



farm ^{to} *plate*

STRATEGIC PLAN

Appendix C Connecting the Dots

Strategies for Aligning Production, Processing, Distribution, and Market Outlets for Vermont's Local Food System

Prepared By:

- Louise Calderwood, Everything Agriculture
- Greg Georgaklis, Verdant Valley, LLC
- Douglas Hoffer, independent policy analyst
- Scott Sawyer, VSJF
- Ellen Kahler, VSJF
- Kit Perkins, VSJF



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Black River Produce deliveryman.



APPENDIX C

Connecting the Dots

Does the current distribution system keep Vermont farmers and food enterprises from reaching local and regional markets? Are there significant inefficiencies in the current food distribution system? Are the number and kinds of food storage facilities in Vermont sufficient?

C1. EXECUTIVE SUMMARY

Appendix C: Connecting the Dots, focuses on the distribution chain that links farm production, processing, and market outlets and provides strategies for aligning these elements of Vermont's food system more closely. For the purposes of this report, **distribution is defined as the process of delivering food from the primary producer to end consumers, whether they are found at supermarkets, restaurants, schools, farmers markets, community supported agriculture (CSA) farms, or convenience or general stores.**

Distribution requires organizing transportation and logistics in an economically efficient manner to deliver a marketable mix of products to meet consumer demand. At times, it also requires short-term storage, en route to store shelves.

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.**

At the same time, 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 the large majority of food is purchased – is a necessary precursor to significantly expanding the 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.** Improved access to all types of markets can be strengthened by improving the connections between (1) small-scale producers who self-distribute and direct sales venues (e.g., farmers markets); (2) medium-scale producers, wholesalers, and medium-sized retailers (e.g., co-ops, restaurants); and (3) large producers, wholesalers, and large markets (e.g., grocery stores). A number of emerging models that embrace supply chain collaborations, including regional aggregation facilities and incubators, regional food centers, and subscription services, hold great promise and opportunity for the future of Vermont's food system.

DISTRIBUTION DEFINITIONS

Food distribution is the process of delivering products from the primary producer to end consumers whether they are found at supermarkets, restaurants, schools, farmers markets, community supported agriculture (CSA) farms, or convenience or general stores. Distribution requires organizing transportation and logistics in an economically efficient manner to deliver a marketable mix of products to meet consumer demand.

The distribution of food should not be confused with the marketing of food.

Producers and processors who hire other entities to perform the functions of distribution still need to commit significant time to marketing tasks such as identifying and building customer relationships.

Following are some of the many functional aspects of distribution:

A **distributor** generally purchases goods directly from the producer or food manufacturer under an agreement that gives it the right to sell the goods to retail or wholesale customers. Some food producers and processors distribute their own products, but many use distributors. *Hillcrest Foods* of Fairfax, Vermont, is an example of a local distributor sourcing goods throughout the United States for delivery to many locations in the Northeast. *United Natural Foods Inc.* (UNFI) and *U.S. Foodservice* are examples of national distributors that serve our region.

A **wholesaler** usually is organized around a group of products. The *Chelsea Market* in Boston is populated by many wholesalers who aggregate perishable products for distributors and retailers. Smaller regional “distributors” such as [Black River Produce](#) and [Upper Valley Produce](#) are considered wholesalers in the context of this report.

A **consolidator** is an entity that may be a marketing group that controls production standards, packaging, and a brand name, and contracts with a number of producers. *Perdue Foodservice* is an example of a very large one. There are a number of smaller versions in the grass-fed beef sector, and some very interesting new models such as *Bell Nurseries*, which is strongly linked to a single retailer. Some of these organizations may be fully vertically integrated from production to retail sales such as *Niman Beef*, *Thousand Hills Beef*, and *New England Family Farms*. In Vermont, [Hardwick Beef](#) comes closest to this model.

A **broker** is a firm that usually works for a commission or fee and helps producers sell their products to firms along the supply chain, such as wholesalers, distributors, processors, or retailers. They rarely take physical possession of the product and require few assets and resources. A key function of a broker is managing the relationships with both suppliers and customers. In Vermont, [Green Mountain Farm to School](#) and the [Intervale Food Hub](#) are examples of this model.

A **processor** produces or buys raw materials or minimally processed products and turns them into value-added products. This can be as simple as repackaging, or as complex and sophisticated as making fine cheese or bread. [Vermont Butter and Cheese](#), [Champlain Orchards](#), [Vermont Smoke and Cure](#), [Vermont Soy](#), [Butterworks Farm](#), and [King Arthur Flour](#) are all local examples.

Warehouses, such as [Vermont Commercial Warehouse](#) in Williston, store large quantities of food until it can be absorbed by the market (e.g., milk powder for [St. Albans Co-op](#)), provide tracking systems required by purchasers, and repackage bulk food for retail accounts. Vertically integrated vegetable farmers such as [Cate Farm](#) in Plainfield, have found that on-farm refrigerated **storage** can add value to their produce by preserving freshness and quality for sales after peak season when prices are higher.

Retail to end consumer takes many familiar forms including supermarkets, supercenters, convenience and general stores, farmers markets, CSAs, subscription delivery services, farm stands, restaurants, and institutional food services at schools, hospitals, and businesses. All of these are defined by their direct relationship with end consumers, who either purchase products to prepare and consume at home or consume the products away from home.

Figure C4 on page 16 show the locations of the 304 processors, direct market outlets (over 80 CSAs and 76 farmers markets), and 226 wholesale and 1,089 retail enterprises in Vermont.

C2. INTRODUCTION

Does the current distribution system keep Vermont farmers and food enterprises from reaching local and regional markets? Are there significant inefficiencies in the current food distribution system? Are the number and kinds of food storage facilities in Vermont sufficient? During the winter of 2009-2010, nearly 100 producers, processors, storage facility operators, distributors, and retailers were interviewed as part of an analysis of the existing food distribution system, primarily in Vermont and in the Northeastern United States. The businesses consulted represent a broad cross section of production scales and business models, regions of the state, and length of time in business.

Additionally, studies from other regions and countries were reviewed; data from the *USDA Census of Agriculture* and the *Economic Research Service (ERS)*, the *National Establishment Time Series (NETS)*, and the *U.S. Bureau of Labor Statistics* were reviewed; and research was conducted on emerging food systems in Europe and other parts of the United States. This research was undertaken to gain an understanding of the trends and conditions affecting the distribution and movement of food products within our food system.

Chapter 3 of the Farm to Plate (F2P) Strategic Plan inventories and analyzes elements of Vermont's food system from soil to soil—covering farm inputs to nutrient management and everything in between. *Appendix C: Connecting the Dots* focuses specifically on the food distribution system and its role in increasing local and regional food production, processing, and consumption over the next 10 years. Included are objectives, strategies, and policy recommendations aimed at achieving the overall goals laid out in Chapter 2 of the F2P Strategic Plan.

Vermont has the potential to significantly increase the production of food for consumption both in-state and throughout the region. *Appendix C* describes existing and emerging food distribution systems and outlines steps to increase the accessibility of locally produced food within the state and region. **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.** Appropriately matching Vermont's food enterprises with a diverse food delivery system can serve as a powerful economic engine that will keep agricultural lands in production and ensure farm viability, create and retain jobs in value-added food enterprises, and revitalize our economy.

C3. CONNECTING THE DOTS: STAGE OF DEVELOPMENT – SCALE OF OPERATION – TYPES OF MARKET OUTLETS

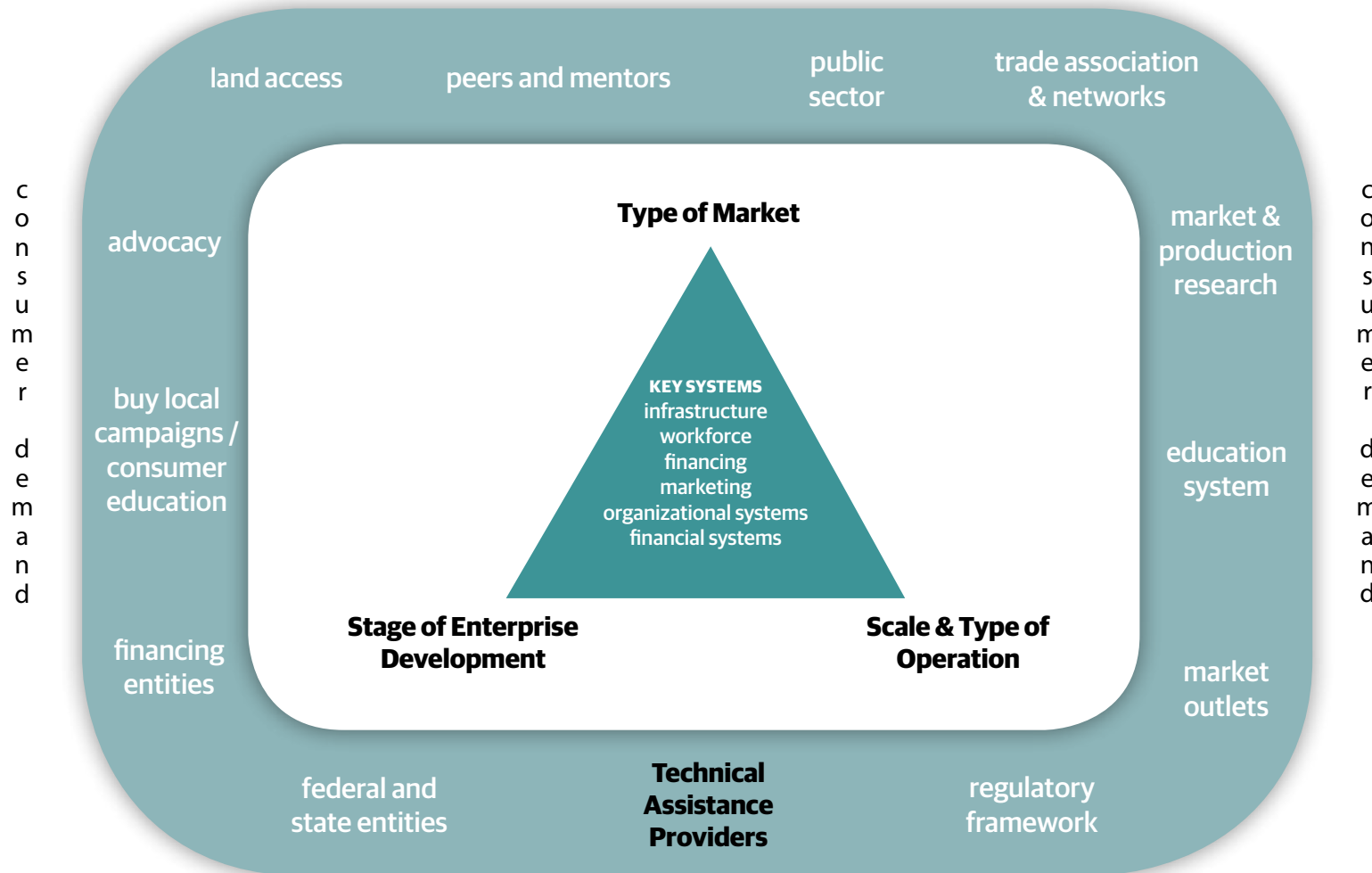
During the course of our interviews, we heard a variety of perspectives on food distribution issues in Vermont. For some farmers and food producers, access to traditional distribution channels is a major challenge to their ability to get their products to retail markets. For example, Andrew Meyer¹ of [Vermont Natural Coatings](#) and [Vermont Soy](#) described the difficulty of paying the added expense of shipping small quantities while market presence for their products is still being developed. Other producers voiced concern about wholesalers and distributors' handling of high-value perishable products such as meat and dairy products. Several vegetable producers mentioned the significant expense of purchasing high-quality waxed cartons to maintain the value of their products as they are shipped by wholesalers.

On the other hand, Amy Huyffer² of [Strafford Organic Creamery](#) stated that she has had no problems developing or maintaining a relationship with several distributors of the dairy products processed on her farm. She believes that the key elements of a successful relationship are recognizing the value provided by a wholesaler (i.e., so that she can remain focused on food production) and approaching distribution with a professional attitude. Huyffer stated that increasing the range of distribution for her products would require investing in marketing and retail relationship development, but that access to distribution was not a concern.

A framework that examines the **stage** of farm and food enterprise development, the **scale** of operation, and the types of **market outlets** was developed to analyze these differing perspectives. The framework has two primary purposes: (1) to help businesses navigate the value chain and align with the most appropriate market outlets based on their stage of business and scale and type of operation; and (2) to reveal gaps, barriers, needs, and opportunities for improvement in the food system value chain for different stages of business development, scales and types of operation, and market outlets.

Figure C1 shows the relationships between the stage of food enterprise development, the scale and type of operation, and market access opportunities. As indicated by the center of the figure, it is important that internal organizational systems (e.g., financial systems, infrastructure, and organizational systems) be aligned with the needs and demands of the size and scale of operations and the markets being accessed.

Figure C1: Farm & Food Enterprise Development Framework



The outer ring indicates a wide range of technical assistance providers and businesses, including peers that have managed similar changes and situations, that can be helpful at various stages. To be successful, food enterprises requires appropriate regulatory frameworks, financing options, technical assistance, access to land, and so on, and these must be matched with the stage of development of that enterprise. Driving the development of this model, of course, is consumer demand for local and regionally produced food products.

🍏 Stage of Enterprise Development

Every food enterprise goes through various stages of development over the course of its existence—from start-up to growth stage, to mature stage, and then to revitalization and succession. Each of these stages is marked by specific organizational and financial needs, infrastructure and workforce needs, sales and marketing needs, and financing needs. Enterprises need to know what stage of development they are in and to pay attention to when they are transitioning from one stage to the next—so they can adjust their operations accordingly.

Many kinds of nonprofit and public sector organizations, as well as private consultants, provide assistance at various stages of development. That assistance can take many forms, including the following:

- 🍏 Business planning or enterprise budgeting
- 🍏 Marketing or market research
- 🍏 Mentoring or coaching
- 🍏 Accounting and taxes
- 🍏 Production process improvement
- 🍏 Permitting assistance
- 🍏 Employee training

These organizations also play an important role in helping the overall marketplace evolve and serve the needs of food enterprises (e.g., policy development, special grant and loan programs).

The Stages of Enterprise Development

The **pre-venture** stage refers to a nonexistent or nascent product or service. Opportunities for new products or services are identified, but the supply chain and market outlet are unclear and “proof of concept” is not yet established. Planning and research through, for example, testing recipes at the [Food Venture Center](#), writing a business plan, and finding start-up funding are the primary activities of the pre-venture stage of enterprise development.

The **start-up** stage is characterized by launching the business, hiring the first employee(s), setting up organizational systems, achieving break-even sales targets, building a customer base, and establishing a track record for product quality and service. This stage of development can last many years depending on how long it takes to firmly establish the business in the marketplace. Technical assistance that can assist farmers and entrepreneurs in this development stage include incubator programs, equipment sharing, mentorship programs, pilot or demonstration projects, specific market feasibility studies, and efforts to organize and promote the market.

Enterprises in the **growth** stage experience an expansion in overall sales volume and in the number and variety of customers, an expansion of products or services offered, and an established brand identity in the marketplace. They hire more employees, improve infrastructure and equipment, make improvements to internal systems, and improve their efficiency and productivity. However, business expansion requires more than just increased sales and employment. It often requires an assessment and adjustment of the organizational structure; the delegation of management control; and the development of longer-term strategies for human resources, access to capital, and expansion through a strategic planning process.

Mature companies have achieved a solid business that, because of either market conditions or the preferences of owners, appears sustainable. However, without dramatic change, companies in this stage are unlikely to expand significantly. Even though they have achieved strong brand recognition, and a solid repeat customer base, mature businesses often face many challenges. Sustaining themselves in a rapidly changing and competitive marketplace or in the face of declining sales can be difficult. A focus on problem solving, leadership, and quality improvement is often necessary for a mature business to maintain its position in the marketplace. Sometimes, planning for the succession of leadership or creating an exit strategy for the business is an appropriate strategy.

A **revitalization** stage arises when external or internal activities (or both) force a mature business to a tipping point. A downward trend may ensue, or innovative “challenger firms” may introduce new ideas, products, or services to revive the sector. Taking action in the maturity stage can send an organization in new directions. Innovation and diversification can lead to new products and new markets. Companies can be reorganized to provide the flexibility needed to meet the new challenges associated with new directions, markets, and products.

Scale of Operation

Every food system enterprise operates at a particular scale, although even large operations in Vermont may be classified as small by national standards. For example, food manufacturing can be as small as a single entrepreneur making sauces out of a commercial kitchen a couple of times per month or as big as nationally distributed ice cream or coffee. Different sizes of operations may require different levels of infrastructure (e.g., number of tractors, coolers or freezers, stainless steel processing equipment) and thus have varying levels of assets required to successfully produce at a particular scale of production.

The *Census of Agriculture* provides a “farm typology” by size based on annual gross sales. In 2007, there were 6,128 “small family farms,” equal to about 88% of all farms in Vermont (Table C1). Small family farms are divided into 5 categories, but share the characteristic of having less than \$250,000 in sales. Other farms, which made up the remaining 12% of farms, are classified as large or very large family farms (with sales greater than \$250,000) or non-family corporate farms or farms operated by hired managers. Most large farms and farms where farming is the operators primary occupation are dairy farms and apple orchards. Only a handful of medium-sized farms are diversified fruits and vegetable farms. Over the past 30 years, Vermont has lost many of its medium-scale dairy farms. The revenue generated by a farm operation has a profound impact on the potential to utilize wholesalers and to generate additional

Table C1: Scale of Farm Operation by Annual Sales

Economic Class	Small Family Farms					Large Family Farms	Very Large Family Farms	Non-family Farms	Totals	
	Limited Resource Farms	Retirement Farms	Residential / Lifestyle Farms	Farming occupation - lower sales	Farming occupation - higher sales					
	Sales < \$100k and HH income < \$20,000	Sales < \$250k; operator retired	Sales < \$250k; farming not primary occupation	Sales < \$100k; farming is primary occupation	Sales from \$100k - \$249k; farming is primary occupation					
< \$1,000	395	312	805	167	---	---	---	49	1,728	6,370 or 91.2% of farms
\$1,000 - \$2,499	172	156	388	69	---	---	---	22	807	
\$2,500 - \$4,999	161	164	301	83	---	---	---	17	726	
\$5,000 - \$9,999	185	176	313	127	---	---	---	39	840	
\$10,000 - \$24,999	203	191	334	140	---	---	---	41	909	
\$25,000 - \$49,999	101	80	115	180	---	---	---	22	498	
\$50,000 - \$99,999	60	38	60	200	---	---	---	28	386	
\$100,000 - \$249,999	---	45	24	8	366	---	---	33	476	614 or 8.8% of farms
\$250,000 - \$499,999	---	---	---	---	9	288	---	25	322	
\$500,000 - \$999,999	---	---	---	---	---	1	137	25	163	
\$1,000,000 or more	---	---	---	---	---	---	110	19	129	
Totals	1,277	1,162	2,340	974	375	289	247	320	6,984	
6,128 farms or 87.7%						856 farms or 12.2% of total				

Source: USDA 2007 Census of Agriculture, Table 64, www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1_Chapter_1_State_Level/Vermont/st50_1_064_064.pdf

income. A myriad of factors including weather, production capacity, and marketing ability are critical in determining the success of a farm.

A review of 2007 USDA Census of Agriculture data indicates a strong correlation between farm scale and the potential to garner 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 in 2007 (Table C2).³

Distribution Channel

As described previously, food distributors and wholesalers also range in scale and function, from sole proprietors with small trucks handling a limited range of products, to sophisticated wholesaler operations able to source and deliver a wide range of products, servicing grocery stores, restaurants, and schools. Travis Marcotte, executive director of the [Intervale Center](#), sees the potential for small distributors to significantly increase the amount of Vermont-grown product consumed in Vermont restaurants and institutions by collaborating with several producers to ensure a steady supply of product: "I think there are opportunities for larger farms to keep more product in state and reduce their marketing time. Ours is a collaboration of many different types of growers who are interested in making money by serving the local market together. We will not meet our needs or goals by thinking small. We need to think medium."



Wright Orchards (Middlebury) apple storage facility (Date unknown).

