CALIFORNIA AVOCADO COMMISSION
FOOD SAFETY MANUAL
VERSION 4.0

(Complies with PrimusGFS V3.0)

Revised May 14, 2019

Please note: This Manual is an advisory document. Growers are not mandated to comply with every requirement in this document. Rather, the various policies, mitigation/corrective-action measures and documentation listed in this Manual serve as a suite of implementation options for growers in response to food-safety risks. They may not prove applicable to all operations.

Approved by CAC Board February 21, 2019

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. THE INFORMATION PROVIDED HEREIN IS OFFERED IN GOOD FAITH AND BELIEVED TO BE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FURTHER, THE COMMISSION, INCLUDING ITS DIRECTORS, OFFICERS, EMPLOYEES AND MEMBERS, DOES NOT MAKE ANY WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR UTILITY OF THE INFORMATION HEREIN. ADDITIONALLY, THE COMMISSION DOES NOT ASSUME ANY LIABILITY OR RESPONSIBILITY OF ANY KIND WHATSOEVER RESULTING FROM THE USE OR RELIANCE UPON ANY INFORMATION, MATERIAL OR PRACTICE CONTAINED HEREIN, INCLUDING, BUT NOT LIMITED TO, ANY CLAIMS FOR ANY DAMAGES, LOSS OR INJURY.

CONTENTS / DOCUMENT CONTROL REGISTER

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MANAGEMENT SYSTEM

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Ranch Information, Food Safety Policy and Food Safety Coordinator Information

Ranch Information

Ranch name: _____

Physical address: _____

City: _____

State: _____

Country: _____

APN/GPS/Latitude-Longitude: _____

Commodities: _____

Number of planted acres for each commodity: _____

Total planted acres: _____

Ranch Map

An aerial image/map or hand drawn map must be available that shows the following: Location of permanent water fixtures (wells, reservoirs, ponds), flow of the water system, holding tanks, septic systems, the crops grown in each field or production area and the water sources that serve them.

Food Safety Policy

_____is committed to providing a safe product to our end users and achieving continuous improvement in our growing operations. In order to accomplish this we follow food safety laws/regulations, adhere to industry food safety best practices and fulfill customer requirements.

Management is committed to providing the resources necessary to implement, maintain and improve our food safety program. Examples of these resources include worker training, equipment, supplies, and testing services.

The integrity of our food safety program is sustained through internal and external processes. Independent third-party audits are conducted to ensure that we are meeting or exceeding all Global Food Safety Initiative (GFSI) and Food Safety Modernization Act (FSMA) standards.

Date: _____ Date Reviewed: _____

Name: _____ Title: _____

Signature: _____

**** This Food Safety Policy must be posted in a public area****

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 that the company's food safety program is being followed by all workers and visitors to the ranch.

Food Safety Coordinator: _____

Phone Number: _____

Alternate Food Safety Coordinator: _____

Alternate Food Safety Coordinator Phone Number: _____

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Organizational Structure

Date: _____

(Add or remove boxes to fit your organizational structure – Include all workers who have food safety related activities. One individual may cover multiple positions)

Title: _____ (i.e. Owner / Grower)

Name: _____ Alternate: _____

Title: _____ (i.e. Food Safety Coordinator)

Name: _____ Alternate: _____

Title: _____ (i.e. Manager / Foreman)

Name: _____ Alternate: _____

Title _____ (i.e. Worker)

Name: _____ Alternate: _____

Responsibilities of the food safety team members:

Owner / Grower:

_____

Food Safety Coordinator:

_____

Manager / Foreman:

_____

Worker:

_____

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Food Safety Committee and Management Verification

Purpose:

To review food safety systems and ensure the suitability, adequacy and effectiveness of procedures and policies in place.

Frequency:

Management verification meetings must be conducted on an annual basis.

Food Safety Committee meetings must be conducted quarterly.

Procedure:

1. Assemble the food safety team.
2. Members include: _____
3. Use Food Safety Committee and Management Verification form as a meeting guide.
4. Topics to be discussed include:
    a. Food Safety
        i. Animal Activity
        ii. Pesticide / Herbicide Applications
        iii. Fertilizer Applications
        iv. Water Testing
        v. Worker Training
    b. Management Review
        i. Internal and External Audits
        ii. Complaints and Recalls
        iii. Organizational Structure
        iv. Changes in Procedures
        v. Resource Analysis
5. Follow up action items as necessary.
6. Missing members must be indicated on the Food Safety Committee Log.
7. Resources must be made available to comply with necessary food safety regulations and policies.

Records:

1. Food Safety Committee and Management Verification Logs

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Food Safety Committee Log

To Be Completed Quarterly

Date: _____

Time: _____

Ranch: _____

Member(s): _____

Attendee(s): _____

I. Animal Activity

1) Describe any significant animal activity that has taken place in the past three months and any corrective/preventive actions that may be needed. _____
_____

II. Pesticide / Herbicide Application

1) Which pesticides and/or herbicides were applied in the past three months?
_____

2) Who applied them? _____

3) Are records available and included in the Food Safety binder? **YES** | **NO**
   a) If no, find / print records and place them in Food Safety binder.
4) Were proper pre-harvest intervals followed? **YES** | **NO**
   a) If no, contact your packer.

IV. Fertilizer Application

1) Which fertilizers have been applied in the past three months?
_____
2) Are records available and included in the Food Safety binder? **YES** | **NO**
   a) If no, find / print records and place them in Food Safety binder.

V. Water Testing

1) When was the last water test conducted? _____
2) Are water testing records current and included in the Food Safety binder? **YES** | **NO**
   a) Water sources should be tested at least once a year. However, depending on your own risk assessment/analysis, or in particular circumstances, you may have to test water sources more frequently.
   b) If no, contact lab representative to schedule water test.

