

Hello, and welcome to Essentials of Food Safety for Farmworkers, a training series brought to you by the CCE Cornell Vegetable Program. Every produce farm should implement food safety practices to ensure that produce is safe for consumers. This is Caitlin Tucker, Program Assistant for the Cornell Vegetable Program. Throughout this series, I will walk you through how to create a worker training program, foodborne pathogens of concern, routes of contamination, principles of health and hygiene, risk assessment, and so much more.

This training aims to cover many of the required worker training topics set forth by FSMA (the Food Safety Modernization Act), or other 3rd party auditing programs. This training series primarily focuses on training farmworkers in the **produce** industry. Because Food Safety is a company-wide responsibility, we invite **all** farm employees to participate in this training.

Here are some highlights from Part 4: Reducing Food Safety Risks on the Farm

- Risks can exist in production areas, washing and packaging areas, in storage, in transport, and on areas adjacent to the farm.
- Cleaning and Sanitizing are critical in reducing risks throughout the farm.
- Workers should know how to spot risks in these areas, report risks to supervisor, follow farm policies for mitigating risks.
- Incidents should be documented in the farm's appropriate log.

Part 5: Spot the Risk – A series of case studies.

In Section 5, we will:

- 1) Introduce possible scenarios containing food safety risks that workers may encounter on the farm
- 2) Describe why the scenario contains a food safety risk
- 3) Identify immediate actions that workers can take to minimize the risk
- 4) Highlight future changes that can be made to prevent the risk from happening again

When prompted, I invite you to pause, and ask yourself – do you know what the food safety risk is? Do you know what you should do in this scenario? How could this be prevented in the future?

Let's begin.

Scenario #1

You head out to the field in the morning to harvest and notice large patches of lettuce damage...

Can you identify the food safety risk?

In this scenario, damaged produce may have been eaten or trampled on by animals. Animals can carry pathogens in their feces. Animals may have spread feces in the field as they were walking, rooting, or eating.

What should you do in this situation?

- Check for signs of feces or urine.
- Can you identify the animal that caused the damage by the feces or animal tracks?
- Follow your farm's No Harvest Buffer Zone policy. Consider all of the factors that may determine how large the no harvest buffer zone should be – is the crop being harvested by hand or mechanically? What was the weather like yesterday? Is the feces runny or solid?
- If feces is present, follow your farm's policy for handling it. Always wash hands after handling feces.
- Do not harvest the contaminated produce. Produce grown for fresh market that is contaminated should never be harvested. There may be a possibility it could be processed and go through kill step (like cooking) so that pathogens are killed.
- Document all observations and corrective actions you take.

How can this be prevented in the future?

- ID the scat so you know how which wildlife you should be managing. Your wildlife assessment log will help you to determine if your deterrents are working. You might have to change your deterrents or use multiple strategies for keeping pests out of the field?
- Continue conducting regular wildlife assessments.
- Continue conducting pre-harvest assessments.
- Implement No Harvest Buffer Zones and adjust as needed.

Scenario #2

You are in the field harvesting and have to use the restroom. The handwashing station does not have soap or paper towels. You rinse your hands, dry them on your jeans, apply hand sanitizer and return to work.

Can you identify the food safety risk?

Workers can spread contamination to produce via their hands or contaminated tools. Contamination can come from feces if hands are not properly washed after using the restroom. Proper handwashing involves use of soap, water, and drying hands with a single-use towel. You may have further contaminated your hands by wiping them on your clothes.

Hand sanitizer is not an appropriate substitute for handwashing with soap and water. It cannot completely kill all germs, is not effective on dirty hands, and may not remove pesticides or other harmful residues.

What should you do in this situation?

- Hands should be properly washed before returning to work.
- You should not harvest produce until they have been properly washed.
- Notify your supervisor or food safety manager that the soap and paper towels are out of stock.

How can this be prevented in the future?

- If you have not been trained on proper handwashing, ask your supervisor to train you.

- Follow posted signs about steps for proper handwashing and when to wash hands.
- Restrooms should be checked regularly to verify they are well stocked with soap, toilet paper, potable water, and paper towels. If you see that they are not stocked with those supplies, notify your supervisor immediately. Other workers may find themselves in this same situation!
- Check that restroom logs are being filled out.

Scenario #3

You come to work feeling ill. You are experiencing abdominal cramps and nausea, but are able to work through the discomfort and continue harvesting.

Can you identify the food safety risk?

Workers who are sick and handling produce can spread bacteria, viruses, or parasites. These pathogens can spread via mucous, saliva, or by feces, or tools and equipment contaminated with feces from improper handwashing. Symptoms of illnesses: nausea, vomiting, diarrhea, fever, jaundice, abdominal cramps, sore throat.

What should you do in this situation?

- Know that your symptoms may be signs of illness. Could it be heat exhaustion? Pesticide exposure?
- You should not handle produce if you are ill.
- Notify your supervisor that you are feeling unwell.
- All equipment you've worked with should be cleaned and sanitized.
- If you are well enough to work, ask if you can be reassigned to a task that does not involve working with produce.
- Make sure your illness is documented in the appropriate log.

How can this be prevented in the future?

- Do not come to work if you suspect you are ill.
- Notify your supervisor as soon as possible.
- If you are worried about missing work, ask if there is a task you can do that does not involve contact with produce.
- Ask if your farm provides sick-leave.

Scenario #4

While you were unloading boxes of cucumbers to be washed and packed, you cut your hand on a piece of equipment. You stopped the bleeding with a handkerchief and then wrapped it with a Band-Aid. After washing the cucumbers, you noticed the Band-Aid was missing...

Can you identify the food safety risk?

- Bodily fluids, like blood, can contaminate produce.
- Open injuries can be exposed to harsh chemicals like sanitizers.
- Contamination from bodily fluids or physical debris (like Band-Aids) can cause Product Recalls...

What should you do in this situation?

- Cease all activity as soon as you suspect produce has become contaminated.
- Notify supervisor or food safety manager.
- Take care of your injury.
- If you suspect produce has become contaminated with bodily fluids (like blood) or physical contaminants (bandages), discard the produce immediately.
- Equipment should be cleaned and sanitized.

How can this be prevented in the future?

- Immediately stop all activity and take care of injury.
- Notify your supervisor of the injury.
- Call 911 or have someone else call 911 if it is an emergency.
- Minor injuries to the hands should be washed, dried, bandaged, and covered with a glove.
- All injuries should be documented.
- If equipment is contaminated, stop use, clean and sanitize.
- If produce is contaminated discard immediately.
- Notify supervisor or farm safety manager if First Aid supplies or gloves are running low.

Scenario #5

You come into work and notice the cull bin is overflowing. Someone must have forgot to empty it the previous day. Produce is scattered across the room.

Can you identify the food safety risk?

Cull bins and trash cans can attract flies, rodents, and other pests. These pests can spread contamination to produce, equipment, packaging supplies, and food contact surfaces.

What should you do in this situation?

- Upon coming into work, *immediately* empty cull bins into the dumpster. Clean the cull bin and surrounding mess.
- Check for signs of pests – feces, bite marks on produce, scattered produce.
- Record all observations and actions in the appropriate log.

How can this be prevented in the future?

- Someone should be assigned to regularly check if cull bins or trash cans need to be emptied.
- Cull bins and trash cans should be emptied daily.
- Always wash hands after handling cull bins or trash cans.
- If you must step away from the pack line for a break or lunch, cover produce to reduce chance of contamination.
- Notify your supervisor or food safety manager.

Scenario #6

Your farm is a popular tourist spot – you have a petting zoo, and a U-Pick.. You notice that visitors are picking berries from the wrong beds.

Can you identify the food safety risk?

Visitors can introduce contamination by handling produce, from dirty clothes, or dirty footwear. Especially if they have touched animals and then produce without washing their hands or if they have tracked manure into the produce field.

What should you do in this situation?

- Remind visitors of your farm’s policies regarding Petting Zoo and U-Pick.
- Point out location of handwashing station and ask them to wash hands.
- Flag off area in field where they have harvested and assess any risk they might have introduced.
- Record all observations and actions.

How can this be prevented in the future?

- Every farm should have a visitor policy, posted in a visible site.
- You should feel comfortable enforcing visitor rules.
- Visitors should know location of handwashing stations.
- Visitors should pick produce BEFORE touching animals.
- Signs or flags help!

Scenario #7

The neighbor’s cows broke through the fence this morning and are now taking a bath in the pond you plan to overhead irrigate your crops with.

Can you identify the food safety risk?

Wildlife and domesticated animals can contaminate water sources with feces.

Surface water, like ponds, streams, or rivers, can be easily exposed to contamination from wildlife, run-off, or flooding events. Irrigation can quickly contaminate a large area of crops.

What should you do in this situation?

- Notify supervisor and/or food safety manager...and neighbor!
- Work with neighbor to remove cattle.
- Assess the situation.
 - Can crops be watered with drip/trickle irrigation?
 - Can you wait to irrigate crops?
 - How soon will the crops be harvested?
 - Document all observations and actions.

How can this be prevented in the future?

- Conduct wildlife/animal assessments on a regular basis.
- Check fencing on a regular basis.
- Make sure your farm has a plan/SOP if surface water becomes contaminated.

In Summary,

- Always follow your farm's policies and procedures.
- If you see a risk you cannot minimize, ask for help from your supervisor or food safety manager.
- Always document observations and actions related to risks on the farm.
- Understand that not every risk can be completely eliminated.
- If you feel you need more training in spotting risks and minimizing them, let your supervisor or food safety manager know.

Thank you for watching Part 5: Spot the Risk, a Series of Case Studies. If you have any questions or would like clarification or help identifying resources, do not hesitate to reach out. You can reach Extension Specialist Robert Hadad via email at rgh26@cornell.edu or by phone at 585-739-4065. You can reach CVP Technician, Caitlin Tucker, at cv275@cornell.edu or by phone at 573-544-4783.

If you would like to learn more about the Cornell Vegetable Program visit cvp.cce.cornell.edu.