

FOOD SAFETY PROCEDURES FOR FARM DIRECT MARKETING ACTIVITIES FY 2010

With the rising numbers of food borne illnesses being reported in the news, increasing numbers of consumers are drawn to farm direct marketing outlets in search of a safe food source. A food borne illness outbreak at a farm direct marketing venue would be disastrous, not only to the farmer whose product or practices may have caused the illness, but to the entire farm direct marketing industry. This project brought together a committee of farmers market managers of various sized markets, Food Safety regulatory agencies, Cornell Good Agricultural Practices program administrators, farmers with broad direct marketing experience, Cornell Cooperative Extension Educators, insurance agents and a communications specialist to analyze the risks inherent in direct marketing activity including farmers markets, on-farm stands, direct delivery, agri-tourism, pick-your-own operations and CSAs. The goal was to give farmers the tools they need to keep their foods safe, build consumer confidence in their products and, ultimately, maintain and enhance farm sustainability. The 15-month effort resulted in a series of fact sheets and a training curriculum. These comprehensive resources are applicable to direct marketing operations across the United States, and as such are a unique and valuable contribution toward improving food safety. During the project Extension Educators involved in the project gave multiple presentations of the material, and completed case studies which appear at the end of the final report.

FINAL REPORT

FACT SHEETS

- **Food Safety Recommendations for Farmers Markets**
- **Community Supported Agriculture Recommendations**
- **On Farm Sales Recommendations**
- **Agritourism Recommendations**
- **Direct Delivery Recommendations**
- **Crisis Communication Guidelines**

FOOD SAFETY TRAINING CURRICULUM

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**Food Safety at Direct Marketing Venues
Final Report
Farmers Market Federation of NY
Cornell Cooperative Extension of Jefferson County**

Issue to be Addressed

Food borne illnesses can be devastating to agriculture. Spinach farmers in 2006 lost millions in sales due to an E coli O157:H7 outbreak traced back to bagged, fresh spinach from California. In 2008, E coli, turned up in jalapeno and Serrano peppers. Tomatoes were initially blamed, just as Florida tomatoes were coming into their prime season. Florida tomato growers, unable to break through the stranglehold on their crop, were forced to leave acres un-harvested, resulting in multimillion dollar losses.

With the rising numbers of food borne illnesses being reported in the news, increasing numbers of consumers are drawn to farm direct marketing outlets in search of a safe food source. While consumers relish the opportunity to reconnect with long past agricultural roots, they are now finding that getting to know the producers of the foods they feed their families holds greater importance. There is comfort in putting a face to their food, getting to know farmers, and being able to question production techniques, harvest and post harvest practices. Consumers feel better about their food choices and more confident that they are feeding their families healthy and safe foods.

With consumer confidence in the direct farmer to consumer relationship, a food borne illness outbreak at a farm direct marketing venue would be disastrous, not only to the farmer whose product or practices may have caused the illness, but to all farmers in similar venues, as well as to taint the entire farm direct marketing industry. Increasing numbers of farms are using direct marketing venues, such as roadside stands, agri-entertainment, farmers markets, pick-your-own (PYO), Community supported agriculture (CSA), and direct delivery, as a means to market their farm products. Traditional marketing venues yield farmers only 10 – 20% of the consumers food dollar, while direct to consumer sales increase the farmers share of the consumer dollar, providing more significant means of support for the farm family, as well as ensuring the farm remains in active production. A food borne illness outbreak at a farm direct marketing venue, while not yet having occurred, is a serious threat to the industry that would result in lost sales, both current and future, as customer confidence in the farm and the industry is lost.

In addition to the loss of sales revenue, farms, where outbreaks occur, may also be subject to fines and penalties that could far outstrip the financial resources of the farm. Civil lawsuits brought on by potential victims of food borne illnesses would create additional financial ruin, as well as a public relations disaster for the farm.

Cornell University has developed a Good Agricultural Practices (GAPs) program, developed safe food handling practices for production of foods, along with post harvest handling. However, it does not take into account direct marketing activities that create unique hazards for potential contamination. This project sought to bring the lessons learned from the GAPs program, experiences of farm direct marketers, and government regulations already in place together to create a set of guidelines to maintain a food-safe environment for farm direct marketing activities. The goal was to foster farmer-to-consumer relationships by giving farmers the tools they needed to keep their foods safe, build consumer confidence in their products and, ultimately, maintain and enhance farm sustainability.

Project Approach

The project leaders brought together a committee of people to analyze the risks inherent in several types of direct marketing activity: farmers markets, on-farm stands, direct delivery, agri-tourism, pick-your-own and Community Supported Agriculture (CSA). The committee consisted of farmers market managers of various sized markets, Food Safety regulatory agencies, Cornell GAPs program administrators, farmers with broad direct marketing experience, Cornell Cooperative Extension Educators, insurance agents and a communications specialist.

The committee met on a monthly basis for 15 months. They were tasked with a thorough discussion of each of the direct marketing venues under review:

- Farmers markets
- Community Supported Agriculture
- On-farm sales
- Agri-tourism, including Pick-Your-Own
- Direct Delivery

Step one was to identify the potential risks for food contamination within each of the direct marketing venues. For example, farmers markets are open air venues. There are risks for airborne contamination, such as blowing debris (leaves, twigs), flying insects, and bird droppings. The committee spent considerable time thoroughly analyzing each venue to be certain all potential risks were identified.

