



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

**The Effectiveness of Farm-to-Chef
Marketing of Local Foods:
an Empirical Assessment from Columbia County, NY**

Todd M. Schmit, Anne Lucke, and Stephen E. Hadcock

**Department of Applied Economics and Management
College of Agriculture and Life Sciences
Cornell University
Ithaca, New York 14853-7801**

It is the Policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

**The Effectiveness of Farm-to-Chef Marketing of Local Foods:
an Empirical Assessment from Columbia County, NY**

by:

Todd M. Schmit, Anne Lucke, and Stephen E. Hadcock*

April 21, 2010

*Ruth and William Morgan Assistant Professor in Applied Economics and Management (Cornell University), CALS/CCE Student Intern (Cornell University), and Extension Resource Educator (CCE-Columbia County). The authors would like acknowledge the support provided by Columbia County Bounty and the participating farms, restaurants, and patrons that made this effort possible. We are also appreciative of funding support provided the College of Agriculture and Life Sciences – Cornell Cooperative Extension Summer Internship Program, the Cornell Program on Agribusiness and Economic Development, and CCE-Columbia County.

The Effectiveness of Farm-to-Chef Marketing of Local Foods: an Empirical Assessment from Columbia County, NY

Introduction

Growing consumer demand for locally-grown products is prompting substantial changes in food supply chains, including end-use market developments with restaurants and food service providers. Direct interactions and marketing of farm products to local restaurants is currently seen as a prime opportunity for both increased farm sales and broadened consumer exposure to local farming operations. In addition, selling to restaurants can give producers insight into current market trends and changing consumer demands for food products and the attributes that they possess (Pepinsky and Thilmany 2004).

Columbia County Bounty

In recognition of these growing consumer demand segments, farmers and restaurants in Columbia County have been working together through various farm-to-chef (F2C) organized initiatives since 2006. These initiatives were formalized through the creation of Columbia County Bounty (CCB) in 2007, and facilitated by Cornell Cooperative Extension, Hudson Valley Agricultural Development Corporation, and Columbia County Chamber of Commerce. Oftentimes, a coordinated group of producers cooperatively marketing their products through various restaurants is necessary to meet seasonal and year-round demands by restaurants for local food ingredients – CCB helps provide such services.



Today, a six-member CCB board of directors, along with an executive committee of municipal and business organization members, coordinates CCB activities ranging from farm tours, a searchable online database of participating farmers and restaurants, participation in local community events, and hosting an annual *Taste of Columbia County* banquet. The mission of the organization is to promote and support networking connections between local agricultural producers and culinary businesses, and to educate the community about the preservation of local farms through the purchase and use of local and regional sustainable foods and products.¹

Similar examples of these types of efforts across the country include *Home Grown Wisconsin* (Lawless 2000), *Red Tomato* in the Northeast U.S. (Royzyne 2000), *Practical Farmers of Iowa* (Huber 2002), and *Colorado Crop to Cuisine* in Fort Collins (Thilmany 2004). Closer to home examples include organizations such as *CNY Bounty* (Chenango and Madison counties) and *Finger Lakes Culinary Bounty*.

With increased interest in the use of local food ingredients in area restaurants, it is important to better understand the development and long-run viability of F2C relationships, the impact on farm sales and restaurant performance, and what barriers may be limiting sales expansion in this growing market channel. The purpose of this bulletin is to describe the results of a project conducted in Columbia County in summer 2009 to examine these issues.

¹ For more information on CCB go to <http://www.columbiacountybounty.com>.

Objectives

Direct interactions and marketing of farm products to local restaurants is seen as a prime opportunity for both increased farm sales and consumer exposure to local farming operations. Cornell Cooperative Extension-Columbia County (CCE-CC), in collaboration with CCB and the Department of Applied Economics and Management at Cornell University (AEM), conducted a farm-to-restaurant marketing study in Columbia County during the summer of 2009.

The purpose of the study was to evaluate the performance of existing farm-to-restaurant marketing efforts, to better understand the potential for expanding utilization of this channel for local producers, and to identify barriers that are preventing producers and restaurants from utilizing this channel more fully. Specific questions addressed included:

- What is the economic impact on farm businesses selling to local restaurants?
- What does the restaurant get out of providing locally-grown produce or farm products?
- How important is it to restaurant patrons to have local products included in menu items?
- What barriers exist that make F2C relationships difficult to establish, grow, & maintain?

Increasing Direct-to-Consumer Sales

In a changing landscape of production agriculture and a growing interest by consumers in having a closer connection to their food, there has been strong growth in both the output value and the number of farms selling direct-to-consumer (D2C). This is true not only in Columbia County, but across New York State (NYS) and the US as a whole. D2C farms are those farms that sell at least a portion of their farm output directly to individuals for human consumption.² While selling to local restaurants would not classify as D2C, many of the producers involved in this wholesale channel also utilize D2C channels and, thus, reviewing such information should be useful in understanding market trends and potential opportunities regarding consumer demand for local foods.

According to the Census of Agriculture (USDA 2009), the total number of farms in Columbia County increased by 11.2% since 2002, which was strongly influenced by growth in the number of farms selling D2C (Table 1). Specifically, the number of farms selling at least a portion of their farm sales D2C increased by 28.9% from 2002 to 2007, compared to a 7.0% growth in the number of farms that sell no products D2C. Since data on farm exits by category are not available, and the growth in farms selling D2C can come from existing non-D2C farms that add D2C sales to their farm marketings as well as new farms entering the industry, it is difficult to make precise comparisons. However, the strong growth in farms selling D2C is appealing with respect to the ability of producers to respond to growing consumer demand for local foods.

While D2C sales for Columbia County represented only about 6% of total agricultural sales (Table 1), nearly one-quarter of all farms (22.6%) participated in at least one direct marketing channel. These numbers are considerably above NYS and national averages, where 14.7% and 6.2% of farms had D2C sales, respectively; and represented only 1.8% and 0.4% of total sales.

² The Census of Agriculture definition of Direct-to-Consumer sales (D2C) is the value of agricultural products sold directly to individuals for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. It excludes non-edible products such as nursery crops, cut flowers, and wool but includes livestock sales. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations are also excluded.

Table 1. Agricultural (All Ag) and direct-to-consumer (D2C) farm sales, 2007.^a

Geographic Area	Sales Type	Farms (No.)		Total Sales (\$000)		Sales per Farm (\$) ^b		Percent of Total:	
		2007	Δ^c	2007	Δ^c	2007	Δ^c	Farms 2007	Sales 2007
Columbia County	D2C	125	28.9%	4,165	75.3%	33,320	36.0%	22.6%	6.3%
	No D2C	429	7.0%	61,605	23.7%				
	All Ag	554	11.2%	65,770	26.0%	118,718	13.3%		
New York State	D2C	5,338	14.8%	77,464	29.7%	14,512	13.0%	14.7%	1.8%
	No D2C	31,014	-4.9%	4,341,170	42.0%				
	All Ag	36,352	-2.4%	4,418,634	41.7%	121,551	45.2%		
United States	D2C	136,817	17.2%	1,211,270	49.1%	8,853	27.2%	6.2%	0.4%
	No D2C	2,067,975	2.8%	296,009,221	48.1%				
	All Ag	2,204,792	3.6%	297,220,491	48.1%	134,807	43.0%		

^a Value of agricultural products sold directly to individuals for human consumption represents the value of agricultural products produced and sold directly to individuals for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. It excludes non-edible products such as nursery crops, cut flowers, and wool but includes livestock sales. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations were excluded.

^b Since non-D2C sales can come from farms that sell D2C (i.e., in addition to their D2C sales) as well as those that do not sell D2C, data limitations allow for only the calculation of D2C and Total Sales per Farm. Specifically, we do not know the total number of farms that sell to non-D2C outlets, only a range from 429 to 554.

^c Δ = Percentage change from 2002 level.

Source: 2007 U.S. Census of Agriculture

In addition, Columbia County's D2C total sales growth between 2002 and 2007 (75.6%) was well above non-D2C sales growth (26.9%), and was considerably higher than overall D2C sales growth for NYS (29.7%) and the US (49.1%). By any conventional measure, it seems clear that direct marketing of agricultural products has a relatively high and growing presence in the county compared to state and national averages. As such, combining farm-to-chef product sales with these other growing market segments would appear to be an important multi-channel opportunity in this consumer-driven agricultural industry.

Evaluating Farm-to-Chef Marketing

The success of F2C marketing (for both farmers and participating restaurants) depends on a variety of factors, including the development of appropriate purchasing specifications, established delivery commitments of consistent quality products, and a sufficient level of interpersonal communication and management skills to facilitate information exchange in a timely manner and to maintain and improve ongoing relationships. Established relationships with restaurants can help a farm develop their own product brand and help differentiate their products, such as through the presence of signature items on a restaurant's menu (Curtis and Cowee 2009).

Strong chef/restaurant relationships can also facilitate test marketing of new products or varieties and get an immediate reaction. The availability of smaller product commitments through some restaurants can help facilitate easier entry into local food markets for smaller-scale farmers interested in starting new or expanded businesses. In addition, restaurant sales for producers with perishable products is often beneficial in securing sales of products that may otherwise be lost due to excess supplies in a high-production season (Thilmany 2004).

Studies focusing on a restaurant's decision to purchase local products generally find that product attributes related to taste or quality, and the dependability of farmer suppliers are most important (Benepe et al 2001, Thilmany 2004, Curtis and Cowee 2009). Dependability is multi-dimensional in measure, including receiving expected quantities, quality products, and product consistency over time. Alternatively, recent research suggests that chefs and restaurants find the lack of information on product availability, inconvenient ordering, ineffective communication skills, and higher product costs to be important impediments to expanding purchases of local food products (Benepe et al 2001, Feenstra, et al. 2003, Curtis and Cowee 2009).

Purchasing of local food products was also found to vary significantly by the type of restaurant; e.g., Curtis and Cowee (2009) found that smaller or independently-owned restaurants should be targeted due to higher purchases of local products relative to larger corporate-owned establishments. Seasonality in cropping seasons, weather-dependent harvest quantities and quality, and unexpected changes in buyer demands are long-standing obstacles for a production system that lacks the inability to quickly respond.

Producers need to recognize the necessity for most restaurants to utilize national or regional distributors to conveniently augment local product lines and, while they are in competition with local producers, this multiple-buyer dimension also provides opportunities for local producers to better differentiate their products through unique attributes including freshness and quality (Thilmany 2004). While the rising demand for local foods by consumers may support relatively higher-priced local products and technological advancements in production have addressed seasonality in supplies and season extension, a market-specific examination of the issues presented above remains relevant for any farm or organization assessing current practices.

Data Collection

To address the research questions for this study, mail surveys were distributed to local agricultural producers and chef/restaurant owners in Columbia County. Mailing lists of producers and restaurants were assembled with the assistance of CCE-CC and CCB. Patron surveys were also conducted at four participating restaurants to assess consumer demand for local foods within this specific market segment and the impact of including local food ingredients in menu selections on patron attendance and their willingness to pay premiums for these products. Surveys were sent out in June 2009, and responses were collected throughout the summer. Personal follow-up contacts made to aid in survey response.

Farmer Data: Surveys were distributed to 120 producers in the county in mid-June 2009 that marketed fruit and vegetable products, livestock products, and other processed food and non-food products. Farmers surveyed included operations that were members of CCB (the majority) as well as non-CCB producers. The surveys included 31 questions related to:

- farm/management characteristics
- product pricing methods
- marketing channels utilized
- number of and weeks sold to restaurants
- satisfaction with F2C relationships
- farm production practices
- products sold
- length of time marketing to restaurants
- average weekly sales at restaurants
- barriers to expansion

Throughout July and August, survey recipients received phone call reminders and many got a visit to their farm to either drop-off or pick-up the survey. In total, 25 surveys were returned (21%), of which 8 (32%) sold agricultural products to restaurants.

Restaurant Surveys: Restaurant surveys were mailed out in mid-June to 92 restaurants of varying types (e.g., full-service, limited-service, and special food service businesses), including CCB members (the majority) and non-members. The surveys included 29 questions related to:

- restaurant characteristics
- food distributors utilized
- products purchased from farmers
- relative volume of farmer purchases
- promotion of farmer products
- average sales and customers per week
- history of buying direct from farmers
- frequency of purchases/deliveries
- local purchase impacts on total sales
- barriers to expansion

Throughout July and August, survey recipients received reminder phone calls and many got a visit to their restaurants for assistance in filling out surveys and survey pick-up, as necessary. In total, 10 surveys were returned (11%), of which 9 (90%) bought directly from farmers.

Patron Surveys: Patron surveys were conducted in four participating restaurants to get specific information on attitudes and preferences for local foods on restaurant menus. The participating restaurants included: The Cascades, The Farmer's Wife, Lippera's, and Local 111, each located in a different town in the county. Restaurants were given 100 blank surveys consisting of 14 questions, a box to put completed surveys in, and pencils. The surveys questions related to:

- patron characteristics
- reasons for attending the restaurant
- thoughts on local foods in restaurants
- importance of the buy local movement
- patron frequency of dining out
- local foods they want to see more of
- information needs of patrons
- other channels utilized to buy local

Restaurants were free to distribute surveys in a way that worked best for them. Some left them conveniently by the register or at the entrance to the restaurant, and some had servers hand them to their table at the end of the meal. A total of 35 completed surveys were returned from the four restaurants. While the survey information was important to this study's objectives, it was also thought that restaurant management and chefs would find the information useful as they consider future local purchasing activities and food preparation options to meet customer demand.

Limitations: Survey response was lower than expected and was attributed to several reasons. Farmers and restaurant owners stated that summer is their busiest time of year and it was difficult for them to complete a fairly long survey. Additionally, there was no follow-up at the end of summer/beginning of fall to see if they had time to complete the survey later on. Each survey contained some open-ended questions that were often left blank, even if the rest of the survey was filled out. Many restaurant patrons felt the survey was too long and they did not want to sit at the end of the meal or take the time at the counter to fill it out. Should future surveys be planned in these settings, these issues should be considered to improve response rates.³

³ Copies of the restaurant, farmer, and patron survey questions are included in Appendices to this report; Appendix A1, Appendix A2, and Appendix A3, respectively.

Survey Results - Farms

Farm Characteristics: All farms selling to restaurants had owner/operators who were either full- (90%) or part-time (10%) farmers (Figure 1). While a limited number of non-restaurant farms were hobby/retired farm operators, they were also primarily full- (47%) or part-time (28%) farming operations. The level of educational attainment between farm types was statistically equivalent, with about 80% of farm operators completing at least an undergraduate degree.

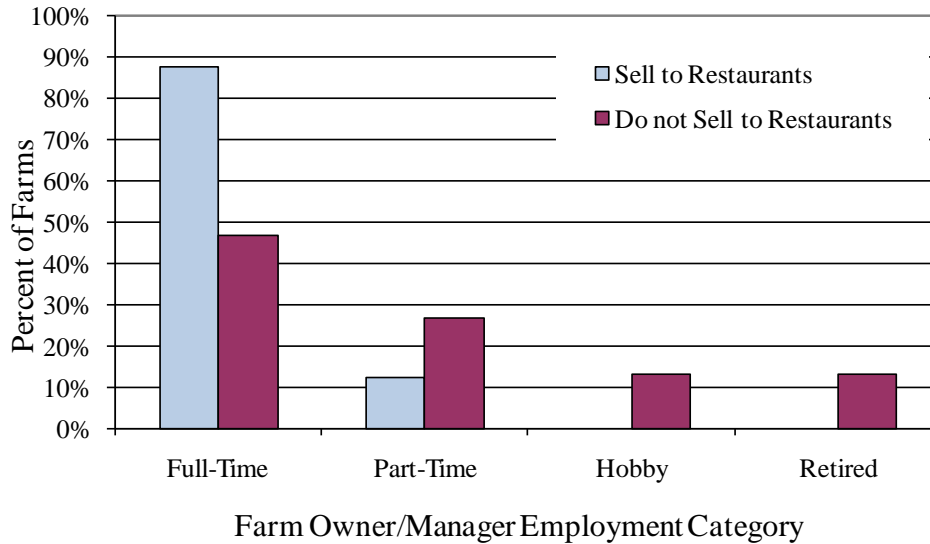


Figure 1. Farm owner/manager employment status, by type of farm.

