

Vermont Farm Producer Survey
Preliminary Report

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Acknowledgments

The Intervale Center would like to thank the many farmers, agricultural development professionals, businesses leaders and community members that continue to support this work. Special thanks go to Adam Hausmann (Adam's Berry Farm), Thomas Case (Arethusa Collective Farm), James Bove (Chapin Orchards), Christa Alexander (Jericho Settlers Farm), Beth Whiting (Maple Wind Farm) and Chip Morgan (Wood Creek Beef) for helping develop the survey that collected the information in this report.

Funding for this work is being provided by a Northeast Sustainable Agriculture and Research Education (SARE) grant, a 2008 SARE Sustainable Community Grant, the Windham Foundation, the Maverick Lloyd Foundation and the High Meadows Fund. Without their continued support this work would not be possible.

Executive Summary

Amidst a flourishing local foods movement, farm economies are adapting to assure that growing demand for locally produced food can be met. In the Northwest region of Vermont, the local food system suffers shortfalls in the supply of certain products at various points in the year. Important questions have been raised about a) the region's capacity to supply the current (and projected) demands for local products, b) the adequacy of current marketing systems to meet this demand and c) the requirements to promote a food system that is profitable, honorable and convenient for all members .

In 2007, the Intervale Center (IC) began the Food Hub project with the explicit goals of determining the consumer demand for local food in Chittenden County, the regional commercial demand for local food, the agricultural capacity to produce for local and regional markets and the capacity for existing and/or new food distribution models to facilitate the flow of products on a local level.

This report presents preliminary findings from the 2007 Vermont Food Producer Survey. One hundred twenty farms shared details about their primary production activities, current marketing practices and potential for expansion into growing local food markets. In this first report, the basic findings of single questions are presented with minimal analysis. Forthcoming reports will include more critical evaluation of the numerous factors and information collected in this survey.

Introduction

In recent years, Vermont farmers have seen a growth in number and quality of farmers' markets, an increase in direct restaurant sales opportunities, a burgeoning "localvore" movement and an increasing demand for Community Supported Agriculture (CSA) or subscription offerings. The reality in Vermont, however, is that the majority of the food consumed by households and purchased by businesses is imported to the region from outside sources. While a growing segment of Vermont's population is indeed seeking larger percentages of their individual and household food needs from the local "food shed," the sheer volume of imported food purchased at large retailers and restaurants dwarfs the volume – and associated food dollars - purchased from farmers within our state. The amplified call for local foods is being heard across many different levels of our food economy, and the unanimous response is that there is just not enough local food to go around. The food economy's multiple players are challenged to adapt in order to produce and deliver the volume of quality, local goods sought.

Alternative marketing strategies are required to support a developing local food economy in Chittenden County, the most populated region of the state. This report describes the Intervale Center's work through the Food Hub project to assess current markets and explore the feasibility of alternative strategies that may address these opportunities and challenges. The following pages will describe the research process and preliminary findings from the 2007 Vermont Food Producer Survey.

The numbers are staggering. Between 1992 and 2002, direct food sales to customers increased 140% across the state of Vermont (Timmons, 2006). In 2007, over \$4 million of sales were recorded at farmers' markets alone throughout Vermont, a predominantly rural state with a 2005 population of 623,908 (Wonnacott, 2008). Estimates for Chittenden County alone (Population: 149,613) indicate that in 2008, households are expected to spend \$254.5 million on "food at home" and an additional \$208.6 million on "food away from home" (USDA, 2004). These numbers translate to approximately \$463 million dollars in retail food expenditures in just one county. When the "food at home" expenditure is broken down into major food categories, including fresh food products that Vermont farmers are capable of raising, these figures illustrate an opportunity for over \$110 million in annual sales for Vermont-raised meat, poultry, vegetables, fruits and eggs to Chittenden County residents alone.

Locally focused food systems have been emerging in response to a variety of concerns voiced by both consumers and producers around the globe, and there is undoubtedly room for locally produced goods to supply this demand in our food markets. Food buyers express that the benefits of accessing high quality fresh products, having relationships with growers, assuring food safety and promoting viable land based enterprises in their region contribute to their growing interest in local foods. Producers alike are seeking to shorten the distribution chain of their products in order to deliver a higher quality product to community members. They can also garner a greater percentage of each food dollar spent through more direct sales.