VI. Worker Training

1) When was the last pesticide training? _____
2) When was the last food safety hygiene training?_____
   *Pesticide training should take place at least once a year and food safety training should take place every three months.

Other Topics:_____

Signature of the Food Safety Coordinator: _____ Date Reviewed: _____

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Management Verification Review and Food Safety Resource Analysis

Complete At Least Annually

A food safety resource analysis is conducted on an annual basis to ensure that adequate resources are available to implement and improve food safety management system processes. Management is committed to providing these resources in a timely manner.

Date:_____ **Time:** _____

Ranch: _____

Member(s):

_____

Attendee(s):

_____

1. Which internal or external audits were performed in the last 12 months? (i.e. PrimusGFS, FDA/CDFA, etc.)

   _____

1a. Describe corrective actions that were required as a result of audits.

   _____

2. Describe any complaints or recalls that have taken place in the past year, and related corrective actions.

   _____

3. What changes have been made to the organizational structure in the past year?

   _____

4. Describe any changes in SOPs or operation objectives in the last 12 months:

   _____

5. Are adequate resources available to comply with necessary food safety regulations and policies?

   _____

5a. Which resources are available to ensure workers are properly trained for food safety?

   _____

5b. Which resources are available to ensure worker absences are properly covered?

   _____

5c. Are job descriptions written and available to all workers?

   _____

5d. What equipment and services are available to support workers' food safety roles (e.g., first aid kits, Personal Protective Equipment - PPE, restrooms, etc.)?

   _____

   _____

Additional Comments: _____

Signature of the Food Safety Coordinator: _____ Date Reviewed: _____

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Training Management System

Purpose:

To ensure employees receive proper training related to food safety as it applies to their job role.

Records:

Produce Safety Alliance (PSA) Training Certificate
Food Safety and Security Training Logs
Pesticide Training Logs / Private Applicator License, etc.

Instructions: Fill in the names of applicable employees below and the most recent dates of their trainings completed.

Name	Position	Training Requirement	Frequency	Date Completed
	Qualified Individual	Produce Safety Rule Grower Training	One time	
	Food Safety Coordinator	Produce Safety Rule Grower Training or equivalent Industry trainings (optional) Other:	One time	
	Manager/ Foreman	Foodborne Illness Training Food Safety and Security and Worker Health and Hygiene	One time	
	Worker	Food Safety and Security and Worker Health and Hygiene	Upon hire, quarterly review and as needed	See training logs
	Pesticide Applicator	Pesticide Safety and Handling	Annual	See training logs

*One person may cover multiple positions

Have all trainings been completed? **Yes / No**
If no, which trainings still need to take place?

_____

_____

_____

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Purpose:

To outline the creation and control of both paper and electronic documents and records related to food safety so there is consistency among procedures and records.

Policies:

Record Retention:

1. All food safety records must be retained for a minimum of two years.
2. Records required for organic certification must be retained for five years.
3. Any records required by law to be kept longer than two years should be kept the legally mandated period of time.
4. Documents and records must be securely stored.

Record Completion:

1. Records must be completed in permanent ink. Do not use pencil, erasable ink or correction fluid.
    a. If corrections are made, they must be crossed out and initialed by the person making the change so the original information is still legible.
2. Records must be completed in their entirety.
3. All food safety records and test results must be reviewed during the quarterly Food Safety Committee Meeting. The signature of the Food Safety Coordinator signifies that all documentation has been reviewed. If issues are found, corrective actions must be documented.
    a. Records include, but are not limited to: Water testing results, food safety training records, perimeter and water source monitoring logs, pesticide application records, fertilizer logs, etc.

Procedures:

Creation of Standard Operating Procedures:

1. All documents are created and approved by the California Avocado Commission.
    a. If necessary, growers can adjust policies to fit their specific growing operation.
2. All documents are part of the Food Safety Manual.
    a. The table of contents lists all the documents included in the Food Safety Manual.
3. When a new document is created it is added to the Food Safety Manual and the Table of Contents/Document Control Register is revised to reflect the addition.

Format:

1. Each document should contain the following. If any are not applicable, they may be omitted:
    a. Document number
    b. Title
    c. Purpose
    d. Policies
    e. Procedures
    f. Corrective actions
    g. Records
    h. Frequency
    i. Position responsible for carrying out task
2. Each page of the manual should contain the revision number and date.

Revision:

1. Documents are to be reviewed annually by the California Avocado Commission to ensure compliance with industry, regulatory and audit standards. Revisions are made when necessary.
2. When changes are made, the revision number on the cover of the Food Safety Manual is updated using the following format:

   Revision X

   Approved by_____on MM/DD/YYYY

3. The Food Safety Coordinator is notified of updates via email, meetings, newsletters, packinghouse, or other forms of communication.

Control:

1. No obsolete documents are to be kept in the Food Safety Manual.
2. It is the responsibility of the Food Safety Coordinator to make sure the most recent version of the Food Safety Manual is being utilized.

Preventive and Corrective Action Procedure

Purpose:

To ensure issues are corrected in a timely fashion and followed up on to ensure actions taken have solved the problem.

Procedure:

Step	Action	Preventative Action
1	Identify the Cause of a Potential Noncompliance	Identify the potential noncompliance from: • Audit results • Lack of training • Poor communication • Regulatory requirements
2	Potential Cause Investigation	Investigate the potential cause of the noncompliance.
3	Establish Plan of Action	Determine the preventative action needed to eliminate the potential cause of the noncompliance.
4	Implement Corrective and Preventive Action	Apply controls to ensure the preventative action is implemented: • Management review of changes • Personnel training • Documentation of implemented changes
5	Validation	Conduct follow up investigation to ensure actions taken have solved the problem.

