the impacts of these programs.
- 🍌 Model, teach, and support healthy lifestyles in child care programs and K through 12 schools.
- 🍌 Model, teach, and support healthy lifestyles at workplaces.
- 🍌 Revise Title 24, Chapter 117 land use planning provisions, to add a goal of community health and wellness in state and local planning: "To ensure the availability, to all Vermonters, of nutritious and affordable food, and the opportunity, for all Vermonters, to engage in safe, healthy and accessible physical activity."

Key Indicator: Overweight and Obese Adult Vermonters



Source: Centers for Disease Control and Prevention

Measurements and Data Sources

- 🍌 Adult obesity (# and %; Centers for Disease Control and Prevention)
- 🍌 Childhood obesity (# and %; Centers for Disease Control and Prevention)
- 🍌 Vermonters with diabetes (# and % of total; Vermont Department of Health)
- 🍌 Farmers' markets accepting EBT cards (# of markets, % of all markets; NOFA Vermont)
- 🍌 Fruit and vegetable consumption (# and %, Centers for Disease Control and Prevention)

Cross-Reference: Goal 1; Goal 2; Goal 10; Goal 13; *Chapter 3, Section 1: Understanding Consumer Demand*; Consumer Education and Marketing Working Group.



Chapter 3, Section 2: Farm Inputs

Goal 4: Options for farmers to reduce their production expenses will be widely disseminated and utilized.

Objective: To decrease farm production expenses.

Synopsis

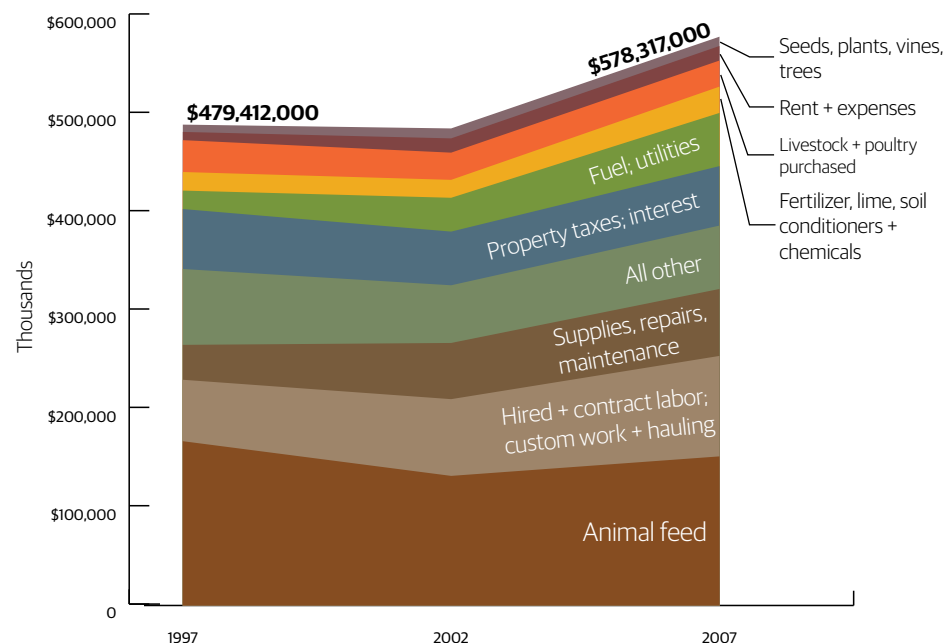
Since 1948, American farmers have made more food and other agricultural products on less land and with less labor, with more petroleum-based material inputs, and yet most farmers have made less money in the bargain. In 2007, Vermont farmers spent almost \$578 million for farm inputs, most of which originated out of state. Farms that produced milk and dairy cattle had 72% (\$417 million) of total Vermont farm production expenses in 2007 and accounted for the majority of nearly every category of farm input expenses (e.g., dairy farms made 89% of feed purchases in 2007).

Strategies / Actions

- 🍏 Conduct and consolidate research on local and regional grain and forage production and management in order to increase production.
- 🍏 Assess the variety and availability of animal feed management services offered statewide. Increase coordination between feed dealers, *UVM Extension*, *NOFA Vermont*, and other service providers, as well as local and regional animal feed producers.
- 🍏 The VAAFM, *UVM Extension*, *NOFA Vermont*, private feed companies, and other organizations should explore opportunities for expanding conventional and organic animal grain production in Vermont.
- 🍏 Expand opportunities for on-farm energy efficiency, conservation, and renewable energy generation projects.

Cross-Reference: Goal 5 through 9; Goal 19; Goal 22; *Chapter 3, Section 2: Farm Inputs*; Technical Assistance Working Group; Dairy Development Working Group.

Key Indicator: Vermont Farm Production Expenses



Source: Census of Agriculture, adjusted for inflation to 2010 dollars.

Measurements and Data Sources

- 🍏 Net farm income (Census of Agriculture)
- 🍏 Feed expenditures as a percentage of total farm expenses (Census of Agriculture)
- 🍏 Number of livestock and dairy farms that graze their animals (Vermont Pasture Network)
- 🍏 Energy expenditures (e.g., electricity and fuel) as a percentage of total farm expenses (Census of Agriculture)
- 🍏 Efficiency savings and renewable energy production from Vermont farms (multiple sources)
- 🍏 Number of farms participating in Farm Viability and similar programs (multiple sources)



Chapter 3, Section 2: Farm Inputs

Goal 5: Agricultural lands and soils will be available, affordable, and conserved for future generations of farmers and to meet the needs of Vermont's food system.

Objective: To increase the number of acres of farmland in active agricultural production.

Synopsis

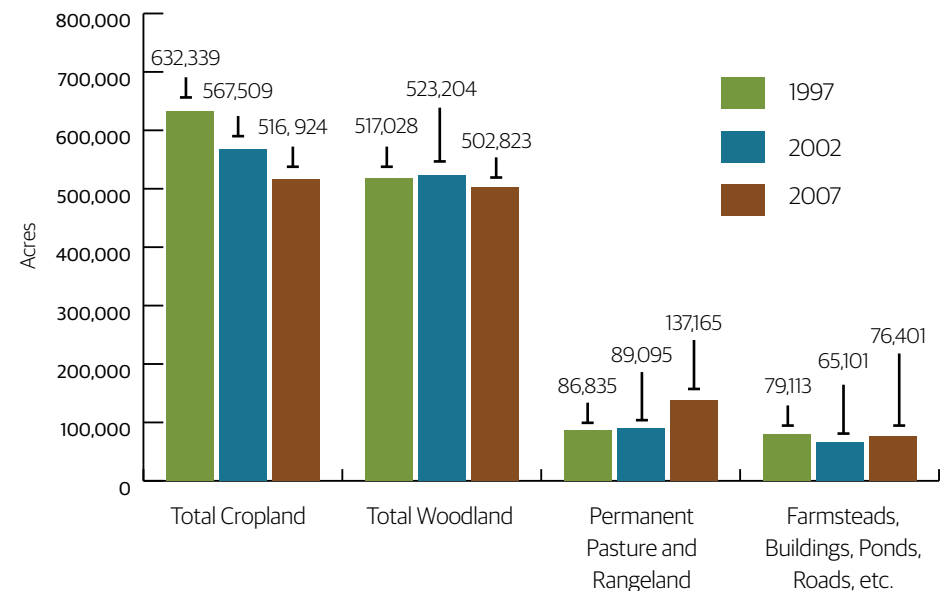
Affordable access to farmland was described by F2P stakeholders as a serious barrier for new farmers or those seeking to grow and expand. In 2007, over 1.2 million acres, or 21%, of Vermont's land was considered to be in agriculture. Land in agriculture decreased over 6% from 1997 to 2007, from 1,315,315 acres to 1,233,313 acres. Cropland made up 516,924 of agricultural acres (42%) in 2007, down from 632,339 acres (48% of total) in 1997. About 84% (434,000 acres) of total cropland was designated as "harvested cropland" in 2007, while the rest was pasture (48,686 acres), cover crop (29,895 acres), summer fallow (1,868 acres), or had experienced crop failure or abandonment (5,401 acres). Crops grown for animal feed— corn for grain, corn for silage, and all forages—constituted nearly 98% of all harvested cropland acreage in 2007.

Strategies / Actions

- 🍷 Review and update zoning ordinances to ensure, to the greatest extent possible, that agricultural lands are conserved for agricultural use. Develop tools (e.g., guidebook) to guide improvements to planning and zoning ordinances that support the further development of the food systems.
- 🍷 Improve the coordination of technical assistance providers throughout the state to assist farm seekers and land owners develop secure tenure arrangements.
- 🍷 Support legal research on embedding new farming activity in established and developing residential areas on productive agricultural land owned by nonfarmers.
- 🍷 Create a statewide spatial LiDAR database of agricultural land use.

Cross-Reference: Goal 4; Goal 6; Goal 7; Goal 19; *Chapter 3, Section 2: Farm Inputs*; Farmland Access and Stewardship Working Group; Financing Cross-cutting Team.

Key Indicator: Land in Agriculture in Vermont



Source: Census of Agriculture.

Measurements and Data Sources

- 🍷 Number of acres dedicated to farm incubator programs statewide (multiple sources)
- 🍷 Land in agriculture (Census of Agriculture)
- 🍷 Annual dollars invested in farmland preservation (multiple sources)
- 🍷 Annual number of farmland acres conserved (multiple sources)
- 🍷 Number of acres in "embedded agriculture" (multiple sources)
- 🍷 Number of new farm enterprises gaining access to Vermont land, either leased or owned (multiple sources)
- 🍷 Number of farm transfers that result in farms remaining in agricultural production (multiple sources)



Chapter 3, Section 2: Farm Inputs

Goal 6: Farms and other food system operations will improve their overall environmental stewardship to deliver a net environmental benefit to the state.

Objective: To decrease adverse environmental impacts from farming and food system activities.

Synopsis

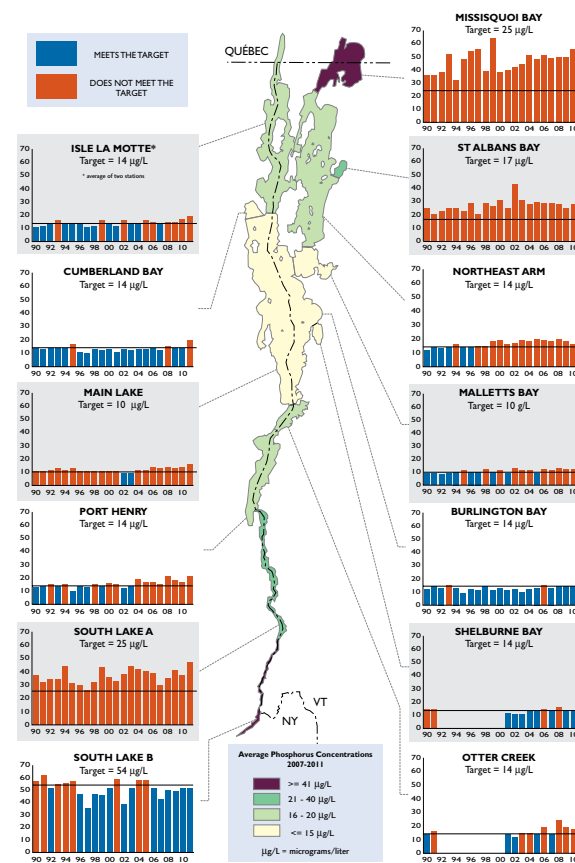
Agricultural runoff (e.g., manure, fertilizer) is one of the sources of phosphorus pollution in Lake Champlain, which drives blue-green algae blooms that can produce toxins that are harmful to humans and other animals. According to the [Lake Champlain Basin Program](#), agricultural activities are responsible for a majority of phosphorus runoff into Missisquoi Bay, a portion of the southern lake, and around Isle La Motte. A recent study of the Missisquoi Bay Basin found that pasture or fields planted in permanent corn, corn-hay rotations, and permanent hay were predominantly responsible for phosphorus loading in “Critical Source Areas” flowing into the lake.

Strategies / Actions

- 🍷 Leverage USDA and other funding to purchase additional equipment to share among farmers to facilitate soil aeration, no-till, strip-till and zone-till cultivation, and state-of-the-art soil quality monitoring and analysis.
- 🍷 Increase peer to peer outreach by farmers to communicate the benefits of CREP and EQIP grants, nutrient management plans, and the implementation of best practices to increase organic matter in soils.
- 🍷 Increase the number of VAAFMs and *UVM Extension* specialists, Agricultural Resource Specialists, and other personnel (engineers, soil scientists) available for on-farm technical assistance, education and support.
- 🍷 Research and develop climate change mitigation and adaptation measures.

