Introduction

Working committee #7 was tasked with discussion of challenges related to training trainers to teach growers how to conduct a risk assessment on the farm and current Good Agricultural Practices (GAPs) that can be implemented to reduce food safety risks on the farm. There are five primary tasks delegated to this committee for which this report is written. The five areas discussed are as follows:

7.1. Principles of Adult Education
7.2. Successful Meeting Organization
7.3. Cultural Considerations
7.4. Trainer Qualifications
7.5. Variation in Target Audiences

Working Committee Chairs

James Rushing
Manager of International Training Programs, JIFSAN

Michael Villaneva
Technical Director, California Leafy Green Marketing Agreement

Meetings Held

<table>
<thead>
<tr>
<th>Date</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 13, 2011</td>
<td>14</td>
</tr>
<tr>
<td>September 15, 2011</td>
<td>12</td>
</tr>
<tr>
<td>October 12, 2011</td>
<td>13</td>
</tr>
<tr>
<td>December 15, 2012</td>
<td>14</td>
</tr>
<tr>
<td>January 19, 2012</td>
<td>13</td>
</tr>
<tr>
<td>April 24, 2012</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Meetings: 6
Total committee members¹: 45

¹ See Appendix I for full list of members
Data Collection

Information from committee members was collected during six teleconferences held in the months of July 2011 to April 2012. Each meeting held was approximately one hour long where detailed notes were taken and submitted to the committee for review. From the notes taken during the teleconferences, a summary of working committee discussions was created by the PSA facilitators and committee co-chairs. Recommendations to the PSA Executive Committee were then drafted based on the summary of discussions held. The list of recommendations was adapted from Working Committee 8 – Outreach to Farmers and Trainers with special emphasis on Train-the-Trainer programs.

This working committee may continue to discuss topics related to training trainers after the FDA’s promulgation of the Produce Safety Rule in early 2012.
Summary

7.1. Principles of Adult Education

- **Key Challenges**
  - **Age** – The average age of the current farm owner is 55 but food safety implementation is often delegated to younger farm members. This results in variable levels of comfort with technology, different learning styles, and attitudes about produce safety. Educational materials must be varied to accommodate many different ages of learners.
  
  - **Attitude** - Adults need to integrate new ideas and attitudes with “old” ones if they are going to keep and use the new information. Experienced farmers may be more resistant to change their current practices.
  
  - **Education** – The education level of those participating in trainings may be highly variable ranging from less than a high school diploma to graduate degrees which may or may not be in an agricultural field.
    - While not all trainees will have formal education, many have years of experience with farming or the fresh produce industry.
    - Others may have a formal education, but no experience with agriculture.
    - Trainers may not be experts in all things; they must be instructed on the importance of honesty, saying “I do not know” if they are uncertain, and following up when they do not know the answer.
  
  - **Language** – A key aspect to training and the retention of information is presenting the information in a language that the learner understands. Language may be defined in two ways.
    1. Cultural language (e.g. English, Spanish, French)
    2. Terminology & Technical language (e.g. science based language that might not be familiar to all)
      - Language must be appropriate to the audience.
      - Avoid excessive technical language, but also avoid being too simplistic.
      - Know the audience and present at an appropriate level.
      - Consider cultural preferences for language – see Section 7.3 Cultural Considerations.
  
  - **Learning Style** – A wide variety of learning styles exist, particularly for adults. See Section 7.1 Instructional Methods and Learning Media below.
  
  - **Grower Market** – Two primary categories of growers exist related to the markets where they market their products: direct and wholesale. These markets may affect their opinion and willingness to attend trainings or implement food safety practices on the farm.
1. Markets that require GAPs certification: May be more aware of food safety requirements because of business environment.
2. Primarily direct marketing that do not have GAPs requirements: May believe that food safety does not apply to them or unaware of food safety practices altogether.

- **Instructional Methods and Learning Media**
  - **Methods:**
    - Short breaks between instructional periods provide more effective learning.
    - Time for reflection should be provided.
    - Visual images are remembered more effectively than words.
    - Adequate information must be provided to trainers so they have a solid understanding of the science that impacts current recommendations.
    - Trainees should learn enough to be able to perform a risk assessment on their own farm and implement practices to reduce them.
    - Incorporating business and horticultural benefits of food safety can result in increased implementation of food safety practices on the farm.
  - **Media:**
    - Case studies
    - Field trips, hands on experience
    - Binders
    - PowerPoint Slides
    - Flip charts
    - Videos
    - Educational/Teaching resources (Train-the-trainer is not just training on basic principles of food safety, but also training HOW to TEACH audiences.)
  - **Adult learners learn better when:**
    - Activities and tasks are structured and clearly relate to specific subjects.
    - Problem-solving instructional methods are incorporated.
    - Utilizing real or model experiences and scenarios.
    - Given opportunities to apply and practice what they have learned.
    - Cooperative learning situations and group work are utilized.