Table C2: Scale of Farm Operation by Net Gains and Losses

Economic class	Small Family Farms					Large Family Farms	Very Large Family Farms	Non-family farms	Totals
	Limited resource farms	Retirement farms	Residential / Lifestyle Farms	Farming occupation - lower sales	Farming occupation - higher sales				
	Sales < \$100k & HH income < \$20,000	Sales < \$250k; operator retired	Sales < \$250k; farming not primary occupation	Sales < \$100k; farming is primary occupation	Sales from \$100k - \$249k; farming is primary occupation	Sales from \$250k - \$499K	Sales of \$500k or more	Nonfamily corp's + farms operated by hired mgrs	
Farms with Net Gains	468	460	624	503	322	268	234	172	3,051
% of total	37%	40%	27%	52%	86%	93%	95%	54%	44%
Gain of - Less than \$1,000	64	76	107	18	---	---	---	7	272
\$1,000 to \$4,999	161	119	191	78	7	1	---	21	578
\$5,000 to \$9,999	108	110	93	65	11	---	1	18	406
\$10,000 to \$24,999	101	78	134	154	41	6	2	28	544
\$25,000 to \$49,999	32	41	65	141	83	22	10	27	421
\$50,000 or more	2	36	34	47	180	239	221	71	830
	2,377 or 78.0% of all farms with net gains					674 or 22.0% of all farms with net gains			
Farms with Net Losses	809	702	1,716	471	53	21	13	148	3,933
% of total	63%	60%	73%	48%	14%	7%	5%	46%	56%
Loss of - Less than \$1,000	72	60	156	14	---	1	---	2	305
\$1,000 to \$4,999	250	228	590	103	2	1	---	34	1,208
\$5,000 to \$9,999	194	210	459	126	6	3	---	43	1,041
\$10,000 to \$24,999	194	151	379	131	12	3	---	35	905
\$25,000 to \$49,999	69	44	110	59	13	4	1	18	318
\$50,000 or more	30	9	22	38	20	9	12	16	156
	3,751 or 95.4% of all farms with net losses					182 or 4.6% of all farms with net losses			

Source: USDA 2007 Census of Agriculture, Table 64, www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1_Chapter_1_State_Level/Vermont/st50_1_064_064.pdf

🍷 Market Outlet Options

Increasing Vermont producers' access for to all types of local and regional retail grocery stores, restaurants, and institutions is necessary to significantly expand the consumption of locally grown products. The stage of food enterprise development and scale of operation are important considerations for understanding the type of market outlet (small, medium, or large) an enterprise can reasonably expect to access, as depicted in Figure C2.

The first two rows of Figure C2 refer to non businesses (e.g., home gardeners, community gardens, school gardens, grow an extra row programs) that generally produce food for themselves or for donation to charitable programs such as the [Vermont Foodbank](#) or a local food shelf. In this instance, producers typically do not access the food distribution system, except in the example of providing food for the *Vermont Foodbank* or food shelves, and the scale of operation is small.

Businesses in the early stage of development, small to medium-scale operations, and some businesses in the growth stage need direct distribution to achieve profitability. Direct distribution may also be a necessity in more remote locations of the state where distributor routes do not currently exist. As a business develops and its scale of operations grows, it has increasing access to larger market outlets.

The same stage, scale, and market outlet size considerations apply to farms that create value-added products as well as value-added food processors (Figure C3).

Let's take the example of a farm that converts raw inputs (e.g., apples) to a value-added product (e.g., cider). If the scale of production is small and the product is made on the farm, the business may make only enough cider to sell during the fall. Therefore, to make a sufficient margin on the product, the farm will likely deliver the product directly to a small retail outlet that is looking to source locally produced cider in season or sell it directly at a farm stand. However, if that farm is a medium-scale processor and can produce its product year-round, then a larger on-farm or commercial facility is likely to be used to make the product. Again, the processor may choose to distribute some, or all, of its product directly (thus doing everything necessary to maintain those retail accounts in-house), or it may choose to use a wholesaler. The use of a wholesaler is often necessary to reach larger, regional market outlets (e.g., *Whole Foods*) or restaurant and institutional markets (e.g., hospitals and schools).

Having clarity around its stage of development is a food enterprise's first step toward maximizing its profits. Intentionally choosing the type of markets in which to sell its products can help an enterprise choose its scale of operation. Alternatively, if the enterprise wishes to operate only at a particular scale, then having a clear understanding of the types of market outlets that will be most accessible to its operation can be very helpful.

C4. CURRENT CONDITIONS

In speaking with a broad cross section of Vermont producers, we heard accounts of successful marketing of Vermont-grown and -processed food as well as difficulty accessing grocery and institutional outlets. Likewise, in speaking to experts in retail groceries, restaurants, and institutions, we learned about the existing structure of these mainstream outlets and the efforts being made to increase the sales of local products. To increase the amount of local food found in institutions, traditional supermarkets, and restaurants, producers need to fully understand the current system of food distribution. Likewise, retail outlets and wholesalers need to understand the costs associated with producing food, especially in places such as Vermont and New England.

🍷 Self-Distribution

🍷 Direct Sales

One way to measure local demand is through direct-to-consumer sales, including farm stands, farmers markets, and community supported agriculture farms (CSAs). According to the 2007 *Census of Agriculture*, direct-to-consumer marketing nationwide amounted to \$1.2 billion in sales, compared with \$551 million in 1997.⁴ The 2007 *Census of Agriculture* found that direct sales in Vermont increased from \$4 million in 1992 to \$22.9 million in 2007 (equal to about 2.5% of the total food purchases by Vermonters). Between 2002 and 2007, direct sales to consumers in Vermont increased from \$15.52 to \$36.83 per capita. **At about \$37 per person, Vermont has the highest per capita direct sales in the nation—more than twice as high as the closest New England state** (Table C3).

Table C3: Direct Farm Sales for New England States

State	Population	Direct Farm Sales			
	2007	2002 (unadjusted)	2007	Change from 2002	2007 per capita
Connecticut	3,489,868	\$17,108,000	\$29,752,000	74%	\$8.53
Maine	1,315,398	\$11,237,000	\$18,419,000	64%	\$14.00
Massachusetts	6,467,915	\$31,315,000	\$42,065,000	34%	\$6.50
New Hampshire	1,312,256	\$10,420,000	\$16,021,000	54%	\$12.21
Rhode Island	1,053,136	\$3,697,000	\$6,292,000	70%	\$5.97
Vermont	620,748	\$9,567,000	\$22,863,000	139%	\$36.83

Table C4: Direct Sales Per Capita by Vermont County

County	Per Capita
Addison	\$148.19
Grand Isle	\$71.21
Orleans	\$57.68
Orange	\$54.57
Windham	\$48.57
State	\$36.83
Windsor	\$34.31
Rutland	\$32.01
Franklin	\$31.74
Caledonia	\$29.22
Essex	\$26.49
Lamoille	\$21.25
Washington	\$20.29
Chittenden	\$19.20
Bennington	\$11.81

The percentage of Vermont farms selling directly to consumers increased from 12% in 1992 to 22% in 2007. Direct-to-consumer sales provide producers with the highest margins for their products because there are no middle-person such as distributors, brokers, and processors. Consumers who purchase direct from the farmer are often dedicated to keeping Vermont’s farmland in operation by making sure their food dollars are going directly to the farmer. Per capita direct sales vary widely across Vermont, with Addison County residents purchasing \$148.19 per capita annually, and Bennington County residents purchasing only \$11.81 per capita annually (Table C4). The U.S. average is \$4.02.

Source: USDA 2007 Census of Agriculture, multiple tables.

Farm Stands

One of the most common forms of direct sales is the seasonal farm stand, or word-of-mouth sales. Although this form of distribution provides only limited revenue and works best for small quantities of production, it does allow for the development of strong community ties and provides income for many families. Some of Vermont’s most successful producers started with this simple means of production and marketing. According to the 2007 U.S. Census of Agriculture, between 1994 and 2007 the average direct sales per farm (including farmers markets) increased from \$6,958 to \$8,853 in Vermont.

Farmers Markets

Farmers markets have demonstrated strong growth in the last 15 years. Once limited to the growing season and only certain locations, 73 markets are now spread across every county of the state, according to an annual survey conducted by [Northeast Organic Farming Association of Vermont](#) (NOFA-VT) in 2009. Gross receipts data collected in 2009 by 45 market managers revealed total aggregate sales of over \$6,917,041.⁵ According to NOFA-VT, the largest markets averaged between 40 and 50 vendors (seven markets reported) each week. Ten markets averaged under 10 vendors, 25 had between 10 and 19 vendors (up from 17 in 2008), and 10 had between 21 and 39 vendors (up from six in 2008).

Susan Johnson, [NOFA-VT’s](#) Farmers Market advisor, summarized her observations of Vermont’s farmers markets this way:

“The largest markets in the state generally have more capital to work with. Their vendors generally earn more money at the market so the board of directors are able to charge them more to attend which in turn allows the market greater access to better promotion, ability to pay a manager and other fees like book-keeping and website development. Large markets often have a waiting list of people wanting to vend at their market. Most also have many years of experience, growing from a small market to a large one and have learned much through trial and error. The responsibilities are left to the manager and there is little help supplied by the vendors.

Small markets rarely have the funds to pay for more than bare necessities. Most are managed by volunteer help, which is provided by the vendors that sell at the market

Figure C2: Raw Product Production Scale and Market Outlet Flow Chart⁶

PRODUCTION	DISTRIBUTION CHANNEL	MARKET OUTLET	EXAMPLES
For Self (very small scale)	X	X	<i>Community and School Gardens</i>
For Others (very small scale)	Food Shelf / Bank	X	<i>Charitable food sites Grow an extra row programs</i>
For Small Markets	Direct	DIRECT SALES: farm stands; farmers markets; CSA; restaurants; small retailers; medium retailers	<i>Cedar Circle Farm; Flack Family Farm; Cafe Provence; Chester Farmers Market</i>
	Wholesale Distributor (micro, regional)	SMALL RETAILERS: restaurants; food coops; independent grocers; schools; country stores	<i>Buffalo Mountain Coop; Kismet Restaurant; Old Brick Store; Sharon Elementary; Richmond Market</i>
For Medium Markets	Direct	MEDIUM RETAILERS: food coops; restaurants; independent grocers; schools; institutions; regional supermarkets; natural food stores	<i>Hunger Mountain Coop; Shelburne Supermarket; Fletcher Allen Health Care; Healthy Living; U-32; Hannafords; Shaws; Whole Foods; Champlain College Dining Service</i>
	Wholesale Distributor (micro, regional, national)		
For Large Market:	Wholesale Distributor (regional, national)	LARGE RETAILERS: large supermarket chains; 'Big box' stores; Institutional food services; contract growing / livestock; commodity raw products	<i>Stop-n-Shop; Walmart; Costco; Sodexo; Cascadian Farms; Tyson Chicken; St. Albans Coop; Agrimark; Organic Valley</i>

Figure C3: Processor Scale-to-Market Outlet Flow Chart⁷

PRODUCTION	PROCESSOR SCALE	TYPE OF PRODUCT	PROCESSING FACILITY TYPE	DISTRIBUTION CHANNEL	MARKET OUTLET
Farmers who produce for self or a processor to make a value-added product	For Self	Farmstead	On-farm	X	X
	Small Scale	Farmstead Small Specialty Niche	Custom Meat Processing Food Centers Food Venture Center Community Kitchens	Direct or Wholesale Distribution (micro, regional)	Small & Medium Retail
	Medium Scale	Branded: Regional Specialty or Commodity	Commercial-Scale Facility / Food Centers <i>(VT Smoke & Cure, Cellars at Jasper Hill)</i>	Direct & Wholesale Distribution (micro, regional, national)	Small & Medium Retail + Gov. + Instit. + Outlets
	Large Scale	Branded: National Specialty or Commodity	Commercial-Scale Facility <i>(Cabot, Ben & Jerrys)</i>	Wholesale Distribution (regional, national)	Small, Medium & Large Retail + Gov. + Instit. + Outlets

or an enthusiastic community organizer. Often they have a hard time keeping quality vendors who often leave if a better opportunity at a larger market presents itself.⁸

Additional challenges to farmers markets include the development of simple infrastructure such as electricity, parking, signage, electronic benefit transfer (EBT) equipment, and water.

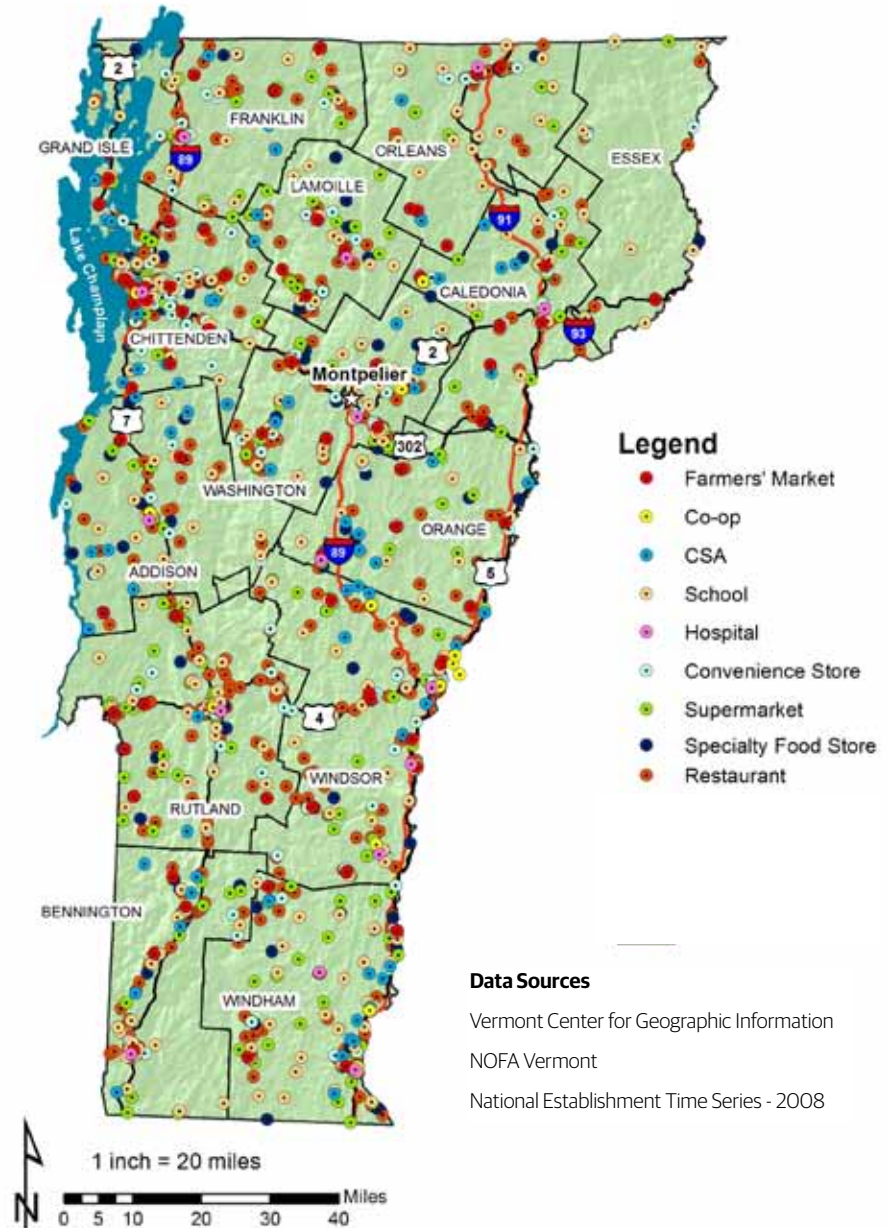
Community Supported Agriculture

Community supported agriculture (CSA) builds direct relationships between farmers and consumers. As the name implies, CSAs invite consumers to directly support a farm or group of farms by purchasing a seasonal share of the farms' production. Although the terms of membership differ from farm to farm, CSA shares are usually purchased for a set price early in the season in exchange for weekly boxes of an ever-changing variety of products. The partnership allows consumers and farmers to share in the seasonal rhythms of diversified farming, enjoying the successful bounties and helping to stabilize crop failures. Based on information provided by [NOFA-VT](#), **the number of CSAs in Vermont grew from 28 in 2000 to nearly 100 in 2010.**

CSA groups started as a mechanism to provide much-needed working capital to farmers at the start of the growing season and have evolved into a guarantee of fresh food throughout the season or, in some cases, year-round. In 2006, NOFA-VT noted the presence of six winter shares. In 2010, 48 CSA programs reported off-season share availability.

Many CSAs still provide goods directly from the farm only during the growing season, but some now include food from multiple producers in the region and often operate year-round. For numerous producers of a limited line of products, partnering with another farm in a CSA increases the market for their goods. CSA programs develop stability through partnerships because a greater diversity of products can help cushion losses from unforeseen crop failures. These partnerships are often made between various kinds of farms (e.g., vegetable farms connecting with orchards, dairies, and meat growers) and can also work well between farms and local food businesses (e.g., farms connecting with local bakeries, wild edible foragers, cheese makers).⁹ More than 10 multi-farm CSAs were active in Vermont in 2009.

Figure C4: Vermont Food System: Retail Distribution



Internet Sales

The Internet provides a robust direct marketing opportunity for maple producers and farms selling meat and artisanal cheese. Nearly 80 Vermont sugar makers¹⁰ are listed on the [Vermont Maple Sugar Makers Association](#) website, and the [Vermont Cheese Council](#) hosts a website with links to all members' individual sites. Both of these websites are supported by a combination of producer-paid fees and publicly funded grants. A number of Vermont farms sell a wide variety of meats online as well (e.g., the [Vermont Beef Producers Association](#) and [NOFA-VT](#) offer web access to meat producers), but there does not appear to be a single go-to site for meat sales.

The website of the [Local Growers Guide](#) (developed and maintained by the [University of Vermont's Center for Rural Studies](#)) contain farm and sales outlet listings for Addison, Chittenden, Franklin, Grand Isle, Rutland, and Washington counties. Users can search by product, farm, sales outlet, or town. [Farmstand Co-op](#) is a recent example of a web-based weekly ordering and pick-up service that operates by and for the producers and residents of Charlotte, Vermont. [FarmPlate](#) is a Vermont-based blog for consumers, producers, buyers, and supporters of local, sustainable foods. [NOFA-VT](#), [Rutland Area Farm & Food Link](#) (RAFFL), [Mad River Valley Localvores](#), [Valley Farm & Food](#), and [Transition Putney](#) websites all contain listings of where consumers can find farmers markets, farm stands, CSA farms, and other direct sales locations within given regions of the state.

National sites such as [Local Dirt](#), [Local Harvest](#), [FarmsReach](#), and [LocallyGrown.net](#) are online marketplaces that attempt to link consumers and producers as well as farmers and business buyers, and to educate consumers about local food.

← Retail Sales

Producers such as [Monument Farms Dairy](#) in Middlebury deliver their goods directly to retailers, including food cooperatives, independent grocery stores, and small country stores. These outlets provide convenience to consumers by limiting travel to individual farms and removing the need for an on-farm retail presence.

Some Vermont food producers and processors such as [Butternut Mountain Farm](#) in Johnson and [Champlain Orchards](#) in Shoreham deliver their products directly to regional and national outlets of every scale without the use of a distributor. The major

advantages of self-distribution are maintaining control over product handling all the way through to the market outlet and maintaining close contact with customers.

Some producers have limited access to retail outlets because of the following:

- 🍷 A need to stay at the farm to maximize efficient production and processing
- 🍷 An inability to provide a consistent supply of food year-round (this is often beyond the scale of Vermont producers)
- 🍷 The cost of developing and applying UPC codes
- 🍷 The cost of retail packaging
- 🍷 The cost of third party certification of production and processing practices

← Restaurant and Institutional Markets

There are many possibilities for connecting Vermont producers with a wide variety of institutional purchasers (Figure C5). However, to meet required price points, many institutions and chain restaurants pursue low-cost business strategies, often resulting in many low-skill, low-wage jobs and the use of lower-priced ingredients. Public schools frequently budget meal costs at less than \$2.70 per meal to cover the cost of ingredients, labor, and overhead such as facilities and equipment. These price points can limit access to Vermont-grown food, but should not automatically be considered insurmountable barriers.

