Food Safety at Farmers’ Market

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2015 MCAFDO Educational Conference

February 24, 2015
USDA National Farmers’ Market
Food Safety Project: 10/2013 to 9/2016

Source: http://www.miromaroutlets.com/
What about food safety at farmers’ markets?
What about food safety at farmers’ markets?

Pathogens Identified in Herbs at Farmers’ Markets
Study on the West Coast finds *E. coli, Salmonella* in parsley, cilantro, basil

No Longer Niche, Local Foods Becoming Big Business

*By MARY CLARE JALONICK*
Viruses:
- Smaller than bacteria
- Require a host to replicate
- Norovirus, Hepatitis A

Bacteria:
- Too small to see
- Can live in many environments
- Replicates independently

Parasites:
- Organisms live in host
- Often waterborne
- Intestinal worms or protozoan organisms most common

Primary Concerns

Adapted from: Dr. Christie Welch, Farmers’ Market Extension Specialist, The Ohio State University OARDC Extension
Objective 1: Focus groups with farmers market vendors/managers

Objective 2: Focus groups with farmers market consumers

Objective 3: Configuring the most sanitary market

Objective 4: Comprehensive resource of food safety jurisdiction

Objective 5: Interactive food safety apps for smartphones and web-users
Farmers’ Market Vendor Layouts

Can vendor booth configurations decrease the risk of cross contamination?

- U-shaped
- Square-shaped
- L-shaped
1. Layout selected: U, Square, L
2. Produce: cucumbers, tomatoes, lettuce, green peppers, apples, onions, cantaloupe
3. Non-produce: plastics, paper products, rocks, dog treats, glassware
4. Arrange booths within layout to test patterns
5. Have “consumers” apply 1 ml of fluorescent gel to their dominant hand and go through the market
6. Shine black light on booths and record observations and collect swab samples
Farmers’ Market Layouts

Does it matter? **YES, it depends**

U-shaped market

- Alternate P and N booths
- Lowest level of contamination based on swab analysis

Recommendation: U-shaped market can reduce probability of cross-contamination

Market layout cannot always be changed...
Food Safety at Farmers’ Markets

Farmers’ Markets can...

- Understand why food safety is important
- Know what opportunities vendors have for food safety education
- Develop/maintain a positive working relationship with the local health departments and vendors/producers
- Encourage vendors /producers to provide food safety education for their customers

Adapted from: Dr. Christie Welch, Farmers’ Market Extension Specialist, The Ohio State University OARDC Extension
Farmers’ Markets and LHDs

- Cottage Foods Rules
  - labeling
- Mobile Retail Food Establishment
- “Processed” Foods
  - Shelled vs. not shelled
  - Washed and sealed vs. not sealed
  - Samples
Food Safety for Consumers

- Encourage market manager and vendors/ producers to educate their consumers
  - Teach consumers how to transport, store, and prepare their products safely
  - Include information for each to prepare nutritious recipes to encourage loyal consumers
  - Post proper hand washing information in restrooms
- Support special events that demonstrate safe food handling practices
- Encourage vendors/ producers to be properly trained
- Develop response plan

Adapted from: Dr. Christie Welch, Farmers’ Market Extension Specialist, The Ohio State University OARDC Extension
Regional Farmers’ Markets:
Web Content Analysis

http://en.wikipedia.org/wiki/United_States_Environmental_Protection_Agency
Regional Farmers’ Markets: Web Content Analysis

Sampling Strategy
- USDA local food directory
- # of farmers’ market per region
- Inclusion criteria: website, accept SNAP and WIC
- Random number generator for FM selection by region
  - 10 per region = 100 total
Regional Farmers’ Markets: Web Content Analysis

Â Food safety tips for consumers
  ï 4 out of 100
  ï Only 1 FM had an actual consumer guide for FM food safety

Â Food safety guidelines for vendors
  ï 56 out of 100
  ï Only 50% of those have links to actual state/local health department guidelines or extension pubs

Â The remaining state that vendors are personally responsible for following relevant regulations
Regional Farmers’ Markets: Web Content Analysis

- Cottage foods allowed
  - 48 out of 100
  - Only one requires a food safety course as well

- Vendor farm visit requirements
  - 25 out of 100
  - None of the 25 provide a checklist
Guides for Farmers’ Market Consumers

Food Safety from the Farmers Market to your Fridge

Concerned about food safety when you shop? Here are some tips and guidelines to help you make sure that your food is safe from the farmers market to your fridge.

MIFMA: *Farmers’ Market to your Fridge*

- Choosing and buying at the market
- Getting your purchase home
  - Hard to resist a fresh berry BUT be sure to wash thoroughly first to remove any soil, bacteria, lingering pests, or traces of pesticides
  - Make the farmers’ market your last stop before heading home
- Storing your purchases
  - Hold off on washing until ready to use
MIFMA: Farmers’ Market to your Fridge

• Storing your purchases (cont.)
  ▪ Perforated plastic bags
  ▪ Store fruits and vegetables in separate crisper drawers in the fridge
    ▪ If don’t fit in drawers, always store fresh produce on shelves above meat

• Using, cooking, and eating your farmers’ market items
  ▪ Basic food safety in the home

<table>
<thead>
<tr>
<th>Store at Room Temperature:</th>
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<tr>
<td>Melons</td>
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<td>Nectarines</td>
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<td>Onions</td>
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<td>Sweet Potatoes</td>
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<td>Tomatoes</td>
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<td>Winter Squash</td>
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Refrigerate:
(Most other fruits and vegetables)

| Beans                  |
| Berries               |
| Broccoli             |
| Cucumbers            |
| Lettuces and Greens |
| Peas                 |
| Summer Squash        |
Other Consumer Education Options

Market managers and CSAs can include food safety tips and information in newsletters
- Social media: Facebook, Twitter, Instagram

Newsletters and fact sheets
- Inform and remind customers about food safety risks and safe handling practices

Demonstrations and Food Safety Events
- Proper procedures can be demonstrated
- Equipment can be displayed
- Customers can be given opportunity to ask questions and pick up fact sheets or other information on food safety

What are we working on?

Farmers’ Market Consumer
Food Safety Smartphone “App”
Farmers’ Market Consumer “App”

Quick Read Code + QR Code Scanner = Creates a “window” to the farm
 Farmers’ Market Consumer “App”

Quick Read Code + QR Code Scanner

- Good Handling Practices
- Food safety specific to product
- Recipes for “exotic” produce

Periodic Table of Farmers’ Market Products
“Food safety involves everyone in the food chain”

- US Senator Mike Johanns
Acknowledgements

University of Arkansas Team
  • Katie Wright

University of Houston Team
  • Jay Neal
  • Sujata Sirsat
  • Kristen Kirkwood, Hillary Norwood, Mary Goodman, Lydia Liou
Questions?

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