# **School Meals from Connecticut Farms**

Report on Connecticut Farm to School Surveys

Prepared by Debbie Humphries, PhD, MPH

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### 1) Introduction.

In 2004 the Connecticut State Department of Agriculture, in collaboration with the Hartford Food System, received a grant from the USDA Federal-State Marketing Improvement Program. This grant is to increase the Farm to School capacity within the State of Connecticut. Farm to School programs work to incorporate food from local farms into school meals and also to provide educational materials to increase student awareness of nutrition and agricultural issues. This report is part of an economic feasibility study conducted in Connecticut, to investigate farm to school potential. The final report will incorporate a background report on Farm to School Programs in Connecticut and other states, a survey of farmers and schools, and will investigate possible pathways to economic feasibility of the Farm to School program. This report covers the survey of farmers and schools and identifies possible structures for the Farm to School program.

## 2) Methodology

Three surveys were developed, tested and sent out. The Farmer survey covered questions of products available, delivery and processing capabilities, and pricing mechanisms (wholesale, retail or a combination). The School survey covered equipment available, menu planning and food purchasing, produce items purchased, and motivation, concerns and barriers to purchasing local products. The District survey covered information similar to the school survey.

- a) Farmer Survey. The Farmer survey was mailed to 130 farmers, from a list compiled by the Hartford Food System. This was a combination of farmers known to be selling products to schools (11), organic farmers (30), small farms (38) and wholesale farmers (51). The response rate was highest among farmers already participating in selling foods to schools (5/11), next among organic farmers (9/30), followed by a very low response rate among small farmers (5/38) and wholesale farmers (6/51). The list was not random, and we cannot assume that the responses are representative of Connecticut farmers. However, we can use the interest of the farmers that responded and their concerns in moving forward with the program, to identify possible frameworks for the program. Because of the important differences in practices for different size farms, we divided the farms into three sizes small (<5 acres), medium (5-25 acres) and large (>25 acres).
- b) <u>School Survey</u>. The School survey was mailed to 178 randomly selected schools. In addition, the survey was e-mailed to the Connecticut State Department of Education

School Child Nutrition e-mail distribution list. Of the 26 responses, 9 were from the mailing (9/178 – 5%), and 17 were from the e-mail appeal (1000+ - specific number not known). Thus the school response, in addition to being quite low, is actually a response from all the schools, rather than a subsample. We wanted to consider whether there were differences in produce purchases and use for different school levels. However, it was difficult to separate schools. A number of responses were from schools that combined different levels such as combination elementary schools and middle schools, and others were stand alone elementary, middle or high schools. We divided schools into four categories – elementary schools (ES=8 schools), elementary and middle (combined elementary and middle and middle alone ES/MS= 7 schools), middle and high (combined middle and high and high alone MS/HS=8 schools), and schools with all twelve grades (ES/MS/HS=3 schools, all small private schools).

- c) <u>District Survey</u>. The District survey was mailed to 159 districts and also e-mailed to the Connecticut State Department of Education School Child Nutrition e-mail distribution list. There were 70 district surveys returned for a response rate of 44%. There are an estimated 527,000 students enrolled in Connecticut public schools, and survey responses covered over 300,000 students. Because of the variation in size, we divided the districts into four categories (<1500, 1501-3000, 3001-6000, and >6000), based on the number of students.
- 3) Most Commonly Used Produce Items. Districts and schools were asked the question "What were the top 6 FRESH PRODUCE purchases you made in 2003-2004?" The intention was to determine which products were more likely to be purchased in a high enough volume to be profitable to farmers. The list was very similar for schools and districts, as would be expected (See Table 1). The most commonly purchased produce item was apples, followed by lettuce and tomatoes. Of the districts responding, 87% reported that apples were one of the top six items and 80% reported purchasing tomatoes as one of the top 6 items.

