Creating a Food Safety Culture for RI Farmers Markets

good practices for market managers

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Why Food Safety

People most at risk

- Infants & children
- Pregnant women
- Elderly
- People with a weakened immune system
Why Food Safety

We are eating more fruits and vegetables.

National increase in Farmer’s Markets

National Count of Farmers Market Directory Listings

Source: USDA-AMS-Marketing Services Division

Farms Market information is voluntary and self-reported to USDA-AMS-Marketing Services Division
Why Food Safety

Foodborne Illnesses

- Cases: 48 million cases per year (1 in 6 people)
- Hospitalizations: 128,000 per year
- Deaths: 3,000 per year
Why Food Safety

Foods that sickened people in outbreaks, 2009-2013

- Eggs 13%
- Chicken 12%
- Fruits 11%
- Beef 8%
- Pork 8%
- Vegetable row crops 7%
- Turkey 7%
- Dairy 7%
- Seeded Vegetables 5%
- Fish 5%
- Grains-Beans 3%
- Sprouts 3%
- Other 7%
- Mollusks 3%

Source: CDC National Outbreak Reporting System, 2009-2013
Why Food Safety

Produce Outbreaks by Item, 1998-2008

- Leafy greens: 34.1%
- Tomatoes: 17.1%
- Melons: 15.9%
- Herbs: 8.5%
- Berries: 8.5%
- Green onions: 3.7%
- Others: 9.8%
- Unknown: 2.5%

Source: FDA 2009
Why Food Safety

Common pathogens & incubation period

- Norovirus 12-48 hours
- Salmonella 6-72 hours
- E.coli 0157:H7 1 to 10 days
- Listeria 3-70 Days

Source: From E. Julian talk, 2012, Food Safety conference
Why Food Safety

Top Five Foodborne Illness Risk Factors

1. Improper hot/cold holding temperatures of certain foods.
2. Improper cooking temperatures of food
3. Dirty and/or contaminated utensils and equipment
4. Poor employee health and hygiene
5. Food from unsafe sources

http://ocfoodinfo.com/illness/risk
Food Safety Challenges at Farmers Markets

Could include;

– Little or no access to potable water
– Little or no access to electricity for refrigeration and temperature control.
– No restrooms
– No trash bins
– Exposure to the environment (markets are often outdoors)
Examples of Farmer’s Market Outbreaks

1. 2002, Colorado, Farmers Market
   • E. coli 0157:H7, linked to produce samples, 14 ill, 2 children required dialysis

2. 2003, Canadian Farmer’s Market
   • E. coli 0157:H7, cheese vendor

3. 2010, Iowa Farmer’s Market
   • Salmonella, Salsa, Guacamole, Tamales, 5 markets affected, 25 illnesses, hospitalizations

4. 2008 Alaska Farmer’s Market
   • Campylobacter, Peas, 5 markets affected, 18 illnesses

Source: www.foodsafetynews.com
Are your vendors legally selling their products?
No license is needed if you are selling whole UNCUT produce or honey.*

*Unless you are giving out cut produce samples, then a Retail Food Peddlers license is needed.
Farm Home Food Manufacturer License

- Allows farmers to produce certain types of products in their residential farm home kitchen to be sold at farmers’ markets and farm stands.
- Limited to the types of food you can produce.
- NO ACIDIFIED or LOW-ACID HOME CANNED PRODUCTS are allowed (i.e. salsa, soups, tomato sauce, pickles)
Requirements

Farm Home Food Manufacturer License

Examples of foods you can produce with this license
• Candies and fudges
• Double crust fruit pies (made with RI grown fruit)
• Dried herbs and spices
• Jams, jellies and preserves (made with RI grown fruit and vegetables)
• Maple syrup (from trees on farm or trees within 20 mile radius of farm)
• Vinegars (with herbs grown in RI)
• Yeast breads
Requirements

Food Service Mobile License

- Allows for the sale of food by food truck operators.
Requirements

Retail Food Peddler’s License

- Allows for food products (sold or given as free samples) from a licensed retail, wholesale facility, or foodservice operation for direct sale/service to the consumer at another site (e.g. farmers’ market).*
Requirements

Food Processor License OR a Food Service License

- Allows vendors to process or prepare food products at their licensed processing or food service operation.

