



Food Safety at Farmers' Markets

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Special thanks to Fruit and Vegetable Safety
Team for use of GAPs Training overview slides



Farmers' Markets can...

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



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People are getting very sick

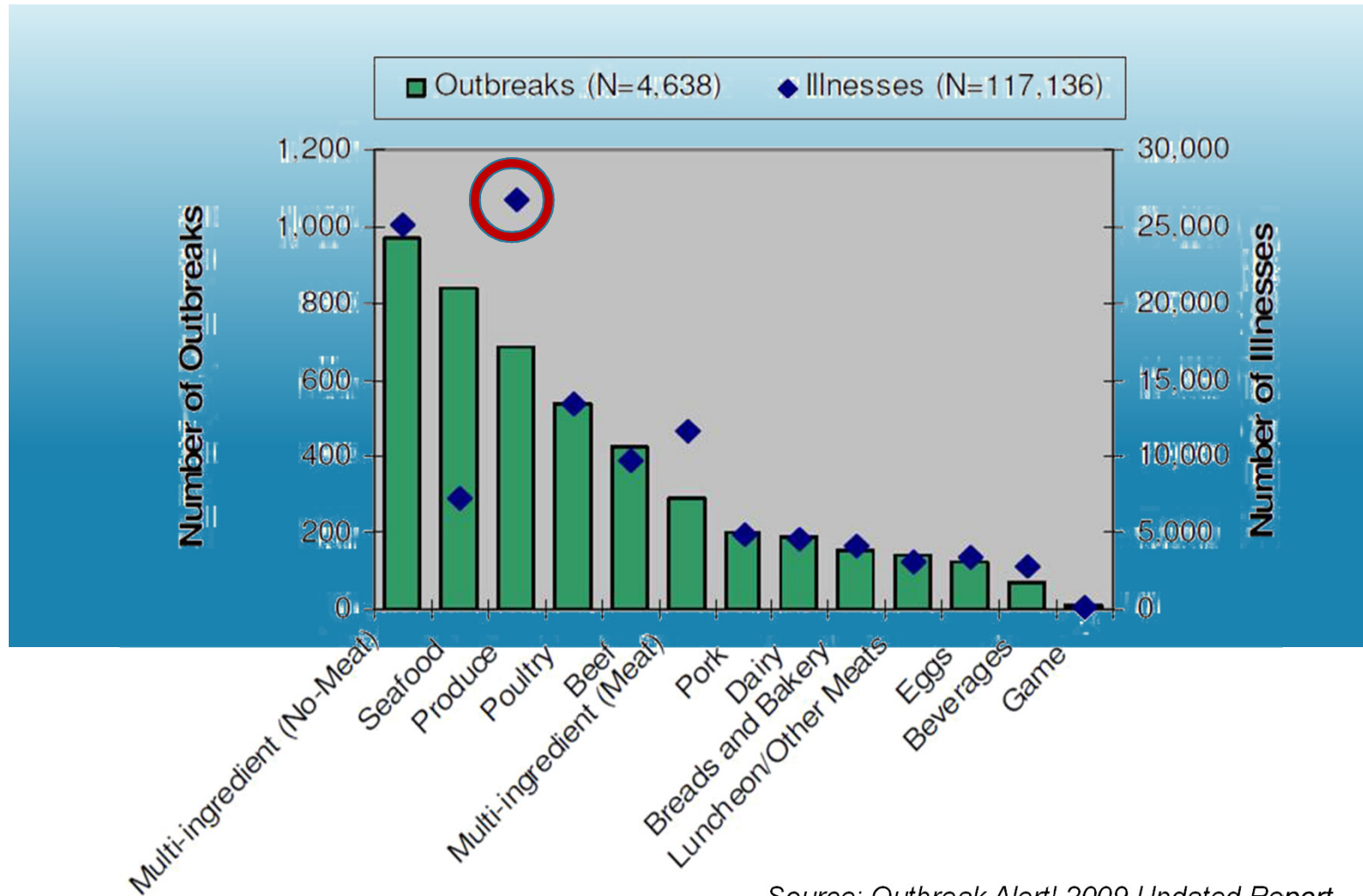
Each year 31 major pathogens cause...

