

OCTOBER 2012

---

# SCALING UP VERMONT'S LOCAL FOOD PRODUCTION, DISTRIBUTION, AND MARKETING

---

## EXECUTIVE SUMMARY

**PREPARED BY**  
NOFA Vermont; Vermont  
Food Education Every Day

Rose Wilson, Rosalie  
J. Wilson Business  
Development Services

**MAPS PRODUCED BY**  
Dan Erickson, Advanced  
Geospatial Systems, LLC

**CONTRIBUTING RESEARCH  
PROVIDED BY**  
Florence Bécot & David  
Conner, University of  
Vermont



# SCALING UP VERMONT'S LOCAL FOOD PRODUCTION, DISTRIBUTION, AND MARKETING

*Funding and support received from:*

**VERMONT AGENCY OF AGRICULTURE, FOOD AND MARKETS**

**VERMONT AGRICULTURAL INNOVATION CENTER**

**FORREST & FRANCES LATTNER FOUNDATION**

**VT FEED THROUGH GREEN MOUNTAIN COFFEE ROASTERS**

**HIGH MEADOWS FOUNDATION**

**USDA AGRICULTURE AND FOOD RESEARCH INITIATIVE,  
PROJECT NUMBER 2010-85211-20464**

*Advisory Committee Members:*

**Peter Allison**, Farm to Institution New England

**Florence Becot**, University of Vermont

**David Conner**, University of Vermont

**Dan Erickson**, Advanced Geospatial Systems, LLC

**Annie Harlow**, Addison County Relocalization Network

**Ellen Kahler**, Vermont Sustainable Jobs Fund

**Tara Kelly**, Rutland Area Farm and Food Link

**Abbey Willard**, Vermont Agency of Agriculture, Food and Markets

**Rose Wilson**, Rosalie J. Wilson Business Development Services

## **GENERAL MAP DISCLAIMER**

The information contained in the report 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 these maps, they are provided "as is" without warranties of any kind, either expressed or implied. AGS, NOFA Vermont, Rosalie J. Wilson Business Development Services or any of the data providers cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or underlying records. These maps are for informational purposes only.



# TABLE OF CONTENTS

**EXECUTIVE SUMMARY**

|                                |   |
|--------------------------------|---|
| OVERVIEW                       | 4 |
| GENERAL FINDINGS & CONCLUSIONS | 5 |
| RECOMMENDATIONS                | 7 |

**RESULTS & APPENDICES (AVAILABLE AT [WWW.NOFAVT.ORG](http://WWW.NOFAVT.ORG))**

INSTITUTIONAL DEMAND  
INFRASTRUCTURE

- A: ANALYSIS OF SURVEY RESULTS BY INSTITUTION TYPE
- B: INSTITUTIONAL DEMAND AND INFRASTRUCTURE MAPS
- C: INSTITUTION DEMAND SURVEY RESPONSES
- D: INFRASTRUCTURE SURVEY RESPONSES
- E: INSTITUTIONAL DEMAND SURVEY QUESTIONNAIRE
- F: INFRASTRUCTURE SURVEY QUESTIONNAIRE

# EXECUTIVE SUMMARY

## OVERVIEW

*While institutional demand for local food has been demonstrated in numerous projects in Vermont and greater New England over the past few years, there are still hurdles in the sourcing and supplying of local products to meet this need.*

Until recently, farmers have been hesitant to scale up for the institutional market, and traditional distribution systems have been slow to adapt to changes in their sourcing patterns for institutions. In an attempt to address gaps in the local food

supply chain for institutions, Vermont food hubs and regional food centers have responded in part by creating programming to support more processing, aggregation, storage, and distribution infrastructure. Some of these food hubs have resulted in 'ultra-local' distribution systems that have established strong connections between local farms and Vermont institutions.

However, the influx in local distribution mechanisms burgeoning from food hub initiatives coupled with an increase in farmers testing direct sales to institutions has increased the complexity of ordering, delivery, and accounting for institutions and, in some cases, has also increased the number of vehicles on the road. The extra overhead of dealing with multiple vendors has been described by many buyers as a

key barrier to purchasing local food. Improving the system that provides institutions with the local products they want in an efficient manner is the main focus of this phase of NOFA Vermont and Vermont FEED's farm to institution work.