Farms were asked about the size of their operation in terms of employees, acres, and number of livestock. On average, farms selling to restaurants were larger operations, with more employees and more land under cultivation (Table 2). The number of livestock was also larger, on average, for farms selling to restaurants, but the difference was not statistically different from zero. This is likely due, in part, to relatively less meat-based products being sold to restaurants, compared with fruits and vegetables or processed food products (e.g., wine, bakery products, syrup, jellies).

Table 2. Farm size characteristics, by farm type.

Type	Descriptor	N	Mean	Median	Min.	Max.
Sell to Restaurants	Employees	8	14.5	3.5	1.0	68.0
	Acres	7	351.0	100.0	14.0	1,000.0
	Livestock No.	5	141.0	100.0	25.0	250.0
Do not Sell to Restaurants	Employees	14	1.5	1.0	1.0	5.0
	Acres	14	41.4	30.0	2.0	150.0
	Livestock No.	6	67.0	30.0	1.0	300.0
Means Difference Test			Difference	<i>p</i> -value		
Sell versus Do not Sell	Employees		13.0	0.044		
	Acres		309.6	0.014		
	Livestock No.		74.0	0.452		

In particular, over 60% of the farms selling to restaurants sold fruits and vegetables, compared with 42% selling meats or egg products (Figure 2). Interestingly, a relatively high proportion of farmers also sold processed food products (37%) or nonfood products such as wool or felt (40%); while none marketed dairy products. What is unknown at this point is whether the larger farm sizes are influenced by larger supply requirements of restaurant buyers, or whether larger farms are simply marketing more products, in general, through a variety of wholesale and direct marketing channels. This will be explored, in part, later in this report.

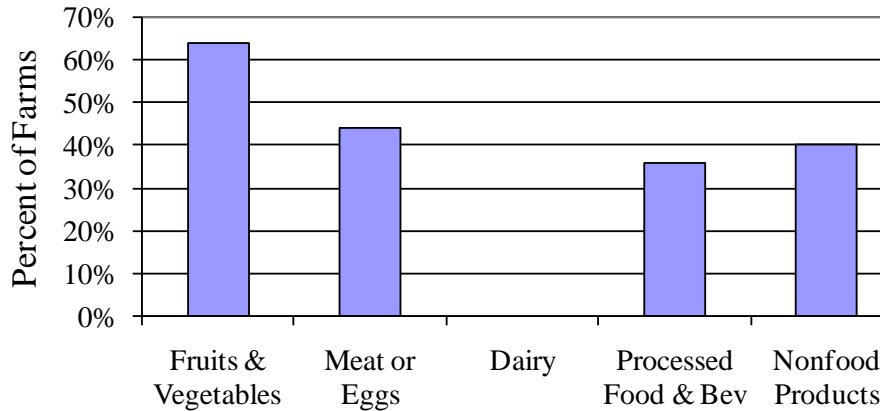


Figure 2. Farm composition by products sold to restaurants.

Product Pricing: One of the biggest challenges for anyone marketing products they grow, raise or make themselves is determining appropriate sales prices. Most accepted formulas involve a compilation of all input costs (cost of production) plus a desired profit margin (or mark-up) to establish price. When farmers were asked to rank the top three methods they use that best describes how they price their products, the most common choice was this method. Cost of production plus mark-up was ranked the highest (1.64), followed closely by grocery store comparison (1.67), and matching other vendors' price (1.94) (Table 4). Recognizing competitor pricing is important; however, these methods should not be done without consideration of individual farm costs and returns to management. These rankings are consistent with a study of farmer vendors at farmers' markets in Northern New York in 2008 (Logozar and Schmit 2009).

Table 3. Methods used in product pricing by farmers (rank top three).

Pricing Method	No. of Farmers Selecting:			Weighted Rank
	Rank 1	Rank 2	Rank 3	
Cost of Production Plus Mark-Up	9	1	4	1.64
Grocery Store Comparison	6	4	2	1.67
Matching Other Vendors Prices	5	9	4	1.94
Charge the Same as Always	2	2	5	2.33
Internet	1	1	0	1.50
Pricing Above Other Vendors	1	1	1	2.00
Pricing Below Other Vendors	0	2	0	2.00

Market Channel Utilization: To understand the degree of alternative market channels utilized, vendors were asked to identify all markets used to sell their products, and the relative importance of those channels in terms of gross sales. As shown in Figure 3, numerous channels were utilized by surveyed farms. The most common retail marketing channel was own-site farm stands (80%), followed by farmers’ markets (52%). As mentioned above, 32% of farms were wholesaling to restaurants, but wholesaling in other channels was relatively common as well; e.g., packer/distributor (24%), grocery/specialty store (24%), and other direct vendors (24%). The relative distribution of farm sales by market channel was equally heterogeneous. For example, for farms utilizing CSA’s, farm stands, and farmers’ markets, the average contributions to total farm sales were relatively large at 54%, 47%, and 50%, respectively (Figure 4).

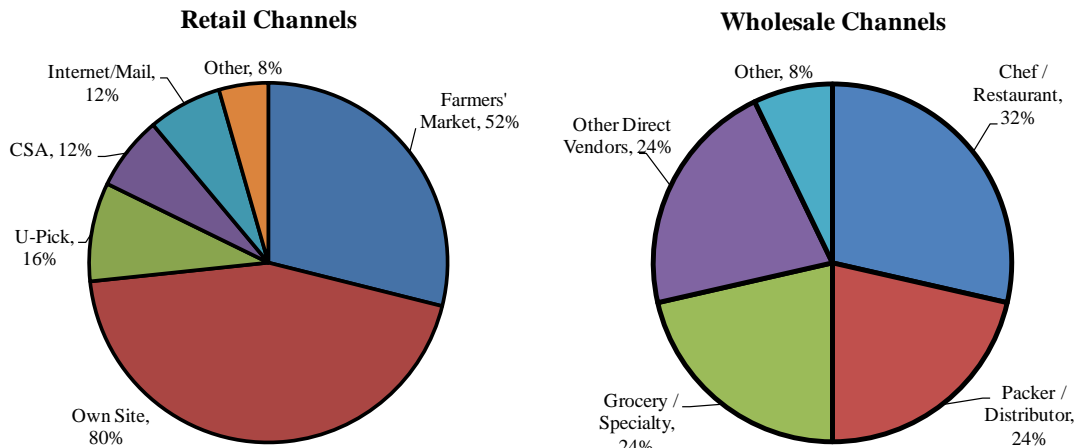


Figure 3. Percent of farms utilizing alternative market channels, by channel type.

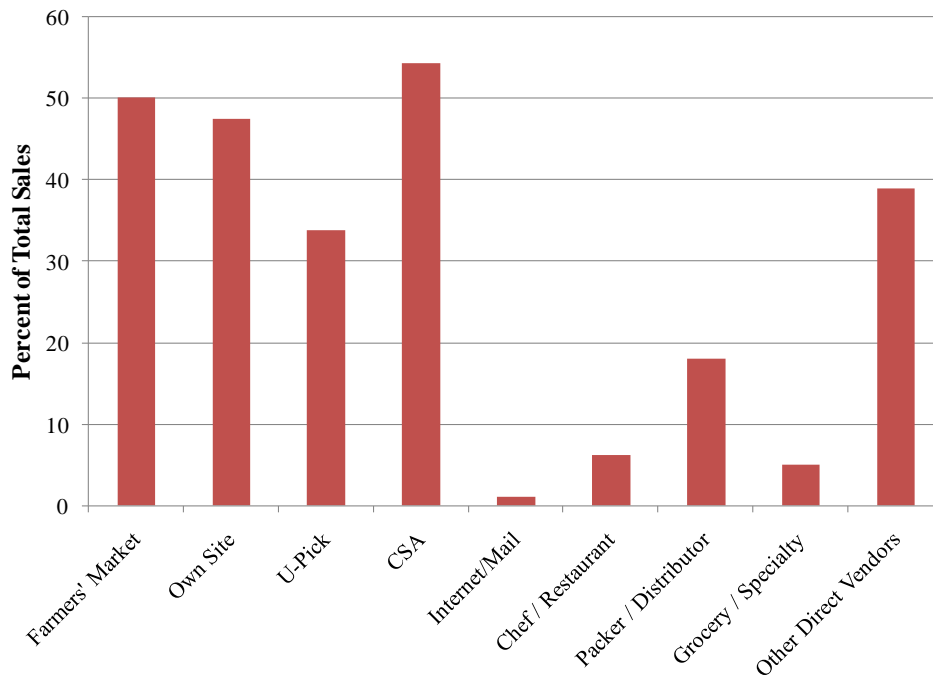


Figure 4. Average percent of total farm sales by market channel (utilizing farms only).

On average, farms utilizing wholesale channels marketed less total product through these channels (in terms of revenue). In particular, while 32% of all farms wholesaled to restaurants, the average proportion of total sales for these farms marketed to restaurants was only around 6% (Figure 4). In fact, wholesaling to other farm vendors was the largest volume wholesale method; almost one-fourth of all farms wholesaled some of their products to other direct marketing vendors and constituted nearly 40% of their total farm sales, on average. Figure 4 clearly shows that wholesaling farm products, including to restaurants, was relatively common, but in general represented much less in total product volume (sales). As wholesaling is often criticized by farmers because of lower average product prices, the markedly lower overall sales proportions may also suggest that limited product quantities are marketed through these channels as well.

By combining the results from Figure 3 and Figure 4, we can further assess the total amount of revenue volume moved through alternative channels across all surveyed farms. The high channel utilization rates and relative sales marketed through farm stands and farmers' markets suggest that 36% and 25% of all farm sales are marketed through these channels, respectively (Figure 5). While the percent of total sales of participating farms running CSAs or wholesaling to other vendors was relatively high, the overall utilization rates by farms in the sample were low, suggesting that only 6% and 9% of total sales volume, respectively, across all farms are marketed through these channels. Finally, low relative sales combined with a 32% utilization rate of farms marketing to restaurants suggests that less than 2% of all product sales in the region goes through this channel. Such a low number would suggest that opportunities exist for expansion in this channel; however, barriers to entry or expansion may be limiting the effectiveness of such efforts.

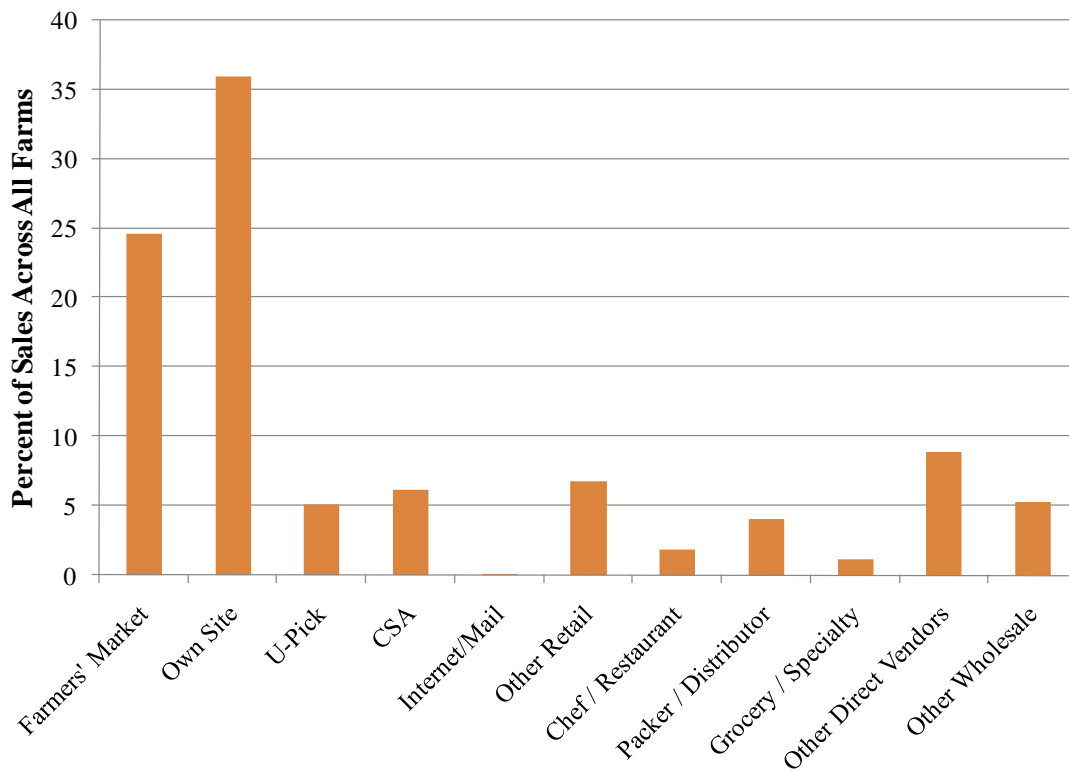


Figure 5. Estimated distribution of sales for all farms, by market channel.

Comparing the number of retail and/or wholesale channels utilized by whether the farm sells to restaurants or not, it is clear that farms selling to restaurants utilize more overall sales outlets. Specifically, farms selling to restaurants utilized, on average, 2.4 retail channels and 2.5 wholesale channels, compared with 1.6 and 1.2 channels for farms not selling to restaurants, respectively (Table 4). Overall, farms selling to restaurants utilized nearly three more channels than those that did not.

Table 4. Average number of channels utilized and percent of sales, by farm type.

Sell to Restaurants?	Retail Channels		Wholesale Channels		Total
	Number	% of Sales	Number	% of Sales	Number
Yes	2.38	72.83	2.50	27.17	4.88
No	1.60	92.00	1.17	60.00	1.94
Difference	0.78	-19.17	1.33	-32.83	2.94
<i>p</i> -value	0.07	0.63	0.08	0.63	0.00
N (yes/no)	8 / 15	6 / 10	8 / 6	6 / 3	8 / 16

Note: Average sales percentages reflect only those utilizing that channel type (i.e., sales percent > 0).

However, higher numbers of channels utilized did not necessarily translate into higher relative sales. For example, for farms that sold to restaurants, retail sales made up nearly 73% of their total sales, compared with 92% of sales through retail channels by non-restaurant selling farms. This would seem to make sense since by not selling to restaurants more product could be sold through retail channels. Similarly, farms selling to restaurants sold, on average, 27% of their sales through wholesale channels compared with 60% of sales by non-restaurant selling farms who sold through other wholesale channels. This would indicate that other wholesale channels move more volume than restaurant channels. However, in both cases (retail and wholesale channel sales) the differences in percentages of sales were not statistically different from zero. In summary, farms selling to restaurants tend to utilize more marketing channels (retail and wholesale), but the relative amounts of sales through these two channel classes are indifferent across the two groups.⁴

Restaurant Sales by Farmers: The average number of years that farms in the sample have been selling to restaurants was just over 5 years; however, there was a large range from first-year farms in this channel to those selling for 15 years (Table 5). The number of restaurants farms sold to was equally diverse. On average, farms in the sample sold to about three restaurants, but ranged from only one to as many as six. Obviously, the types of products sold will influence the window of farm marketings throughout the year. The average weeks sold per year was surprisingly high at 33, but was as low as only 1 week per year to year-round sales (Table 5). Relatively low product volume sold to restaurants was indicated earlier in this report and is further supported here, with median sales per week of only \$75 (the mean was \$188). However, farm sales to restaurants were quite heterogeneous with a range from as little as \$25 to over \$500 per week.

