

CALIFORNIA AVOCADO INDUSTRY

GOOD HARVESTING PRACTICES (GHP) MANUAL

Field Harvest

The California avocado industry, composed of 5,000 growers throughout the state, is dedicated to providing consumers with consistently safe, high-quality and nutritious California avocados.

The California Avocado Industry Good Harvesting Practices (GHP) Manual provides harvesters with crop-specific activities to ensure the safety of California avocados. This manual focuses on the harvester's role in providing avocados that meet the goals of the [Food Safety Modernization Act of 2011](#).

Avocados are considered a low-risk commodity. There are no known food safety outbreaks traced to avocados, and because the fruit is harvested from the trees without coming in contact with the ground, exposure to potential contamination is somewhat limited. However, avocados can be contaminated in other ways, such as through unsanitary handling or contaminated equipment or packaging material.

Current regulatory oversight and complementary cultural, packing and shipping practices provide an additional layer of protection for the consumer.

Many practices included in this document are already being implemented by harvesters. The purpose of the California Avocado Industry GHP Manual is to provide harvesters with crop-specific priorities for mitigating food safety risks for California avocados.

This California Avocado GHP Manual is consistent with the [USDA Good Agricultural Practices and Good Handling Practices Audit Verification Checklist: Part 2 – Field Harvest](#).

Key Avocado GHP Field Harvest Elements

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

Please note: The California Avocado GHP Manual is an advisory document prepared by the California Avocado Commission. Harvesters are not mandated to comply with every requirement 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. They may not prove applicable to all operations.

Approved by CAC Board August 18, 2011

Disclaimer and Limitation of Liability

This manual provides voluntary, recommended Good Agricultural Practices (GAPs) and Good Harvesting Practices (GHPs) relating to the production and handling of California avocados. It represents the current thinking of the California Avocado Commission (Commission). 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 applicable regulations, standards and guidelines. The Commission, including its directors, officers, employees and members, does not assume any responsibility for your individual responsibility 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 to determine the specific GAPs and/or GHPs applicable to their operation. It is recommended that such 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 who uses these GAPs and GHPs will have to take additional steps to protect the product from contamination.

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HARVESTING

SECTION 1:

WORKER HEALTH AND HYGIENE, FIELD SANITATION

Harvester Information

Worker Health and Hygiene

Hand-Washing Signs

Toilet and Hand-Washing Facilities

Toilet and Hand-Washing Maintenance Log

Bleeding and In-Field Illness

Field Sanitation and Preharvest Assessment

Spill or Leak Response Plan

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HARVESTER INFORMATION

The following information should be provided and kept on file.

Firm Name _____

Contact Person _____

Street Address _____

City _____ State _____ Zip _____

Phone 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 ranch.

FOOD SAFETY COORDINATOR	Name
	Phone Number

Worker Health and Hygiene POLICIES AND PROCEDURES

Purpose:

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

Policies:

1. Potable water is available to all employees to drink and to wash their 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 on proper sanitation and hygiene practices annually, and are required to follow proper sanitation and hygiene practices. (Periodic refresher training should be conducted throughout the year.) New employees will receive all necessary training prior to working in the grove.
5. Employees must sign documentation that they have been trained in proper sanitation and hygiene practices. (*See Section 3, page 33 – 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 next page – Sample Hand-Washing Sign.*)

Procedures:

Hygiene

1. Water-testing records must be available for drinking water *provided* to employees, showing the water is potable.
2. Employees must wash hands before work, after using the restroom and after breaks.
3. If gloves are used for food 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.

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 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.
 - e. Dispose of towel in trash can.

NOTICE

**WASH HANDS
BEFORE RETURNING
TO WORK**

AVISO

**LÁVESE LAS MANOS
ANTES DE REGRESAR
AL TRABAJO**

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Toilet and Hand-Washing Facilities

POLICIES AND PROCEDURES

Purpose:

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

Policies:

Toilet and Hand-Washing Facilities

1. Employees must have access to a toilet and hand-washing facility that shall be properly stocked and have regularly scheduled cleaning. Toilet and hand-washing facilities shall be located at a distance and in an area that minimizes risk of product contamination. Placement of portable toilets should only be done in a manner that minimizes the chance that usage, cleaning or relocation could result in contamination of irrigation water sources, equipment-cleaning areas, areas of foot traffic, the floor of the grove and any other areas that may jeopardize the safety of the harvested avocados. Use special caution when servicing portable toilets to prevent spillage into the fields.

2. Operations must be in compliance with all applicable state and/or federal regulations dictating the number, condition and placement of portable field sanitation units. 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.
3. At no time are employees allowed to urinate or defecate anywhere other than the provided toilet.

Procedures:

Toilet and Hand-Washing Facilities Maintenance

1. Toilet facilities must be in good repair, clean and properly stocked.
2. Cleaning and servicing must be done on a regularly scheduled basis, and documentation of servicing must be available.
3. Field sanitation facilities must be stocked with single-use towels, soap, a place to dispose of trash and potable water for hand washing.