Five hundred and forty-one institutions were contacted for this study, along with 66 infrastructure organizations. A total of 188 institutions and 67 infrastructure organizations responded. NOTE: All findings are based solely on respondent answers and cannot necessarily be generalized to the state of Vermont.



### THIS PROJECT SEEKS TO:

- Provide essential baseline data and articulate a path for overcoming barriers to accomplish Goal 2 of the Farm to Plate Strategic Plan: **Consumers in institutional settings (e.g., K-12 schools, colleges, state agency cafeterias, hospitals, prisons) will consume more locally produced food.** The Farm to Plate Strategic Plan is a 10-year plan for strengthening Vermont's food system.
- Provide producers with quantifiable information in order to scale up production for institutions.
- Provide information about infrastructure for processing, storage, aggregation and distribution of local foods.

### THE STUDY UNDERTOOK TWO STATEWIDE SURVEYS TO:

- Quantify demand for local produce and eggs by Vermont institutions (schools, colleges and universities, state cafeterias, hospitals, prisons, food shelves, nursing homes, and senior centers), and identify barriers and opportunities for increasing institutional local food purchasing.
- Inventory statewide infrastructure for aggregating, storing, distributing, and processing local produce and eggs.

## GENERAL FINDINGS & CONCLUSIONS

A key finding from the institutional demand survey is that, for reporting institutions, a minimum of \$5.0 million dollars are spent annually on fruit, \$8.6 million on vegetables, and \$345,000 on eggs. This amounts to about 15% of respondents' fruit budgets, 23% of their vegetable budgets, and 26% of their egg budgets are spent on local product. This leaves an opportunity gap of over \$11.2 million that could be redirected towards local purchases. (See tables 1.1, 1.2, and 1.3)

Our research was also able to assess the validity of some supply and demand claims that have surfaced anecdotally over NOFA Vermont and VT-FEED's years of working with institutional food service directors.

### We found that:

- There *is* demand across many institutions in Vermont for local produce and eggs.
- They are buying some already.
- They want more.
- They need an efficient and safe supply chain for local food purchasing.
- The majority of institutions want to purchase local fruits, vegetables, and eggs directly from their primary distributor or slightly fewer, directly from a farmer.

### We also found that:

- Good Agricultural Practices (GAP) certification and product liability are not required by most institutions.
- Pasteurizing eggs is not a prerequisite to servicing institutions.
- Light or value added processing of fruits and vegetables is not a prerequisite to servicing institutions.
- Institutional demand is not limited to three seasons.

Our research also uncovered some findings we were not expecting.

### For example, we discovered that:

- The majority of responding processing facilities are limited to private use.
- The majority of responding distributors are not yet using logistics management software or tools such as computerized mapping, which could aid in their operational efficiency.
- There is a high demand for raw, unpasteurized eggs.

TABLE 1.1 INSTITUTIONAL DOLLARS SPENT ANUALLY

| Items        | Total Expenditures  | Total Spent On Locally Sourced | Opportunity Gap     |
|--------------|---------------------|--------------------------------|---------------------|
| Fruit        | \$5,050,000         | \$757,038                      | \$4,292,963         |
| Vegetables   | \$8,637,500         | \$1,970,563                    | \$6,666,938         |
| Eggs         | \$345,000           | \$90,991                       | \$254,009           |
| <b>Total</b> | <b>\$14,032,500</b> | <b>\$2,818,592</b>             | <b>\$11,213,910</b> |