Cross-Reference: Goal 4; Goal 5; Goal 8; Goal 14; Goal 19; *Chapter 3, Section 2: Farm Inputs*; Chapter 3, Section 7: Nutrient Management; Soils and Water Task Force; Dairy Development Working Group; Technical Assistance Working Group.

Key Indicator: Lake Champlain Phosphorus Concentrations by Lake Segment



Measurements and Data Sources

- 🍷 Reduction in the volume of agricultural runoff into surface water bodies (LCBP)
- 🍷 Number of river/stream miles and lake acres impaired by agriculture (ANR)
- 🍷 Certified organic acres under production (# and %, *NOFA Vermont*)
- 🍷 Decreased use of chemical fertilizers, insecticides, and pesticides (multiple sources)
- 🍷 Farmer enrollment in water quality management programs (VAAFMs)

Source: Lake Champlain Basin Program, State of the Lake and Ecosystem Indicators Report, 2012.



Chapter 3, Section 3: Food Production

Goal 7: Local food production—and sales of local food—for all types of markets will increase.

Objective: To **increase** the number of acres in food production, the diversity of foods produced, and the overall amount of food produced in Vermont.

Synopsis

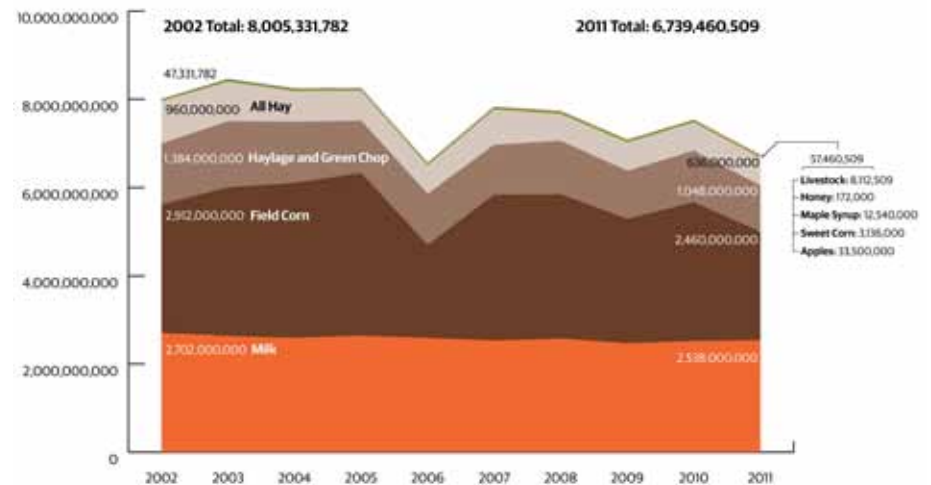
Vermont’s food system has a “scalability challenge”— ecological limits (e.g., climate, geography, and soil quality), existing food system infrastructure, types of farms, types of food produced, federal and state government policies and support, and many other factors impact the extent to which Vermont can ramp up food production. Dairy’s role in Vermont’s food system and the overall state economy is striking. In 2007, milk and other dairy products made up 74% (\$519 million, adjusted for inflation to 2010 dollars) of sales of Vermont’s agricultural products, and about 83% (≈\$584 million) of sales when the value of dairy cattle raised for meat and the value of hay/forage grown to feed livestock are included.

Strategies / Actions

- 🍌 Expand the number and acreage of fruits, vegetables, berries, grains, livestock, and other types of food.
- 🍌 Review and implement findings of institutional demand study conducted by [NOFA Vermont](#).
- 🍌 Provide specialized scaling-up technical assistance and business planning services for farmers and value-added food entrepreneurs seeking to serve larger markets.
- 🍌 Evaluate the needs of producer and processor associations (e.g., marketing) in order to improve the services they offer their members.
- 🍌 Increase opportunities for local producers to access all types of markets.

Cross-Reference: Goals 1-6; Goals 8-13; Goal 19; *Chapter 3, Section 1: Understanding Consumer Demand*; Chapter 3, Section 3: Food Production (all sections); Technical Assistance Working Group; Dairy Development Working Group.

Key Indicator: Vermont Food Production in Pounds



Source: USDA Census of Agriculture, USDA NASS, multiple years. ***Note:** fruit and vegetable production, other than apple and sweet corn production, are not included in this graphic due to small production values that would not be visible. Apple production, for example, which is represented by the small green line, accounts for 91% (3,547 acres) of noncitrus fruit orchard acres in Vermont. In comparison, berry farm production occurred on 705 acres, approximately 20% of the apple orchard acreage. Sweet corn production, which is barely visible on this graph, accounted for approximately 39% of all acreage in vegetable production in Vermont.

Measurements and Data Sources

- 🍌 Acres in production and volumes of various products produced on those acres (Census of Agriculture)
- 🍌 Sales by market outlets (multiple sources)
- 🍌 Number of farms employing season extension technology (UVM Extension)
- 🍌 Number of farmers participating in technical assistance and business planning services (multiple sources)



Chapter 3, Section 3: Food Production

Goal 8: Vermont's dairy industry is viable and diversified.

Objective: To increase dairy farm viability.

Synopsis

Vermont is the largest dairy producing state in New England, and dairy products (milk, dairy beef, and forage crops grown for livestock) account for upwards of 83% (≈ \$584 million, adjusted for inflation to 2010 dollars) of the state's agricultural products' sales, and as much as 90% depending on market prices. The *Vermont in Transition* report of the [Council on the Future of Vermont](#) indicated that “no other state has a single commodity that accounts for such a high percentage of its total agricultural sales.” Despite the longstanding importance of Vermont's dairy industry, volatile conventional milk prices, concentration in the dairy industry, rising farm input expenses, and many other factors have impacted its perceived and actual sustainability for decades.

Strategies / Actions

- 🍎 Increase number of dairy farmers participating in technical assistance and business planning services, (e.g., relating to diversification strategies, reducing farm production expenses, farm transfers, and retirement planning).
- 🍎 Make accessible all basic research and increase technical assistance on dairy industry opportunities for reducing production expenses, diversification, transitioning to organic, solving nutrient management issues, expanding dairy beef sales, and so on.
- 🍎 Expand marketing campaigns for Vermont dairy products.
- 🍎 Increase the number of on-farm dairy processing facilities over the next ten years to expand production of valued added (e.g., yogurt) or milk component (e.g., protein powder) products for all market outlets.

Cross-Reference: Goals 1-2; Goals 4-7; Goal 9; Goal 11; Goal 19; *Chapter 3, Section 3: Food Production—Dairy; Appendix B: Revitalizing Vermont's Dairy Industry; Dairy Development Working Group; Technical Assistance Working Group.*

Key Indicator: Vermont Dairy Farm Gains and Losses, 2007

Dairy Farms Reporting:	Gains and Losses	
	Gains of-	Losses of-
Less than \$1,000	1	11
\$1,000 to \$4,999	44	32
\$5,000 to \$9,999	36	29
\$10,000 to \$24,999	101	45
\$25,000 to \$49,999	181	17
\$50,000 or more	607	37
Total	970	171

Source: USDA 2007 Census of Agriculture, Table 62, www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1_Chapter_1_State_Level/Vermont/st50_1_062_062.pdf.

Measurements and Data Sources

- 🍎 Number of dairy farms and processing facilities in Vermont and in the region (VAAFMT)
- 🍎 Number of dairy farms producing value-added dairy products or supplying milk to value-added producers (VAAFMT)
- 🍎 Milk production (NASS)
- 🍎 Net farm income (Census of Agriculture)
- 🍎 Number of dairy farms working with Dairy Management Teams or similar technical assistance provider (multiple sources)
- 🍎 Milk prices compared to the average cost of production (conventional and organic) (NASS)
- 🍎 Development of regional supply management system



Chapter 3, Section 3: Food Production

Goal 9: The majority of farms will be profitable.

Objective: To increase the net incomes of Vermont farms.

Synopsis

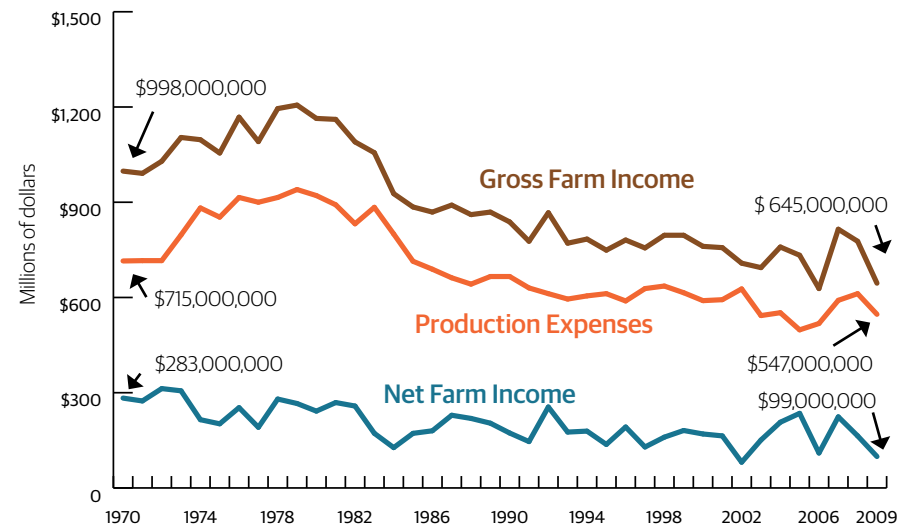
2007 Census of Agriculture data indicates a strong correlation between farm scale and the potential to achieve net gains versus net losses. Small Vermont farms constituted 78% of all farms with net gains and 95% of all farms with net losses! A slight majority (52%) of farms with under \$100,000 in sales had net gains, while 48% experienced losses. The number of larger farms with net gains, on the other hand, far outnumbered the number of large farms with net losses. Among farms with between \$100,000 and \$249,000 in sales in which farming was the primary occupation, 86% realized a net gain; 93% of farms with \$250,000 to \$499,000 in sales realized a net gain; and 95% of farms with over \$500,000 in sales realized a net gain from farming operations.

Strategies / Actions

- 🍷 Improve the business skills of all farms by providing expanded and enhanced business planning and technical assistance.
- 🍷 Develop streamlined farm finance programs that focus on cost of production analysis.
- 🍷 Develop a centralized, coordinated online platform as a “one-stop shop” for farms to easily find appropriate services (e.g., through the Vermont Food System Atlas).
- 🍷 Increase opportunities for local producers to access all types of markets.
- 🍷 Evaluate the needs of producer and processor associations in order to improve the services they offer their members.

Cross-Reference: Goal 1; Goal 7; Goal 8; Goal 13; Goal 19; *Chapter 3, Section 3: Food Production*; Technical Assistance Working Group.

Key Indicator: Vermont Aggregate Gross Farm Income, Production Expenses, and Net Farm Income



Source: USDA Economic Research Service, adjusted for inflation to 2010 dollars.

Measurements and Data Sources

- 🍷 Net farm income (Census of Agriculture)
- 🍷 Number of farms with farming as a primary occupation (Census of Agriculture)
- 🍷 Number of small family farms (Census of Agriculture)
- 🍷 Farm employment (Census of Agriculture)
- 🍷 Net gains and losses by scale of farm operation (Census of Agriculture)
- 🍷 Number of clients served by technical assistance organization, by farm type (Technical Assistance WG)



Chapter 3, Section 3: Food Production

Goal 10: All Vermonters will have a greater understanding of how to obtain, grow, store, and prepare nutritional food.

Objective: To increase the number of training and learning opportunities available (e.g., in food production and preservation techniques) and the number of participants.

Synopsis

The long-term goal of a truly secure food system in Vermont is to maximize the ability of all of residents to purchase or cultivate food for themselves whenever possible. Community food security programs seek to build capacity and infrastructure to enable individuals and communities to grow, access, and prepare fresh, nutritious foods for themselves in a long-term, sustainable manner.

Strategies / Actions

- 🍅 Secure federal funds to increase the number and capacity of Farm to School programs in every school.
- 🍅 Establish community or school gardens within walking or bicycling distance of every population center in Vermont with a population of 500 or more.
- 🍅 Perform impact evaluations of organizations and programs that focus on increasing “food literacy.” Share best practices across all food security stakeholder groups.
- 🍅 Educate recipients of federal and state food assistance to make healthy and safe food choices. Increase education about food shopping skills and local purchasing.
- 🍅 Increase the number of training programs (e.g., *Learning Kitchen*) that offer food preparation and nutrition programs.
- 🍅 Increase the number of Healthy Retailer locations throughout the state.

Cross-Reference: Goals 2-3; Goal 16; *Chapter 4, Section 1: Food Security in Vermont*; USDA *Food Environment Atlas*; Consumer Education and Marketing Working Group.