Once the risks were identified, the committee discussed options to minimize the risks noted. The goal was to create a set of guidelines for creating a food-safe environment for each direct marketing venue with the objective to keep the guidelines practical, easy to follow, affordable for farmers to implement and science-based. In other words, if the guidelines were out of reach for farmers to implement, such as too costly, too excessive in relation to the risk being covered or if the guidelines are not based on sound, commonsense or scientific principles, then farmers would not take them seriously, nor would they implement them. With the diversity of people on the committee, from government agency representatives, Cornell University and farmers, we were able to pull together comprehensive guidelines to minimize the risk of contamination in each of the reviewed marketing venues that adhered to our criteria.

Outcome Step 1: a series of fact sheets: Food Safety Procedures at Direct Marketing Venues. Fact sheets to be published on the Farmers Market Federation of NY website, www.nyfarmersmarket.com.

Once the Guidelines were developed and approved by the Committee, the last task was to create a Crisis Communications guideline. This last piece was designed to help farmers deal with the media should a food-borne illness strike at their farm or other agricultural venue. It is important that farmers understand the importance of a timely, positive response to a media inquiry. Understanding how to formulate a policy for response and how to craft that response can mean the difference between overcoming the impact of a food-borne illness with the farm intact versus succumbing to the negative media and resultant stigma depriving the farm of consumer sales.

Once the committee completed its work and approved of the individual guidelines, the next step was to develop a curriculum for training trainers, as well as farmers and market managers to use the guidelines to safeguard their farm and market operations from food contamination. The curriculum included:

- Program overview
- Teaching Modules (Each guideline was its own module)
 - Guideline
 - Powerpoint presentation with speaker notes
 - Handouts
- Workshop evaluations

Outcome Step 2: Extension Educators will have all the resources needed to train farm direct marketers in food safety procedures, and work one-on-one to develop food safety procedures for food safe environments for consumers. Materials will be made available through download from Farmers Market Federation of NY website, www.nyfarmersmarket.com.

The curriculum was then uploaded onto the Farmers Market Federation of NY website, <http://www.nyfarmersmarket.com/food-safety/training-curriculum.html>. Once the curriculum was in place, the project leaders created a train-the-trainer presentation to educate Cornell Cooperative Extension Educators and other farm service providers about food safety at direct marketing venues and encourage their use of the curriculum in their home counties/regions.

The train-the-trainer presentation covered all six modules, showing the guidelines, talking points, handouts and resources available to trainers to use in their own workshops and presentations. Finally, the presentation directed attendees to the Federation website to download the curriculum. For the first four months, the curriculum on the web was behind a wall. To access it, the user had to sign in, providing the project leaders with name and contact information. Within those first four months, over 220 individuals downloaded all or portions of the curriculum. The users represented 15 government agencies from New York State and across the country. Sixty-five farm service providers, including Cornell Cooperative Extension and other non-profit agencies downloaded the curriculum, as did 48 farmers market managers from across the US, and 82 farmers. Others represented were for-profit agribusinesses and media reporters.

The train-the-trainer presentation was delivered to Cornell Cooperative Extension Ag InService conference in Ithaca, NY and the Cornell Cooperative Extension Strategic Marketing InService conference in Hyde Park, NY. To gain maximum exposure for the curriculum, additional presentations were made via webinar. In total over 80 Extension Educators received the training.

Outcome Step 4: Farm direct marketers will understand the importance of food safety procedures for their operations and undertook a review of their own operations as a result of their training. Follow-up surveys of workshops will show 100 farm direct marketers have implemented some or all of the procedures in their marketing operation.

The last step to building awareness for these guidelines and helping farmers to understand the risks and make changes to policies and procedures in their marketing activities, the project leaders spent a great deal of time over the winter of 2011/2012 doing direct training to farmers. Together, they presented the guidelines to the NOFA-NY conference. The presentation was an amalgam of the 6 sets of guidelines, as the audience was using a variety of direct marketing venues. This presentation was also given to an

audience of farm direct marketers at the Vermont Farmers Direct Marketing Conference in January 2012.

The Farmers Market guidelines were presented to the NY Farmers Market Managers Training Conference, as well as at six regional Farmers Market Information Days workshops in March/April 2012. Finally, the guidelines were also presented to farm direct marketers by Cornell Cooperative Extension Educators and project leaders throughout the state, specifically Tompkins, Jefferson, Washington, Ontario, Franklin, Broome and Steuben counties, as well as others.

Farmers Market managers were helpful in distributing the guidelines to their farmers. Some simply handed out a set of the Farmers Market guidelines, others discussed them at vendor meetings as well as distributed the guidelines to their farmers. Other markets brought in their local Extension Educator to do a mandatory workshop on food safety for their farmers.

Project evaluations showed farmers were made more aware of the importance of food safety, not only for the welfare of their consumers, but as a marketing tool in building a loyal customer base. 60% of the survey respondents indicated they used the guidelines to do an analysis of the risks within their own business and another 20% asked for assistance from their local Extension Educator. Some of the common issues recognized by those responding to the survey were with wash water and the lack of handwashing stations at farmers markets and wherever foods were being prepared or animals were in close proximity to consumers.

The overall lessons farmers took away is the importance of maintaining safe food practices at their retail operations. They understand the need to create a connection with their consumer that is based on trust and confidence. Once that trust is broken by a food-borne illness that could have and should have been prevented, then customers will lose their confidence in the farm's products and the farm is at risk of failure without a solid customer base. Farmers also understand the value of education. Not just their own, but their consumers as well. Food safety is a shared risk. While farmers can and will do their part, consumers also must do their share. Handle the food properly from the time of purchase to consumption, including proper washing, refrigeration and sanitary food preparation and cooking. Farmers participating in these workshops are looking at ways they can help consumers understand their part in maintaining a safe food supply, while they do their part on the farm and at the retail venue.