A Retail Food Peddler’s License IS needed to bring these products to the farmers’ market!
How can I sell fish at a RI Farmers’ Markets?

• Fresh fish **CANNOT** be directly brought from off the boat. It must first go to a licensed food processor following seafood regulations.

A Retail Food Peddler’s License **IS** needed to bring these products to the farmers’ market!
Requirements

Dealer’s License for Shellfish Businesses
(for shipper, reshipper, repacker, shucker/packer)

- Required for sale of shellfish as wholesale.
- Shellfish harvester tags must be kept on file per regulatory requirements

A Retail Food Peddler’s License IS needed to bring these products to the farmers’ market!
Requirements

Selling Shellfish without a Dealers License

- A Food Processor license or a Food Service License is required.
- Shellfish harvester tags must be kept on file for 90 days.

A Retail Food Peddler’s License IS needed to bring these products to the farmers’ market!
Farm Warehouse License (meat products)

- Allows farmers to take their animals to a USDA slaughterhouse and then to a licensed meat packing plant, where it must be packaged and frozen.

A Retail Food Peddler’s License IS needed to bring these products to the farmers’ market!
Potential Risks Stem From:

- Water
- Products
- Animals
- Vendor hygiene
- Consumer contamination
- Product displays
- Transportation
- Airborne Contaminates
- Bathroom facilities
- Food Demonstrations
- Food sampling
WATER

Water used for drinking, hand-washing, ice, rinsing produce etc.
In September 1999, a water-borne outbreak of E.coli 0157:H7 occurred in Washington County Fair, NY. Occurred after heavy rains contaminated a nearby well.

More than 1,000 people became ill and two died from drinking the contaminated well water.
Where does the market’s water come from?

– Municipal (city/town) water does not need testing.
– All other water sources should have microbiological testing done before the start of the market season.
– In addition, all sources of water should have signs indicating its potability.
When should vendors wash their hands?

- **Before**, during, and after preparing food
- **Before**, eating food
- **Before**, and after caring for someone who is sick
- **Before**, and after treating a cut or wound
- **Before**, putting on single-use gloves
- **After**, eating
- **After**, using the toilet
- **After**, blowing your nose, coughing, or sneezing
- **After**, touching an animal, animal feed, or animal waste
- **After**, touching garbage
Best Practice: Keep markets animal-free, excluding service animals.
If your market does allow customers to bring pets...

A good practice would be to provide waste bags, garbage containers and a hand washing station. Recommend that all pets should be on a short leash and under the owner’s control at all times. Don’t forget a sign!
Petting Zoos

- Since 2000, petting zoos and organized farm visits around the U.S. have caused at least 32 publicized outbreaks of E. coli, Salmonella and Cryptosporidium.

- Between 1996 and 2010, CDC received reports of approximately 150 animal-to-human disease outbreaks in public settings.
Example of ‘Petting Zoo’ Outbreaks*
(*not from farmers markets)

1. Cleveland County Fair, NC
   – E.coli 0157:H7, 106 illnesses, 1 toddler died

2. A Pumpkin Patch in Washington State
   – E.coli 0157:H7, 4 children tested positive, 5 other reported illnesses
     • Breakout occurred even after new sinks were installed and hand washing signs and
       information about the risks were posted around the farm.