Table 1. Top Produce Purchases as a percentage of respondents

| Schools   | Apples | Lettuce | Tomatoes | Cucumbers | Oranges | Carrots | Bananas | Peppers | Potatoes |
|-----------|--------|---------|----------|-----------|---------|---------|---------|---------|----------|
| ES (8)    | 75.0   | 62.5    | 50.0     | 50.0      | 50.0    | 50.0    | 12.5    | 37.5    | 25.0     |
| ES-MS (7) | 71.4   | 42.9    | 42.9     | 28.6      | 42.9    | 14.3    | 28.6    | 0.0     | 0.0      |
| MS-HS (8) | 87.5   | 75.0    | 75.0     | 50.0      | 37.5    | 50.0    | 37.5    | 25.0    | 25.0     |
| ES-HS (3) | 0.0    | 100.0   | 100.0    | 66.7      | 33.3    | 0.0     | 0.0     | 33.3    | 66.7     |
| All       | 72.0   | 68.0    | 64.0     | 48.0      | 44.0    | 36.0    | 24.0    | 24.0    | 24.0     |
|           |        |         |          |           |         |         |         |         |          |

| Districts      |      |      |      |      |      |      |      |      |  |
|----------------|------|------|------|------|------|------|------|------|--|
| <1500 (18)     | 72.2 | 66.7 | 61.1 | 61.1 | 61.1 | 33.3 | 16.7 | 22.2 |  |
| 1501-3000 (17) | 94.1 | 76.5 | 76.5 | 35.3 | 70.6 | 52.9 | 11.8 | 41.2 |  |
| 3001-6000 (19) | 89.5 | 73.7 | 94.7 | 73.7 | 57.9 | 52.6 | 36.8 | 26.3 |  |
| >6000 (16)     | 93.8 | 87.5 | 78.5 | 31.3 | 68.8 | 56.3 | 37.5 | 25.0 |  |
| All            | 87.1 | 75.7 | 80.0 | 51.4 | 64.3 | 48.6 | 25.7 | 28.6 |  |

Districts and schools were also asked "What were the top 6 PREPARED PRODUCE purchases you made in 2003-2004?" Here there were fewer districts and schools that reported purchasing prepared produce, though 50% of the districts and 44% of the schools did report purchasing shredded lettuce, and 20% of the schools and 43% of the districts reported purchasing salad mix. The other primary prepared items were baby carrots and cut celery.

**Table 2. Top Processed Produce Items** 

| Schools   |                | Shredded Lettuce | <b>Baby Carrots</b> | <b>Cut Celery</b> | Salad Mix |
|-----------|----------------|------------------|---------------------|-------------------|-----------|
|           | ES (8)         | 25.0             | 50.0                | 37.5              | 25.0      |
|           | ES-MS (7)      | 57.1             | 14.3                | 42.9              | 14.3      |
|           | MS-HS (8)      | 37.5             | 25.0                | 12.5              | 25.0      |
|           | ES-HS (3)      | 66.7             | 0.0                 | 0.0               | 0.0       |
|           | All            | 44.0             | 28.0                | 28.0              | 20.0      |
| Districts |                |                  |                     |                   |           |
|           | <1500 (18)     | 44.4             | 38.9                | 27.8              | 38.9      |
|           | 1501-3000 (17) | 35.3             | 41.2                | 17.6              | 52.9      |
|           | 3001-6000 (19) | 57.9             | 47.4                | 47.4              | 47.4      |
|           | >6000 (16)     | 62.5             | 31.3                | 37.5              | 31.3      |
|           | All            | 50.0             | 40.0                | 32.9              | 42.9      |

- 4) <u>Characteristics of Farms</u>. Twenty five farmers responded to the survey. Using the different size categories we looked at whether different size farmers were more likely to have different products and pricing and delivery practices (See Table 3A).
  - a) <u>Currently Selling to Schools</u>. Eight farmers (out of 25) responded that they are currently selling products to schools. More large farmers supplied schools than small farmers (57% vs. 10%), and the proportion of mid-size farmers was in between the two. This suggests that for purposes of the Farm to School program, it is most important to target medium and large farms, those over at least 5 acres.