- 9.4 million episodes of foodborne illness
- 55,961 hospitalizations
- 1,351 deaths

Scallan E, Hoekstra RM, Angulo FJ, Tauxe RV, Widdowson MA, Roy SL, et al. 2011. Foodborne illness acquired in the United States-major pathogens. *Emerg. Infect. Dis.* [Epub ahead of print]

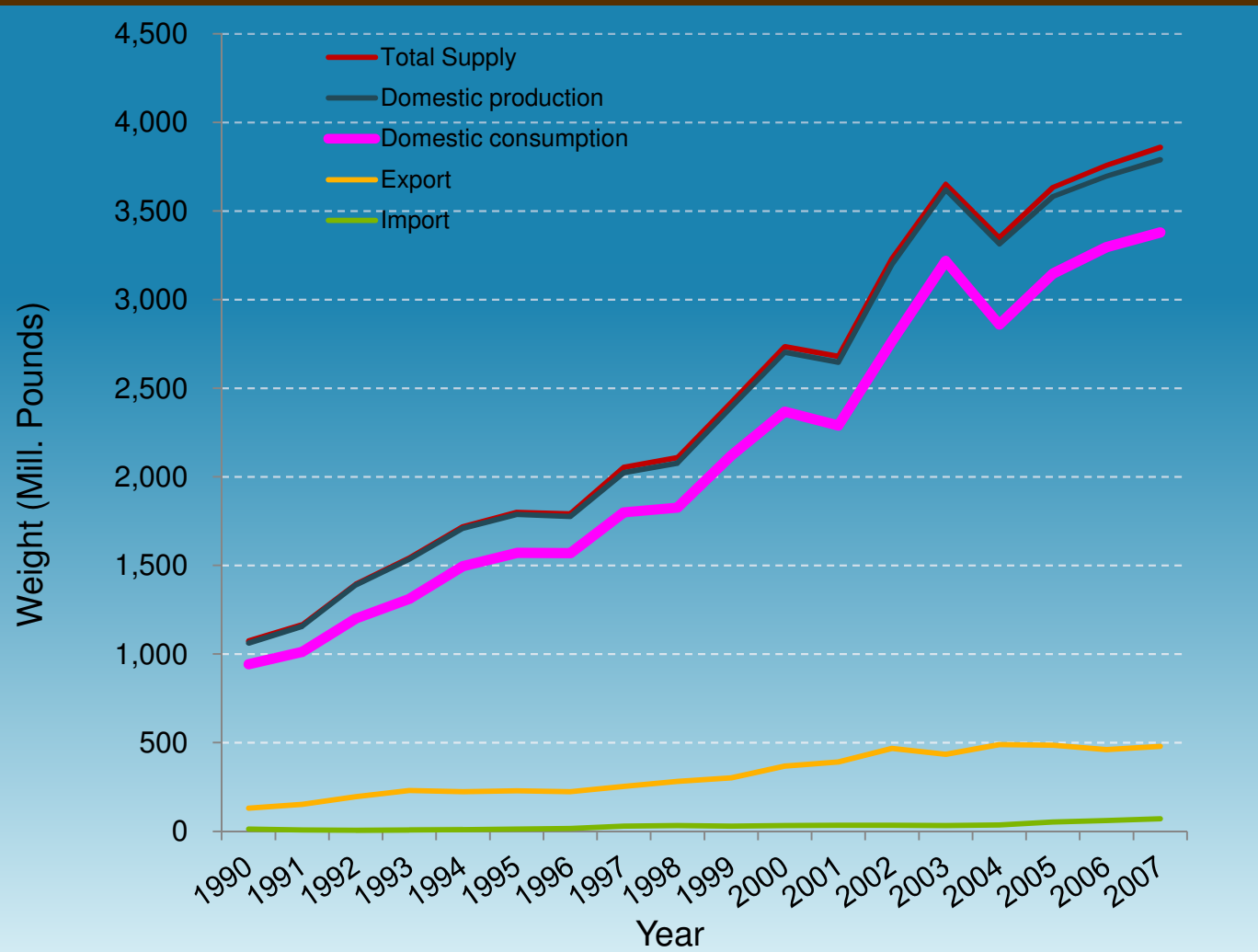
Outbreaks / Illnesses by Food Commodity

Produce has the highest number of illnesses (1990-2007)



Source: Outbreak Alert! 2009 Updated Report

Increase in production and consumption of lettuce in US 1990-2007



Source: Prepared from data provided and calculated by USDA, Economic Research Service;
<http://www.ers.usda.gov/Publications/VGS/>

