

Increasing Food Safety on the Farm with
Worker Health and Hygiene

EXTENDING KNOWLEDGE >> CHANGING LIVES

NDSU

EXTENSION

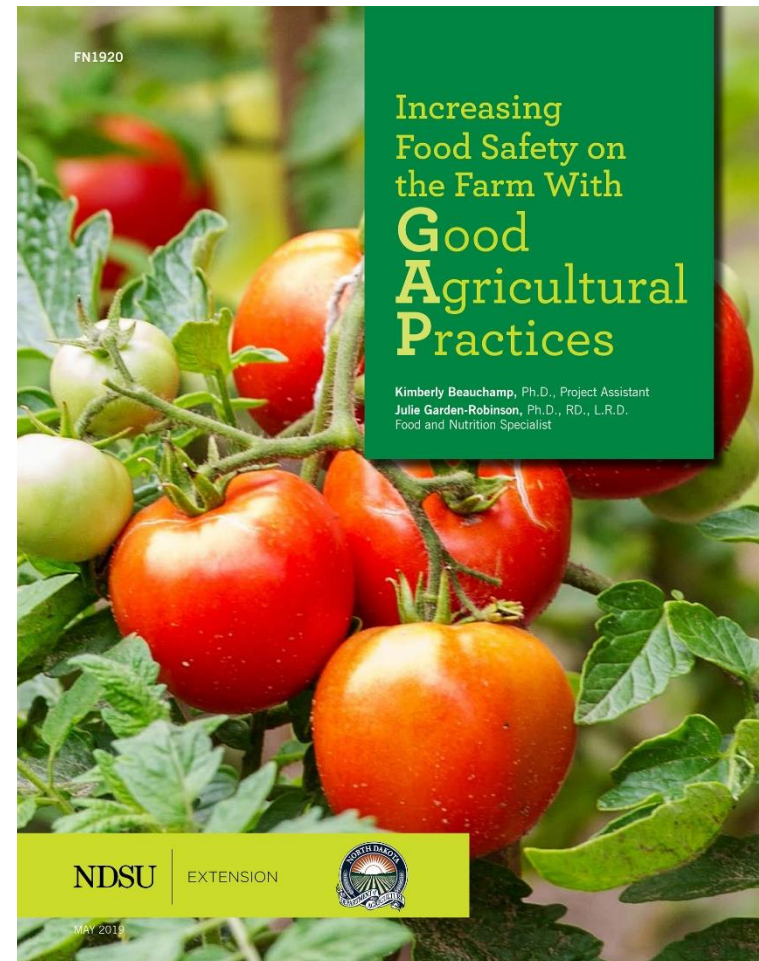


Introduction

This module is one of three self-paced learning tools designed to serve as an introduction to the information in the “Good Agricultural Practices” manual developed by NDSU Extension.

Development and production of the GAP manual was funded in part by the North Dakota Department of Agriculture.

Completing this module does not result in a certificate of course completion issued by the Produce Safety Alliance and the Association of Food and Drug Officials.



Acknowledgment



- This module was adapted from the Produce Safety Alliance Grower Training program and is used here with permission from Cornell University.
- Visit producesafetyalliance.cornell.edu for more information about training, including upcoming courses, to meet FSMA regulatory requirements.

Acknowledgment

This module is not a certification program. We encourage you to participate in face-to-face Produce Safety Alliance workshops for more in-depth information.

Instructions

- Please read through the information on the slides and in the notes.
- To view the notes: In the upper left corner of most slides, you will see a “speech bubble.” Mouse-over, click or right-click on the bubble to read additional material about the information on the slide.
- For more information about field-to-fork food safety, visit www.ag.ndsu.edu/fieldtofork and click on Good Agricultural Practices.
- Contact Julie Garden-Robinson at Julie.garden-robinson@ndsu.edu for more information

Pretest: On a piece of paper, answer these questions. The answers are at the end.

1. List three reasons workers are a safety concern.
2. List at least four routes of contamination on the farm.
3. List four or more items that growers should let farm visitors know.
4. OSHA requires 1 toilet and sink facility per _____ workers within ____ mile of the working area.

