Extension Resources for Farmers Markets

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Virginia Cooperative Extension

- Transfers expertise from Virginia Tech and Virginia State University into Virginia’s communities
- Faculty specialists, regional/local agents, program assistants, volunteers
- Collaborative partnership with local, state, and federal governments
VCE Resources

• Food safety trainings for vendors & market managers
• Fact sheets
• Online trainings
• Volunteer programs
Farmer/Vendor

- Food safety on the farm
- Land use
- Water use
- Manure & soil amendments
- Hygiene, health & training
- Toilet & handwashing facilities
- Harvesting & Storage
- Transporting produce safely
- Training & certification options
- Food safety at the market
- Current events
- Additional resources

Market Manager

- Market review self-study
- Food safety at the market
Factsheet Example

**Factsheet Example**

**Enhancing the Safety of Locally Grown Produce**

Promoting good worker hygiene is one of the most important steps farmers can take to prevent contamination of produce and vegetables with foodborne disease-causing microorganisms referred to as pathogens. A key step in promoting good hygiene is ensuring that there are handwashing stations and toilet facilities available on the farm in close proximity (not more than 30 feet) to the workers.

**Setting up a good handwashing station**

Thorough handwashing is a "best practice" for keeping food safe. Though washing will cut down on the numbers of microorganisms present which in turn helps to enhance the effectiveness of the sanitizer. Hand sanitizers should only be used after proper handwashing, and in place of it:

- A good handwashing station should be equipped with the following items:
  - A clean container holding clean water that has been tested to be sure it has no detectable general 10cfu present.
  - Single use paper towels.
  - Hand soap or antibacterial soap in a pump dispenser.
  - Tissue receptacles.

**Additional tips for a good handwashing station**

- Use a large, closed, plastic container such as a cooler that has a spigot to hold the portable sink.
- Use another large plastic container or bucket to catch the wash water, and avoid letting it get into growing areas.
- The handwashing station should be located close to where the workers are working, in order for it to be easy for them to use.
- If your farm is large enough, locate the handwashing stations in smaller sections of the farm so that they can be moved around your farm as the workers move from plot to plot.
- Include signs with handwashing instructions or pictures for workers to follow. The instructions should be in English and another Spanglish or another native language.
- The stations should be monitored on a regular schedule to ensure that it is clean and stocked with soap, soap, hand towels, etc.

**Example of handwashing stations that farmers have created on their properties**

**Setting up adequate toilet facilities**

In the farm, the most common toilet facilities are rented portable toilets. One portable toilet for every 15 to 20 workers is recommended. Facilities should be located not more than a 1/4 mile walk from each worker’s place of work in the field:

- Facilities should be located not more than a close proximity to the handwashing stations or that the workers can wash hands after using the toilet.
- The portable facility can be mounted on a trailer so that it can be moved around the farm from plot to plot to make it easier for the workers to use.
- It should be serviced and cleaned on a regular basis.

Very small farm operations may have primarily family or neighbors harvesting produce. In this case a home toilet is acceptable. However, single-use paper towels are most needed and the toilet facilities should be removed and cleaned on a regular basis. Two or more water bags, just as you would off the workers, on proper hand washing and hygiene practices for your farm.

Goin to the bathrooms in the woods or either areas adjacent to growing areas should be avoided due to the risks of runoff or transfer into the fields.
Farmers Market Farmer/Vendor Course:

Enhancing the Safety of Locally Grown Produce - Produce Growers/Farmers Market Produce Vendors (Virtual Program)

Welcome, and thank you for joining us. This one-hour course will provide you with the knowledge to understand the science and causes of foodborne illness as well as the proper procedures to decrease the risk of contamination of the food products you produce and sell.

Before getting into the course material, familiarize yourself with the information presented on this page related to the modules you will work through, how the course is set up and how we're available to support you.

Instructors

Lester Sehlscheidt, Ph.D.
Sarah Sherer
Julie Holtz
Wanda Boyton, Ph.D.