Although many restaurants expressed difficulty affording Vermont-grown ingredients, some have successfully embraced a commitment to locally sourced food; these include [Claire's Restaurant](#) in Hardwick, [Kismet](#) in Montpelier, [River View Café](#) in Brattleboro, [The Farmers' Diner](#) in Quechee, and [The Bee's Knees](#) in Morrisville, to name a few.

As a further sign of this growing movement at Vermont restaurants, the [Vermont Fresh Network](#) (VFN) reports having over 250 chefs as members in 2009 (up from 225 in 2007), along with over 100 Vermont farmers (Figure C6). VFN member chefs self-reported that their food purchases totaled over \$55 million in 2009 with approximately \$16 million being sourced from Vermont farms. The median local purchase volume for these chefs was \$42,758. Meanwhile, VFN member farmers self-reported that they sold over \$42 million in 2009, including over \$6 million directly to

restaurants (i.e., not sold via a distributor) with a median sales volume of \$10,000 per farm. VFN member farmers reported that 15% of all farm sales were to VFN member chefs, whereas 30% of the VFN chefs' purchases were from Vermont farms.¹¹

Incorporating significant amounts of Vermont-grown food into restaurant and institutional menus is most easily achieved by altering selections to reflect seasonal variations. *Fletcher Allen Health Care* achieves this by using general terms such as seasonal vegetables in their menu descriptions. *Claire's Restaurant* drafts portions of its menu on a daily basis to accommodate seasonal variation. Some businesses, such as *Tyler Place Resort* in Highgate Springs and *Mary's at Baldwin Creek* in Starksboro, rotate their menus at the beginning of each season and train their kitchen staff in the necessary preparation of a limited number of offerings.

According to Rick Chase of *Da Costa Sales*, out-of-state consumers located in high-income urban areas crave a connection with their food and are willing to pay premium prices for "food with a story." Regionally based restaurants provide an opportunity for Vermont producers to increase the outlets for their products. A limitation for Vermont producers is developing the connection with the end user. This is not a function of distribution but rather reflects the need to build marketing networks to increase the volume of Vermont products moving to specific locations. Some producers noted the high cost of shipping small quantities of product to dispersed locations. Building formal relationships among producers to ship goods may help reduce the shipping cost for each producer. For example, *Da Costa Sales* routinely acquires Vermont-produced vegetables, maple syrup, bacon, and butter for distribution into New York City restaurants. By building relationships between Vermont producers and New York chefs, the company is able to market products in small quantities.¹² **A Vermont-based organization that develops relationships with businesses in urban areas and aggregates Vermont-produced food prior to shipping to end users could be of significant value to Vermont farms and food processors.**

Figure C5: Vermont Food System: Institutional Purchasing Potential

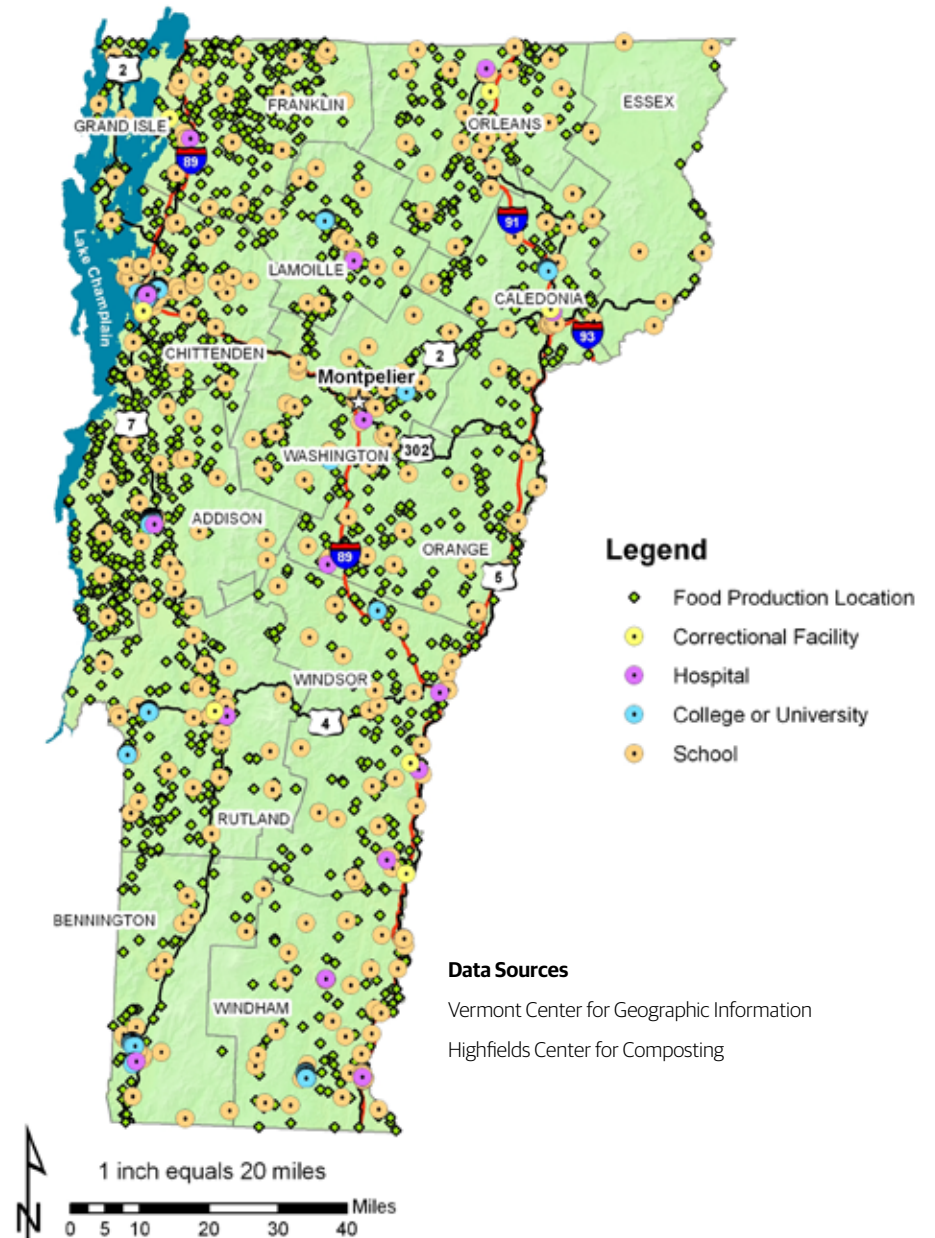
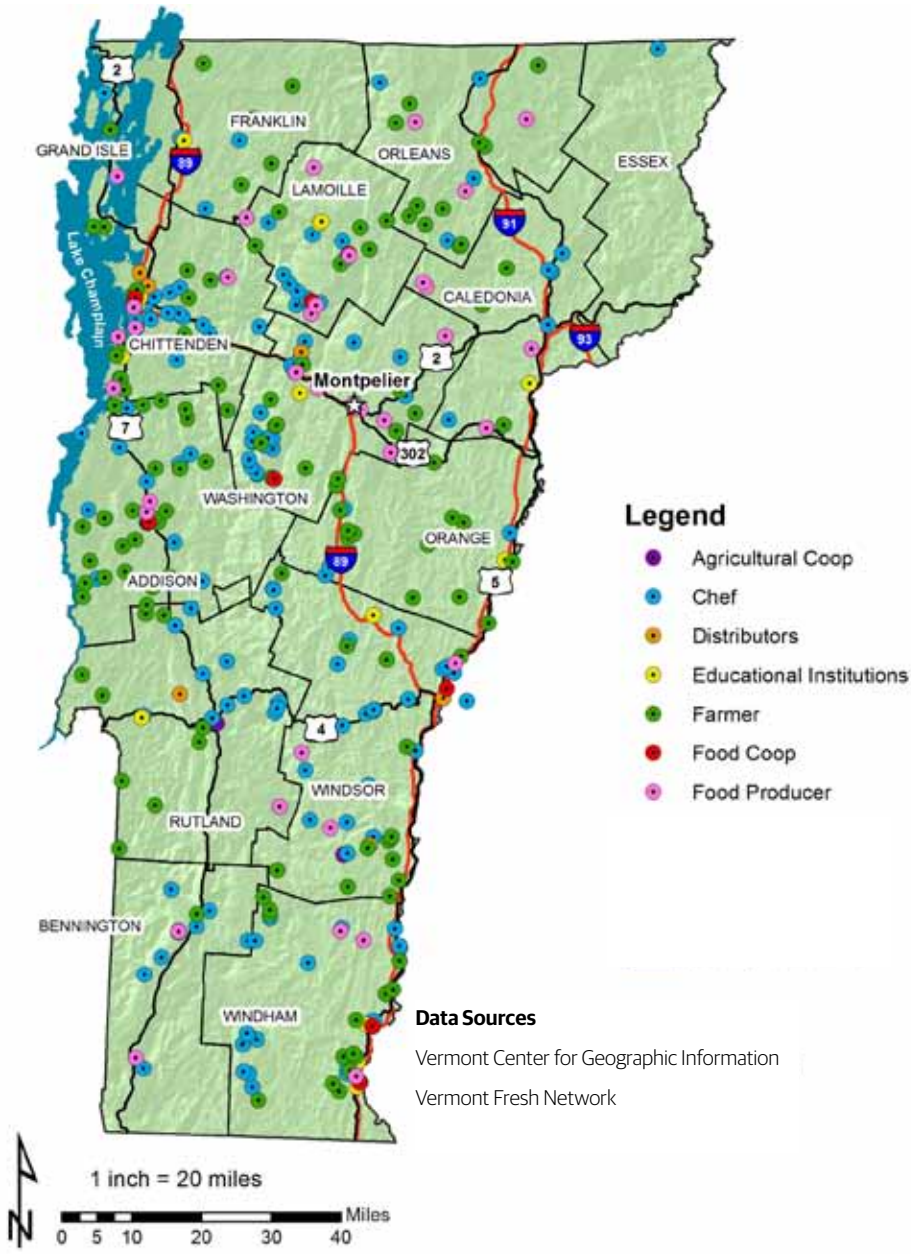


Figure C6: Vermont Food System: Vermont Fresh Network Members



Although Vermont-grown food is appreciated by out-of-state consumers, there are difficulties in developing consistent supplies for restaurant use. Problems cited by various wholesalers and distributors included the quality of meat from certain facilities, the quality of packaging materials, the price of Vermont-grown food, and access to a consistent supply.

Barriers to Local Purchasing for Institutional and Restaurant Retailers

As we interviewed producers, wholesalers, and institutional buyers, a number of issues that limit local purchases emerged:

- 👉 Requirements to purchase minimum orders of products from main distributors
- 👉 Insufficient on-site storage capacity and staffing for the use of fresh products
- 👉 Price points that exclude the significant use of local products
- 👉 Time to develop relationships with more than a limited number of suppliers
- 👉 Knowledge of local suppliers (where they exist, how to access them, what they produce) and ability of staff to incorporate fresh products and prepare food from raw ingredients.

Finally, there has been considerable interest in, and success with, increasing local food purchases in hospitals, colleges, and public schools within Vermont. However, providing locally grown food to Vermont schools presents a particular challenge. The [Green Mountain Farm-to-School Network](#) (GMFSN), based in Newport, works with schools to increase the use of locally grown meat, dairy, grains, and produce. The small quantities required for small Vermont schools often requires GMFSN staff members to deliver products using their private vehicles. Although this is a necessary strategy in the near term, it may be difficult to sustain over the long term.

Katherine Sims of GMFSN also noted the need to broker local food to schools. She stated: "We still need to actively reach out to schools with access to locally grown food, the schools are not yet begging for it."¹³

[Vermont FEED](#) (Food Education Every Day), a farm-to-school organization run by NOFA-VT, [Shelburne Farms](#), and [Food Works at Two Rivers Center](#), surveyed 19 Vermont

schools during the 2003-2004 school year and found that less than 10% of their food budgets were directed to fresh produce, less than 10% of their produce budgets were spent on locally produced fruit and vegetables, and less than 20% of the locally produced food was purchased directly from farmers.

As part of their 2003-2004 study, *Vermont FEED* reviewed data from several previously published reports. Food service directors named the increased cost of local food (whether perceived or actual) as a barrier to purchasing food from local farms. In a Washington State School Food Service Survey, over 81% of respondents cited cost as a primary concern. In addition, 47% of respondents cited cost as a primary concern in an Oklahoma Farm to School study.¹⁴ In both studies, food safety and a reliable supply were the other top two concerns.

To increase the use of Vermont-grown food in local schools, it may be beneficial for wholesalers and distributors to achieve purchasing clearance from the [Department of Defense \(DoD\) Fresh Commodity Food Program](#). Commodity food comes through Commodity Entitlement money credited to schools rather than out of meal program budgets.

For a few years [Black River Produce](#) gained vendor approval to participate in the DoD bidding program and sourced considerable amounts of Vermont-grown food into Vermont schools. CEO Mark Curran stated that although gaining approval was cumbersome and time consuming, the system worked well for *Black River* and the farmers who received standard market prices for their goods. Unfortunately, as staff changed within both the DoD and Vermont state government, it was necessary to restart the approval process. *Black River* would consider participating in the program again and believes it merits support.¹⁵

The *Vermont FEED* research also revealed that although lettuce, tomatoes, apples, and carrots are in large demand by schools, they are not purchased in significant

“The Arlington schools focus on healthy eating and have a great cafeteria where they produce a lot of their own food, but they also invite farmers to Meet the Farmer luncheons and really stress the idea of eating locally. They are really trained in food education, and stress local food systems and economic benefits as well.”

—Focus group participant from Bennington County

Steps to Increase Local Foods in Vermont Schools and Other Institutions

Following are key hurdles to be addressed to expand the use of locally sourced food in Vermont schools and institutions:

- 👉 **Pricing:** Helping food staff understand that Vermont products are often within their budgets.
- 👉 **Washing and packaging:** Increasing farmer use of minimal processing
- 👉 **Year-round supply:** Increasing dispersed storage for Vermont-grown food and assisting food staff in adjusting menus to account for seasonal variation
- 👉 **Standard sizes and shapes:** Assisting producers and processors in understanding the portions needed for institutions; for example, the size of hamburger patties and the shape of carrots
- 👉 **Education:** Increasing both producers' and food staffs' awareness of local need and local production

volume through the DoD commodity program. These crops present an opportunity for increased direct sales by farmers for use in school lunch programs.

The [Abbey Group](#) provides food service management to 60 Vermont schools and is able to provide a limited amount of local food. Each school in its system has an account with at least one local farmer. In some instances the relationship is minimal, consisting of a single delivery of one product. Other schools have developed more robust partnerships that provide significant food to the school. The *Abbey Group* has also contracted with an apple producer to provide all of the apples for the schools in its food distribution system and provides transportation from the farm to the school. A similar opportunity exists for potatoes if a farmer were interested in producing for the account. The group buys food from a small number of farms so that price points remain within the school food budget.¹⁶

Recently, students at [Sterling College](#), a small liberal arts school in Craftsbury with a mission to support neighboring food producers, have requested that their food service provider limit the number of servings of meat per week to ensure local sourcing.

Kitchen Manager Justin Halvorsen has lowered some meal preparation costs to allow him to purchase Vermont-raised meat and vegetables. Having access to an *AmeriCorps* volunteer to assist with sourcing has been critical in increasing the use of locally grown food.¹⁷ The need for sourcing assistance is also evident in public schools; during the 2003-2004 school year, the four Vermont schools that worked directly with *Vermont FEED* purchased more fresh produce than average and were more likely to purchase that produce from local sources.

👉 Use of Wholesalers and Distributors

Vermont and the Northeast region are home to a number of wholesalers and food distributors that provide a wide variety of customized services to individual farms. Wholesalers and distributors access markets as varied as individual restaurants and supermarket chains. The wholesalers and distributors themselves range in size from single individuals with small trucks handling a limited range of products such as Brad Earl of *B&D Distributors*, to sophisticated wholesaler operations able to source and deliver a wide range of products such as *Black River Produce* and [Upper Valley Produce](#). Some wholesalers such as [Dole & Bailey](#) and [Red Tomato](#) work with producers to ensure the quantity and quality of food they require. Other wholesale and distributor firms that operate within Vermont include [Provisions International Ltd.](#), [Vermont Hydroponic Produce](#), [Burlington Food Service](#), and *Shadow Cross Farm* (eggs).

Black River Produce operates a fleet of 32 refrigerated trucks, delivers six days per week, and services more than 2,000 accounts within a 150-mile radius including the territories of Vermont, New Hampshire, Massachusetts, and New York. According to Mark Curran, CEO of *Black River*, “We work with more than 100 Vermont farmers right now. It’s maybe 10 percent of our overall revenue but key to our company mission and philosophy. When it comes to buying, we look first to Vermont. If it’s not available here, we look regionally in New Hampshire and Massachusetts and New Jersey. Only after that do we source from conventional markets in places like Boston, Texas, and California.” In 2008, *Black River Produce* purchased more than \$4 million worth of produce, dairy, meat, and other food products that were grown or made in Vermont.¹⁸

Upper Valley Produce supplies restaurants and retailers across Vermont and New Hampshire with fresh fruits and vegetables. It focuses on distributing products from local

Steps to Working with a Distributor

Businesses considering the use of a distributor will need to address several issues for a successful partnership. The following list is not exhaustive, and issues will vary from distributor to distributor. Successful distribution can help a company expand its consumer access, but practices vary greatly among distributors. Producers must do their homework to find distributors that are the right match for their products.

- 👉 **UPC labels:** Many distributors require universal product code labels before they will include a product in their inventory; this requires a minimum payment of \$760 (see box on page 28).
- 👉 **Payment schedules:** Many distributors pay on 30 days net, and some may not pay for product until 45 to 60 days after pick-up; a producer must be prepared to accommodate this.
- 👉 **Consistent supply:** Distributors understand the seasonality of production, but they expect producers to meet production targets within reason.
- 👉 **Slotting fees:** Producers are often required to pay “slotting” or “merchandizing” fees in addition to distribution fees, to access shelf space in some types of retail stores. There is significant variation by product, distributor, and store, but these fees can add up quickly!
- 👉 **Quantity:** Distributors have different minimum amounts. Some distributors will pick up a single box; others have a four-pallet minimum.
- 👉 **Good agriculture practices (GAP):** Foodborne illness linked to fresh produce has caused some distributors to require documentation demonstrating producer compliance with GAP (see box on page 34).
- 👉 **Packaging:** Distributors require product to be packaged in a manner that can stand up to repeated handling. Appealing packing in case packs of 6 or 12 units per case are often standard.
- 👉 **Pricing:** Product price should be within the category of similar products.
- 👉 **Samples:** Some distributors expect producers to provide samples at no charge and to conduct in-store demonstrations of product.
- 👉 **Chargebacks:** Some distributors apply “chargebacks” to producers for product that does not sell before the expiration date, is damaged prior to sale, or does not sell for some other reason.
- 👉 **Advertising:** Careful negotiation of advertising responsibilities should take place as a distribution relationship is being developed.
- 👉 **Product liability insurance:** Distributors and retailers often require product liability insurance. Producers can gain access to technical assistance to help with pricing, packaging, and labeling through the *Vermont Farm Viability Program* and the *Intervale Center*.

growers across New England and throughout Quebec. It has developed a network of growers and communicates with many of them prior to the planting season to discuss farmers' production plans. Often it will agree to buy as much produce as can be grown and tries to provide a price point range that the farmer can expect, in advance of any harvest.¹⁹ It is also an exclusive distributor for [Taste of the North](#) produce, such as tomatoes (hydroponic, organic, and conventional), bell peppers (hydroponic and conventional), and English cucumbers (hydroponic, organic, and conventional) as well as strawberries and blueberries from growers across Vermont and Quebec.

Mission-driven and cooperative models of distribution appear to be particularly successful in moving Vermont-produced food into the marketplace. For example, *Red Tomato* has a business model that combines distribution with marketing. Betty MacKenzie, Co-Director of *Red Tomato*, explains that they require sufficient scale from producers to meet the requirements of retail produce buyers, so they work with farmers to coordinate supply and demand prior to the growing season. By assisting farmers in developing product differentiation and market access through sizing, portioning, and



Upper Valley Produce truck making a pick-up at Peaslee's Vermont Potatoes.

packaging—that is, by assisting farmers in building a brand—*Red Tomato* helps farmers meet the expectations of produce buyers and still capture some of the value of high-quality, source-verified products.