After reading through this information, you will be able to:

- Identify potential routes of contamination associated with workers
- Identify adult learning concepts and topics to include in a worker training program
- Describe how to monitor that facilities are maintained on the farm
- Describe corrective actions that may be used to correct identified problems
- Identify recordkeeping tools for worker health and training

Workers Are A Food Safety Concern Because They...

- **Can carry human pathogens**
 - *Shigella*, Hepatitis A, Norovirus, and others
- **Can spread human pathogens**
 - Harvest and pack with their hands
 - Fecal-oral route
- **Require training to reduce risks**
 - Proper handwashing
 - How to handle illnesses and injuries



Routes of Contamination



Feces



Clothing



Hands



Footwear



Tools & Equipment



Illness & Injury

Importance of Training Workers

- Fresh fruits and vegetables often receive no additional processing (such as cooking), so contamination with a pathogen can result in illness when the produce is consumed
- Workers need to use food safety practices every day to reduce produce safety risks
- Food safety practices are learned so training is key to successful implementation



Potential Training Challenges

- Time for training
- Language
- Literacy level
- Training mid-season
- Variation in hygiene practices and expectations
- Misconceptions/misperceptions



Communication

- Good communication supports food safety by improving risk identification and reduction
- Trained workers know:
 - How to identify food safety risks
 - How to reduce risks they find
 - Who to tell if they see a food safety risk they cannot minimize or eliminate
 - That their food safety concerns will be taken seriously



Everyone Needs Training

- Implementing food safety practices is a company wide task
 - Managers, farm workers, office staff, volunteers, interns, family members
- Everyone needs to know how to identify and reduce food safety risks
 - Practices they are responsible for doing
 - How to report food safety risks they see
- Owners, managers, and supervisors should set a good example and follow company policies



Visitors



- **Growers must:**
 - Make visitors aware of the farm's food safety policies
 - Provide access to toilet and handwashing facilities
- **Other key information for visitors should include:**
 - Areas of the farm they are allowed to visit
 - The importance of not visiting the farm when ill
 - How to wash their hands
 - Instructions to keep pets at home

Training Programs Must Include

- Principles of food hygiene and food safety
- Recognizing symptoms of foodborne illness and the importance of personal hygiene for all personnel and visitors
- Other training relevant to the worker's job



Training Programs Must

- Be appropriate for the job and conducted upon hiring
- Include refresher training throughout the season (at least annually) or when a problem arises
- Be easily understood
- Be supervised by a qualified person
- Include a process for documenting the training

Worker Qualifications

Workers and supervisors must be qualified to conduct their job duties through:

- Education
- Training
- Experience



Training Workers to Identify and Reduce Risks at Harvest

- Evaluate contamination risks before and during harvest such as significant animal activity, presence of fecal matter, damaged crops, or extensive animal tracks
- Never harvest produce destined for the fresh market that is visibly contaminated with feces
- Never harvest dropped produce
- Only use clean harvest and packing containers

Resources Provided to Support Food Safety Practices

- Toilets
- Toilet paper
- Soap
- Clean water
- Paper towels
- Container to catch wastewater
- Garbage cans
- First Aid Kit
- Break Areas



Toilet & Handwashing Facilities

- Provide a sufficient number of toilets and sinks to meet worker and visitors' needs
 - OSHA requires **one facility per 20 workers** within $\frac{1}{4}$ mile of the working area
- Facilities must be fully serviced on a regular schedule
- Toilet and handwashing facilities must be well stocked
- Facilities should be monitored every day when in use

