



New Jersey Agricultural
Experiment Station

Food Safety Considerations for U-Pick Operations

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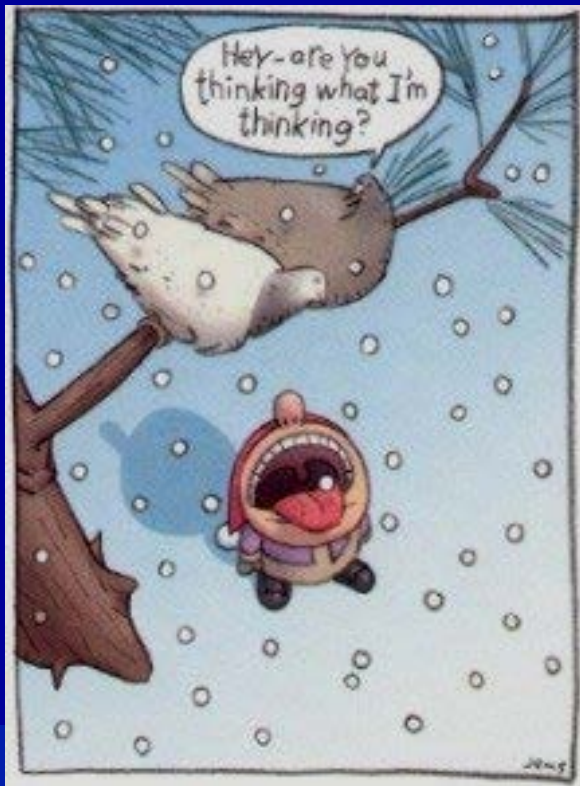
Rutgers Cooperative Extension of Mercer County

Food Safety Modernization Act

- Produce Safety Standards
 - Published January 4, 2013 comment period closed
- Preventive Controls for Human Food
 - Published January 4, 2013 comment period closed
- Foreign Supplier Verification Program
 - Published July 26, 2013 comment period closed
- Preventive Controls for Animal Food
 - Published October 29, 2013 comment until March 31
- Accredited Third Party Certification
 - Published July 26, 2013 comment period closed



What are the Risks?



Risk awareness is critical

What Are GAPs?

Good Agricultural Practices

Minimize potential for pathogen contamination through:

Prevention

Assessment and Reduction of risk

Standardized procedures

Standardized policies

Employee training

- E. coli 0157:H7
 - Not previously implicated
- Unmarked contains
- Environmental samples from farm positive for 0157:H7
 - Probably deer feces
- 15 ill, 7 hospitalized
- One death



Create A Food Safety Plan



Why have a food safety plan?

- Ensures a proper focus on food safety at your farm
- Offers reassurance to your customers
- Offers you a document to refer to when training employees





[Home](#) » [About Our Farm](#) » Food Safety

Food Safety

Food Safety

Food safety continues to be an important issue that needs to be addressed, it is an issue that concerns everyone (producers, farmers, stores and consumers).

Our farm prides itself on covering all the requirements related to food safety. As with every other part of our business, innovative technology plays an important role in this effort. A series of standard procedures are meticulously followed throughout the entire manufacturing process.

Food Safety on the Farm

Our family farm is committed to growing wholesome vegetables and herbs in accordance to federal and state food safety guidelines. All employees participate in the food safety training program provided by the University of Florida. In addition, the farm undergoes third-party audits and routine inspections to insure proper handling as well as field sanitation. Our Family Farm's 10,000 square-foot packinghouse is certified by the Florida Department of Agriculture. Potential buyers, current customers and chefs are always welcome to tour the packinghouse and greenhouses.



Current Problems With Harmful Microbes

- Some people are more vulnerable to foodborne illness:
 - Young children or elderly people.
 - Immuno-compromised individuals.
- New ways of transmitting organisms:
 - Widespread food distribution system.
 - New food formulations and handling practices.
 - Changes in food choices.
- New or evolving pathogens:
 - Example - *E. coli* 0157:H7.

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- Visitor/worker Health and Hygiene
 - Contaminated irrigation water
 - Fresh and composted manure/fecal material
 - Wild and domestic animals



- Handwashing
 - Handwashing stations must be located outside port-a-johns and a handwashing station should be located in a place where employees and visitors (including children) have easy access
 - Sign must be posted to encourage handwashing
 - Hands must be washed properly!
 - Note hand sanitizers do not substitute for handwashing

How to wash hands properly

- Wet hands with clean water
- Add soap between the palms of the hands and rub hands until creating enough foam
- Rub hands with soap for at least 20 seconds
- Clean under the nails and between the fingers
- Rinse hands with clean water
- Dry hands with clean single-use towels
- Dispose of paper towels inside the trash containers provided next to the hand wash stations

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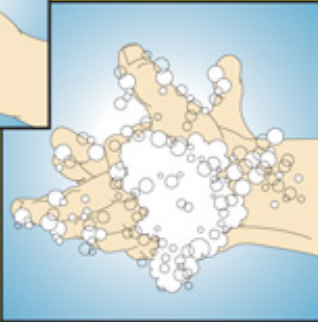
Proper Handwashing

- **Reduces infection 35 to 50%**
- **Reduces GI-illness up to 80%**

POR FAVOR, LÁVESE LAS MANOS FRECUENTEMENTE



**ANTES Y DESPUÉS
DE USAR EL BAÑO,
MANIPULAR FRUTAS Y
VERDURAS, COMER,
BEBER, O FUMAR**



BEFORE AND AFTER

**USING THE TOILET,
HANDLING FRUITS
AND VEGETABLES,
EATING, DRINKING,
OR SMOKING**

This poster was produced by the Good Agricultural Practices Program at Cornell University with support from USDA-CRREIS and FSA Agreement No. 86-0100-0001.

PLEASE WASH YOUR HANDS OFTEN!



GAPs Focus Areas





Remember have signs posted: Hands must be washed before returning to the field



SERVICE RECORD

DATE SERVICED	DRIVER	DATE SERVICED	DRIVER
6-3-8	CA	9-11	
6-10-8		10-9	
6-17	CA	10-9	
9-4			

O504

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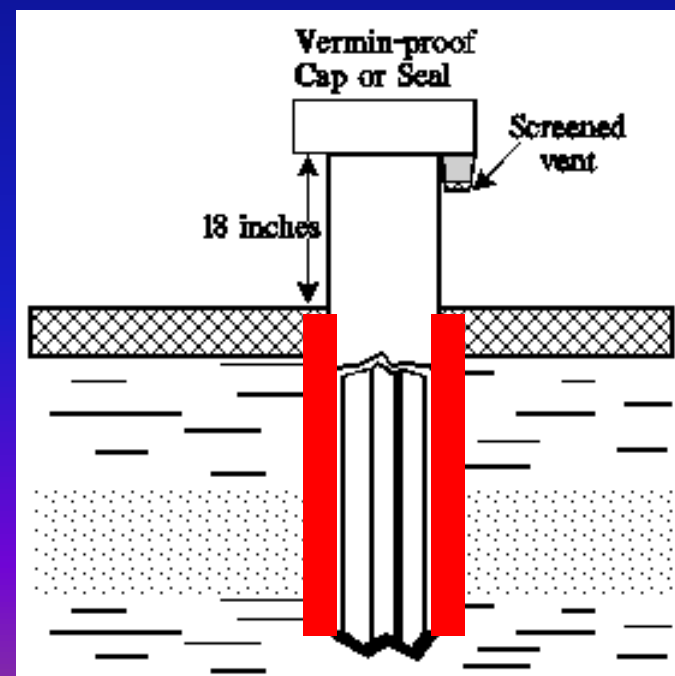
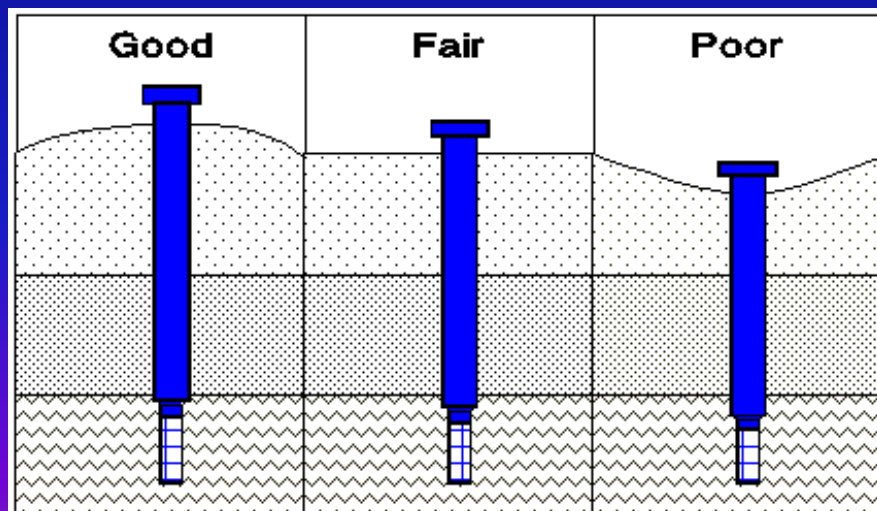
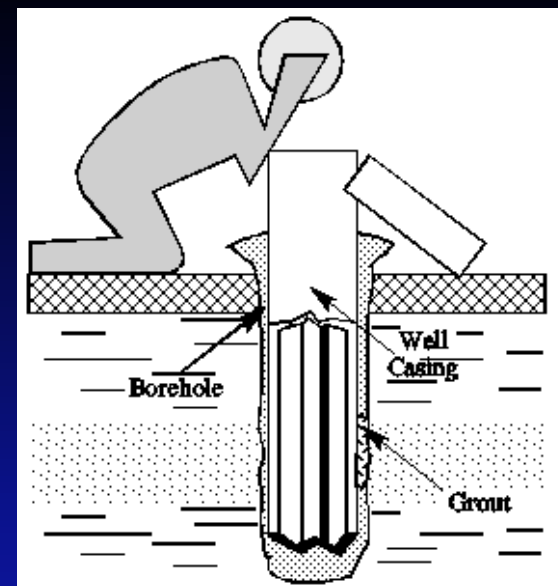
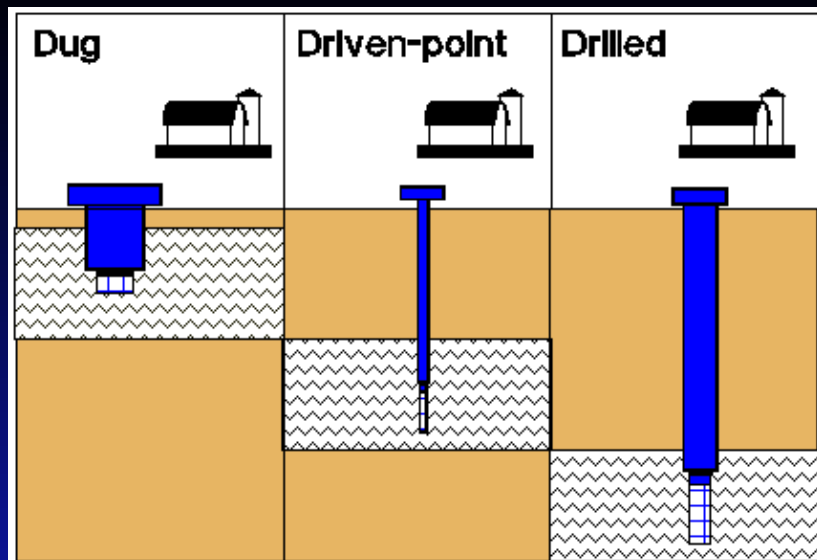
THIS RENTAL INCLUDES COMPLETE SERVICING.
 IT WILL ACCOMMODATE 10 PERSONS FOR A NORMAL WORK WEEK.
 EXCESSIVE USE WILL RESULT IN UNSATISFACTORY CONDITIONS
 BEFORE THE NEXT REGULAR SERVICING.



- Eating should not be allowed in the field. Workers can eat on the edge of the fields
- All rubbish should be picked up at the end of the day.







- **Drip Irrigation has lowest risk**
- **Overhead irrigation**
 - **Source determines risk**
 - **Apply to minimize leaf drying time**
 - **Longer periods between overhead irrigation and harvest lowers risk**

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- **Best source (lowest risk) is drinking water, such as municipal.**
 - **Ground water is less likely to have microbial contaminants than surface water.**
 - **Surface water quality and pathogen levels are affected by watershed activities and season.**

- Water sources must be tested
 - Irrigation, spray and wash water
 - Surface water is not acceptable in the packing shed
- Schedule for testing
 - Municipal water – acquire test results annually
 - Well water – Once a year
 - Surface water – Three times a year
 - Beginning of season, peak use and near harvest





- **DO EVERYTHING** you can to keep manure off produce.
- Preventing contamination is the goal.



Compost Manure Properly

- **Manage piles to have active, uniform composting.**
 - High temperatures, good moisture, proper aeration, and mixing.
 - Weed seeds killed means good composting conditions were achieved.
- **Exclude animals from compost area to prevent recontamination.**



Dealing with wildlife

- You are not going to keep all animals out
- Find the best ways that fit each operation to reduce the chance for animals entering fields
- Monitor the fields before harvest to see if there may be contamination





Develop a System for Maintaining Carton and Tote Sanitation

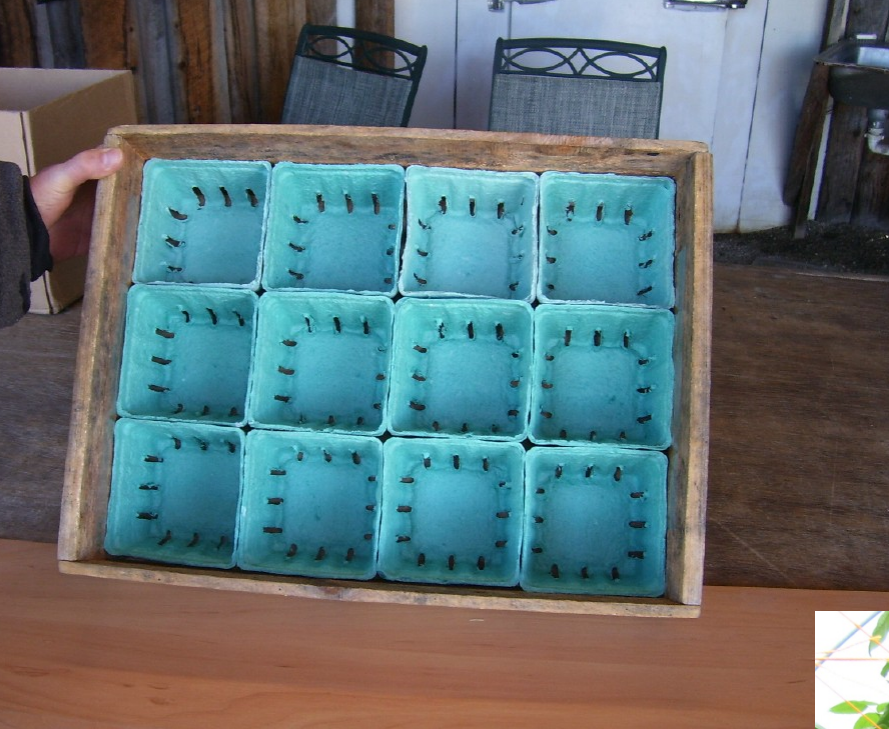


Pets and Petting Zoos



Guidelines for Animal Contact Areas

- Encourage the public to wash their hands BEFORE and AFTER petting or feeding the animals.
- Provide a Clean-Up Station at the beginning and end of the petting zoo area
- Post signs indicating the location of handwashing facilities
- Do not allow human food or drink in animal areas
- Ensure that no feed is fed to the animals unless you provide it.







Temperature Management

- ☐ Low temperatures supplement good sanitation practices and maintains quality
- ☐ Avoid delays that postpone cooling
- ☐ Consider:
 - ☐ Time from harvest to refrigeration
 - ☐ Time from arrival to cooling of produce
 - ☐ Speed of cooling & final temperature

Refrigeration

- ☐ Cool Bot
 - ☐ Overrides temperature control for air conditioner
 - ☐ Most AC units won't cool below 60°F
 - ☐ Cools to the temperature you set
 - ☐ Controls de-icing with a separate frost sensing control

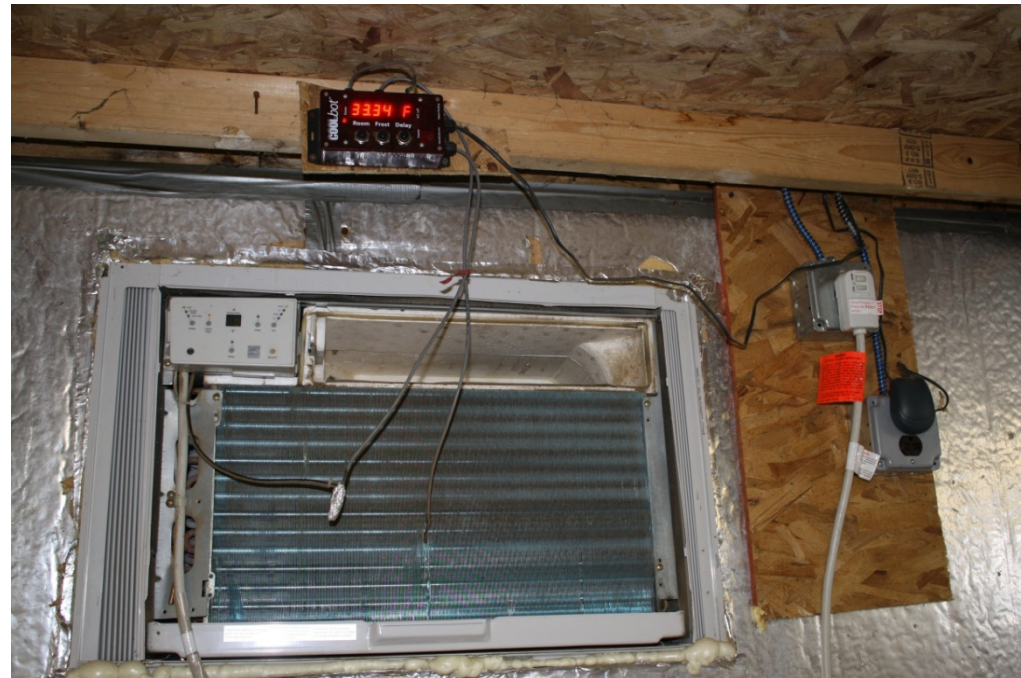




Photo Credit: Craig Kahlke





Customer Contact





Vendor Hygiene

- All food should be stored at least six inches off the floor or ground
- Keep produce shaded with a canopy, umbrella or constructed stand
- Store extra produce in coolers and maintain temperatures at or below 45F.
- If possible have one individual handle the money to reduce the chance of cross contamination

RUTGERS

New Jersey Agricultural
Experiment Station

Direct Sales

A woman with blonde hair, wearing a dark blue sleeveless top with a white floral design, is smiling and holding a large bunch of organic produce, including green onions and red onions. She is standing in front of a wooden wall. Above her is a framed sign that reads "Welcome 1895 Organic Farm" and features a painting of various vegetables. To the right, there is a dark, shadowed area with a window or doorway.

1895 Organic Farm

303 Landing Street
Lumberton, NJ 08048

Kim and Wayne Batten
609-267-5953

Growers of Organic Produce
NJDA Certified

- www.gaps.cornell.edu
- <http://ucgaps.ucdavis.edu>
- <http://njveg.rutgers.edu>
- www.foodsafety.psu.edu/gaps
- www.ams.usda.gov/gapghp
- <http://jifsan.umd.edu/training/gaps.php>

Remember The First Step in Food Safety is Common Sense



Food Safety is Everyone's Responsibility