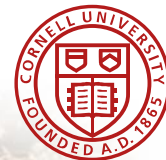




Produce Safety

ALLIANCE



Cornell University



Module 2: Worker Health, Hygiene, and Training

Learning Objectives

- 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



Ready To Eat or Minimally Cooked



THE FAMILY CIRCUS®

By **BIL KEANE**



Sources of Microbes

- From respiratory tract through coughing, sneezing, spitting, or touching the mouth
- From open sores, cuts, or boils
- From intestinal tract through hands soiled with feces





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



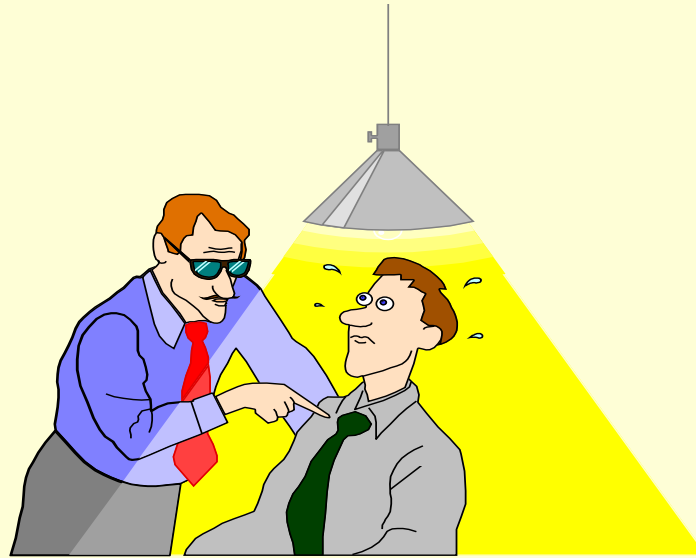
Illness & Injury



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





EMPLOYEE TRAINING

Ranked #1 Food Safety Problem
by Food Processing Industry

ALL segments of produce industry

Keep a records of training - simple



Training

- You are only as good as your **worst** employee
- Lack of training/retraining – major barrier to food safety
- Different learners
 - Beliefs, feelings, habits interfere
 - workers vs management
 - Show and tell, not just tell, the best
- Knowledge **does not** equal training
 - Confirm implementation by employees
- **It's all about Behavior!**



Potential Training Challenges

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





Principles of Adult Learning

- Adults need to understand why food safety practices are important and needed
- Training should:
 - Be relevant to their jobs and daily tasks
 - Outline clear expectations
 - Detail practices that reduce risks
- Effective training materials:
 - Are presented through a variety of methods with practical examples and an opportunity to practice skills
 - Include interactive and visual learning opportunities





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



Reinforcing Food Safety Training

- Post signs and reminders
 - Place signs where they will be most effective
 - Pictures are often better than words
 - Use appropriate language
- Conduct review and refresher training sessions throughout the season or when a problem arises
- Mix it up to keep information relevant and interesting to workers





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

Hand washing station requirements

- Clean and sanitary
- Clean running water
- Hand soap
- Disposable hand towels
- Trash container
- A handwashing sign
- Inspect regularly



