

Garden to Plate: Food Safety for School and Community Gardens

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Introduction

Kids and families who grow their own produce are more likely to eat the fruits (and vegetables) of their labor.

Because gardening is an effective strategy for healthier food consumption, the number of school and community gardens is increasing across the state of Kansas. However, fresh produce has also been linked to outbreaks of foodborne illness in commercial food production.

Fruits and vegetables can be contaminated any time from planting to eating. Most pathogens are killed by cooking, but they are difficult to wash off produce that will be eaten raw. To minimize contamination risks, this lesson outlines good practices for growing produce that school and community volunteers can take to keep their produce safe. These prevention strategies include:

- site and soil selection,
- personal hygiene,
- sanitation and tool safety,
- water and irrigation,
- compost and fertilizers,
- pest and animal management, and
- food safety in harvest and storing produce.



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Objectives

Participants will learn the importance of good practices for keeping produce safe from garden to plate.

- How to select and maintain safe soil.
- How to practice personal hygiene in regards to gardening.
- How to select and maintain safe water.
- How to practice food safety procedures.

Intended Audience

- Kansans
- School and community volunteers
- Educators and teachers

Before the Lesson

1. Review this leader's guide and the fact sheet (MF3152), including the websites referenced.
2. Preview suggested videos in the fact sheet.
3. Visit with a horticulture agent. Consider team teaching with a horticulture agent or Master Gardener.
4. Visit a community/school garden site and interview community/school garden volunteers.
5. Take pictures of local gardens to show various sites and garden designs during programs.

Preparing for the Lesson

Before the lesson:

- Make copies of fact sheet and evaluations.
- Make copies of any optional supporting information.
- Select websites and videos to show.

Lesson props:

- Basket of fresh fruits and vegetables
- Non-scented chlorine bleach
- Disposable gloves
- Food grade and nonfood grade containers
- Vegetable brush

- Refrigerator thermometer
- Examples of suitable materials for composting/sample of compost
- Compost thermometer — optional
- Fruit and vegetable recipe samples — optional

Presentation

1. Provide pens or pencils.
2. Provide contact information
3. Have participants introduce themselves and tell why they are attending.
4. Review and discuss each section:
 - a. Site and Soil Selection
 - b. Personal Hygiene
 - c. Sanitation and Tool Safety
 - d. Water and Irrigation
 - e. Compost and Fertilizers
 - f. Pest and Animal Management
 - g. Food Safety in Harvesting and Storing Produce
5. Distribute evaluations.
6. Answer questions.
7. Thank audience for attendance and adjourn.

Resources

For more information, visit these online resources:

Websites:

Aquaponics: afsic.nal.usda.gov/aquaculture-and-soilless-farming/aquaponics

Food Safety Diseases: www.cdc.gov/foodsafety/diseases/index.html

K-State Research and Extension Food Preservation: www.rrc.ksu.edu/p.aspx?tabid=18

K-State Research and Extension Food Safety: www.ksre.ksu.edu/foodsafety/

Kansas Community Gardens: www.kansascommunitygardens.org/

K-State Research and Extension—Lawn and Garden: ksre.ksu.edu/p.aspx?tabid=24

Topeka Common Ground: topekagardens.com

Water Testing Information: www.kdheks.gov/en/micro/testing_of_private_wells.htm

Videos:

Composting:

www.kansasgreenyards.org/p.aspx?tabid=37

How to Test Your Soil for Nutrients:

www.kansasgreenyards.org/p.aspx?tabid=37&itemID=36

Kansas Community Gardens, Video Series:

ksre.ksu.edu/p.aspx?tabid=24

- Why Start One?
- Choosing a Site
- Common Features
- Different Types
- Planning Ahead
- Preparing the Site
- Typical Costs
- Funding
- Getting Gardeners Involved
- Becoming a Community

Publications:

Cleaning and Sanitizing the Kitchen: Using Inexpensive Household Food-Safe Products. University of Florida Extension. edis.ifas.ufl.edu/pdffiles/FY/FY128000.pdf

Fertilizing Gardens in Kansas. K-State Research and Extension. www.ksre.ksu.edu/bookstore/pubs/MF2320.pdf

Food Facts, Raw Produce: Selecting and Serving it Safely. U.S. Food and Drug Administration. www.fda.gov/Food/ResourcesForYou/Consumers/ucm114299

Food Safety Tips for Your Edible Home Garden. University of California, Davis. ucfoodsafety.ucdavis.edu/files/26392.pdf

Food Safety for School and Community Gardens. North Carolina State University and North Carolina Cooperative Extension. growingsafefergardens.files.wordpress.com/2012/10/foodsafetywebcurriculum-10-24-12.pdf

Food Safety Tips for School Gardens. USDA Food and Nutrition Service. nfsmi.org/documentlibraryfiles/PDF/20110822025700.pdf

Garden to Table: Five Steps to Food Safe Fruits and Vegetables Home Gardening. University of New Hampshire Cooperative Extension. extension.unh.edu/resources/files/Resource001094_Rep1367.pdf

Grow It Eat It. University of Maryland Cooperative Extension. chapmanfoodsafety.files.wordpress.com/2011/08/foodsafety.pdf

Home Gardening Food Safety: Washing the Fruits (and Vegetables) of Your Labor Properly. University of Florida Extension. edis.ifas.ufl.edu/pdffiles/FY/FY140100.pdf

Kansas Garden Guide. K-State Research and Extension. www.ksre.ksu.edu/bookstore/pubs/s51.pdf

Preventing E. coli: From Garden to Plate. Colorado State University Extension. www.ext.colostate.edu/pubs/foodnut/09369.html

Storing Fresh Fruits and Vegetables for Better Taste. University of California, Davis. ucce.ucdavis.edu/files/datastore/234-1920.pdf

Quick Composting. K-State Research and Extension. www.ksre.ksu.edu/bookstore/pubs/EP6.pdf

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Garden to Plate: Food Safety for School and Community Gardens Evaluation

Before Presentation		After Presentation		Knowledge of Food Safety for School and Community Gardens
Y	N	Y	N	1. I know why food safety is important.
Y	N	Y	N	2. I know how to handle food safely.
Y	N	Y	N	3. I know why washing my hands is important.
Y	N	Y	N	4. I know what causes foodborne illness.
Y	N	Y	N	5. I know how to prevent foodborne illness.
Y	N	Y	N	6. I know how to select safe garden sites and soil.
Y	N	Y	N	7. I know how to keep my garden area and tools safe and sanitized.
Y	N	Y	N	8. I know how to identify safe water sources for my garden.
Y	N	Y	N	9. I know how to keep a safe compost pile.
Y	N	Y	N	10. I think this lesson was useful and will help me prevent foodborne illness.

Comments and Suggestions: _____

Please send completed evaluation to:

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