

FLORIDA TROPICAL
AND SUBTROPICAL FRUIT INDUSTRY
Generic Good Harvesting Practices (**GHP**) Manual
-Field Harvest-

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Good Harvesting Practices (GHP) Manual

-Field Harvest-

The Florida Tropical Fruit Industry, comprised of about 1,800 diverse growers in southern Florida, is dedicated to providing consumers with consistently safe, high-quality and nutritious tropical and subtropical fruits.

The Florida Tropical and Subtropical Fruit GHP Manual provides harvesters with generic and crop-specific advice and recommendations to help ensure the safety of these fruits by focusing on the grower and harvester's role in complying with the objectives of the Food Safety Modernization Act of 2011.

Tropical and subtropical fruits are gaining importance locally and regionally and are enjoyed by consumers throughout the U.S. Along with current regulatory oversight and complementary cultural, packing, and shipping practices, harvesters adhering to GHP provide the consumer with safe and nutritious tropical and subtropical fruit crops.

Many generic practices in this document are already implemented by harvesters. The purpose of the Florida Tropical and Subtropical Fruit GHP Manual is to provide harvesters with crop specific priorities for mitigating food-safety risks for Florida tropical and subtropical fruits.

This Florida Tropical and Subtropical Fruit GHP Manual is complementary the USDA Good Agricultural Practices & Good Handling Practices Audit Verification Checklist: Part 2 – Field Harvest.

Key Tropical Fruit GHP Field Harvest Elements

- Worker Health and Hygiene
- Field Sanitation
- Field Harvest and Transportation

Please note: *The Florida Tropical and Subtropical Fruit GHP Manual is an advisory document. Harvesters are not mandated to comply with every recommendation within this document. Rather, the various policies, mitigation/corrective- action measures and documentation listed in the GHP Manual serve as a suite of implementation options for harvesters, in response to food-safety risks. Not all of them are likely to be applicable to every operation. Please note: This is a living document and the recommendations may be modified and/or added to and/or deleted as pertinent regulations change and dictate.*

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Approved by Tropical Fruits Growers of South Florida, Inc., (3-29-14)

Disclaimer and Limitation of Liability*

This manual provides voluntary, recommended Good Harvesting Practices (GHPs) relating to the production and handling of Florida tropical and subtropical fruits. It represents the current thinking of the Tropical Fruit Growers of South Florida (TFGSF) and participants in the TFGSF GAP-GHP Committee. It does not create or confer any rights for or on any person. This document is to provide currently available information on production and handling practices that are consistent with existing and proposed applicable regulations, standards and guidelines. The Committee, including its directors, officers, employees and members, do not assume any responsibility for your individual obligation to comply with applicable laws and regulations.

These voluntary, recommended practices were not designed to apply to any specific operation. Conditions at individual farms and handling operations may differ. Consequently, it is the responsibility of the owner/operator of the farm or packinghouse or harvesting company to determine the specific GHPs applicable to their operation. It is recommended that each owner/operator consult with their own legal and technical advisors to be sure that their own practices meet all applicable requirements for their operation. Moreover, it is likely that a grower or harvest contractor that uses these GHPs will need to take additional steps to protect the product from contamination.

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HARVESTING

Worker Health and Hygiene, Field Sanitation

Section 1:

Worker Health and Hygiene

Toilet and Hand Washing Facilities Toilet

and Hand Washing Maintenance Log Bleeding and In-Field Illness

Hand Washing Signs

Field Sanitation

Pre-Harvest Assessment

Spill or Leak Response Plan

Harvester (grove owner, manager, and/or harvesting company) information

Firm name: _____ Contact person: _____

License number (if applicable): _____

Main address: _____ City: _____ State: _____

Zip: _____

Telephone Number: _____ Fax Number: _____

Email Address: _____

Food Safety Coordinator

The food safety coordinator is responsible for implementing and overseeing the company's food safety program. The food safety coordinator is also responsible for ensuring the program is being followed by all employees and visitors to the grove.

Check if same as owner or principal party OR fill in information below:

Food safety coordinator name: _____

Phone number(s): _____

Email contact: _____

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Worker Health and Hygiene Policies and Procedures

Purpose: To address correct worker hygiene practices and reduce the potential for food contamination by an employee, contractor or visitor's actions, hygiene, health or habits.