A Look at the Culprits

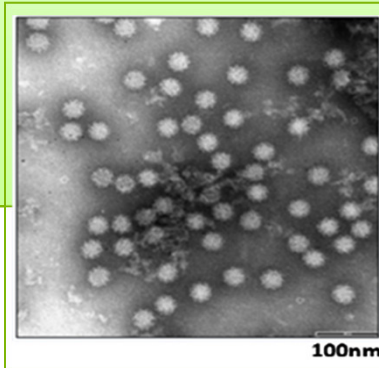
Bacteria:

- Too small to see
- Can live in many environments
- Reproduces independently



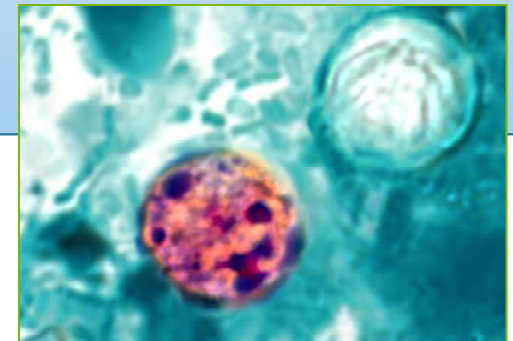
Viruses:

- Smaller than bacteria
- Require a host to replicate
- Norovirus, Hepatitis A



Parasites:

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





High Concern for Risk Groups

Highest risk...

- Children < 5 yrs
- Adults > 65 yrs
- Pregnant
- Immune suppressed:



6.9% of US population in 2009
(source: US census quickfacts)

12.9% of US population in 2009
(source: US census quickfacts)

Roughly 3 million women at any time in US
(source: stats based on CIA world factbook)

3% of US population
(source: Kahn 2008)

1996 study estimated 20% of the US population is of highest risk (Gerba et al 1996)

74,131,616 people (*assuming no overlap*)

Public Opinion and Behavior



- Associate domestic produce with safe produce (Lobb & Mazzocchi, 2007)

Lobb AE, and Mazzocchi M. 2007. Domestically produced food: Consumer perceptions of origin, safety and the issue of trust. Food Econ. 4: 3-12.



Government and Industry Response

- Government

- FDA Food Modernization Act = LAW

PUBLIC LAW 111-353—JAN. 4, 2011

- Industry

- Ohio Produce Marketing Agreement
 - <http://www.opmaresources.us/>
 - 3rd Party Audits
 - Retailer demands
 - Good Agricultural Practices (GAP) education attendance





Fair Boards can ...

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Food Safety is Important from Farm to Fork

Farm



Grow Produce
Safely
ID Risks & Fix

Distributor



Store & Handle food
properly
Ship food properly

Retailer



Handle produce
properly
ID Risks & Fix
Buy from safe
Growers

Consumer



Prepare food
properly
ID Risks & Fix
Buy from safe
Growers and
Retailers



Good Agricultural Practices

1. Water
2. Soil Amendments
3. Good Handling Practices (GHP)
4. Traceability



These 4 areas are most common categories identified as areas to improve produce safety

Good Agricultural Practices Risk Analysis

Define

- DEFINE your farm practices
- Ex. irrigation

ID Risks

- IDENTIFY possible problems or risks
- Ex. Animals in the water

Fix It

- How will you FIX the problems or reduce that risk?
- Ex. Fence out animals

Instruct

- Write out step-by-step INSTRUCTIONS for each defined farm task
- Write INSTRUCTIONS for how to solve problems and plans for reducing risk

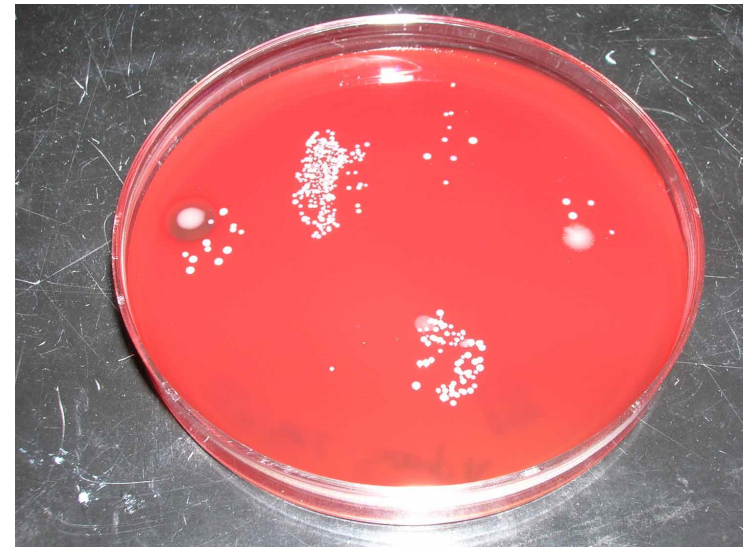
Record

- Keep detailed RECORDS of farm activities, tests, training, and errors that may occur