Source: Daryle E. Foster, Robert B. Gravani, Elizabeth A. Bihn. Teaching Adult Learners.

- **Existing Program Models**
  - Seafood HACCP Train the Trainer
  - JIFSAN Train the Trainer
  - Arizona LGMA
  - Cornell Cooperative Extension Train the Trainer
  - California Strawberry Commission
  - NC State GAPs Training Initiative
7.2. Successful Meeting Organization

- **Length of Training**
  - Should be appropriate for the audience’s experience and educational background.
  - 2-3 days was the maximum amount of time the committee was willing to attend or conduct a train the trainer workshop. Many agreed that more than 2 days was too much information and that presentations should be modularized.
  - Length that participants are able to stay often depends on their allotted professional develop time granted by supervisors and funds to travel.

- **Training Structure**
  - Trainings must be tailored to the audience; trainers must be aware of audience type and current challenges (e.g. regional audit pressure from buyers, predominant production strategies (e.g. organic or conventional), known cultural differences)
  - Trainings should be broken up with case studies, hands on activities, or visual exercises to add interest and increase information retention.
  - Trainers learn best from real-life experiences of other trainers, growers, and regulators. Case studies and scenarios should be emphasized to better prepare future trainers to deal with those issues.
  - Trainers should be encouraged to keep up-to-date with the latest science and regulatory requirements. Continuing education options should be made available where appropriate, either through the specific training organization, or through online materials (updates, additional information, links) on the PSA website.

7.3. Cultural Considerations

- Potential languages to offer curriculum materials, both verbally translated (e.g. videos) and written translations (e.g. binders, posters). For those with limited English proficiency, dual language training materials should be utilized where appropriate.
  - English
  - Spanish
  - Creole
  - Hmong
  - Chinese/Asian languages

- Other cultural considerations
  - Amish/Plain Grower communities often prefer German or Pennsylvania Dutch in spoken communication; however written materials should be presented in English.
Hmong prefer verbal trainings instead of written materials. Photos, illustrations, and simple Hmong/English phrases may be used to support verbal trainings.

7.4. Trainer Qualifications
- **Pre-requisites**
  - In order to maintain consistency, trainers should be required to demonstrate that they have attended a basic training in GAPs and food safety practices on the farm or can demonstrate the basic knowledge.
  - Once a base of knowledge is created, further modules can be provided to trainees on their specific tasks as trainers.
- **Producing a Cadre of Qualified Trainers**
  - It is important that the committee be sensitive to the fact that there are 186,000 farmers that may need training. It is encouraged that no interested party be turned away from becoming a qualified trainer.
  - Although some attendees may not have sufficient experience with GAPs prior to training, they will receive the tools to further educate them after the training is over.
  - Exclusivity may not be the best route to ensure we produce a large cadre of competent trainers.
  - Previous qualifications of trainers should be considered so that training efforts are not duplicated.

7.5 Variation in Target Audiences
- The questions listed below should be asked prior to conducting training to better understand the audience, both for Train-the-Trainer and grower trainings.
  1. Who makes up the audience?
  2. What is their occupation or specific job?
  3. What is their level of education?
  4. What is their experience?
  5. Why are they attending?
  6. What do they know about the subject?
  7. What is their interest in the subject?
  8. What things do they have in common?

- **Identified Target Audiences**
  - Extension educators
  - Consultants
  - Small farm owners
  - Cooperatives
  - Distributors
  - Market managers
  - Community/School gardens
  - Farm to School
  - Regulators (WC #9)
  - *Industry members*
  - *Retail/buyers*
Recommendations

These recommendations have been adapted from Working Committee #8: Outreach to Farmers and Trainers with specific emphasis on Train-the-Trainer programs.

Recommendation #1: The Train-the-Trainer course should focus heavily on principles for effective adult education. Attendees are expected to have completed basic GAP training prior to the course, thus the Train-the-Trainer program is designed to fortify existing knowledge and assist with the identification of the most effective delivery methods.

Recommendation #2: The curriculum should have standardized content and consistent messages that promote science-based risk assessments and the implementation of Good Agricultural Practices (GAPs). While a wide range of commodities, farming practices, and growing regions exist, emphasis must first be placed on core principles of produce safety.

Recommendation #3: The curriculum and associated training materials must meet the needs of diverse audiences including variable education levels, languages, and cultural practices. In addition, trainers must recognize the diversity within the audience and meet the needs of the participants.

Recommendation #5: A pre-training survey should be conducted to assess the audience characteristics before the Train-the-Trainer training including educational background, clientele targeted for outreach, and past GAPs training. Audiences might include Extension Specialists, County and Regional Extension Staff, personnel from Regulatory Agencies, and others.

Recommendation #6: The length of the Train-the-Trainer training must allow for complete coverage of the topics of adult education and effective utilization of a variety of training materials. Train-the-Trainer programs should be tailored to meet regional or commodity-specific needs.