Records:

Notice of Unusual Occurrence and Corrective Action (NUOCA) Form

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NUOCA Form

Date: _____ Time of Occurrence or Observation: _____

Reported by:

Issue:

Corrective Action (CA):

CA Completed (Circle)? Yes No **Date of CA:**

Describe Corrective Action Taken:

Preventative Action (PA):

PA Completed (Circle)? Yes No **Date of PA:**

Describe Preventative Action Taken:

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Internal and External Inspections

Purpose:

To ensure proper implementation of the food safety program and to identify areas for improvement.

Policies:

Internal Inspections

1. Food Safety Management System internal audits must be conducted once per year using the current Food Safety Management System PrimusGFS Checklist.
2. Farm internal audits must be conducted quarterly using one of the following:
   a. Current Farm PrimusGFS Checklist, or
   b. Pre-Season Self-Assessment Checklist just prior to initial harvest.
3. A field risk assessment must be conducted once per year using the Field Risk Assessment.
4. Internal audits, Pre-Season Self-Assessment Checklist and Field Risk Assessment must contain:
   a. Name of person who conducted the inspection
   b. Findings
   c. Corrective actions, including completion date
5. The internal audit must be conducted by members of the Food Safety Committee or by a packinghouse representative.

External/Regulatory Inspections

1. All visitors (including contractors) must review and follow proper hygiene and security procedures when visiting the ranch.
2. Grower must always accompany any regulatory agency on the ranch who is conducting an inspection.
   a. Regulatory agencies may include: Food and Drug Administration (FDA), United States Department of Agriculture (USDA), health department, state enforcement agencies, etc.
3. Grower must follow up with regulatory agencies after the inspection with the contact details provided by the agency.
4. Records of regulatory inspections must be filed.
5. Visitors are not permitted to take samples, photographs, or videos without permission from the owner/ranch manager.

Records:

1. PrimusGFS Checklist
2. Pre-Season Self-Assessment Checklist
3. Field Risk Assessment

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Product Rejection and Release

Purpose:

To ensure farm inputs do not pose a contamination risk to the growing operation and to prevent the inadvertent use or shipment of raw products that may pose a food safety risk.

Procedure:

On Hold/Rejection:

Farm Inputs (fertilizer, mulch, etc.):

1. Inputs received with damaged packaging or without proper Certificates of Analyses should be put on hold until they can be returned, proper documentation is received, or they are discarded.
2. Inputs placed on hold must be segregated and clearly labeled.
3. A Product Rejection and Release form must be completed for any inputs placed on hold or rejected.
    a. Documentation must include: Date the input was put on hold/rejected, name of person who put it on hold/rejected it, reason it was put on hold/rejected, and any information regarding how it is being segregated from acceptable inputs.
4. Inputs deemed unfit for use must be discarded.

Products (avocados):

1. Product is inspected for food safety defects as it is being harvested.
2. Product that does not meet food safety standards is separated and placed on hold until it is deemed acceptable or discarded.
3. A Product Rejection and Release form must be completed for any products placed on hold or rejected.
    a. Documentation must include: Date product was put on hold/rejected, name of person who put it on hold/rejected it, reason it was put on hold/rejected, and any information regarding how it is being segregated from acceptable product.

Release:

Farm Inputs:

1. Farm inputs may be released when they meet proper specifications.
2. Release must be documented on the Product Rejection and Release form.
    a. Documentation must include product disposition and actions taken on product.

Products:

1. Release of on hold/rejected products:
    a. The owner, manager, or Food Safety Coordinator is authorized to determine the disposition of on hold product.
    b. A Product Rejection and Release form must be filled out for the release of any item placed on hold or rejected, detailing the actions taken.
2. Release of product for shipment or sale:
    a. Product must not be released unless it meets agreed standards or order requirements.
    b. Product must not be released until all food safety evaluations have been completed.
    c. Authorized personnel must sign a release for the product which may include a field ticket, Bill of Lading, or other receipt.
    d. Product is released to the packinghouse once it is picked up from the field and a field ticket is issued.
    e. If fruit is delivered, product is released to the packinghouse once it is received at the facility.

f. If product is returned from the packinghouse to the grower for food safety issues, product must be disposed of and documented on a NUOCA log.

Customer Complaints:

1. Growers do not receive complaints directly from customers. Customer complaints are handled by the packinghouse.
2. Complaints from the packinghouse are recorded on the NUOCA form.
    a. Documentation must include: Date and time of complaint, name of person/entity who made the complaint, contact information, product description, nature of complaint, where the product was purchased, quantity of product, field ticket information, corrective and preventive actions.
3. All relevant parties must be notified of the complaint.

Records:

1. Product Rejection and Release Form
2. Field Ticket
3. NUOCA Form

Product Rejection & Release Form

On Hold/Rejection:

Date: _____ **Time:** _____

Reported By: _____

Reason for product being placed on hold/rejected:

How affected product is being segregated to ensure it is not commingled with other products or goods:

Release of Product:

Date: _____ **Time:** _____

Released By: _____

Disposition of Product:

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Supplier Control

Purpose:

To ensure suppliers of fertilizer, pest control, labor, services, etc. comply with all applicable regulations, food safety procedures and specifications as defined below and are not a potential source of contamination to the growing area.

Policies:

1. Suppliers must be approved before they are used.
2. Only suppliers who meet the specifications defined below should be used.
3. Suppliers who fail to meet Supplier Requirements are not used.

Approvals:

1. Documentation in the form of Letters of Guarantee, licenses, training records, procedures, third party audits, etc. must be obtained from suppliers proving they meet specifications listed under Supplier Requirements.
    a. Letters of Guarantee must be updated yearly, unless they state continuing.
    b. Licenses must be current, not expired.
    c. Where applicable (harvesting), third party audits must have been completed within the year.
    d. Exceptions allowed only in emergency situations. Management may give approval to new suppliers. Suppliers must meet the minimum requirements as specified in Emergency Supplier policy.