Key Indicator: Number of Public Gardens in Vermont

Counties	Allotment Gardens	Group/Community Gardens	School Community Gardens
Addison	3	2	7
Bennington	2	1	
Caledonia	4	2	2
Chittenden	13	28	11
Essex			1
Franklin	2	3	2
Grand Isle		1	
Lamoille	2	2	8
Orange		1	3
Orleans	2	4	14
Rutland	1	2	5
Washington	6	2	4
Windham	7	2	9
Windsor	9	4	6
Total	51	54	72

Source: Vermont Community Garden Network

Measurements and Data Sources

- 🍅 Number of Farm to School programs (Vermont Farm to School Network; VAAFMM)
- 🍅 Number of community gardens (Vermont Community Garden Network)
- 🍅 Healthy Retailers (# of retailers by location; Vermont Department of Health)



Chapter 3, Section 4: Food Processing and Manufacturing

Goal 11: Vermont's food processing and manufacturing capacity will expand to meet the needs of a growing food system.

Objective: To increase the infrastructure and capacity of value-added food processing and manufacturing facilities.

Synopsis

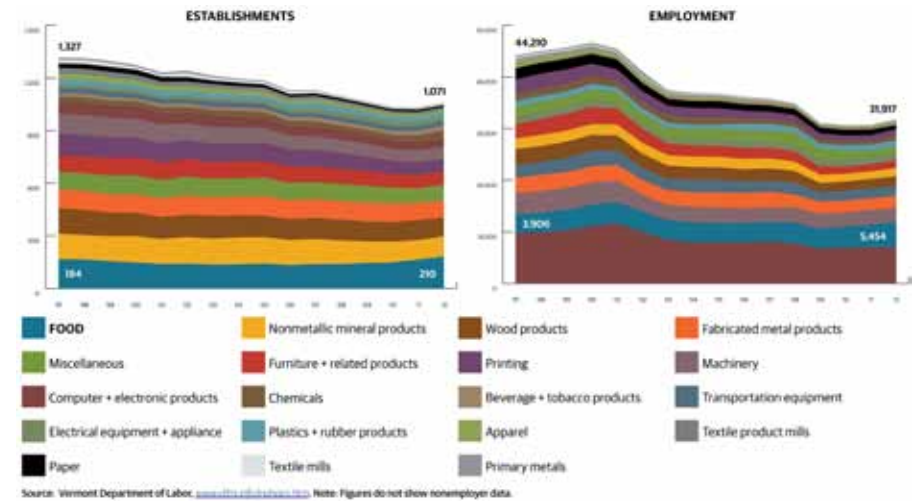
Throughout the F2P planning process, we heard from Vermonters who believe that Vermont should have additional in-state multi-purpose processing facilities available for farmers and food entrepreneurs. However, getting from that expressed desire to viable business models can be a complicated process, and a comprehensive inventory of shared food processing and manufacturing facilities has never been conducted in Vermont.

Strategies / Actions

- 🍏 Inventory capacities of existing multi-purpose food processing, manufacturing, and co-packing facilities, commercial kitchens, and food hubs able to serve producers interested in value-added processing.
- 🍏 Support regional food hubs in the development of food aggregation facilities for small to medium-size producers
- 🍏 Provide technical assistance and access to the right match of capital to farmers who want to ramp up their production to serve institutional markets with lightly processed fruits and vegetables.
- 🍏 Establish an online guide and a regulatory ombudsman to help prospective food processors determine the regulatory paths they need to follow, keep the guide up to date, and analyze proposed changes to food regulations.
- 🍏 Review and implement findings of workforce needs assessment currently underway by Education and Workforce Development Working Group.

Cross-Reference: Goal 7; Goal 12; Chapter 3, Section 4: Food Processing and Manufacturing; Technical Assistance Working Group.

Key Indicator: Vermont Manufacturing Establishments + Employment, 1997-2012



Food manufacturing is one of only four manufacturing sectors that saw establishment (N = +26, 14.1%) and employment (N = +1,548, 24.9%) growth from 1997 to 2012, even though the total number of manufacturing establishments (-19.3%) and total manufacturing employment (-27.8%) decreased during that time period.

Measurements and Data Sources

- 🍏 Number and types of multi-purpose processing and manufacturing facilities (multiple sources)
- 🍏 Number of employees at processing and manufacturing facilities (Department of Labor)
- 🍏 Annual investment in processing and manufacturing facilities (Financing Crosscutting Team)
- 🍏 Annual sales by type of processing and manufacturing facility (Economic Census)



Chapter 3, Section 5: Wholesale Distribution and Storage

Goal 12: A sufficient supply of all scales and types of on-farm and commercial storage, aggregation, telecommunications, and distribution services will be available to meet the needs of increasing year-round food production and consumer demand.

Objective: To **increase** the capacity of Vermont's food distribution system to serve more farms and value-added food businesses, and reach additional market outlets.

Synopsis

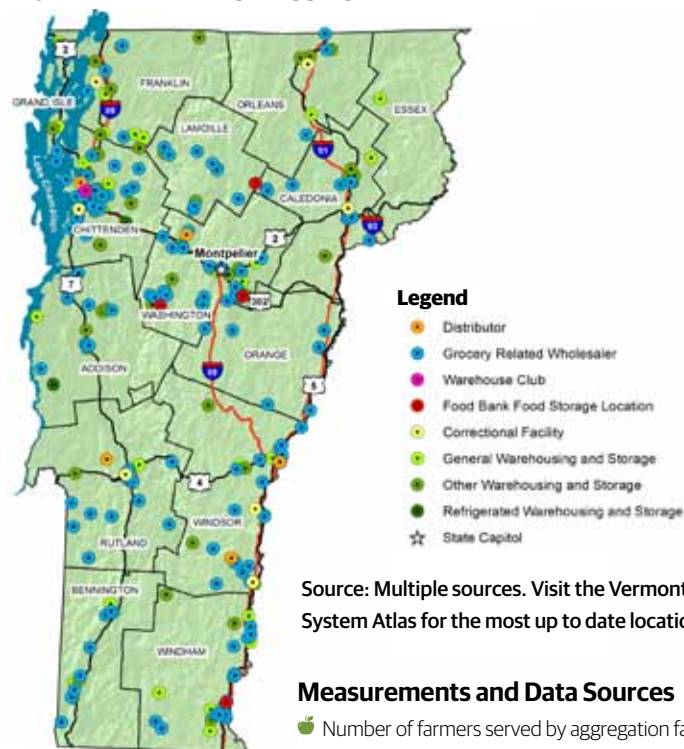
The consolidation and concentration of retailing, distribution, and processing over the past 25 years has made it difficult for small and medium-sized farms and food enterprises to gain access to traditional retail markets. Given the scale limitations of Vermont agriculture, competing in a volume-oriented, low-cost environment is extremely challenging.

Strategies / Actions

- 🍏 Support the development of food aggregation centers throughout the state, and/or help expand the existing distributor warehouse network, so that small to medium-sized producers can more easily reach retail outlets.
- 🍏 Review and implement findings of institutional demand study conducted by [NOFA Vermont](http://NOFA.Vermont).
- 🍏 Create a statewide inventory of food storage facilities.
- 🍏 Develop trainings for procurement category managers at grocery stores and supermarkets on how to access local food.
- 🍏 Encourage the formation of strategic partnerships between producers interested in scaling up to meet larger-scale markets and retailers interested in sourcing more local food.
- 🍏 Articulate and disseminate emerging distribution models.

Cross-Reference: Goal 7; Goal 11; Goal 13; Goal 15; Chapter 3, Section 5: Wholesale Distribution and Storage; *Appendix C: Connecting the Dots*; Aggregation and Distribution Working Group.

Key Indicator: Storage, Aggregation, and Distribution Infrastructure



Source: Multiple sources. Visit the Vermont Food System Atlas for the most up to date locations.

Measurements and Data Sources

- 🍏 Number of farmers served by aggregation facilities (multiple sources)
- 🍏 Number of aggregation and storage facilities (multiple sources)
- 🍏 Annual investment in distribution infrastructure (multiple sources)
- 🍏 High-speed internet and cell coverage by region (BroadbandVT.org)



Chapter 3, Section 6: Retail Distribution

Goal 13: Local food will be available at all Vermont market outlets and increasingly available at regional, national, and international market outlets.

Objective: To increase the amount of locally produced and processed food available in local and regional retail outlets.

Synopsis

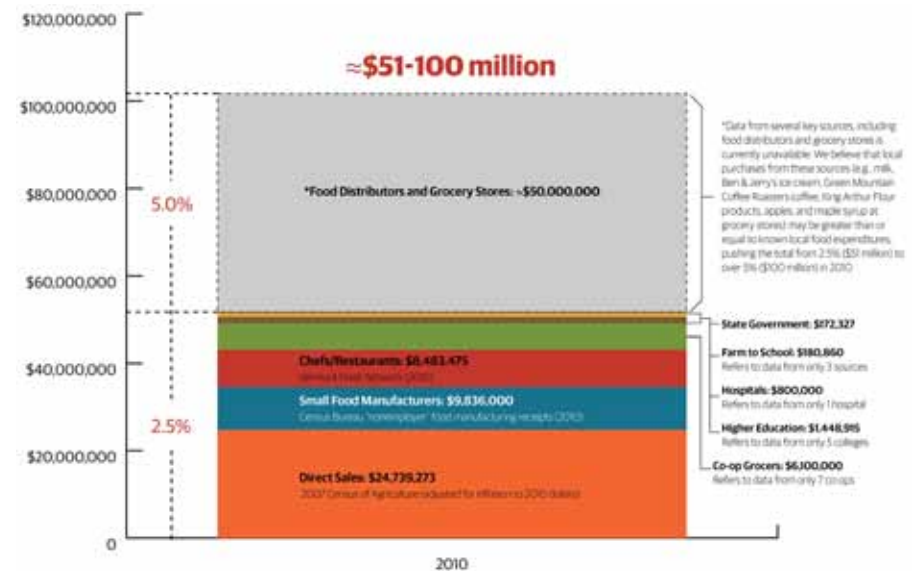
Demand for locally sourced food is growing throughout the Northeast region, and direct sales (e.g., via farmers markets, CSAs, farm stands, the Internet) are booming. Increasing Vermont producers' access to all types of local and regional grocery stores, restaurants and institutions—where most food is purchased—is a necessary precursor to significantly expand consumption of locally grown products. A key insight of our research is that, to be successful, food enterprises must align their stage of development and the type and scale of their operations with suitable market outlets.

Strategies / Actions

- 🍏 Conduct technical assistance trainings for grocery store managers to improve the signage and product placement of local foods to increase visibility, accessibility, and integration. Increase number of retail outlets showing local purchases on receipts.
- 🍏 Conduct local and statewide matchmaking events and follow up with resources for producers and buyers.
- 🍏 Advance strategic partnerships among farmers, public agencies, private businesses, and nonprofit organizations through joint marketing initiatives, ad sponsorships, matchmaking events, and market-building and networking opportunities.
- 🍏 Foster partnerships between food system businesses, industry associations, colleges, and private businesses that are developing innovative applications of technology (e.g., social media mobile platforms) for marketing food products.

Cross-Reference: Goal 1; Goal 7; Goal 12; Chapter 3, Section 6: Retail Distribution; Appendix C: Connecting the Dots; Consumer Education and Marketing Working Group; Aggregation and Distribution Working Group; Technical Assistance Working Group.

Key Indicator: Estimates of Local Food Expenditures in Vermont



Measurements and Data Sources

- 🍏 Local food expenditures as percentage of total food expenditures (multiple sources)
- 🍏 Per capita direct sales (Census of Agriculture)
- 🍏 Number of retail outlets carrying Vermont food products (multiple sources)
- 🍏 Annual marketing budget for Vermont food products (multiple sources)
- 🍏 Annual number of matchmaking events (VAAFMI)
- 🍏 Number of food producers and processors selling food in grocery stores (multiple sources)



Chapter 3, Section 7: Nutrient Management

Goal 14: Organic materials from farms (e.g., livestock manure) and food scraps will be diverted from landfills and waterways and used to produce compost, fertilizer, animal feed, feedstock for anaerobic digesters, and other agricultural products.

Objective: To increase the diversion of organic/compostable materials from landfills to compost production and other products.

