

# The **Impact** of Institutional Sales on Massachusetts Farms in 2014

Research for Massachusetts Farm to School  
by Melissa Adams



**M A S S A C H U S E T T S**  
**Farm to School**

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# Summary of Results\*

153 Farms were contacted



70 completed responses  
46%



Sold Products to Institutions



36 respondents  
51%



## FARM INSTITUTIONAL SALES

**\$2,967,695**

22 respondents

total farm sales	78%	15%	7%
	>10%	10-30%	30-90%



Farms that sold to institutions in 2014

and found it profitable



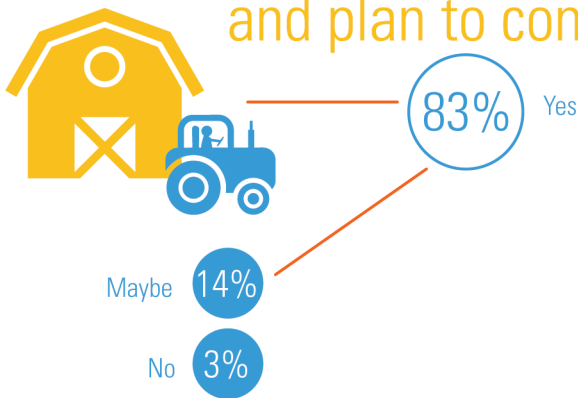
36 farms sold their products to 48 institutions, a marked decrease from 146 total institutions farmers reported selling to in the 2010 survey.



24% of respondents have expanded volume to meet institutional demand, by expanding acreage, increasing production on existing acreage, winter extension/greenhouse production, processing, freezing products, picking differently, or storing root crops.

Farms that sold to institutions in 2014

and plan to continue



Top challenges to those that said No or Maybe are:

- Price
- Growing enough volume
- Delivery

Top 3 products sold by both volume and profitability:



APPLE



CORN



TOMATO

\*2014 data based on responses to questionnaire





## Background

Massachusetts Farm to School (MFTS) is a non-profit organization that works to create a stronger and more vibrant food system by increasing the production, promotion, and consumption of healthy, locally-grown food. Since 2004, they have carried out this work by facilitating sustainable purchasing relationships between farms and institutional food service providers, promoting local food and agriculture education for students, and supporting state, regional and national networking of farm to school practitioners.

In 2009, MFTS conducted a phone survey to farmers to determine 2008 data including how many institutional customers the farmers had, what products they were selling, gross sales, and what was needed to improve sales to this market sector. This included calls to 41 farms and resulted in 29 completed surveys, a 70.7% response rate.

In 2011, MFTS conducted a questionnaire to evaluate the financial impact of institutional customers on Massachusetts farms during the prior year - 2010. This phone questionnaire used the 2009 survey as a starting point - asking some of the same questions about profitability, gross sales and products sold - but was more expansive, including questions about season extension, frequency of orders, and plans to continue. In the 2011 study, 108 farms were contacted and 73 surveys were completed (a 68% response rate). Results confirmed generally positive interest in institutional sales among responding Massachusetts farmers with 79% finding it profitable or somewhat profitable and 49 of 51 farms planning to continue selling to institutions. Survey results have proven helpful to MFTS staff in providing assistance to participating farmers.

In 2014, MFTS received a grant from the Northeast Sustainable Agricultural Service (NESARE) to do this follow-up study to evaluate the impact of institutional sales on participating Massachusetts farmers. This NESARE grant also provided funding to MFTS to conduct research through case studies of 3 farms that sell to institutions to assess the role of characteristics such as farm size, crop choice, and growing practices in determining the appropriateness of farm to institution sales. The results of that research will be published in a separate report.

In this study, 153 commercially active Massachusetts farms were contacted in early 2015 and asked to answer a one-page questionnaire, resulting in 70 responses - a 46% response rate. Similar data was gathered as in the 2011 study with a few additional questions for more in-depth information, including any expansion in volume that has occurred to meet the demand for institutional





sales, a percentage break-down between retail and wholesale overall for the farm, and interest in potential collaboration among farmers for delivery. This study provides an updated profile of Massachusetts farms that sold to institutions directly or through a distributor in 2014. Personal phone calls, with the option for respondent to fill out the questionnaire online, offered the opportunity to get detailed data and comments from individual farmers. Results will inform MFTS staff and others with updated information about institutional sales and its impact on Massachusetts farms - what is working well for farms selling to institutions and what could be improved to help increase sales opportunities for these farms within the institutional wholesale market. This report describes the process, results and an analysis of findings of this study of 2014 farm data.