Portable Toilet Facility Cleaning

Note: Toilets will have a service log.

1. Place toilet facilities at a distance and in an area that minimizes the 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.

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 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.
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.
6. If first aid materials/disposable gloves do not fully cover the wound, the employee is not permitted to engage in working in direct contact with the fruit.

Illness

Employees showing symptoms of diarrhea, vomiting or other infectious diseases are excluded from work assignments that involve direct contact with fresh produce. *(See Section 3; page 35 – Food-borne Illness Training for Supervisors.)*

Procedures:

Bleeding and Bodily Fluids

1. Notify the appropriate supervisor.
2. Supervisor determines the type of injury and provides appropriate first aid. If necessary, call 911 and report emergency.
3. Cover wound with appropriate first aid materials.
4. If an injury occurs and fruit or equipment is contaminated, cordon off the immediate area.
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.

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FIELD SANITATION AND PREHARVEST ASSESSMENT

A preharvest 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.

Ranch/Grower Name _____

Person conducting preharvest assessment _____

Date of Inspection _____ Projected Harvest Date _____

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.

	Date Inspected	Corrective Action Taken
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 notable sources of biological, physical or chemical contamination (dump sites/manure/burning debris) that may be a food safety risk.		
Are contaminated areas 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?		

[Extra copies of forms/logs available in Forms & Logs section.]

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SPILL OR LEAK RESPONSE PLAN

EMERGENCY CONTACT INFORMATION	Name
	Phone Number

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.

Policy:

A response plan is in place in the event of a major spill or leak of any hazardous material to include but is 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 cleanup 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.

Log

Date	Description of Event	Corrective Action Taken	Supervisor Initials

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SECTION 2:

FIELD HARVEST AND TRANSPORTATION

Field Harvest and Transportation

Harvesting Tools Sanitation Log

Fruit Contamination Procedures

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HARVEST AND TRANSPORTATION POLICIES AND PROCEDURES

Purpose:

To ensure harvesting containers, equipment and transportation do not become sources of contamination to the fruit.

Policies:

Harvesting Containers (Bins)

1. All harvesting containers that come in direct contact with fruit are cleaned and/or sanitized as needed and kept as clean as is practical.
2. Damaged harvesting containers are returned to the packinghouse and not used for fruit.
3. 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.
4. Efforts have been made to remove excessive dirt and mud from fruit and/or containers during harvest.

Harvesting Equipment

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

Transportation/Hauling

Fruit transported from the field to the packinghouse is properly secured and traceable back to a specific 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 stored on the ground.

Transportation/Hauling

Each load leaving the harvest area needs a unique field ticket identifying the specific grove.

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).
3. Replace clippers as needed.

Picking Bags:

Any picking bag that has become contaminated with bodily fluids or chemical contaminant is replaced immediately, and the contaminated bag is removed from the harvesting area.

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HARVESTING TOOLS SANITATION LOG

Date	Time	Item Sanitized	Name/Initials

[Extra copies of forms/logs available in Forms & Logs section.]

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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 pesticides is not harvested for human consumption.
2. Glass 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 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.

Log

Date	Description of Event	Corrective Action Taken	Supervisor Initials

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SECTION 3: **FOOD SAFETY TRAINING**

Food Safety Training Outline

Food Safety Training Log

Food-borne Illness Training for Supervisors

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FOOD SAFETY TRAINING FOR ALL EMPLOYEES

Microorganisms and Food Handling

1. The microorganisms that cause illness are much too small to see.
2. These tiny bacteria and parasites can be transferred to foods from dirty hands or blood, especially from people who did not wash their 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 or chew tobacco or gum while working with fruit. Food from our mouths can transfer bacteria or parasites to food and make others sick.

Illness Reporting

1. Report any active cases of illness to your supervisor before beginning work. This includes diarrhea, vomiting, fever or nausea. Seek medical attention and do not handle 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 include diarrhea, runny nose, yellow skin or eyes, cough 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 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 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.
 - 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 equipment that has come in contact with blood during this incident must be cleaned and sanitized.

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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 during 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 equipment.

Ensure Visitors Follow Good Hygienic Practices

Ensure good hygienic practices are followed by all visitors who come in contact with fresh produce in the field.

Harvesting Containers and Picking Bags

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. Using 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:

Name	Signature
1.	
2.	
3.	
4.	
5.	
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[Extra copies of forms/logs available in Forms & Logs section.]

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FOOD-BORNE ILLNESS TRAINING FOR SUPERVISORS

Infected employees, through food or food utensils, may transmit a wide range of communicable diseases and infections to consumers. An important part of an ongoing program to ensure the safety of fresh produce is to institute a system of identifying employees who present a risk of transmitting food-borne pathogens to fresh produce or to other employees.

Supervisors should be aware of the symptoms of food-borne 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.

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

Symptoms
Fever
Jaundice
Diarrhea
Vomiting
Sore throat