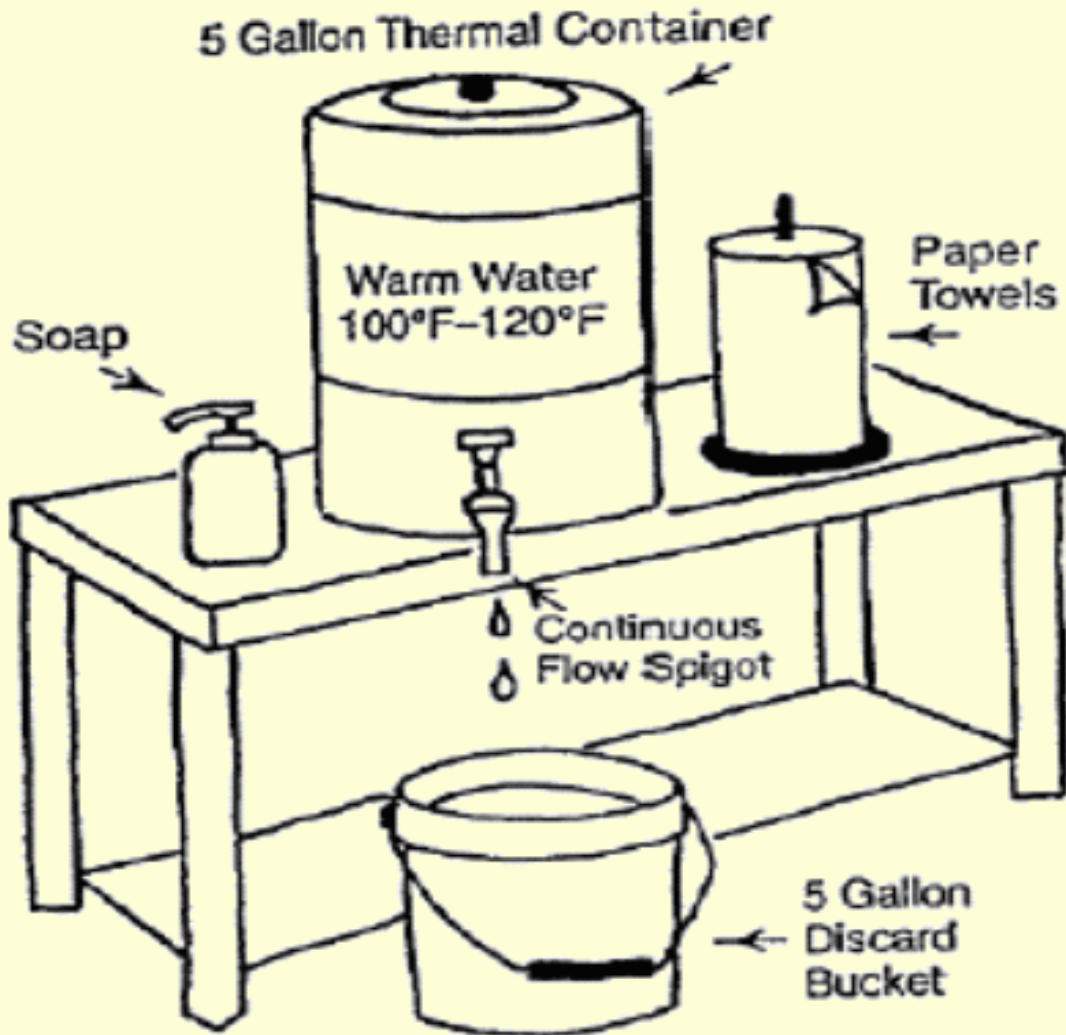
Toilet and handwashing standards apply to facilities inside the home if they are used by harvesters and handlers



Handwashing Stations

From Penn State, 2012

Proper Hand Wash Station





<https://www.youtube.com/watch?v=SMa5OTa3PnU>



What about hand sanitizers?

- They are **NOT** a substitute for hand washing
- Not very effective on soiled hands
- If you supply them, encourage their use **AFTER** hands are washed



Courtesy Wes Kline –
Rutgers Cooperative
Extension



Drinking Water & Break Areas

- Workers should be provided with drinking water to reduce the risks of dehydration and 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!





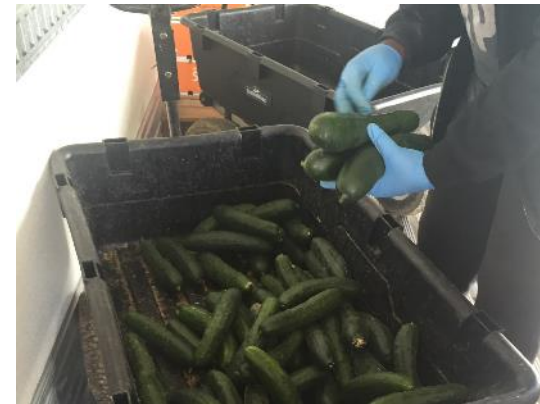
Training versus Practices

- The Produce Safety Rule includes requirements for
 - Training programs and resources that must be provided for workers and visitors
 - Practices workers must follow
- We just finished the training and resource slides
 - Do you remember what was required?
 - As a reminder, rule requirements are in the notes!
- Now we will cover practices workers must do to reduce microbial risks to fresh produce