Policies:

1. Potable (safe to drink) water must be available to all employees to drink and wash hands.
2. Visitors and employees who may come in direct contact with product are required to follow all sanitation and hygiene practices.
3. First aid kits must be available in the event of an injury or emergency.
4. All employees have been trained in proper sanitation and hygiene practices at the beginning of each season or annually for permanent crops and are required to follow proper sanitation and hygiene practices. New employees will receive all necessary training prior to working in the grove.
5. Employees must sign documentation that they have been trained on proper sanitation and hygiene practices. (See Section 5, page 23 – Training Log)
6. Signs are posted in English and Spanish in the vicinity of the toilet facility [except where in-home toilets are used] instructing employees to wash their hands before beginning work or returning to work. (See page 9 – Sample Hand Washing Sign)
7. "Employee" applies to all those working in the farm's growing and harvest operations including unpaid family members, visitors and those actually employed by contractors such as picking crews.

Procedures

Hygiene:

1. Water testing records must be available for drinking water unless the water is taken from treated public water supply provided to employees showing the water is potable.
2. Employees must wash hands before work, after using the restroom, after eating or smoking, and after breaks.
3. If gloves are used for fruit handling (this does **not** include activities such as pruning, irrigating, etc.), they must be intact, clean and in sanitary condition.
4. Eating food, chewing gum, drinking beverages (except bottled water) or using tobacco are restricted to areas outside the production area. Eating and drinking may take place at the edges of the production area, on grove roads, or areas already harvested in the current harvest cycle.

Hand Washing

Note: Hand washing with soap and water is required. Sanitizer use alone is NOT an acceptable practice.

1. Water testing records must be available showing the water being used for hand washing is potable unless from treated public water supply.
2. All employees must wash their hands with soap and water at the beginning of the workday, after using the toilet, after eating, and after breaks.
 - a. Wet hands with potable water; apply soap and work to lather.

- b. Rub hands together.
- c. Rinse under potable clean water.
- d. Dry hands with a single-use towel or air dry (hands must be dry before returning to work).
- e. Dispose of towel in trash can.

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***NOTICE
WASH HANDS
BEFORE
RETURNING TO
WORK***

***AVISO
LÁVASE LAS MANOS
ANTES DE
REGRESAR
AL TRABAJO***

Toilet and Hand Washing Facilities Policies and Procedures

Purpose: To ensure that toilet and field sanitation facilities are maintained in good repair, condition, and placed so that harvest areas and employees are not contaminated.

Policies:

Toilet and Hand Washing Facilities

1. Employees including contractors and visitors must have access to a toilet and hand washing facility that is properly stocked and receives regularly scheduled cleaning and restocking. Toilet and hand washing facilities should be located at a distance and in an area that minimizes risk of product contamination.
2. Operations must be in compliance with all applicable local, state and/or federal regulations dictating the number, condition, and placement of portable field sanitation units or in a proper structure (e.g., home, office) within or less than 1/4 mile of the grove. If the number of employees does not require a portable field sanitation unit, access to a clean toilet facility must be readily available for all employees, contractors and visitors.

Procedures:

Toilet and Hand Washing Maintenance:

1. Toilet facilities must be in good repair, clean and properly stocked.
2. Cleaning and servicing must be performed on an as needed basis and a written record of dates and times of servicing must be available.
3. Field sanitation facilities (i.e., portable toilets) must be stocked with single use towels, soap, a place to dispose of trash and potable water for hand washing.

Procedures:

Portable Toilet Facility Cleaning

Note: Toilets will have a service log.

1. Place toilet facilities at a distance and in an area that minimizes risk of product contamination.
2. Pump waste from the holding tank. Remove trash and other debris.
3. Clean floor, toilet, and urinal.
4. Add fresh solution to the tank as needed.
5. Replace and replenish toilet paper as needed.
6. Sign and date "service log sticker" in each unit. Toilets should be serviced on an as needed basis.
7. Return toilet facility to appropriate location.

Procedures:

Portable Hand Washing Facility Cleaning

Note: Hand washing facilities will have a service log.