Hand Washing Basics



BEFORE Washing



AFTER Washing
for 20 seconds with soap

The Scoop on Hand Sanitizer

Sanitizers do not work effectively when applied to visibly dirty hands



BEFORE Sanitizer

AFTER



4. Traceability



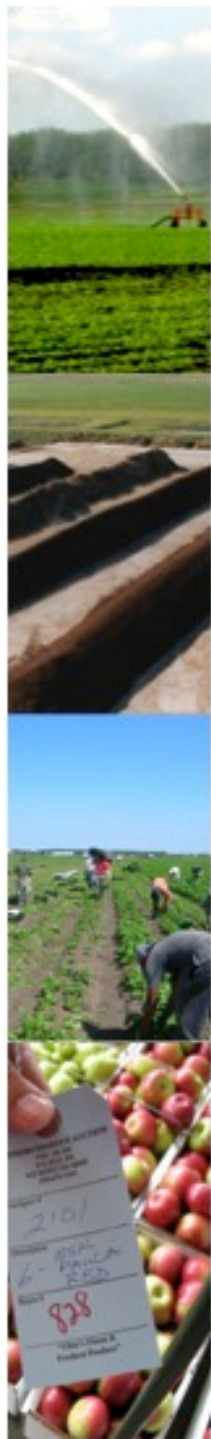
**Safer
Produce
Overall**

Less bad
publicity

Timely recalls reduce
negative impact on
public

Lot number provides quick
traceback during recalls

Lot numbers on products
provide unique identification



On-Farm Food Safety Project

[About](#) | [How to Get Food Safety Certified](#) | [Create a Food Safety Manual](#) | [Forms/Training Materials](#) | [Resources](#) | [Press](#) | [Sponsors](#)

You must be logged in to create a manual. If you do not have an account, please register below.
Please read the instructions on how to use this food safety tool before beginning your manual.

We welcome your feedback [here](#).

Sign In

Username

Password

☐ Remember Me

[Log In](#)

[Lost Password?](#)

New User? Register Here

Username

E-mail

Confirm E-mail

First Name

CREATE A CUSTOMIZED FOOD SAFETY PLAN

Based on harmonized GAP standards¹, this tool utilizes a number of decision trees that help you assess and address areas of food safety risk that are unique to your operation. Using this tool will help you develop a food safety plan that you can print and implement on your farm. It can also help prepare you for a food safety audit should you decide to pursue GAP certification.

How to Use the Food Safety Tool:

Creating a food safety plan takes time. However, you can save your work and return at a later time. Begin by collecting all of your food safety information, documentation, and any training materials that you may already have. Some examples include your food safety policy, accredited laboratory test results, and employee training logs. These will come in handy when you are asked to enter information and attach certain documents.

Once you register to use this tool, you will be guided through a series of questions where you'll answer Yes or No. The questions are divided into the following risk areas: General Requirements, Worker Health and Hygiene, Previous Land Use and Site Selection, Agricultural Water, Agricultural Chemicals, Animal and Pest Control, Soil Amendments and Manure, Field Harvesting, Transportation (Field to Packinghouse), Packinghouse Activities, and Final Product Transport. For a list of typical audit questions pertaining to the above risk areas, please visit our [Resources section](#).



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Cottage Foods - allowed

Cottage food products allowed.