⁴ The level of statistical precision in measuring differences in sales volumes between the two groups of farms is influenced by the small sample size and the smaller number of farms answering the sales portion of the question (N).

Table 5. Characteristics of restaurant sales by farmers.

Characteristic	N	Median	Mean	Std. Dev.	Minimum	Maximum
Years selling	8	3.50	5.04	5.03	0.33	15.00
Number of restaurants	8	3.00	3.25	1.98	1.00	6.00
Weeks sold per year	7	40.00	33.14	21.44	1.00	52.00
Sales per week	7	\$75.00	\$187.50	\$205.02	\$25.00	\$600.00
Total sales per year	6	\$6,687.50	\$9,535.42	\$11,794.46	\$37.50	\$31,200.00

Based on the number of weeks sold and average marketings per week, annual sales to restaurants can be estimated. While the average was nearly \$10,000 per year, the standard deviation was even larger, indicating considerable heterogeneity in the sample (Table 5). Indeed, the range of annual sales was estimated to be as low as \$37.50 to over \$30,000. Given the small sample size, this measure is likely of little value when viewed in isolation, and, perhaps can better be viewed relative to total farm sales. When viewed this way, limited sales volume to restaurants is again apparent. As shown in Figure 6, restaurant sales for 88% of the participating farms represented less 10% of total farm sales, with the balance of farms having restaurants sales between 10% and 25% of total farm sales.

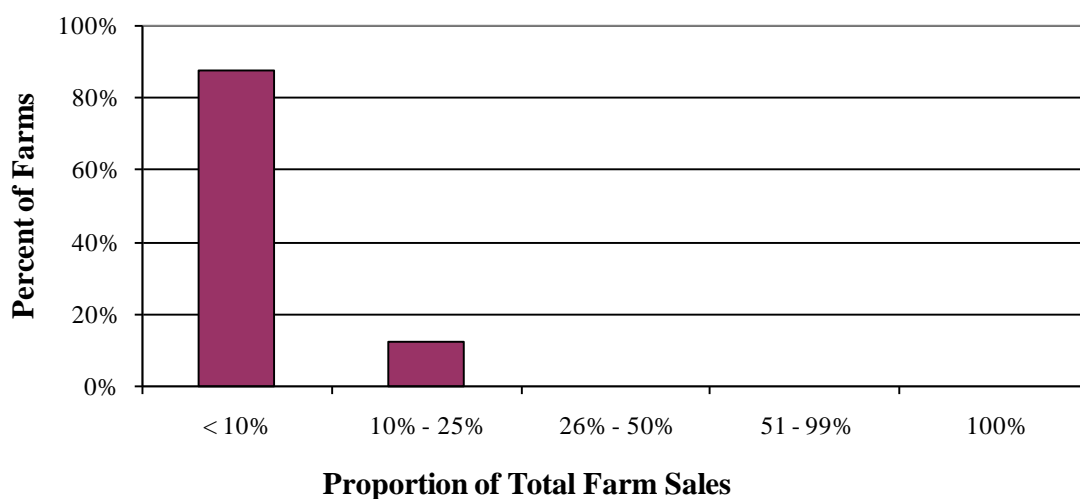


Figure 6. Percent of farms by proportion of sales to restaurants.

In the context of such relatively low sales volumes (in general), it is useful to better understand why farms are interested in entering this market channel. As part of the survey, farms were asked to rank the reasons why they choose to sell products to chefs or restaurants (Figure 7). Consistent with Logozar and Schmit (2009) in their study of farmers' market in Northern New York, buyer interaction and higher prices were ranked at the top, convenience and advertising were ranked in the middle, and selling excess products near the bottom. Subjective and objective measures both contribute to channel participation, and interaction with buyers (even if they represent a relatively low volume of total sales) can provide key insights into consumer demands and provide a useful outlet to advertise a farm and its products that can be purchased in other channels. Higher price points were important as well, particularly compared with other wholesaling opportunities.

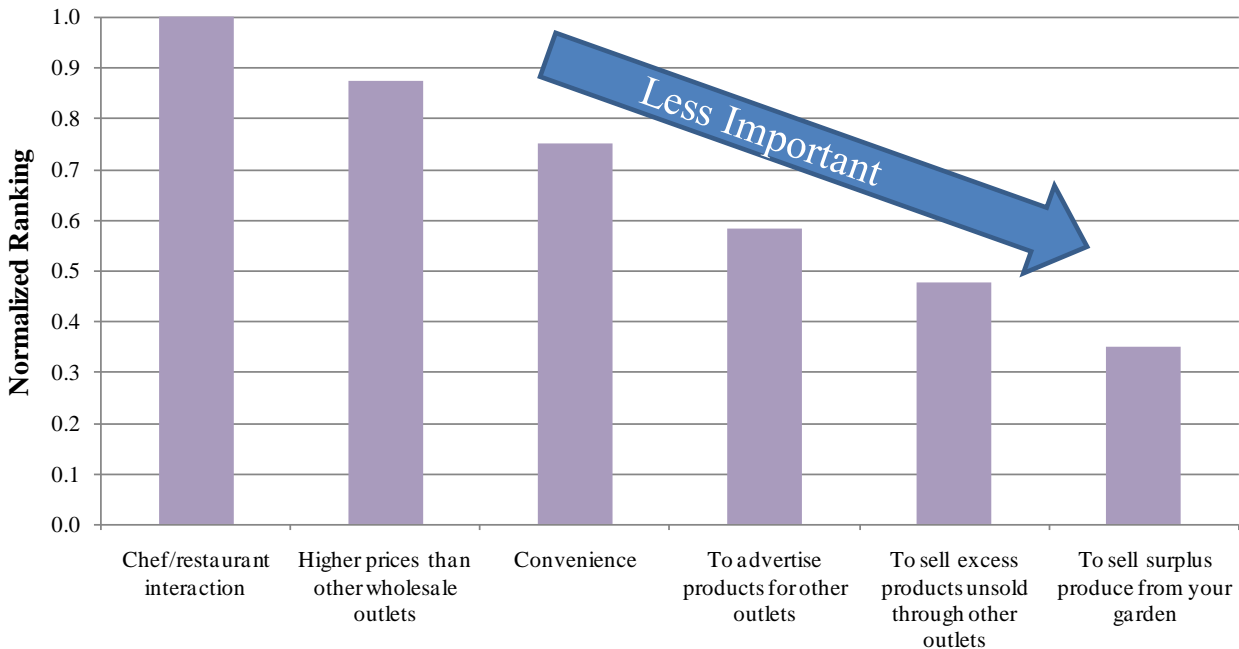


Figure 7. Normalized rankings of why sell to restaurants.

Given the rankings above, satisfaction with channel participation and the relative performance of restaurant channels are both important in measuring farm success. To assess this, farmers were asked how *satisfied* they were with the working relationships they have established with chefs and restaurants, as well as with the level of profitability selling to chefs and restaurants (Figure 8). By evaluating farmer satisfaction, we inherently encompass both objective and subjective measures of farm performance, which are likely unique to the individual farm based on a variety of personal and business factors (LeRoux et al. 2010).

While neither measure shows unsatisfactory performance, this could be the result of selection bias as farms experiencing unsatisfactory performance would be more likely to stop participating in this channel by the time of the survey. However, satisfaction with profitability, on average, is lower (i.e., the distribution is shifted to the right) than satisfaction with the working relationships established. Specifically, 50% of farms were very satisfied with their restaurant working relationships, compared with just over 10% of farms that were very satisfied with the channel's profitability (a difference, 40%, that is statistically significant, p -value=0.0001).

Put differently, farmers are more satisfied with buyer interactions in the restaurant channel than with the relative profitability the channel has delivered. This result seems consistent with farmer expectations regarding utilization of this channel in the future. Specifically, when asked how they see their sales to chefs or restaurants changing over the next 2 years, 50% of farms are expecting to increase sales, 25% are expecting sales to remain the same, and 25% expecting to decrease sales.

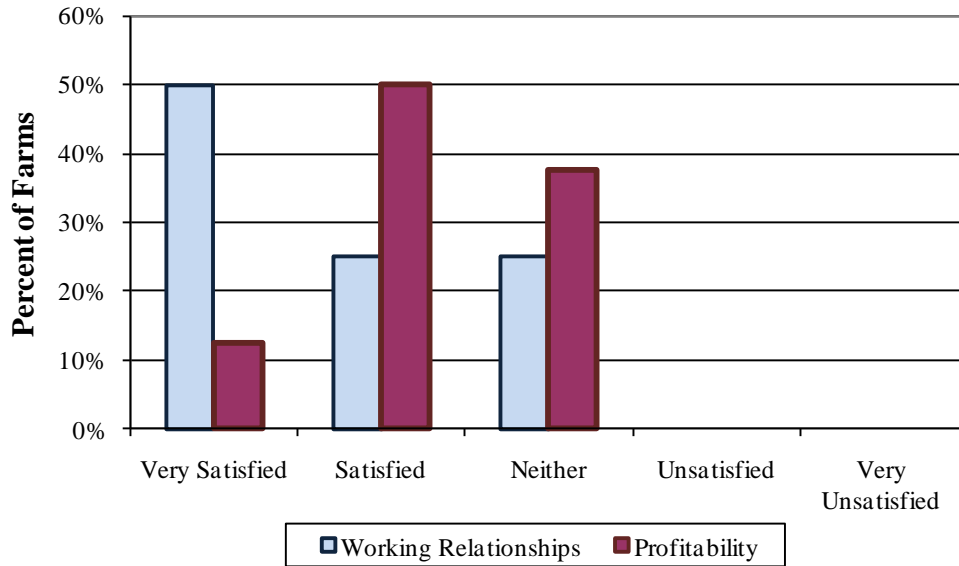


Figure 8. Farmer satisfaction with chef/restaurant working relationships and restaurant channel profitability.

Survey Results – Restaurants

Restaurant Characteristics: Due to data disclosure issues, only restaurants that were currently purchasing directly from farmers (N = 9) are included in this section. A good mix of restaurants was included in the final sample, representing a range of types, ages, sizes, and cuisines served. As shown in Figure 9, 57% of respondents were full-service restaurants, 29% were limited-service restaurants, and 14% were involved in specialty food service (e.g., catering). One-third of the respondents have been in operation between one and three years old, 22% between four and 10 years, and 45% over 10 years. A wide variety of cuisine styles were also served, with many firms providing multiple styles on their menu selections (Figure 10).

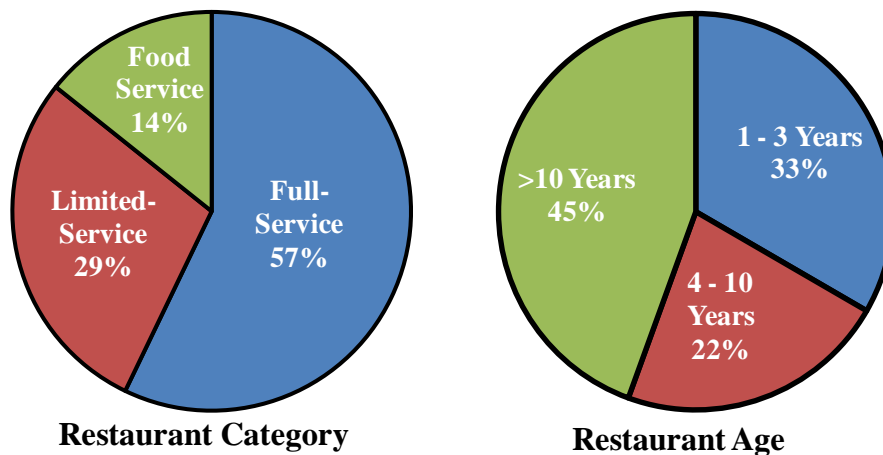


Figure 9. Restaurant response, by category and years in operation.

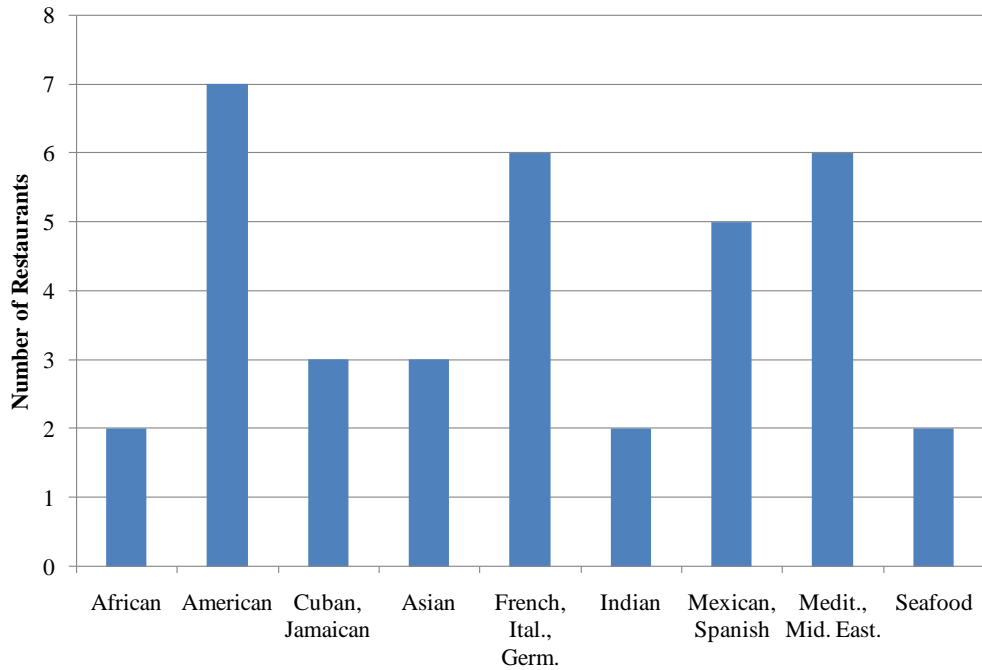


Figure 10. Restaurant frequency by type of cuisine served.

On average, respondents served around 365 customers/week; however, this ranged from as few as 50 to more than 500 (Figure 11). Average weekly sales were nearly \$8,500, and ranged from around \$1,000 to \$25,000 per week (Figure 12). Combined, this is equivalent to an average sale per customer of about \$23, which is reasonable given that the average dinner entrée price was around \$18 (low entrée price average of \$12, and a high entrée price average of \$26).

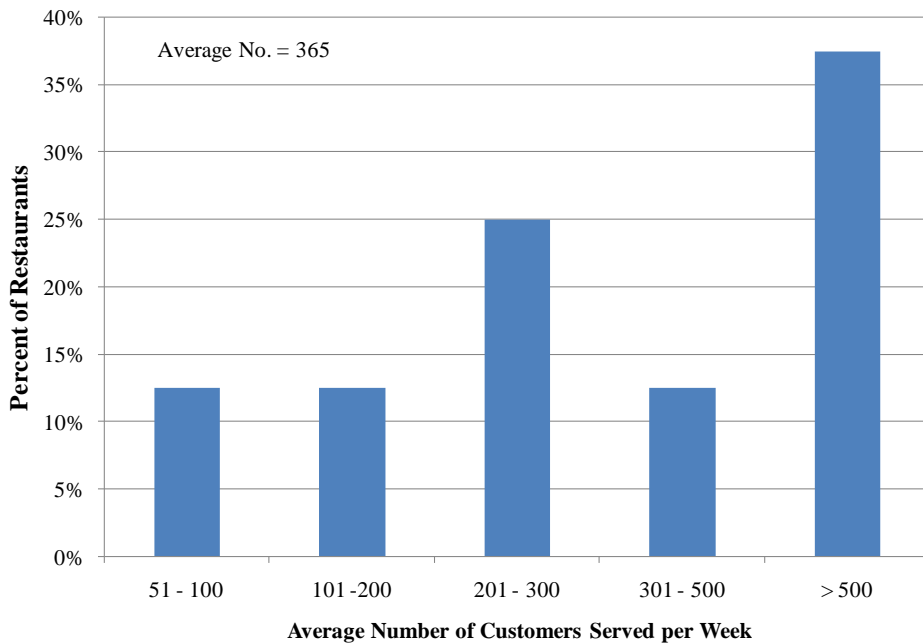


Figure 11. Average number of customers served per week by percent of restaurants.