# Process

Massachusetts Farm to School (MFTS) mailed an introductory letter to 164 farmers in early December 2014. The letter stated that MFTS would be contacting them in January to conduct a brief phone questionnaire to evaluate the impact of institutional sales on farm profitability. The letter stated that the call was estimated to only take 5 to 10 minutes and assured recipients that individual farm data collected would be kept confidential, and not shared or published outside MFTS, and that individual results would be aggregated. It was also noted that, as a thank you, all farmers that participated by February 15 would be entered in a raffle for a \$100 gift card with two winners, which served as an incentive for farmers to participate.

The list of farms, farm owners, and contact information came from MFTS's farmer database, which included farmers that have had some prior contact with MFTS staff to indicate that they either have previously sold to institutions or have had an interest in selling to institutions. It was determined after the letter was mailed that 3 of these farms were no longer in business, reducing the number of total farms on the list to 161. The list of farms was compared to the list of farms used in the 2011 survey and 8 farms were noted as not having sold to institutions at that time but still remained on the list. Therefore, to confirm that these farms still did not sell to institutions and therefore should be taken off the list, an email was sent to these 8 farms that stated, "The last time we conducted this survey, for 2010 farm sales, you indicated that you were NOT selling to schools or other institutions at this time. If this is still the case, and you did not sell directly



to schools/institutions in 2014 (either directly or through a distributor), please reply to this email to let me know and I will not call you.” Two of these 8 farmers sent an email reply that they do not sell to institutions, and this feedback was entered as a response. It was assumed from the lack of reply that the other 6 do not sell to institutions and are not interested so these 6 were removed from the list, reducing the total number of farms on the contact list further to 153.

Beginning in January, calls were made to all 153 farms remaining on the list using an interviewer-administered questionnaire. If there was no answer, a message was left to indicate the purpose of the survey and that a follow-up email would be sent. A follow-up email was sent the same day that included the purpose of the survey, a link to the online form, and a reminder that all respondents that complete the survey by February 15 would be entered into a raffle for a \$100



gift card. For those that did answer the phone, the administrator asked if they would answer questions to evaluate the impact of institutional sales, that it would likely only take 5-10 minutes, and were reassured that results would remain confidential by farm. All farmers who were directly reached by phone agreed to participate in the questionnaire. All contacts were attempted 2 to 3 times, typically one phone call followed by an email and then a second email to non-respondents within approximately 1 to 2 weeks. Answers were entered into the Google survey form online, either by the respondent or by the administrator, and results were automatically tabulated, downloaded into an Excel spreadsheet, and summarized.





# Results

Out of the 153 farms contacted, 70 completed questionnaires were returned, a 46% response rate.