[Deep Root Organic Cooperative](#), a Vermont-based produce marketing and distribution cooperative of 20 primary farmer members, has a seniority-based bidding system that determines market access as a way to control supply and demand. Essentially, senior members have first access to the *Cooperative's* market. Farmers package the produce on site into containers bearing the *Deep Root* logo. A standard fee is charged for marketing, sales, and distribution. The *Cooperative* has recently developed a central location in Johnson, Vermont, to simplify pick-up of produce for distribution, but all packaging still occurs at individual farms.

[Vermont Roots](#), based in Rutland, offers distribution and marketing services to shelf-stable specialty food producers throughout the state. By coupling products from many producers into a predetermined shelf space design, *Vermont Roots* gives food processors access to medium-sized retail outlets. Additionally, *Vermont Roots* provides services to assist with product marketing. The company does not maintain warehousing capabilities and spends significant resources travelling to individual producers to procure product.

National-scale distributors such as *UNFI* and *U.S. Foodservice* effectively control access to many of the large retail supermarkets. These distributors are becoming interested in source-verified food, which could lead to new opportunities for Vermont producers. In the summer of 2009, a regional produce buyer from *U.S. Foodservice* visited Vermont farms to discuss sales opportunities through the company. The price point required to ensure the profitability of Vermont-scale production was unattractive to *U.S. Foodservice*, although the relationships developed may prove fruitful in the future.²⁰

Vertical Integration

There is a direct relationship between enterprise profitability and the vertical integration of functions and products, as well as the closeness of the relationship to the end consumer: "As retailers grow larger through acquisitions and mergers, they develop their own vertically integrated distribution systems that tend to shut out wholesalers, small processors and smaller retailers. Thus, food manufacturers become more focused

on serving the interests of food retailers rather than the interests of farmers.”²¹ Farmers are often caught in the middle of a system defined by the highly concentrated food retail industry and the highly concentrated food processing industry. As a result of their economic power, these industries have the ability to monopolize the relationship with the consumer and effectively keep the farmer anonymous.

Producers and processors are most successful over the long run when they capture more than one function in the production-distribution-retail value chain and when they are able to build a direct relationship with the consumer.

This can happen through a trusted brand, such as *King Arthur Flour*, *Butterworks Farm*, *Organic Valley*, or directly with customers, as is the case with the *Red Hen Bakery* and *Kismet*.

Table C5 shows the levels of vertical integration of various food enterprises that we interviewed. They are representative of both the existing and emerging models of production and distribution. Table C5 illustrates a seeming positive relationship between the vertical integration of distribution and production functions, and economic sustainability. Interviewees who stated that their operations were economically sustainable were more likely to be involved in more than three functions of the overall distribution chain. These enterprises used this strategy to (1) capture more profit to sustain their businesses and (2) gain more control over their market and customers.

For example, a fluid milk dairy such as Clifford Dairy has no relationship with its end users; it captures only a small percentage of the total profit made from selling, processing, and distributing fluid milk. Conversely, *Dole & Bailey*, [Pete's Greens](#), and *Butterworks Farm* have integrated many of the distribution functions into their operations. Although these more complex enterprises pose a greater challenge for managers, vertical integration of functions has strong potential for promoting long-term economic sustainability.

Given the scale limitations of Vermont agriculture, any attempt to compete in a volume-oriented, low-cost environment is extremely challenging and may garner results similar to what the dairy industry has faced over the past two decades. Katherine Sims of *Green Mountain Farm-to-School* and Travis Marcotte of the *Intervale Center* have both stated the need for micro-scale distributors focused on very limited geographic areas and delivering small amounts of product.

Farms Must Structure Sales to Accommodate Distribution Needs

Many farms experience periods of growth in which production does not mesh with existing distribution models. As production increases, or sales areas become more dispersed, it may be necessary to move from self-distribution to the use of small, medium, or large distributors. Other producers choose to continue to self-distribute to retail outlets.

Factors affecting the ability of a farm to increase sales include the desire and ability to do the following:

- 👉 Manage increased staffing needs
- 👉 Accept the risk associated with debt
- 👉 Develop required storage and processing facilities
- 👉 Develop access to and maintain relationships with markets to accommodate increased production
- 👉 Operate in accordance with regulatory standards (HACCP, GAP).

👉 Storage

As reliance on imported and industrially produced food has increased over the past 50 years, Vermont has lost much of the infrastructure necessary to store food for out-of-season use. Several controlled atmosphere facilities for apple storage have been converted to alternative uses. Many small groceries that could store carcasses for on-site processing have transformed these spaces and now buy all of their meat in retail packages. Even wholesale distributors such as *Black River Produce* and *Vermont Roots* have limited storage and rely on producers to regularly provide relatively small quantities of food for distribution.

Some farms have increased their on-farm storage by adding freezers and root cellars. Fortunately, the need for small, localized storage facilities has been recognized and some funding from state and federal sources is available, administered by the [Vermont Housing and Conservation Board's Farm Viability Program](#), to assist farmers with the development of on-site refrigeration, freezers, and root cellars. The *Deep Root Cooperative* has gained greater efficiency by supporting a centralized aggregation center with

Table C5: Concentration of Functions in Distribution and Production

	Grower/ producer	Packaging and minimal processing	Further processing	Transporter	Broker	Wholesaler/ distributor	Consolidator/ marketer	Warehousing and storage	Retail to Consumer
Provisions International									
Champlain Orchards									
Dole & Bailey									
Clifford Dairy (fluid milk)									
St Albans Co-op									
Organic Valley									
Butterworks Farm									
Odin - Holland									
Pete's Greens									

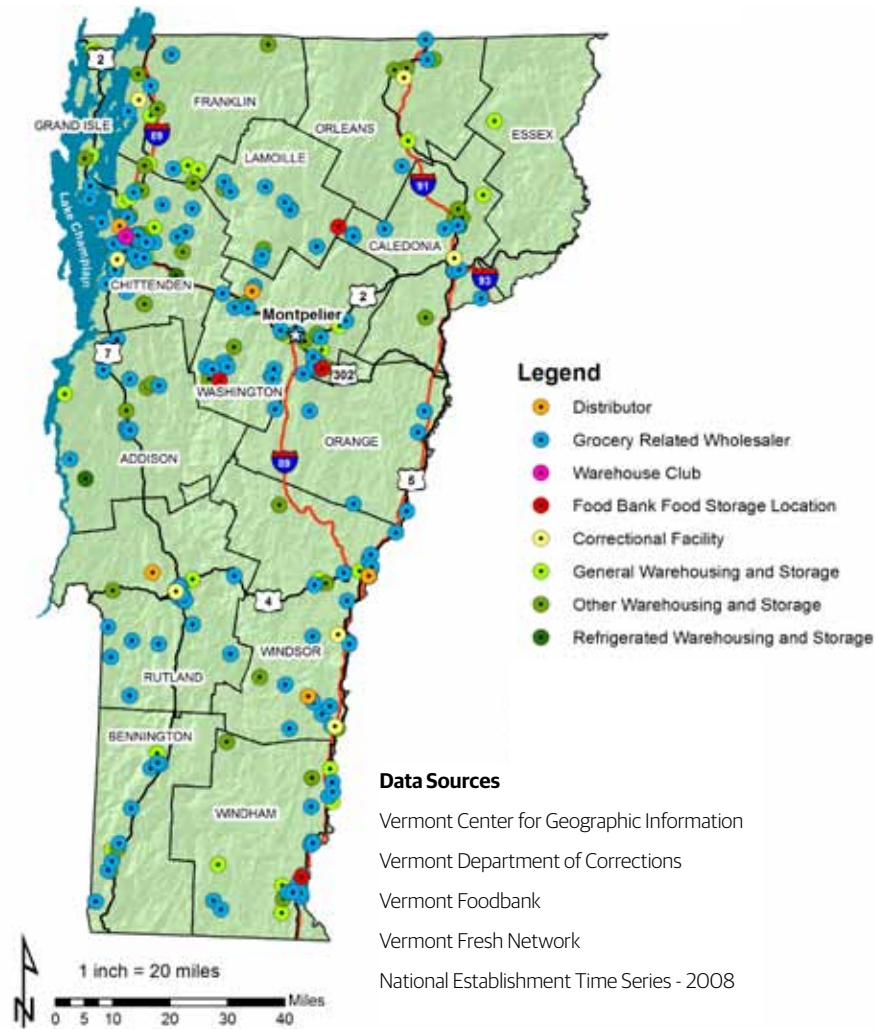
storage infrastructure dispersed on farms. Farmers maintain produce at their own locations and deliver it to a common area for pick-up and distribution.

The owners of *Vermont Refrigerated Storage* (VRS) in Shoreham, which primarily provides year-round storage for much of Vermont’s apple crop, are exploring the possibility of providing other types of storage and light processing for Vermont producers. VRS recently received a [USDA Rural Business Enterprise Grant](#) (RBEG) to conduct an economic feasibility study of bulk processing and quick and long-term freezing for institutional markets. The project will include a market potential analysis, the design of a USDA-approved facility, and a financing strategy for converting a former apple storage warehouse to a multipurpose regional food center.²²

Lack of storage is often cited as the reason for low quantities of year-round Vermont-grown food, but as Travis Marcotte of the *Intervale Center* asks, “The question is, how much does storing a product add to the cost of the product?”²³ If distributors are in the business of buying and moving product, would they increase their profit margin by providing year-round accessibility to Vermont-grown food? If so, then they should invest in storage, which would better serve the market and result in greater revenues. If the cost of storage is not offset by increased market revenues for producers and distributors, then there is little economic justification to invest in storage facilities.

The issues appear to be more complex than simple lack of storage space. Centralized storage is available at facilities such as the [Vermont Commercial Warehouse](#) in Williston, which provides the added bonus of flexibility in the type and amount of storage required.²⁴ The company is willing to lease additional space of suitable type to meet customer demands. The advantage of this system is that it does not tie up producer capital in storage capacity and can offer flexibility in the volume and type of product stored.

Figure C7: Vermont Food System: Potential Storage Facilities



The [USDA Farm Service Agency](#) has recently developed a program to finance the construction of on-farm storage facilities for commodity crops and fruits and vegetables. Federally subsidized low interest loans are available to assist with the construction of new cold storage buildings, including prefabricated buildings suitable for storing fruits and vegetables and having a useful life of at least 15 years. The loans can also assist

with the construction of permanently affixed cooling, circulating, and monitoring equipment and electrical equipment including labor and materials for the installation of lights, motors, and wiring.

The *Intervale Food Hub* is also addressing the growing need for season-extending storage for Burlington-area farmers by investing in shared storage facilities. Currently, 800 square feet of refrigerated storage is available to farmers for rent. The space is used by *Intervale* for early spring storage of harvested nursery stock used in conservation plantings and then is available to farmers once crops are harvested later in the summer. Sharing the storage space and spreading the cost over a number of farms helps alleviate the seasonal challenge of vegetable storage. The *Intervale* is exploring the possibility of developing another 1,500-square-foot storage unit for bulk product in the fall, which will be held in inventory for winter sales to local grocers and restaurants.²⁵

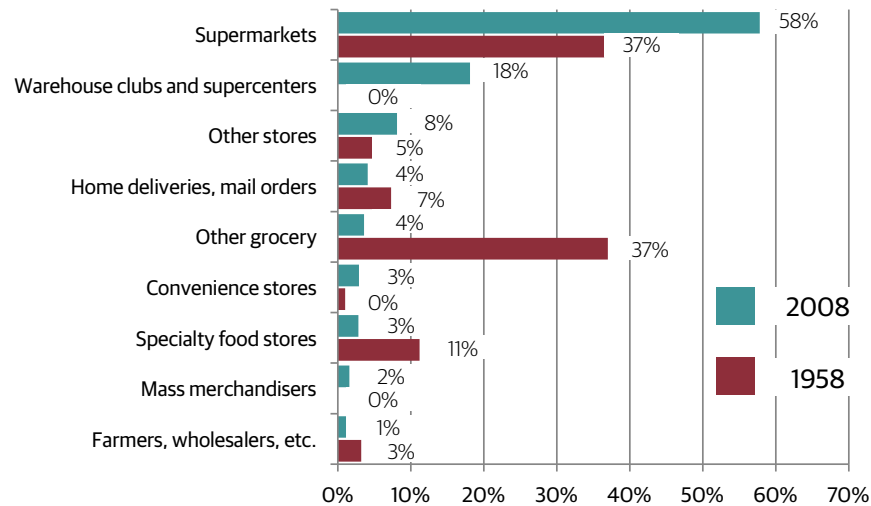
Market Outlets

A common barrier to retail sales for many farms is gaining access to large retail outlets, which represent the majority of the retail food system. According to the *USDA Economic Research Service*, the share of total home food sales in the United States controlled by supermarkets and supercenters increased from 37% in 1958 to 76% in 2008 (Figure C8).

The value of food sold in "other groceries" (smaller stores) has decreased from 37% to 4% over the same time period. Obviously, access to large retail outlets is essential for farms choosing to use this system to increase sales. Additionally, to achieve the goal of increasing consumer access to Vermont-grown food, it must be consistently available in supermarkets.

The structure of the Vermont retail food industry is similar to that of the rest of the country and is dominated by three major supermarket chains, *Hannaford*, *Shaw's*, and *Price Chopper*. Access to the majority of retail consumers is controlled by these large-scale retailers and their distribution partners. To increase their access to Vermont and regional consumers, Vermont producers will need to operate within the construct of the medium- to large-scale retail environment.

Figure C8: U.S. Sales of Food at Home by Type of Outlet



Source: USDA Economic Research Service, www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/Data/Expenditures_tables/table14_dollar.htm

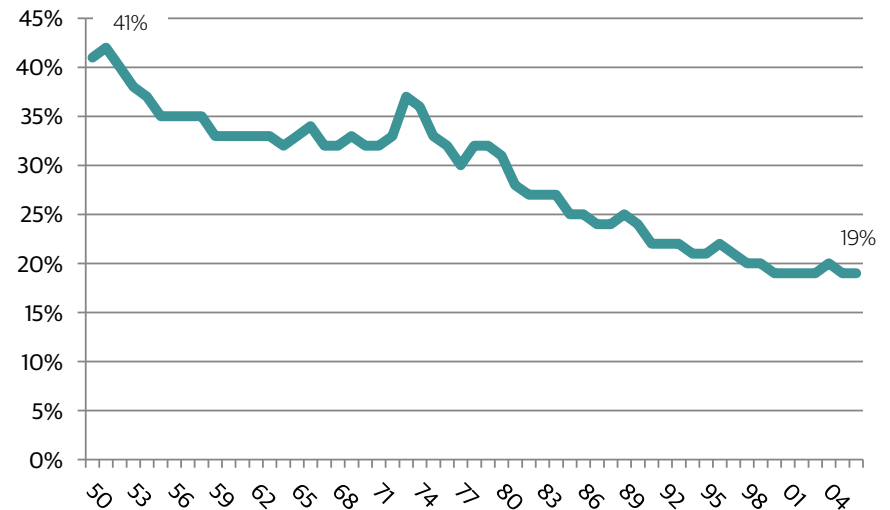
All retail operations require consistent supplies of goods, and this appears to be especially true of medium-sized and large retailers. Many Vermont and regional food producers stated that their relationships with large supermarkets, either directly or through distributors, can be difficult. Those who sold to a range of small and medium-sized retail buyers found value in the more intimate relationships with consumers and smaller merchants.

Efforts such as “matchmaker events,” run by the *Vermont Fresh Network* in collaboration with the *Vermont Agency of Agriculture, Food and Markets* (VAAF) are essentially speed dating opportunities that pair producers with retail outlets such as supermarkets, restaurants, and hospitals; they have been developed to assist farmers with market access. The *Vermont Farm Viability Program* and the *Intervale Food Hub* assist farmers with market access by providing training in key skills such as packaging and pricing.

The existing highly competitive food delivery system results in lower farm gate prices than a producer would receive from direct market sales or from more values-aligned retailers such as food co-ops. As Figure C9 shows, the share of each food dollar going

to farmers has been declining for decades, from 42% in 1951 to 19% in 2006.²⁶ Most likely, farmers will continue to be at the mercy of cost-cutting and profit-making strategies from the more dominant firms in the food chain cluster.²⁷

Figure C9: U.S. Farm Share of Consumer Expenditures for Domestically Produced Food



Source: USDA Economic Research Service, www.ers.usda.gov/Data/FarmToConsumer/Data/marketing_billtable1.htm

An example of the market pressure on farm prices is the erosion of the portion of the consumer dollar received by dairy producers. In 2009, Vermont dairy farmers were paid an average of 99 cents per gallon of milk produced while the price of milk in Vermont grocery stores ranged from \$3.35 to \$4.29 per gallon. In 1979, farmers were paid approximately the same amount per gallon as in 2009, but the retail price was a mere \$1.23 per gallon. Multi-state efforts such as *Keep Local Farms* are trying to educate consumers about the value of local dairy farms, raise funds to support dairy farmers throughout New England, and increase dairy sales.

Because large retail outlets control over 70% of the market for food eaten at home, expanded, accessible retail opportunities to grow the market for locally and regionally produced food are needed.

Whole Foods, a large retailer selling significant quantities of Vermont-grown products, has been an exception to the rule and has been supportive of Vermont producers and processors. With sales in 2005 of \$5.6 billion at 189 stores, it has redefined the U.S. grocery experience on its way to becoming the world's largest organic and natural grocer.²⁸ By the end of 2009, this figure grew to 284 stores and over \$8 billion in sales.

Recently, however, *Whole Foods*, which operates 43 stores in Connecticut, Maine, Massachusetts, Rhode Island, and New York, has adopted practices and policies that are similar to those of other supermarket chains. A large and inflexible distribution infrastructure, as well as cost and price pressure from other retailers, are encroaching on some of its traditional categories of organic and natural. In addition, increasing producer documentation requirements have reduced the ability of many producers to sell to *Whole Foods*. For instance, *Vermont Smoke and Cure* sources pork from Canada to fulfill the requirements of its *Whole Foods* accounts.²⁹

The current focus of the supermarket industry is on cost reduction to compete with *Walmart*. Even some companies that built their brand, in part, on local and high-quality foods feel compelled to respond to *Walmart's* price advantage. For example, a recent investigative news report found that *Whole Foods* was sourcing a significant portion of its frozen store brand vegetables from China to compete on price.³⁰

Interestingly, *Walmart* appears to be trying to compete directly with *Whole Foods* by using its scale, distribution, and logistics competencies to buy and sell local food at much lower prices.³¹ The March 26, 2010, issue of *The Atlantic* magazine carried an article outlining *Walmart's* ability to work with local farms to provide fresh produce at a competitive price. *Walmart* calls its new program Heritage Agriculture and encourages farms within a day's drive of one of its warehouses to grow crops for sale in the megachain.

The Atlantic article states "As with most Wal-Mart [sic] programs, the clear impetus is to claim a share of consumer spending: first for organics, now for locally grown food. But buying local food is often harder than buying organic. The obstacles for both small farm and big store are many: how much a relatively small farmer can grow and how reliably, given short growing seasons; how to charge a competitive price when the farmer's expenses are so much higher than those of industrial farms; and how to get produce from farm to warehouse." The author found that, "To get more locally

grown produce into grocery stores and restaurants, the partnership is centralizing and streamlining distribution for farms with limited growing seasons, limited production, and limited transportation resources."

The Atlantic article also addressed the issue of farmers receiving fair prices for their goods by stating, "Even if the price Wal-Mart [sic] pays for local produce is slightly higher than what it would pay large growers, savings in transport and the ability to order smaller quantities at a time can make up the difference. Contracting directly with farmers, which Wal-Mart [sic] intends to do in the future as much as possible, can help eliminate middlemen, who sometimes misrepresent prices."³²

— Small and Medium-Sized Retailers

Many of Vermont's small retailers such as cooperatives, independent grocers, and country stores are able to accommodate the needs of small-scale producers because of their missions, strong connections with local communities, or both. As of 2008, regional co-ops reported 64,000 members, aggregate sales of \$161 million, 1,240 workers (with over 600 in Vermont), and purchases of \$33 million in local products.³³

[Hunger Mountain Cooperative](#) in Montpelier purchases nearly 30% of its goods from local sources and has a goal of increasing this to 40% over the coming year. They accommodate store door delivery of goods from over 200 producers.