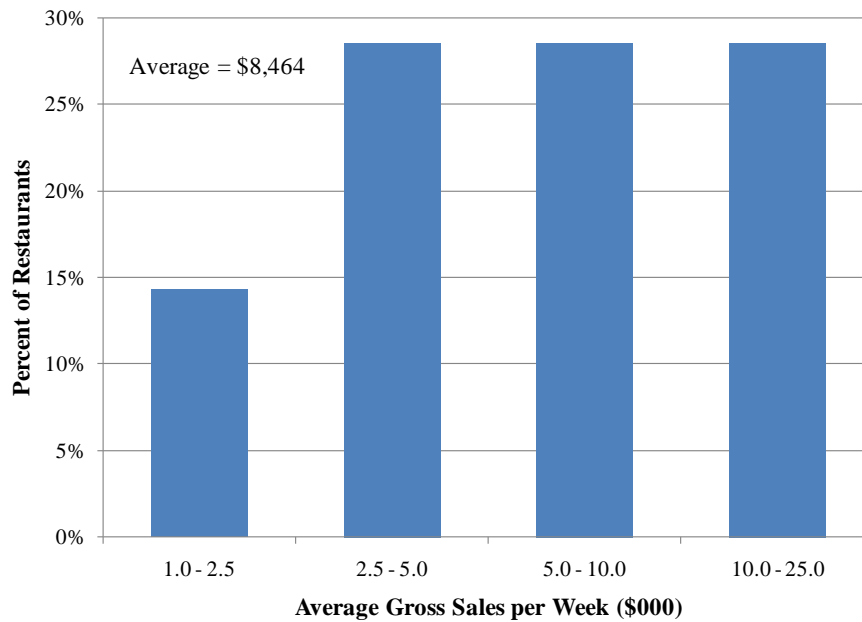


Figure 12. Average weekly sales volume per week by percent of restaurants.

Local Product Purchases: Nearly all restaurants believed that buying local was important to their business (i.e., 56% thought it was ‘very important’ and 33% thought it was ‘important’). Further, all restaurants thought that utilization of local food products through restaurants was an effective way to promote local foods and support local producers. Indeed, many of the restaurants sampled have been purchasing local food products for a number of years. On average, responding restaurants have been purchasing direct from farmers for around 9 years (the median was 4.5), with some first-year purchases and others purchasing from farmers for 25 years (Table 6).

Table 6. Characteristics of local food ingredient purchases by restaurants.

Characteristic	N	Median	Mean	Std. Dev.	Minimum	Maximum
Years buying from local farmers	8	4.50	9.25	9.41	1.00	25.00
Number of farmers	8	7.00	7.94	6.28	2.00	20.00
Number of deliveries per week	9	2.00	2.00	1.72	0.25	6.00
Purchase weeks per year	8	20.00	22.88	14.87	1.00	52.00

The number of farmers restaurants purchased from was also quite variable, most likely due to restaurant size. Restaurants purchased from about 8 farms, on average, with a range from 2 to 20 (Table 6). The number of deliveries per week was also quite variable, averaging 2.0, but ranging from once per month to six times per week. Farmers selling to new restaurants need to consider the range of products they can reasonably provide and how the products fit in with the restaurant’s overall purchases. Sales by farmers need not be competitive when considering a range of products, and timings and quantities desired by restaurants. Indeed, collaborative supply arrangements with a group of farmers working together may be a preferred strategy.

The number of delivery weeks preferred by restaurants can be lengthy and quite variable. Restaurants purchased local ingredients from farmers, on average, 22.9 weeks per year, but this ranged from only once per year to every week (Table 6). Farmer-delivery and restaurant pick-ups were equally common among responding restaurants, with most utilizing a number of delivery arrangements. Specifically, 22% of restaurants had products delivered only by the farmers, with an equal percentage of restaurants (22%) only picking up products directly at the farm sales location. The remainder (56%) utilized both methods of product delivery.

A tremendous variety of local food products/ingredients were purchased by this small sample of restaurants. A listing of the various products is shown in Table 7. As expected, raw fruits and vegetables make up a sizable portion of the list; however, a number of meat and dairy products, as well as processed food products are also listed. Such a wide selection of products demanded can open up new sales opportunities to a wide range of farms in the area, as long as close attention is paid to buyer demands, farm production schedules, and open lines of communication between buyers and sellers.

Table 7. Types of food ingredients purchased from local producers by restaurants.

Processed	Fruits and Vegetables				Meat & Dairy	
Jams	Mushrooms	Tomatoes	Corn	Peaches	Chicken	Butter
Chutney	Zuchinni	Lettuce/Greens	Spinach	Strawberries	Beef	
Mustard	Peppers	Tomatillos	Watermelon	Currants	Cheese	
Sauces	Squash	Cucumbers	Rasberries	Blueberries	Eggs	
Honey	Onions	Chard	Cherries	Epazote	Pork	
Bread	Kale	Sprouts	Apples	Plums	Milk	
Flour	Nectarines	Pears	Cabbage	Arugula	Cream	
	Broccoli	Eggplant	Herbs	Rhubarb	Turkey	
	Carrots	Beets	Potatoes	Cabbage	Lamb	

Buyer arrangements with restaurants need individual attention, paying close attention to buyer needs in terms of products, quantities, and timings of shipments. Restaurants may not prefer to deal with a larger number of farmers selling limited supplies of products. Collaborative farmer strategies can help deal with this issue and gain access to a larger number of potential buyers.

Local Purchase Volume and Procurement: While relatively long-standing restaurant-farm relationships were not uncommon, the volume of local product purchases is also important when considering marketing farm products through this channel. Restaurants were asked to identify the average percentage of weekly gross sales that could be attributed to local food/ingredient purchases (i.e., sales of prepared foods made with at least some ingredients purchased directly from local producers). On average, a sizable 29% of all food sales were attributable to prepared products made with ingredients purchased from local farmers. Furthermore, over 20% of restaurants stated that more than 50% of all product sales included local ingredients (Figure 13).

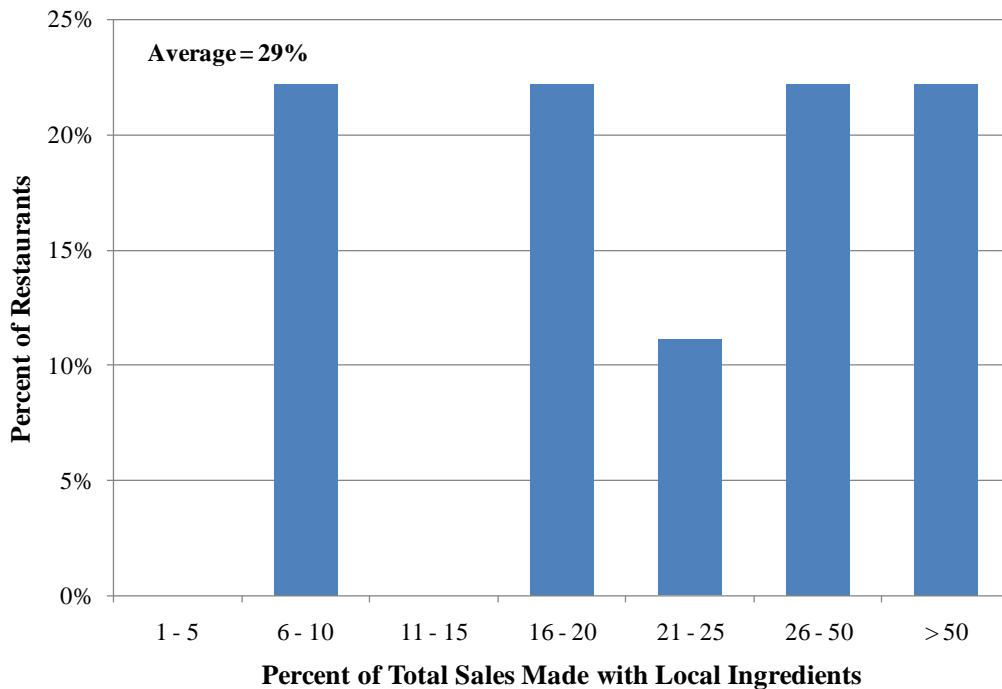


Figure 13. Percent of product sales made with locally-purchased ingredients.

While the proportion of sales that included local ingredients from farmers was sizable, this says little about the relative amount of ingredients purchased locally from farmers versus other sources, or the opportunities for farmers to expand sales through this channel. To address this, restaurants were asked what percent of their total food product/ingredient purchases were direct purchases with local farmers.

As shown in Figure 14, the proportion of ingredients purchased from farmers can be sizable. On average, about 22% of all food/ingredient purchases were direct purchases from local farmers. Further, 40% of restaurants had local farm purchases ranging from 26 to 50% of all food/ingredient purchased. While obviously a larger sample would be advantageous here, these relatively high numbers are at the very least favorable to the interest of restaurants in buying direct from farmers.

It is also worth noting that local farm product purchases represented a wide range of products by farm production practices. For example, some restaurants purchased exclusively organically-made products, while others purchased exclusively conventional products. Still others bought a mix of both. At least in this area of the state, opportunities for restaurant sales appear to exist for a variety of products made under alternative production practices.

While these numbers are opportunistic, it is important to remember that restaurants procure food products/ingredients from a variety of sources and through alternative supply-chains, several of which may also include locally-produced farm products. Restaurants were asked to identify all product distributors through which they normally purchase food products for their business, and the relative amount of purchases coming from each source. The results are shown in Table 8.

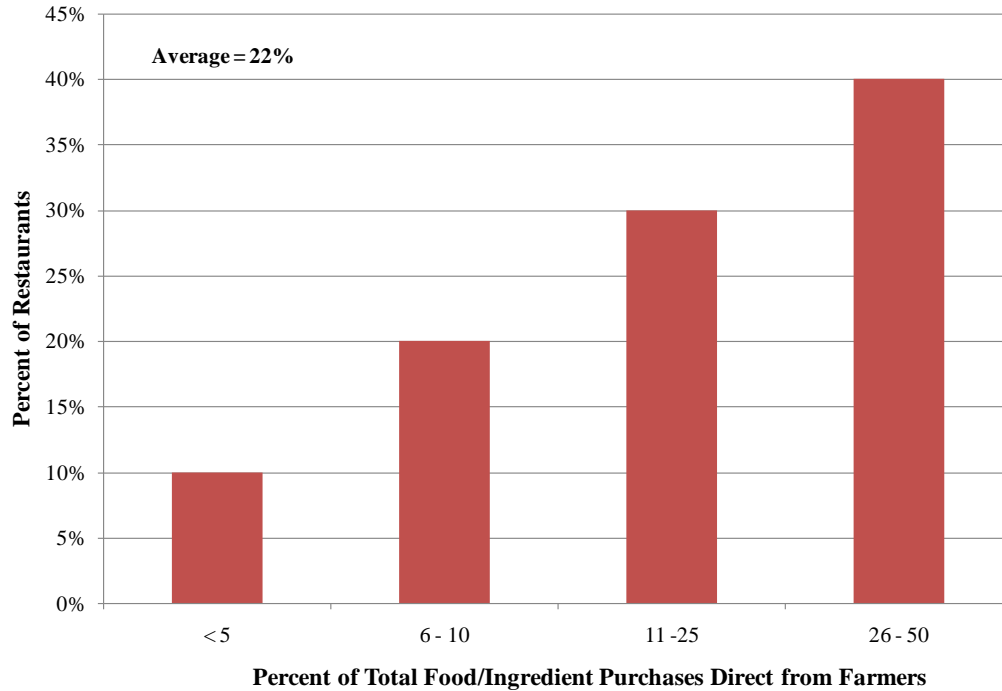


Figure 14. Percent of product sales made with locally-purchased ingredients.

Table 8. Restaurant utilization of alternative procurement sources.

Procurement Source	% of Purchases		Estimated Total %
	% Yes	if Yes	
Local Distributors (e.g., Ginsbergs, Town & Country, Angellos)	88.9%	54.3%	42.3%
National Distributors (e.g., Sysco, Sodexo)	44.4%	38.3%	14.9%
Regional Distributors (e.g., Baldor)	55.6%	33.8%	16.4%
Farmers' Markets	33.3%	6.5%	1.9%
CSAs	11.1%	10.0%	1.0%
Roadside Stands	44.4%	12.3%	4.8%
Purchase Arrangement with Farmer	75.0%	27.1%	17.8%

Note: Estimated totals (Estimated Total %) were computed by multiplying the percentage of restaurants utilizing each channel (% Yes) times the level of conditional purchases (% Purchases if Yes), and then normalizing the result such that the sum across all sources was equal to 100%.

It is clear that restaurants utilize several local channels for which to procure local farm products, with direct purchase agreements with farmers the most common, utilized by three-quarters of respondents. Those utilizing direct purchase arrangements purchased, on average, about 27% of their total purchases this way (Table 8). However, other direct purchases with farmers were also utilized, including roadside stands (44%), farmers' markets (33%), and CSAs (11%); although the volumes of purchases through these channels were much lower. In total, these four farmer-direct sources comprised about 25% of all purchases across the sample restaurants (i.e., summing the four 'Estimated Total %').

Not surprisingly, local distributors were used most frequently (89%), and when utilized, made up over one-half of all product purchases (54%). In total, local distributors made up approximately 42% of all purchases in the sample, the largest single category by far. However, to the degree that local products are distributed through this channel, this may be an alternative outlet for farmers looking to move larger (perhaps unexpected) volumes of products, albeit at likely lower per unit prices. Regional and national distributor use were also common (56% and 44%, respectively), with relatively large volumes of product purchased through these channels. Combined, regional and national distributors represented about 31% of all product purchases (14.9% + 16.4%).

Restaurant Promotion of Local Ingredients: Restaurants can promote their use of local ingredients in a variety of ways. Such promotion can help farms by increasing consumer exposure and, hopefully, help support demand through other marketing channels (e.g., farmers' market, roadside stand). If consumers are demanding more local product availability at restaurants, this should also support customer traffic to the restaurant. Table 9 summarizes the frequency of restaurants utilizing various types of consumer exposure, and the relative importance they assign to each.⁵

Table 9. Restaurant promotion of local purchases.

Type of Exposure	% Yes	Importance Score
Place farm names/ingredients on menus	66.7%	1.38
Place farm names in restaurant ads	11.1%	0.50
Place a story about the farm in menu	33.3%	0.80
Sign listing local farms you purchase from	55.6%	1.25
Other: List on website	11.1%	2.00
Do not publicize local farms	11.1%	--

Score Range: 0 = Not Important, 1 = Important, 2 = Very Important

The most common forms of farm/product exposure were mentioning farm names/ingredients on the menu (67%) and signage at the restaurant (56%). As to be expected, these were also relatively highly valued forms of promotion for the restaurants. While only 11% of restaurants mentioned including farm information on their websites, they considered this a very important way to promote their local purchases. Several restaurants also placed a story about the farms they purchase from on the menus (33%). A question to be addressed here is whether current promotion activities are effectively delivering local purchase messages to the patrons they serve? It would also be useful to know how farms are promoting the restaurants to which they supply local products. Interestingly, when asked what effect has adding local food products to their menu had on total restaurant sales, only 33% said that it had increased sales, while the balance said it had no effect on sales whatsoever. Whether this result is due to relatively ineffective promotion or relatively less demand for local products by patrons will be addressed further when assessing the results of the patron surveys.