Farmers have increased their investment in Community Supported Agriculture programs and farmers' markets across the nation in order to capture more value of this food dollar. There is a growing demand for CSA farm offerings in Chittenden County, where households pre-pay for a season's worth of produce or a set quantity of meat. Many farmers have indicated that they maintain waiting lists of potential customers, and several CSA managers indicate that strong demand has prompted plans to increase the number of households they serve, planning on anywhere from 35% to 75% growth in share numbers for 2008 and 2009. With only 15 CSA farms offering approximately 1,500 shares in a season, there is an obvious bottleneck in the supply able to reach current and future demand from the 58,000

households in Chittenden County.

Meanwhile, however, many farmers' markets in our area are at capacity, and farmers are recognizing that higher direct market prices do come with the cost of increased responsibilities to serve customers. Some CSA farms that partner with other growers to provide a broader array of vegetables, fruits, cheeses or meats leave their managers wondering if they are putting more energy into managing a store instead of their own land base and production. Are there innovative marketing strategies that can provide similar benefits to a CSA offering to consumers while also relieving farm managers from some of the responsibilities required to service direct markets? Can new models for direct sales help farmers access the thousands of potential CSA customers in Chittenden County?

With over 45% of a household's annual food budget attributed to "food away from home" expenditures, local producers undoubtedly see an incentive to provide food to these "away from home" outlets. A survey of Chittenden County cooks and chefs in the summer of 2007 provided information from 15 area restaurants who currently buy Vermont products, either directly from producers or via a wholesale distributor (Abda, 2007). The largest challenge cited by these businesses was the inability for the local product supply to meet their demand. Small quantities, short season of availability and lack of Vermont raised pork products were noted as specific challenges. Surprisingly, the majority of these businesses indicated that they pick up some product from their farm suppliers, and that they are satisfied with this arrangement.

In Chittenden County, similar challenges apply to food retail businesses. Grocery stores indicate they can sell more locally raised products but have problems achieving a consistent and sufficient supply of product (Tierney, 2006). Is this a production challenge, or distribution challenge or both? What kind of support do farmers need in order to better access the growing demand for local food away from home?

Growth in the "Buy Local" movement has also prompted goals to get more local foods into institutional food services liked universities, hospitals and schools. The process, however, is rigorous, and financial challenges exist. Food budget and purchasing restrictions, human resource limitations and infrastructure gaps from food storage to processing capacity present very real obstacles for buyers seeking to offer local products in these locations. Year round supply, the need for consistent, large volumes and the cost of liability insurance inhibit the flow of goods to these food buyers from small to medium sized local producers (Gregoire et. Al, 2002; VT-FEED, 2004).

In order to find feasible alternatives that can overcome the current challenges of satisfying the growing demand for Vermont food products, a comprehensive assessment of current on farm production and marketing practices is required. This survey was undertaken to study managers' capacity to increase production and their interest in alternative marketing strategies. This report presents findings that must be considered as we seek to develop systems to feed the people living and working in Northwest Vermont. Undoubtedly, a variety of stakeholders will be responsible for implementing changes that can better connect a hungry population to the local landscape and support the growers whose food products nourish them.

Survey Methodology

The Food Hub project seeks to determine both the interest and capacity for Vermont farms to increase the supply of food products made available through local outlets in the Chittenden County area. The Intervale Center (IC) developed the survey list based on the following directories of farming organizations: NOFA-Vermont's Vermont Organic Farmers' Directory Association; Vermont Grass Farmers Association: Directory of Grass Fed Products; Vermont Maple Sugar Makers Association/Vermont Maple Foundation: Sugarmaker Directory; and the Vermont Agency of Agriculture: Buy Local, Buy Vermont Online Directory.

Determining the Sample Population The Food Hub project has been explicitly undertaken to address local food supply issues in Chittenden County. As such, the entire farm population from the directories above was restricted to farms that were located (by mailing address) in Chittenden and the adjacent 5 counties. Farms that were not located in Addison, Chittenden, Franklin, Grand Isle, Lamoille or Washington Counties were removed. Farms identified as solely fluid milk producers were removed from the sampled population, as the complexity of fluid milk marketing is not within the scope or resources of the current project. Farms were also removed if their sole product was a non-food item; less than 5 farms producing exclusively flowers, wine or timber were removed because of these criteria. Due to a shortage of meat producing farms in the 6 county region, the sample of meat farms was expanded to include statewide directories. In addition, six farms that the IC has worked with closely but that are located outside of the 6 counties were added back into the overall list. The final mailing list totaled 301 food producers.