Although these small and medium-sized outlets value their relationships with producers, those relationships are not without a cost. The [Hanover Co-op](#) spends significant time with producers teaching them about appropriate packaging as well as how to ensure quality standards, and what is needed in terms of paperwork and general professionalism.

The continued strong growth of regional food co-op sales and membership result in a ready and willing market for locally grown and produced food at sustainable prices. One disadvantage of co-ops is that their capital structure makes expansion and new store opening difficult and slow.

In Vermont, smaller grocery stores seem to be coming back. [Lantman's Best Yet Market](#) in Hinesburg, [Healthy Living Natural Foods Market](#) in South Burlington, [Sweet Clover Market](#) in Essex Junction, the [Richmond Corner Market](#), and [Shelburne Supermarket](#) are a few examples of smaller, for-profit retail outlets that are sourcing an increasing

amount of fresh produce, meat, cheeses, baked goods, dairy, and other food products from local producers.

Some small retailers such as the [St. Albans Cooperative Store](#) have expressed frustration about accessing local foods because of the inflexibility of the food distribution system. Often, small sales volume limits retailers' access to distributors, and they often do not have the economic leverage to request specific items.

← Large Retailers

According to a study for the Farmers Union completed in 2001 and updated in 2007, the market share of the top five retailers in the United States doubled from 1997 to 2007 (from 24% to 48%).³⁴ It is even more pronounced in metropolitan areas, where the top four retailers are estimated to control 73% of the markets.³⁵

Access to traditional supermarkets and supercenters by small and medium-scale Vermont producers is limited, although real changes are appearing. Traditionally, large retailers located in New England have sourced their fresh produce in bulk out of the Boston *Chelsea Market* with trucks loaded at 3:00 a.m. By 4:30 a.m. they are backing into their regional distribution centers where bulk containers are broken down and repackaged to meet orders for individual stores. The cost of operations is around 2% of the cost of goods and therefore must be efficient, rather than elastic or nimble. Small farms do not fit the model. Historically, the marketing pull is not sufficient for large retailers to overcome the downside of changing their whole system to be able to handle limited supplies, diverse producers, and varying levels of quality and forms of packaging.

Walmart's rapid rise to domination in the retail food industry has forced all large retailers to compete with low pricing. To make up for lost profit due to lower prices, traditional supermarkets have used their market power to raise the fees paid by producers and food manufacturers for access to their shelf space. One observer estimated that between 50% and 75% of large retailers' total net profits come from "slotting allowances, advertising fees, unsellables [and the like]."³⁶

Bruce Bascom of [Bascom Maple Products](#), a major processor and distributor of New England maple syrup, stated that non-negotiated advertizing fees and 'charge backs' for unsold or damaged products significantly reduced his net profit while providing

more profit for retailers.^{37,38} Jack Lazor of *Butterworks Farm* estimated that these same fees translate into an additional 7% discount off agreed-to pricing. Both Bascom and Lazor stated that this situation has increased the pressure on farm prices and farm profitability.

Large retailers often require products to be of standardized quality, and they need to be able to substitute products easily to fill empty shelves. This presents a challenge for small local producers who often only have product in limited quantities or during specific seasons. In addition, large retailers are generally conservative and risk averse. There is little incentive for them to take risks on niche or specialty products because the market for these products is small and difficult to increase in volume if consumer demand takes off.³⁹

Local food products are currently a very small percentage of overall sales in large retail stores. Some large retailers only consider local products as marketing vehicles to attract more affluent buyers. However, recognizing the growing interest in local products, most Vermont supermarkets are now carrying seasonal products from

SKUs and UPCs: What They Are and How to Get Them

An SKU, stock-keeping unit, is a *unique identifier* for each product and service that can be purchased. A UPC, universal product code, is a barcode symbol that has evolved into the generally agreed upon standard for SKUs in the North American marketplace.

GS1 US, formerly the Uniform Code Council, is the official provider of universal product codes (UPCs). UPCs can be used for any variant of products to track product and inventory. For example, a producer can have UPCs for the pallets that hold crates of apples, for apple crates, and for individual apples.

Obtaining a UPC code requires becoming a member of GS1 US. Members can use their "data driver" tool or have a representative assist them in creating and obtaining UPC codes. Representatives offer extensive technical assistance.

The cost to become a member was \$760 in 2010.

To get started, visit the [GS1 US website](#) or call 1-937-435-3870.

local suppliers and are increasing their efforts to source locally grown food. Vermont producers can capitalize on this trend by positioning their products for streamlining into retail outlets with proper packaging and labels. They will have to offset higher production costs by offering products with superior flavor and freshness.

Selling to *Whole Foods* may be an attractive option for medium- to large-scale producers. *Whole Foods* has established a goal of having 15% of their products produced and grown locally. *Whole Foods* defines local as being from within the region (Vermont is part of the North Atlantic region). At a recent workshop organized by *Whole Foods* to reach out to more Vermont producers, a number of participants spoke positively about their experiences of working with the company.

- 👉 A representative of [Jasper Hill Farm](#) explained that their cheeses are sold in 300 *Whole Foods* stores, yet they only have to invoice the company once. They found it important to court individual cheese counter managers to increase awareness of what *Jasper Hill* offers.
- 👉 [Misty Knoll Farms](#) indicated that they really like working with *Whole Foods*' regional meat buyer. They believe that *Whole Foods* has done a good job of telling *Misty Knoll's* story.
- 👉 Paul Harlow of [Harlow Farm](#) in Westminster likes the fact that he is paid within 15 days (rather than the customary 30 days). He often works out a pricing contract with *Whole Foods* before the start of the season.

At the April 2010 workshop, *Whole Foods* organizers indicated that major growth categories include maple syrup, pork, chicken, lamb, frozen processed meat products, lots of produce (e.g., broccoli), and organic cut flowers. It was stated that within the North Atlantic region, *Whole Foods* is trying to buy less produce from California and is especially focusing on trying to source more organic produce regionally. The director of the regional distribution center in Chester, Connecticut, claimed a 12-hour turnaround time from when products arrive in Chester to when they hit the stores in the region.

For producers interested in selling to *Whole Foods*, there are three ways to deliver product: deliver to individual stores; deliver to a *Whole Foods* distribution center; or use a third party distributor. *Whole Foods* is also currently talking to some Vermont producers about establishing aggregate hubs where *Whole Foods* trucks could pick up products from multiple producers.⁴⁰

Although access to large wholesalers is essential for some businesses, smaller producers must carefully consider whether selling to large wholesalers would be beneficial. Some farmers reported that the time required for selling to wholesalers and supermarkets did not merit the increased income. Phil Brown of *Vermont Rabbitry* reduced the number of rabbits he processed because of the inconvenience of delivering to wholesale accounts in Connecticut, coupled with having to wait 30 days or more for payment. He has found it to be more profitable to that working with a larger number of local accounts and absorbing the cost of distributing the product himself to be more profitable.⁴¹

Will and Judy Stevens, of [Golden Russet Farm](#) in Shoreham, valued the opportunity provided by *Deep Root Cooperative* for wholesale distribution as a mechanism to grow their business and scale up production. However, they have found that the combination of a CSA and a farm stand, in addition to wholesale accounts, is a better mix for their farm. They indicated that direct sales to supermarket chains were problematic because when a produce buyer leaves the store, the relationship (and therefore the sale) is often jeopardized.⁴²

Farmers producing certain specialty items found that they had some leverage in negotiating with supermarkets. For example, George Redick of [Oak Knoll Dairy](#) provides fresh bottled goats' milk to a number of accounts throughout New England. Because of the unique nature of his product, establishing accounts with supermarkets is easy, but keeping the accounts does require added time to maintain the relationships and a sense of professionalism.⁴³ Todd Hardie at [Honey Gardens Apiary](#) has a similar situation because he markets his honey-based products as medicinal and therefore differentiates them from commodity-type honey products.⁴⁴

Even smaller independent grocers such as [Willey's Store](#) in Greensboro and [The Uncommon Market](#) in Montpelier are eager to source locally grown products but must offer products in a wide range of price points to meet the needs of their customers. Rob Hurst of *Willey's* stated that they are willing to accommodate the seasonality of locally grown produce but need a consistent supply in season.

Although new ways to gain access to retail markets are being developed, many producers still face challenges. For example, Jack Lazor at *Butterworks Farm* sells yogurt and other dairy products directly to local merchants, as well as regionally through large

supermarkets chains. He reported being frustrated by the relationship with the chains. “When I look at our own business, I see that we are doing very well here in Vermont wherever our products are sold. [But] when our yogurt and cream go out of state, we are just very minor players (almost marginal) at places like Whole Foods.” Jack wondered, “How does a medium- to small-sized farm and food business sell its product to chain (supermarkets) without getting chewed up and spit out in the process?”⁴⁵

🍏 Aligning Production and Processing Scale to Market Outlet

During interviews and focus group sessions, we heard a number of concerns about gaps and inadequacies in the distribution chain as well as the processing capacity of the local food economy. Many of these gaps were confirmed by subsequent research. However, sometimes a perceived gap had more to do with the early stage of development of a specific food enterprise than with the actual distribution infrastructure. To reach emerging institutional and larger retail markets, Vermont producers need to understand their production costs as well as what various types of customers are willing or able to pay for their products.

🍷 Production and Processing: Fruits and Vegetables

Maintaining a balance between increased access to Vermont-grown food and farm viability is a difficult challenge. Vermont’s climate and scale of production often increase production costs. Bruce Kaufman of [Riverside Farm](#) in East Hardwick indicated that a request for his organically produced potatoes for inclusion in a school lunch program required pricing at \$0.12 per pound while his cost of production is many times that amount. Meanwhile, organically produced premium-quality Vermont potatoes were being sold for over \$3.00 per pound to New York City restaurants in the spring of 2010.⁴⁶

However, Vermont does have an advantage with some crops, including salad greens, which can be produced during the summer months when many areas of the United States can no longer produce them.

Several opportunities to increase the size of the market for locally produced foods have emerged over recent years, including the following:

- 🍏 [Fletcher Allen Health Care](#) is a signatory to the national Farm-to-Hospital initiative, linking local farms and hospitals to improve the freshness, quality, and nutritional value of hospital food while opening new markets for small and medium-sized farmers.
- 🍏 [Middlebury College](#) has a longstanding commitment to buying local.
- 🍏 [University of Vermont](#) students have persuaded the main food supplier, *Sodexo*, to expand local purchases.⁴⁷
- 🍏 [Lyndon Institute](#) has developed contracts with producers for sourcing meat, potatoes, beef, and apples from local producers.
- 🍏 *Vermont FEED* grew from one school in 2000 to 50 schools and over 9,000 students in 2009.
- 🍏 *Green Mountain Farm-to-School* has coordinated sourcing and micro distribution for eight schools and four senior centers in the Northeast Kingdom. During the 2009-2010 school year, 10 farms provided \$5,800 worth of locally grown food in addition to 2,000 pounds grown in the participating school gardens.⁴⁸
- 🍏 The *Intervale Food Hub* facilitates communication between 24 producers and more than 25 businesses, health care centers, and government agencies to increase the use of Vermont-grown products.

Not surprisingly, institutional buyers have some of the same constraints and policies as large retailers. However, some buyers have found ways to work with in-state wholesalers and distributors who buy from local farmers. There is considerable untapped potential in this market. According to the *USDA Economic Research Service*, 16% of all food purchases are by businesses and government agencies (Figure C10). Thus, successful users of Vermont-grown food in institutional and school settings should be studied and replicated whenever possible to increase the sourcing and consumption of locally produced food in Vermont.

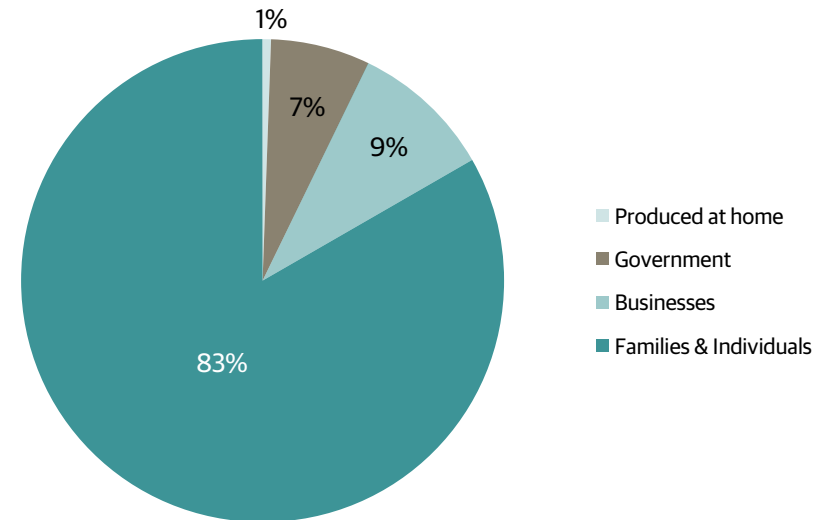
Issues with Selling Local Products in Supermarkets

Producers planning to work with supermarkets as a significant source of sales need to recognize the required steps for a successful relationship. In addition to many of the points mentioned earlier in this report, a producer working with a supermarket should be prepared to deal with the following issues:

- 🍃 Supermarkets are often not prepared to source products with unknown sales records, products that are only seasonally available, or products available only in small quantities.
- 🍃 Farmers need help with pricing and basic business skills, such as timely and accurate invoicing.
- 🍃 Farmers need to deliver products that meet requirements for quantity, quality, food safety, and packaging.
- 🍃 Inconsistency of product availability creates customer dissatisfaction in supermarkets.
- 🍃 Products must offer a characteristic that is distinctive such as price, consumer demand, or quality to gain access to a store shelf.
- 🍃 It is standard practice for large supermarkets and distributors to rotate or change buyers; producers can lose access to supermarkets when key store personnel leave their positions.
- 🍃 Most buyers require producers to carry general liability insurance. Although in the past, many stores and institutions required only \$1 million in coverage, many are now requiring \$2 million.
- 🍃 Supermarkets normally require delivery at specific times, often quite early in the morning. This requirement is easier for a distributor to meet than a producer.
- 🍃 Supermarket chains have difficulty sourcing food into individual stores to target consumers most interested in certain specialty products.
- 🍃 Producers need to provide sufficient packaging to maintain product quality.

It is noteworthy that although a number of producers expressed difficulty with one or more items on this list, many have managed to deal with these challenges. The ability to develop and maintain relationships with supermarkets determined producers' success in accessing these markets.

Figure C10: U.S. Food Expenditures by Source of Funds, 2008



Source: USDA Economic Research Service, www.ers.usda.gov/briefing/cpi/foodandexpenditures/data/Expenditures_tables/table5.htm

In addition, a wide range of skills and abilities is needed to produce and deliver a consistent supply and quality of Vermont-sourced products (e.g., diversified fruits and vegetables, cheese, cured meats, etc.). Many producers and farmers have extensive training in production techniques, but some lack the level of business, marketing, and interpersonal skills necessary to run a diversified farm that produces, packages, sells, and possibly delivers its own product. Many farmers would benefit from technical assistance, training and education, or both, in these areas.

Light Processing

During the regional F2P forums held in the fall and early winter of 2009-2010, there was frequent discussion of the need for minimal processing of fruits and vegetables, largely to increase their use in institutional settings. Although many expressed concern about a gap in the processing infrastructure, our interviews painted a slightly different picture: **The production of processing-grade fruits and vegetables appears to be insufficient to justify a commercial-scale processing operation at this time.** The demand for fresh produce does not appear to be strong enough to use most of the current supply.

Most farmers are interested in light processing for low-volume seasonal surpluses or low-quality fresh market rejects. Neither of these would currently provide an economically sustainable source for a private commercial-scale local processor. Figure C11 indicates the locations of a wide range of processing and food manufacturing operations in the state.

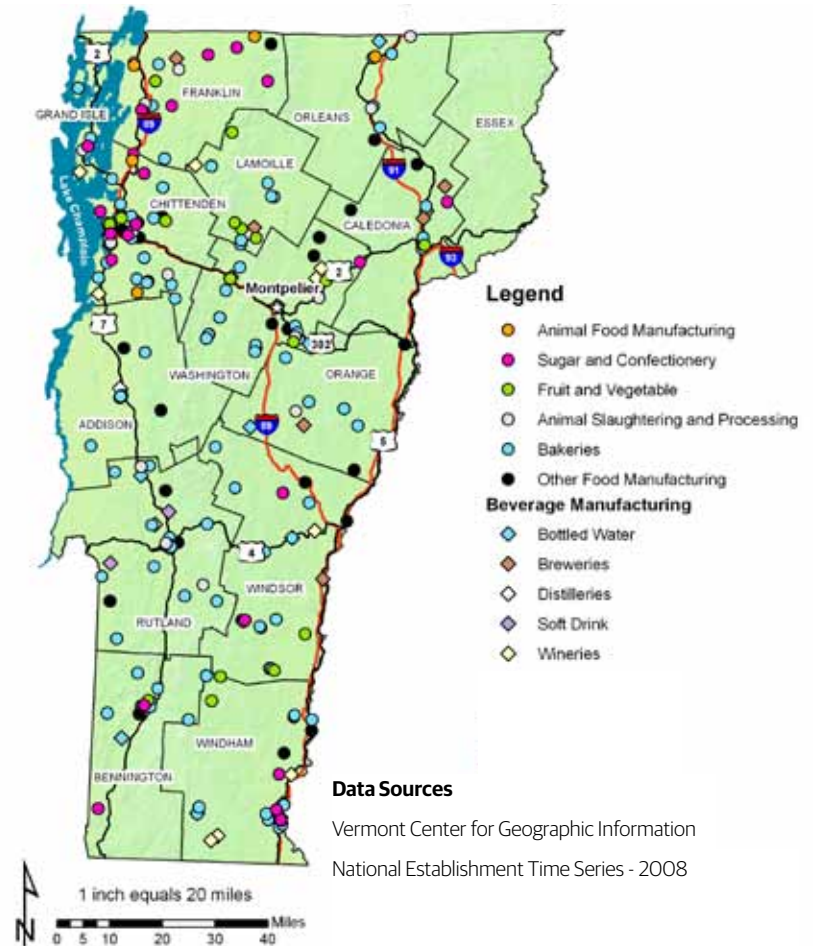
However, our research does indicate that an increase in fruit and vegetable production driven by fresh product demand may eventually create a natural increase in processing-grade product. Eventually, this increased level of production may be adequate to justify a commercial processing business here in Vermont. It should also be noted that processing-grade produce has the lowest margins, so it is best viewed as loss mitigation for poor-quality or damaged product.

Bruce Kaufman of *Riverside Farm* sells his entire product on the fresh market because he must get the highest value possible, given the high cost of Vermont vegetable and fruit production. Likewise, Paul Mazza of *Mazza Farms*, Richard Wiswall of *Cate Farm*, Hank Bissell of *Lewis Creek Farm*, and Paul Harlow of *Harlow Farm* have all stated their need to sell as much of their product as possible in the fresh market; they process only a small amount to capture all of the added value.

On the other hand, Bill Suhr of *Champlain Orchards* recognized the need to add value to utility-grade apples and has developed a thriving Vermont business through on-site processing to make cider, pies, and other products. Read Miller of *Dwight Miller and Son Orchards* in Dummerston also sees his cider and vinegar processing as essential to his economic viability. His organic fresh apple sales range from \$100,000 to \$960,000 a year depending on the crop, and he needs to salvage some value from the remaining crop through processing. Read says he would not be in the organic apple business without processing.⁴⁹

The VAAFM, recognizing a nascent interest in food processing, has built an individual quick freeze unit for Vermont farmers. To date, the unit has had very limited use. Because much of the process-grade product in Vermont is a result of random weather events, production-related quality issues, or production surpluses, estimating the time and place the unit will be needed has been difficult. In addition, the lack of on-farm pre-freezing processing and post-freezing storage capacity may also be a barrier to using the unit.