Outcome Step 3: 75 Extension Educators will hold workshops in their home regions focusing on food safety for farm direct marketers. Five Educators will work one-on-one with farmers to create case studies of risk assessment and food safety policy implementation at the farm retail operations.

The final step in the project was evaluation. We collected evaluations from each of the workshops held by the project leaders, as well as some of the Extension Educators. The questions covered the quality of the presentation as well as inquiries about content and the effect the workshop information would have on the future of their farms or markets. One of the common comments was that the information was primarily common sense; i.e. keep product off the ground at farmers markets to reduce the opportunity for contamination from insects, soil and debris. However, the comments further explained that while much of the guidelines were common sense, they were not things that they had previously thought about. Other comments showed concern that the farmers direct marketing venues would be held to a higher standard than conventional supermarkets, especially in terms of signage and handwashing. However, it was pointed out during presentations that while this may seem to be the case, a look

through a grocery store produce department showed signage for consumers recommending handwashing and washing produce prior to consumption. There are also hand-sanitizing stations in produce departments to further encourage handwashing. Once pointed out, the concerns about being held to a higher standard were alleviated.

The evaluations encouraged workshop participants to identify potential risks in their operations based on the guidelines presented. One farmer indicated his/her risks:

- We keep un-displayed bins of produce under the table and on the ground
- Our signage doesn't have a phone number for traceability
- Our samples are in a bowl with toothpicks.

He further indicates some things he plans to change immediately as a result of the workshop:

- Maintain all product on tables or provide rugs/tarps to lay on ground under produce bins
- Display signage will be updated with the farm phone number
- Samplings will include napkins.

While this is an example of how one farmer employed the guidelines to his own business based on the presentation, many other farmers indicated they would be implementing new practices as well, such as:

- Bringing a hand-washing station to market
- Making hand sanitizer available to customers
- Creating signage that encourages consumers to thoroughly wash produce before consumption
- Providing individual samples for consumers rather than a bulk tray or bulk bin of toothpicks
- Covering loads when transporting product to market
- Using a thermometer throughout market day to ensure all product is being held at proper temperatures.

We performed a project end survey of all workshop participants. The survey, however, was done during the height of the growing season and we did not get a statistically significant response. However, those responding indicated they were reviewing their operations with the food safety guidelines in mind. They were mindful that they needed to ensure safe foods for their customers to maintain a healthy and viable farm business. The changes they planned to make were very much in line with the results from the workshop evaluations.

Finally, five Extension Educators provided case studies of their work with direct marketing farmers. Four educators were from NY, with Cornell Cooperative Extension; and one was from Rutgers University in New Jersey. The educators worked one-on-one with direct marketing farmers and provided results of their work. The case study followed one business through risk assessment and new policy development and implementation. The studies showed that most direct marketing farmers are aware of the need for a protected food supply. They recognized the importance of food safety as a means to maintain a loyal customer base and ultimately a healthy, profitable business. However, there were risks they faced that they were not aware of. For example, one CSA farmer did not consider the risks of dropping off share boxes for customer pickup, locating them in protected areas, out of the elements, in cool locations to protect the integrity of the product and off the ground to eliminate contamination from insects and rodents.

The Extension Educators assisted the farmers with a risk assessment. For example, one educator explains: *“A checklist was created by using the CSA materials provided. We first had an in office consultation to review practices on the farm using the checklist and guidelines you provided. Then a walk through was conducted to evaluate the condition of the working areas and production fields. Follow up has been through email and will continue as they progress in creating their farm food safety plan through the audit process.”*

The next step was to create a food policy for their direct marketing operation. They were asked to look at how they could minimize the risks noted utilizing the food safety guidelines developed. They were asked to develop this policy by determining the risks they felt were not significant enough to justify costs, both dollars and manpower; as well as, identifying risks that they were comfortable with. For example, some farmers choose not to include signage reminding customers to wash produce before consumption. They felt that customers were already aware of this, but also that they were providing a clean product that was rinsed in clean, uncontaminated water for their consumers. Policies were then implemented to cover risks that were identified as needing to be minimized, as well as with affordable solutions.

The CSA case study¹ details the new policies they would like to create, as well as a look at the costs of implementation:

“They have created the following policies:

- *Farm food safety mission statement to be included in their shareholder handbook and farm plan*
- *A hand washing policy for employees and shareholders*
- *Shareholder container use on the farm*
- *Pick-your-own container use*
- *The largest cost to the farm will be re-vamping their container use, using mostly new containers for shares and pick-your-own activities. We did not calculate the exact dollar amount or time spent with this task. I expect there to be a gradual change-over to new containers.”*

“The port-a-john has a wash station located next to it. Inside the port-a-john hand sanitizer was mounted to the wall. When there is no hand sanitizer the shareholders are very vocal, even though there is a hand washing station next to the facility. An effort will be made here to educate the shareholders about proper hand washing and that the use of hand sanitizer alone is not effective.”

Contribution of partners

To make this project successful, creating a set of food safety guidelines for direct marketing operations, it was important to bring a wide variety of experiences and expertise to the table for discussions. The project leaders pulled together a committee of direct marketing farmers, farmers market managers, Extension Educators, food safety educators, state regulators and food safety inspectors, insurance

¹ The five case study reports are including as an addendum to this report.

agents and communications experts. Each committee member brought their knowledge and experiences to the discussions to ensure that the guidelines created:

- Complied with current statutory regulations
- Used a common sense approach and were science based
- Were logical and affordable for farmers to implement.