Content Development The final Vermont Producer Survey was developed in the summer of 2007 after a comprehensive review of literature and many informal conversations with farmers, commercial food buyers, consumers and key stakeholders. Several farms were identified to assist in survey development in order to assure that the survey was appropriate to farms across several main enterprise categories. Vegetable, berry, orchard and mixed livestock operations all contributed to survey review. Three farms volunteered to participate in a comprehensive in person pilot interview with early survey drafts. Over 10 hours of time was logged as these farms completed survey questions and suggested adjustments to both content and formatting. Three additional farms reviewed survey drafts and offered suggestions to the IC. The final Vermont Producer Survey is a product of the feedback and insights we received.

Mailing Methodology In the fall of 2007, IC distributed a written mail survey to 301 farms following the Dillman "Tailored Design Method" (2000), modified to the financial and time constraints of the project. All 301 farms were mailed a survey packet that consisted of an introductory cover letter, a blank survey and a self addressed stamped envelope. Six weeks after the first mailing, a second mailing was completed to all farms that had not yet returned a completed survey (approximately 255 farms). Three days after the second mailing was sent, follow-up phone calls began to the same list of remaining farms. Within 12 days of the second mailing, 197 farms were reached in person or were left messages that expressed the IC's interest that they participate through completion of the survey. Completed surveys were received throughout the first 2 weeks in December. The data collection period was closed 12 weeks after the first survey mailing. The Intervale Center received return calls from 6 producers who were eager to participate in the research but preferred not to complete the written survey. These conversations are not included in the quantitative analysis of this survey but provide valuable insight into the considerations of producers regarding past, current and new alternative marketing practices.

Findings

By the close of the data collection period, 104 mailed responses were received by the Intervale Center, achieving a response rate of 34.7 %. Seven surveys were determined to be unusable due to incompleteness, leaving a total of 97 usable surveys for analysis, 32.4% of the surveyed population. (Note: This preliminary report uses the original 97 surveys. Forthcoming reports will reflect a higher sample number that includes 16 additional surveys that are still being analyzed).

At the time of the survey, many farms were still generating sales receipts for the 2007 calendar year. Farm managers were asked to report current farm information for the majority of the questions but, respondents were explicitly asked to report 2006 information for specific business and marketing highlights in order to capture the most recent completed business year.

Findings are organized into three sections: farm characteristics, marketing characteristics and marketing alternatives.

Section 1: Farm Characteristics

Farmers surveyed had been farming an average of 20 years (median 14 years). The same farmers had been at the current farm site for an average of 16 years (median 10 years).

Total farm acreage (which includes forested land) ranged from a minimum of 1 acre to a maximum of 1,200 acres. The average farm size was 169 acres. The majority of farms (29.5%) maintained a total farm size of 5-49 acres, followed next by 21.1% with 100-199 acres and 16.8% with 300 acres or larger. The smallest farms, comprised of less than 5 acres, accounted for 9.5% of survey respondents.

Table 1: Farm Sizes

Acres	Frequency	Percent
0-4	9	9.5
5 - 49	28	29.5
50 - 99	10	10.5
100 -199	20	21.1
200 -299	12	12.6
300+	16	16.8
Total	95	100.0

Farm Income The vast majority of farms obtained a gross income of \$49,000 or less (57%). One observes a significant difference in the total farm acreage between small and large income farms.

Table 2: Farm Gross Revenue

Gross Revenue	Frequency	Percent
\$0-49K	53	57.0
\$50-99,999K	17	18.3
\$100-149,999K	12	12.9
\$150-199,999K	2	2.2
\$200-249,999K	2	2.2
\$250K +	7	7.5
Total	93	100.0

The average farm acreage of the 52 farms that gross \$0 - \$49,000 is 149 acres, while the average acreage of the farms comprising the largest gross income category of \$250,000 and greater was equal to 380 acres (T= -3.46; p=.001).

The number of farm managers was evenly split between those who reported that farm income was the primary component of their personal income (45%) and those who said it was not (51%) . Primary income was defined in the survey as 80% or more of an individual's personal annual income.