Synopsis

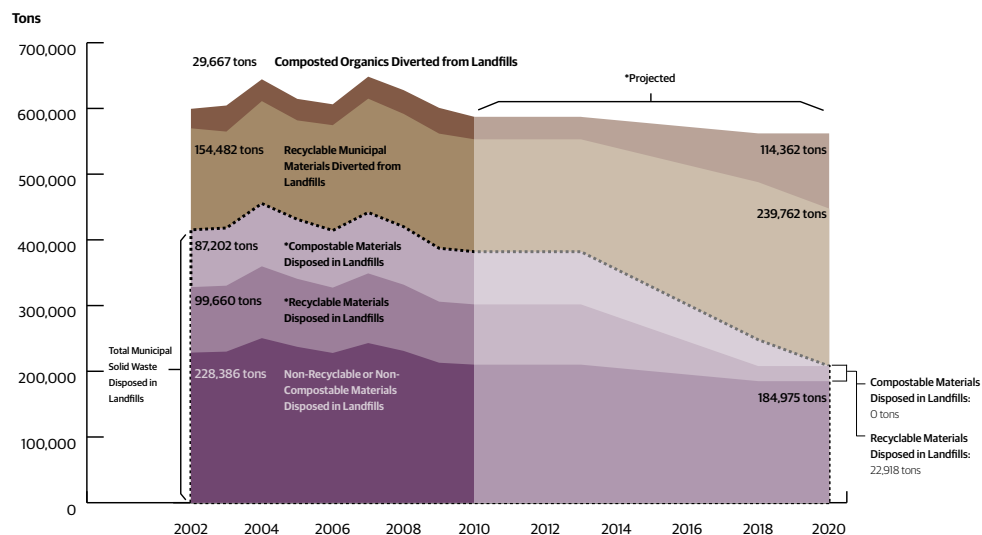
Food scraps commonly end up in landfills, but composting is increasingly being utilized in Vermont by farmers, schools, homeowners, and others as a way to recover nutrients and recycle them. The Vermont Legislature recently passed *Act 148* which requires that recyclable materials, including leaf, yard, and food residuals be diverted from landfills. By 2020, anyone generating food scraps will be required to manage them on site or off site. Additionally, Vermont livestock are estimated to produce over 4 million tons of manure per year.

Strategies / Actions

- 🍏 Solid waste districts, the *Agency of Natural Resources*, compost industry stakeholders, and others should evaluate the current source separation system in the state and indicate actions needed to meet Act 148.
- 🍏 Develop a comprehensive statewide public education campaign on composting.
- 🍏 Increase peer to peer outreach by farmers to communicate the benefits of CREP and EQIP grants, nutrient management plans, and the implementation of best practices to increase organic matter in soils.
- 🍏 Increase the number of dairy farms using anaerobic digesters as a waste management solution.

Cross-Reference: Goals 4-8; Goal 10; Goal 23; *Chapter 3, Section 2: Farm Inputs*; Chapter 3, Section 7: Nutrient Management.

Key Indicator: Organic Materials Diverted from Landfills



Source: Vermont Department of Environmental Conservation, Waste Management Division. *Note: Compostable and recyclable materials disposed in landfills based on 2001 Vermont Waste Composition Study. Projections of diversion based on 5-year state goals set in the Materials Management Plan, and mandated organics diversion goals established by Act 148. Note that estimates do not account for the dynamic between potential increases in population and associated increases in total tons, and increases in source-reduction—which would likely lead to a decrease in total tons and total composted tons.

Measurements and Data Sources

- 🍏 Tons of organics diverted from landfills per year (Agency of Natural Resources)
- 🍏 Number and location of composting operations (Agency of Natural Resources)
- 🍏 Farmer enrollment in water quality management programs (VAAF)
- 🍏 Number of dairy and livestock farms using anaerobic digesters for electricity and/or heat (VT Energy Atlas)
- 🍏 Number of restaurants and other food establishments that compost (Solid Waste Districts)



Chapter 4, Section 1: Food Security in Vermont

Goal 15: All Vermonters will have access to fresh, nutritionally balanced food that they can afford.

Objective: To **decrease** number of food insecure Vermonters and **increase** access to healthy, affordable food for all Vermonters.

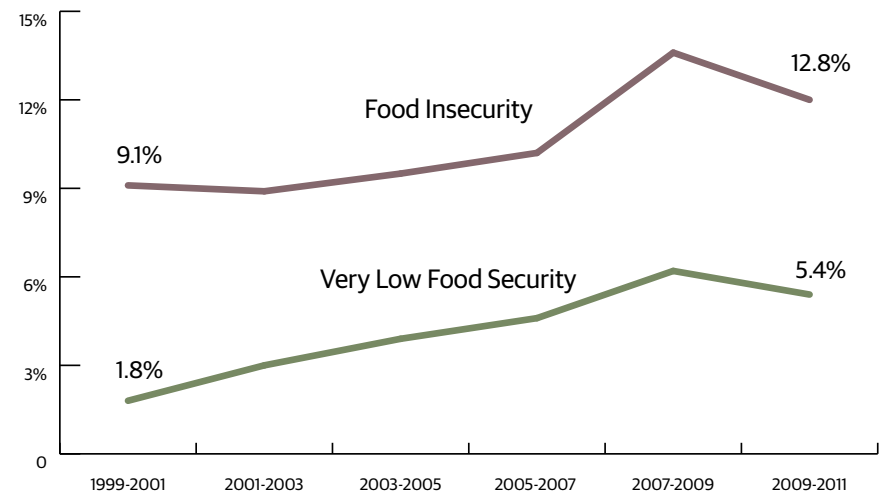
Synopsis

The percentage of food insecure Vermont households increased from an average of 9.1% (over 22,000 households) from 1999 to 2001 to an average of 12.8% (over 33,000 households) from 2009 to 2011. Vermont ranks 20th in the nation for the prevalence of food insecurity, third highest in New England after Maine and Rhode Island. As the cost of food continues to rise and the impacts of the recession linger, many Vermonters, including many farmers, are forced to make difficult choices. For example, they may choose inexpensive, unhealthy food so that they can afford other basic necessities such as heat, transportation, and medicine.

Strategies / Actions

- 🍏 Increase the ability to integrate local purchasing into supplemental assistance programs (e.g., fruits and vegetable vouchers, Farm to Family coupons).
- 🍏 Perform impact evaluations of organizations and programs that focus on increasing food access. Share best practices across all food security stakeholder groups.
- 🍏 Establish and fully fund gleaning programs and coordinators in every region of the state by 2014.
- 🍏 Identify and address the needs of food insecure groups that are unserved or underserved (i.e., immigrants, elders, and the homeless).

Key Indicator: Percentage of Food Insecure Vermont Households



Source: USDA Economic Research Service

Measurements and Data Sources

- 🍏 Food insecurity by region (# and %; USDA)
- 🍏 Vermonters enrolled in supplemental assistance programs (e.g., federal Supplemental Nutrition Assistance Program [SNAP], formerly called Food Stamps) (Department for Children and Families)
- 🍏 Number of Vermonters using emergency food system (DCF)
- 🍏 Number of farmers' markets accepting EBT cards or Farm to Family coupons (NOFA Vermont, DCF)
- 🍏 Gleaning and farm programs (# and acres of farms, type and weight of production, # of recipients, Vermont Foodbank)
- 🍏 Number of community gardens (Vermont Community Garden Network)
- 🍏 Number of participants in cooking or nutrition education classes (multiple sources)
- 🍏 Number of Transition Towns that have food skills development classes or workshops (Transition Vermont)

Cross-Reference: Goals 1-3; Goal 10; *Chapter 4, Section 1: Food Security in Vermont*; USDA *Food Environment Atlas*; Food Access Cross-Cutting Team.



Chapter 4, Section 2: Food System Education

Goal 16: Vermont K-12 schools, Career and Technical Education Centers, and institutions of higher education will offer a wide range of curricula, certificate and degree programs, and conduct research aimed at meeting the needs of Vermont's food system.

Objective: To increase educational resources for strengthening Vermont's food system.

Synopsis

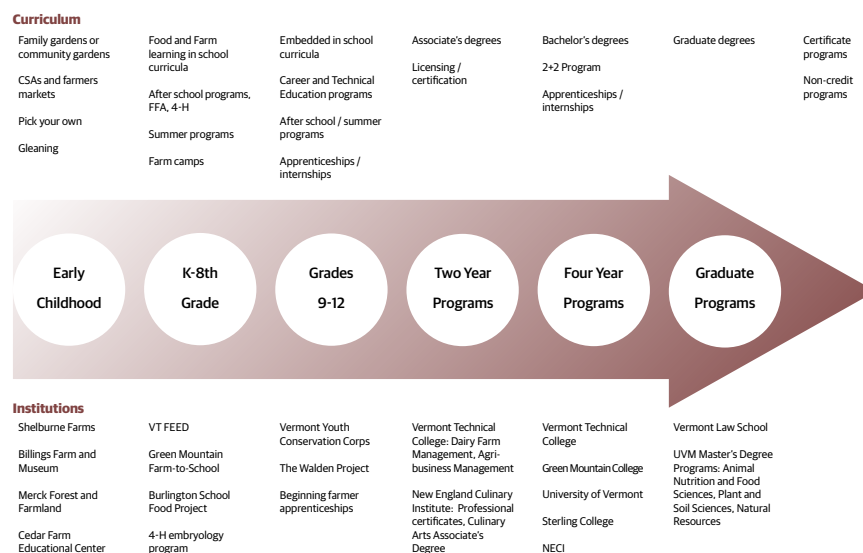
The success and resilience of Vermont's food system depends, in part, on its educational institutions for scientific knowledge, resources, best practices, skilled leadership, networking opportunities, and student training. Vermont's Farm to School offerings are considered a model by the national farm to school movement. Many out-of-school activities are grounded in farming: Thousands of Vermont residents have participated in 4-H activities related to agriculture, and thousands more have participated in the *Future Farmers of America* Vermont state chapter. Several of Vermont's colleges and the *University of Vermont* offer an expanding array of food system course offerings.

Strategies / Actions

- Develop Vermont's capacity to be the premier food education location in the United States (including distance learning programs).
- Review and implement findings of workforce needs assessment currently underway by Education and Workforce Development Working Group.
- Develop a cadre of local businesses and food producers willing to enhance food curricula by becoming involved in course work, giving lectures, and providing out-of-school or experiential opportunities.
- Develop a career pathways portal (e.g., www.getahead.co.nz or www.mcclurevt.org/pathways) on the Vermont Food System Atlas.

Cross-Reference: Goal 2; Goals 17-19; Chapter 3, Section 1: *Understanding Consumer Demand*; Chapter 4, Section 2: *Food System Education*; Education and Workforce Development Working Group.

Key Indicator: Number of Learning Opportunities Available



Measurements and Data Sources

- Number of higher education courses and degree offerings focused on the food system (multiple sources)
- Number of graduates from food system-related higher education programs (multiple sources)
- Number of Farm to School programs (Vermont Farm to School Network)
- Number of food system research projects annually (UVM Food Spire, other educational institutions)
- Course offerings for food system-related occupations at Career and Technical Education Centers
- Number of short-term certificate and/or noncredit programs for adults to fill skill gaps in areas of food-related business management, direct marketing, and so on (multiple sources)



Chapter 4, Section 3: Food System Workforce Development

Goal 17: The number of locally owned and operated food system businesses in Vermont is increasing.

Objective: To increase the number of food system establishments and employees.

Synopsis

About 60,000 Vermonters are employed as farmers, cheese makers, brewers, bakers, butchers, grocery stockers, restaurateurs, chocolatiers, manufacturers, distribution drivers, vintners, and other food related jobs. Growing interest in local foods has increased the number of people looking to build a career in Vermont’s food system. New farmers and entrepreneurs—as well as existing farmers and businesses looking to expand—will likely require assistance with business planning, marketing, and navigating regulations for operating safe and legal businesses.

Strategies / Actions

- 🍷 Review and implement findings of workforce needs assessment currently underway by Education and Workforce Development Working Group.
- 🍷 Articulate and publicize education pathways for a variety of food system careers.
- 🍷 Facilitate conversation between relevant stakeholders (e.g., between teachers, employers and educational/workforce development administrators) to develop food system workforce development programs and curricula.
- 🍷 Increase the number of entrepreneurs and businesses participating in business planning and technical assistance programs.
- 🍷 Perform SWOT analysis of existing internship, apprenticeship, and mentorship programs in order to identify opportunities for improvement.

Cross-Reference: Goal 16; Goal 18; Goal 19; Chapter 4, Section 3: Food System Workforce Development; *Chapter 4, Section 2: Food System Education*; Education and Workforce Development Working Group; Technical Assistance Working Group.

Key Indicator: Food System Employment



🍷 + 🍷 = 2007 Census of Agriculture

🍷 + 🍷 + 🍷 + 🍷 + 🍷 = 07-10 Nonemployer Statistics, Vermont Department of Labor, Quarterly Census of Employment and Wages 2007-2012

Measurements and Data Sources

- 🍷 Food system employment (# and annual % change; multiple sources)
- 🍷 Food system establishments (# and annual % change; multiple sources)
- 🍷 Number of graduates from farm incubation programs who own their own farms (multiple sources)
- 🍷 Number of graduates from Food Venture Center and similar programs who own their own businesses (VFVC)



Chapter 4, Section 3: Food System Workforce Development

Goal 18: Vermont's food system establishments will provide safe and welcoming working conditions, livable wages, and have access to a skilled, reliable workforce.