⁵ Importance scores ranged from: 0 = not important, 1 = important, and 2 = very important.

Expected Change in Local Purchases: On net, restaurants expect the number of farms and level of purchases from local farms to increase from last year. Specifically, 29% of restaurants expect to increase the number of farms they purchase local products from, and 43% expect to increase their overall amount of purchases. This is compared with 14% of respondents expecting declines in both categories (Figure 15). These levels are consistent with farmer expectations in the area, where 50% of farms expect to increase restaurant marketings, while 25% expect a decrease.

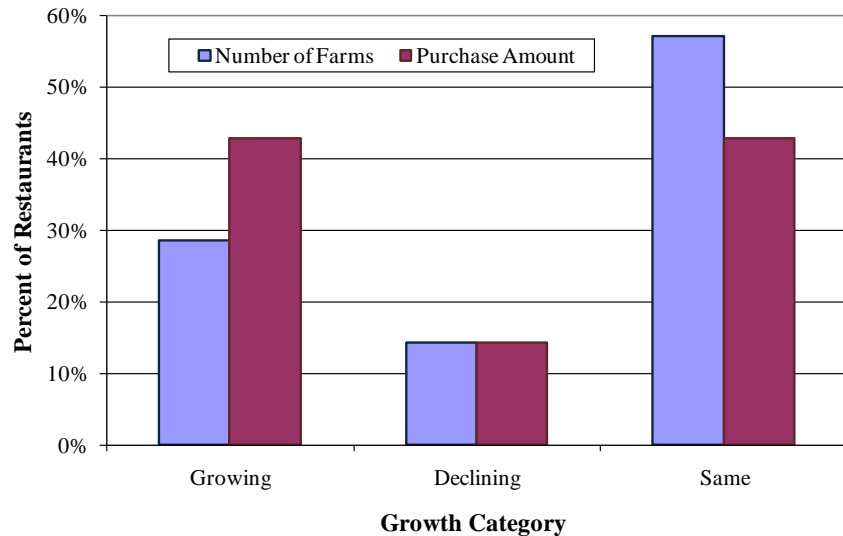


Figure 15. Restaurant expectations of future local purchases.

Perhaps more importantly, restaurants seem relatively more willing to increase purchase amounts rather than the number of farmers they deal with. Again, there appears to be increasing demand from restaurants for local purchases, but appropriate marketing arrangements (e.g., collaborative farmer supply) needs careful consideration. Restaurants were generally satisfied with the farmer working relationships established, where 89% were either satisfied or very satisfied (Figure 16).

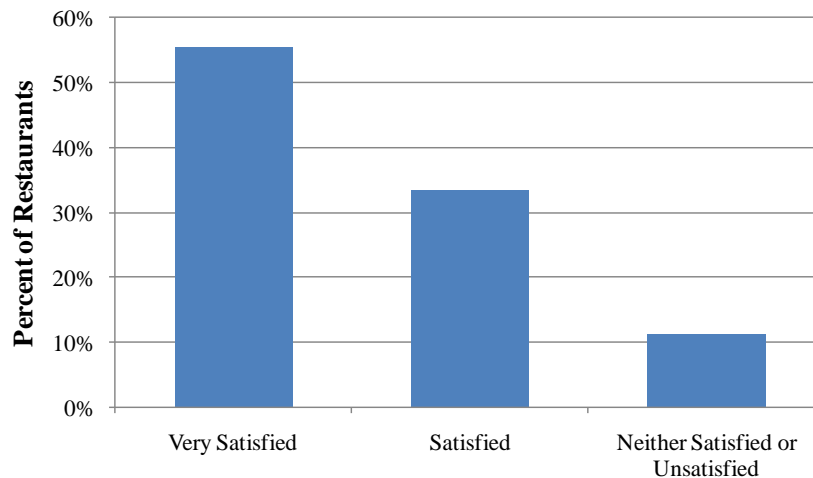


Figure 16. Restaurant satisfaction with farmer working relationships.

Results – Restaurant Patrons

As mentioned above, restaurant patron surveys were conducted in four restaurants to get specific information on attitudes and preferences for local food products. For our analysis, patron responses from all four restaurants are combined (N=36).

Demographic Characteristics: Responding patrons were roughly 40% male and 60% female, and represented a broad age range. Specifically, 6% were age 18 or less, 21% were 19 to 25, 29% were 36 to 55, and 44% were over 55 years old (Figure 17). The group was relatively well educated, with 48% and 43% completing undergraduate and graduate degrees, respectively. Accordingly, household incomes were relatively high, with nearly 70% of patrons having total household income above \$75,000 per year (Figure 18).

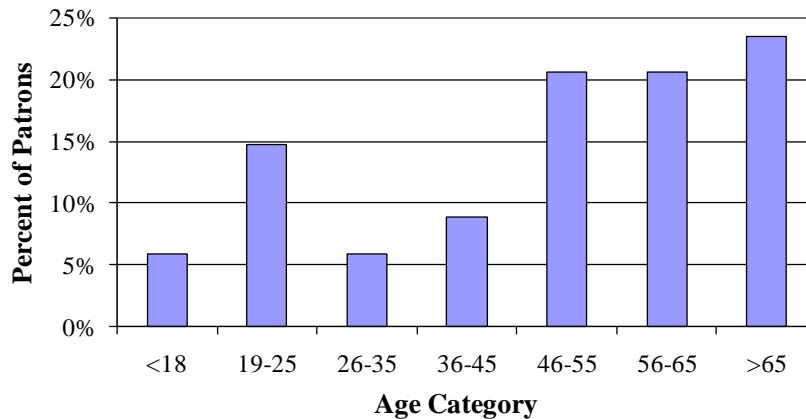


Figure 17. Distribution of restaurant patrons by age.

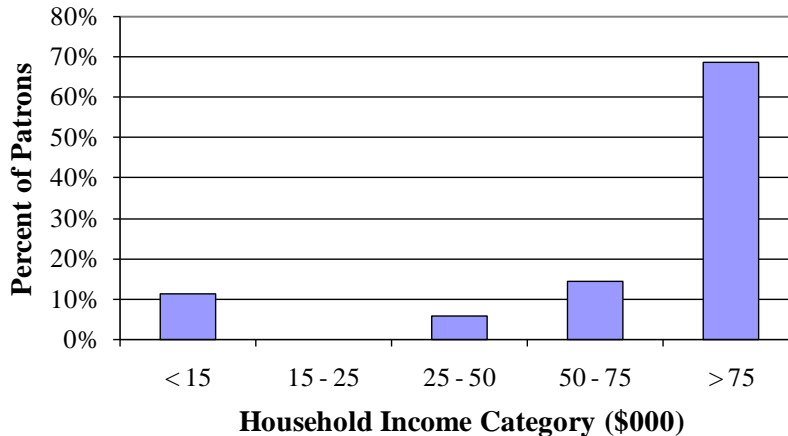


Figure 18. Distribution of restaurant patrons by household income.

Patrons were diverse in the number of meals eaten at home versus away-from-home. On average, 47% of patrons prepared more than one meal per day (Figure 19), and over 60% ate out at least once a week (Figure 20). The high frequency of dining out is important for a consistent customer demand; however, 42% of patrons stated they were dining out less and only 6% were dining out more, relative to one year ago. (52% had no change). The general downturn in the economy at the time of the survey likely contributes to these lower dining out statistics.

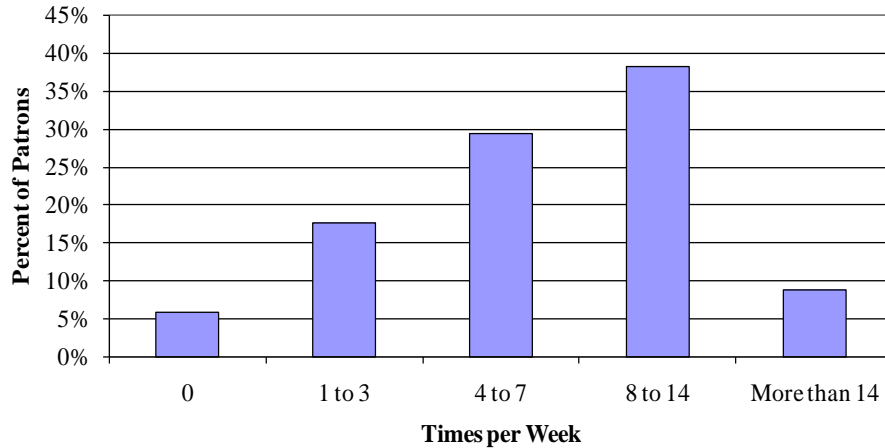


Figure 19. Patron frequency of preparing meals at home.

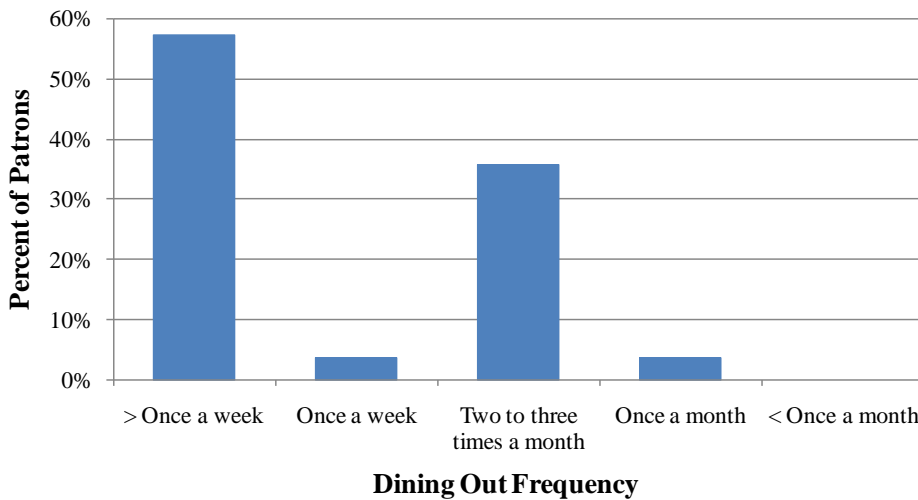


Figure 20. Patron frequency of dining out at restaurants.

Preferences for Local: Strong preferences for local products were apparent as all respondents thought the ‘buy local movement’ was at least ‘somewhat important’ and 74% thought it was ‘very important’ (Figure 21). Consistent with Logozar and Schmit (2009), customers stated that their primary reasons for buying local, were related to product freshness (49%) and improving farm viability (49%). Approximately 34% purchased local primarily to lessen environmental impacts associated with trucking and distribution, 20% to support agricultural and rural landscapes or to improve a sense of community, and 17% to improve their connection between farmers and the foods they ate’ (Figure 21).

When asked about the primary reason for eating at particular restaurants, it is not surprising that ‘high-quality food’ (34%) and a ‘good combination of cost and quality’ (26%) came out on top (Figure 22). However, the use of ‘local agricultural products’ was as equally important to patrons as ‘great service’ (14%). As such, for many customers, it is important to have foods available that are made with local ingredients.

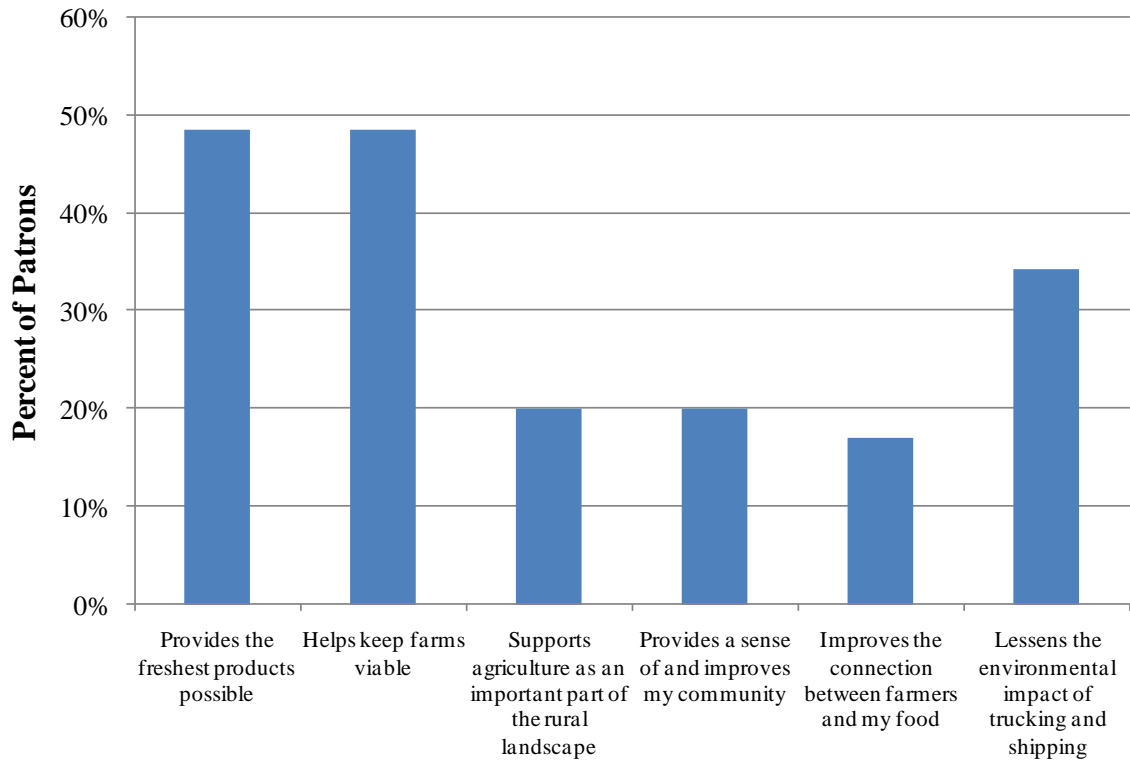


Figure 21. Primary reasons for buying local food products.

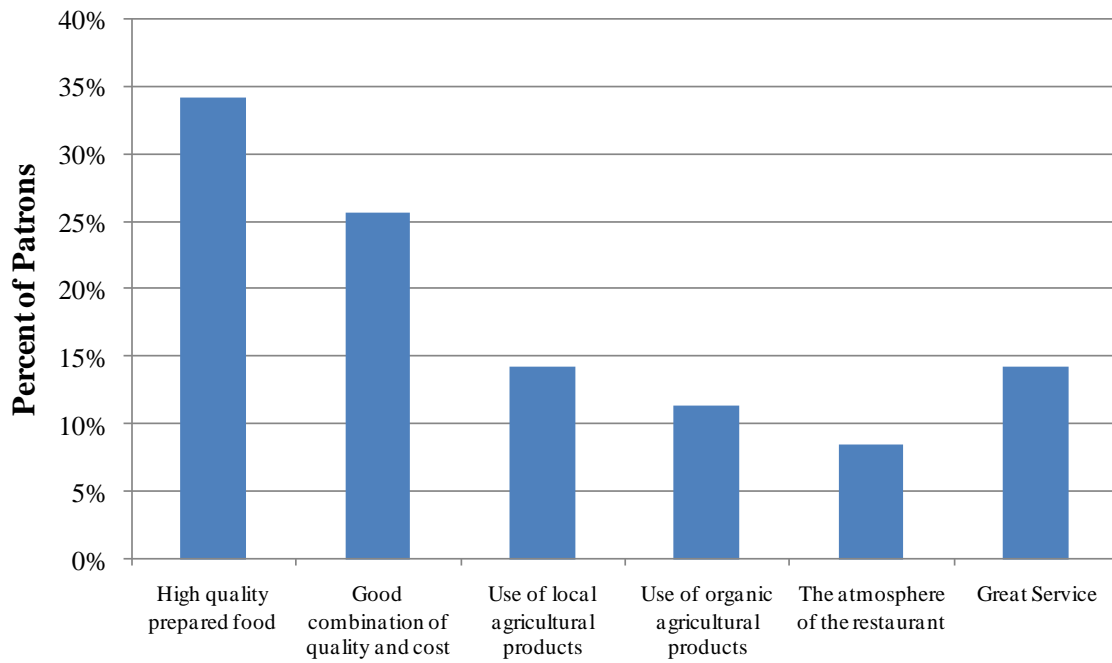


Figure 22. Primary reasons for dining at particular restaurants.