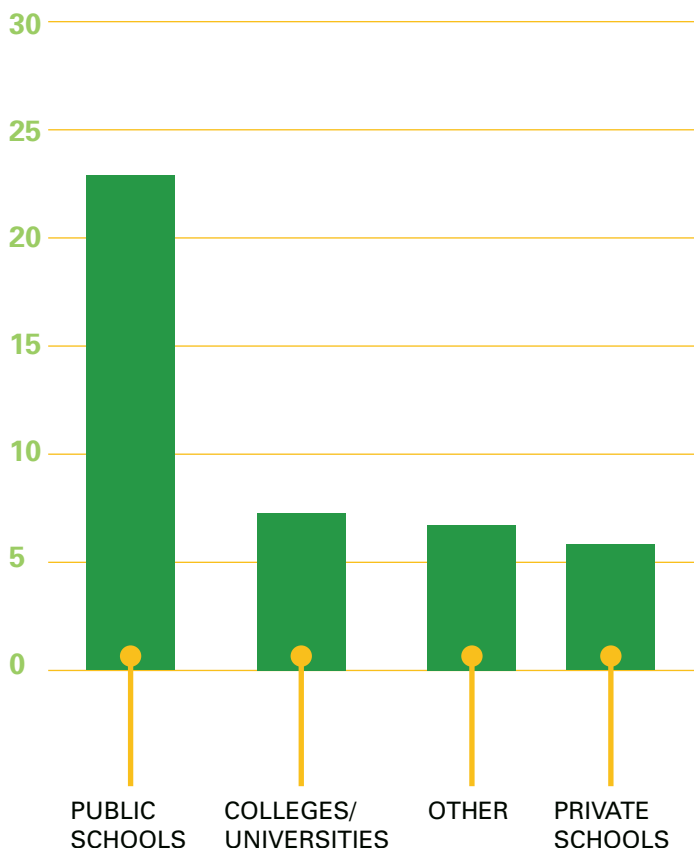
## INSTITUTIONAL MARKET

Institutions for the purposes of this study are defined as any public or private schools, colleges, hospitals, or other organizations that have dining services in which they serve food to students, patients, employees, or other visitors.

**Of the 70 respondents, 36 farms (51%) stated that they sold to institutions in 2014.** Of these 36 farms, 33 of them sold directly to the institutions and 3 farms did not sell direct, but rather sold to a distributor that then sold their farm products to one or more institutions. 10 of the 33 farms that sold directly to institutions also sold to one or more distributors that they know sold their products to institutions. It is likely that many farms that were contacted but did not respond to the questionnaire either do not currently sell to institutions and/or are not interested in pursuing institutions as a market for their farm products.

Respondents reported a total of 85 farm to institution purchasing relationships in which farm products were purchased by an institution in 2014. 70 of these were direct relationships between farms and the institutions and 15 were relationships between farms and distributors in which the farmers knew that the products were delivered to at least one institution. There were 48 separate institutions identified as purchasing products from responding farms, and some of these institutions bought from more than one farm.

**Table 1: Number of Institutions Purchasing Directly from Farms by Institution Type\***



\* Colleges and Universities includes both private and public colleges and universities

As shown in Table I, the most commonly reported institutions that purchased directly from Massachusetts farms in 2014 are public schools (24), followed by Colleges/Universities (9) Private Schools (7), and Other (8), which includes hospitals and social services organizations such as a retirement home and senior center.

The number of institutions reported, 48, has decreased substantially from the total 146 institutions reported in the 2010 survey. Many respondents did not answer the question as to how frequently they delivered to these

institutions. Those that did respond had answers that varied, ranging from twice per week (through a distributor) or weekly, to occasionally or once for a special event (at a college). Responding farms identified 12 distributors that they sold products to in 2014.

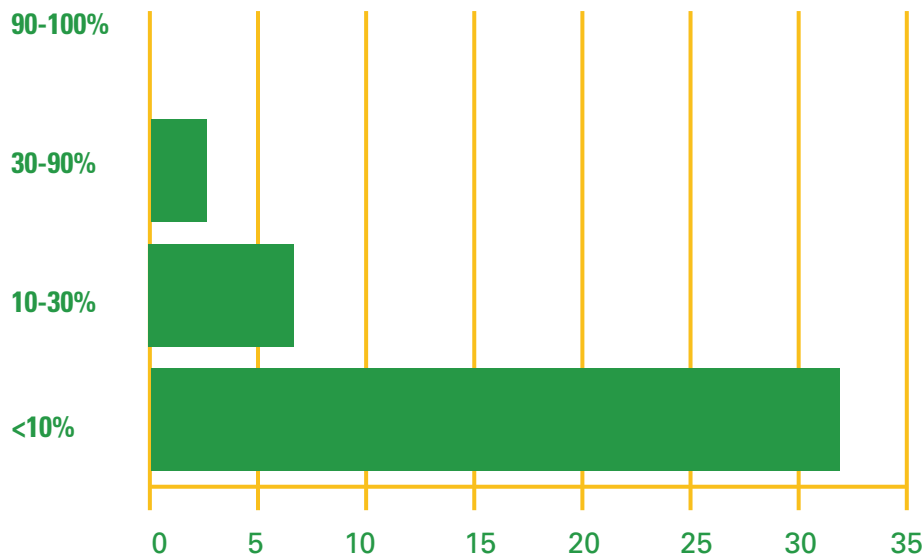
Respondents were asked to estimate the percentage breakdown overall for retail and wholesale sales at their farm. There were 41 responses to this question. There were a couple of farms that were entirely wholesale and a couple of farms that were entirely retail, but the vast majority of respondents indicated some division between retail and wholesale sales.