Figure C11: Vermont Food System: Non-Dairy Food Processing



Incubation services could be very valuable to small and early stage producers and processors who have occasional need for processing facilities, to those who are testing, or to those who produce relatively small batches of value-added products. Many farmers want and need value-adding processing but are too small to justify investments in such on-farm facilities. They would benefit from accessible, Hazard Analysis and Critical Control Points (HACCP)-certified facilities within reasonable proximity to their farms.

The *Vermont Food Venture Center* (VFVC) offers producers the opportunity to process their own surplus or subpar products into value-added food, without investing in on-farm facilities and without having to sell their product at processing-grade pricing. Located in Fairfax since 1996, VFVC broke ground on July 7, 2010, in Hardwick on a new \$3.1 million facility that will expand opportunities for food entrepreneurs and create new cheese-making and meatpacking opportunities for local farmers. The VFVC has been integrated into the overall vision and plans developed by the [Center for an Agricultural Economy](#) for the Hardwick region, one of the eight food center organizations participating in the Vermont Regional Food Center Collaborative.

Steve Paddock, from the [Vermont Small Business Development Center](#), completed a report in November 2009 titled, "Feasibility Study and Enterprise Business Plan for Processing and Marketing Vermont-Grown Fruits and Vegetables to Vermont Schools." The purpose of the plan was to determine whether *Deep Root Cooperative*, the largest producer co-op in the state, could make a viable business out of lightly processing a few products for public schools. Specifically, he wrote:

"This feasibility study was undertaken to determine whether Deep Root Cooperative could produce, process, and sell a lightly processed product into the Vermont school market. The goal was to expand the potential for efficient use of Deep Root product, grow sales for Deep Root farmer/members, meet the Vermont-grown product demand of these institutions, and take advantage of the increasing interest of locally grown and consumed products. Deep Root is well established in its current business and ready to find avenues for expansion that fit its capabilities. . . . It was hoped that this project would help the producers move beyond fall and spring fresh sales of raw and whole fruits and vegetables and to develop a consolidated system to process, store, and distribute Vermont-grown products to Vermont schools throughout the year."

The study concluded that it was not viable for *Deep Root* to pursue a lightly processing enterprise directed at selling to public schools because they are principally commodity food based and have limited budgets. The report did suggest, however, that Vermont hospitals, colleges, and universities that "give more importance to locally and organically produced products" and have more spending flexibility, may be more viable, especially for potatoes, squash, and berries.⁵⁰

According to Jeff Martin at [Green Mountain Co-Pack](#) in South Burlington, the only way for producers to make money from processing is to have sufficient volume. About 50% of Vermont's specialty foods are processed at the facility, but very few use Vermont-grown ingredients, with the exception of apples and peppers. Many of his clients use the plant only one or two days per year, although a few use it one or two days per week. Although Jeff does not feel there is a need for more square footage of processing capacity similar to VFVC, he does feel there is a need for freezer infrastructure. He believes it makes more sense to connect the dots between existing businesses, rather than to build new space. Finally, he indicated that he would be willing to consider expansion in some areas of processing if he felt certain there would be sufficient demand for his facility.⁵¹

RAFFL is currently exploring the economic feasibility of developing a Green Mountain Food Hub. Robert Weybright and Brian Norder of *Weybright & Associates, Inc.*, completed a business plan in October 2010. They were tasked with exploring the financial, infrastructure and operational needs for a multipurpose storage (e.g., dry, refrigerated, and frozen), processing (e.g., freezing and dehydrating, specialty foods), and distribution (workplace CSA aggregation site) facility, for use by local growers, entrepreneurs, caterers, and the *Vermont Foodbank*. Weybright and Norder included a theoretical facility design and provided estimates for both start-up and ongoing operating expenses for such a facility. Finally, they also detailed the food safety plans and functional jobs required to operate a successful food hub.⁵²

According to Diane Imrie, Director of Nutrition at *Fletcher Allen Health Care* (FAHC), the institution pays at least 3.5 times less for frozen commodities (cut corn, broccoli cuts, blueberries, and raspberries) than estimated price point for locally grown and processed product. FAHC currently purchases fresh peeled butternut squash from Eric Rozendaal of [Rockville Market Farm](#), who developed an on-farm processing facility strictly for the butternut squash market. FAHC's price to Eric is only about 30 cents less than *Weybright and Norder's* analysis for squash, which likely reflects FAHC's commitment to its mission for sustainable and local food purchasing, and some flexibility to pay a higher price, within reason, for a locally produced food product.

Rozendaal noted that processing butternut squash in larger 25-pound food service bags had a significantly higher return than attempting to grow and process for the

20-ounce retail shelf packets, where the margins are lower. Rozendaal also echoed others, indicating that inconsistent production volumes and quality, unpredictable weather and pollination rates, and inadequate and unaffordable labor are serious threats to his squash processing operation. He has returned to a diverse offering of products for the CSA market, which delivers higher prices and does not depend on the successful growing season of one product, such as butternut squash.⁵³

At the request of the VAAFM, the *Center for Rural Studies* conducted a survey of food processing facilities in 2008. However, that study did not assess the internal capacity or expansion capabilities of each of the facilities. F2P researchers purchased data that provide some geographic location information and information on the size of businesses by sales.

The scale and type of food processing operations in Vermont follow a typical continuum from small and experimental to larger with strict recipes. The types of processing facilities that exist in Vermont are as follows:

- 🍷 Household kitchens for farmers market or farm stand sales
- 🍷 Community kitchens at local churches or the [Local Agricultural Community Exchange](#) (LACE) kitchen in Barre
- 🍷 *Vermont Food Venture Center*, for specialty foods production
- 🍷 Slaughter and meat-cutting and -packing facilities (discussed in Chapter 3.4, and in Appendix E)
- 🍷 Canneries, such as [Village Cannery of Vermont](#), focusing on apple and fruit sauces
- 🍷 Co-packing facilities, such as *Green Mountain Co-Pack*, which are closely aligned with the [Vermont Specialty Food Association](#)

🍷 Production and Processing: Dairy

The dairy processing industry (e.g., *Dean Foods*, *Kraft*, *Land-o-Lakes*) is very highly concentrated⁵⁴ and has greatly diminished the power of regional dairy co-ops to represent the interests of their member farmers.

Standardization of quality and availability, combined with the efficiency of the nationwide distribution system, has completely commoditized milk in the United

GAP: What Does it Mean to a Producer?

Producers often hear about the need to be “GAPs certified” but wonder what the acronym means for their business. This type of certification verifies the farm’s adherence to Good Agricultural Practices (GAPs) as outlined in the *Food and Drug Administration’s* “Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables.” Following these practices is currently voluntary for most farms, but some distributors, and retailers are now requiring GAP certification before they will enter into an agreement with a food producer.

Compliance with GAPs is confirmed through on-farm audits. There is a USDA Audit, and there are also GAPs Audits which are administered by private companies. Buyers will tell growers whether they require the USDA audit or a private audit. The USDA GAPs/ GMPs Audit Checklist consists of seven sections: General Questions, Farm Review, Field Harvest-Field Packing, House Packing Facility, Storage and Transportation, a fifth section which is currently not used, a section for Wholesale Distribution Centers and Terminal Warehouses, and a section on Preventive Food Defense Procedures intended to protect food from intentional acts of contamination.

The General Questions are constructed to verify the implementation of a basic food safety program. The Farm Review questions verify that hazards associated with land use and water are mitigated, and the questions related to Field Harvest and Field Packing, House Packing, Storage and Transportation verify that precautions and practices that mitigate microbial contamination have been implemented during harvest and field packing, house packing and storage and transportation.

Buyers will tell growers which of the sections they need to pass. GAP certification audits are conducted during harvest, when harvest crews are operating.

Copies of the FDA’s Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables at: www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/ProduceandPlanProducts/ucm064574.htm

To learn more about the GAP standards, understand how to prepare for GAP certification, and to schedule a GAP certification audit, contact:

Auditing

Steve Parise
 Vermont Agency of Agriculture, Food & Markets
 steve.parise@state.vt.us
 (802) 828-2436

Education and Technical Assistance

Ginger Nickerson, GAPs Outreach Coordinator
 UVM Center for Sustainable Agriculture
 gnickers@uvm.edu
 (802) 656-5490 or (802) 249-6701

Some materials taken from FAQ Sheet Introduction to Commercial Sales by Rose Wilson, available at www.rosaliewilson.com.

States. Differences in the regional costs of production are irrelevant to retailers, and there is no longer any perceived quality difference in fluid milk by consumers. Additionally, because world production costs are lower than the U.S. average, the international movement of milk solids affects the supply of milk nationally and regionally. World commodity prices have depressed the price paid to U.S. farmers.⁵⁵

As a result of the highly consolidated structure of the dairy processing industry, as well as the contractual relationships they have to the highly concentrated retail sector, local and regional dairy co-ops have little to no power over pricing for their member farmers. Recent efforts by the group Dairy Farmers Working Together is attempting to change this situation by advocating for a national supply management policy and regionally specific milk pricing systems.

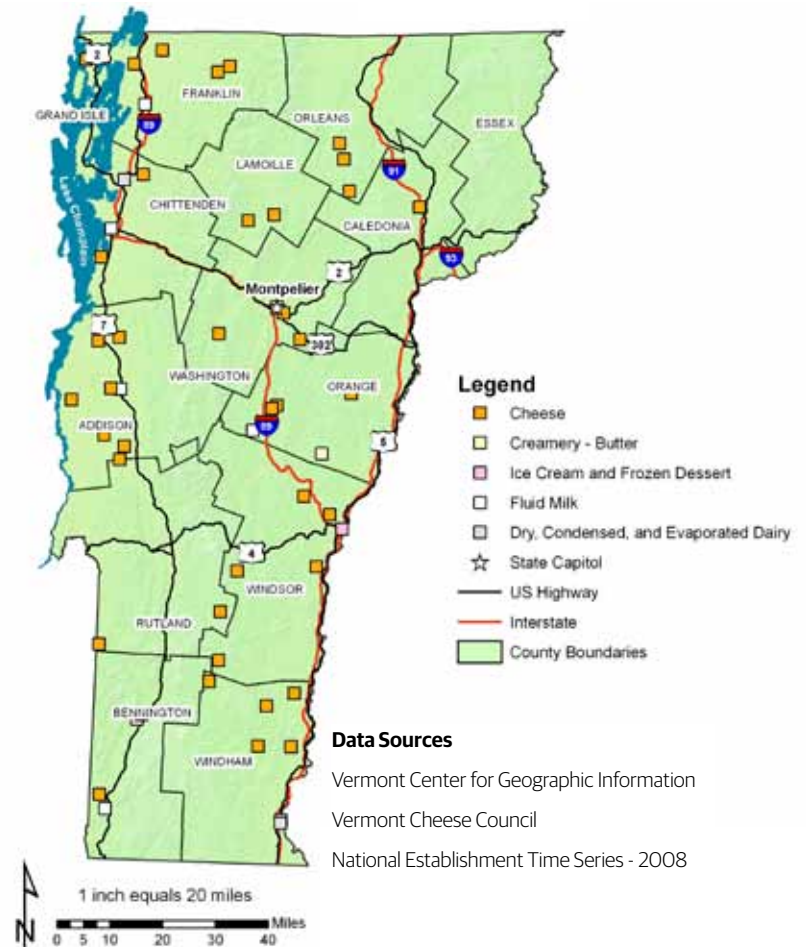
Vermont dairies such as [Monument Farms Dairy](#) and [Strafford Organic Creamery](#) are able to process their milk and compete with commodity milk sales by offering premium-quality products and special services. The dairies increase their value to labor-strapped grocery stores by adding stock rotation, code checking, and order development to their delivery services.

[Strafford Organic Creamery](#) partners with [Rise 'n Shine](#) home delivery service in Chittenden County and also uses two other distributors to increase its geographic reach, but 95% of its milk is self-distributed. Bob James of [Monument Farms Dairy](#) stated that the farm self-distributes in the Champlain Valley from 15 miles south of Weybridge to the Canadian border and sells milk to distributors who then resell the products throughout Vermont and New Hampshire.⁵⁶

One of the two largest processors of organic milk, [Organic Valley](#), sells its products through multistage supply chains rather than through direct marketing channels. It credits much of its early success to contracting out the key parts of its processing and distribution systems rather than sinking money into bricks and mortar and performing these supply chain functions itself. Today, [Organic Valley](#) owns only one processing facility.

[Organic Valley](#) has made significant internal investments in supply chain logistics, and leaders view excellence in this area as critical to the co-op's success. In fact, [Organic Valley](#) has spun off its logistics arm as a full subsidiary of the main business. [Organic Valley](#) now operates its own distribution center in the Upper Midwest and may build

Figure C12: Vermont Food System: Dairy-Related Processing



additional distribution centers in the East and West. Its distribution capacity is also available to smaller organic food enterprises across the country.

The standard arrangement followed by the co-op is to have milk processed on contract with dairy manufacturing plants located close to the regionally organized milk pools. [Organic Valley](#) prefers working with family-owned independent processors when possible. It also contracts for transportation of both its raw milk and finished products. [Organic Valley](#) owns some trucks, but the bulk of its milk hauling is done by independent trucking companies, many of which are smaller, family-owned firms.⁵⁷

Note: We do not address livestock production, processing, and distribution issues in this document. Appendix E focuses on livestock issues.

👉 Access to Capital

Asset-based lending has been the norm for most farmers. Banks or government agencies lend money based on the value of the land, equipment, livestock, or inventory of the business. This system has worked fairly well for established enterprises that wish to expand production or start a new enterprise using their existing assets as collateral.

Much more difficult to procure is financing for early stage agricultural businesses based solely on the likelihood of their economic success and ability to pay it back (without collateral to protect the lender). In other industries, financing for early stage businesses is done by venture capital firms who charge high interest rates or demand majority ownership in exchange for their investment. The venture capital model is clearly not appropriate for slower-growth, low-margin industries such as sustainable agriculture. The [Vermont Agriculture Development Program](#) and the *Farm Viability Program* both help agricultural entrepreneurs find needed financing.

There is also a real need for a coordinated statewide incubator program with the ability to train, coach, finance, and provide production assets to early stage businesses. The *Intervale Center* has created a successful model, and the other food centers or hubs may also be effective in providing some of these services. Having this kind of structure in place would allow closer monitoring of both early stage and low-asset firms such as meat processors, farmers on leased land, and contract grazers of meat animals, all of whom need capital financing but often don't fit into the asset-based lending model.

Capital constraints have also limited retail food co-ops from reaching their full potential. In most states, co-ops can raise capital only from their members. But a new model has emerged that may be suitable in Vermont. At the urging of *Organic Valley*, Wisconsin changed the statutes controlling the cooperative structure to allow the issuance of nonvoting class E stock, which is used to raise capital for expansion. This financing vehicle has allowed *Organic Valley* to grow at the pace of the market for organic milk and other products. A number of regional food co-ops have expressed some frustration at the limitations on their growth imposed by the old structure and would welcome the ability to expand to meet the growing demand for their products and services.

A bill that would allow states to create a new type of cooperative—a Uniform Limited Cooperative Association—has recently been explored by the Vermont Legislature, but not yet enacted. As envisioned, a Uniform Limited Cooperative Association would have a hybrid governance structure, marrying the best attributes of traditional producer cooperatives with the ability to attract outside equity investors like traditional private businesses do.^{58,59}

C5. ANALYSIS: OPPORTUNITIES AND EMERGING MODELS

Tremendous change and innovation have taken place in the food distribution system throughout the United States. The rapid consolidation and concentration of retailing, distributing, and processing has made it difficult for small and medium-sized diversified farms to gain access to retail markets. At the same time, U.S. agriculture has always prided itself on its ability to innovate and find solutions to difficult problems, and characteristically we have found a number of emerging models that hold great promise and opportunity for Vermont's agricultural future. These examples have been found locally, regionally, nationally, and internationally, and we have interviewed a number of the most exciting examples. Within these emerging models live potential opportunities for directing and developing a more sustainable and economically viable agricultural future for Vermont and our region. A number of these models warrant further study and research to extract the valuable paradigm-shifting lessons.

👉 Regional Aggregation Facilities and Incubators

Distributors and farmers interviewed for this research frequently referred to the expense of collecting small amounts of product from dispersed and remote locations. It may be advantageous to develop dispersed warehousing to aggregate products for entry into the distribution system; however, it is equally important for farms to produce at scales that existing distributors require.

Our research found that there is a need for small-scale distribution and aggregation that, if addressed, would allow small farms and producers to access both local and larger-scale markets at a more reasonable cost. This service could be an essential part of an incubator facility and could encourage and assist small farms and processors to move quickly to a point of economic sustainability.

A number of the food enterprise operators we interviewed who were experiencing difficulty or high costs in getting their product to market were actually in a start-up phase of production and marketing. While they were able to access distribution services from some of the small distributors and wholesalers in Vermont, the low volume of their orders caused the per unit fee to be higher than their profit margin on the product.

The *Intervale Center* is using an incubator model for early stage sustainable agriculture and food enterprises and is providing aggregation and distribution services. Parts of this aggregation and incubation model could be replicated by other emerging food centers or hubs around Vermont.

Food Works at Two Rivers in Montpelier has created an aggregation system within its Farm-to-Table program that could easily provide aggregation for early stage enterprises, as part of a more complete incubator program.

Green Mountain Farm-to-School is aggregating local food in order to help schools and senior living centers access locally produced food. This coordinated approach could be adapted to better use existing distribution services and to buy from producers who self-distribute such as *Jasper Hill*, *Butterworks Farm*, the *Vermont Foodbank*, and others.⁶⁰

RAFFL, the [Great Falls Food Hub](#) in Bellows Falls, and the VFVC in Hardwick are discussing the possibility of providing aggregation services for small producers in coordination with area wholesalers to reduce distribution costs.

It is unclear at this time whether regional aggregation facilities could be provided solely by the private sector (i.e., the margins would be sufficient for an entrepreneur to provide the service) or whether a public-private venture or cooperative would be required for it to be feasible.

In some instances, the owners of existing and underutilized commercial buildings are interested in diversifying the activities that take place there. Examples include the *Vermont Refrigerated Storage* facility in Shoreham which is exploring the potential for light processing and other forms of co-packing, while the owner of the Irasville Industrial Park in the Mad River Valley area is exploring whether to establish a micro-food incubator facility.

Potential Criteria for Site Selection of New Aggregation Points

- 👉 Adequate concentration of farmers/producers for predictable supply and potential participation as managers and end owners
- 👉 Adequate concentration of consumers of raw and processed product
- 👉 Strong local interest and committed organization, or a group of farmers in the area with adequate expertise, capacity, and willingness to develop and manage the facility and develop strategic partnerships with consumers, including retail market outlets, institutional purchasers, and distributors
- 👉 Proximity to existing, related physical infrastructure that could be used
- 👉 Financial viability

👉 Regional Food Centers

Many of the developing food centers or hubs are focused on food access and farm profitability. For example, the *Intervale Food Hub* markets and distributes local vegetables, fruit, meat, eggs, cheese, and specialty products from 24 Burlington area farmers. Developed by the *Intervale Center*, the *Food Hub* creates a link between local farmers and the greater Burlington marketplace. The goal of the *Intervale Food Hub* is to provide the greater Burlington community with convenient access to high-quality foods while returning a fair price to farmers. The *Food Hub* serves individuals, businesses, retailers, restaurants, and institutions through a 300-member multi-farm CSA program and through wholesale marketing and distribution.

A particularly innovative feature of the *Intervale Food Hub* CSA is weekly delivery of locally grown food to more than 25 businesses, health care centers, and government agencies in the greater Burlington area. By bringing local food to the workplace, the *Intervale* is removing a commonly stated barrier to access locally grown food: time-strapped families having to make an extra grocery stop.

In 2010 the *Intervale Food Hub* piloted a wholesale and distribution service to make it easier for buyers to access high-quality, locally grown products through one order, one delivery, and one bill. Reducing the number of individual farmers at a restaurant, grocery store, or institution will often increase the willingness of a chef, produce buyer,

or food service director to source local food. About a dozen participating *Food Hub* farmers are anticipating \$50,000 in sales working with 8 to 10 restaurant accounts. They are also in the process of initiating sales to *Price Chopper* on Shelburne Road.