Local Products Demanded: Customers were asked what types of local products/ingredients they would like to see utilized more frequently in the restaurants they dine at. Well over 60% of respondents wanted to see more fruit (67%) and vegetable (75%) products, the primary products currently utilized by restaurants and likely the most easily adaptable to a variety of prepared dishes (Figure 23). However, there also existed strong demand for more processed products such as baked goods (39%), beverages (28%), and dairy products (44%); as well has meats (39%), herbs and spices (36%), and grains and flours (42%). Such an exhaustive list would seem to cover most, if not all, prepared foods offered by various restaurants. The wide range in products should also be advantageous for a number of different types of local agricultural producers. However, what’s absent in these numbers is the degree to which consumers are demanding local products (as opposed to simply wanting to see more of them) and how much of price premium, if any, they are willing to pay.

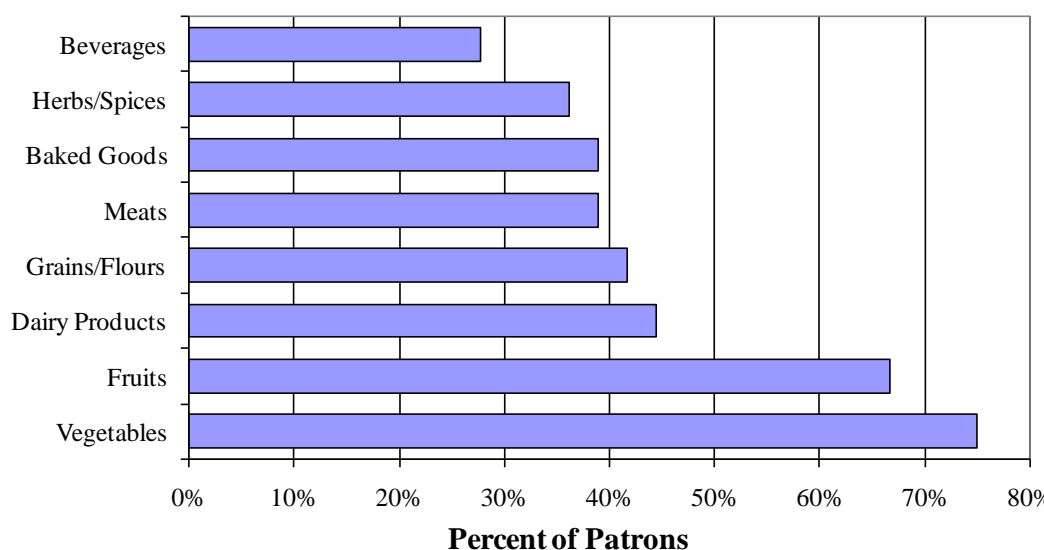


Figure 23. Local food products customers would like to see more of at restaurants.

Valuation versus Action: Restaurant patrons were asked how strongly they agreed with a variety of statements concerning local foods and their availability at restaurants.⁶ The list of statements and their average agreement scores are shown in Figure 24. Based on the rankings, several important sentiments become apparent. First, the top two statements with average agreement scores above 1.7 re-emphasize the strong desire by consumers to see more local products utilized in restaurants. However, average agreement scores drop nearly 11% when customer’s particular preferences for dining at restaurants (1.57) and purchasing items made with local ingredients (1.57) are considered. Furthermore, customers are less in agreement when it comes to paying a premium for meals prepared with local food ingredients (1.26). Here, the average agreement score drops an additional 20% from their preference scores. Demand is strongly influenced by prices paid; therefore, assigning appropriate price premiums to menu items will be highly dependent on a restaurants clientele. Indeed, one of the barriers mentioned by restaurants to increasing local ingredient purchases was the relatively higher per unit cost and inability to pass these costs on to their customers (Curtis and Cowee 2009).

⁶ Response categories included: strongly disagree, disagree, neither agree/disagree, agree, and strongly agree. Numeric scores were assigned to each category as -2, -1, 0, 1, and 2, respectively, to compute average scores.

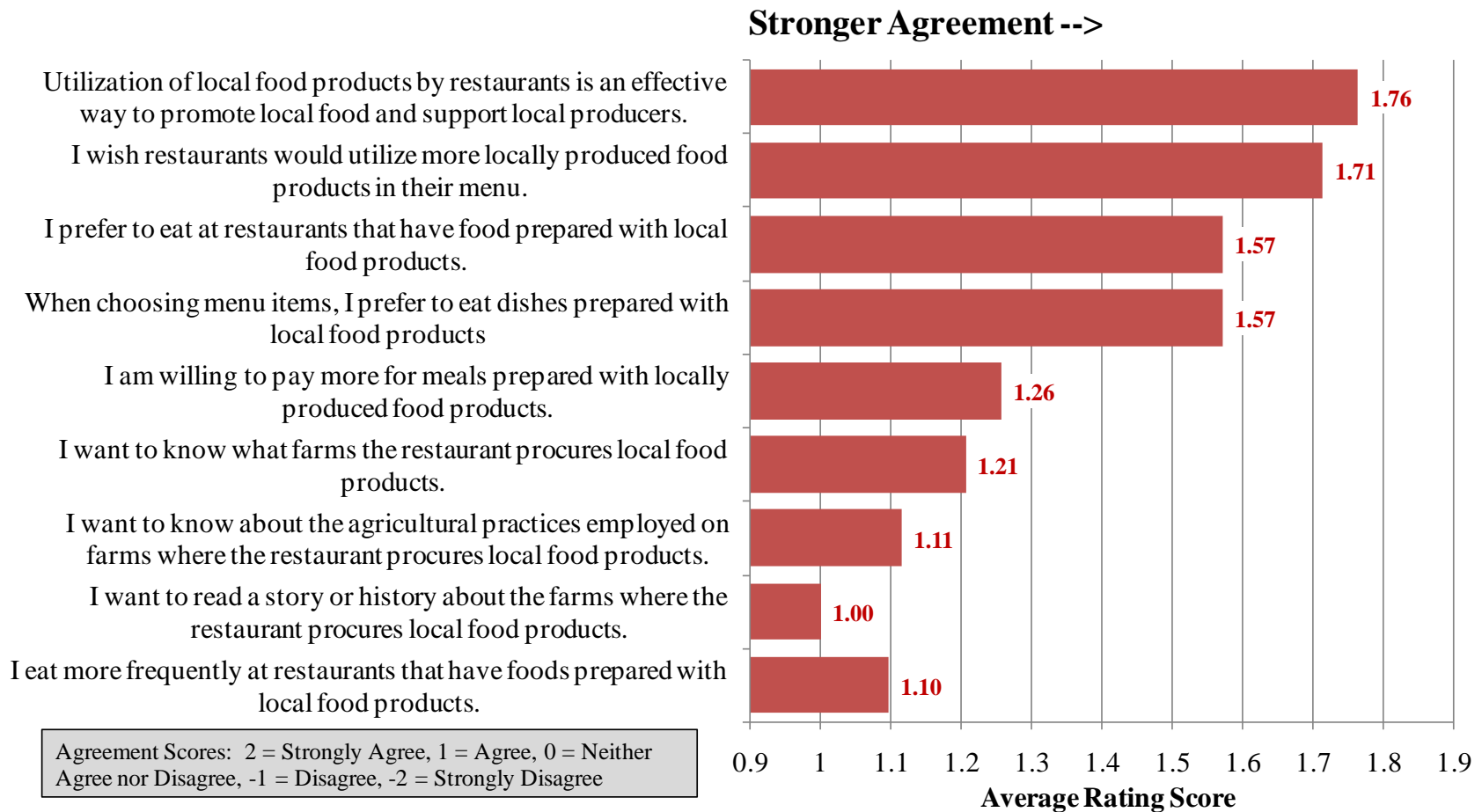


Figure 24. Agreement of alternative local foods statements regarding utilization and demands by consumers at restaurants.

The customers surveyed were also relatively resistant to changing restaurants they frequent based primarily on the presence of meals prepared with local ingredients. Specifically, the average agreement score on whether patrons ‘eat more frequently at restaurants that serve meals prepared with local food ingredients’ drops to 1.10. While still in an ‘important’ range, the average score drops an additional 13% from agreement on paying price premiums, and over 30% from their scores based on ‘preferences’ alone. This lower score may be due to the fact that responding customers patronized a set restaurants that commonly utilized local ingredients already, such that switching would do little in terms of local ingredient access. Even so, the results highlight that how restaurants publicize their use of local ingredients and price their prepared products can be very important to success and increased utilization of local products.

Figure 24 is also useful in identifying the types of information that is desired by customers. Relative to agreement scores mentioned above, the need for additional (more specific) information about the farms was clearly lower. While the sentiments regarding farm information were still important (i.e., average scores were 1.21, 1.11, and 1.00 for knowing more about the farms, their agricultural practices, and their story or history, respectively) there was far less agreement across customers surveyed. In fact, all three categories had customers that disagreed with the statements. In other words, customers valued knowing about the local products that are used, but do not need (on average) a lot of specific information about the farms or their production practices – at least in a restaurant setting. These results seem consistent with the promotional strategies and importance rankings given by the responding restaurants above (Table 9).

Since customers tend to purchase local products from a variety of market channels, it is likely that customers learn information about the farms and products they grow through these channels as well. Customers in our sample were no exception. As shown in Table 10, purchases of local food products through alternative channels were common, with relatively high levels of weekly expenditures. Most respondents regularly purchased local food products at grocery stores (83%), farmers markets (71%), and roadside stands (57%); and purchasing products at ‘u-pick’ sites (46%) or through memberships in CSAs (26%) were also relatively popular. Prices are readily available to consumers in these types of markets and thereby helping to facilitate the decision to purchase or not. Prices for menu selections, however, are more complicated and involve the costs of several ingredients combined, as well as preparation and delivery costs. As such, identifying what ‘price’ consumers will pay for a prepared product made, in part, with local ingredients, is more difficult. This may be part of the reason why customers may seem more hesitant to pay higher premiums on these types of menu items.

Table 10. Other market channels utilized to purchase local food products.

Market Channel	% Yes	Purchases per Week (\$)				
		Median	Mean	Std. Dev	Minimum	Maximum
Farmers Markets	71.4%	20.00	24.13	15.03	5.00	50.00
Community Supported Agriculture	25.7%	17.50	20.00	10.80	10.00	35.00
Roadside Stands	57.1%	15.00	16.50	8.09	5.00	30.00
Pick Your Own	45.7%	15.00	16.11	14.53	5.00	50.00
Grocery/Specialty Store	82.9%	50.00	61.67	46.66	15.00	180.00

Identification of Barriers to Growth

To better understand the barriers to increased utilization of F2C marketing, both farmers and restaurants were asked to identify the primary obstacles they face.

Farmers: In general, 40% of participating farms and 29% of non-participating farms felt that there are too many barriers preventing them from expanding sales through this market channel (Figure 25). The lower level by non-participating farms may be because these farms simply have no interest in marketing through this channel; however, even when comparing the percentage of respondents that disagree with this statement, the differences are statistically significant (p -value = 0.05). More importantly, if only 40% of participating farms think that the barriers are too great, what is preventing the majority of other operations from expanding sales?

Restaurants: In comparison, the sample of restaurants already purchasing products from local farmers found the barriers to expanding purchases much higher. Specifically, 75% of the restaurants thought existing barriers were preventing them from expanding purchases from farmers (Figure 26). When netting out the proportion of respondents who disagreed with these statements, the differences are even more apparent. For participating restaurants, 50% on net agreed that existing barriers are preventing them from expanding activities, while only a net of 20% of participating farmers thought similarly.

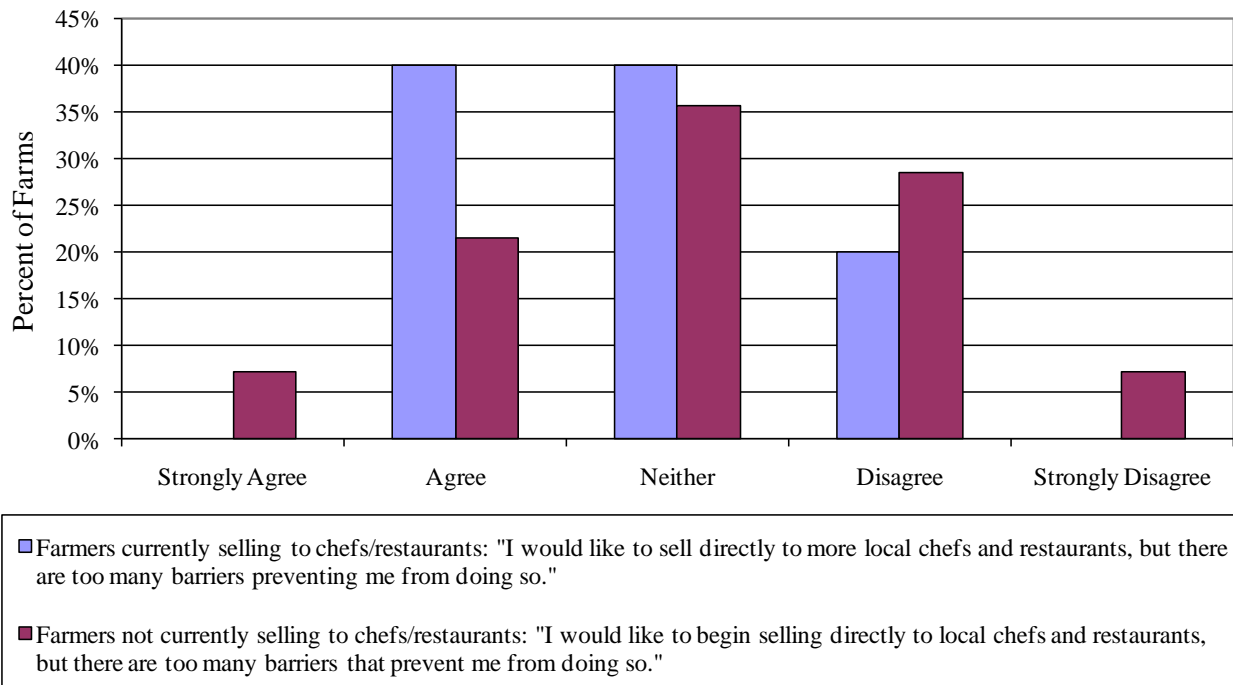


Figure 25. Farmer sentiment on barriers preventing channel expansion.