### SALES AND PROFITABILITY ●●●

22 respondents provided their gross institutional sales for 2014, totaling \$2,967,695. This total amount is understated in terms of representing total institutional sales of all respondents, as there were 13 respondents who answered that they sell to institutions but did not report their

sales. The amount of sales reported varied, with 50% of respondents between \$1,500 and \$10,000, 18% with sales between \$20,000 and \$90,000, and 23% with sales between \$125,000 and \$1,400,000. 2 farms (9%) reported less than \$100 in sales or negligible.

In order to account for the expectation that some farmers would not report gross sales amounts (either because they did not know or were not comfortable providing this personal information), a question was included that asked respondents to estimate total farm gross sales within a range, given six choices. As shown in Table 2, the majority of the 41 responding farms (30 farms, or 78%) reported that their institutional sales were less than 10% percent of their total gross sales and 6 farms (15%) reported sales between 10 – 30% of total gross sales. There were a few farms that generated a significant portion of their revenue from institutions in 2014: 3 farms (7%) reported institutional sales to be between 30 – 90% of their overall sales.



**Table 2:**  
**Percentage Institutional Sales of Total Gross Sales by Responding Farm\*\***

 # of farms

<sup>1</sup> Note: This question included the following additional response categories: 30-50%, 50-70%, and 70-90% ranges, but individual results were combined into one 30-90% category for reporting to protect the confidentiality of individual farms.

\*\*Out of 41 respondents





The final question related to profitability asked the more general question, “Do you think selling to institutions was profitable for you?”. 44 respondents answered this question, but 9 of these respondents did not sell to institutions in 2014, so were not included in the results. (It is assumed that these respondents based their answers either on perception of what would occur if they did sell to institutions or on past experience). Of the 34 remaining respondents that did sell to institutions in 2014, 22 farms or 65% answered, “Yes”, 5 farms or 15% answered “Somewhat”, and 7 farms or 21% answered “No”.

## PRODUCTS ●●●

There were many different types of products reported as sold to institutions in 2014. This was an open-ended question and a few answers were general, such as mixed vegetables, but most were quite specific, such as a hindquarter of a cow. Some farms only sold one product to institutions and others listed multiple products. Products varied from staples such as

apples, carrots and squash to more specialty products such as micro greens, artisanal cheese, horseradish, and mushroom growing kits.

The next question regarding products sold to institutions asked, “What product did you sell the most of in 2014 (greatest volume)?”. While answers varied, there were some commonly sold products among responding farms. Apples were clearly the product most sold to institutions, reported as the greatest volume sold by 11 respondents. Other products reported in response to this question by 2 or 3 farms include tomatoes, corn, maple syrup, produce/diverse product mix, carrots, milk, and ice cream. There were multiple other products reported by just one farm.