1. Place hand washing facilities at a distance and in an area that minimizes risk of product contamination.
2. Pump waste from the holding tank.
3. Remove trash and ensure drain is fully operational.

4. Clean and scrub surfaces with appropriate brush.
5. Add fresh POTABLE water to tank.
6. Replace and replenish single use towels and hand soap.
7. Sign and date “service log sticker” on each unit. Hand washing facilities should be serviced on an as needed basis.
8. Return hand washing facility to appropriate location.

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Bleeding/Bodily Fluids and In-Field Illness Policies and Procedures

Purpose: To address the potential contamination issues caused by employees who are bleeding, discharging pus or appear to have in-field illnesses or injuries.

Policies:

Bleeding and Bodily Fluids

1. All incidences of bleeding and vomiting are to be reported to supervisors.
2. Workers are instructed to seek prompt treatment with clean first aid supplies for cuts, abrasions or other injuries that break the skin.
3. Any fruit and packaging materials contaminated with blood and/or bodily fluids must be segregated and disposed of immediately.
4. Tools and/or equipment contaminated with blood must be properly sanitized immediately.
5. Any employee having sores, cuts, boils, lesions, etc. on his/her hands shall have those areas covered with first-aid materials and/or disposable gloves in a fashion that prevents contamination of fruit and harvest materials.
6. If first aid material/disposable gloves do not fully cover the wound, the employee is not permitted to engage in working in direct contact with the fruit or harvest materials or machinery that come in contact with the fruit.

Illness

1. Employees showing symptoms of diarrhea, abdominal cramps, vomiting or any other symptoms of gastrointestinal diseases are excluded from work assignments that involve direct contact with fresh produce. See Section 3; pages 20-24 – Food Borne Illness Training for Supervisors.

Procedures:

Bleeding and Bodily Fluids

1. Notify the appropriate supervisor immediately, if appropriate call 911 and report emergency.
2. Supervisor determines the type of injury and provides appropriate first aid.
3. Cover wound with appropriate first aid materials.
4. If an injury occurs and fruit or equipment is contaminated, cordon off the immediate area. (Some type of cord, rope, or emergency tape or other flagging tape may be used).
5. Inspect the cordoned off area looking for the presence of blood.
6. Discard any fruit that may have become contaminated.
 - a. Use disposable gloves to place contaminated fruit inside disposal container.
 - b. Remove gloves and place in disposal container.
 - c. Wash hands with soap and water.
7. Sanitize any equipment that may have come in contact with blood.

Field Sanitation and Pre-Harvest Assessment

A pre-harvest assessment is made on the production area prior to harvest. Risks and possible sources of crop contamination are noted, assessed, and if applicable, corrective measures performed and documented.

Grower/grove name: _____

Name of person conducting pre-harvest assessment: _____

Date of Inspection: _____ Projected Harvest Date(s): _____

Procedures:

1. Prior to harvest, inspect the toilet and hand washing facilities, harvesting tools and equipment, employee health, and condition of the harvest area making sure there are no potential food safety risks.
2. Where an issue is observed, correct the problem and document the corrective action before harvest begins.

	Yes	No	Corrective Action
Field Sanitation Facilities			
Are toilet and hand washing facilities properly located?			
Are toilet and hand washing facilities properly stocked?			
Harvesting Tools and Equipment			
Is harvest equipment available and in good condition?			
Have harvesting tools been cleaned and disinfected?			
Are field bins in good condition?			
Are field bins clean?			
Is transportation equipment clean and available?			
Employee Health			
Is potable water available for workers?			
Are first aid kits available in case of an emergency?			
Field Sanitation			
There is no evidence of significant, high concentrations of domestic or wild animal contamination.			
Are fuels and chemicals that might contaminate the crop areas isolated?			
There are no other notable sources of biological, physical, or chemical contamination such as dump sites, manure, or burning debris that may be a food safety risk.			
If areas are contaminated, are they isolated as "no-harvest" zones?			
There is no evidence of unauthorized entry in the crop area.			
If there is evidence of unauthorized entry in the crop area, has it been investigated?			

Spill or Leak Response Plan

Purpose: To ensure hazardous material spills or leaks are cleaned up immediately and fruit that comes in contact with any such spills or leaks is not harvested for human consumption.