Supplier Requirements:

Suppliers who supply the following products or services must meet the following requirements:

Crop Protection

Applications:

1. Crop protection applicators must, at a minimum, comply with the requirements set forth in the Crop Protection Policies and Procedures section of this manual, which include in part:
    a. Applicator must be licensed (qualified applicator) or have training recognized by prevailing national/local standards and guidelines; or applicator must be under the supervision of a person who is licensed (qualified applicator) or has training recognized by prevailing national/local standards and guidelines.
    b. Follow product labels including pre-harvest intervals, dilutions, target organisms, etc.
    c. Water used for mixing must meet water requirements defined in the Water Usage Procedure section of this manual.
    d. Crop protection products must be registered in the country of production for the target crop.

Verification:

1. There must be verification of the duties performed by a licensed applicator conducted at least once per year. This will be verified by the Food Safety Coordinator using the Supplier Control Verification Log (Crop Protection) or the Internal Audit.

Recommendations:

1. Recommendations for the use of crop protection material must be made by a licensed Pest Control Advisor or another person with training recognized by prevailing national/local standards and guidelines.

Fertilizer and Soil Amendments

Fertilizer and soil amendments must, at a minimum, comply with the requirements set forth in the Fertilizer and Crop Nutrition Policies and Procedures section of this manual, which include in part:

Inorganic Fertilizer Usage:

1. Inorganic fertilizers and soil amendments must be free from animal products and/or animal manures and heavy metals.
2. Letter of Guarantee must be available from the supplier of the fertilizer specifying the source of inert ingredients such as substances used as "fillers" (e.g., clay pellets, granular limestone, etc.).
3. Inorganic fertilizers and soil amendments must conform to applicable California regulations.

Organic Fertilizer Usage:

Compost (Animal Derived Materials)

1. Must have a Letter of Guarantee / procedure that product is composted/heat treated and conforms to applicable California regulations.
2. Compost produced from animal derived materials must be incorporated into the soil prior to bud burst for tree crops.
3. A pre-harvest interval of 45 days must be observed for crops using compost derived from animal materials. Fertilizer application records and picking records must be available showing the pre-harvest interval has been observed.
4. Must have a Certificate(s) of Analysis (COA) stating the product is free from pathogens and heavy metals. COA must have a batch number which links to the product used in the growing operations.

Compost teas, fish emulsions, fish meal, blood meal, "biofertilizers"

1. Nonsynthetic crop treatments that contain animal products or manures must not be applied to the edible portion of the crop.
2. A pre-harvest interval of 45 days must be observed for crops using nonsynthetic crop treatments. Fertilizer application records and picking records must be available showing the pre-harvest interval has been observed.
3. Certificate(s) of Analysis detailing microbiological/heavy metal test analyses from the fertilizer supplier must be available.
4. For nonsynthetic crop treatments *that do not contain animal products or manures* (i.e. green waste), Certificate of Analysis or Letter of Guarantee must be available from the supplier stating the materials they are supplying are **free** from animal products and/or animal manures and heavy metals, and that they conform to applicable California regulations.

Labor Contractors

Harvesting:

1. Harvesting contractors must abide by Good Harvesting Practices as defined by the California Avocado Commission's Good Harvesting Practices or equivalent procedures. There must be a signed form stating that the harvest crew is abiding by these practices.

   AND/OR

2. Third party certification/documentation must be available showing harvesting crew is in compliance with Good Harvesting Practices.

Cultural Practices:

1. Workers who come on to the ranch to perform work on the ranch must be trained in food safety and security policies and procedures, which at a minimum, must include the information in the Food Safety and Security Training Outline of this manual. Documentation of compliance must be available.

Verification:

1. There must be verification of the labor contractor's practices at least once during the season. This will be performed by the Food Safety Coordinator using the Supplier Control Verification Log (Labor Contractor) or the Internal Audit.

Toilet/Hand Washing Facilities

Suppliers of toilet and handwashing facilities must, at a minimum, comply with the requirements set forth in the Worker Health and Hygiene Policies and Procedures section of this manual, which include in part:

1. Waste must be disposed of properly.
2. Facilities must be cleaned in an area which will not contaminate the growing area.
3. Procedures must be available for cleaning and restocking.
4. Servicing company must have procedures in place to deal with accidental spills.

Verification:

1. There must be verification that the contracted toilet service is following the service agreement that they provide. This is to be conducted once per year by the Food Safety Coordinator using the Supplier Control Verification Log (Toilet Service) or the Internal Audit.

Laboratory Analysis

1. Laboratories used for water analysis and pesticide residue tests must have ISO 17025 certification or equivalent.
2. Documentation must be obtained from the laboratory showing their certification.

Packinghouse

1. Mock recall from the packinghouse must be available showing packinghouse can effectively trace product one step back and one step forward.
2. Recall program from packing facility must be available.

Water (irrigation, fertigation and chemical applications)

1. Water used for irrigation must meet suitable water quality standards as outlined in the Water Usage Policies and Procedures section of this manual.

Drinking Water

1. Drinking water that is provided to workers must be potable.

Emergency Suppliers:

Emergency suppliers are to be used only when the approved suppliers cannot be used. To be considered an emergency supplier, the service and/or goods must only be used once. After being used once, they must either provide the required documentation to become an approved supplier or be discontinued as a supplier. Below are the **minimum** requirements to be approved as an emergency supplier:

Fertilizer and Soil Amendments:

Inorganic/Synthetic:

Receipt detailing the following information:

1. Material purchased.
2. Quantity purchased.
3. Salesperson/Wholesaler name.
4. If product was applied by the wholesaler.
    a. If product was applied by the wholesaler, include applicator name and information.

Organic:

Receipt detailing the following information:

1. Material purchased.
2. Quantity purchased.
3. Lot number.
4. Pathogen testing information for corresponding lot number.
5. If product was applied by the wholesaler.
    a. If product was applied by the wholesaler, include applicator name and information.