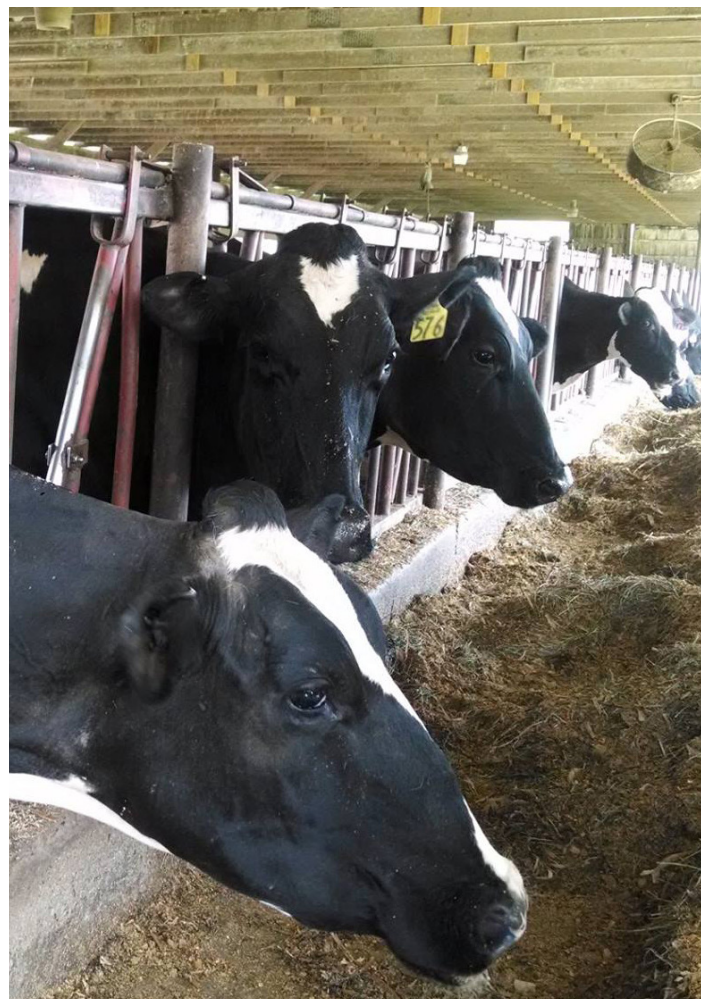
The final question regarding products sold to institutions asked “What product was most profitable overall in 2014?”. There were many common answers to the previous question about volume, with apples as the most profitable product reported by 10 farms. Products reported by 2 or 3 farms included tomatoes, corn, peaches,



greens, and maple syrup. Peaches are the only product that was not reported by any farm as sold in the greatest volume but was reported as the most profitable product by more than one farm. The diversity of other individual products sold to institutions by only one respondent shows that farms have identified a market within institutions for what they produce that appears to not have too much competition.

The questionnaire included the following question: “Did you expand your volume to meet demand for institutional sales?” and a follow-up question, “If you did expand volume, what did you do?” with response options listed, as well as an open-ended “Other” category. There were 41 responses to this question: 10 farms (24%) answered, “Yes” and 31 farms (76%) answered “No”. All those that answered Yes, that they did expand volume to meet demand for institutional sales, provided additional information about how they did this, and some farms expanded in more than one way, as shown by the following results:

- Winter Extension: 2 farms
- Expanded acreage (for new crop or to grow more of an existing crop): 6 farms
- Produced more volume on existing acreage: 2 farms
- Greenhouse production: 4 farms
- Cold Storage: 2 farms
- Processing: 4 farms
- Other: Pick differently for schools (1 farm); Root cellar for storage (1 farm); Froze products (1 farm)





## FUTURE PLANS ●●●

46 respondents answered the question, “Do you plan on continuing to sell to institutions?”. Out of these respondents, 30 farms (64%) said “Yes”, 11 farms (23%) said “Maybe”, and 6 (13%) said “No”. However, it is notable that these 46 responses included 10 farms that did not sell to institutions in 2014: 5 of these farms answered “No”, and 5 of these farms answered “Maybe”. The 5 farms that answered “Maybe” are not currently selling to institutions but their answers indicate they may be interested in expanding to this market in the future. Answers from the 5 that answered No indicate that they do not plan to start selling to institutions. By taking out these 10 responses to only focus on the farms that did sell to institutions in 2014 and what their future plans are, 36 respondents remain, resulting in 30 farms (83%) that answered Yes, 5 farms (14%)

that answered Maybe, and 1 farm (3%) answered No.