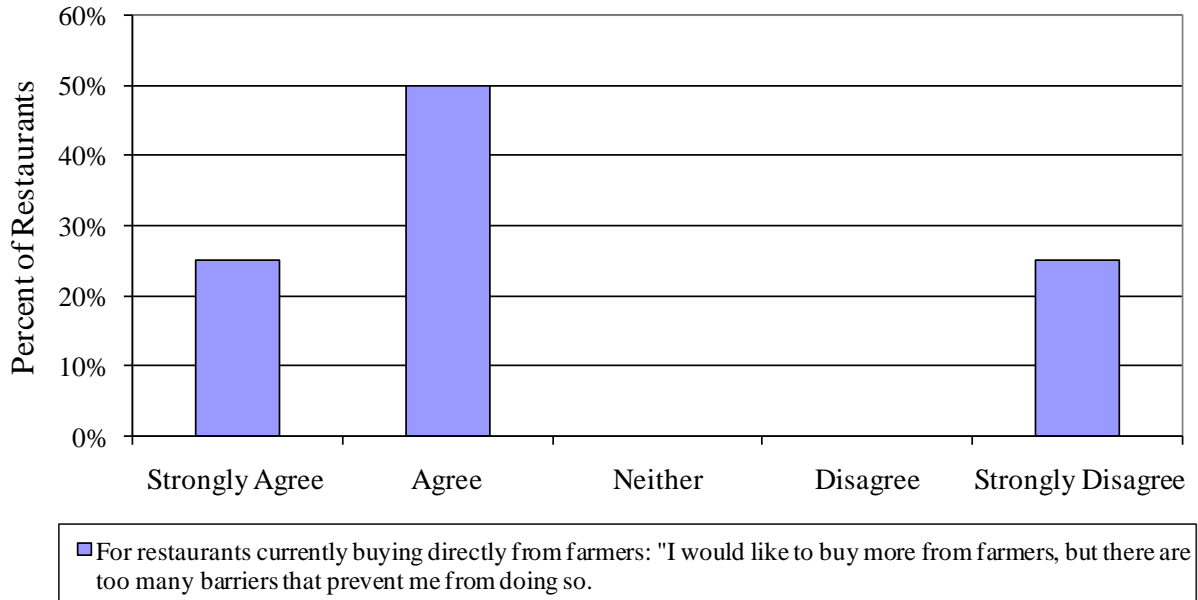


Figure 26. Restaurant sentiment on barriers preventing channel expansion.

Farmers and restaurants were both asked to identify what barriers currently exist to expanding utilization of the F2C marketing channel. The summarize results are shown in Table 11. Primary barriers identified by most restaurants included: lack of time in dealing with multiple farmers (75%), unsure consistency and quality of products (75%), and insufficient product volumes supplied by farmers (50%). For farmers, the most important barriers identified were: inability to increase production/sales to more outlets (52%), satisfaction with existing markets (40%), and lack of time to make several stops with small sales (40%).

Table 11. Barriers identified that limit channel expansion and utilization.

Restaurant Barriers Identified	%	Farmer Barriers Identified	%
• Don't have time to contact several farmers.	75.0%	• Can sell all that I produce now.	52.0%
• Unsure of consistency of products delivered.	75.0%	• Satisfied with existing markets and don't need more.	40.0%
• Unsure of quality of products delivered.	50.0%	• Don't have time to make several stops, too many small sales.	40.0%
• The volume I need can't be satisfied with local producers.	50.0%	• Would have to hire someone to deliver.	28.0%
• Farmers have poor communication skills.	25.0%	• Unsure if I can get adequately paid to deliver.	16.0%
• Prices too high.	25.0%	• Restaurants aren't interested or are too far away.	16.0%
• Farmers don't offer delivery.	12.5%	• Variance in quantities and limited product ranges.	4.0%

Several consistent themes were revealed and common to both parties. First, limited **time** issues are very important; neither has the time to deal with numerous buyers/sellers with smaller quantities. Second, **volume** requirements can be problematic. For restaurants, oftentimes local producers are not able to commit to sufficiently large volumes over an extended period of time. For farmers, production is oftentimes already at capacity and significant investments in capital and/or labor would be required to meet larger demands. In addition, farmers are often faced with quantity demands that vary throughout the season, an issue not easily addressed with existing production schedules, or only a limited range of products is requested. Finally, **price** agreements can be problematic. Restaurants feel that prices requested are generally too high relative to the costs they can pass through to their customers, while farmers are generally resistant to offer prices lower than through other channels and/or are concerned that delivery costs are not sufficiently accounted for when prices are set.

Barriers unique to restaurants and farmers were also observed. For restaurants, assurances of quality and consistency of products over time is deficient and, oftentimes, farmers have poor communication skills making purchasing arrangements difficult to establish and enforce. Farmers often stated that they were satisfied with their existing markets and feel that restaurants aren't interested in buying local or are too far away to make it feasible to sell to. While these issues are numerous and not always easy to address, careful attention to them is required when developing strategies to increase channel utilization.

Conclusions and Recommendations

With increased interest in the use of local food ingredients in area restaurants, it is important to better understand the development and long-run viability of F2C relationships, the impact on farm sales and restaurant performance, and barriers that may be limiting sales expansion in this growing market channel. The purpose of this study was to describe the results of a project conducted in Columbia County in summer 2009 to examine these issues.

The estimated volume of sales by farmers through direct purchase arrangements with restaurants was shown to be relatively low. Median weekly farm sales to restaurants were modest, but on net, farmers were expecting growth in the F2C wholesale channel. Participating restaurants also saw potential for growth, even though a relatively strong proportion of ingredients were already being purchased locally. However, F2C marketing is not the only 'local' game in town, with restaurants having alternative sources from which to procure local food product ingredients.

Restaurant patrons similarly expressed strong support for increasing the utilization of local food ingredients in menu selections. However, support was diminished somewhat when considering the price premiums they would be willing to pay for these products and their willingness to alter restaurant choices based on a restaurant's utilization of local food ingredients.

To better understand the barriers to increased utilization of F2C marketing, farmers and restaurants identified the primary obstacles hindering their progress. In general, farmers were constrained by production capacity and labor requirements. These issues are not easily addressed when other local channel outlets are already available. The concept of limited sales volumes through restaurant channels, more modest prices, and already constrained time commitments oftentimes closes the door on channel expansion. Restaurants, on the other hand, appear ready to

buy more if they can get it, but time constraints restricts the number of farmers restaurants are able to deal with to get the quantity and variety of products they desire. In addition, improved communication skills of farmers are needed to better facilitate that exchange, and provide continual updates on product availability and timing. On the product side, consistent quantities and qualities are needed for restaurants to commit long-term.

Cooperative marketing strategies and purchasing arrangements by groups of farmers and/or restaurants may be a key consideration in addressing many of these issues. However, many markets are highly specialized and spatially unique. As such, addressing barriers to channel expansion is often necessary on a case by case basis. The existence of collaborative organizations such as CCB has been shown to improve the potential for success. It is hoped that the material presented in this report will serve CCB as a useful guide in addressing their organizations guiding mission and objectives towards supporting a vibrant and sustainable local foods system within their community.

As much of this report was generated thanks to the important contributions made by study’s survey respondents, we close this report with a summary of responses (Table 12) from participating farmers and restaurants on ways that CCB can enhance and facilitate better connections between farmers and restaurants to expand the utilization and consumer availability of local agricultural products.

Table 12. Ways that CCB can better enhance and facilitate connections between farmers and chefs.

Restaurant Responses	Farmer Responses
<ul style="list-style-type: none"> • Teach farmers importance of outreach to the culinary community to develop better relationships. • Improve farmer communication skills. • Listing of farmers’ product availability sent to end users. • Listing of end users provided to farmers. • Assist in getting produce from local farms. Perhaps set up distribution centers for restaurants. 	<ul style="list-style-type: none"> • Enhancing farmer/chef network would enhance farmer/consumer relationships. • Give presentations to highlight benefits of selling to restaurants. • Help promote niche and organic products. • Have meetings closer to harvest time. • Improve awareness: more open sessions between farmers and chefs, community involvement. • Promote locally-grown and CCB. • Set up a payment clearing house.

References

- Benepe, C., G. Auld, D. Lamm, K. Smith, A. Starr, and K. Wilken. 2001. "Cultivating Local Foodlinks: Barriers and Motiators for Restaurants and Institutional Foodservices to Purchase Locally Grown Foods." Presented at the Society for Nutrition Education Annual Meeting, Oakland, CA.
- Curtis, K.R., and M. Cowee. 2009. "Direct Marketing Local Food to Chefs: Chef Preferences and Perceived Obstacles." *Journal of Food Distribution Research* 40(2):26-36.
- Feenstra, G., J. Ohmart, and D. Chaney. 2003. "Selling Directly to Restaurants and Retailers." University of California Sustainable Agriculture Research and Education Program. University of California-Davis. <http://www.sarep.ucdavis/cdpp/selldirect.pdf>.
- Huber, G. 2002. *Progress Report on Expanding Local Food Systems through Direct Marketing to Iowa Institutions: USDA FSMIP*. Practical Farmers of Iowa. http://www.pfi.iastate.edu/Local_Food_Syst/. Ames, IA. May.
- Lawless, G. 2000. "Home Grown Wisconsin: The Study of a New Producer Cooperative. *The New Generation Cooperatives Case Studies*. <http://www.iira.org/acap/casestudies/lawless.pdf>.
- LeRoux, M.N., T.M. Schmit, M. Roth, and D. Streeter. 2010. "Evaluating Market Channel Options for Small-scale Fruit and Vegetable Producers." *Renewable Agriculture and Food Systems* 25(1):16-23.
- Pepinsky, K. and D. Thilmany. 2004. "Direct Marketing Agricultural Products to Restaurants: The Case of Colorado Crop to Cuisine." *Agricultural Marketing Report*, AMR-04-03. Department of Agricultural and Resource Economics, Colorado State University Cooperative Extension. September.
- Royzyne, M. 200. *Red Tomato: The Business Plan*. <http://www.redtomator.org>. February 28.
- Thilmany, D.D. 2004. "Colorado Crop to Cuisine," *Review of Agricultural Economics* 2(3):404-416.
- United States Department of Agriculture (USDA). 2009. "The 2007 Census of Agriculture." National Agricultural Statistics Service, Washington, DC, <http://www.agcensus.usda.gov>.

APPENDIX A1

CHEF/RESTAURANT SURVEY

Survey Number: _____

1. Please select the category of restaurant you own or work at:

- Full-Service Restaurant:** includes establishments primarily engaged in providing food services to patrons who order and are served while seated (i.e., waiter/waitress service) and pay after eating.
- Limited-Service Eating Place:** includes establishments primarily engaged in providing food services where patrons generally order or select items and pay before eating. Most establishments do not have waiter/waitress service, but some provide limited service, such as cooking to order, bringing food to seated customers, or providing off-site delivery (e.g., lim. service restaurants, cafeterias, buffets, snack & nonalc. beverage shops)
- Special Food Service:** includes establishments primarily engaged in providing food services at the customer's location; at a location designated by the customer; or from motorized vehicles or nonmotorized carts (e.g., food service contractors, caterers, mobile food services)

2. Please select the type or types of cuisine that is served (check all that apply). For other, please describe.

- | | | | |
|--|-------------------------------------|---|-------------------------------------|
| <input type="checkbox"/> African | <input type="checkbox"/> American | <input type="checkbox"/> Cuban | <input type="checkbox"/> Chinese |
| <input type="checkbox"/> Contemporary | <input type="checkbox"/> French | <input type="checkbox"/> German | <input type="checkbox"/> Indian |
| <input type="checkbox"/> Italian | <input type="checkbox"/> Jamaican | <input type="checkbox"/> Japanese | <input type="checkbox"/> Korean |
| <input type="checkbox"/> Mediterranean | <input type="checkbox"/> Mexican | <input type="checkbox"/> Middle Eastern | <input type="checkbox"/> Seafood |
| <input type="checkbox"/> Spanish | <input type="checkbox"/> Steakhouse | <input type="checkbox"/> Thai | <input type="checkbox"/> Vietnamese |
| <input type="checkbox"/> Other: | : | <input type="checkbox"/> Other | |

3. How long has your business been in operation? _____ (give years and/or months)

4. On average, how many customers do you serve weekly?

< 25	25-50	51-100	101-200	201-300	301-500	> 500

5. For classification purposes, please indicate your businesses' average weekly gross sales volume.

Less than \$500	\$501-\$1,000	\$1,001 - \$2,500	\$2,501 - \$5,000	\$5001 - \$10,000	\$10,000 - \$25,000	\$25,001 - \$50,000	More than \$50,000

6. Approximately what percentage of your average weekly gross sales can be attributed to sales of foods made with food products or ingredients purchased directly from local producers?

None	1 - 5%	6-10%	11-15%	16-20%	21-25%	26-50%	> 50%

7. Looking at your establishment's dinner menu (or offerings), what is the range between your lowest-priced dinner entrée and your highest-priced dinner entrée? (For example, \$15 - \$30) If your business does not have a dinner menu, please skip this question.

From _____ To _____
(lowest) (highest)

8. Select all of the distribution methods through which you normally purchase items for your business. In the column next to each outlet, estimate the percent of total purchases coming from that outlet.

Outlet:	Yes or No?	Percent of total purchases
Local Distributors (e.g., Ginsbergs, Town and Country, Angello’s etc.)		
National Distributors (e.g., Sysco, Sodexo, etc.)		
Regional Distributors (e.g., Baldor)		
Farmers Markets		
Community Supported Agriculture		
Farm Roadside Stands		
Direct purchase arrangement with Farmer (i.e., not at stand or market)		
Other (describe):		

9. Do you currently purchase food products/ingredients directly from farmers? (check one)

Yes No

If yes, how long have you been purchasing directly from farmers? ____years or ____months

If no, please skip to question 24

10. Please list the types of food products purchased from local producers. Please be as specific as possible (e.g., use terms like “mesclun mix,” “beets,” or “potatoes,” rather than “vegetables”)

Products Purchased		Products Purchased

11. How many farmers do you purchase local food products from? Number: ____

12. On average, how many times per week (or month) are local products delivered?

____ times per week or ____ times per month

13. Approximately how many weeks per year do you buy food products directly from farmers?

____ Average number of weeks sold to chefs/restaurants (give number)

14. How are products purchased from local farmers delivered to the restaurant? (check all that apply)

Delivered by farmer

Picked up and delivered by chef/restaurant

Other delivery method (please describe): _____

15. Overall, how satisfied are you with the working relationships established with the farmers you directly purchase from?

Very satisfied	Satisfied	Neither satisfied nor unsatisfied	Unsatisfied	Very unsatisfied

16. Please list the farmers you direct purchase from, delivery schedule, and season of the year.

Description	Farm 1	Farm 2	Farm 3	Farm 4
Farm name				
Farm location				
Frequency of purchase (circle)	Daily Weekly Monthly As requested	Daily Weekly Monthly As requested	Daily Weekly Monthly As requested	Daily Weekly Monthly As requested
Season (circle)	Spring Summer Fall Winter	Spring Summer Fall Winter	Spring Summer Fall Winter	Spring Summer Fall Winter

17. Compared to last year, are the total number of farms you purchase from and the total quantity of those purchases growing, declining, or staying about the same?

Number of Farms			Purchase Amount		
Growing	Declining	~ Same	Growing	Declining	~ Same

18. Approximately what percent of your total food product/ingredient purchases is from direct purchases with local farmers? (Give number or select range) Number: ____

< 5%	6-10%	11-25%	26-50%	51-75%	76-99%	100%

19. Select below the forms in which you publicize the farms you buy from? In addition, rate how important the forms of publicizing are to your business

Publicize by:	Utilize?	Rate Importance		
	Yes or No	Very Important	Important	Not Important
Place farm names on menu				
Place farm names in restaurant advertisements				
Place a story about the farm in menu				
Have a sign listing local farms you purchase from				
Other:				
Do not publicize local farms				

20. What percent of farmers you purchase from provide the following types of products?

Percent of Farmers	Conventional	Certified Organic	Non-certified Organic	Transition to Organic	Certified Natural	Certified Humane	Other
None							
Less than 10%							
11% to 25%							
26% to 50%							
51% to 75%							
76% to 99%							
All							

21. Is the number of farmers you are purchasing from increasing, decreasing, or staying the same for the following types of products?