Table 3A. Farm Characteristics

| Ti T |       |        |        |       |
|--|-------|--------|--------|-------|
|  | Small | Medium | Large  | All   |
| <b>Products Available</b>                |       |        |        |       |
| Apples                                   | 0.0%  | 37.5%  | 42.9%  | 24.0% |
| Pears                                    | 0.0%  | 0.0%   | 28.6%  | 8.0%  |
| Potatoes                                 | 20.0% | 12.5%  | 0.0%   | 12.0% |
| Cider                                    | 0.0%  | 0.0%   | 14.3%  | 4.0%  |
| Can Expand                               | 30.0% | 87.5%  | 85.7%  | 64.0% |
| Can Deliver                              | 20.0% | 87.5%  | 100.0% | 64.0% |
| Pricing Structure                        |       |        |        |       |
| Wholesale                                | 10.0% | 75.0%  | 85.7%  | 52.0% |
| Retail                                   | 60.0% | 25.0%  | 14.3%  | 36.0% |
| Selling to Schools                       | 10.0% | 37.5%  | 57.1%  | 32.0% |

b) <u>Common Products</u>. The most common products farmers mentioned were apples, followed by peaches, pears, tomatoes, lettuce, onions and peppers (See Table 3B). Ten farmers grow apples, six grow peaches and another six grow tomatoes, five grow pears, potatoes, peppers and squash, four grow strawberries and cucumbers, and three farmers reported growing lettuce, beans, and blueberries. Six farmers reported growing "vegetables," and their response could not be categorized. Table 3B focuses on products that schools have expressed an interest in, to see how much overlap and potential supply there is. We asked whether farmers could expand their farming operation for farm to school programs. Sixteen farmers responded that they could. Of these 16, three were small (30%) and thirteen were medium and large (87% & 86% respectively).

Table 3B. Farm Products

| Farm Size | Lettuce | Tomatoes | Apples | Pears | Strawberries | Potatoes | Cucumbers | Peppers |
|-----------|---------|----------|--------|-------|--------------|----------|-----------|---------|
| Small     | 20.0%   | 20.0%    | 0.0%   | 0.0%  | 10.0%        | 20.0%    | 10.0%     | 10.0%   |
| Medium    | 0.0%    | 25.0%    | 62.5%  | 0.0%  | 12.5%        | 37.5%    | 25.0%     | 25.0%   |
| Large     | 14.3%   | 28.6%    | 71.4%  | 71.4% | 28.6%        | 0.0%     | 14.3%     | 28.6%   |
| All       | 12.0%   | 24.0%    | 40.0%  | 20.0% | 16.0%        | 20.0%    | 16.0%     | 20.0%   |

c) <u>Delivery and Processing Available</u>. Only three farmers responded that they do value-added processing, but sixteen reported having the equipment and personnel to deliver to schools. Almost all of the medium and large farms reported delivery capabilities, while only 20% of the small farms could.

- d) <u>Pricing Structure</u>. A number of the farmers (12/26) use wholesale pricing. Again, it is the medium and large farmers that use wholesale pricing. Eight farmers use retail pricing, three did not respond to the question, one uses both wholesale and retail depending on point of sale, and the last one uses another method of pricing but did not elaborate. Wholesale pricing is important as it increases the likelihood the farmer can provide competitive prices for schools.
- 5) <u>Characteristics of Districts and Schools.</u> We expect that elementary schools, middle schools and high schools will offer different foods. In fact, when we asked districts about whether menus vary, the most common variation they described was differences between the elementary schools and upper grades.

### a) Schools.

Equipment. In order to prepare fresh produce, schools need to have onsite food preparation and access to appropriate equipment, such as refrigerators and freezers. Table 4A shows that few schools have salad bars. Salad bars, because of the emphasis on fresh produce, increase the volume of produce schools use. It is important to note that half the middle and high school category have salad bars (4/8).

Menu Planning, ordering and delivery. For schools to purchase local items, it is helpful for them to plan their own menus, order their own produce and have it delivered to them. Unfortunately, of the schools that responded, over 60% reported that their districts have centralized ordering (Table 4A). This makes it difficult for individual schools to decide to use local produce. However, 54% develop their own menus on site, which allows opportunity to incorporate available seasonal foods.