A follow-up question asked, “If you do not plan on continuing institutional sales or are not sure (If No or Maybe to 4a), what are your challenges?” with multiple options listed in addition to an open-ended other category. The top 3 challenges in order of most frequent response were:

- 1) Price
- 2) Growing enough volume
- 3) Delivery

Seasonality and type of product were noted as the next most common challenges. Other identified challenges include: profitability; convenience; no need to expand markets; schools prefer processed products; wholesale requirements; inconsistent ordering; schools didn’t use the produce; and labor. Comments concerning the challenges of selling to institutions include:

*“Most institutional buyers currently do not seem to value certified organic production practices, and thus are not willing to pay an adequate price that covers our certified organic costs of production. Also, many institutional food service kitchens seem to be unwilling to do actual cooking using fresh produce. Instead they want produce that has already been pre processed...”*

*“Most of our products are available in the summer, not during school season; Would like to sell schools corn but would have to freeze it; I used to work in a school cafeteria and know that they have little time for prep.”*

*“Inflexibility of schools - they want to order way in advance, can’t always deliver, depends on*



Photo Credit: Paul Franz

*weather, etc.; Small farm, grow variety, not large volumes of 1 product (except tomatoes), need to know what schools want, so I can plant it in the spring."*

*"if the price can be high enough to make a profit for the farmer, they are a good deal. In our state where markets are ready, it is a bit of a challenge to get the price selling wholesale when direct sales are sometimes more lucrative."*

*"Haven't had good luck with follow-through from institutions; may have potential but hasn't been a market I have pursued, partially due to price."*

*"Some produce goes to schools via gleaning. Sales have to be at a profitable level and schools are challenged to pay that much. Interest is good on both sides but needs and supplies and abilities don't always match."*

*"The way we are able to process products doesn't fit with what schools are looking for. Also, we are not able to produce consistent quantities over a period of time."*

It was asked of those that do plan on continuing institutional sales, "what would help you do this?". Answers varied. Some mentioned connections that MFTS staff could help them with, such as establishing relationships with more institutions or with specific institutions, or individual assistance regarding demand for their products. Answers also included general concerns about labor, logistics, and food safety requirements. A few stated that they were all set on their own. Other comments were more general, and include:

*"In most of the institutions the relation is not with the school, it is with a third party company that manages the kitchen. Building a relation with them is very important."*

*"Promoting concept of buying locally from farms to local and regional school systems (some understand, some don't)."*

*"If right opportunity, will consider, such as if it is on my wholesale route."*

*"We will continue as long as it is cost effective. Institutions need to order enough volume. We have a customer that picks up which works well as we can provide a better price for them."*

*"Establish a database of what the average price per unit of crop is for other local farm to institution transactions."*

*"Help do away with the commodities."*

*"Help institutions learn financially viable ways to introduce (my product) into their budget. Price is a concern."*





In response to a 2010 survey finding that some farms did not find it worthwhile to deliver small amounts of products at a time to schools, due to the time and fuel cost involved, this questionnaire included the following question, “Would you consider collaborating with other farmers to get products to institutions (i.e. delivery)?”. Out of 42 responses to this question, 15 respondents (36%) answered, “Yes”, 11 (26%) answered “No” and 12 (30%) answered “Maybe”. 3 respondents (7%) answered that they are already doing this. Open-ended comments in response to this question identified issues that prevent farmers from working together. There was concern expressed related to the impact of labor policies on farmers’ ability to serve as aggregators of farm products. There were also comments that farmers had tried working together in the past without success, concerns about differing schedules, locations, and refrigeration needs among farmers, and a comment that a lot of details would need to be worked out, such as who would do deliveries. While there were a couple of farmers that said they would consider collaboration, most farmers did not seem interested.



## Analysis of Findings

Total Gross Farm Income generated from sales to institutions in Massachusetts has increased significantly over the past 4 years. About half the number of farms generated more than double the amount of gross sales from this market in the 2010 study. In 2014, 22 responding farms reported a total of \$2,967,695 in total gross sales. Compared to a similar study of farms’ 2010 data in which 42 farms reported gross sales of \$1,321,900, the reported total gross sales

more than doubled, increasing approximately 125% over 4 years. The average gross sales per participating farm increased significantly from \$31,474 in 2010 to \$134,895 per farm in 2014.