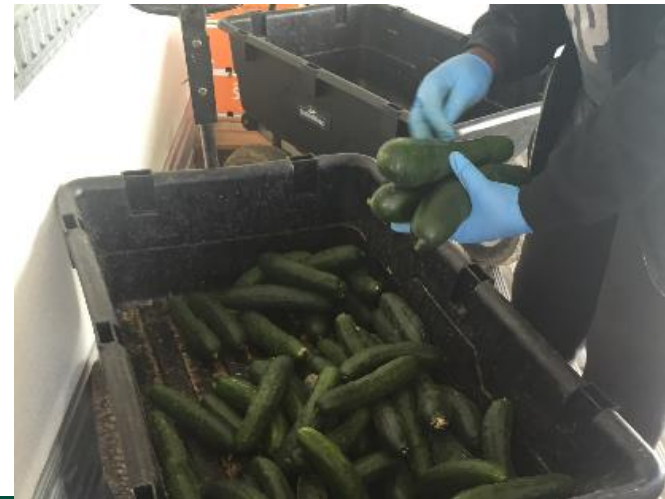
Drinking Water & Break Areas

- Workers should be provided with drinking water to reduce the risks of heat exhaustion
- Break areas do not need to be a separate building but must be in a designated area
- Healthy workers are better able to do their jobs and implement food safety practices!



Workers Must

- Maintain personal cleanliness
- Avoid contact with animals (other than working animals)
- Maintain gloves in a sanitary condition, if used
- Remove or cover hand jewelry that cannot be cleaned
- Not eat, chew gum, or use tobacco in an area used for a covered activity
- Notify their supervisor if they are ill
- Wash their hands



When Must Hands Be Washed?

After using the toilet

Before starting or returning to work

Before and after eating and smoking

Before putting on gloves

After touching animals or animal waste

Any other time hands may become contaminated



Proper Handwashing

1. **Wet hands** with water
2. **Apply soap and lather.** Be sure to wash the front and backs of hands as well as in between the fingers. Rub hands together for **AT LEAST 20 seconds**
3. **Rinse** hands thoroughly with clean water
4. **Dry** with a paper towel (turn off faucet with used towel)
5. **Throw** the paper towel in a trash can



Antibacterial hand sanitizers CANNOT replace handwashing

Proper Use of Toilets

- All urination and defecation should be done in a toilet, NEVER in the field or nearby production areas
- Toilet paper should be deposited into the toilet, not in a garbage can or on the floor
- Always wash hands after using the toilet



Worker Clothing

- Clean clothes should be worn each day
- Footwear cleanliness is important
 - Designated footwear helps prevent cross-contamination
- Gloves, if worn, must be changed when they become contaminated or torn
 - If reusable gloves are used, clean often or as needed
- Aprons, gloves, and other food safety equipment should be removed before using the toilet and should be stored in a clean, designated area when not in use



Worker Illness

- Workers who are sick or show signs of illness can contaminate fresh produce
- Ill workers must not handle fresh produce
- Symptoms of illness can include:
 - Nausea
 - Vomiting
 - Diarrhea
 - Fever
 - Jaundice



Worker Injury

- **Worker injuries may pose food safety risks**
 - A first aid kit should be available, stocked, and monitored
 - Clean and bandage all wounds
 - If the wound is on the hands, a glove should be worn to create a double barrier
 - Discard any produce that may be contaminated
 - Clean and sanitize any items that came in contact with bodily fluids
 - Report all injuries to supervisor



Monitoring

- **Develop a monitoring process to ensure:**
 - Workers are following food safety practices and farm policies every day
 - Facilities are available, clean, and well stocked every day
- **This can include:**
 - Training supervisors to observe employee behavior
 - Appointing someone to check facilities each day
 - Using monitoring logs



Corrective Actions

- Workers are not following food safety policies
 - Develop rewards to encourage positive practices
 - Implement deterrents for poor practices
- Facilities are not cleaned, restocked or are broken
 - Sanitation company contact on speed dial
 - Retraining workers or improving monitoring process
- Facilities leak in the field or packinghouse
 - Emergency plan for spills



Recordkeeping

- Document actions taken to support worker health, hygiene, and training on the farm such as:
 - Worker training programs
 - Monitoring and restocking of toilet and handwashing facilities
 - Illness and injury reporting
 - Restocking of first aid kits



Recordkeeping Tips

- Take advantage of template recordkeeping logs, but be sure to modify them to fit your farm

Illness/Injury Reporting log

Name of operation: _____
Please see the food safety plan for overall illness/injury reporting procedures.