Labor Contractors:

1. Copy of liability insurance.
2. Copy of current business license.
3. Documentation showing compliance that workers have been trained in food safety and security policies and procedures prior to preforming work. Training guidelines are available in the Food Safety and security Training Outline of this manual.

Toilet/Handwashing Facilities:

Receipt detailing the following information:

1. The services that were provided.
2. The person/company who conducted these services.

Crop Protection:

1. Copy of current license(s).

Supplier Monitoring:

1. Suppliers are monitored throughout the year. If a supplier fails to meet specifications and expectations, they will be removed from the Approved Supplier List and no longer used.
2. Suppliers are evaluated during internal audits. Findings are documented on the Internal Audit Checklist.

Records:

1. Letters of Guarantee
2. Supplier Procedures
3. Third Party Audits
4. Product Labels
5. Lab Analysis
6. List of Approved Suppliers
7. Supplier Control Verification Log
8. Internal Audits

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APPROVED SUPPLIER LIST

Date Approved	Company Name	Product/Service	Specs on File? (Y/N)	Date Reviewed

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SUPPLIER CONTROL VERIFICATION LOG

Conducted By: _____

Ranch Name: _____

Crop Protection				
Verification Dates		Question	Y/N	Corrective Action / NUOCA Form Filed?
Date	Date			
		Is the applicator using the proper PPE (if aerial, not applicable)?		
		Did the applicator verify that there were no workers in the grove at the time of application?		
		Did the applicator ensure that they minimized the amount of drift?		
		Are you satisfied with the service and company as a whole?		

Labor Contractor				
Verification Dates		Question	Y/N	Corrective Action / NUOCA Form Filed?
Date	Date			
		Are all of the field workers following the food safety policies?		
		Did the contractor provide toilets for their employees?		
		Are the toilets properly stocked with soap, single-use towels and toilet paper?		
		Are you satisfied with the service and company as a whole?		

Toilet Service				
Verification Dates		Question	Y/N	Corrective Action / NUOCA Form Filed?
Date	Date			
		Is the toilet service company removing the toilet from the grove prior to servicing?		
		Is the toilet service company restocking the toilet as needed?		
		Are you satisfied with the service and company as a whole?		

Signature of Food Safety Coordinator: _____

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Traceability

Policies and Procedures

Purpose:

To ensure harvested produce and agricultural inputs can be traced back to the growing area and to the supplier in the event of a food safety recall.

Policies:

1. Each grove is identified or coded to enable traceability in the event of a recall.
2. Field Receipts containing Grower Name and Number, Date Harvested, Variety of Fruit, Number of Bins Harvested, Bin Numbers, and Condition of Fruit are issued by the packinghouse to the grower upon receiving or picking up the fruit from the field.
3. Field Receipts are kept by the grower and the packinghouse.
4. In the event of a recall, the size of the area a grower can trace back to may determine the extent of produce affected. Field Receipts that include field/block names or numbers that are precise enough for growers to trace a delivery back to a lot, section or ranch is strongly encouraged as this will likely limit the overall impact of a recall.
5. Details of traceability coding must be tied to the record keeping system for pesticide, fertilizers and microbiology testing reports.

Procedures:

Grower may conduct their own mock recall or obtain one from their packinghouse.

Mock Recall:

1. Identify how much fruit was picked from the particular area where possible "issues" may have occurred.
2. Locate Field Receipt associated with the potentially "affected" fruit in question.
3. Develop a plan of action to dispose of fruit, for example: Notify the packinghouse of the particular fruit that may have been affected, do not harvest from this particular area until problem is corrected, observe pre-harvest interval, etc.
4. Complete Mock Recall Form.
5. Mock recall must be conducted every six months.

Records:

1. Mock Recall
2. Packinghouse Recall Policy

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Mock Recall

Conducted by: _____

Ranch Name: _____

Date of Recall: _____

Start Time: _____ **End Time:** _____ **Total Time Taken:** _____

Reason for Recall:

Recall Class: (Circle) I II III IV

Harvest Date	Field Receipt	Block	Bins Picked	Handler
		Total Harvested:		
		Total Recalled:		
		Total Unaccounted For:		

Notified Harvesters? Yes No

Notified Handlers? Yes No

Field Ticket Attached? Yes No

Packout Attached? Yes No

Additional Notes (Lessons Learned):

Signature of the Food Safety Coordinator: _____ Date Reviewed: _____

Mock Recall Notes:

1) See Traceability Policies and Procedures.
2) Attach copies of records to the mock recall that prove the trace back/trace forward for the given scenario showing information that indicates which packinghouse(s) and/or suppliers are involved (depending on scenario).
3) All key documents used in a mock recall must state, "Mock Recall" on them so that no party ever considers these to be documents for a real recall.
4) DO NOT contact customers or suppliers when carrying out a mock recall.
5) All product affected should be identified and located within 2 hours.

FDA Recall Class Definitions:

- Class I Recall: A situation in which there is a reasonable probability that the use of or exposure to a violative product will cause serious adverse health consequences or death.
- Class II Recall: A situation in which use of or exposure to a violative product may cause temporary or medically reversible adverse health consequences or where the probability of serious adverse health consequences is remote.
- Class III Recall: A situation in which use of or exposure to a violative product is not likely to cause adverse health consequences.
- Market Withdrawal: Occurs when a product has a minor violation that would not be subject to FDA legal action. The firm removes the product from the market or corrects the violation. For example, a product removed from the market due to tampering, without evidence of manufacturing or distribution problems, would be a market withdrawal.

(Source: http://www.fda.gov/Safety/Recalls/ucm165546.htm)

Sample Mock Recall Scenarios:

SAMPLE MOCK RECALL SCENARIO #1:

Packinghouse has contacted us to inform us that Salmonella has been detected through random testing conducted by a customer. Packinghouse is recalling all fruit from this ranch, and has asked that we stop harvesting, identify how many bins were sent to packinghouse and to contact any other packinghouses where product from this ranch may have gone (Class #1 Recall Scenario).