Farms are selling to about 1/3 the number of institutions as was reported 4 years ago. 2010 survey results indicated that 146 institutions purchased from 51 responding farmers. These 2014 results identified only 48 institutions that purchased from 36 responding farmers. The number of farms that reported selling products through a distributor is about the same as it was in 2010 (12 farms sold to a distributor in 2014; 13 farms sold to a distributor in 2010). However, respondents were asked in both studies to only identify distributors that they know sold their products to institutions. Because some farms may not be aware of where their products end up after selling them to a distributor, there could be more products going to institutions through distributors than is captured by this study. More research is needed to determine whether institutions are actually buying less local farm products than a few years ago, or whether they are obtaining them through other sources, such as through distributors.

While institutional markets generated a relatively small percentage of overall sales for most farms,



this sales outlet may be part of a diversified marketing approach. While a few farms generated a significant portion of their overall farm sales from institutions, most responding farms (38 out of 41 responding farms, or 93%) reported institutional sales at less than 30% percent of total gross farm sales. The vast majority of respondents indicated a division between retail and wholesale sales for their farm and the majority of respondents plan to continue selling to institutions. It can be inferred from these results that while institutional sales alone is not a major revenue source for most participating farms, combined with other revenue sources it remains part of a diversified marketing approach for many.

Profitability is not the only factor in farmers' decisions to start or continue selling their products to schools and institutions. 22 of 34 respondents (65%) that sold to institutions in 2014 thought that it was profitable for them. 30 of 36 respondents (83%) that sold to institutions in 2014 plan to continue selling to institutions. So a higher percentage of respondents plan

to continue selling to institutions than found it profitable. Comments from respondents indicate other reasons that farms have decided to sell to institutions, such as maintaining existing relationships within the community. One respondent stated, "(We) don't do it because its profitable in itself, but because we have existing relationships, gives our business face time, which might benefit us." Another comment was, "(The) reason I sell to schools: for cash flow 9 months of the year and to local schools to get our name out there." And a third respondent stated, "it is important to me philosophically to sell to schools, part of why I run the farm is to introduce children to farming".

## Conclusion

Results from this questionnaire provide updated information about the number of farms selling to institutions in Massachusetts, how profitable it is for participating farms, what products are being sold, what is working or not working, and



how this is influencing decisions about whether farmers will continue selling their products to this wholesale market outlet. This information is valuable to MFTS staff to provide continued assistance to connect farmers and institutional buyers to expand the volume of institutional sales of local farm products in Massachusetts.

There are challenges to farms selling directly to institutions in Massachusetts from the farmers' point of view, including getting a high enough price to cover the costs of production, growing enough volume to meet institutional demand, and the time and fuel costs associated with delivery. Comments also indicate some difficulties with knowing what products to grow that institutional buyers will follow through and buy, and the limited amount of time that most dining services staff have for food preparation. Seasonality is a concern, with schools not open during summer months when much of the fresh farm products are available in Massachusetts, and it is a challenge to provide fresh products to institutional dining services staff when some may be used to purchasing processed or commodity products that require less preparation and can be stored longer. MFTS can help address some of these challenges by helping to build stronger relationships and systems of communication between farmers and the institutions that they are selling to, in order to help both parties understand each others' needs.

There are opportunities for farms to sell to institutions in Massachusetts as well, as indicated by the significant increase in total gross sales to institutions reported by farms since 2010. Some farms are expanding acreage or transitioning their growing and storage methods to meet the demand for institutional sales. Greenhouse production, root cellars, freezing products, and

cold storage are methods being utilized to extend the season and increase the volume of products available when school is in session. Processing is an option that a few farms are pursuing to provide products suitable for dining services staff that often do not have a lot of time or may not have the appropriate equipment to prepare fresh food from scratch.

Since 2010, there are fewer farms selling directly to a smaller number of institutions in Massachusetts. The majority of responding farms sold less than 30% of their overall gross sales to institutions in 2014. However, this market sector is generating more than \$2.96 million in sales to 22 farms. Compared to a similar study of 2010 farm data in which 42 farms reported gross sales of \$1,321,900, the reported total gross sales more than doubled over 4 years by about half as many farms. The average gross sales per participating farm increased significantly from \$31,474 per farm in 2010 to \$134,895 per farm reported in 2014. Institutions can contribute to a diversified mix of sales for farmers that are able to develop wholesale relationships with institutional customers, supply them with products that they are looking for, and, for some, adapt their operations to meet the needs of this market.