TABLE 1.2 TOTAL POUNDS PURCHASED ANNUALLY

| Items              | Total Volume Used in Pounds | Total Volume of Local Used in Pounds | Opportunity Gap in Pounds |
|--------------------|-----------------------------|--------------------------------------|---------------------------|
| Apples             | 196,775                     | 101,942                              | 94,833                    |
| Pears              | 72,875                      | 1,368                                | 71,507                    |
| Stone Fruit        | 59,650                      | 1,723                                | 57,928                    |
| Berries            | 51,725                      | 4,437                                | 47,288                    |
| Green Beans        | 79,625                      | 7,151                                | 72,474                    |
| Broccoli           | 81,200                      | 4,793                                | 76,407                    |
| Cabbage            | 48,100                      | 3,560                                | 44,540                    |
| Carrots            | 123,650                     | 17,108                               | 106,542                   |
| Corn               | 83,975                      | 4,901                                | 79,074                    |
| Cucumbers          | 80,575                      | 10,833                               | 69,742                    |
| Head Lettuce       | 89,800                      | 8,062                                | 81,738                    |
| Mixed Salad Greens | 61,375                      | 6,772                                | 54,603                    |
| Onions             | 102,800                     | 10,693                               | 92,107                    |
| Peppers            | 70,950                      | 6,877                                | 64,073                    |
| Spinach            | 32,175                      | 2,561                                | 29,614                    |
| Root Crops         | 52,300                      | 9,184                                | 43,116                    |
| Summer Squash      | 39,425                      | 5,193                                | 34,232                    |
| Tomatoes           | 116,125                     | 20,936                               | 95,189                    |
| Potatoes           | 164,575                     | 38,118                               | 126,457                   |
| Winter Squash      | 51,150                      | 16,094                               | 35,056                    |

TABLE 1.3 TOTAL EGGS PURCHASED ANNUALLY

| Items | Total Dozens Purchased | Total Local Dozens Purchased | Opportunity Gap in Dozens |
|-------|------------------------|------------------------------|---------------------------|
| Eggs  | 224,250                | 78,983                       | 145,268                   |

## INSTITUTIONAL DEMAND SUMMARY

**Institutional purchasing of local fruit and vegetables is well-established.** Of the responding institutions, 73% spend some portion of their budget on local fruit and 78% spend some portion of their budget on local vegetables.

**Pasteurization is not a prerequisite for the institutional egg market.** While local egg purchasing is not yet as commonplace within the institutional market as fruits or vegetables (44% spend some portion of their budget on local eggs), 81% of institutions use fresh, whole, unpasteurized eggs, and 62% of respondents would like to source eggs locally.

**Demand for fruits, vegetables, and eggs is stable and growing.** Of the responding institutions, 94% stated their needs would stay the same or increase over the next three years.

**Institutions want fresh, whole fruits and vegetables.** Two-thirds of institutions purchase unprocessed, "fresh, whole" fruits and vegetables.



**Institutions want to buy from their primary distributors (e.g., Reinhart, Sysco, US Foods) or direct from a farmer.**

More than 50% of institutions cited their preferred format for purchasing local products is through a primary distributor. A slightly lower number cited buying direct from a farmer. A few noted their preferred format is through some other form of distribution network which included vegetable/fruit distributors such as Black River and Upper Valley Produce. This demonstrates the need to continue making strides in cultivating direct relationships with farmers and institutions, but also points out that in order to achieve full impact within the institutional market, an emphasis must be placed on effecting change within the traditional distribution chain and increasing access of local food through national distributors.

**Top opportunities for vegetable growers.** From a list of 16 crops selected for their relative ease of production in Vermont, the following represent the top opportunities for vegetable growers. They are prioritized by crops that had the highest percentage of purchasing by local institutions coupled with the least intensive processing requirements:

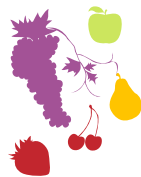


**FRESH, WHOLE:** broccoli, mixed salad greens, head lettuce, spinach

**FROZEN, CUT:** broccoli, green beans, corn, carrots, winter squash

**CANNED:** green beans, corn

**Top opportunities for fruit growers.** From a selection of four fruit groups that are currently grown in Vermont, the following represent the top opportunities for fruit growers. They are prioritized by crops that had the highest percentage of purchasing by local institutions coupled with the least intensive processing requirements:



**FRESH WHOLE:** apple, pears, stone fruit, berries

**FROZEN, WHOLE:** berries

**CANNED:** pears, stone fruit

**Top four motivating factors for institutions to purchase local were:**

- To support local farmers
- To support the local economy
- Freshness
- Quality

**The top challenge faced by institutions wishing to purchase local is food budget constraints.** After the financial barrier, the following top three limiting factors were:

### FOR FRUITS AND VEGETABLES

- Storage
- Labor/food prep budget
- Products are not available in the form needed; Local farmer does not deliver to my institution (these two factors ranked the same)

### FOR EGGS

- Food safety assurances/concerns
- Labor/food prep budget; Storage (these two factors ranked the same)
- Have not been able to focus on this

**In order to increase local purchasing, the most helpful form of assistance for institutional buyers other than money would be:**

- Greater local product availability from existing distributor
- Increased awareness of local products carried by distributors
- Support connecting with local producers
- Increased/improved storage

## INFRASTRUCTURE SUMMARY

**Most institutions do not require Good Agricultural Practices (GAP) certification and product liability insurance.** Only 16% of infrastructure respondents require their suppliers to be GAP certified or to carry product liability insurance.

**The majority of processing facilities (67%) are limited to private use only.**

**Most distributors are not taking advantage of GPS/GIS or logistics management tools.** Only 16% of distributors are using tools to create efficient route sequencing.

**The vast majority of infrastructure organizations use a different definition of "local" than that of *Farm To Plate*.** Only 13% of respondents use the same definition of local as the *Farm to Plate Strategic Plan: products that originated from Vermont or within a 30-mile radius of Vermont*.

**Infrastructure sites have seen an increased demand for local:**

- 64% of respondents have received increased requests for local product
- 53% currently source local products
- 55% are interested in sourcing or sourcing more local products

**There is a desire to help move local food around the state:**

- 31% of respondents are already picking up food from producers and aggregators en-route
- 25% are picking up food from food shelves
- 12% are picking up fee based drop shipments en-route, back hauling for other distributors/aggregators, and/or picking up/dropping off at community kitchens/shared use facilities
- 28% are not yet doing these things, but would consider doing these things

## RECOMMENDATIONS

The following recommendations are based on utilizing the survey results to identify opportunities that, if implemented, will make an immediate impact on increasing local foods to the institutional marketplace.

### RECOMMENDATIONS FOR INSTITUTIONAL BUYERS

- 1 Communicate with primary distributors about identifying Vermont or New England grown products.**

**OBJECTIVE:** Increase the opportunity to order local produce and eggs.

- 2 Work with support organizations, food hubs, and food centers to facilitate communication between other institutions in the region to explore greater purchasing power by aggregating demand for local products.**

**OBJECTIVE:** Improve the opportunities for larger quantities of product to be purchased.

- 3 Work with local organizations, food hubs, and food centers to facilitate conversations with egg producers in regions about the quantity needed and terms necessary for purchasing local eggs.**

**OBJECTIVE:** Increase the amount of local eggs purchased by institutions.

### RECOMMENDATIONS FOR STATE AGENCIES AND SERVICE PROVIDERS:

- 1 Work with distributors to increase their sourcing and identification of local produce and eggs.**

**OBJECTIVE:** Increase the availability and knowledge of local foods through buyers' existing distributors.

- 2 Work with farmers and producers to provide technical and business planning assistance to scale-up for the institutional market.**

**OBJECTIVE:** Create sustainable business plans that ensure the price point and volume needs of institutions works for farmer and producer businesses.

- 3 Work with aggregation sites to increase awareness of their services to others within the supply chain.**

**OBJECTIVE:** Facilitate access to markets for producers, facilitate access to local products for distributors, and aggregate product from small producers into quantities needed for institutional sale.

- 4 Connect distributors with local producers, food hubs, and self-started distribution systems that service the same buyers to develop local supply chains.**

**OBJECTIVE:** Build partnerships that streamline distribution to improve delivery efficiency, saving time, gas, money, and reducing environmental impact of distribution; minimizing distribution responsibility as a deterrent for producers not interested in distribution; and streamlining the ordering process for buyers.

- 5 Provide technical assistance, training, and support to increase the number of distributors using automated logistics management tools.**

**OBJECTIVE:** Improve delivery efficiency, saving time, gas, money, and reducing environmental impact of distribution.

- 6 Foster communication and dialogue about the demand and opportunities for local foods between buyers and suppliers in regions.**

**OBJECTIVE 1:** Create and reinforce an awareness in the supply chain for the growing demand for local foods from institutional buyers and help the supply chain make institutional needs a priority.