SAMPLE MOCK RECALL SCENARIO #2:

Packinghouse has identified pesticide residues on our product. Results from multiple labs indicate that maximum residue limits (MRLs) have been exceeded on this ranch and product sold must be recalled (Class #1 or #2 Recall Scenario).

Food Fraud Vulnerability Assessment

Description	Potential Vulnerability	Justification / Action Steps	Documentation
Production	Theft	Fences and/or no trespassing signs are in place as necessary. Perimeter monitoring takes place. Employees are trained to report any trespassing or suspicious behavior.	-Perimeter Monitoring Log -Visitor Log -Worker Training Logs -Internal Audit
Incoming Goods	None	All suppliers are reputable and go through supplier approval process. Bulk items delivered to ranch are inspected before use.	-Approved Supplier List -Supplier Letters of Guarantee -COAs
Irrigation	None	Water source is designed to prevent tampering. Workers who irrigate are employed by grower or are contracted labor who are trained in food safety and food defense. Water source monitoring takes place.	-Worker Training Logs -Internal Audit -Labor Contractor Letters of Guarantee -Perimeter and Water Source Monitoring Log
Crop Protection	None	Pesticides are applied by a licensed/trained applicator according to label instructions and in compliance with all federal, state, and local laws.	-PCA/QAL Licenses -Pesticide Use Reports -Pesticide Training Record -Supplier Letters of Guarantee
Harvest	None	Product is harvested by workers employed by the grower, or contracted labor, who are trained in food safety and food defense. No known way to simulate or counterfeit product. Whole fruit with low risk for tampering or adulteration. No precedent for economically motivated hazards.	-Worker Training Logs -Labor Contractor Letters of Guarantee or GHP Certificates
Transport	None	Drivers are employed by grower, packinghouse, or contracted. Traceability program in place. No known way to simulate or counterfeit product. Whole fruit with very low risk for tampering or adulteration. No precedent for economically motivated hazards.	-Field Ticket -Packinghouses traceability program

In completing the Food Fraud Vulnerability Assessment, were theft, economically motivated hazards, economically motivated food safety hazards, adulterant substances, tampering, simulation, diversion or gray market, intellectual property rights or counterfeiting found to be potential vulnerabilities? **Yes / No**

If yes, list the vulnerabilities that were found: _____

_____

Signature of Food Safety Coordinator: _____ Reviewed on: _____

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Food Defense Plan

Policies and Procedures

Purpose:

To prevent and deter deliberate tampering or adulteration to food items produced on the site.

Procedures:

Physical Security:

1. Where necessary, entrances to ranch roads are restricted by gates or chains. Gates and chains are kept locked. Measures are taken to avoid vehicle access to the growing area.
2. "No trespassing" or restricted entry signs are posted where appropriate.

Water Source Security:

1. Wells and other water sources are designed to prevent tampering.
2. Water sources are monitored for signs of tampering. Records are documented on the Perimeter and Water Source Monitoring Log.
3. Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary.

Chemical Security:

1. All agricultural chemicals are kept in locked storage.
2. Chemicals and equipment are inspected for signs of tampering prior to use.
3. Chemicals (fertilizers and pesticides) must be inventoried on a monthly basis.

Worker Security:

1. Personal items are kept away from harvest operations.
2. Workers are trained on food security and educational materials related to security are made available.
3. Workers are encouraged to report suspicious activity to their supervisor. Where necessary, appropriate regulatory agencies, such as the sheriff, are notified.

Visitor Security:

1. All visitors (including contractors) must review and follow proper hygiene and security procedures when visiting the ranch.
2. Visitors must be accompanied by the owner/ranch manager/designated worker while on the ranch.
3. Visitors are not permitted to take samples, photographs, or videos without permission from the owner/ranch manager.
4. All visitors must be documented in the Visitors Log.

Raw Materials:

1. Bulk items delivered to the ranch must be inspected prior to use to ensure there are no signs of tampering.

Records:

1. Training Records
2. Visitors Log

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VISITOR/CONTRACTOR LOG

Ranch Name: _____

Food Safety Coordinator Name:_____Phone Number: _____

By signing below, visitor/contractor agrees to follow the operation's good agricultural practices (GAPs), food defense policies and procedures, and personal hygiene and health policies.

Date	Name	Reason for Visit	Time In	Time Out

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EMERGENCY CONTACTS

PLEASE POST

Date Updated/Reviewed: _____

FOR EMERGENCIES CALL 911

San Diego County	San Diego County Sheriff's Department	858-565-5200
	San Diego County Fire Department	858-974-5999
Riverside County	Riverside County Sheriff's Office	951-955-2400
	Riverside County Fire Department	951-940-6900
Orange County	Orange County Sheriff's Department	714-647-7000
	Orange County Fire Department	714-573-6000
Ventura County	Ventura County Sheriff's Department	805-654-9511
	Ventura County Fire Department	805-389-9710
Santa Barbara County	Santa Barbara County Sheriff's Department	805-681-4100
	Santa Barbara County Fire Station	805-681-5515
San Luis Obispo County	San Luis Obispo County Sheriff's Department	805-781-4550
	San Luis Obispo County Fire Department	805-543-4244
Utilities	San Diego Gas and Electric	800-411-7343
	So Cal Gas	800-427-2000
	Southern California Edison	800-655-4555
USDA	Randy Richey	909-730-8040
CDFA	General Information	916-654-0466
FDA	Emergency Reporting	866-300-4374
Other	Department of Pesticide Regulations	916-445-4038
	Center for Disease Control	800-232-4636
	PrimusLabs	805-922-0055
	Chemtrec	800-262-8200

Ranch Contact Information:

Address: _____ Phone: _____

Alternate Phone: _____

Packinghouse Representatives:

Name: _____ Company: _____ Phone: _____

Name: _____ Company: _____ Phone: _____

Name: _____ Company: _____ Phone: _____

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Soils and Land Use
Policies and Procedures

Purpose:

To ensure the growing area is suitable for growing and harvesting commodities.