Policies:

A response plan is in place in the event of a major spill or leak of any hazardous material to include but not limited to toilet and hand washing facilities.

Procedures:

1. Employees should immediately contact the person listed under the Emergency Contact Information.
2. The Emergency Contact will then contact the contracted service provider (if applicable) or other environmentally qualified contractor immediately to begin clean up and corrective actions, including identification, removal and disposal of contaminated fruit.
3. Hazardous material spills should be quickly contained and cleaned up immediately.
4. DO NOT HARVEST fruit that has come in contact with spilled or leaked hazardous materials.
5. Clean and sanitize all equipment that may have come in contact with the spilled hazard material before it is used again.

Emergency Contact Information:

Name:

Phone:

Example of **Spill or Leak Log**

Date	Description of Event	Corrective Action Taken	Supervisor

Harvesting

Section 2:

Field Harvest and Transportation
Harvesting Tools Sanitation Log Fruit
Contamination Procedure

Harvest and Transportation Policies and Procedures

Purpose: To ensure harvesting containers, equipment and transportation do not cause a likely source of contamination to the fruit.

Policies:

Harvesting Containers (Bins)

1. All harvesting containers that come in direct contact with fruit are clean or cleaned and/or sanitized as needed and kept as clean as practical.
2. Damaged harvesting containers are returned to the packinghouse and not used for fruit.
3. Harvesting containers and picking bags are not to be used for carrying or storing non-produce items during the harvest season. Farm workers are instructed on this policy.
4. Efforts have been made to remove excessive dirt and mud from fruit and/or containers during harvest.
5. To prevent possible contamination storing and/or placing harvesting containers on the soil should be avoided.

Harvesting Equipment

1. All hand harvesting and implements (picking bags, clippers, tarps, etc.) are kept as clean as practical and are disinfected as needed.

Transportation/Hauling

1. Efforts shall have been made to remove excessive dirt and/or debris from the truck or trailer bed.
2. Fruit transported from the field to the packinghouse is properly secured and traceable back to a specific grove or field in a grove.

Procedures:

Harvesting Equipment Sanitation:

1. Harvesting equipment is sanitized as needed and sanitation is documented on the "Harvesting Tools Sanitation Log."
2. Harvesting tools shall not be placed and stored on the ground.

Transportation/Hauling

1. Each load leaving the harvest area needs a unique field ticket identifying the specific originating grove, section of a grove or parcel.

Directions

Clippers:

1. Any clipper that has become contaminated with bodily fluids or chemical contaminant is replaced immediately, removed from the harvest area, and properly sanitized prior to being used again.
2. Clean clippers as needed with bleach (sodium hypochlorite) or other suitable decontaminating solution (e.g., food safe quaternary ammonium chloride).
3. Replace clippers as needed.

**Contaminated Product
Policies and Procedures**

Purpose: To ensure crops contaminated by glass/brittle plastics breakage, chemicals, petroleum, or pesticides are not harvested for human consumption.

Policies:

1. Product contaminated by glass/brittle plastics breakage, chemicals, petroleum or improperly applied pesticides are not harvested for human consumption.
2. Glass or hard plastic on harvesting equipment is protected so fruit is not contaminated in the event of a breakage.

Procedures:

1. Notify the appropriate supervisor.
2. Fruit that is contaminated will be disposed of and that harvest area avoided.
3. Where glass/brittle plastic breakage occurs, inspect the harvest area looking for signs of contamination. Remove and discard all broken pieces of glass. Clean up harvest area where contamination occurred.
4. Work will stop until equipment can be repaired and all fruit containers that may have been contaminated are cleaned, washed and inspected.
5. Equipment that has been contaminated will be thoroughly cleaned and inspected prior to being used again.
6. Document the date of the occurrence, description of the event, and corrective action taken.

Example of Contaminated Product Log

Date	Description of event	Corrective action	Supervisor

Food Safety Training
Section 3:
Food Safety Training Outline
Food Safety Training Log
Food Borne Illness Training for Supervisors

Food Safety Training Outline

Food Safety Training for All Employees

Microorganisms and Food Handling

1. The microorganisms that cause illness are much too small to see and there may be no visible sign whatsoever that food is contaminated.
2. These tiny viruses, bacteria and parasites can be transferred to foods from dirty hands, bodily fluids or blood, especially from people who did not wash his/her hands after using the toilet.
3. We all eat fruits and vegetables, and we can all be made sick if somebody else who is sick or does not have clean hands has touched our food.
4. Don't eat food, smoke or chew tobacco or gum while working with fruit. Food from our mouths can transfer bacteria or parasites to food and make others sick.
5. Even somebody who has no signs of symptoms of illness may be carrying a disease organism that can be transferred to food.