Below is a listing of the project committee, their affiliation and area of expertise.

Name	Affiliation	Expertise
Roz Cook * Project Co-leader	CCE Jefferson County	Works with direct marketing farmers
Diane Eggert Project Co-leader	Farmers Market Federation of NY	Farmers Markets/farmer
Katherine Lang * Project Co-leader	CCE – ST. Lawrence County	Nutrition Educator
Amanda Rae Root Project Co-leader	CCE – Jefferson County	Curriculum development
Laura Biasillo	CCE- Broome County	Ag Economic Development
Betsy Bihn	Cornell University	National GAPs Administrator
Bob Buccieri	Seneca Falls Dev. Corp FMFNY Board President	Farmers Market, Economic Development Specialist
Jim Farr	Rochester Public Market	Farmers Market Manager
Robert Hadad	CCE Cornell Ag Team	GAPs trainer
Solveig Hanson	Harris Seeds	Sponsor representative
Phil Harnden	Garden Share	Works with direct marketing farmers
Bernadette Logozar	CCE St. Lawrence County	Ag Economic Development Specialist
John Luker	NYS Dept of Agriculture and Markets	Food Safety Inspections
Lindsay Ott	Lindsay Ott Communications	Communications expertise
Isabel Prescott	Riverview Orchards	Farmer, agritourism
JoEllen Saumier	Kirbide Gardens	Farmers, CSA, farmers markets
Michele Schermann	Univ. Minnesota	GAPs program
Dave Wyman	Dave Wyman Associates – Farm Family Insurance	Insurance agent specializing in farm policies

* Project leaders left Cornell Cooperative Extension, requiring a transfer of leadership.

Results, Conclusions and Lessons Learned

Phase 1 (Curriculum Development) – The committee utilized to develop the Food Safety Booklets was key to the success of the project. The varied membership allowed for a variety of questions, concerns, and comments to be voiced and incorporated into the final documents. This, in turn, resulted in a comprehensive product that clearly described food safety hazards and concrete steps to address the issues, thus meeting the goals of this project; as well as a product that met the needs of the farmers by

educating them about potential hazards, encouraging them to do a self-assessment, and providing realistic solutions.

Phase 2 (Training) – Training, both educators and farmers, proved to be a more difficult task than anticipated. Numerous strategies were utilized to reach Cooperative Extension and other community educators including attending existing conferences and workshops, providing in person workshops, and providing webinars. Webinars proved to be most effective in engaging educators in a train the trainer approach and prompting them to download the curriculum. It was also highly effective to require contact information be provided by those downloading. This enabled follow up to be done to determine if and how the resources were utilized. Some educators utilized the curriculum in their spring training classes, while several indicated they would be utilizing it in the future.

Current or Future Benefits

The Food Safety in Direct Marketing Venues curriculum will continue to be utilized by Extension and other community trainers. The curriculum was written in a user friendly manner, allowing experienced educators to “grab and go.” Food safety is a topic that continues to be a concern. The materials developed through this project are not time sensitive and will continue to provide relevant, factual information.

As an example of their relevance, Cornell GAPs team has applied for funding to continue to do GAPs training for farmers across New York State. They believe that this project has given even greater information for farmers, in particular direct marketing farmers, that they have asked the Farmers Market Federation of NY to assist them in these trainings, offering retail level food safety guidelines at their workshops.

Recommendations for future research

Next steps to further the utilization of this research based curriculum and engage more educators and farmers/producers include reaching out further in the Extension system to nutrition programs that traditionally deal with food safety and are increasingly involved in Farmers Markets and community food systems. Additionally, as more Food Hub projects move forward, this resource will be vital.

In addition, it will be important as we move into the near future, to follow the implementation of the Food Safety Modernization Act and upcoming FDA rules as they pertain to small family farmers and direct marketing farmers. As these new rules and regulations come out, the guidelines will need to be reviewed and potentially adjusted to ensure the guidelines stay current and adhere to regulations as they are implemented.

Project beneficiaries

The Food Safety at Direct Marketing Venues project focused primarily on direct marketing farmers, although others benefitted as well. The GAPs program offers farmers opportunity to learn about and create food safety plans for their farms, including harvest and post-harvest procedures. The GAPs program is very well received by farmers and very respected in the industry. However, the project leaders felt that the GAPs program did not provide all the information needed for direct marketing farmers to identify potential food safety risks and find logical, affordable answers to minimize those risks. This project explored those missing elements in the GAPs program, providing guidelines for direct marketing farmers.

In addition to developing and making available guidelines for food safety at direct marketing venues, the project embarked on training programs to make farmers and farm service agencies aware of the guidelines. Train-the-trainer programs targeted Cornell Cooperative Extension educators as well as any other agency that works one-on-one with farmers. The guidelines were developed into a curriculum allowing these farm trainers to provide the information in workshop format to the farmers in their regions, helping their farmers to understand food safety, analyze the risks within their own operation and create policies and procedures that will help them to maintain a safe retail operation, protecting the health of their customers and the viability of their farms.

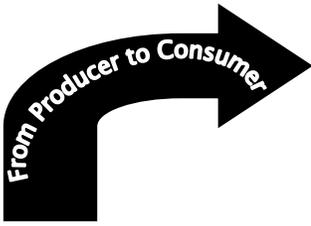
Additional Information generated

The food safety guidelines, recommendations, curriculum, powerpoint presentations and workshop handouts are all online at the Farmers Market Federation of NY website, <http://www.nyfarmersmarket.com/food-safety/foodsafety.html>.

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Case Study Report
Extension Educator Work with Farm Direct Marketers

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Define your type of direct marketing activity: (check all that apply)

- roadside stand
- agri-entertainment
- farmers market
- Community Supported Agriculture
- Pick-Your-Own
- Direct Delivery
- Other: _____

The goal of the Food Safety at Direct Marketing Venues project is to help direct marketing farmers to recognize areas of potential contamination and create policies and procedures to minimize the risks and maintain safe foods for their consumers. The project team will select 5 Cornell Cooperative Extension Educators to provide a case study of a farm employing direct marketing techniques. The Educator will have provided the training, as well as one-on-one assistance to the farm in identifying their potential risks, developing policies and procedures to minimize the risk of contamination and documented the impact new policies and procedures for food safety in the retail setting had on the farm, in both time and dollars, as well as on the farm's customers.

The report should answer the following questions.

1. **Prior to the food safety workshops, did the farm/market have an operating food safety plan included the retail site(s)?**
HoneyBrook did not have a farm food plan or policy. They will be required to comply with the USDA audit in several years and your direct marketing program materials have been used to get them started in creating a farm food safety plan and amend policies in the shareholder handbook. The farm has 3500+ shareholders and is one of the largest CSAs in the nation. HoneyBrook has been receptive to my outreach on food safety, and utilizing the direct marketing information has made the task much easier for me. It provided a great starting point. I have also utilized the farm market materials, in a less formal manner.
2. **What food safety risks have been identified on the farm/market?**
 - Entry points for rodents and birds to enter the on-farm distribution areas and packing areas

Funding for this project is provided by the United States Department of Agriculture AMS, Farmers Market Federation of New York, and Cornell Cooperative Extension of Jefferson County.

- Appropriate signage at hand washing stations and areas where customers should see the hand washing policy
- Shareholders bring their own containers to the farm to pick up their share
- Shareholders re-use containers in the pick-your-own sections of the farm

3. What process did you use to define those problem areas? Did you perform a risk assessment, looking at all areas outlined in the workshop?

A checklist was created by using the CSA materials provided. We first had an in office consultation to review practices on the farm using the checklist and guidelines you provided. Then a walk through was conducted to evaluate the condition of the working areas and production fields. Follow up has been through email and will continue as they progress in creating their farm food safety plan through the audit process.

4. What new policies and procedures were enacted to minimize the risk of contamination that you were able to identify as problems? How were these policies and procedures arrived at?

They have created the following policies:

- Farm food safety mission statement to be included in their shareholder handbook and farm plan
- A hand washing policy for employees and shareholders
- Shareholder container use on the farm
- Pick-your-own container use

5. Did you ascertain the costs in both dollars and time to carry out policies and procedures that would minimize the risks of contamination? Did you eliminate any potential policies and procedures through this process, please describe what was eliminated and why.

The largest cost to the farm will be re-vamping their container use, using mostly new containers for shares and pick-your-own activities. We did not calculate the exact dollar amount or time spent with this task. I expect there to be a gradual change-over to new containers.

The port-a-john has a wash station located next to it. Inside the port-a-john hand sanitizer was mounted to the wall. When there is no hand sanitizer the shareholders are very vocal, even though there is a hand washing station next to the facility. An effort will be made here to educate the shareholders about proper hand washing and that the use of hand sanitizer alone is not effective.

6. How have these new policies and procedures impacted the farm and its consumers?

While an impact has not yet been noted we expect that consumers will begin to be more tuned into food safety on the farm. Through my readings and experiences it is clear to me that most farm market / CSA patrons feel that local food = safe food. There have been limited outbreaks of illness due to farm markets, but one that receives enough attention will erode at the belief that local food is always a safe food. I expect HoneyBrooks efforts in preparing for their future audit will protect them more so than farms/markets that are not taking such actions.

7. Was a crisis communications plan created to handle issues, such as a food safety crisis, that may impact the farm/market?

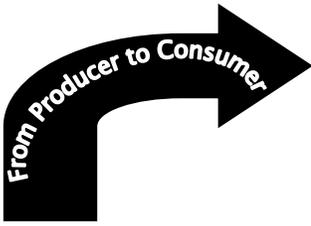
No, but I do expect this to be the next step once their farm food safety plan is created.

8. What lessons were learned through this process?

This was my first walk through of a farm with food safety in mind. In the future I will prepare myself with more sample policies for the growers to use. The growers seem extremely overwhelmed at the thought of creating policies, documenting their actions and changing their mode of operation. Making the process as easy as possible for them will only ensure that change occurs. I have also experienced growers (not at HoneyBrook) not taking hand washing as seriously as I think they should. Running out of soap at the sink for a day was stated as “not a big deal.” An effort to educate about how pathogens spread is key to any presentation on food safety.

Wes Kline utilizes GloGerm kits with a black light to show how something as simple as shaking hands can spread pathogens easily.

Funding for this project is provided by the United States Department of Agriculture AMS, Farmers Market Federation of New York, and Cornell Cooperative Extension of Jefferson County.



Case Study Report
Extension Educator Work with Farm Direct Marketers

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Farm Operation: Ben Wever Farm

Contact: Linda Gilliland

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Phone: 518-963-7447

Email: gillillandsl@aol.com

Define your type of direct marketing activity: (check all that apply)

- roadside stand
- agri-entertainment (outreach, farm meal-in-the-field)
- farmers market
- Community Supported Agriculture
- Pick-Your-Own
- Direct Delivery – to stores and restaurants, not the general public
- Other: _____

The goal of the Food Safety at Direct Marketing Venues project is to help direct marketing farmers to recognize areas of potential contamination and create policies and procedures to minimize the risks and maintain safe foods for their consumers. The project team will select 5 Cornell Cooperative Extension Educators to provide a case study of a farm employing direct marketing techniques. The Educator will have provided the training, as well as one-on-one assistance to the farm in identifying their potential risks, developing policies and procedures to minimize the risk of contamination and documented the impact new policies and procedures for food safety in the retail setting had on the farm, in both time and dollars, as well as on the farm's customers.

The report should answer the following questions.

1. **Prior to the food safety workshops, did the farm/market have an operating food safety plan included the retail site(s)?** Ben Wever Farm did not have an official written food safety policy, but had spent a fair amount of time over the years trying to minimize risk.
2. **What food safety risks have been identified on the farm/market?** Because of their vigilance, we identified no food safety risks. However, they do consider their farm to have a liability risk from the sheer number of people that visit their farm, walk around their property, and frequent the farm stand. It should be noted that a few years ago they were approached by Ag & Markets and the CDC because they had been identified as a possible source of contaminated ground beef (not sure if it was e.coli or some other contamination). Both agencies searched the farm and questioned the owners extensively. Samples of their ground beef were taken for analysis. Ben Wever Farm was not found to be violating any food safety laws and there was no

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contamination found in their product. The process, however, was grueling and left the owners fearful that they would lose customers since the investigation was publically visible. As a result, they have been even more careful to adhere to regulations and food safety recommendations.

- 3. What process did you use to define those problem areas? Did you perform a risk assessment, looking at all areas outlined in the workshop?** I performed an informal assessment with Linda (one of the owners). We went through the handouts from the workshops (she had attended all sessions).
- 4. What new policies and procedures were enacted to minimize the risk of contamination that you were able to identify as problems? How were these policies and procedures arrived at?** Although there were no problems identified, the Gillillands have implemented three new policies/ideas.
 - a. While they are not required, in any of their farm products and processes, to have their water tested, they now have it tested regularly just in case...
 - b. They used to transport their frozen meat to area stores in non-insulated containers if the trip was to be under 15 minutes. They have now made it mandatory to pack all frozen meat into coolers with thermometers for a trip of any length.
 - c. In order to encourage customers to safely transport frozen meats, the Gillillands are providing insulated bags for sale. While they realize that once the product leaves their farm with the customer their responsibility for the food safety is done, they want to encourage that safety all the way to the table.
- 5. Did you ascertain the costs in both dollars and time to carry out policies and procedures that would minimize the risks of contamination? Did you eliminate any potential policies and procedures through this process, please describe what was eliminated and why.** We ascertained costs of water testing and the insulated bags. While expensive, the Gillillands felt both were worth the costs. The extra time involved in loading frozen product into coolers for every delivery trip was negligible. Nothing was eliminated.
- 6. How have these new policies and procedures impacted the farm and its consumers?** The Gillillands were very fortunate to already have a high level of consumer confidence. It was unaffected by the meat contamination scare and continues to stay high. New policies have not really impacted the farm except to give them a higher degree of "peace of mind", but consumers appreciate being able to purchase the insulated bags.
- 7. Was a crisis communications plan created to handle issues, such as a food safety crisis, that may impact the farm/market?** The Gillillands, having weathered a crisis, still have no solid crisis communications plan, but intend to use the guidelines from this food safety curriculum if future problems arise. They are very wary because they felt that it was hard to tell how they were being attacked (Ag & Mkts, CDC, were not forthcoming with explanations about what they were looking for or what was going on) so feel that any plan must be very flexible.
- 8. What lessons were learned through this process?** They will always get their water tested even though it's not required. They will continue to use the handouts as a great reference. And they got some great ideas for agritourism through some of the slides!



Case Study Report
Extension Educator Work with Farm Direct Marketers

Extension Educator: Bernadette Logozar

County: CCE Franklin

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Phone: 518-483-7403

Email: bel7@cornell.edu

Farm Operation: Chazy Orchards

Contact: Cindy Dominy

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P.O box 147 Chazy, NY 12921

Phone: 518-846-7171

Email: chazyorchards@westelcom.com

Define your type of direct marketing activity: (check all that apply)

- roadside stand
- agri-entertainment
- farmers market
- Community Supported Agriculture
- Pick-Your-Own
- Direct Delivery
- Other: Farm market

The goal of the Food Safety at Direct Marketing Venues project is to help direct marketing farmers to recognize areas of potential contamination and create policies and procedures to minimize the risks and maintain safe foods for their consumers. The project team will select 5 Cornell Cooperative Extension Educators to provide a case study of a farm employing direct marketing techniques. The Educator will have provided the training, as well as one-on-one assistance to the farm in identifying their potential risks, developing policies and procedures to minimize the risk of contamination and documented the impact new policies and procedures for food safety in the retail setting had on the farm, in both time and dollars, as well as on the farm's customers.

The report should answer the following questions.

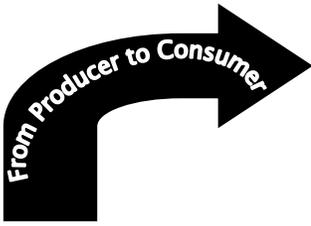
1. **Prior to the food safety workshops, did the farm/market have an operating food safety plan included the retail site(s)?** Had a certification through NYS Department of Ag and Markets (food processing certification) ; staff familiar with rules and regs for county health department; apple sauce and apple butter is processed at Cornell Food Venture Center.
2. **What food safety risks have been identified on the farm/market?** Within the cooler system where the apples are held, we sometimes would bring our products in there to cool down, but we found that there is a pipe that condenses and now after taking the class, we looked up and saw the possible source of contamination. Totally aware of our surrounding in the building.

Funding for this project is provided by the United States Department of Agriculture AMS, Farmers Market Federation of New York, and Cornell Cooperative Extension of Jefferson County.

3. **What process did you use to define those problem areas? Did you perform a risk assessment, looking at all areas outlined in the workshop?** Looked at all areas of market for potential hazards or sources of contamination. We have become more aware of everything that is there. No products are left overnight for example because of mice eating them. Yes we did do a risk assessment.
4. **What new policies and procedures were enacted to minimize the risk of contamination that you were able to identify as problems? How were these policies and procedures arrived at?** No products are left overnight for example because of mice eating them. Cover with glass or put in a secure area instead of leaving out. When putting items in the cooler, have them covered instead of leaving them open.

The policies and procedures were determined on the basis of loss of product.

5. **Did you ascertain the costs in both dollars and time to carry out policies and procedures that would minimize the risks of contamination? Did you eliminate any potential policies and procedures through this process, please describe what was eliminated and why.** Of course. Nothing was eliminated rather we have taken additional safety measures.
6. **How have these new policies and procedures impacted the farm and its consumers?** Don't know at this time because we are a seasonal orchard and our new season hasn't started yet.
7. **Was a crisis communications plan created to handle issues, such as a food safety crisis, that may impact the farm/market?** None at this time.
8. **What lessons were learned through this process?** Being aware of your surroundings whether it be in the cooler, kitchen or out in the market area. We just have to make sure that safety procedures are always followed and just be aware of the surroundings.



Case Study Report
Extension Educator Work with Farm Direct Marketers

Extension Educator: Diane Whitten

County: Saratoga

Address: 50 West High Street, Ballston Spa, NY 12020

Phone: 518-885-8995

Email: dwhitten@cornell.edu

Farm Operation: Butternut Ridge Farm

Contact: Debbie Stevens

Address: 4329 Route 40, Argyle, NY 12809

Phone: 518-638-6301

Email: butternut@dishmail.net

Define your type of direct marketing activity: (check all that apply)

- roadside stand
- agri-entertainment
- farmers market
- Community Supported Agriculture
- Pick-Your-Own
- Direct Delivery
- Other: _____

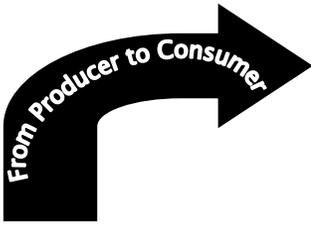
The goal of the Food Safety at Direct Marketing Venues project is to help direct marketing farmers to recognize areas of potential contamination and create policies and procedures to minimize the risks and maintain safe foods for their consumers. The project team will select 5 Cornell Cooperative Extension Educators to provide a case study of a farm employing direct marketing techniques. The Educator will have provided the training, as well as one-on-one assistance to the farm in identifying their potential risks, developing policies and procedures to minimize the risk of contamination and documented the impact new policies and procedures for food safety in the retail setting had on the farm, in both time and dollars, as well as on the farm's customers.

The report should answer the following questions.

1. **Prior to the food safety workshops, did the farm/market have an operating food safety plan included the retail site(s)?** No
2. **What food safety risks have been identified on the farm/market?** We routinely put produce in boxes on the ground. Customers frequently handle produce, especially sweet corn.
3. **What process did you use to define those problem areas? Did you perform a risk assessment, looking at all areas outlined in the workshop?** At the workshop it became apparent that putting produce on the ground was a food safety hazard. No risk assessment was performed.

Funding for this project is provided by the United States Department of Agriculture AMS, Farmers Market Federation of New York, and Cornell Cooperative Extension of Jefferson County.

4. **What new policies and procedures were enacted to minimize the risk of contamination that you were able to identify as problems? How were these policies and procedures arrived at?** As much as possible, we now keep produce boxes on the truck until the table needs replenishing rather than putting the boxes under the table where it is closer.
5. **Did you ascertain the costs in both dollars and time to carry out policies and procedures that would minimize the risks of contamination? Did you eliminate any potential policies and procedures through this process, please describe what was eliminated and why.** Making the change had no impact on cost and minimal impact on time.
6. **How have these new policies and procedures impacted the farm and its consumers?** At the farmers market the farm staff spend a little more time replenishing produce on the table. The time is worth the result of reducing the risk of food contamination and giving the customers a better product.
7. **Was a crisis communications plan created to handle issues, such as a food safety crisis, that may impact the farm/market?** No
8. **What lessons were learned through this process?** Some policies, such as customers handling produce at the farmers market, need to be a whole market policy, not just enforced by individual farms.



Case Study Report
Extension Educator Work with Farm Direct Marketers

Extension Educator: Laura Biasillo

County: Broome

Address: 840 Upper Front St, Binghamton, NY 13905

Phone: (607) 584-5007

Email: lw257@cornell.edu

Farm Operation: North Windsor Berries

Contact: Linda Titus

Address: 1609 NYS Rt 79, Windsor, NY 13865

Phone: (607) 655-2074

Email: nwbltitus@aol.com (only checks September – March regularly)

Define your type of direct marketing activity: (check all that apply)

- X roadside stand
- agri-entertainment
- farmers market
- Community Supported Agriculture
- X Pick-Your-Own
- Direct Delivery
- X Other: Wholesale _____

The goal of the Food Safety at Direct Marketing Venues project is to help direct marketing farmers to recognize areas of potential contamination and create policies and procedures to minimize the risks and maintain safe foods for their consumers. The project team will select 5 Cornell Cooperative Extension Educators to provide a case study of a farm employing direct marketing techniques. The Educator will have provided the training, as well as one-on-one assistance to the farm in identifying their potential risks, developing policies and procedures to minimize the risk of contamination and documented the impact new policies and procedures for food safety in the retail setting had on the farm, in both time and dollars, as well as on the farm's customers.

North Windsor Berries (Windsor, NY) has been running a farm stand for more than eight years and a u-pick fruit and vegetable operation for three years. They are a diversified fruit and vegetable operation growing on close to 30 acres of river bottom land. Their farm stand is located underneath a 20ft x 60ft canopy and they also have a greenhouse on-site for starting plants and a high tunnel for raspberries. They are open seven days a week, from early May through Oct 31st. It is a family-run operation with all labor coming from family, except during strawberry season and picking of winter squash for their wholesale accounts.

Prior to training in the food safety guidelines for agri-tourism operations, the farm did not have an operating food safety plan though they are following many of the recommended guidelines. These include:

- Water testing for all water used for irrigation and washing of crops
- No pets allowed in the u-pick patch
- Sanitizing their containers at the farm stand every morning before product is put inside
- Sanitizing their cooler every week
- No produce is stored on the floor

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- Nothing other than produce is sold, except in the spring during plant season, and the plants are kept outside either in the greenhouse or on tables outside. (Limits cross-contamination).
- Port-a-John is cleaned once a week and if it isn't up to par, complaints are made until remedied.
- Pet birds are kept outside of the tent to prevent both cross-contamination as well as interactions with the customers for safety and health reasons.
- And hiring a trapper to catch the raccoons and other varmints in their fields (especially sweet corn) throughout the season.

They also have potable water on-site for customers to wash both their hands or any produce purchased at the stand or picked in the field prior to taking it home for consumption. In the spring of 2012 the farm explored the feasibility of enacting a formalized GAPs plan due to their existing relationship with a wholesale purchaser who would be requiring it for all produce purchases starting in 2013, but decided against it due to the economic implications of the inspection and current contract with the buyer.

There were a few food safety risks identified for the farm stand and u-pick operation.

- Not washing produce in a food grade container with a decontaminant in the water (they are currently doing this for pumpkins)
- Because this is an open-air farm stand, birds will fly through and it would be next to impossible to keep them out. But it is still an identified risk.
- A better option for a handwashing station outside the Port-a-John (there is one inside). This could be a table with handsanitizer or handwipes, especially as many families with young children shop.
- No sign stating that "all produce should be washed prior to consumption". They believe all their customers understand this concept.

The process used to identify the problem areas were familiarity with the farm operation as well as on-farm discussions with the farmers used in conjunction with the "Guidelines for Agri-tourism Operations".

After the risk identification process it was decided the following solutions could be enacted:

- A small table could be placed outside the port-a-john with hand sanitizer for use as double-protection
- A sign would be created and placed at the entrance to the farm stand stating "North Windsor Berries encourages you to wash all produce purchased prior to consumption. This can be done here at the farm or at home"
- The farm will pursue sourcing of food grade containers for washing of produce.

This came about after conversations with the farmers.

There was quite a bit of discussion surrounding the economics of food safety procedures due to the farm's current wholesale contracts and one requiring GAPs certification starting in 2013. It was decided that due to the size of the contract and the costs of inspection it was not worth it. Additionally, some procedures would just not be realistic due to this being an open-air farm stand (i.e. keeping birds out). Getting the farm to switch to food grade containers for washing should be fairly easy, but I'm not sure about including a sanitizer in the washing procedure due to the number of different sanitizers they would need as they have a huge diversity of produce grown on the farm and sold at the stand.

This process definitely opened the eyes of the producer to potential risks but also assured them they are on the right track in keeping their produce and customers safe. It is a learning process always for both their consumers and themselves, but they will keep moving forward in having as sustainable (and organic, not certified) growing practices as possible. Their customers are often very discerning and will ask about washing their produce at the stand or knowing they need to wash it when reminded verbally, it is more having double reminders. I also believe that at this point in the season, making too many changes may not be possible/reasonable, but can be worked on during the winter when there are fewer stresses and it is planning time for the upcoming year.

A crisis communications plan was not created for the farm stand. This is due to the fact that so little of what they sell on the stand is not their own – only blueberries (from a farm down the road), cherries, peaches and apples. It could of course be argued it only takes on piece of produce to create a crisis, but due to it being such a small percentage of "imported" produce, it will most likely remain on the bottom of their list for a long time.

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Lessons learned through this process centered around the general willingness of farms to identify/recognize and offer solutions to food safety risks at their operation. While sometimes the risks seemed quite small (i.e. needed a sign to remind customers to wash produce or where certain products are coming from) each step is a step in the right direction. It also seemed that this also needed to be driven by consumers to a certain extent. If a large majority ask where a product comes from – then the farm is more likely to have a sign documenting that as opposed to verbal conversation. This also applies to other risks. But some just inherently need to be felt as the “right thing to do” and others taken on faith.