Farm Labor Farms average about 1 family member working full time (1.08) and 1 family member working part time (1.06) on the farm. Farms average 0.55 full year full time employees and even less full year part time employees (0.32). The most significant worker category was "seasonal part time" at an average of 1.88 workers per farm. Respondent farms averaged 0.93 "seasonal full time" workers over the course of one year's operation.

Survey results demonstrate that different enterprise categories influence the number of people employed. Vegetable based enterprises consistently employed more people on average than meat enterprises across three worker categories: full year full time, seasonal full time and seasonal part time . Vegetable enterprises employ the most workers in the seasonal full time category with an average of 1.70, compared to .13 for meat and 1.33 for value added.

Section 2: Marketing Characteristics

Product Mix Farms, in many cases, produce more than one category of products. In Table 3, we see the percentage of farms that produce goods in several general categories. The percentages reflect the frequency of farms in the total sample that indicated yes to each product category. For example, 57% of the 97 farms indicated “yes” to producing vegetables and herbs, and 47% of the same 97 farms indicated “yes” to producing other products.

Farmers reported producing a few goods not presented as survey options; most notably were value added goods and maple syrup. Some producers also sold non food items such as wool and wool products, soaps, breeding animals and beeswax. A smaller percentage of respondents whose products did not fit into survey categories produced goods such as grains, specialty meats, honey, mushrooms and medicinal products.

Table 3: Product Categories Produced on Vermont Farms

Product	Percent of Farms
Vegetables and Herbs	57
Other Products	47
Fruits and Berries	36
Eggs	34
Other Meat	30
Beef	27
Poultry	24
Cheese	5

Table 4: Main Enterprise Categories for Food Products

Enterprise	Frequency	Percent
Vegetable and Fruit	32	43.8
Meat	15	20.5
Value Added	12	16.4
Other	9	12.3
Maple	5	6.8
Total	73	100.0

Farmers also listed their major 3 food product enterprises and provided information on annual gross sales, annual production and defining practice for specific products. The farm’s main product category was determined by the enterprise that produced the greatest gross sales to the farm. The top 3 enterprise categories for this sample of farms were vegetable and fruit (43.8 % of farms), meats (20.5%) and value added products (16.4%). We recorded 196 specific products that farmers named as main food enterprises on their farms which could be identified by a defining production practice.

The most commonly cited category was “organic,” which described 41% of those products. The second most common defining practice was “grass-fed” (16%), used to define the production attributes of meat and livestock products. Other notable production attributes (10% or less of the entire product

group) included free-range, Integrated Pest Management (IPM), petroleum free, milk fed and un-pasteurized.

Table 5: Average Percentage of Sales Sold Through Various Outlets Across All Farms

Outlet	Maximum %	Percent
Face to Face	100	40.63
Subscription (CSA)	99	11.03
Direct to Retail	100	23.04
Direct to Restaurant	80	7.03
Direct to Caterer	5	.13
Wholesale Dist	84	4.95
Farmer Co-op	90	4.45
Processor	65	1.21
Internet Sales	20	.58
Shipper	90	1.03
Auction	100	2.01

Marketing Strategies From our sample, we see that farmers market products in a variety of ways. The most common outlets for farms to specialize in (defined as making up 99-100% maximum percent of sales) include: face-to-face, subscription shares, direct to retail and auctions. The two most common outlets, measured as an average across 86 farms, were “face-to-face” and “direct to retail.” For this marketing question, “face-to-face” included farmers’ markets, pick your own and on-farm retail. The “direct to retail” option included direct sales to grocers, cooperatives and other food retailers.

A farm’s main outlet category was determined by grouping multiple outlet types into four more general categories: direct to consumer, wholesale direct and wholesale distributor and even mix. Farms were then defined by the outlet type that represented the majority of the farm’s overall marketing. A farm’s main outlets were defined as “even mix” if no one category had a marketing emphasis of at least 20% greater than another category. For example, a scenario of “even mix” would be a farm that was 54% direct marketing and 46% wholesale direct. A farm the marketed 60% through direct marketing and 39% through wholesale direct would be classified as a direct market farm. The majority of farms are defined by a “direct to consumer” marketing approach (56%), followed by wholesale direct and wholesale distributor at 28% and 16% of surveyed farms respectively.