Policies:

A documented risk assessment must be conducted on lands that are a new purchase or lease. The following must be considered: Whether the land was previously used as a toxic waste site, as a landfill, for mining, for the extraction of oil or natural gas, for animal husbandry or if the land had previously flooded.

Prior Land Use:

Current Crop Grown	Previous Land Use/Crop	# of Acres

Ownership Statement:

Regarding property located at_____in the county of_____Parcel #/GPS_____owned by_____and farmed by_____. To the best of my knowledge there has been no previous land use that would render this property unsuitable for agriculture. This property has never been used as a landfill, feedlot, or for industrial purposes that may have created biological or toxic waste, and it has either been fallow or used for production of food crops for the past_____years.

Name: _____

Position: _____

Company: _____

Signature:_____

Date: _____

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FIELD SANITATION

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Animals, Wildlife and Livestock
Policies and Procedures

Purpose:

To ensure **high concentrations** of wildlife or domestic animals do not cause a food safety issue due to significant amounts of uncontrollable animal feces. The application of practices that can enhance food safety and that are also consistent with sustainable conservation are strongly encouraged.

THE FOLLOWING POLICIES AND PROCEDURES SHOULD NOT BE CONSTRUED TO REQUIRE THE HARMING OF ANY WILDLIFE AND/OR DOMESTIC ANIMALS (I.E., TO HARASS, PURSUE, HUNT, SHOOT, WOUND, KILL, TRAP, CAPTURE, OR COLLECT, OR TO ATTEMPT TO ENGAGE IN ANY SUCH CONDUCT).

Policies:

1. Farming operations are **never** going to be able to exclude wildlife and/or domestic animals from entering crop production areas. However, every effort should be made to limit their access to the production areas.
    a. If fecal matter becomes a systematic event, it will result in an automatic failure.
2. Domestic animals and livestock are not allowed in the growing area or the equipment storage area.
3. If adjacent land has domestic animals and/or grazing land, buffer zones should be in place at least 30 feet from the edge of crop.
4. Wildlife and/or domestic animals are restricted from entering crop production areas by a variety of means including, but not limited to the following (check all that apply):

    □ Fencing
    □ Physical Repellents
    □ Scare Balloons
    □ Odoriferous Repellents
    □ Perimeter Monitoring
    □ Berms
    □ Other _____

5. Manure stored near or adjacent to crop production areas is contained to prevent contamination of crops.
6. Measures are taken to restrict livestock access to water sources used in crop production. Produce that has come into direct contact with fecal matter is not harvested.
7. A no harvest zone with a radius of approximately five-feet should be implemented around any contamination, unless or until adequate mitigation measures have been implemented.
8. If evidence of fecal matter is found, a food safety assessment should be conducted by a qualified worker.

Procedures:

Perimeter and Water Source Monitoring:

1. Drive or walk around the growing area and water sources looking for the presence or signs of **significant, high concentrations** of wild or domestic animals, animal intrusion, cracked well heads, improper manure storage, trash, excessive plant material, or anything abnormal that may be a food safety or security risk.

2. Where appropriate, corrective measures are taken.
3. Corrective measures may include: Removing animal fecal material, disposing of crop which comes in direct contact with fecal material, repairing fences, removing dead carcasses, picking up trash, looking for signs of trespassing, etc.
4. Observations and corrective measures are logged in the Perimeter and Water Source Monitoring Log.
5. If treatment of a well and/or reservoir is required, document it on the NUOCA form.
6. If evidence of fecal matter is found, a food safety assessment should be conducted by a qualified worker.

PERIMETER AND WATER SOURCE MONITORING LOG

Ranch Name: _____

Conducted By: _____

Year: _____

Purpose: To be aware of animal populations, monitor the security of the ranch, and ensure there are no significant signs of animal intrusion in the production area or water sources that could be a food safety risk.

Frequency: Perimeter and water source monitoring should be conducted on a regular basis throughout the year.

Procedure:

1. Walk or drive the ranch and area surrounding water sources looking for anything abnormal such as broken fences, significant amounts of animal fecal matter, animal carcasses, security breaches, signs of trespassing, etc. that may be a food safety or security risk.
2. Inspect wells/reservoirs/rivers looking for signs of animal intrusion, fecal matter, cracked well heads, improper manure storage, trash, excessive plant material or anything abnormal that may be a food safety or security risk.
3. Fix anything broken or out of place, dispose of animal fecal matter that may be a food safety risk, dispose of animal carcasses, etc.
4. Document findings and corrective measures.

Week Of:

Date	✓
12/31	
1/7	
1/14	
1/21	
1/28	
2/4	
2/11	
2/18	
2/25	
3/4	
3/11	

Date	✓
3/18	
3/25	
4/1	
4/8	
4/15	
4/22	
4/29	
5/6	
5/13	
5/20	
5/27	

Date	✓
6/3	
6/10	
6/17	
6/24	
7/1	
7/8	
7/15	
7/22	
7/29	
8/5	
8/12	

Date	✓
8/19	
8/26	
9/2	
9/9	
9/16	
9/23	
9/30	
10/7	
10/14	
10/21	
10/28	

Date	✓
11/4	
11/11	
11/18	
11/25	
12/2	
12/9	
12/16	
12/23	
12/30	

Date	Findings & Corrective Measures

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AGRICULTURAL INPUTS

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Fertilizer and Crop Nutrition

Policies and Procedures

Purpose:

To ensure fertilizers and soil amendments are not a source of contamination to the crop, growing area or water sources.