Course Objectives

- Gain information about potential issues that could affect the safety of produce
Covered by the FSMA Produce Safety Rule

• Take a Produce Safety Alliance course (only FDA approved curriculum; satisfies PSR training requirement)

• Understand required PSR records (<10 docs)

• Next class March 28 and 29, 2023 1-5 pm EST (virtual); or contact Lstrawn@vt.edu
PRODUCE SAFETY ALLIANCE
GROWER TRAINING
VIRTUAL

COST: $25
INCLUDES SHIPPING AND ALL COURSE MATERIALS

OVERVIEW
The Food Safety Modernization Act (FSMA) Produce Safety Rule is the first federally regulated standard for growing, harvesting, packing, and holding fresh produce in an effort to reduce microbial contamination and foodborne illness outbreaks.

If you grow fruits or vegetables, attend a training for information about best practices, and regulatory requirements.

WHEN
March 28th, 2023 from 1-5 pm EST
and
March 29th, 2023 from 1-5 pm EST
*must attend both half-days of instruction for certificate

WHO SHOULD ATTEND
Produce operations wanting to learn more about the FSMA Produce Safety Rule
Produce operations needing to satisfy the FSMA Produce Safety Rule training requirement for inspections

QUESTIONS?
EMAIL LSTRAWN@VT.EDU

REGISTER AT:
TINYURL.COM/YC88XF55S
Covered by the FSMA Produce Safety Rule

- Take advantage of an On-Farm Readiness Review (OFRR)
  - A program/tool to assist in FSMA PSR readiness that can be used to help gauge inspection preparedness
  - Local Extension agent can perform
A training guide for farm employees:

Best Practices for Growing, Harvesting, and Handling Produce in the Field and the Packinghouse

Mejores Prácticas de Cultivo, Cosecha y Manejo de Productos Agrícolas en el Campo y en la Empacadora

A Training Guide
Guía de Entrenamiento
- Jams & Jellies
- Refrigerated/Frozen Meals
- Fermented Vegetables
- Refrigerated Dips, Spreads, Dressings and Salads
- Maple Syrup
- Dehydrated foods
- Acidified foods
- Meats
- Dairy
- Honey
- Baked goods
- Pet food
- Eggs
- Samples
- Labelling
What do I need to know to provide SAMPLES at the farmers market?

Why should I provide samples at the farmers market?

Offering samples at the farmers market allows customers to sample your food before purchasing. This is a great way to promote your business. Even though samples are given away and not sold, vendors should follow safe practices when preparing and offering these food items.

Where should I prepare my samples?

There are two ways to prepare samples:

1. Prepare samples in your home kitchen and transport them to the market:
   - Wash your hands thoroughly with soap and water.
   - Wash all utensils and equipment thoroughly.
   - Clean the preparation area to prevent contamination.
   - Keep samples refrigerated at cooler-on-the-go.
   - Use a calibrated thermometer to confirm that samples are kept cool at a temperature below 41°F (5°C).
   - Allow your samples to cool at a temperature of 55°F (13°C).
   - Limit exposure of your samples to outside temperatures to 4 hours or less if they require temperature control.
   - After four hours, discard the samples.
   - If outside temperatures are greater than 90°F (32.2°C), these samples should not be left without temperature control for more than 2 hours.
   - Protect your samples from the environment, people, and pests.
   - Serve samples with:
     - Toothpicks (see fig. 1).
     - Single-use disposable cups or bowls, small spoons or forks (fig. 2).
     - Single-use clean juices.
     - Single-use clean spoons with lids (see fig. 3).
   - Keep samples covered (with a store or plastic covering) (see fig. 4).

2. Clean and sanitize utensils and equipment to prevent cross-contamination.
   - A good solution to use is one that is easy to transport to the market and a mild bleach solution (1 part of regular strength household bleach per gallon of water) in a spray bottle.
   - Keep samples refrigerated at cooler-on-the-go.
   - Use a calibrated thermometer to confirm that samples are kept cool at a temperature below 41°F (5°C).
   - Cool your samples at false-cool storage temperatures.
   - Use a calibrated thermometer to confirm that your samples are kept below 55°F (13°C).