Characteristics of Markets This survey provided managers the opportunity to describe both the positive and negative factors of specific marketing outlets. Farmers were asked to describe three of their major products, the mode of sale and the benefit or challenge to that particular market. The top reasons cited as market benefits in ranked order are: access to customers, convenience, better price points and volume. Access to customers was most often cited in conjunction with farmers’ markets, CSA memberships, farm retail and private sales. A variety of outlet types, including both direct and non-direct sales, were considered to garner a “better price point.” The benefit of optimal volume of sales (22 of 109 cases) was most frequently assigned to retail stores and wholesale outlets.

The top ranking challenges attributed to product markets included (in order of frequency) labor/resource needs, competition, lack of consistency and access to customers. The majority of labor/resource challenges (29 of 39 cases) were assigned to direct sales from CSA memberships, farmers’ markets and farm retail sales. Competition was most often a barrier (18 of 24 cases) to direct to wholesale sales like restaurants and retail outlets. Lack of consistency was the third most cited challenge and was evenly divided between farm retail, direct wholesale and farmers’ markets sales. Weather was specifically noted as a challenge to farmers’ markets and pick-your-own sales. Interestingly, “access to customers” was cited exclusively for direct sales outlets as a major challenge, demonstrating that access to customers can be seen as both a benefit and a challenge for direct marketers.

Managers were asked to provide information if they had changed focus away from any outlets in the last three years. The responses for 30 farms were extremely diverse and indicated that each farm’s reasons were not likely to be generalized. We observe an even split between farms making an explicit effort to specialize on one particular outlet and other farms that are seeking to diversify their markets.

Three farms indicated dropping CSA offerings in favor of wholesale outlets in order to reduce the amount of labor needed to service this CSA strategy. In contrast, two farms reported the new addition of a CSA subscription offering and were pleased with the community connections this marketing strategy promoted.

Opportunities and Barriers for Production Expansion

Seventy-one percent of surveyed farms indicated they had the capacity to expand production if new profitable markets could be accessed. From the remaining farms, 18% were not sure if they had the capacity to expand and 11% said no. Of these farms, we observe an even split between farms who could expand vegetables compared to farms who could expand production of multiple product categories. The large number of producers with the capacity to expand across multiple product categories (most often vegetable and meat) give an indication of the diversified nature of many of the farms in our sample.

Table 6: Products For Which Farmers Have the Capacity to Expand Production

Products	Farms	Percent
Vegetables	15	26.8
Fruit	9	16.1
Meats	10	17.9
Value added	6	10.7
Maple	1	1.8
Multi-product	15	26.8
Total	56	100.0

This finding is extremely encouraging when faced with a shortage of local products to meet regional food demand. The key consideration moving forward will be to identify how to engage in the appropriate marketing that promotes profitability for the farmer. Efficient distribution systems and pricing systems that are reflective of regional costs of production will be essential.

Farmers were asked to indicate the top 3 barriers to expanding farm production from a list of nine potential issues. The four most common barriers were labor (43%), land (39%), marketing capacity (35%) and storage barriers (33%). The most commonly cited “other barrier” was specific concerns about slaughterhouse access, facility locations, quality and processing fees.

Section 3: Marketing Alternatives

Respondents were presented with 3 potential marketing alternatives and asked to share which alternative presented the most value to their farm. The largest interest is seen with the development of a food distribution brokerage service (39% of farms interested). The term “local foods broker” was described as a “service that coordinates orders and has warehouse space to bring products together for [larger institutions and wholesale accounts].” A multi-farm CSA pilot project was of interest to 31.2% of farms and storage facility development was indicated as potentially beneficial to 24.4%. When asked to rank the alternatives, we observe an even divide of #1 rankings across the entire sample between the pilot multi-farm CSA (41.9%) and brokerage services (40.3%). Storage solutions were most often ranked 3 out of 3 and were ranked #1 by only 16% of those answering the question.

Many of the farms that indicated a positive response to the “multi-farm CSA pilot” and the “brokerage services” indicated the need for further details to better understand how they would function. The majority of farms that answered “no” to the idea of participating in the “multi-farm CSA pilot” indicated

distance to the Burlington area as the major barrier.

In questions that asked for other “infrastructure and systems to help farmers access,” markets, processing facilities (for livestock and grain), business support (financing and marketing coordination), distribution services (specifically on-farm pick ups) and policy action (deregulation) were mentioned most.