Objective: To **increase** the number of livable wage jobs in the food system and to **increase** workplace safety.

Synopsis

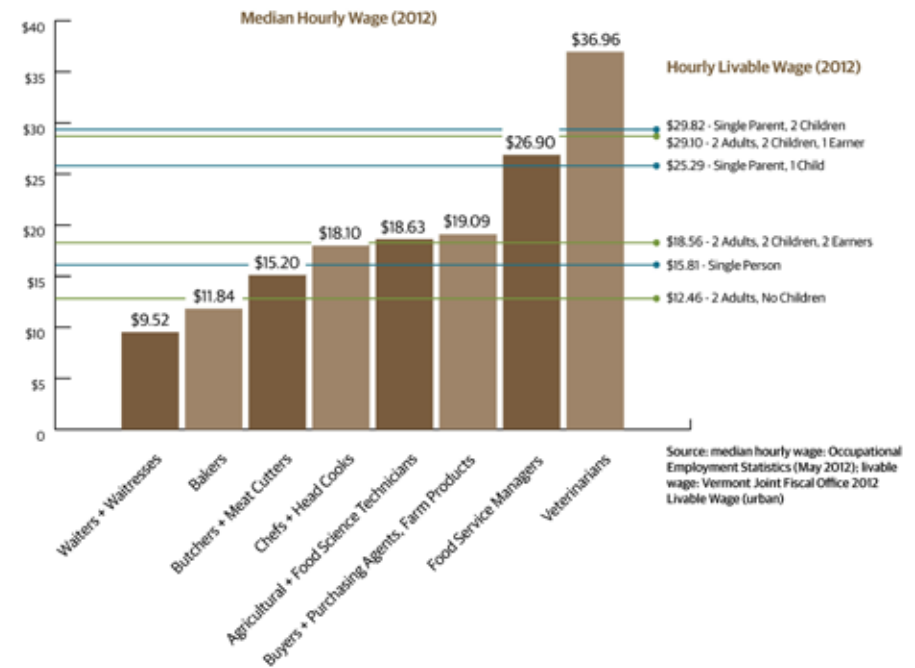
The complexity of Vermont's food system means that workers experience a wide variety of wages, safety risks, and working conditions. For example, farming is one of the most dangerous occupations in the nation, and other food systems occupations, including meat cutting and livestock slaughter, are also higher-risk jobs. The high cost of workers' compensation insurance was identified as a barrier to farms and businesses interviewed during the F2P planning process.

Strategies / Actions

- 🍷 Review and implement findings of *Charting a Course*, the workforce needs assessment completed by the Education and Workforce Development Working Group.
- 🍷 Perform SWOT analysis of farm and other food system safety programs and identify areas in need of improvement in order to reduce worker's comp rates.
- 🍷 Evaluate wage/salary differences between food system union workers and non-union workers; explore opportunities for food system unions in Vermont.
- 🍷 Facilitate conversation between relevant stakeholders (e.g., between teachers, employers and educational/workforce development administrators) to develop food system workforce development programs and curricula.
- 🍷 Improve the system for hiring migrant farm workers/guest workers and the visa/H-2A program (federal policy changes are needed).

Cross-Reference: Goal 16; Goal 17; Goal 19; Chapter 4, Section 3: Food System Workforce Development; *Chapter 4, Section 2: Food System Education*; Education and Workforce Development Working Group.

Key Indicator: Food System Wages (Sample)



Measurements and Data Sources

- 🍷 Median wage by food system enterprise compared to a Vermont livable wage (Vermont Joint Fiscal Office)
- 🍷 Number of participants in Rural and Agricultural VocRehab (RAVR) and Farm Safety programs (UVM)
- 🍷 Number of food system workplace injuries (Bureau of Labor Statistics, Department of Health)
- 🍷 Worker's compensation rates by industry/category (insurance companies)



Chapter 4, Section 4: Food System Business Planning and Technical Assistance

Goal 19: Business planning and technical assistance services will be highly coordinated, strategic, and accessible to Vermont's food system businesses.

Objective: To increase the number of food system businesses using business planning and technical assistance services.

Synopsis

While there are many public and private business planning and technical assistance programs and services available, many food system stakeholders and F2P focus group participants noted that they sometimes don't know where to start to find the most appropriate service to meet their specific needs.

Strategies / Actions

- 🍷 Develop a centralized, coordinated online platform as a “one-stop shop” for food system businesses to easily find appropriate services (e.g., through the Vermont Food System Atlas).
- 🍷 Develop a shared referral process between technical assistance programs to ensure that technical assistance providers are knowledgeable about all types of options available in Vermont and that businesses get linked up with best possible provider for their needs.
- 🍷 Provide professional development and encourage co-learning and networking opportunities for technical assistance providers so they have the skills and understanding to adequately meet the needs of food system businesses.
- 🍷 Develop and share impact measures for business planning and technical assistance services.
- 🍷 Conduct research on the impacts of climate change and severe weather on production, and disseminate this information to help food system businesses mitigate and adapt to the impacts of climate change.

Cross-Reference: Goals 4; 8-9; 11-14; 17-18; 22-25; *Chapter 4, Section 4: Food System Business Planning and Technical Assistance*; Technical Assistance Working Group.

Key Indicator: Types of Data Collected by Technical Assistance Providers

Type of Measurement	Response %	Response Count
Number of jobs created	27.3%	9
Number of people/organizations served	84.8%	28
Referrals to other Technical Assistance Providers	33.3%	11
Satisfaction of client with services	51.5%	17
Scale of operation of clients served	36.4%	12
Services were coordinated with other TA Providers	36.4%	12
Services met client's expectations	45.5%	15
Services were relevant	48.5%	16
Services were timely	21.2%	7
Stage of Development of clients served	21.2%	7
Type of clients served	69.7%	23
Answered question		33

Source: Yellow Wood Associates.

NOTE: We know the kinds of information that TA providers collect, but we have not aggregated this data yet. The Technical Assistance Working Group will be collecting this data in 2013.

Measurements and Data Sources

- 🍷 Annual referrals by type of business and stage of business development (Technical Assistance WG)
- 🍷 Annual number of farms/businesses working with service providers (Technical Assistance WG)
- 🍷 Outcomes by type of technical assistance provided (Technical Assistance WG)
- 🍷 Annual funding of technical assistance organizations (survey)
- 🍷 Revenue generated by fee for service (survey)



Chapter 4, Section 5: Financing the Food System

Goal 20: Food system entrepreneurs and farmers will have greater access to the right match of capital (grants, loans, mezzanine debt, equity, loan guarantees, leases, and incentives) to meet their financing needs at their stage of growth and for their scale of business.

Objective: To increase investments in food system enterprises.

Synopsis

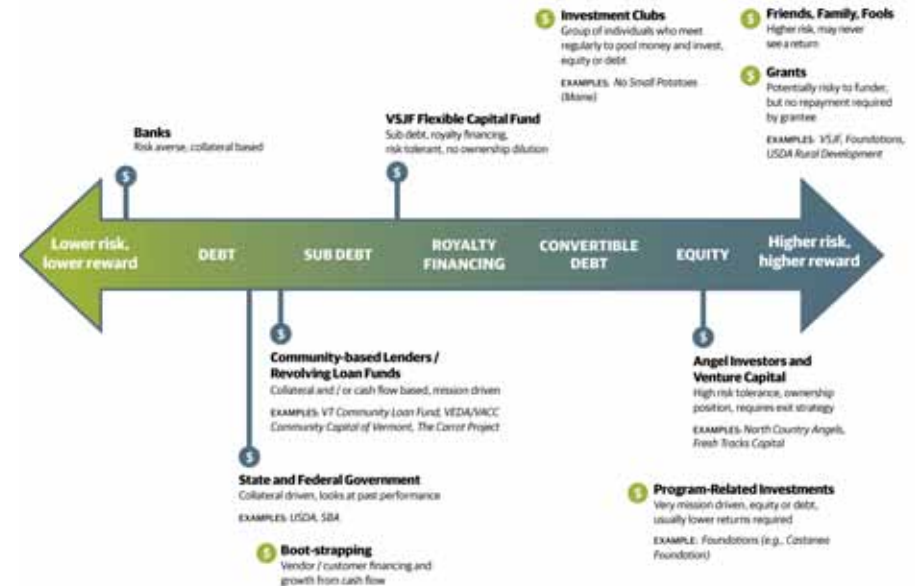
A new paradigm of financing the development of our food system is emerging—one that recognizes that a start-up farmer has drastically different financing needs than a growth company selling value-added meat products, a dairy farmer selling milk into the commodity market or a distributor of local and regional foods that is expanding its service territory. In short, agricultural businesses have different financing needs depending on their size, stage of growth, and market outlets.

Strategies / Actions

- 🍏 Maximize opportunities for entrepreneurs to connect with the right match of capital for their stage of growth, scale, and market channel.
- 🍏 Create comprehensive database of funding opportunities (based on need, business size, stage of development, scale, and market channel) for food system enterprises that can be accessed online to accelerate the process of finding capital providers.
- 🍏 Match business planning and technical assistance programs with borrowers in order to improve “borrower readiness” to receive funding.
- 🍏 Encourage innovation in food system enterprises through grant making programs, technical assistance, social networking opportunities, and linkages with research and development organizations.

Cross-Reference: Goals 7-9; Goals 11-14; Goal 17; Goal 22; *Chapter 4, Section 5: Financing the Food System*; Financing Cross-cutting Team.

Key Indicator: Food System Funding by Source of Capital



Measurements and Data Sources

- 🍏 Annual food system funding by source of capital (multiple sources)
- 🍏 Number of funding opportunities workshops and number of participants (Financing Cross-cutting Team)
- 🍏 Annual allocation of Working Lands Enterprise Fund grants and loans and leveraged \$ (WLEF, VAAFM)
- 🍏 Number of first time borrowers from VEDA, Yankee Farm Credit, and the Farm Service Agency (multiple sources)
- 🍏 Annual grants distributed to food system projects and organizations by Vermont Food Funders Network (Vermont Community Foundation)



Chapter 4, Section 5: Financing the Food System

Goal 21: Private foundations, state and federal funding sources, the Vermont Legislature, the governor’s administration, and food system investors will coordinate and leverage available resources to maximize the implementation of this Plan.

Objective: To increase strategic financial partnerships to strengthen Vermont’s food system.

Synopsis

A key development in the local food movement is that investors, lenders, foundations, the public sector, and philanthropic grant makers are all increasingly interested in sustainable agriculture as an important funding area, investment opportunity, or both. That is, there is an emerging opportunity to expand and coordinate the suite of financing resources that can be used to strengthen Vermont’s food system.

Strategies / Actions

- Convene key stakeholders to work with the *Vermont Community Foundation* and [Vermont Food Funders Network](#), to increase availability of regional and national foundation money being deployed in Vermont. Proactively identify and reach out and build relationships with foundations outside of Vermont that have an affinity for Vermont or a mission that supports food system activities.
- Create annual opportunities (i.e., networking events, site visits, workshops) for all types of capital providers, technical assistance / economic development entities to work together with the philanthropic community to identify ways in which they can partner in supporting key food system projects in Vermont.
- Develop and prioritize public funds to co-invest with private and other investors to accelerate the development of critical, capital-intensive food system infrastructure.
- Vermont legislature should allocate at least \$5 million annually to Working Lands Enterprise Fund.

Cross-Reference: Goals 7-9; Goals 11-14; Goal 17; Goal 22; *Chapter 4, Section 5: Financing the Food System*; Financing Cross-cutting Team.

Key Indicator: Networking Events for Food System Funders (Sample)

Event	Purpose
Slow Money National Gathering, April 29-30, 2013	Annual conference with entrepreneurs showcase exclusively dedicated to increasing patient, principled capital investment in innovative food system businesses. Considered the premier event for food entrepreneurs who are leading the way rebuilding local food systems around the country, looking to connect with thought leaders in agriculture, investing and philanthropy.
Vermont Investors Forum, April 4, 2013	Annual event produced by the University of Vermont for startup entrepreneurs with topics ranging from financing your business to business planning and intellectual property. Audience often includes value-added food entrepreneurs and investors.
Financing the Working Landscape, Addison County, November 29, 2012	This now annual event provides educational content on where agricultural and working lands businesses can find resources and financing to grow their business in Vermont. An entrepreneurs showcase is also included as part of this event.