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

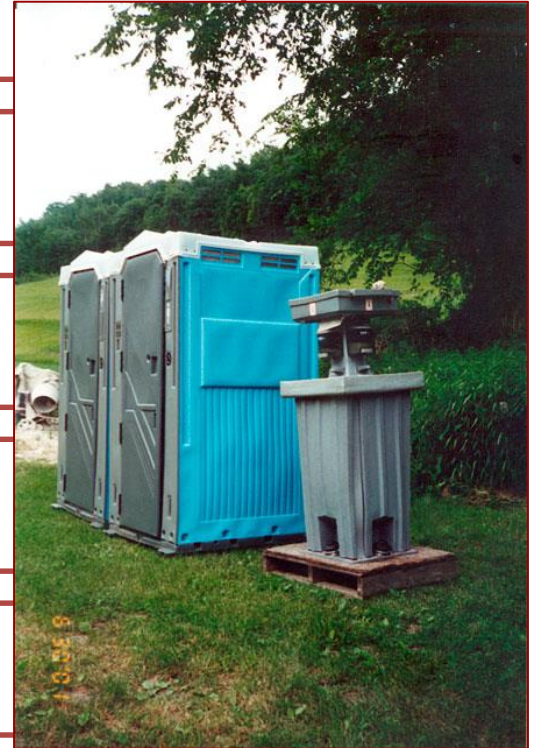
Before starting or returning to work

Before and after eating and smoking

Before putting on gloves

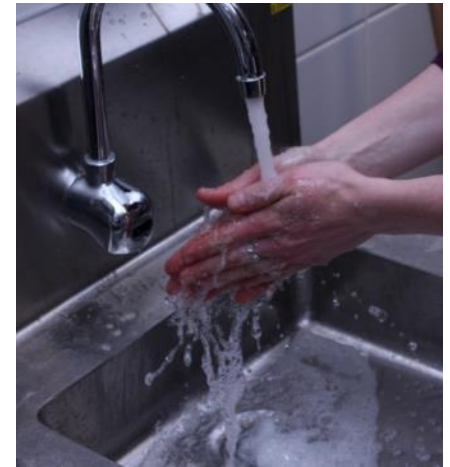
After touching animals or animal waste

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

(L, 112.130(d))



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

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

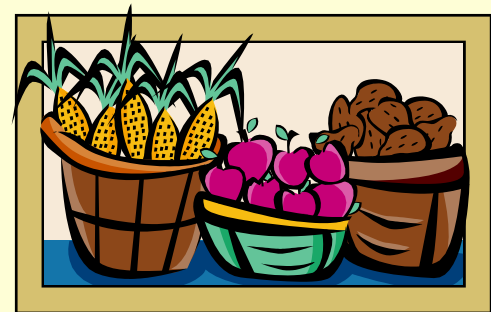
- **Example of documenting worker training**
 - Date
 - Name of trainer
 - Materials/information covered
 - Printed names & signatures of attendees
 - Manager signature

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:

Pick Your Own Operations

Why consider health and hygiene?

- Customers “harvesting” produce are no different than employees and should observe good hygiene practices
- Communicate awareness about food safety issues to the public



Pick Your Own Operations Visitor Health and Hygiene Policy

- If ill, please don't pick.
- Wash hands when appropriate
- Do not eat in fields
- No smoking
- If injured, tell farm host
- No pets – unless service animal





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





Takeaways from this section

- Develop a health and hygiene worker training program, focused on the needs of your farm.
 - Train all employees, including family members regarding worker health and hygiene.
 - Use signage to make visitors aware of policies.
 - Document that the training was done with a written record.
- 