What are some guidelines to follow for preparing and serving samples at the farmers market?

Apply the same food safety practices for preparing your samples as you do when running your product.

1. Follow good personal hygiene:
   - Wash your hands before and after handling any food.
   - Wash all utensils and equipment thoroughly.
   - Clean the preparation area to prevent contamination.
   - Keep samples refrigerated at cooler-on-the-go.
   - Use a calibrated thermometer to confirm that samples are kept cool at a temperature below 41°F (5°C).
   - Allow your samples to cool at a temperature of 55°F (13°C).
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   - After four hours, discard the samples.
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What is honey?

Honey is a naturally sweet and viscous food created by honeybees. The flavor of honey is created otherwise naturally from the plants where bees harvest their nectar or through added flavorings. Some varieties of honey include:

- Tupelo honey
- Orange blossom honey
- Lavender honey.
What do I need to know to sell REFRIGERATED DIPS, SPREADS, DRESSINGS, and SALADS at the farmers market?

What are refrigerated dips, spreads, dressings, and salads?

Many popular foods such as dips, spreads, dressings, and salads are popular items to sell at a farmers market. Most of these items require refrigeration to ensure safety. These foods contain a lot of moisture and do not have enough acidity to control microbial growth. They require time and temperature control to ensure their safety, and they are often referred to as TCS (potentially hazardous foods). Some examples include:

- Hummus
- Refrigerated salads
- Pasta (see fig. 1)
- Mayonnaise-based foods (e.g., potato salad; see fig. 2)
- Guacamole (see fig. 3)
- Sliced dressings.

Why do I need to refrigerate these foods?

Refrigerating these foods prevents the growth of certain pathogens and spoilage organisms, which can cause foodborne illness if not controlled. Refrigerating also prevents the growth of mold, which can negatively affect the quality and safety of these products.

What are some common refrigerated dips?

Common refrigerated dips include guacamole, potato salad, and coleslaw. These products often contain high levels of water and are prone to bacterial growth if not refrigerated properly.

What about dressings?

Dressings are another example of a refrigerated food. They are typically made with oil, vinegar, and spices and are prone to bacterial growth if not refrigerated. Examples include ranch dressing, balsamic vinaigrette, and thousand island dressing.

What about salads?

Salads are also refrigerated foods. They are typically made with leafy greens, vegetables, and a dressing. Examples include image 1, which shows a chicken salad.

How do I ensure the safety of refrigerated dips, spreads, dressings, and salads?

To ensure the safety of these foods, it is important to:

1. Refrigerate immediately after preparation.
2. Use cold water and ice to keep the temperature below 41°F (5°C).
3. Use a timer to ensure the food is kept cold for the duration of the market.
4. Rotate inventory to ensure that the oldest product is sold first.
5. Wash and sanitize hands before handling these products.

Figure 2. Refrigerated potato salad. (Photo: "Potato Salad Food Photo Story" by Dan Harlow, licensed under CC BY 2.0/Photo courtesy of Potbelly, Creative Commons License.)

Notes: All packaged, refrigerated foods require facility inspection by the Virginia Department of Agriculture and Consumer Services (VDACS 2017).

What do I need to know to sell KOMBUCHA at the farmers market?

What is kombucha?

Kombucha is a beverage made from brewed tea and sugar that is fermented using a Synergy of Cultures of Bacteria and Yeast (generally abbreviated as SCOBY). Kombucha is slightly sweet and acidic after consuming residual carbon dioxide. Some kombuchas also have fruit juice or other flavors added. Kombucha is generally made using the following steps (adapted from Summer, 2013):

Table 1. General steps to produce kombucha

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boil water</td>
</tr>
<tr>
<td>2</td>
<td>Add tea and steep for 20 minutes</td>
</tr>
<tr>
<td>3</td>
<td>Remove tea leaves and cool</td>
</tr>
<tr>
<td>4</td>
<td>Add 1% Kombucha (SCOBY)</td>
</tr>
<tr>
<td>5</td>
<td>Ferment at room temperature for 7–10 days</td>
</tr>
<tr>
<td>6</td>
<td>Refrigerate covered</td>
</tr>
<tr>
<td>7</td>
<td>Filter or remove culture moss</td>
</tr>
</tbody>
</table>

Why produce kombucha?