Date	Name of Employee	Injury sustained/ Illness reported	Action taken (ice applied, bandaged, sent to hospital, etc.)	Did employee return to work? (Yes or No)	Initials

Reviewed By: _____ Title: _____ Date: _____

Worker Training Log

Name of operation: _____
Trainer: _____
Location: _____
Date: _____
Training material (Please attach any written materials to this log with a staple): _____
Training Time: _____

Employee Name (please print)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Employee Signature

Reviewed by: _____ Title: _____ Date: _____

Recordkeeping

- **Example of documenting worker training**
 - Date
 - Name of trainer
 - Materials/information covered
 - Printed names & signatures of attendees
 - Manager signature

Worker Training Log

Name of operation: _____ Date: _____
Trainer: _____ Training Time: _____
Location: _____
Training material (Please attach any written materials to this log with a staple): _____

Employee Name (please print)	Employee Signature
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____
12. _____	_____
13. _____	_____
14. _____	_____
15. _____	_____

Reviewed by: _____ Title: _____ Date: _____

Summary

- Worker health and hygiene is critical to food safety because workers can introduce food safety risks
- Everyone should be trained but anyone who handles covered produce must be trained
- Visitors must be made aware of policies too
- Training should emphasize health and hygiene practices that reduce risks
- A written training program should be developed, implemented, and documented

Answers

1. List three reasons workers are a safety concern.

a) Can carry human pathogens

b) Can spread human pathogens

c) Require training to reduce risks

Answers

2. List four routes of contamination.

- a) Feces
- b) Clothing
- c) Hands
- d) Footwear
- e) Tools and equipment
- f) Illness and injury

Answers

3. List four or more items that growers should let farm visitors know.

Growers must:

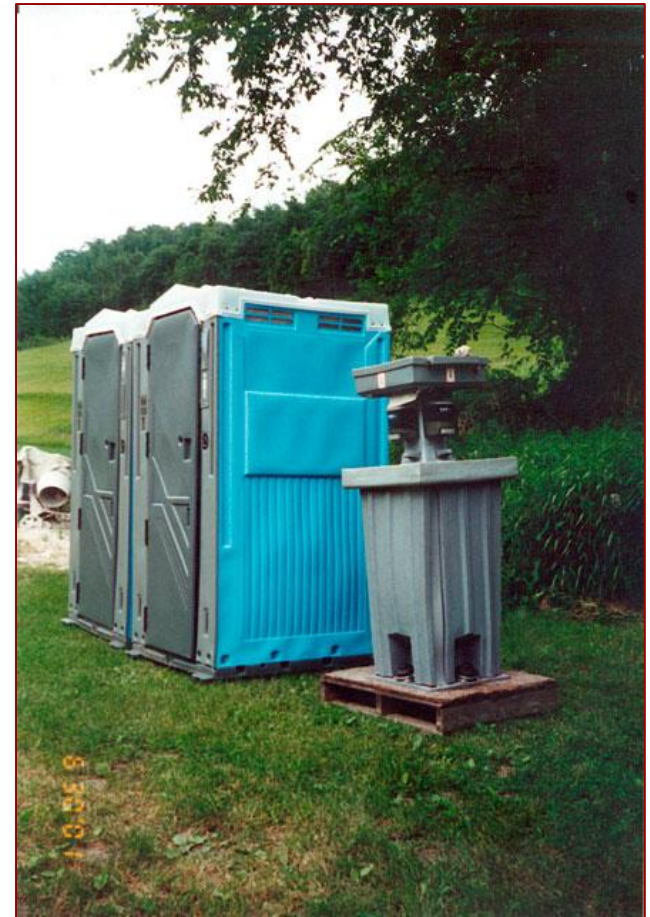
- a) Make visitors aware of the farm's food safety policies
- b) Provide access to toilet and handwashing facilities

Other key information for visitors should include:

- c) Areas of the farm they are allowed to visit
- d) The importance of not visiting the farm when ill
- e) How to wash their hands
- f) Instructions to keep pets at home

Answers

4. OSHA requires one toilet and sink facility per **20** workers within **1/4** mile of the working area.



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