- (1) Non-potentially hazardous bakery products;
- (2) Jams;
- (3) Jellies;
- (4) Candy;
- (5) Fruit butters;
- (6) Granola, granola bars, granola bars dipped in candy;
- (7) Popcorn, flavored popcorn, kettle corn, popcorn balls, caramel corn;
- (8) Unfilled, baked donuts



Cottage Foods - allowed

- (9) Waffle cones
- (10) Pizzelles;
- (11) Dry cereal and nut snack mixes with seasonings;
- (12) Roasted coffee, whole beans or ground;
- (13) Dry baking mixes in a jar, including cookie mix in a jar;
- (14) Dry herbs and herb blends;
- (15) Dry seasoning blends; and
- (16) Dry tea blends



Cottage Foods – Not allowed

“Potentially hazardous food” means a food that is natural or synthetic that requires temperature control because it is in a form capable of supporting the rapid and progressive growth of infectious or toxigenic microorganisms, the growth and toxin production of clostridium botulinum, or in the case of raw shell eggs, the growth of salmonella enteritidis.



Cottage Foods - not allowed

A cottage food operation may not:

- (A) Process potentially hazardous foods;
- (B) Process acidified and low acid canned food;
- (C) Offer for sale adulterated or misbranded food;
- (D) Refuse the taking of samples as authorized by section 901:3-20-03;
- (E) Produce food items not expressly listed in section 901:3-20-04(A);
- (F) Be sold outside the state of Ohio
- (G) Cottage food products may not be packed using reduced oxygen packaging



Cottage Foods - labeling

Cottage Food Production Operation is required to label all of their food products and include the following information on the label of each unit of food product offered or distributed for sale:

1. The name and address of the business of the “Cottage Food Production Operation”;
2. The name of the food product;
3. The ingredients of the food product, in descending order of predominance by weight;
4. The net weight or net volume of the food product;
5. The following statement in ten-point type:
“This Product is Home Produced.”



Cottage Foods - labeling

If a nutritional claim is made (i.e. low fat, salt free, etc.) federal labeling requirements must be met. Specific food labeling information is available at the ODA web site:

<http://www.agri.ohio.gov/divs/FoodSafety>

Allergen labeling must be followed as specified in the federal labeling requirements

<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodLabelingNutrition/ucm059116.htm>



Cottage Foods Rules

Cottage food rules can be found at:

http://www.agri.ohio.gov/divs/FoodSafety/docs/Cottage_Food_Rules_Final6-09.pdf



Mobile Retail Food Establishment License

Mobile retail food establishment
(MRFE) -means a retail food establishment that is operated from a movable vehicle or other portable structure, and that routinely changes location, ...



Mobile Retail Food Establishment License

Where do you get a MRFE license?

The health department that has jurisdiction where you live.

Should then be honored anywhere in Ohio.



Mobile Retail Food Establishment License

Who needs a MRFE license?

Anyone who sells

- “potentially hazardous” products
- Eggs
- Meat
- Dairy



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Food Safety for Consumers

- Encourage market manager and vendors/producers to educate their customers
 - Teach consumers how to transport, store, and prepare their products safely
 - Include information for easy 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 a disaster response plan



Farmers' Markets can ...

- Implement best practices for market rules and bylaws;
Clearly define what items can and cannot be sold at market, encourage good sampling practices, involve the local health department and/or the Ohio Dept. of Ag Division of Food Safety.
- Train vendors/producers and market manager on good business practices
 - Encourage good risk management (proper liability insurance)
 - Keep a copy of any licenses or permits (MRFE)
 - Encourage markets to be legally formed; i.e. cooperative, LLC, etc. (provides an added layer of protection)



Farmers' Markets can ...

- Retain a copy of vendor application which includes signature and hold harmless statement

I agree to abide by the rules and bylaws of the market and to operate within state and county regulations regarding the product(s) I sell.

I acknowledge that I am individually responsible for any loss, personal injury, death, and/or any other damage that may occur as a result of my negligence, or that of my vendors, agents, or employees. I realize that no insurance is provided by the market and that I am personally responsible for my own product liability and liability insurance.



Farmers' Markets can ...

- Assistance is available to farmers' market managers, boards of directors, and vendors/producers
 - OSU Extension Educators
 - Small Business Development Centers
 - Many on-line resources
 - The Farmers' Market Management Network

Resources for Farmers' Market

The Farmers' Market Management Network, Inc.

A cooperative of farmers' market managers and vendors/producers who have come together to enhance Ohio farmers' markets both large and small to create unity, consistency, and sustainability through collaboration and education. www.fmmn.org





Resources for Farmers' Market

Growing! Ohio Farmers' Markets

<http://southcenters.osu.edu/farmers-markets>

Consulting, on-line education, trainings,
and resources to grow your farmers'
market.

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