Additionally, closed or by invitation only meetings happen on an ongoing basis with the Vermont Food Funders Network (philanthropic organizations), the Sustainable Ag and Food Systems Funders Network (national philanthropic) and the North Country Angel Investors.

Measurements and Data Sources

- Number and dollar value of annual grants and program-related investments (PRIs) from Vermont-based philanthropic sources (multiple sources)
- Number and dollar value of collaborations among food system funders and investors leading to the joint funding of projects of interest (multiple sources)
- Annual allocation of Working Lands Enterprise Fund grants and loans and leveraged \$ (WLEF, VAAFM)



Chapter 4, Section 6: Food System Energy

Goal 22: Food system enterprises will minimize their use of fossil fuels and maximize their renewable energy, energy efficiency, and conservation opportunities.

Objective: To **decrease** overall food system energy consumption and **increase** food system renewable energy production.

Synopsis

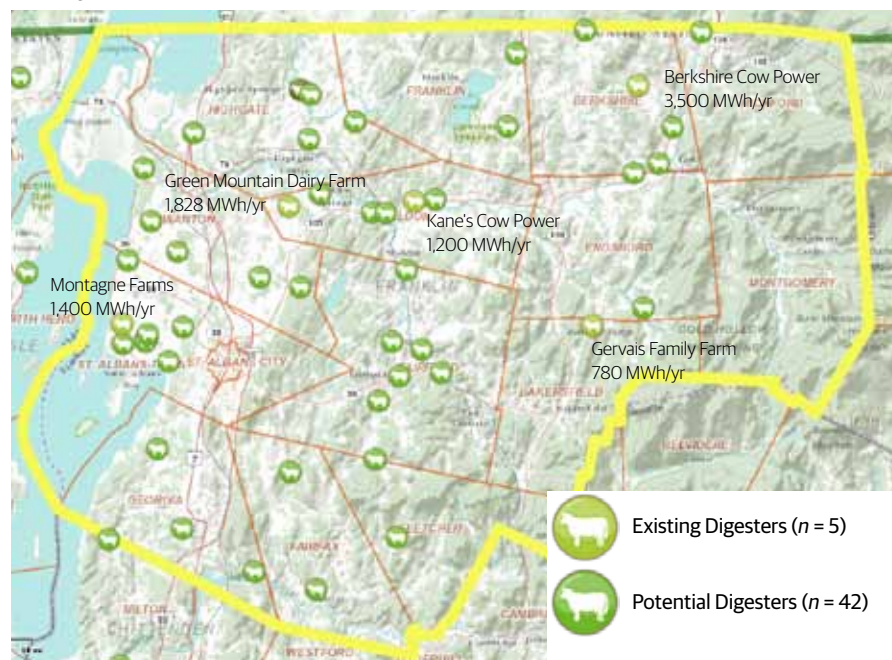
Food system activities consume a lot of energy, “from the manufacture and application of agricultural inputs, such as fertilizers and irrigation, through crop and livestock production, processing, and packaging; distribution services, such as shipping and cold storage; the running of refrigeration, preparation, and disposal equipment in food retailing and food service establishments; and in home kitchens.” The USDA reports that food-related energy use increased from 12.2% of national energy use in 1997 to 14.4% in 2002, and was an estimated 15.7% of use in 2007. The amount of money Vermont farmers spent on fuel increased 83% from \$18.7 million in 1997 to \$34.3 million in 2007, even though less fuel was purchased in 2007.

Strategies / Actions

- 🍏 Provide annual funding through Clean Energy Development Fund for on-farm energy projects; fund agricultural energy coordinator position at the VAAFM.
- 🍏 Widely publicize range of conservation and efficiency services offered by Efficiency Vermont to [farms](#), [K-12 schools](#), [colleges and universities](#), [convenience stores](#), [grocery stores](#), [manufacturers](#), and [restaurants](#).
- 🍏 Disseminate [The Farmer’s Handbook for Energy Self-Reliance](#) and other relevant publications and information to Vermont farmers.
- 🍏 Provide workshops, forums, and other events to connect food system businesses with renewable energy consultants, funders, and other technical assistance providers.

Cross-Reference: Goal 4; Goal 14; Chapter 4, Section 6: Food System Energy; Financing Cross-cutting Team.

Key Indicator: Food System Renewable Energy Production (Digesters, Franklin County)



Measurements and Data Sources

- 🍏 Number of dairy and livestock farms using anaerobic digesters for electricity and/or heat (VT Energy Atlas)
- 🍏 All other types of on-farm renewable energy production (VT Energy Atlas)
- 🍏 Gallons of on-farm biodiesel produced (VSJF)
- 🍏 Electricity consumption and savings by type of food system business (Efficiency Vermont)
- 🍏 Renewable energy production at non-farm food system locations (VT Energy Atlas)

Source: Renewable Energy Atlas of Vermont.



Chapter 4, Section 7: Food System Regulation

Goal 23: Regulations and enforcement capacity will ensure food safety, be scale appropriate, and allow Vermont food enterprises to increase production and expand their market outlets.

Objective: To **safeguard** public and ecological health while promoting the continued development of Vermont's food system.

Synopsis

The existing regulatory structure is an amalgam of federal, state, and local municipal laws and rules. The food system is governed by a series of federal regulations that sometimes offer exemptions for small businesses and small farms. Meanwhile, state agencies and departments work with the governor and the general assembly to create state regulations that are separate from the federal regulations. In addition, local municipalities develop zoning and other ordinances that may affect the food system. Maintenance of a credible and accountable federal and state regulatory structure is essential for the continued expansion of Vermont's food system.

Strategies / Actions

- Provide VAAFM and the Vermont Department of Health with sufficient funding and staff capacity to appropriately enforce state regulations under their jurisdictions.
- Review [A Legal Guide to the Business of Farming in Vermont](#) and identify any necessary updates. Disseminate this guide to all Vermont farmers and business planning and technical assistance service providers.
- Assess the need to create a legal guide for off-farm food system businesses (e.g., food processors or manufacturers).
- Annually convene [Vermont Law School Conference on Agriculture and Food Systems](#); ensure that the event is open to Vermont food system businesses and that presentations and/or research are widely disseminated.

Cross-Reference: Goals 1-22; *Chapter 4, Section 7: Food System Regulation*; Technical Assistance Working Group.

Key Indicator: Annual Food System Legislation (Sample)

Legislation	Description	Status
H.112 Genetic Engineering	Requires the labeling of food derived from GMOs.	Passed by the House in 2013.
H.21 Mutual Benefit Enterprises	The act creates a new corporate structure to allow producer co-ops to accept equity investments from nonproducer members (minority shares).	Became Act 84 in 2012.
H.485 Universal Recycling of Solid Waste	The act establishes a hierarchy of how food residuals should be managed for various available uses. The act requires generators of food residuals to separate food residuals from solid waste and manage the residuals on site or transfer them to a location for management. By July 1, 2020, any person generating any amount of food residuals will be required to manage the residuals on site or arrange for their transfer.	Became Act 148 in 2012.
H.496/S.246 Vermont Working Lands Enterprise Investment Bill	The act creates the Working Landscape Enterprise Fund and the Working Lands Enterprise Board, which will oversee the Fund. The intent is to stimulate a concerted economic development effort on behalf of Vermont's agriculture and forest products sectors by systematically advancing entrepreneurship, business development, and job creation.	Became Act 142 in 2012.

Measurements and Data Sources

- Summary of annual food system legislation (Vermont Legislature)
- Number of businesses using Made in Vermont brand to increase sales and visibility (VAAFM)
- Annual number of inspections and enforcement actions taken by VAAFM (VAAFM)
- Annual funding for Vermont regulatory agencies (Vermont Legislature)



Chapter 4, Section 8: Leadership and Collective Impact

Goal 24: Vermont's governor, legislature, and state agencies will continue to celebrate Vermont's food system and will champion it as an economic development driver for the state.

Objective: To **advance** state policy and financial support to implement strategies identified in the Farm to Plate Strategic Plan.

Synopsis

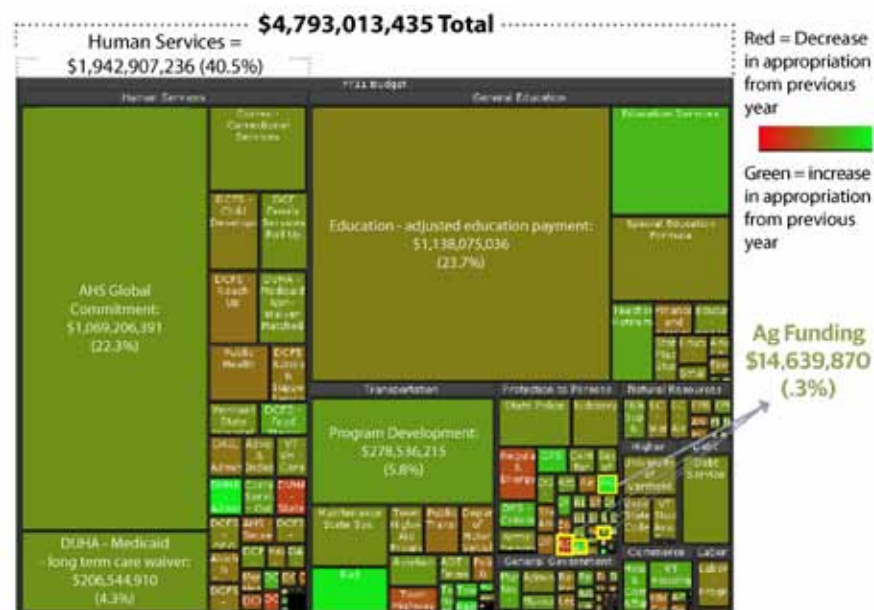
Despite Vermont's long history of agricultural production and the recognized strength of our food enterprises, a number of recurring issues, gaps, barriers, and structural problems impact our food system. A strong national movement is emerging that values strong local and regional food systems and many believe that a more proactive and strategic approach to food system development could lead to additional growth in this sector, spurring job creation and benefiting the state through import substitution, the expansion of the export economy, and healthier, more accessible food.

Strategies / Actions

- 🍏 Collect and disseminate annual progress toward Farm to Plate goals.
- 🍏 Relevant state agency representatives are actively engaged in Farm to Plate Network Working Groups, Task Forces, or Cross-cutting Teams.
- 🍏 State funding for the VAAF, Working Lands Enterprise Fund, Vermont Farm Viability Program, and other food system programs and organizations is commensurate to comprehensively meet statutorily mandated activities.
- 🍏 Promote Vermont's food system through all platforms (e.g., Made in Vermont brand, regional and state conferences) and media (e.g., Dig in Vermont, Vermont Food System Atlas).

Cross-Reference: Goal 25; Chapter 4, Section 8: Leadership, Communication, and Coordination across the Food System; Financing Cross-cutting Team.

Key Indicator: State Budget (FY 2011)



Measurements and Data Sources

- 🍏 Annual budget for Agency of Agriculture, Food and Markets (Vermont Legislature)
- 🍏 Annual budget for Working Lands Enterprise Board (Vermont Legislature)
- 🍏 Annual budget for Vermont Farm Viability Program (Vermont Housing and Conservation Board)
- 🍏 Annual budget for University of Vermont (Vermont Legislature)
- 🍏 The number of strategies in the Farm to Plate Strategic Plan implemented through legislative or other state government action (multiple sources)



Chapter 4, Section 8: Leadership and Collective Impact

Goal 25: Food system market development needs will be strategically coordinated.

Objective: To increase coordination and communication among food system organizations.

Synopsis

Given the sheer number of programs, activities, and organizations working to strengthen our food system, many are understandably confused about roles and responsibilities. Because the food system is so large and so complex, communication, coordination, and collaboration among stakeholders must evolve to a higher level. This is especially true for the community of nonprofit organizations, trade associations, state agencies, and funders that provide critical technical assistance for our food system.

Strategies / Actions

- 🍏 Promote Vermont's food system through all platforms (e.g., Made in Vermont brand) and media (e.g., Dig in Vermont, Vermont Food System Atlas).
- 🍏 Convene annual Farm to Plate Network gathering.
- 🍏 Convene supply chain coordination gatherings.
- 🍏 Promote and coordinate multi-stakeholder projects through Farm to Plate Network Working Group, Task Force, and Cross-cutting Team structure.
- 🍏 Collect and disseminate food system data through Vermont Food System Atlas.
- 🍏 Collect and disseminate annual progress toward Farm to Plate goals.
- 🍏 Provide guidance to other states considering developing food system plans.

Cross-Reference: Goals 1-24; Chapter 4, Section 8: Leadership, Communication, and Coordination across the Food System; All Farm to Plate Network Working Groups.