It is a beverage consumed in many countries and is quickly becoming a popular beverage in the United States because of its perceived health benefits.

What is the fermentation process and why is it important?

Kombucha is produced using a two-step fermentation process. In the first step, the yeast in the SCOBY ferments the added sugar and forms alcohol and carbon dioxide. In the second step, the bacteria in the SCOBY ferments the alcohol to produce vinegar (acetic acid). Production practices and fermentation conditions will influence the percentage of alcohol and vinegar in the final product. For this reason, alcohol production must be monitored closely to control food poisoning hazards that contain greater than 0.5% alcohol may be subject to Alcoholic Beverage Control Authority (ABC) and/or alcohol and tobacco taxes (TTB) regulations and taxation. Additionally, if fermentation continues for too long, excess vinegar may be produced making the product too acidic for frequent consumption.

Why does kombucha continue to ferment after the SCOBY is removed?

Your kombucha will continue to ferment after the SCOBY is removed because tiny fragments of the SCOBY will remain in the beverage. If you do not pasteurize your final product, the remaining yeast and bacteria will continue the fermentation process until there is no sugar left to ferment. This could lead to a beverage that is high in alcohol and/or dangerously acidic. Additional ingredients like juice or other flavorings could also retain sugar and allow for further fermentation, producing even more alcohol or vinegar.

How do I know if TTB Regulation is required for my product?

Kombucha producers must be aware that fermentation continues unless deliberately stopped. Therefore, the kombucha beverage could contain less than 0.5% alcohol by volume when it is bottled, but the fermentation may continue after bottling. As a result the...

Figure 3. Storing tea on the above dry preparation of kombucha. Photo by Kelly Hart.
Food Producer Technical Assistance Network

• Provide testing of food products for safety and quality

• Provide guidance on reformulation and product design

• Provide product label review for completeness and accuracy

• Create Nutrition Facts Panel graphics
Food Producer Technical Assistance Network: Regulatory Compliance

• Update and train on impact of Food Safety Modernization Act

• Inform clients of potential state and federal regulatory issues

• Act as acidified food processing authority providing clients with FDA-compliant scheduled processes

• Provide scientific rationale behind food regulation
Certified Food Protection Manager Certification

• Food establishments (including temporary food establishments) need to have at least one employee with supervisory and management responsibility and the authority to direct and control food preparation and service who is a **Certified Food Protection Manager (CFPM)**.
  • By June 24, 2023 the person in charge must be a CFPM.

• VCE ServSafe® Certified Food Protection Manager Programs
Covered by the Seafood HACCP Regulation

• Obtain the Seafood HACCP Certification

• Basic Seafood HACCP (3-day in-person class)
  • Upcoming class at Hampton in September

• Segment 2 - one day virtual option
  • May 19th
  • July 28th
Training in Meat and Poultry
HACCP & Siluriformes Order Fish

• Obtain the Meat and Poultry HACCP

• USDA inspects fish from the order Siluriformes (Catfish)
  • Obtain information about Grant of inspection and how to comply with USDA/FSIS
Virginia Cooperative Extension
Master Gardeners

- Volunteers trained by VCE to deliver gardening-related programming
- Local/regional Master Gardener chapters
- Booths at farmers markets to collect produce for donation
  - Customers who purchase extra
  - Vendors who do not want to take unsold produce
Virginia Cooperative Extension
Master Food Volunteers

• Trained volunteers who can deliver food demonstrations and other health-related programs at the market
Questions?

Farmers Market
OPEN TODAY
Thank you

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