RAFFL and the *Great Falls Food Hub* are actively exploring a model similar to that of the Intervale Food Hub concept. Some aspects of the *Intervale* model are also being developed in the greater Hardwick area (via the *Center for an Agricultural Economy*), in the Upper Valley by *Vital Communities' Valley Food & Farm*, and in Addison County by the *Addison County Relocalization Network* (ACORN).

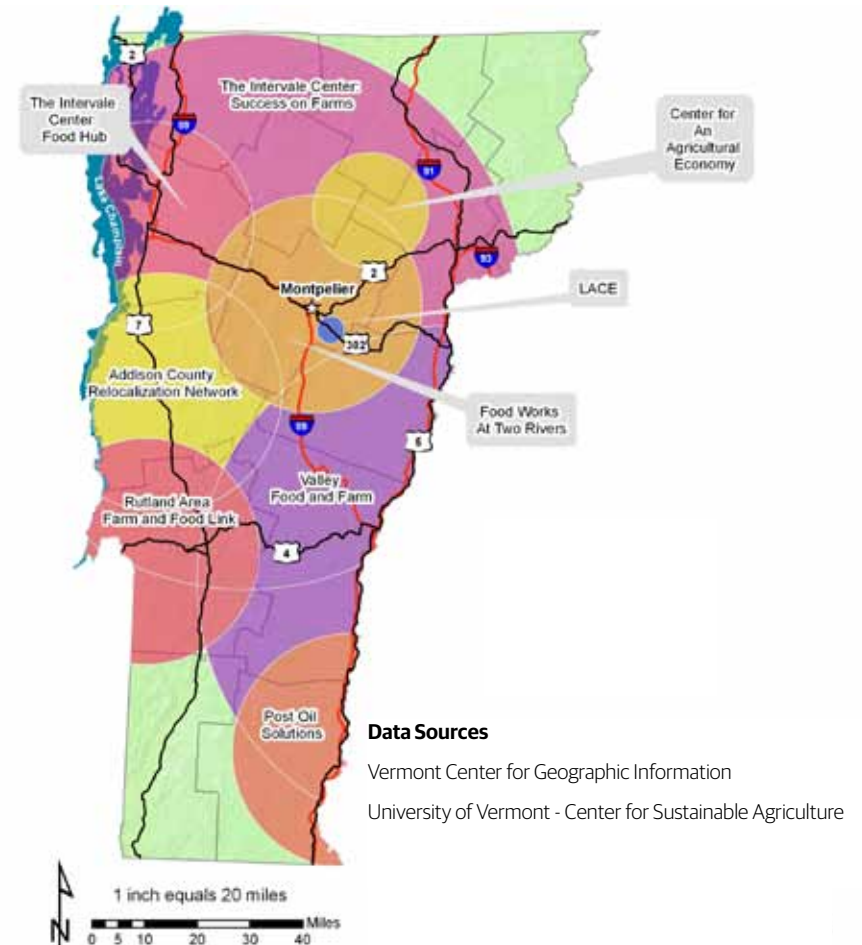
Vermont's food centers and hubs also build connections among producers, consumers, restaurants, and institutions. For example, RAFFL distributes 40,000 copies of its local food guide, free of charge, in late May. The *Locally Grown Guide* supports farmers and businesses that are connected to local agriculture. It is a valuable resource for finding local food, learning what products are available each season, and discovering ways to become involved in the local foods movement in the Rutland region. The *Valley Food & Farm* website offers a wealth of information about the production and use of locally grown food and lists a large number of pick-your-own opportunities in the Upper Valley region of Vermont and New Hampshire.

Although regional food centers are essential for providing awareness and connections between consumers and producers, there is still room for improvement in providing access to Vermont-grown food. Listings on food center websites allowing easy scouting for fresh food in season for use in retail, restaurant, or institutional settings would provide a valuable service for increasing local access to Vermont-grown food. Additional listings of food available year-round would further increase access to Vermont-grown food. A centrally located database available to all Vermont producers, regardless of region, would increase access to (and use of) Vermont-grown food by out-of-state distributors. Figure C13 approximates the service territory of existing regional food centers to date.

Several food centers are currently exploring the economic feasibility of community kitchen, or larger-scale facilities to provide aggregation and distribution, storage, and processing services to help small producers add value to their products.

As mentioned earlier, RAFFL recently completed a feasibility study with Brian Norder, Director of the VFVC, to determine whether a food processing center would be

Figure C13: Vermont Food System: Service Territory of Regional Food Centers



economically viable for area farmers. The *Intervale Center* and *Sugar Snap* (locally owned caterers and restaurant) are exploring a similar proposal. Fully permitted, the *Intervale*

Center's Food Enterprise Center project was designed for flexible food processing space, storage, and year-round production greenhouses. It has been on the drawing

What Are Regional Food Centers?

Eight organizations participate in the Food Center Collaborative. In their [August 2009 platform](#), they defined themselves as follows:

Organizations that work within regions of the state with communities and seek to increase physical and organizational infrastructure to support Vermont farms, local agriculture economies, and the health and vitality of Vermont communities. They work to expand local food access, shorten supply chains, promote fair prices to farmers, increase efficiency, and support the success of farmers and food related business. They act as supportive centers of their regional food systems by providing services to farmers, communities, individuals and families, as well as to the regional agricultural economy. They each connect to and coordinate with other Regional Food Centers to provide a full overlay of services for expanding food access among, as well as within, regions.

Their primary goals are as follows:

- 👉 Support more Vermont farmers and produce more food for the local and regional market
- 👉 Increase and improve infrastructure that supports diverse farm operations and value-added processing
- 👉 Expand economic opportunities in farming, access to land, and food system services
- 👉 Improve farm viability, thereby expanding existing farm operations and opening opportunities for new farm incubation
- 👉 Expand local food access for all Vermonters
- 👉 Engage communities in learning about and contributing to a viable local food system
- 👉 Increase the food security and self-reliance of communities and regions
- 👉 Engage communities in retention of important agricultural lands for current and future productive usage

boards for over a decade and may still be implemented. The *Great Falls Food Hub* in the Bellows Falls region recently received a grant to hire a Project Coordinator, primarily to advance the business plan and coordination for the infrastructure components. LACE is currently operating a community kitchen to serve local needs for light processing and value-added production. ACORN just completed a strategic plan for Addison County's Local Food Collaborative and outlined specific goals for how the organization could help strengthen the local food system.

👉 Mission-Driven Independent Retailing

Food Co-ops are one example of a consistent mission-driven structure that successfully delivers on the market opportunity created by consumer dissatisfaction with quality and sourcing at national grocery chains. As of 2008, regional co-ops reported 64,000 members, aggregate sales of \$161 million, 1,240 workers (with over 600 in Vermont), and purchases of \$33 million in local products.⁶¹ The continued strong growth of regional food co-op sales and membership reveal a ready and willing market for locally grown and produced food at sustainable prices. One of the key challenges for co-ops model is a capital structure that makes expansion and new store opening difficult and slow.

👉 Subscription Services: European Models

The growth of subscription grocery services has blossomed in Europe and U.S. metropolitan centers such as New York City. These Internet-based services are either farm or distributor based and provide weekly home delivery of fresh, locally grown food from their member farms. The largest, *Fresh Direct* in New York City, serves 250,000 customers each week. We interviewed two European subscription services, *Aarstiderne*, located in Denmark and *Odin*, in the Netherlands, which weekly serve 50,000 and 20,000 customers, respectively. Subscription models appear to have grown out of customers' dissatisfaction with the quality and service found at supermarkets, especially with regard to fruit and vegetables. These new retail outlets offer great potential as an alternative outlet for high-quality locally produced product—for both the producer and the consumer.

Aarstiderne is a subscription service located in Denmark in northern Europe. It was founded in 1999 by a farmer and a chef who were both frustrated that they could not buy high-quality organic vegetables and fruits at the dominant large supermarket chains.

In 10 years they built an incredible organization that serves 45,000 members each week in Denmark, Sweden, and Germany, employs over 150 people, supports their own 250-acre farm plus many other supplying farms, and generates over \$45 million in sales each year, profitably. *Aarstiderne* has created a sizable new retail outlet for fresh organic fruits and vegetables that did not exist previously in northern Europe.

Aarstiderne supplies a weekly box filled with fresh fruits and vegetables as well as other fresh food items, such as meat, dairy products, bread, and wine. Members go to the *Aarstiderne* website, pay for a month in advance and order a particular box choosing from among 10 sizes and mixes. Each week a box arrives at their doorstep; it includes recipes, a newsletter, and an evaluation that gives *Aarstiderne* the information it needs to continually improve its service. *Aarstiderne*'s three farms are located nearly three hours from Copenhagen and other major metropolitan areas in northern Europe, but they make up for the distance by delivering to densely populated urban centers.

Odin, in the Netherlands, another interesting emerging model, is a very mission-driven organization. Its original goal was to assist farmers to maintain better margins on their high-quality organic and biodynamic products, as well as to deliver highly nutritious food to consumers.

Koos Bakker, founder of *Odin*, was very frustrated with the increasing consolidation in the retail grocery industry in the Netherlands. As a distributor of organic and biodynamic produce for export, he felt very disconnected from the consumer and could not maintain the margins and prices he needed for his growers.

Bakker began to add domestic distribution to smaller shops and expanded his line to include cheese and other dairy products. He still felt separated from the actual consumer, so he started opening and buying small natural food stores in the Netherlands. Over the years, *Odin*'s volume shifted; currently only 10% of its product is for export, 25% goes directly to its own stores, and 65% is sold to other small natural food stores in the Netherlands. Now Bakker has a direct link to the end consumer.

In addition to supplying his stores and other small independent stores with product, Bakker also uses the stores as drop points for *Odin*'s 20,000-member subscription service, drawing all those customers to the stores at least once per week.

Variations on this model are starting to appear in the United States. *Boston Organics*, *Full Circle Farm* in Washington, and *Fresh Direct* in New York City, are just a few examples. *Pete's Greens* has created a business model with a number of similarities.

The theory behind this distribution model solves one of the most troubling issues highlighted in this report—namely, the near complete loss of diverse and smaller-scale retail establishments that match the scale of small- to midsize sustainable farms. Food co-ops here in Vermont are an excellent example of the scale that we are referring to.

Both *Aarstiderne* and *Odin* are examples of self-contained, mission-driven food distribution systems that function through direct relationships with their members. Further study of this model still needs to be done, as it could provide for a more profitable and accessible market outlet for small- to midsize producers here in Vermont.

Subscription services also create a much closer relationship between the farmer and the end consumer. *Aarstiderne*, in particular, takes great pains to inform its customers of where its products are coming from, who the farmers are, and the methods by which the food is produced. Thus, farm suppliers cannot be interchanged easily. Farmers can be assured that their products are delivered fresh to the consumer within a matter of days.

Most significantly, the subscription service model collapses the supply chain to an even greater degree than *Walmart* has done. Partner farms deliver directly to the retailer, who provides the end consumer with just-in-time delivery service. Furthermore, this model does not require a considerable investment of retail store space (e.g., *Aarstiderne*) and provides fresh locally grown products to locally owned, small retail stores already in existence (e.g., *Odin*).

👉 Multi-Farm Initiatives

When farms partner to share resources or access consumers, they are often able to profitably tap into markets at a smaller scale. During the winter of 2010, a group of

businesses in Brookfield, Vermont, began exploring a cooperative marketing effort to increase sales of agricultural products and to help consumers connect with the production of food. The concept is to provide a multiday experience combining farm stays, food production, processing and recreation. By working together, members of the [Floating Bridge Food & Farms Cooperative](#) hope to have better marketing and consumer access than any of the businesses could achieve on its own.

Many farms are partnering with neighbors in addition to providing their own produce through CSAs. By partnering with neighboring farms, they extend their season and can still meet consumer demands even when faced with crop failure. Andrew Knafel of [Clear Brook Farm](#) in Shaftsbury wrote in his August 1, 2010, posting to his website: "Right now we are in a planting (of sweet corn) that a family of bears found and so we just do not have enough and will be buying other local corn daily from Sheldon Farm until our next planting with the electric fence around it comes in." Some multi-farm marketing partnerships are formal, such as the *Deep Root Cooperative*, and others are more relaxed, such as *Pete's Greens*, which places one-time orders with neighboring food producers.

🍷 Enabling Partnerships

When consumer demand is sufficient, the market often creates the incentive for producers, processors, distributors, and retailers to partner and take advantage of the opportunity. Following are some examples:

- 🍷 [Red Hen Bakery](#) has partnered with *Aurora Farms* and *Champlain Milling* to create its *Cyrus Pringle Vermont Loaf*.
- 🍷 *Butterworks Farm* has partnered with the [Northern Grain Growers Association](#), the [Neighboring Food Cooperative Association](#) and the *Vermont Housing and Conservation Board* in a new effort to develop rolled oats and spelt flour for sale in Vermont's 10 food co-ops.
- 🍷 The [Cellars at Jasper Hill](#) built a cheese cave large enough to provide space for other area cheese makers to age their product in partnership with *Agrimark Cooperative* and public and private funders.

- 🍷 *Hunger Mountain Co-op*, *Middlebury Natural Foods Co-op*, and *City Market* have partnered with *Monument Farms Dairy* to create a co-op private-label brand of local milk.
- 🍷 *Fletcher Allen Health Care* is exploring a partnership with the *Intervale Center* to expand the nascent food hub to aggregate more products, build greenhouses for year-round production, and create more storage capacity for root crops.
- 🍷 Other Vermont food centers and hubs are responding to the demand for small-scale processing infrastructure for smaller-scale producers by studying the feasibility of creating this infrastructure and developing economic models for long-term sustainability.

C6. GETTING TO 2020: OBJECTIVES and STRATEGIES

If successfully implemented the following objectives and strategies, which came from extensive research and interviews, eight focus group sessions, and a daylong working session with industry stakeholders, will enhance Vermont's production, processing, distribution, and storage infrastructure and capacity. These strategies are designed to address the following F2P goals:

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

Goal 2: Students, administrators, and faculty of Vermont K-12 schools, colleges, and universities will consume more locally produced food.

Goals 8 and 9: Locally produced food for all types of local and regional markets will have increased.

Goal 14: Food processing facilities of all kinds will enable producers to access a wider range of market outlets and enable greater year-round consumption of local food.

Goal 15: There will be a sufficient supply of all forms of on-farm and commercial infrastructure to meet increasing year-round consumer demand (i.e. storage, aggregation, telecommunications, and distribution services).

Goal 16: Food system businesses' stages of development and scales of production will be matched with appropriate market outlets.

Table C5: Objectives and Strategies for Connecting the Dots

OBJECTIVE	STRATEGY
<i>Natural Resource, Physical Infrastructure, and Technology Strategies</i>	
<p>Build storage capacity to increase year-round availability of local food for all types of markets (including processing markets), as an interim step in the development of additional multipurpose aggregation centers.</p>	<p>Create a statewide inventory of food storage facilities. List these on the Vermont Food Atlas website, once developed.</p>
	<p>Based on current inventory and maps of existing food storage facilities (commercially available coolers, freezers, and dry storage), identify regions of the state in which more capacity is needed to serve local producers who serve or want to serve processing markets or other markets.</p>
	<p>Conduct feasibility studies to determine the economic viability and appropriate size and scale of storage units to meet needs.</p>
	<p>Identify ownership models for multiuser access to new storage facilities.</p>
<p>Build storage capacity to increase year-round availability of local food for all types of markets (including processing markets), as an interim step in the development of additional multipurpose aggregation centers.</p>	<p>Provide financing (e.g., low interest loans) and other forms of technical support to farmers and entrepreneurs interested in improving the capacity and accessibility of all types of storage facilities within a region.</p>
<p>Develop additional aggregation points, strategically located in various parts of the state to provide product consolidation, sorting, storage, packing, distribution, and customer service.</p>	<p>Review maps of existing sites of food aggregation and related functions to identify the best geographic regions and sites for additional private, nonprofit, or farmer-owned or cooperatively owned aggregation facilities. Aggregation points could likely serve broader purpose than aggregation, such as storage, raw product washing, and processing.</p>
	<p>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.</p>
	<p>Develop materials for new food aggregation hubs in Vermont to learn from and build on models such as <i>Deep Root Cooperative</i>, <i>Intervale Food Hub</i>, the CISA model in western Massachusetts, and the <i>Tuscarora Organic Growers Cooperative</i> in the Mid-Atlantic region. Replication materials should include a business model for aggregation and collective marketing to ensure profitable price points for farmers and buyers.</p>
<p>Increase access to nontraditional financing sources to increase production and storage capacity for producers and processors.</p>	<p>Increase the use of special loan funds to help farmers scale up to serve larger markets (e.g., <i>Whole Foods</i> and <i>City Market</i> both provide loans to midscale farmers and farmers in a position to serve larger retailers that require predictable deliveries).</p>
<p>Increase the availability of incubator and value-added processing facilities for smaller and early stage producers.</p>	<p>Inventory existing food processing facilities or commercial kitchens in Vermont to find out their willingness and ability to serve smaller, early stage producers interested in value-added processing. Determine the quantity and location of facilities needed to serve interested farmers and food entrepreneurs around the state</p>
	<p>Provide public funding for additional processing and value-added production facilities in underserved parts of the state, if sufficient interest exists and if these facilities can become self-sustaining after three to five years of operation.</p>

OBJECTIVE	STRATEGY
Natural Resource, Physical Infrastructure, and Technology Strategies	
<p>Ensure sufficient infrastructure and storage needs for on- and off-farm value-added dairy processing, for fluid milk bottling and other value-added products.</p>	<p>Coordinate with the <i>Vermont Institute for Artisan Cheese</i>, the <i>Vermont Cheese Council</i>, and cheese makers to conduct a market demand analysis for artisanal cheese processing, aging, and storage facilities for the next 10 years. Project the growth in demand for cheese processing, aging, and storage facilities</p>
	<p>Assess equipment needs and prepare an overall budget to further increase the sophistication and production of artisanal cheese.</p>
Sales and Distribution Strategies	
<p>Maximize producer access to direct market opportunities. Increase the number of farmers markets and CSA farms to meet growing demand, without saturating the market.</p>	<p>Identify existing farmers markets and CSA farms and determine where additional farmers markets and CSA farms could be viable and are desired by communities. Distribute farmers market and CSA market analyses to farmers. Based on these analyses, provide strategic planning technical assistance for starting new markets or combining new and existing markets.</p>
	<p>Continue funding support to <i>NOFA-VT</i> to deliver technical assistance and mini-grants to create an economically viable year-round farmers market system throughout the state, including EBT card processors installed at all markets.</p>
	<p>Expand existing farmers markets to year-round markets where economically viable. Use models from Vermont (e.g., Rutland, Shelburne) and other cold climate areas.</p>
	<p>Provide appropriate types of technical assistance and funding for farmers markets and CSAs at different stages of development, scale, and market penetration.</p>
	<p>Create new opportunities for small-scale vendors currently on the waiting list for markets, including possible town-supported online marketplace for local products.</p>
	<p>Encourage health and wellness programs at area businesses to encourage local food purchasing. Develop strategic partnerships with health and wellness programs (e.g., company wellness benefits could be used to purchase food at farmers market or CSA shares).</p>
	<p>Provide technical assistance documents for farms that want to open farm stands, including marketing materials, cash management suggestions, and information on liability.</p>
	<p>Profile multi-farm CSAs as viable ways to aggregate consumer offerings such as produce, dairy products, meat, preserves, grains, breads, and so on.</p>
	<p>Assess the market potential for additional or expanded mobile markets (e.g. <i>Schwan's</i>, <i>Rise 'n Shine</i>).</p>
	<p>Assess cooler, freezer, and dry storage needs at or near farmers markets to enable vendors to increase the quantity of product they can have on hand at the market.</p>
<p>Develop a professional culture of farmers market management.</p>	<p>Assist appropriately scaled farmers markets to hire trained seasonal help to ensure well-run markets, especially as they are expanding.</p>
	<p>Advance farmer insurance pools to provide additional choices in the marketplace.</p>