**OBJECTIVE 2:** Provide trainings and opportunities for institutions to purchase and use local produce in season or process for year-round use.

**OBJECTIVE 3:** Help generate awareness of lightly processed and value added local products for year-round use.

**7 Encourage adoption of a unified, standard definition within the institutional market place for “local” food.**

**OBJECTIVE:** Eliminate differences in interpretation from impeding the movement of local foods into the institutional market supply chain and allow for the creation of metrics to track the purchasing of local products.

**8 Assist suppliers with tools/techniques to emphasize their locally sourced products.**

**OBJECTIVE:** Assist infrastructure sites with marketing.

**9 Communicate the names of suppliers who source local products to the institutional market.**

**OBJECTIVE:** Assist infrastructure sites with marketing and institutions with sourcing.

**10 Conduct a feasibility study for the berry market on institutional price points.**

**OBJECTIVE:** Evaluate whether it is financially feasible for local berry producers to consider scaling up for the institutional market.

**11 Continue to explore storage options and bring potential solutions to the attention of buyers, suppliers, aggregators, and distributors.**

**OBJECTIVE:** Minimize storage constraints as an impediment to local sourcing.

**12 Connect buyers interested in local, whole, unpasteurized eggs with distributors and suppliers of local eggs.**

**OBJECTIVE:** Realize an immediate opportunity to increase the sourcing of local foods through the unmet demand for local, fresh, whole eggs.

### RECOMMENDATIONS FOR GROWERS

**1 Connect with interested buyers from the appendices to follow up on demand for the high priority opportunities (see top opportunities for vegetable and fruit growers on page 5).**

**OBJECTIVE 1:** Begin to cultivate sales relationships and evaluate the return on investment for scaling up for your specific farm and interests.

**OBJECTIVE 2:** Work with farm viability providers to assess the ability of growers to meet the needs and requirements of the institutional market.

### RECOMMENDATIONS FOR INFRASTRUCTURE PROVIDERS

**1 Review the list of institutions from Appendix C in this report to identify your existing customers. Note what they cite for local product demand and their preferred method for sourcing. Are there local products they are looking for that you already carry? Are there local products that if you carried they would buy from you?**

**OBJECTIVE:** Use the appendices as a tool to help immediately increase your sales of local goods, and identify opportunities to expand your line up of local offerings.

**2 Use the contact lists and maps to identify additional institutions to serve.**

**OBJECTIVE 1:** Food hubs/centers and distributors will be able to offer institutions better service and more local products.

**OBJECTIVE 2:** Facilitate logistics planning for accessing local products to help service the growing demand.

**3 Review list and maps of other infrastructure providers and begin to work with partners on ways your organization can partner to help move local food throughout the state or make the movement of local food more efficient.**

**OBJECTIVE:** Increase efficiency of how local food moves across the state, increase ability to move more local food throughout the state, and increase institutional access to local food.

## CONTACTS FOR IMPLEMENTING RECOMMENDATIONS

In the appendices (available at [www.nofavt.org](http://www.nofavt.org)) readers will find tables and maps with purchasing/sourcing information from institutions who participated in the survey and agreed to share their data. The tables and maps are meant to be used as a starting place to facilitate networking between buyers, service providers, and growers. In Appendix C, there is a table for each fruit and vegetable crop and eggs that shows what form of product each buyer is looking for, how much they are looking for, what their budget is, how much they are already buying locally, and whether they expect their needs to change over the next three years. The accompanying maps in Appendix B show where each of these institutions are located along with certain attribute data. In Appendix D there is a table for each of the infrastructure categories (aggregation, storage, processing, and distribution) that shows the services respondents provide and for which products—fruit, vegetables, and/or eggs. Again, these tables have accompanying maps in the Appendix B to show where each of the service providers are located along with their attribute data.





Farm to School Food Education Every Day!



**Vermont FEED**

A Partnership of: Food Works at Two Rivers Center,  
NOFA-VT and Shelburne Farms