Vendor	Increasing	Decreasing	Staying the same
Conventional			
Certified organic			
Non-certified organic			
Transitioning to organic			
Certified Natural			
Certified Humane			
Other			

22. How has adding local food products to your menu affected total sales; increased, decreased, or stayed about the same? (check one)

Increased Sales	Decreased Sales	No effect on sales

23. What do you consider are the greatest strengths of purchasing locally-grown products directly from farmers? (please list/describe)

24. Select the answer below that you can identify with the closest regarding the following statement (choose the statement that applies to you):

_____ For chefs/restaurants currently purchasing directly from farmers: “I would like to buy directly from **MORE** farmers, but there are too many barriers that prevent me from doing so.”

_____ For chefs/restaurants NOT currently purchasing directly from farmers: “I would like to **begin buying** directly from local farmers, but there are too many barriers that prevent me from doing so.”

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

25. Check below all that apply regarding reasons why you don’t directly purchase (or don’t directly purchase more) from local farmers:

Barrier Category	Applies
Satisfied with current distributors	
Don’t have time to contact several farmers	
Unsure of quality of products delivered	
Unsure of consistency of products delivered	
The volume I need cannot be satisfied with local producers	
The closest farmers that would purchase from are too far away	

List any other barriers that are preventing you from purchasing (or purchasing more) directly from local farmers:

26. How important to your business do you feel the “buy local” movement is?

Very Important	Important	Somewhat Important	Not Important

27. Select the answer below that you can identify with the closest regarding the following statement:

“Utilization of local food products by restaurants is an effective way to promote local foods and support local producers.”

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

28. From your perspective as a chef or restaurant owner, how strongly do you agree with the following statement:

“Direct sales to chefs and restaurants in my area have been successful for (1) the restaurants, (2) the vendors that sell to them, and (3) the local community.”

Success Focus	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Restaurant					
Farmer Vendor					
Community					

29. Please tell us what Cornell Cooperative Extension (CCE) or Columbia County Bouny can do to enhance networking between farmers and chefs and in helping to make the connections between them.

END OF SURVEY

THANK YOU FOR YOUR TIME AND VALUABLE INPUT!!

APPENDIX A2

FARMER/VENDOR RESTAURANT DIRECT MARKETING SURVEY

Survey Number: _____

GENERAL QUESTIONS

1. Please select your farming status (select one). I am a:

Full-time grower/farmer	Part-time grower/farmer	Hobby grower/farmer	Retired grower/farmer	Other

2. Please select the highest educational degree you have completed:

Less than High School	High School	Undergraduate College Degree	Graduate College Degree

3. Describe the size of your operation based on the variables below (select all that apply). In the first line, share with us the size of your business (such as the number of employees, acres farmed, etc.). On the second line, state how the size of your operation compares with 3 years ago (larger, smaller, or about the same size)?

	Employee Count	Output value/sales	Acres	Livestock number
Size / Level				
Size Change				

4. How do you rate your direct marketing skills?

Successful	Average	Needs Improvement	Don't know/ not applicable

5. Rank the top 3 methods that best describe how you normally determine prices for your products?

Pricing method	Rank
Grocery store comparison	
Matching other vendors' prices	
Pricing below other vendors	
Internet	
Cost of production plus mark-up	
Pricing above other vendors	
Charge the same as always	

6. List the types of products you sell, and rank them by total sales.

Product	Sales Rank		Product	Sales Rank

7. Select all of the marketing channels through which you normally sell your farm products. In the column next to each outlet, estimate the percentage of total sales coming from that channel.

Outlet	Sell – Yes/No	Percent of total sales
Retail – Farmers’ Market		
Retail – Own site (roadside stand, farm house, retail store, etc.)		
Retail – Pick Your Own (U-pick)		
Retail – Community Supported Agriculture		
Retail – Internet / Mail Order		
Retail – Other:		
Wholesale – Chef/Restaurant		
Wholesale – Packer or Distributor		
Wholesale – Grocery/Specialty Store		
Wholesale – Other Direct Vendors (produce stand, farmers’ market, etc.)		
Wholesale – Other:		

8. Do you currently sell directly to chefs or restaurants? (check one)

Yes No (If no, please skip to question 26)

9. How long have you been selling directly to chefs or restaurants?

Years or Months

10. How many chefs or restaurants do you regularly sell to?

Number of chefs/restaurants

11. Please list chef/restaurant, frequency of delivery, season, and travel distance (miles).

Description	Restaurant 1	Restaurant 2	Restaurant 3	Restaurant 4
Name				
Location				
Frequency of delivery (circle)	Daily Weekly Monthly As requested	Daily Weekly Monthly As requested	Daily Weekly Monthly As requested	Daily Weekly Monthly As requested
Season (circle)	Spring Summer Fall Winter	Spring Summer Fall Winter	Spring Summer Fall Winter	Spring Summer Fall Winter
Travel distance (miles, one way)				

12. What is your average level of total sales per week to chefs/restaurants?

< \$25	\$25-50	\$50-100	\$100-200	\$200-300	\$300-400	\$400-500	\$500 +

13. Approximately how many weeks per year do you sell to chefs/restaurants?

Average number of weeks sold to chefs/restaurants (give number)

14. How do you choose which chefs or restaurants you will sell directly to?

Distance from Farm Number of Restaurants Close By Time of Year
 Other (please list: _____)

15. Approximately what percent of your farm income is from selling directly to chefs or restaurants? (Give number or select range)

< 10%	11% – 25%	26% - 50%	51-99%	100%

16. What percent of the products you sell to chefs or restaurants is grown or prepared by you and your operation (i.e., not resold)?

< 25% 25% – 50% 51% – 75% 76% - 99% 100%

17. Do you sell value-added products such as baked goods, preserves, or processed foods directly to chefs or restaurants? If yes, please list the kinds of value added products sold.

Yes No

Value Added Products Sold (list):

18. Do you sell organically grown or made products to chefs or restaurants? If so, what percent of your total product sold is organic, and is the percent increasing, decreasing, or staying the same?

Sell Organic?	% sold organic?	Change in percent of product sold organic		
		Increasing	Decreasing	About the same

19. Rank (on a scale from 1 to 6) the following reasons why you choose to sell your products to chefs or restaurants.

Reason	Rank
Convenience	
Higher prices than other wholesale outlets	
Chef/Restaurant interaction	
To advertise products for other outlets	
To sell excess products unsold through other outlets	
To sell surplus produce from your garden	

20. How do you measure your success selling directly to chefs or restaurants? Select any two.

Measuring Success	Use
Gross sales	
Net sales	
Selling enough to cover expenses	
Selling all of your products	
Repeat business	
Other:	

21. Overall, how satisfied are you with the working relationships you have established with chefs or restaurants you directly sell to?

Very satisfied	Satisfied	Neither satisfied nor unsatisfied	Unsatisfied	Very unsatisfied

22. How do you see your direct sales to chefs or restaurants changing over the next 2 years? I expect my business to:

Expand Decrease Stay about the same.

23. Overall, how satisfied are you with your level of profitability of selling to chefs or restaurants?

Very satisfied	Satisfied	Neither satisfied nor unsatisfied	Unsatisfied	Very unsatisfied

24. What do you like best about selling directly to chefs or restaurants? Please list/describe.

25. What do you consider the greatest strengths of selling directly to chefs and restaurants?

26. Select the answer below that you can identify with the closest regarding the following statement (choose the statement that applies to you):

For farmers currently selling to chefs/restaurants: “I would like to sell directly to MORE local chefs and restaurants, but there are too many barriers that prevent me from doing so.”

For farmers NOT currently selling to chefs/restaurants: “I would like to begin selling directly to local chefs and restaurants, but there are too many barriers that prevent me from doing so.”

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

27. Check below all that apply regarding the reasons why you don't sell (or don't sell more) to chefs/restaurants.

Category	Applies
Satisfied with existing markets and don't need more	
Restaurants in my area are not interested in buying local products	
Don't have the time to make several stops to deliver	
Unsure if can get adequately paid to deliver	
Would have to hire someone to deliver	
The closest restaurants that would buy are too far away	
Can sell all that I produce now	

List any other barriers that are preventing you from selling (or selling more) to chefs or restaurants:

28. How important to your business do you feel the “buy local” movement is?

Very Important	Important	Somewhat Important	Not Important

29. Select the answer below that you can identify with the closest regarding the following statement:

“Utilization of local food products by restaurants is an effective way to promote local foods and support local producers.”

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

30. From your perspective as a vendor, how strongly do you agree with the following statement:

“Direct sales to chefs and restaurants in my area have been successful for (1) the restaurants, (2) the vendors that sell to them, and (3) the local community.”

Success Focus	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Restaurant					
Farmer Vendor					
Community					

31. Please tell us what Cornell Cooperative Extension (CCE) or Columbia County Bountu can do to enhance networking between farmers and chefs and in helping to make the connections between them.

END OF SURVEY

THANK YOU FOR YOUR TIME AND VALUABLE INPUT!!

APPENDIX A. RESTAURANT PATRON SURVEY



RESTAURANT LOGO HERE



Dear Restaurant Patron:

Columbia County Bounty is interested in learning what impact the movement towards purchasing local agricultural products is having here in Columbia County and its efforts to promote the same. You are being asked to take part in a research study that is assessing the impact and utilization of local food products to area restaurants. As part of the study, we are asking you to take a few minutes before leaving the restaurant to answer some important questions. Taking part in this study is completely voluntary and your responses will remain anonymous and confidential. You may skip any components of the survey that you do not want to answer and you are free to withdraw at any time.

Please complete the questions below and leave with your server or drop it off in the survey collection box as you exit the restaurant.

Thanks for your participation!!

1. Please select your gender: Male Female
2. Please select your age category: < 18 19 - 25 26 – 35 36 – 45 46 – 55 56 - 65
 > 65
3. Please select your annual household income level category:
 < \$15,000 \$15,001 - \$25,000 \$25,001 - \$50,000 \$50,000 - \$75,000 > \$75,000
4. Please select the highest educational degree you have completed:
 Less than high school High school Undergraduate-college Graduate-school
5. On average, how often do you prepare meals at home?
 0X/week 1-3X/week 4-7X/week 8-14X/week >14X/week
6. Approximately, how often do you eat this restaurant, as well as all restaurants?
This restaurant: > 1X/per week 1X/week 2-3X/month 1X/month < 1X/month
All restaurants : > 1X/per week 1X/week 2-3X/month 1X/month < 1X/month
7. How does the number of times you eat out at restaurants compare to last year?
 More Less About the Same
8. What is the primary reason for coming to this restaurant today? Select one.

Primary Reason	Select one
High quality prepared food	
Reasonable prices for my budget	
Good combination of quality for price	
Use of local agricultural products	
Use of organic agricultural products	
The atmosphere of the restaurant	
Great service	

OVER

9. I would like to see more menu items made with the following local products (check all that apply):

- Fruits Vegetables Meats (whole or cuts)
 Meats (processed or ground) Dairy products Herbs and spices
 Grains and flours Baked goods (pies, breads) Beverages (alcoholic)
 Beverages (non-alcoholic) Other (Describe: _____)

10. Please select how strongly you agree with each of the following statements:

Statement	Strongly agree	Agree	Neither agree nor disagree	Dis-agree	Strongly disagree
I prefer to eat dishes prepared with local food products.					
I will pay more for meals made with locally produced products.					
I prefer to eat at restaurants that utilize more local food products.					
I eat more frequently at places that prepare dishes with local products.					
Restaurants should utilize more local food products in their menus.					
I want to know what farms the restaurant procures local products from.					
I want to know what agricultural practices those farms use.					
I want to read a story or history about those farms.					
Utilization of local food products by restaurants is an effective way to promote local foods and support local producers.					

11. From your perspective, how strongly do you agree with the following statement:

“Direct sales by farmers to chefs and restaurants in my area have been successful for (1) the restaurants, (2) the farmers that sell to them, and (3) the local community.”

Success Focus	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Restaurant					
Farmer Vendor					
Community					

12. How important do you feel the “buy local” movement is?

Very Important	Important	Somewhat Important	Not Important

OVER

13. Which of the following best describes your thoughts on ‘buying local’? Select one.

Buying local...	Select one
Provides the freshest products possible	
Helps keep small farms viable	
Supports agriculture as an important part of the rural landscape	
Provides a sense of and improves my community	
Improves the connection between farmers and my food	
Lessens the environmental impact of trucking and shipping	

14. Do you purchase locally grown products from the following channels? If so, please estimate your average purchases per week.

Outlet	Yes or No	Average purchases per week (\$)
Farmers Markets		
Community Supported Agriculture (CSA)		
Roadside Stands		
Pick Your Own (U-pick)		
Grocery or specialty store		
Other (describe):		

THANKS FOR YOUR PARTICIPATION!

OTHER A.E.M. EXTENSION BULLETINS

EB No	Title	Fee (if applicable)	Author(s)
2010-02	Business Planning for the Agriculture Sector: A guide to business plan development for Start-up to Mid-Size Operations	(\$12.00)	Perry, J. and R. Overton
2010-01	When to Exit Dairy Farming: The Value of Waiting		Tauer, L. and J. Dressler
2009-22	Marketing the Unique Story of Your Farm Business for Success		Schmit, T., Hulcoop, L. and R. Weybright
2009-21	Dairy Farm Business Summary, New York Dairy Farm Renters, 2008	(\$16.00)	Knoblauch, W. and L. Putnam
2009-20	New York Economic Handbook 2010	(\$10.00)	Extension Staff
2009-19	Fruit Farm Business Summary, Lake Ontario Region New York, 2008		White, G., DeMaree, A. and J. Neyhard
2009-18	2009 Federal Reference Manual for Regional Schools, Income Tax Management and Reporting for Small Businesses and Farms	(\$25.00)	Bouchard, G. and J. Bennett
2009-17	2009 New York State Reference Manual for Regional Schools, Income Tax Management and Reporting for Small Businesses and Farms	(\$25.00)	Bennett J. and K. Bennett
2009-16	Bedded Pack Management System Case Study		Thurgood, J., Bagley, P., Comer, C., Flaherty, D., Karszes, J. and M. Kiraly
2009-15	Dairy Farm Business Summary, Northern New York Region, 2008	(\$12.00)	Knoblauch, W., Putnam, L., Karszes, J., Murray, P., Vokey, F., Ames, M., Deming, A. and J. Prosper
2009-14	Dairy Farm Business Summary, Central Valleys Region, 2008	(\$12.00)	Knoblauch, W., Putnam, L., Karszes, J., Murray, D., Radick, C., Wickswat, C., Manning, J., Collins, B., Balbian, D., Allhusen, G. and S. Buxton
2009-13	Dairy Farm Business Summary, Northern Hudson Region, 2008	(\$12.00)	Conneman, G., Putnam, L., Wickswat, C., Buxton, S., Smith, R. and J. Karszes
2009-12	Dairy Farm Business Summary, Southeastern New York Region, 2008	(\$12.00)	Knoblauch, W., Putnam, L., Kiraly, M., Walsh, J., Hulle, L. and C. Wickswat

Paper copies are being replaced by electronic Portable Document Files (PDFs). To request PDFs of AEM publications, write to (be sure to include your e-mail address): Publications, Department of Applied Economics and Management, Warren Hall, Cornell University, Ithaca, NY 14853-7801. If a fee is indicated, please include a check or money order made payable to Cornell University for the amount of your purchase. Visit our Web site (<http://aem.cornell.edu/outreach/materials.htm>) for a more complete list of recent bulletins.