Illness Reporting

1. Report any active cases of illness to your supervisor before beginning work; this includes diarrhea, vomiting, abdominal cramps, fever, or nausea. Seek medical attention and do not handle fruit, packaging, machinery or equipment that comes into contact with fruit.
2. Report lesions on your body such as infected wounds, draining wounds, boils or wounds seeping pus that might come in contact with produce. Obtain latex free gloves/first aid materials to cover the wound or do NOT handle produce!
3. Be familiar with symptoms of infectious diseases so that if symptoms are evident the supervisor can take appropriate steps.
4. Symptoms may include diarrhea, yellow skin or eyes, cough, sneezing, excessive mucus flow, sore throat, runny nose or fever.

Toilet Use

1. All employees must use the toilet facilities provided which must be connected to a sewage disposal system or self-contained.
2. Failure of employees to use provided toilet facilities is grounds for dismissal.

Hand Washing

Note: *Hand washing with soap and water is required. Sanitizer use alone is **NOT** an acceptable practice.*

1. Water testing records must be available showing the water being used for hand washing is potable.
2. All employees must wash their hands with soap and water at the beginning of the workday, after using the toilet, after eating, smoking and after breaks.
 - a. Wet hands with potable water; apply soap and work to lather.
 - b. Rub hands together.
 - c. Rinse under clean water.
 - d. Dry hands with a single-use towel or air dry until no longer damp.
 - e. Dispose of towel in trash can.

Bleeding Incidence

1. Any cuts or scrapes that cause the loss of blood must be reported to the supervisor immediately.
2. All fresh produce that may have come in contact with blood during an incident must be destroyed.
3. All packaging or equipment that has come in contact with blood during this incident must be cleaned and sanitized.

Provide Protection from a Lesion

1. A lesion that contains pus, such as a boil or infected wound that is open or draining and that is located on parts of the body that might have contact with produce while harvesting, sorting or packaging, will be covered by first aid material.
2. If a worker has a lesion that cannot be effectively covered in such a way to prevent contact with fresh produce or related equipment, the employee will not be allowed to work in any aspect with fresh produce or related packaging or equipment.

Ensure Visitors and Contractors (including their employees) Follow Good Hygienic Practices

1. Ensure good hygienic practices are followed by all visitors, contractors and employees who come into contact with fresh produce in the field.

Harvesting Containers and Picking Bags

1. Harvesting containers and picking bags are not used for carrying or storing non-produce items during the harvest season. Farm workers are instructed on this policy.

Alternative Good Hygienic Practices

1. Single-service disposable gloves can be an important and effective hygienic practice in combination with hand washing in some circumstances. If gloves are not used properly they can become another vehicle for spreading pathogens.
2. The use of gloves in no way lessens the need or importance of hand washing and proper hygienic practices.

Worker Hygiene/Health and Food Safety Training Log

Training Topic: _____

Instructor: _____ Date/Time: _____

Training Details:

Training Materials Used:

Example of Participant List Log

Name	Signature

Foodborne Illness Training for Supervisors

Infected employees, visitors, contractors (and their employees) through food or food utensils, may transmit a wide range of communicable diseases and infections to consumers. An important part of an on-going program to ensure the safety of fresh produce is to institute a system of identifying employees and outsiders who present a risk of transmitting foodborne pathogens to fresh produce or to other employees.

Supervisors should be aware of the symptoms of foodborne illnesses so that they can recognize them in workers. If any workers appear to exhibit symptoms of any of these illnesses, they should be excluded from work assignments that involve direct contact with fresh produce and packaging.

Below is a partial list of symptoms caused by infectious and communicable diseases that are transmitted through food:

Symptoms: fever, jaundice, diarrhea, vomiting, abdominal cramps, sore throat, and runny nose.