Policies:

1. Records must be available for **all** fertilizer/soil amendment applications including:
    a. Date of application
    b. Type of fertilizer
    c. Amount
    d. Method of application
    e. Where it was applied
    f. Operator name
2. Records of fertilizer applications applied by contractors must also be available.
3. Untreated human sewage sludge is banned from use in growing operations.

Procedures:

Inorganic Fertilizer Usage:

1. Letter of Guarantee must be available from the supplier stating inorganic fertilizers and soil amendments are free from animal products and/or animal manures and heavy metals.
2. Letter of Guarantee must be available from the supplier of the fertilizer specifying the source of inert ingredients such as substances used as "fillers" (e.g., clay pellets, granular limestone).
3. Inorganic fertilizers and soil amendments must conform to applicable California regulations.

Organic Fertilizer Usage:

Compost (Animal Derived Materials)

1. Must have a Letter of Guarantee/procedure that product is composted/heat treated and conforms to applicable California regulations.
2. Compost produced from animal derived materials must be incorporated into the soil prior to bud burst for tree crops.
3. A pre-harvest interval of 45 days must be observed for crops using compost derived from animal materials. Fertilizer application records and picking records must be available showing the pre-harvest interval has been observed.
4. Must have a Certificate(s) of Analysis (COA) or letter of guarantee stating the product is free from heavy metals and state any inert or active ingredient substances used as "fillers."
5. Must have Certificate of Analysis (COA) that covers pathogen testing including: *Salmonella spp., Listeria monocytogenes* and *E. coli* O157:H7. COA must have a batch number which links to the product used in the growing operations.

Compost teas, fish emulsions, fish meal, blood meal, "biofertilizers"

1. Nonsynthetic crop treatments that contain animal products or manures must not be applied to the edible portion of the crop.
2. A pre-harvest interval of 45 days must be observed for crops using nonsynthetic crop treatments. Fertilizer application records and picking records must be available showing the pre-harvest interval has been observed.
3. Must have a Certificate(s) of Analysis (COA) or letter of guarantee stating the product is free from heavy metals and state any inert or active ingredient substances used as "fillers."
4. Must have Certificate of Analysis (COA) that covers pathogen testing including: *Salmonella spp., Listeria monocytogenes* and *E. coli* O157:H7. COA must have a batch number which links to the product used in the growing operations.
5. For nonsynthetic crop treatments *that do not contain animal products or manures* (i.e. green waste), Certificate of Analysis or Letter of Guarantee must be available from the supplier stating the materials they are supplying are **free** from animal products and/or animal manures and heavy metals, and that they conform to applicable California regulations.

Storage:

1. Fertilizer and fertilizer containers stored on the ranch must be stored securely to prevent contamination to the growing area or any water sources.

Records:

1. Letter of Guarantee / Certificate of Analyses from fertilizer supplier or manufacturer
2. Fertilizer application records

FERTILIZER APPLICATION LOG

Date of Application	Application Location	Type of Fertilizer (N-P-K)	Amount Used	Method of Application	Applicator Name

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Water Usage

Policies and Procedures

DOES NOT FULLY MEET THE FOOD SAFETY MODERNIZATION ACT REQUIREMENTS

Purpose:

To ensure water used for irrigation, chemical applications and/or fertigation does not represent a likely source of biological contamination to fruit intended for human consumption.

Policies:

1. Water used for drinking and hand washing must be from a **POTABLE** water source.

Usage	Allowable Limits
Drinking and Hand Washing	POTABLE WATER ONLY
Irrigation/Fertigation/ Foliar Applications	Cannot exceed 126 MPN, Most Probable Number, generic *E. coli* (or Colony Forming Unit, CFU)/100 mL (rolling geometric mean n=5) and <235 MPN generic *E. coli* for any single sample.

2. Water sources must be tested at the required frequency for generic *E. coli*.

Source	Test	Testing Frequency
Municipal / District	Generic *E. coli*	At least once a year.*
Wells	Generic *E. coli*	At least once a year.*
Ponds	Generic *E. coli*	At least quarterly.*
Reservoirs	Generic *E. coli*	At least quarterly.*
Canals, Rivers, Ditches	Generic *E. coli*	At least quarterly.*

*Depending on your own risk assessment/analysis, or in particular circumstances, you may have to test these water sources more frequently.

3. Laboratory used for performing microbial analysis must be licensed/accredited (e.g. ISO 17025 or equivalent). Documentation must be obtained from laboratory showing compliance.

Procedures:

Municipal/District

1. Test water once per year following proper Sampling Procedures outlined below.
2. For municipal or district water contaminated by microorganisms, a possible corrective measure would be to inspect the line, searching for any breaks where contamination may have occurred. If no possible contamination routes are found, notify the municipal or district water company.
3. If the water source cannot be treated or repaired, an alternative water source should be used.

4. Retest water to verify corrective measure has worked. Document corrective measures on the NUOCA form.

Wells

1. Test, at a minimum, annually for generic *E. coli*.
2. For wells contaminated by microorganisms, a possible corrective measure would be shocking the well with chlorine. Document corrective measure on the NUOCA form. For contamination that is caused by a damaged well casing, a possible corrective measure would be to repair the casing. Retest water before use to verify corrective measure has worked.
3. If the water source cannot be treated or repaired, an alternative water source should be used.

Open Water Sources (Pond/Reservoir/Canals/Rivers/Ditches)

1. Test at a minimum quarterly, for generic *E. coli*. However, depending on your own risk assessment/analysis, or in particular circumstances, you may have to test these water sources more frequently.
2. For surface waters contaminated by microorganisms, a possible corrective measure would be shocking the water source with chlorine or filtering the water. Document corrective measure on the NUOCA form.
3. Animals (domestic, livestock or wild) must not have access to open water sources.
4. