Introduction

The Produce Safety Alliance (PSA) was established to improve understanding and implementation of Good Agricultural Practices (GAPs) and co-management strategies to reduce risks during fresh produce production through the development of education and outreach programs for farmers. This report summarizes the responses of eight focus groups conducted with 89 fruit and vegetable farmers across the country representing different geographical locations, farm sizes, cultures, commodities, and production practices.

Hosting the focus groups enabled the PSA to engage farmers in a dialogue that included a variety of important topics related to on-farm food safety practices and educational expectations. Throughout the eight focus groups, several key themes emerged that were common across the groups, while others reflected regional, commodity, or market specific variations. This is a summary to share the general overview of the focus groups and some of the important outcomes.

Focus Group Objectives

- Gather opinions about produce safety issues
- Increase understanding of farmers’ needs and expectations from fresh produce safety training programs including their learning preferences
- Define farmers’ priorities for the implementation of food safety practices on the farm
- Utilize results to inform, refine, and enhance curriculum content and design
- Identify new methods and opportunities to improve produce safety education and outreach
Participants

The majority of growers (59%) farmed less than 25 acres of fresh fruits and vegetables. Participants grew an array of produce items including mixed fruit and vegetables (25%), vegetables only (25%), tree fruit (19%), berries (12%), and other items (9%). Seventeen farms were also home to animal operations in addition to fresh fruit and vegetable production.

Participating farmers had a wide range of farming experience with 26% of growers having less than 5 years of experience and 26% having more than 25 years of experience. Fifty-eight percent of growers classified their production methods as conventional and 29% identified their production methods as organic. A small percentage of growers also utilized alternative methods of production such as ‘all natural’ and ‘integrated pest management (IPM)’. A diversity of market channels were identified including wholesale markets (38%), farmers’ markets (19%), roadside stands (11%), Community Supported Agriculture Programs (CSA) (11%), and on-farm markets (9%).

Themes

Sensitivity to produce safety is on the rise.

- Sixty-six percent of growers responded that they had increased sensitivity to produce safety due to buyer demand, audit requirements, documented outbreaks, and impending regulations.

- Media attention along with high profile outbreaks, such as the 2011 *Listeria* outbreak in cantaloupes, has drawn greater attention to the topic for producers, consumers, and buyers of fresh fruits and vegetables.

- Growers have increased concerns about the liability of their farming operations as well as the ability to maintain and grow their markets within the ever-changing landscape of produce safety.

- Growers fear there is a widening disconnect between consumers and their food. They felt consumers must be educated to continue the chain of good handling and food preparation practices to reduce risks and keep the food they eat safe.

- Many growers felt that there are currently unrealistic expectations regarding produce safety. Although farmers can take reasonable measures to reduce risk at the farm, the nature of farming requires food to be grown in the soil, which is inevitably open to the outside environment.

- Growers frequently stated that the biggest challenge to starting a food safety program on their farm was committing to the changes necessary to implement Good Agricultural Practices. The biggest challenges were primarily related to recordkeeping and worker training programs.

- Most growers who participated in this study were not currently required to implement food safety practices on their farm. Unless buyer pressure or requirements existed, most growers articulated that change is a highly involved thought process which includes consideration of feasibility, cost, management (or family) support, and how it may benefit the future of the operation.

Meeting market demand for food safety continues to be a major challenge for farmers.

- Farmers feel they are already doing what is necessary to keep their farms and the food they grow safe, even if they cannot describe specific food safety actions.

- Their top-ranked food safety challenges were not farming practices but compliance procedures such as record keeping and meeting audit expectations.

- Growers fear that participation in audits and compliance with future regulations will be time consuming and costly, thus reducing the viability of their farm and their ability to grow fresh fruits and vegetables.
Sourcing produce safety information is triggered by a need for specific, solution-oriented, and scientifically sound reference material.

- **Solution oriented**: Most focus group participants have sought specific information on produce safety to troubleshoot a specific food safety problem, such as management of wash water or establishing traceability procedures.

- **Trustworthy sources**: Extension professionals were most frequently cited as growers’ first and most trustworthy source of information. Commodity and industry associations, fellow farmers, and inspectors/auditors were also listed as important sources of information related to produce safety.

- **Use of online resources**: If information from a site was up-to-date, easily accessible, readily applicable, and supported by science, growers tended to return to the site for additional resources.

**Training location and time must be convenient and cost effective.**

**Training must:**
- Minimize time away from home and farm
- Keep travel expenses to a minimum
- Be less than one full day (8 hours) of time for growers to attend
- Not be cost prohibitive to attend. The average amount most were willing to spend varied based on their past exposure and involvement in produce safety. Those who had been audited and experienced significant pressure from buyers were willing to pay more (> $100), whereas, those with little pressure from buyers were willing to pay less (< $50).
- Enable growers to walk away feeling confident that they can implement changes on their own farm to manage food safety risks

**Other considerations:**
- Tuesday—Thursday was often listed as the best days for training, although responses varied depending on market venue (i.e. preferably not on farmer’s market days).
- Preferred time of year for training is the off-season (non-production time) which varied by location and commodity. This is a major challenge for growers who are located in climates that produce year-round.
- Training should provide concise, easy to understand content which can be applied to individual farms upon completion of the training.

**In person training was preferred by more than 70% of growers.**
- Growers felt strongly about attending in-person training where trainers and other educators were available to answer questions and provide guidance.
- Online training was preferred as a secondary step, after attending the in-person training to establish a base of food safety knowledge.
- Online trainings were preferred for those who wanted a refresher or advanced modules, above and beyond the base curriculum.

**Educational materials should be based on resources which enable growers to implement change on their farm.**
- **Function not theory**: The growers who participated in the focus groups wanted training materials that can help them actively manage their operations and reduce food safety risks.
Need for Materials: Growers cited needing educational materials while writing a food safety plan, during or in preparation for an audit, or less often, as reference material during the off-months. Materials that help implement GAPs, such as worker training videos, posters, and record keeping sheets, were most useful during the production season.

Convincing growers to implement food safety practices when there is no requirement or mandate can be a challenge.

Focus group participants offered some of their thoughts on how to convince other growers that produce safety must be a priority of their farm.

- Equate the benefits of food safety with improved market access, postharvest quality, and liability.
- Provide more opportunities through multiple venues for growers to learn about produce safety such as through Extension, commodity groups, farmer’s markets, or retail buyer programs.
- Educate consumers to ask questions about how their food was produced and handled to ensure food safety is a priority.
- Simplification of food safety principles as well as tailored trainings appear to be key drivers for commanding attention from growers who feel unaffected or are avoiding the adoption of new or required food safety practices on their farm.

Conclusion

Farmers participating in the focus groups have an increased sensitivity to produce safety issues, but are not always sure what steps to take to reduce risks. Farmers recognize they play a role in produce safety and believe both buyers and consumers should also share this responsibility. Training programs ideally would be located close to the farm, less than a day in length, and provide them with the skills they need to be able to implement practices which reduce food safety risks on the farm. Produce safety educational materials that are practical and solution oriented are preferred.

How do you get involved in the PSA?

Visit our website at (http://producesafetyalliance.cornell.edu/psa.html) and join the general listserve. This will allow you to stay up to date with the PSA’s activities as well as the upcoming produce safety regulation.

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