Table 4A. Characteristics of Schools

|             | Onsite Prep | Freezer | salad bar | central ordering | site menus |
|-------------|-------------|---------|-----------|------------------|------------|
| ES (8)      | 87.5%       | 100.0%  | 12.5%     | 75.0%            | 62.5%      |
| ES&MS (7)   | 71.4%       | 100.0%  | 28.6%     | 57.1%            | 28.6%      |
| MS&HS (8)   | 87.5%       | 87.5%   | 50.0%     | 62.5%            | 50.0%      |
| ES,MS,HS(3) | 0.0%        | 0.0%    | 0.0%      | 66.7%            | 100.0%     |
| All         | 73.1%       | 84.6%   | 26.9%     | 65.4%            | 53.8%      |

b) <u>Districts</u>. Seventy districts out of 163 districts in the state responded to the survey.

Menu Planning, ordering and delivery. For districts that are interested in local purchases it will be easier if there is centralized ordering and menu planning. Table 4B shows that 50-69% of the districts have centralized ordering, and 61-100% use district menu planning.

If an individual school is going to initiate local purchase it is important that they have relative autonomy over their menu and ordering. Table 4B also shows that 20-33% of the districts have decentralized ordering and 11-28% develop their own menus.

Another concern that was expressed by a few farmers and districts is whether the farmer will be able to deliver to all the schools. One large farmer specified that he would have to deliver to one site. For those farmers that want a central delivery point, it will most likely be best for districts that have some capacity for delivering to schools themselves. If farmers are able to deliver to multiple sites, it will work best for smaller districts where there are fewer delivery points. Just over half the districts use central ordering.

Table 4B. Characteristics of Districts

|                | <b>Central Orders</b> | <b>Decentral Orders</b> | District delivers | District Menus | Site Menus | Menus Vary |
|----------------|-----------------------|-------------------------|-------------------|----------------|------------|------------|
| <1500 (18)     | 50.0%                 | 33.3%                   | 5.6%              | 61.1%          | 27.8%      | 44.4%      |
| 1501-3000 (17) | 52.9%                 | 29.4%                   | 17.6%             | 82.4%          | 11.8%      | 100.0%     |
| 3001-6000 (19) | 68.4%                 | 21.1%                   | 26.3%             | 89.5%          | 21.1%      | 42.1%      |
| >6000 (16)     | 50.0%                 | 31.3%                   | 37.5%             | 100.0%         | 12.5%      | 75.0%      |
| AII (70)       | 55.7%                 | 28.6%                   | 21.4%             | 82.9%          | 18.6%      | 78.6%      |

c) <u>Suppliers</u>. There are ten suppliers that a number of schools and districts purchase from (See Table 4C). There are also a number of suppliers that were mentioned by one or two schools or districts. Several of the top ten suppliers are local businesses who may be amenable to tracking and reporting local purchases for schools. This option should be pursued, as it would allow schools to intentionally purchase local produce without adding an additional agent (the farmer) to the list of those they work with.

Table 4C. Top Suppliers

| Supplier         | District | Schools |
|------------------|----------|---------|
| *Fowler          | 10       | 3       |
| ?G&A             | 5        |         |
| *Mancarella      | 2        | 2       |
| *Michaels        | 5        | 3       |
| *Pezzello Bros   | 5        |         |
| ?PFG Springfield | 4        |         |
| Sysco            | 11       | 6       |
| *Thurstons       | 25       | 11      |
| Vistar           | 9        | 3       |

\*Local company; ?Not sure

6) <u>Likelihood of purchasing local items.</u> In addition to asking about current practices and equipment, we also asked both school and district respondents whether they agreed or disagreed with the statement "I would purchase food directly from a local producer (grower/farmer) if price and quality were competitive and a source was available." Table 5A shows that if quality and price were competitive most of the schools (85%) and districts (88.6%) strongly agreed or agreed that they would purchase local products.