OBJECTIVE	STRATEGY
Sales and Distribution Strategies	
Increase consumer and producer awareness of online retail channels, such as subscription retail services.	Advertise existing online market outlets for local produce (e.g., <i>Intervale Food Hub</i> for Market Basket shares, localharvest.org, localdirt.com, FarmPlate.com, and other home delivery options), and assess whether additional online market services are needed.
Increase producer access to market demand information.	<p>Provide necessary funding by nonprofit and for profit institutions and retail outlets to establish local food coordinator positions (for a three- to five-year period) through Farm to School programs to more efficiently connect the supply and demand of local products. Once the market is more fully developed, these positions may no longer be needed.</p> <p>Encourage various retail market outlets (particularly food co-ops) to form strategic partnerships with area food enterprises to ensure predictable supplies of local food. Explore and consider various ownership models within these partnerships (e.g., the food co-op owns the land but has a long-term lease with a farmer and a multiyear purchasing contract for all food produced).</p> <p>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 producer’s storage or equipment, investing in farmer-owned processing facility, cooperative marketing, etc.).</p> <p>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.</p> <p>Support the development of a statewide, searchable, web-based portal (e.g., Vermont Food Atlas) containing market research information and buyer-seller matchmaking opportunities.</p>
Increase the purchasing of local food by hospitals, state facilities, university and colleges, K-12 schools, senior meal centers, and other institutions.	<p>Fund a pilot project to work with a certain number and type of facilities to determine internal barriers to purchasing and tracking local food procurement. Analyze what products could be substituted at different times of the year and identify Vermont farms within Vermont that could provide desired products.</p> <p>Work with interested farmers to confirm specifically what is needed to meet greater demand within this market segment based on expected product yields (e.g., acres of land, number of farmers, aggregation facilities, finance, distribution system changes, packaging, quality control, additional storage).</p> <p>Provide marketing and business skills training to farmers and food processors who want to focus on the production of kitchen-ready products for the restaurant and institutional market.</p> <p>Gather feedback from wholesalers and distributors regarding their needs for producer best practices and required procurement specifications.</p>

OBJECTIVE	STRATEGY
<p>Sales and Distribution Strategies</p> <p>Increase the purchasing of local food by hospitals, state facilities, university and colleges, K-12 schools, senior meal centers, and other institutions.</p>	<p>Provide funding support for local food coordinator positions in each region of the state (~8) to act as liaisons between interested buyers and producers, and to instruct producers in necessary quality control measures. Coordinators should also have knowledge about all regulatory, insurance, and procurement requirements and specifications for all area market outlets. [investigate funding by parties along the value chain].</p>
	<p>Build on existing online local food matchmaking tools to create one statewide online matchmaking tool to post product demand, required specifications, prebuy contract parameters and samples, and supply availability.</p>
	<p>Encourage institutions to provide funding and/or staff support for the infrastructure needed to increase the processing and storage of lightly processed fruits and vegetables (either on site or at area partnering farms).</p>
	<p>Establish liquid egg pasteurization machinery at sufficiently scaled egg farms to serve hospital and school markets (funded through a joint partnership between the farm and the institution or by the farm itself).</p>
	<p>Encourage the leadership of hospitals, K-12 schools, universities, and other educational 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.</p>
	<p>Encourage the development of mentoring programs in restaurants and institutions to teach new chefs about the use of local foods (e.g., workshops at Vermont Fresh Network events).</p>
	<p>Conduct a one-year pilot project in which restaurants track their sales before and after adding Vermont products to their menus and highlight the farms the products come from.</p>
	<p>Profile and highlight successful institutional and restaurant establishments that model how to source local product, provide customer value, and run financially sustainable enterprises.</p>
<p>Increase local food production and consumption at state-owned institutions and facilities with food service, and those businesses that lease large parcels of real estate from the state (e.g., ski areas).</p>	<p>Inventory potential farmland adjacent to state offices with food service capabilities and identify farmer(s) willing to produce specifically for the facility. Ensure that the facility has adequate storage and light processing equipment.</p>
	<p>Inventory potential farmland adjacent to state correctional facilities that could support food production and provide job training and rehab for inmates. Develop business plans and provide funding for reinstating farms at correctional facilities.</p>
	<p>Enforce the existing state policy that instructs the VAAFM, the <i>Agency of Administration</i>, and the <i>Department of Buildings and General Services</i> 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 public funding from the state. Encourage farming on public lands that are adjacent to public facilities.</p>

OBJECTIVE	STRATEGY
Sales and Distribution Strategies	
<p>Maximize local food served in K-12 schools by increasing the number of schools participating in Farm to School programs.</p>	<p>Increase outreach to all Vermont schools about Farm to School programs.</p>
	<p>Provide sufficient funding for Farm to School programs so that every school that wants to participate has adequate funding and technical skills to be successful with this endeavor.</p>
	<p>Help schools procure local food through the use of brokers and/or local food coordinators and providing training to food service workers (e.g., provide funding for a staff position within a school district).</p>
	<p>Maximize buying power through coordinated purchasing among multiple institutions and senior meal sites in a given locale.</p>
	<p>Inventory schools to assess the equipment, storage, and staff capacity needed to process local food, and seek funding to upgrade or train.</p>
	<p>Train staff and use school kitchens to lightly process and store local produce for use in school cafeterias, if sufficient on-site storage exists.</p>
	<p>Fund school gardens and farms and summer youth job programs in which students manage production, connect with area farms at harvest to procure produce for school use, and conduct light processing and storage during the summer growing season (school vacation months).</p>
	<p>Advocate for policies to enable school districts to take "cash in-lieu of commodity food" whenever possible to increase resources and flexibility in school food purchasing.</p>
<p>Increase the availability of locally grown food at Vermont and regional retail outlets.</p>	<p>Provide funding support for the <i>Neighboring Food Cooperative Association</i> (NFCA) to conduct feasibility studies for the expansion of local food co-ops throughout the region, including satellite stores for existing co-ops. NFCA already has a plan for how to do this (e.g., identifying strategic locations, establishing appropriate capital access).</p>
	<p>Seek entrepreneurs to establish start-up businesses that provide broker services between producers (and aggregation centers for product) and supermarket category managers. These brokers could negotiate pre buy contracts, negotiate prices, ensure adequate production volume, and ensure that producers meet supermarket procurement regulations, specifications, invoicing policies, and so on.</p>
	<p>Establish a centralized information clearinghouse of food safety protocols, vendor procurement specifications for various types of market outlets, product demand and supply information, and so on (e.g., Vermont Food Atlas). Build on existing FAQ sheets for producers interested in supplying to retail outlets or becoming vendors.</p>
	<p>Conduct market readiness and retail procurement standards and specifications trainings for producers.</p>

OBJECTIVE	STRATEGY
Sales and Distribution Strategies	
Increase the availability of locally grown food at Vermont and regional retail outlets.	Encourage supermarkets to develop methods for producers to deliver directly to supermarket stores (bypassing internal supermarket system distribution channels).
Marketing and Public Outreach Strategies	
Build on USDA's Know Your Farmer campaign to revitalize a Vermont "Buy Local" campaign and increase direct local food sales.	Identify sustainable funding sources to allow the VAAFM to reestablish and improve its popular Buy Local campaign (which was discontinued in 2008 because of a lack of funding and staff capacity). Explore all options, including voluntary contributions at cash registers, a 0.5% increase to meals and rooms tax, and a 0.5% sales tax on all food items purchased at market outlets.
	Increase local farmer and food entrepreneur profiles in the media and all types of market outlets to build consumer-food producer relationships as a means to increase the purchase of local products.
	Encourage the <i>Vermont Department of Marketing and Tourism</i> to maximize its efforts to advertise opportunities for visitors to participate in farm stays, farm vacations, farm tours, and <i>Tour de Farm</i> , Vermont Tasting Trail; take advantage of Federal-State Marketing Improvement Grants from the <i>USDA Agricultural Marketing Service</i> for this initiative.
Make use of nonagricultural tourism attractions for advertising direct market opportunities and local food sourcing (e.g., ski resorts, county fairs, state parks).	Through the Vermont Department of Marketing and Tourism and the Vermont Ski Areas Association, explore ways to partner with winter tourism promotional campaigns to heighten local farm and food connections.
	Cross promote the ski, maple, and food industries on all promotional campaigns, when feasible.
Increase consumer awareness about how to encourage traditional supermarkets to provide locally sourced food products.	Work with retail supermarkets to create an easy way for consumers to communicate their desire for more local food at supermarkets.
	Encourage supermarkets to track their purchase and sale of local product (e.g., point of sale tracking, ticker tape reading with daily tally in check-out area, local products tally on receipt, etc.).
	Invite supermarkets and other grocery stores to cosponsor Buy Local advertising campaigns, as long as they are demonstrating measured increases in local food procurement.
Technical Assistance and Business Planning Strategies	
Improve the customer service skills of farmers interested in direct marketing.	Fund technical assistance organizations so they can provide ongoing training sessions such as those organized by <i>NOFA-VT</i> (e.g., Is direct marketing right for you?).
Improve the business skills of all food enterprises by providing expanded and enhanced technical assistance.	Provide tailored technical assistance to food producers based on their current stage of business, desired type and scale of operation, and desired market outlet, especially in areas such as marketing, sales, financing, and internal systems development.
	Build on the existing technical assistance infrastructure to develop a robust, full-service "wraparound" support system to assist food enterprises that want to scale up to serve larger and institutional markets.

OBJECTIVE	STRATEGY
Technical Assistance and Business Planning Strategies	
Educate more supermarket procurement managers about the value of buying local.	Develop trainings for procurement category managers at grocery stores and supermarkets in how to access local food.
	Encourage retailers to organize meetings with growers, producer co-ops, aggregators, as <i>Whole Foods</i> did in March 2010, to strengthen and build trusting relationships and inform producers of retailer needs.
Educate producers on how to interact effectively with retail category buyers. Ensure that producers are knowledgeable about the regulatory and insurance requirements and all procurement (“case ready”) specifications (including record-keeping and tracking protocols) of market outlets prior to attempting to serve those markets.	Develop and offer market readiness workshops for producers.
	Distribute materials to producers (online and paper versions) on buyer specifications (e.g., FAQs for becoming a vendor to a retail outlet).
	Include in the recommended supply/demand matchmaking information web portal (proposed in a separate section) all regulatory, insurance, and procurement requirements and specifications for all area market outlets (e.g., Vermont Food Atlas).
	Maintain ongoing connections between technical assistance providers and retailers to ensure that buyers know who to send producers to for technical assistance.
	Develop more in-state expertise and capacity to help producers manage and comply with specific regulations.
Encourage Vermont Congressional Delegation to continue to address issues of scale and market type, as they work to develop the food safety enhancement legislation in Washington, DC.	
Regulation and Public Policy Strategies	
Support appropriately scaled regulations. Reduce regulatory barriers for direct farm-to-consumer sales.	Advance mutual consent consumer food laws. Encourage relational agriculture, promoting informed choice for both buyer and seller. Increase the transparency of the flow of knowledge between consumer and producer.
	Identify regulatory barriers to direct marketing opportunities.

End Notes

- 1 Interview with Andrew Meyer, *Vermont Natural Coatings*, November 2009.
- 2 Interview with Amy Huyffer, *Strafford Organic Dairy*, November 2009.
- 3 Of course, these data were gathered before the dairy crisis of 2008-2009, when the price farmers received for their milk dropped to the low point in the past 50 years.
- 4 Steve Martinez et al. "Local Food Systems: Concepts, Impacts, and Issues." *United States Department of Agriculture Economic Research Service*, May 2010, www.ers.usda.gov/Publications/ERR97/ERR97_ReportSummary.html.
- 5 NOFA Vermont, "Vermont Farmers' Market Manager and Vendor Survey Results," <http://nofavt.org/sites/default/files/Annual%20Report%20Compiled%202000-2009.pdf>.
- 6 This figure is meant to depict the current food distribution system. It is not meant to depict what the system may look like in 2020. As consumer demand and food enterprises continue to evolve, innovation will occur, which may alter the way products flow from farm to table.
- 7 This figure is meant to depict the current food distribution system. It is not meant to depict what the system may look like in 2020. As consumer demand, farms, and food enterprises continue to evolve, innovation will occur, which may alter the way products flow from farm to table.
- 8 NOFA Vermont, "Vermont Farmers' Markets: 2009 Survey" <http://nofavt.org/sites/default/files/2009%20Farmers%20Market%20Final%20Report.pdf>.
- 9 <http://nofavt.org/market-organic-food/community-supported-agriculture>
- 10 There are about 2,000 sugar makers in the state of Vermont, and they range from very small backyard operations to very large commercial-scale operations. The *Vermont Maple Sugar Makers Association* has approximately 850 members.
- 11 E-mail from Meghan Sheridan, *Vermont Fresh Network*, July 1, 2010; self-reported 2009 member survey results.
- 12 Interview with Rick Chase of *Da Costa Sales*, March 22, 2010.
- 13 Interview with Katherine Sims, *Green Mountain Farm-to-School Network*, July 7, 2010.
- 14 The Oklahoma Food Policy Council, *The Oklahoma Farm-to-School Report 2003*, www.kerrcenter.com/ofpc/publications/Farm-to-School_report.pdf, p. 22.
- 15 It is interesting to note that the DoD required *Black River Produce* to deliver food from its warehouse to a central Vermont location for redistribution by another company, rather than allowing *Black River* to simply deliver the food itself.
- 16 Interview with the *Abbey Group*, January 2010.
- 17 Interview with Justin Halvorsen, Kitchen Manager, *Sterling College*. April 2010.
- 18 Kathleen James, "Full Circle," *Vermont Field to Table*, 2008, www.vtfield2table.com/current/black-river-produce.html.
- 19 www.uppervalleyproduce.com.
- 20 Glen Bush, *U.S. Foodservice*, during Vermont farm visits, July 2009.
- 21 Mary Hendrickson, William Heffernan, et al., "Consolidation in Food Retailing and Dairy," *British Food Journal*, Vol. 103 (October 2001): 715-728.
- 22 Interview with Barney Hodges, co-owner of *Vermont Refrigerated Storage*, September 2010.
- 23 Comments from Travis Marcotte, executive director of the *Intervale Center*, July 2010.
- 24 Interview with Debbie Boutin, Vermont Commercial Warehouse, March 2010.
- 25 Comments from Travis Marcotte, executive director of the *Intervale Center*, July 2010.
- 26 The other 81% goes to the "marketing" bill, which includes the portions attributable to labor, packaging, and other major marketing inputs.
- 27 Mary Hendrickson, William Heffernan, et al., "Consolidation in Food Retailing and Dairy," *British Food Journal*, Vol. 103 (October 2001): 715-728.
- 28 www.post-gazette.com/pg/06338/743473-28.stm.
- 29 Interview with Chris Bailey, *Vermont Smoke and Cure*, December 2009.
- 30 WJLA Channel 7 ABC, www.youtube.com/watch?v=JQ31Ljd9T_Y
- 31 www.theatlantic.com/doc/201003/Wal-mart-sic-local-produce.
- 32 Ibid.
- 33 Doug Hoffer, "The Economic and Fiscal Impacts of Food Co-operatives in Northwestern New England," *Connecticut Valley Neighboring Co-ops*, July 2008.
- 34 Mary Hendrickson and William Heffernan, "Concentration of Agricultural Markets April 2007," <http://foodcircles.missouri.edu>.
- 35 Ronald W. Cotterill, "The Food Distribution System of the Future: Convergence towards the US or UK Model?" *Agribusiness*, 13 (2) (1997): 123-135.
- 36 John Stanton, "Rethinking Retailers' Fees," *Food Processing*, 60 (8) (1999): 32-34.
- 37 Chargebacks are credits taken for goods the retailer deems unsalable or defective. These can be goods whose "good until date" has expired, that have been damaged at the

store, that have been returned by customers for any reason, or that are deemed unsalable for any reason a store manager may determine. Many producers complain that this device is somewhat abused by the larger supermarkets as a way to compensate for the normal shrink and loss of perishable goods. Because the return of perishable products to the producer is not a practical option, chargebacks represent a 100% credit on the goods shipped to the stores, or more if the retailer adds any handling or disposal fees. The onus is on the producer to prove that the chargeback was unwarranted.

38 Interview with Bruce Bascom, *Bascom Maple Farms*, December 2009.

39 Conversation with Dave Ludden, formerly of *Hannaford* and *Amazon*.

40 Notes from Whole Foods "Locals Invited" Seminar, April 2010. Notes taken by Jean Hamilton, Community Food Security and Direct Marketing Programs, NOFA-VT.

41 Interview with Phil Brown, *Brown's Rabbitry*. May 2010.

42 Interview with Will and Judy Stevens, *Golden Russet Farm*, February 2010.

43 Interview with George Redick, *Oak Knoll Farm*, December 2009.

44 Interview with Todd Hardie, *Honey Gardens Apiary*, February 2010.

45 Interview with Jack Lazor, *Butterworks Farm*, February 2010.

46 Conversation with Rick Chase, *Da Costa Sales*, March 22, 2010.

47 <http://uds.uvm.edu/social.html>.

48 Interview with Katherine Sims, Director, *Green Mountain Farm-to-School*, July 7, 2010.

49 Interview with Read Miller, *Dwight Miller Orchards*, July 2010.

50 Steve Paddock, "Feasibility Study and Enterprise Business Plan for Processing and Marketing Vermont-Grown Fruits and Vegetables to Vermont Schools," *Deep Root Organic Truck Farmers Cooperative Inc.* and *Vermont SBDC*, November 23, 2009.

51 Interview with Jeff Mitchell, principal, *Green Mountain Co-Pack*, December 2009.

52 Green Mountain Food Hub Business Plan, by *Weybright & Associates*, for RAFFL, October 2010.

53 Interview with Eric Rozendaal, *Rockville Market Farm*, August 2010.

54 Mary Hendrickson and William Heffernan, "Concentration of Agricultural Markets April 2007," <http://foodcircles.missouri.edu>.

55 Ibid.

56 Interview with Bob James, *Monument Dairy*, Weybridge, Vermont. July 7, 2010.

57 Steve Stevenson, "Values-Based Food Supply Chains: Organic Valley," *Wisconsin Center*

for *Integrated Ag Systems*, Research Brief #80, June 4, 2009.

58 www.law.upenn.edu/bll/archives/ulc/uaarca/2007_amdraft.htm.

59 2011 Vermont House Bill H.21, www.leg.state.vt.us/database/status/summary.cfm.

60 However, to be successful, producers with their own trucks on the road would need to overcome a number of logistical hurdles including, invoicing, bill payment, timing, liability issues, and so forth.

61 Doug Hoffer, "The Economic and Fiscal Impacts of Food Co-operatives in Northwestern New England," *Connecticut Valley Neighboring Co-ops*, July 2008.



APPENDIX C

Connecting the Dots

Credits

Appendix C: Connecting the Dots was prepared by Louise Calderwood, Greg Georgaklis, Scott Sawyer, Ellen Kahler, Kit Perkins, and Doug Hoffer.

Maps: Dan Erickson, [Advanced Geospatial Systems, LLC](#)

Copyediting: Patsy Fortney

Layout and Design: Katie-Marie Rutherford, [www.katierutherford.com](#), and Scott Sawyer

For more information:

Vermont Sustainable Jobs Fund

www.vsjf.org/project-details/5/farm-to-plate-initiative

3 Pitkin Court, Suite 301E

Montpelier, VT 05602

info@vsjf.org

The information contained in *Appendix C* maps was derived from a variety of sources. *Advanced Geospatial Systems, LLC* (AGS) compiled these maps, using data considered to be accurate; however, a degree of error is inherent in all maps. While care was taken in the creation of this product, it is provided “as is” without warranties of any kind, either expressed or implied. AGS, the *Vermont Sustainable Jobs Fund* or any of the data providers cannot accept any responsibility for errors, omissions, or positional accuracy in the maps or their underlying records. These maps are for informational purposes only.



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On the Cover: City Market produce section: City Market; Healthy Living Market meat section: Healthy Living Market; Middlebury Natural Foods Co-op produce section: Middlebury Natural Foods Co-op; variety of apples: City Market; O Bread display: Healthy Living Market; Healthy Living Market; apples in barrels for distribution on Lake Champlain: UVM Special Collections; Maplebrook Mozzarella display: Healthy Living Market; Black River Produce delivery trucks: Black River Produce; crate of squash: Tyler Cotton.