3. North Carolina State Fair
   – E.coli 0157:H7, 108 illnesses

4. Oak Leaf Dairy Goat Farm, Connecticut March 2016
   – E.coli 0157:H7, 15 confirmed illnesses
Best Practice: Don’t have one!
If you still plan on having live animals keep them segregated from food and vendors and, ideally, located downwind from foods being sold in the market.
Petting Zoos - More recommendations

• Food should not be allowed to be consumed in animal area

• Have a hand-wash station with signs reminding people to wash hands after leaving animal area. Hand sanitizers are not effective!
**Best Practice**: Implement good personal hygiene!
Make sure your vendors have a clean body, hair, and clothes. Open sores should be covered and vendors should be free from any signs of illness.
VENDOR HYGIENE

More recommendations

• Make sure your vendors wash hands before beginning work and any time they become dirty.
  – using the restroom
  – handling live animals
  – after eating

Hand-sanitizers are NOT the best choice for hand washing!
VENDOR HYGIENE

More recommendations

• Vendors should not be smoking or eating while selling and/or handling food.
Best Practice: Make sure consumers have access to a hand washing station with signage for how to properly wash hands. You could even mention that “Food Safety is a Priority at our Market. Please wash your hands before entering market. Hand sanitizers are not effective.”
If you witness risky practice, say something because the risky practice could make someone sick!

Britany Spears caught changing her baby’s diaper on a table in a restaurant.
**Product Displays**

**Best Practice:**
Keep all foods off the ground/floor during storage and display. All produce and foods should be kept at least 6 inches off the ground to prevent contamination.

**The Right Way!**

**The Wrong Way!**
Best Practice:
Potentially hazardous foods (i.e. fresh produce, baked goods etc.) should be separated to prevent cross contamination.

- raw meat
- poultry
- seafood
- eggs
Shopping Bags

**Best Practice:**
Bags that are used to give sold food to customers should be new and of food-grade quality. Also make sure they are free from chemicals that could contaminate food products.

*If a customer brings their own reusable bag it is on them to safeguard against cross contamination by cleaning in-between uses.*
• Keep on eye on garbage throughout the market and ensure that it is being properly disposed of directly into a waste container.

• Keep waste containers covered and empty them often!
Transportation

The Right Way!

The Wrong Way!

All loads should be covered or enclosed with a cap or tarp for transporting food products. Overloading could bruise products potentially effecting quality and the food safety of your product.
Trucks, vans or other vehicles used to transport products for consumption should be free from:

- Dirt
- Food
- Residue
- Livestock
- Domestic animal debris
- Chemicals
- Fertilizers
- All other potential contaminates
Airborne Contamination

The Right Way!

The Wrong Way!
Bathroom Facilities

Best practice is to have a restroom, with a hand washing station, available within 200 feet of the market.
In 2000, 14 people who sampled produce offered at a Fort Collins, Colorado Farmers Market were made ill by a harmful bacteria, E. coli 0157:H7. *

*The University of Tennessee
FOOD SAMPLING

Recommendations for Farmers

• **Uncut produce samples**: Best practice is to serve the samples individually in a single-serving container or by using toothpicks i.e. cherry tomatoes

• **Cut produce samples***: Must be prepared at farmers’ market either using a 3-bay sink and a handwashing station OR using single-use knives that are disposed of often (every 2-4 hours depending on if it is cold or warm outside).
  • Cut samples require temperature control for safety. Samples should be kept at 41 degrees or lower in a cooler and taken out or cut as needed.

* A Retail Food Peddlers license is needed if you are giving out cut samples of your produce.
FOOD SAMPLING

Recommendations for all other food-related vendors (sold or provided as free samples)

**Best Practice:** Prepare individual samples in the on-farm residential kitchen or licensed commercial kitchen, prior to arriving at the market. Serve the samples individually in a single-serving container or by using toothpicks.

**Preparing sample at Farmers Market:** Using a 3-bay sink and a handwashing station OR using single-use knives that are disposed of often (every 2-4 hours depending on if it is cold or warm outside).