We also noted a small number of farms (2%) who were concerned about the potential competition these Food Hub marketing alternatives present to their own businesses. Farms indicated a concern that a subsidized pilot program could jeopardize opportunities for independent farm businesses to recruit customers for household subscription-share offerings. While not reflective of the overwhelming support of a potential collaborative marketing pilot project, this concern demonstrates a need for any applied projects moving forward to fully understand the scale of market opportunities and potential competition with other businesses.

Collaborative Marketing Fifteen percent of farms indicated they would be willing and able to contribute assets to a multi-farm joint marketing venture. Five of these 13 farms indicated available walk-in cooler or freezer space that could be potentially available pending the details of such a relationship. Other resources included barn space, retail space, delivery vehicles, labeling equipment and packaging equipment.

Fifteen individual farms would consider investing financial resources in collaboration with other farms to reach new markets or reach current markets more effectively. Many of these farms wrote that they were eager to pursue conversations on how these joint projects could develop. Over half of the farms responding to this question were “not sure” if they would want to invest in such future projects.

When asked if farms would consider jointly marketing products with other farms to access markets, we observe responses of 59.3% for “yes,” 23.3% for “not sure” and 17.4% for “no.” Not surprisingly, with the heavy emphasis on direct marketing channels among these farms, 65.7% indicated the need to preserve their own farm’s identity on their products.

Farmers favored a “farm owned business” most, receiving a positive response from 47% of farms, when asked to indicate their two most preferred structure from a list of five options. The next most common response was “don’t know” (31%), indicating a potential opportunity for further outreach work with farms to consider the various options for organizing a multi-party business of this nature. Twenty seven percent of farms indicated that a “farmer owned non-profit cooperative” would suit them best.

Exploring the Feasibility of New Marketing Alternatives From over 110 farms that completed the 2007 mail survey, 60 farms indicated an interest to learn more about production and marketing technical assistance opportunities offered by the Intervale Center to explore new marketing opportunity through continued Food Hub efforts. Thirty six farms also indicated they wished to participate in focus groups and planning sessions to further explore these new marketing opportunities. Participation in these activities will be an essential element of project development.

Conclusion

This preliminary report presents initial findings from the 2007 Vermont Farm Producer Survey with minimal comparative analysis. More comprehensive analysis from information presented in this report will be completed and made available in the summer of 2008.

Overall, we find that the majority of farms have the capacity to expand production if profitable markets can be accessed. In order to meet this growing demand, farms recognize that labor, land, marketing capacity and storage facilities present the greatest challenges to increasing local sales in coming years. Support for three alternative marketing strategies explored in this survey is strong, indicating that these farms see value in the continued pursuit of identifying and implementing strategies to access these markets.

This survey and the myriad conversations surrounding it have uncovered many unique considerations that are critical in addressing the best ways for Vermont farms to capture their share of the growing local food economy. Continued on-farm planning, focus groups and community engagement is already underway to discuss, develop and implement the best strategies that will ensure profitable, convenient and honorable market outlets, outlets that meet the needs of Vermont's farm businesses and satisfy the growing demand for locally produced foods.

References

Abda, Lauren. 2007. "Determining the Feasibility of a Burlington Food Hub Among Chittenden County Restaurants." Unpublished paper, Intervale Center, Burlington, Vermont.

Dillman, Don A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. New York: Wiley.

Gregoire, M., Arendt, S., and Strhnbehn, Co., 2005. "Iowa Producers' Perceived Benefits and Obstacles in Marketing to Local Restaurants and Institutional Foodservice Operations." *Journal of Extension*, 43(1). February 2005.

Timmons, David S. 2006. *Measuring and Understanding Local Foods: The Case of Vermont*. Masters Thesis: University of Vermont, Department of Applied Economics and Community Development.

Tierney, S. September 2006, Personal Communication. Healthy Living Grocery Store Owner, Burlington Vermont.

United States Department of Agriculture. 2004. *State Marketing Profiles: Vermont*. Marketing Services Branch. Retrieved online August 24, 2007 from: <http://www.ams.usda.gov/statesummaries/VT/VThome.htm>

VT FEED. 2004. *Analysis of School Food and Local Purchasing in Vermont Schools*. Richmond, Vermont.

Wonnacott, Enid. 2008. Presentation at The Northeast Organic Farming Association Direct Marketing Conference. January, 2008: South Royalton, VT.