Key Indicator: Number of Farm to Plate Goals, Objectives, and Strategies Accomplished (Sample)

Section	Strategy	Status
Chapter 3, Section 3: Food Production - Livestock and Meat	Establish and fund technical assistance and training programs for skilled meat cutters and butchers.	Offered by Vermont Technical College and Hannaford Career Center starting in 2012.
Chapter 3, Section 3: Food Production - Maple Syrup	Complete the strategic planning process and implement the merger of the three statewide maple organizations with clearly defined roles and responsibilities.	This merger happened in 2011 and the VT Maple Sugar Makers Association is now the main industry group.
Chapter 4, Section 8: Leadership and Collective Impact	Develop a statewide food atlas. Include land use mapping data files, all F2P-related materials, a database of stakeholder organizations, links to local grower guides, matchmaking databases, capital provider sources and technical assistance program resources, a portal to regulatory information, a master calendar of events, job postings, etc., as well as links to all known organizational and business websites related to Vermont's food system.	The Atlas was launched in May 2013.
Chapter 4, Section 5: Financing the Food System	Provide food processing entrepreneurs with targeted access to in-depth / sophisticated technical / business assistance, outside networks and strategic guidance, to help them build a long-term, sustainable business model.	The Vermont Agriculture Development Program was created in 2011.

Measurements and Data Sources

- 🍏 Goals, objectives, strategies of F2P Strategic Plan accomplished (F2P Network)
- 🍏 Number of people and organizations actively engaged in the Farm to Plate Network (F2P Network)
- 🍏 Strength of ties within Farm to Plate Network (UVM study)

Highest-Priority Strategies

To advance the goals outlined in this chapter, we developed a set of objectives and strategies to overcome obstacles, realize opportunities, and strengthen Vermont's food system. These strategies acknowledge and support **existing** programs, projects, and initiatives because so much innovative, high-impact work is already happening that should be continued and coordinated. The strategies also seek to advance **new** ideas that have a high likelihood of strengthening Vermont's food system over the long haul.

The following table lists the highest-priority strategies that should be advanced over the next ten years. Financing these strategies will come from a combination of private sector, public sector (state and federal), and foundation sources. Determination of costs associated with each priority strategy is currently underway. Although many more strategies are outlined throughout Chapters 3 and 4, we believe these are the *highest leverage strategies*, that, if implemented, would have the potential to create the greatest ripple effect throughout the food system. Some strategies can be implemented at the same time, whereas others will need to be sequenced. And some may never come to pass if the right market conditions do not emerge (e.g., sufficient demand for lightly processed vegetables). It is important to note that these strategies are not prioritized within the table.

VSJF's market development approach was used to organize these objectives and strategies. This approach operates from the premise that there is no "invisible hand" guiding markets, but rather, consumers, governments, businesses, nonprofits, farmers, and others continuously make and shape markets. These ten market development needs are important for the success of individual businesses and for the development of the food system as a whole.

Market Development Needs

- **Research** (e.g., new data, mapping, market research, and new product research)
- **Natural Resource, Physical Infrastructure, and Technology** (e.g., land use and land access issues, developing new equipment, building needs, energy needs)
- **Sales and Distribution** (e.g., matching supply and demand, working with supermarkets to adjust business models to work with smaller growers)
- **Marketing and Public Outreach** (e.g., need for consumer food literacy and education and building consumer awareness)
- **Technical Assistance and Business Planning** (e.g., producer alignment with processor and wholesaler specifications, Good Agricultural Practices, Hazard Analysis & Critical Control Points, trainings, mentoring, and financial management)
- **Financing** (e.g., for specific types of businesses and stages of development)
- **Network Development** (e.g., support for existing networks and trade associations or the creation of new ones)
- **Education** (e.g., food system education at elementary schools, tech centers, and institutions of higher education)
- **Workforce Development** (e.g., need for skilled labor, health care and workers comp needs, needs of H-2A/guest workers)
- **Regulation and Public Policy** (e.g., new regulations or state and federal policies).

Highest-Priority Strategies

CHAPTER	OBJECTIVE	STRATEGY
<i>Research Strategies</i>		
3.1 Consumer Demand	To develop valid and accurate local food consumption data for use in tracking the progress of the F2P Plan.	Measure consumer demand: Establish a statistically valid, credible methodology and begin collecting data on how much locally and regionally produced food Vermonters are purchasing and how much Vermont-produced food regional consumers are purchasing.
	To preserve and enhance Vermont's quality brand and related value-added premiums.	Vermont quality and premiums: Develop and launch new Made in Vermont brand program; continue research on options for additional value-added premiums such as reserved designations, geographical indications, and terroir certifications.
3.2 Farm Inputs	To improve access to viable and affordable agricultural land and secure tenure for farmers (ownership and leases).	Land use mapping: Create and update a land use statewide spatial LiDAR database of agricultural land usage and an inventory of agricultural land that captures information on soil type, current land use, accessibility to roads, proximity to market areas, etc. Call attention to publicly owned land locations conducive to food production adjacent to publically owned buildings.
		Infill farming: Support legal research on embedding new farming activity in established and developing residential areas on productive agricultural land owned by nonfarmers. This effort should be coordinated with existing farmland access programs and should be included on the Vermont Food System Atlas website.
	To improve water quality, soil fertility, and organic matter and reduce erosion.	Comprehensive soil monitoring: Develop a more comprehensive soil monitoring program for a wide range of biological, chemical, and physical soil properties, including additional assistance to farmers to conduct regular soil tests and develop nutrient management plans, soil fertility enhancement strategies, erosion control strategies, flood mitigation strategies, and matching funds for farmers to comply with Ecosystem Restoration Program best practices.
3.3 Production	To increase the availability of Vermont-grown grains and dry beans in retail and wholesale market outlets.	Grain and dry bean market and processing infrastructure analyses: Conduct a regional market analysis of demand, packaging options, and marketing opportunities for a variety of grain and dry bean products. Include an analysis of the processing infrastructure needed to support high-demand products. Conduct an inventory of grain milling and other processing facilities in existence or being considered in Vermont and the region. Include recommendations for the grower and processor regarding packaging and marketing. Include an assessment of opportunities for value chain partnerships.
	To increase access to locally and regionally grown fish.	Fish production feasibility research: Conduct a feasibility study for developing economically viable recirculating fish production facilities that are heated with renewable fuels and can also support fruit and vegetable production in greenhouses. Advance associated research on algae as a fish food.

CHAPTER	OBJECTIVE	STRATEGY
Research Strategies		
3.4 Processing	To maximize opportunities for local producers to access existing institutional and other larger market outlets with lightly processed fruits and vegetables.	Serving institutional and larger market outlets: Explore business models and appropriate scale for fruit and vegetable processing facilities specifically to serve institutional markets. The study would include the amount and types of product needed to meet demand, procurement specifications, viable price points, number of production acres needed per product, interested producers at various scales, facility service area, number of facilities needed in Vermont, and annual operating budget.
4.2 Education	To track the reach and impact of Farm to School programs.	Farm to School evaluation system: Establish an evaluation system for schools participating in Farm to School activities. Establish a methodology to track education impact, local food procurement levels, and overall health improvements. Survey public schools to provide a benchmark for excellence in food and agriculture education in K-12 curricula.
4.8 Leadership + Collective Impact	To conduct an annual assessment of progress in reaching 2020 F2P Goals.	F2P progress indicators: Develop data collection protocols for all relevant stakeholder groups and provide training in data collection and outcomes development and tracking.
Natural Resource, Physical Infrastructure & Technology Strategies		
3.2 Farm Inputs	To improve water quality, soil fertility, and organic matter, and reduce erosion.	Strip, zone, and no-till practices: Establish a matching fund program to help farmers retrofit existing equipment and to offset the initial yield reductions associated with strip, zone, and no-till cultivation practices.
	To improve access to viable and affordable agricultural land and secure tenure for farmers.	<p>Farmland conservation: Establish a revolving loan fund in collaboration with the Vermont Land Trust (VLT), the Vermont Housing and Conservation Board (VHCB), and other farmland conservation partners for the purpose of <i>fee purchases of strategic farmland parcels</i> to be conserved (i.e., conservation easements applied), resold to farmers, and/or held as leased incubator farms or for other farming activities.</p> <p>Farmland conservation: Support VLT, VHCB, and other farmland conservation partners to conserve (i.e., <i>purchase of easements</i> only) at least an additional 2,000 acres of farmland per year for fruit and vegetables, livestock, grains, beans, oilseed, and other crop production (i.e., an additional 2,000 acres per year on top of the approximately 4,500 acres currently conserved per year).</p>
3.3 Production	To improve access to viable and affordable agricultural land and secure tenure for farmers.	New incubator farm programs: Establish additional farm incubator programs (providing land, technical assistance, equipment sharing) in underserved areas of the state. Develop a matchmaking database of existing farmers who want to host and mentor new farmers on a portion of their property (this is another form of farm incubation).

CHAPTER	OBJECTIVE	STRATEGY
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Natural Resource, Physical Infrastructure & Technology Strategies

3.3 Production	To improve producers' ability to access retail market outlets that require GAP or other forms of food safety certification.	Funding for GAP certification: Establish a matching fund program to help producers obtain needed equipment and make building modifications to enable them to reach GAP or other food safety certifications (so they can access larger retail markets).
	To increase local egg production to meet 50% of local demand by 2020.	Increase egg production: Encourage the development/scaling of poultry laying farms to 1,000 to 2,000 birds each to significantly increase the supply of locally produced eggs. These farms could serve the needs of schools that do not require liquefied/pasteurized eggs. Assess the annual institutional purchasing of eggs. Conduct an economic feasibility study to determine the capital expenditures needed for a liquid egg pasteurization machine at an appropriately scaled egg farm.
	To double in-state goat milk production to serve the value-added cheese industry.	Goat dairy expansion: Provide matching funds and production technical assistance to 10 goat dairies to allow them to scale up to a 600-goat herd. Improve production practices and herd genetics.
3.4 Processing	To support infrastructure improvements at slaughter and meat processing facilities.	Financing for slaughter expansion: Assist slaughterhouse owners in accessing funding for capacity improvements, such as additional storage and other systems improvements, to maximize plant use and profitability.
3.7 Nutrient Management	To build the infrastructure to divert 80% of Vermont's organic residuals to be used for composting and soil building.	Expand composting: Solid waste districts, the Agency of Natural Resources, compost industry stakeholders, and others should evaluate the current source separation system in the state and indicate actions needed to meet Act 148.
4.8 Leadership + Collective Impact	To create a web-based portal to house everything related to Vermont's food system.	Vermont Food System Atlas: Develop a statewide food atlas modeled after the <i>Renewable Energy Atlas of Vermont</i> . Include land use mapping data files, all F2P-related materials, a database of stakeholder organizations, links to local grower guides, matchmaking databases, capital provider sources and technical assistance program resources, a portal to regulatory information, a master calendar of events, job postings, etc., as well as links to all known organizational and business websites related to Vermont's food system.

Sales and Distribution Strategies

3.6 Retail Distribution	To increase producer access to market demand information.	Strategic partnerships: Encourage the formation of strategic partnerships between producers interested in scaling up to meet larger-scale markets and retailers interested in sourcing more local food (e.g., prebuy contracts similar to the CSA model, retailer and wholesaler investment in a producer's storage or equipment, investing in a farmer-owned processing facility, cooperative marketing, etc.).
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CHAPTER	OBJECTIVE	STRATEGY
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Sales and Distribution Strategies

3.6 Retail Distribution	To increase producer access to market demand information.	Matchmaking events: Increase the number of matchmaking events between sellers and local and regional buyers to increase the sale of local products in these markets, build strong relationships, and increase awareness about barriers and opportunities faced by both producers and market outlet staff and category managers.
	To increase the purchasing of local food by hospitals, state facilities, university and colleges, K-12 schools, senior meal centers, and other institutions.	Sourcing local food: Encourage the leadership of hospitals, K-12 schools, and higher education institutions to adopt a goal and/or policy directive to source as much locally produced food as budgets will allow, and to increase these budgets over time. This should include establishing a tracking system to analyze and monitor the progress in local food purchasing over time. Expand Farm to School programs: Strategically focus funding to establish a Farm to School program in every school.
	To increase opportunities for local producers to access existing local retail markets.	Consumer food co-ops: Provide matching funds for the Neighboring Food Cooperative Association to conduct economic feasibility studies for the expansion of existing local food co-ops and/or the development of new ones throughout the region.