Table 5A. Purchase if Competitive Price and Quality

| Table JA. Tulche | ise ii compentive i | iice and | Quanty   |                   |           |
|------------------|---------------------|----------|----------|-------------------|-----------|
| District         | Strongly Agree      | Agree    | Disagree | Strongly Disagree | Uncertain |
| <1500 (18)       | 44.4%               | 44.4%    | 0.0%     | 5.6%              | 5.6%      |
| 1501-3000 (17)   | 70.6%               | 23.5%    | 0.0%     | 0.0%              | 5.9%      |
| 3001-6000 (19)   | 63.2%               | 21.1%    | 5.3%     | 0.0%              | 10.5%     |
| >6000 (16)       | 62.5%               | 25.0%    | 6.3%     | 0.0%              | 6.3%      |
| AII              | 60.0%               | 28.6%    | 2.9%     | 1.4%              | 7.1%      |
| Schools          |                     |          |          |                   |           |
| ES (8)           | 62.5%               | 12.5%    | 0.0%     | 0.0%              | 25.0%     |
| ES-MS (7)        | 57.1%               | 28.6%    | 0.0%     | 0.0%              | 14.3%     |
| MS-HS (8)*       | 62.5%               | 25.0%    | 0.0%     | 0.0%              | 0.0%      |
| ES-HS (3)        | 66.7%               | 33.3%    | 0.0%     | 0.0%              | 0.0%      |
| All              | 61.5%               | 23.1%    | 0.0%     | 0.0%              | 11.5%     |

<sup>\*</sup>One School did not respond to the question, so percentages do not add up.

Since we are aware that at times local products are more expensive, we also asked school and district respondents whether "My program would be willing to pay a higher price to buy locally produced foods to serve in cafeterias." As shown in Table 5B, most of the respondents disagreed with, strongly disagreed with, or were uncertain about this question. Interestingly, no schools strongly agreed with the statement, but some districts did, indicating a district

commitment to local produce, and a likelihood that they would purchase locally. [Check Table 5B with free and reduced price information.]

Table 5B. Would Pay a Higher Price

|          | D. Would I ay  |                |       |          |                   |           |
|----------|----------------|----------------|-------|----------|-------------------|-----------|
| District |                | Strongly Agree | Agree | Disagree | Strongly Disagree | Uncertain |
|          | <1500 (18)     | 11.1%          | 16.7% | 16.7%    | 22.2%             | 33.3%     |
|          | 1501-3000 (17) | 11.8%          | 17.6% | 29.4%    | 5.9%              | 35.3%     |
|          | 3001-6000 (19) | 21.1%          | 10.5% | 15.8%    | 15.8%             | 36.8%     |
|          | >6000 (16)     | 0.0%           | 31.3% | 31.3%    | 12.5%             | 25.0%     |
|          | All            | 11.4%          | 18.6% | 22.9%    | 14.3%             | 32.9%     |
| Schools  | 5              |                |       |          |                   |           |
|          | ES (8)         | 0.0%           | 12.5% | 12.5%    | 12.5%             | 62.5%     |
|          | ES-MS (7)      | 0.0%           | 28.6% | 14.3%    | 28.6%             | 28.6%     |
|          | MS-HS (8)*     | 0.0%           | 25.0% | 37.5%    | 25.0%             | 0.0%      |
|          | ES-HS (3)      | 33.3%          | 0.0%  | 0.0%     | 66.7%             | 0.0%      |
|          | All            | 3.8%           | 19.2% | 19.2%    | 26.9%             | 26.9%     |

<sup>\*</sup>One School did not respond to the question, so percentages do not add up.

7) Top Wanted Produce Items. Schools and Districts were asked to choose from a list of Connecticut grown products those local foods they would be interested in purchasing. The most common foods were lettuce, apples, tomatoes and cucumbers (See Table 6). These foods are also the top four items on the list of most commonly purchased items (See Table 1). There appears to be significant interest from Connecticut school food service personnel in purchasing products that are grown in Connecticut. The key question is how to make the purchase, delivery and payment system smooth and economically viable. Crop budgets available from the University of Massachusetts at Amherst website for (http://www.umassvegetable.org/ food farming\_systems/crop\_production\_budgets/) make it clear that lettuce is most consistently profitable, in terms of net revenues per acre. Tomatoes, cucumbers, peppers and tomatoes all depend on the wholesale price at time of sale and the yield per acre. According to the crop budgets from Rutgers University (which are now in the process of being revised and are no longer available on-line) profitability of apples, strawberries and peaches is also marginal. Thus farmers who make a direct connection to a school district and are able to sell a sufficient volume at slightly above wholesale, may find it beneficial financially.