Recommendation #7: Ensure that trainer’s access to educational materials for their future target audiences is appropriate and easy to obtain. The Produce Safety Alliance should make these materials readily available and up-to-date for trainers to access.

Recommendation #8: The curriculum must emphasize the importance of writing a food safety plan. Trainers should be adept in this practice and be able to effectively extend knowledge to their future training program (or industry) participants for their specific production practices and operation. For more information on food safety plans, refer to WC #2: Common Issues.

Recommendation #9: The training course should focus on science-based risk assessments. Trainers should become proficient in the identification and understanding of risks that exist on farms. They should have knowledge of how to mitigate the risks with practical and affordable methods. A list of available tools to conduct a risk assessment should be provided as an additional resource.
Recommendation #10: Training should include a discussion of growers’ likely pre-conceived notions about the trainers including the assumption that they are food safety experts. Food safety training is an important responsibility that trainers should take seriously. If they are not perceived as being dedicated to the task, future audiences of growers and handlers may infer that the subject matter is not important to them and fail to implement food safety programs effectively.
# APPENDIX I: Working Committee Members (45)

1. Aller, Marion; Assoc. of Food & Drug Officials; FL Dept. of Agriculture & Consumer Services
2. Bihn, Elizabeth; PSA Program Director; Cornell University
3. Broughton, Fred; Marketing Specialist; S.C. Department of Agriculture
4. Brown, Reggie; Association Manager; Florida Tomato Exchange
5. Burkholder, Harvey; Farmer; Country Fabrics
6. Butler, Shawn; Grower/Sales; Grimes Produce Company
7. Carlson, Cathy; Food Safety Program Manager; Community Alliance with Family Farmers
8. Carrington, Deborah; Director of Education; Fidelis Partners
9. Chege, Peter G.; Extension Specialist; University of Illinois Extension
10. Crowley, Cecilia; Consumer Safety Officer; USFDA
11. DeSantis, Valeria J.; Farm Products Grading Inspector; NYS Dept. of Agriculture
12. Farinas, Jenie; Food Safety Program Assistant; Family Farmed
13. Furrh, Lyn R; Project Manager; Bytech Technologies, LLC
14. Haskins, Cynthia; Consultant; Illinois Farm Bureau
15. Hirsch, Diane; Extension Educator; University of Connecticut Cooperative Extension
16. Johnson, Cindy; Training Coordinator; KSDE, Child Nutrition & Wellness
17. Kahlke, Craig, J.; Area Extension Educator; Cornell Cooperative Extension
18. Kiger, Luana E.; Special Assistant to STC; USDA NRCS
19. Kramer, Andrew William; Mgr. of Grower Communications; CA Strawberry Commission
20. Kulhanek, Ashley L.; Food Safety Education Associate; The Ohio State University
21. Lynch, Jane; Certification Representative; Organic Certifiers, Inc.
22. Mahovic, Michael; Consumer Safety Officer; FDA-CFSAN Produce Safety Staff
23. Melendez, Meredith; Senior Program Coordinator; Rutgers Cooperative Extension
24. McCartney, Michael; Principal/Consultant; QLM Consulting
25. McGinnis, Yvonne R.; CEO; Remembering Mary, LLC
26. Merkle, Bethann G.; Independent Consultant; Self
27. Nickerson, Ginger; GAPs Outreach Coordinator; UVM Extension
28. Nieto-Montenegro, Sergio; President; Hispanic Workforce Management, LLC
29. Nolte, Kurt D.; Extension Agent; University of Arizona
30. Ogle, Tamara M.; Extension Educator; Purdue Extension
31. Phelps, Laura; President; American Mushroom Institute
32. Pivarnik, Lori; Educator; University of Rhode Island
33. Queenan, Mark; VP of Quality; Backyard Farms, LLC
34. Rushing, Jim; Training and Program Manager; University of Maryland
35. Salas Gutierrez, Sonia E.; Science/Technology Manager; Western Growers Association
36. Sanchez, Marcos; Food Safety Specialist; IICA
37. Schrock, Lloyd C.; Chairman of the Board and Mgr.; Lincoln Co. Produce Auction
38. Sharp, Adam J.; Public Policy; Ohio Farm Bureau Federation
39. Stoltzfus, Jeff; Ag Instructor; ELANCO School District
40. Theuri, James; ANR Educator; University of Illinois Extension
41. Villaneva, Michael, L.; Consultant; California Leafy Greens Marketing Agreement
42. Wall, Gretchen; PSA Program Coordinator; Cornell University
43. Yoder, Raymond; Grower; Yoder's Produce
44. Yoder, Bennie; Rep. for Food Safety/Grower; Sunset View
45. Zambrana, Ingrid A.; National Expert-Foods; USFDA/Office of Regulatory Affairs