- Some foods require temperature control for safety at 41 degrees or lower in a cooler and taken out as needed.
- Discard samples that have sat out for 2-4 hours depending on how warm it is outside.
- Individual labels for samples is not necessary, but you need to have ingredient list on display or on label packages identifying allergens.
Individual labels for each sample is not necessary, but you need to have properly label packages of your product on display with the samples so your customers can review the ingredient list including all allergens.
Food Safety Begins on the Farm

Three major factors that can contribute to the risk of produce contamination on the farm.

1. Manure Management
2. Water source and usage
3. Farm working health and hygiene
Use Your Handouts!

**Decision Making Tool**

**What License do I Need at a RI Farmers’ Market?**

<table>
<thead>
<tr>
<th>What are you selling at the Farmers’ Market?</th>
<th>This is the license needed for your product(s).</th>
<th>Do I also need a Retail Food Peddler’s license?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole UNCUt produce or honey</td>
<td>No license is needed</td>
<td>No</td>
</tr>
<tr>
<td>Products made from your Residential Farm or Home Kitchen</td>
<td>Farm Home Food Manufacture license</td>
<td>No</td>
</tr>
<tr>
<td>Products processed from a licensed processing facility or food service operation</td>
<td>Food Processor or Food Service licenses</td>
<td>Yes</td>
</tr>
<tr>
<td>Shellfish</td>
<td>Dealer’s license or Food Service or Food Processor licenses (when purchasing from dealer)</td>
<td>Yes</td>
</tr>
<tr>
<td>Livestock from a USDA, slaughterhouse and packing plant</td>
<td>Farm Warehouse license</td>
<td>Yes</td>
</tr>
<tr>
<td>Food out of a food truck</td>
<td>Food Service Mobile license</td>
<td>No</td>
</tr>
</tbody>
</table>

**A Food Safety Assessment Tool for RI Farmers’ Market Managers**

The following questions will help managers of farmers markets determine if their market is a food safe environment for everyone. A properly operated market should be able to answer “YES” to all applicable questions.

**Market**
- Is the area surrounding the market free of trash and debris?
- Do you have a market practice in place to help control pests?
- Are vendors cleaning their tables prior to set-up and regularly during the day?
- Is your market free of animal-free, excluding service animals?
- Are animal displays are located outside of market and away from food?
- Is proper signage is used to remind customers to wash hands before entering market area?
- Are individual market stands under protective cover when located outdoors?
- Are nearby bathroom facilities, for both vendors and customers, equipped with hand-washing capability? (potable water and soap is preferable to hand sanitizer)
- Is there proper signage reminding vendors to wash their hands before returning to table?
- Is potato water used for hand-washing?
- Is the water sourced from a well, has the well been tested, and approved within the last year?
- Is it retained after any event that may cause water contamination?
- Are hand-washing stations available to vendors handling food products?

**Are vendors informed about the following?**
- Following good personal hygiene?
- Washing their hands at the appropriate times?
- Covering cuts or open wounds with proper bandage and single-use gloves?
- Preventing from smoking and eating while selling and/or handling food?
- Not handling food products when ill?

**Products**
- Do vendors have proper permitting to sell food products other than uncut produce?
- Is on-site cutting are vendors following proper food safety procedures?
- Are sampling products are vendors following proper food safety procedures?
- Do vendors keep product displayed off the ground?
- Are uncooked fresh animal products kept separate from ready-to-eat products (i.e., produce, baked goods, etc.)?
- Are products stored in easily cleanable containers?
- Are tins used in food sales considered food grade?
- Do you have signage reminding customers to wash product before consumption?
Questions?

You can also contact us at urifoodsafety@etal.uri.edu!

Visit the URI Food Safety Education Website
References


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Cornell University Extension

A Microbiological Comparison of Poultry Products Obtained from Farmers' Markets and Supermarkets in Pennsylvania--

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Farm Home Food Manufacture http://webserver.rilin.state.ri.us/Statutes/title21/21-27/21-27-6.1.htm and application