Table 6. Desired Produce Items

| Schools   | Lettuce | Tomatoes | Apples | Pears | Strawberries | Potatoes | Cucumbers | Onions | Peppers |
|-----------|---------|----------|--------|-------|--------------|----------|-----------|--------|---------|
| ES (8)    | 62.5%   | 50.0%    | 62.5%  | 50.0% | 37.5%        | 25.0%    | 50.0%     | 25.0%  | 37.5%   |
| ES-MS (7) | 57.1%   | 71.4%    | 57.1%  | 57.1% | 71.4%        | 14.3%    | 57.1%     | 28.6%  | 42.9%   |
| MS-HS (8) | 87.5%   | 87.5%    | 75.0%  | 37.5% | 50.0%        | 75.0%    | 87.5%     | 50.0%  | 50.0%   |
| ES-HS (3) | 100.0%  | 100.0%   | 100.0% | 66.7% | 66.7%        | 100.0%   | 100.0%    | 100.0% | 100.0%  |

| AII (26)       | 73.1% | 73.1% | 69.2% | 50.0% | 53.8% | 46.2% | 69.2% | 42.3% | 50.0% |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Districts      |       |       |       |       |       |       |       |       |       |
| <1500 (18)     | 50.0% | 83.3% | 83.3% | 50.0% | 44.4% | 50.0% | 61.1% | 44.4% | 55.6% |
| 1501-3000 (17) | 70.6% | 88.2% | 94.1% | 52.9% | 76.5% | 47.1% | 82.4% | 70.6% | 64.7% |
| 3001-6000 (19) | 63.2% | 78.9% | 84.2% | 78.9% | 52.6% | 57.9% | 68.4% | 63.2% | 73.7% |
| >6000 (16)     | 87.5% | 87.5% | 93.8% | 87.5% | 81.3% | 37.5% | 81.3% | 68.8% | 75.0% |
| AII (70)       | 67.1% | 84.3% | 88.6% | 67.1% | 62.9% | 48.6% | 72.9% | 61.4% | 67.1% |

- 8) <u>Motivations, Concerns, Barriers</u>. In order to prepare materials to work with schools and districts on Farm to School issues, it is important to understand the perceptions and concerns of school food service personnel. We asked three questions designed to investigate motivations to serve local products, concerns about purchasing local produce, and barriers to serving local produce.
  - a) <u>Motivations</u>. We asked both school and district personnel "what would motivate you to serve locally grown or processed foods in your cafeteria?" The most common responses from schools and districts were to support the local economy and local community (See Table 7A). For schools, the next most common response was to get a higher quality food. For districts, the next most common response was to get access to fresher food. Both the school and the district responses make it clear that food service personnel value local products, and they are aware that local products are generally fresher and of a higher quality.

Table 7A. What would Motivate you to serve local foods

| Schools        | Support Local | Increase F&V | Help CT | Fresher | Quality | Good PR |
|----------------|---------------|--------------|---------|---------|---------|---------|
| ES (8)         | 50.0%         | 62.5%        | 50.0%   | 37.5%   | 50.0%   | 50.0%   |
| ES-MS (7)      | 57.1%         | 28.6%        | 42.9%   | 42.9%   | 57.1%   | 42.9%   |
| MS-HS (8)      | 50.0%         | 50.0%        | 50.0%   | 62.5%   | 50.0%   | 50.0%   |
| ES-HS (3)      | 100.0%        | 100.0%       | 100.0%  | 100.0%  | 100.0%  | 66.7%   |
| AII (26)       | 57.7%         | 53.8%        | 53.8%   | 53.8%   | 57.7%   | 50.0%   |
| Districts      |               |              |         |         |         |         |
| <1500 (18)     | 77.8%         | 44.4%        | 61.1%   | 61.1%   | 44.4%   | 50.0%   |
| 1501-3000 (17) | 82.4%         | 47.4%        | 76.5%   | 64.7%   | 52.9%   | 70.6%   |
| 3001-6000 (19) | 84.2%         | 52.6%        | 78.9%   | 78.9%   | 52.6%   | 63.2%   |
| >6000 (16)     | 100.0%        | 62.5%        | 56.3%   | 87.5%   | 87.5%   | 56.3%   |
| AII (70)       | 80.0%         | 54.3%        | 68.6%   | 72.9%   | 58.6%   | 60.0%   |