Marketing and Public Outreach Strategies

3.3 Production	To increase the consumption of New England produced milk through regional marketing differentiation.	Regional marketing for Northeast milk: Encourage New England states to pool resources for regional marketing beyond the Keep Local Farms program. Encourage milk co-ops and processors to improve their regional marketing efforts. Work with the Northeastern Association of State Departments of Agriculture on this strategy.
	To increase the amount of locally produced fluid milk that is locally consumed and/or used in value-added processing.	Value-added dairy marketing: Identify key marketing strategies for developing cheese and other value-added dairy products such as cottage cheese, yogurt, sour cream, and kefir, and nonfood dairy-based products. Marketing research-based strategies should be for both in-state and export markets and include terroir/taste of place content and case studies/storytelling of success stories. Ads for Vermont dairy products, and their origin stories, should be regularly placed in related industry and tourist publications.
	To increase the marketing of local foods through statewide media and promotional campaigns.	Buy Local marketing: Develop and provide materials to distributors and retail outlets regarding the importance of buying local. Build on models such as USDA's Know Your Farmer, Know Your Food campaign, the Vermont Fresh Network, and the Made in Vermont branding program.

CHAPTER	OBJECTIVE	STRATEGY
<i>Technical Assistance and Business Planning Strategies</i>		
3.2 Farm Inputs	To increase information about viable and affordable agricultural lands and tenure models.	Farmland lease resources: Assemble information on farmland lease options and samples for secure tenure models, customize them for Vermont application, consolidate into a searchable database and online resource, and conduct workshops for farmers and landowners that explain leasing and lease options and provide hands-on technical support.
3.3 Production	To increase the number of farmers participating in technical assistance and business planning services, especially related to diversification strategies, farm transfers, and retirement planning.	Farm management teams: Provide 50% matching funds for volunteer farm management teams to work with farms throughout the state using skilled facilitators.
	To achieve a 40% increase in the use of Vermont slaughterhouses between February and August.	Farmland and business transfers: Conduct workshops and provide one-on-one assistance for farmers involved in farm and/or farmland transfers.
	To maximize the resources available to provide technical assistance to farmers and food entrepreneurs.	Enterprise plans for diversification: Develop detailed enterprise plan templates (i.e., budget calculator tools) for various diversification strategies including transition to organic production, on-farm liquid milk processing, biomass energy and forage crops, maple, livestock, value-added dairy products, grains, and high-demand large-scale fruits and vegetables.
3.4 Processing	To encourage the use of mobile slaughterers for the on-farm slaughter of animals raised for home use.	Coordinated livestock management program: Develop a coordinated livestock management program within the Farm Viability Program, UVM Extension, Vermont Pasture Network, NOFA Vermont, and other livestock trade associations to improve winter management practices, carcass development, commercial hog production, and year-round beef and lamb production.
3.5 Wholesale Distribution	To increase opportunities for local producers to access existing local retail markets.	Training for scaling up: Provide specialized scaling-up technical assistance and business planning services for farmers and value-added food entrepreneurs seeking to serve larger markets. Survey farmers to identify those interested in scaling up productions specifically for institutional markets.
		Increase custom and mobile slaughter capacity: Increase the number of trained mobile and custom-exempt slaughter plant operators in Vermont to serve small-scale livestock operations and those raising animals for home use.
		Food storage inventory: Create a statewide inventory of all food storage facilities. List these on the Vermont Food System Atlas website. Support the development of food aggregation centers throughout the state, or help expand the existing distributor warehouse network, so that small to medium-sized producers can more easily reach retail outlets.

CHAPTER	OBJECTIVE	STRATEGY
<i>Financing Strategies</i>		
4.5 Financing	To increase the availability of flexible and/or non-asset-based risk capital and investments for food enterprises.	<p>Public funds for non-asset-based lending: For non-asset-based lending, invest public dollars (i.e., state general fund, state retirement investment funds) in alternative capital intermediaries and other organizations that offer new models of equity-like risk capital, at a Vermont scale, and provide technical assistance to early- and growth-stage food entrepreneurs who are starting to access risk growth capital.</p>
		<p>Public funds to co-invest in slaughter and meat processing facilities: Provide public funds to co-invest with private investors to accelerate the development of the critical, capital-intensive infrastructure needed for additional federally inspected slaughterhouses and meat processing facilities (both stationary and mobile plants). Benchmark other successful models in other parts of the country.</p>
	To support efforts to transition conventional dairy farms to other types of production—in the event that a supply management system is not enacted—to maintain working farms.	<p>Farm transition fund: Create a special multi-year farm transition fund and provide appropriate technical assistance to farmers that want to diversify or transition out of conventional milk production into other forms of production (e.g., organic milk, diversified vegetables, livestock, value-added products).</p>
	To increase the amount of philanthropic funds and program-related investments invested in Vermont food enterprises and nonprofit support organizations.	<p>Attract national philanthropic funding: Work with the Vermont Community Foundation and the Vermont Food Funders Network to increase funding from regional and national foundations. Proactively identify and build relationships with foundations outside of Vermont.</p>
	To encourage more public and private investments in agricultural land that provide longer-term financial returns and flexible exit strategies, and that involve farmer lease-to-own contracts.	<p>Private agricultural land investment company: Benchmark models such as Equity Trust and Farmland LP to identify agricultural land investment models that could work in Vermont. Then, create or leverage an existing intermediary that would raise private investment funds, purchase farmland, and create flexible lease-to-own contracts with farmers. Such contracts would allow farmers' lease payments to go toward building more equity each year, tie payments to annual farm performance/income, and provide exit options for farmers.</p>

CHAPTER	OBJECTIVE	STRATEGY
Network Development Strategies		
3.3 Production	To increase the volume of high-quality, locally grown meat at local and regional market outlets, and maximize the availability of dependable markets for local producers.	Additional sourcer positions: Encourage a greater use of sourcers at the intersection of production, processing, and retail outlets. Develop information resources about the cost and benefits of sourcer positions to improve relationships between processors or retail markets and raw product producers. (For example, Dole & Bailey sourcers provide technical assistance directly to their pork and beef producers to ensure high-quality meat. Vermont Butter & Cheese employs a goat nanny to help partnering farms produce high-quality goat milk.)
	To increase opportunities for local producers to access retail markets.	Food system brokers for effective matchmaking: Identify, coordinate, and expand the number of food system brokers, or coordinator positions, to serve as matchmakers between buyers and sellers to increase local food consumption at all types of retail outlets, but especially at institutions. Identify existing programs and staff and hire additional personnel at various organizations and distributors, as needed.
3.4 Processing	To encourage greater coordination among meat producers, slaughter facilities, and meat processors to expand the production and use of Vermont-grown meat.	Statewide meat industry council: Provide early-stage, publically supported funding and organizational development assistance to create a statewide meat industry council (or Vermont Meat Guild), including three years of funding for a dedicated staff person to serve the council and industry.
4.1 Food Security	To increase the quantity of fresh local produce to all food shelves and charitable meal sites throughout the state.	Expand gleaning programs: Establish gleaning programs and coordinators in every county by 2014. Include on-farm harvest gleaning plus reclaimed food from restaurants, caterers, institutions, supermarkets, etc.
4.8 Leadership + Collective Impact	To encourage ongoing support by the governor, relevant state agencies, the legislature, and private and public stakeholders to ensure the implementation of the F2P Strategic Plan.	Guardian of the F2P Plan: Conduct an annual evaluation of progress on F2P Strategic Plan implementation, including data collection and analysis. With VAAF, convene key stakeholder groups to implement strategies from the F2P plan for which no organization is yet spearheading, or that need a group of stakeholders to implement. Convene an annual planning retreat to review progress on F2P goals and refocus priority strategies for the following year. F2P leaders will meet with the key government officials each January (and as often as necessary outside of the legislative session) to apprise them of progress being made toward implementing the F2P plan.

CHAPTER	OBJECTIVE	STRATEGY
Education Strategies		
4.2 Education	To fully leverage the resources of Vermont's public schools to support food systems education and engagement.	More school farms and gardens: Promote and support the existence of working farms, or larger-scale production gardens, at high schools and career and technical education centers.
	To improve the rigor of agriculture programs in both high schools and career and technical education centers.	College credit courses at technical centers: Assist career and technical education centers in building articulation agreements with state colleges and the University of Vermont to increase the number of food system and natural resources programs that offer college credits.
Workforce Development Strategies		
3.4 Processing	To ensure a sufficient number of high-quality meat cutters and butchers to assist producers in accessing regional outlets.	Skilled meat cutters: Establish and fund technical assistance and educational training programs for skilled meat cutters and butchers through NECI, Vermont Tech, and high school technical education centers.
4.3 Labor and Workforce Development	To improve access to qualified farm labor.	Guest workers: Improve the system for hiring migrant farm workers/guest workers and the visa/H-2A program (federal policy changes are needed).
		Increase the use of interns and apprentices: Adjust labor regulations to encourage a greater use of interns and apprentices not directly associated with university programs.
Regulation and Public Policy Strategies		
3.1 Farm Inputs	To encourage the creation of local zoning regulations to protect the right to farm and encourage the protection and active use of prime agricultural soils.	Planning and zoning: Review and update zoning ordinances to ensure, to the greatest extent possible, that prime agricultural soils are conserved for agricultural use. Develop tools such as those developed by the Delaware Valley Regional Planning Commission (dvrpc.org) to guide improvements to planning and zoning ordinances that support the further development of food systems.
3.3 Production	To support the passage of Dairy Price Stabilization legislation in the U.S. Congress.	Dairy price stabilization: Work with Vermont's congressional delegation and Dairy Farmers Working Together to develop a milk pricing system based on supply management.

CHAPTER	OBJECTIVE	STRATEGY
Regulation and Public Policy Strategies		
3.3 Production	To increase local food consumption at state-owned institutions and facilities with food service by sourcing as much locally produced and fresh food as possible.	Public procurement of local food: Enforce the existing state policy (Act 38, 2007) that instructs VAAFM, the Agency of Administration, and the Department of Buildings and General Services to develop a system of local food and dairy purchasing within state government and government-sponsored entities. This provision should also be applied to businesses with food service that lease large parcels of real estate and/or receive significant funding from the state. Encourage farming on public lands that are adjacent to public facilities.
3.6 Retail Distribution	To maximize the amount of local food served in K-12 schools by increasing the number of schools participating in Farm to School programs.	School food purchases: Advocate for policies that enable school districts to take “cash in lieu of Department of Defense Fresh food” whenever possible to increase funding and flexibility for school food purchasing.
4.7 Regulation	To encourage Vermont’s regulatory structure to support the right of farmers to use science-based animal practices in the management of their herds and flocks.	Humane certified: Through appropriate marketplace compensation, encourage farmers to adopt voluntary, credible, and science-based animal care standards, or to become humane certified, in order to sell to certain retailers.
	To maintain the Use Value Appraisal Program to keep farmland in farming.	Changes to the Use Value Appraisal Program: Support efforts to discourage short-term enrollments of land in the program that a landowner intends to develop, and convert paper documents to electronic files and GIS-based maps. The administration and legislature should also work with interested parties to identify other steps to improve the program’s effectiveness, efficiency, and sustainability over the long run.
	To help producer co-operatives attract equity capital so they can expand into value-added processing and/or new markets.	Enable Mutual Benefits Enterprises: The Vermont Legislature should pass the Mutual Benefits Enterprise Act, which would create a new corporate structure to allow cooperative enterprises to accept equity investments from nonproducer members (minority shares) (H.109 from the 2009 session). Became Act 84 in 2012.
	To increase funding to VAAFM to strengthen its capacity to help farmers and food entrepreneurs understand regulations, and to help VAAFM enforce those regulations.	Technical assistance and enforcement funding for VAAFM: Provide state general funds to ensure that VAAFM can provide proactive technical assistance to help farmers and food entrepreneurs understand regulatory issues, and also to ensure that VAAFM can adequately enforce state and federal regulations.

End Notes

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CHAPTER 2

Getting to 2020: Goals for Strengthening Vermont's Food System

Credits

Chapter 2: Getting to 2020 was prepared by Scott Sawyer, Ellen Kahler, Kit Perkins, Erica Campbell, and Doug Hoffer.

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On the Cover: Sap buckets on Cory Hill Road: Putney Pics; beekeepers at Applecheek Farm: Applecheek Farm; Howard Prussack of High Meadows Farm is dwarfed by his towering tomatoes: Lisa Prussack; pouring raw milk: Jessica Bongard; prize-winning onions at Tunbridge's World Fair: Kristin Small; Polly with newborn calf: Lindsay Harris; hay bale: Jim Thompson, Vermont Lenses; Consider Bardwell Farm goat cheese: Erika Kerekes; tomatoes and pickles: Amy Forsthoefel; V for Victory, Vermont women step up during World War II: UVM Special Collections; women picking chard: Pete's Greens; fresh strawberries at Clear Brook Farm: Vern Grubinger.



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farm to plate
STRATEGIC PLAN

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NETWORK