b) Concerns about Purchasing Local Foods. In addition to asking about motivations to serve local products, we also asked schools and districts "what concerns to do you have with regard to purchasing locally produced foods?" Here both schools and districts were most concerned about the cost (See Table 7B). There was also some

concern about the reliability of the supply – could local farmers be a reliable source of produce. Other common concerns included delivery considerations and quality.

Table 7B. Concerns about local foods

|   |                |        |             | Consistenc |        |          |        |         |
|---|----------------|--------|-------------|------------|--------|----------|--------|---------|
| _ |                | Safety | Reliability | у          | Volume | Delivery | Cost   | Quality |
| 9 | Schools        |        |             |            |        |          |        |         |
|   | ES (8)         | 12.5%  | 37.5%       | 0.0%       | 25.0%  | 62.5%    | 75.0%  | 25.0%   |
|   | ES-MS (7)      | 42.9%  | 57.1%       | 57.1%      | 42.9%  | 71.4%    | 85.7%  | 42.9%   |
|   | MS-HS (8)      | 37.5%  | 37.5%       | 50.0%      | 37.5%  | 37.5%    | 87.5%  | 62.5%   |
|   | ES-HS (3)      | 66.7%  | 66.7%       | 33.3%      | 33.3%  | 66.7%    | 100.0% | 100.0%  |
|   | All            | 34.6%  | 46.2%       | 34.6%      | 34.6%  | 57.7%    | 84.6%  | 50.0%   |
| [ | Districts      |        |             |            |        |          |        |         |
|   | <1500 (18)     | 50.0%  | 61.1%       | 22.2%      | 44.4%  | 44.4%    | 61.1%  | 33.3%   |
|   | 1501-3000 (17) | 47.1%  | 58.8%       | 35.3%      | 35.3%  | 70.6%    | 82.4%  | 35.3%   |
|   | 3001-6000 (19) | 26.3%  | 57.9%       | 26.3%      | 47.4%  | 84.2%    | 68.4%  | 26.3%   |
|   | >6000 (16)     | 56.3%  | 87.5%       | 56.3%      | 50.0%  | 62.5%    | 75.0%  | 43.8%   |
|   | All            | 44.3%  | 65.7%       | 34.3%      | 44.3%  | 65.7%    | 71.4%  | 34.3%   |

c) <u>Barriers to Purchasing Local Foods</u>. We also asked districts and schools "what barriers currently stop you from purchasing foods directly from local producers?" Both schools and districts identified the lack of local products available during certain times of the year (seasonality) as a key barrier (see Table 7C). Other identified barriers included a lack of local producers in the area from whom to purchase, and budget constraints.

Table 7C. Barriers to purchasing local foods

|                | N. B. Janes  | 0 1''(      | D      | Convenienc |            | 01-11-1  | Dell'elle |
|----------------|--------------|-------------|--------|------------|------------|----------|-----------|
|                | No Producers | Seasonality | Budget | е          | Facilities | Staffing | Policies  |
| Schools        |              |             |        |            |            |          |           |
| ES (8)         | 12.5%        | 50.0%       | 37.5%  | 12.5%      | 25.0%      | 25.0%    | 0.0%      |
| ES-MS (7)      | 28.6%        | 28.6%       | 28.6%  | 28.6%      | 28.6%      | 14.3%    | 14.3%     |
| MS-HS (8)      | 50.0%        | 37.5%       | 37.5%  | 25.0%      | 0.0%       | 0.0%     | 25.0%     |
| ES-HS (3)      | 0.0%         | 33.3%       | 0.0%   | 33.3%      | 0.0%       | 0.0%     | 33.3%     |
| AII            | 26.9%        | 38.5%       | 30.8%  | 23.1%      | 15.4%      | 11.5%    | 15.4%     |
| Districts      |              |             |        |            |            |          |           |
| <1500 (18)     | 55.6%        | 55.6%       | 27.8%  | 22.2%      | 33.3%      | 33.3%    | 11.1%     |
| 1501-3000 (17) | 52.9%        | 64.7%       | 29.4%  | 23.5%      | 17.6%      | 23.5%    | 0.0%      |
| 3001-6000 (19) | 57.9%        | 63.2%       | 21.1%  | 36.8%      | 26.3%      | 26.3%    | 10.5%     |
| >6000 (16)     | 50.0%        | 62.5%       | 31.3%  | 31.3%      | 25.0%      | 25.0%    | 31.3%     |
| All            | 54.3%        | 61.4%       | 27.1%  | 28.6%      | 25.7%      | 27.1%    | 12.9%     |

- 9) <u>Potential Farm to School Pathways</u>. For this project to be economically viable, schools and districts will need to have a supply route that matches their needs. The variety of concerns and practices suggests that multiple pathways for connecting farmers and schools will be necessary. Some farmers may be able to work directly with schools and others will be better served by going through a wholesaler.
  - a) Pathway A: Direct Connection, centralized delivery. For the program to make a contribution to farmer incomes through direct connections, farmers need to sell a significant amount of product to the schools. This will require that a farmer be matched with enough school districts to purchase a sufficient portion of their product. The proportion available for farm to school will vary with farm size and management practices. Some farmers will want to deliver to one central location. This will most likely work best for districts with centralized menu planning and delivery capability. Table 8 shows that 14 of the districts interested in Farm to School (agree or strongly agree to question in 6A above) have these characteristics.
  - b) Pathway B: Direct Connection, decentralized delivery. Farmers that are willing to deliver to schools will be best matched with districts without too many schools (we used less than 10). Also, if farmers are delivering to individual schools, it may work best for districts where schools are in control of menus. Table 8 shows that only 6 of the districts meet these characteristics.
  - c) Pathway C: Wholesale Purchases. For farmers who are already going through a wholesaler, and school districts that cannot feasibly work directly with a farmer, the schools could choose to indicate to the wholesaler a preference for Connecticut Grown produce. This model would follow up on the Farm Fresh Start pilot program of the Hartford Food System, where Fowler & Hunting provided tracking on the invoices of which products were Connecticut Grown. This pathway will work for the most schools, though it will be more difficult for farmers and food service personnel to be aware of a Farm to School connection.

Table 8. Districts for Potential Farm to School Pathways

|           | <1500 (18) | 1501-3000 (17) | 3001-6000 (19) | >6000 (16) | All |
|-----------|------------|----------------|----------------|------------|-----|
| Pathway A | 1          | 2              | 5              | 6          | 14  |
| Pathway B | 2          | 1              | 3              | 2          | 8   |
| Pathway C | 15         | 12             | 11             | 8          | 46  |

## 10) Conclusions and Recommendations.

Based on the results of the surveys, there appears to be significant interest from both schools and districts in purchasing local products. In addition, farmers are interested in developing schools as an additional market. There are clear concerns from districts and schools about local purchases, including cost and a reliable supply, which will need to be kept in mind as the program moves forward. Some food service personnel also reported difficulty finding out what was currently ripe in Connecticut.

We suggest three different areas on which to work: (1) direct connections between farms and school districts, with a focus on districts identified through the survey; (2) wholesaler connections where wholesalers provide a Connecticut Grown section on the school produce invoices; and (3) a "what's ripe in Connecticut" update from the Department of Agriculture that could be e-mailed to the food service list serve on a regular basis.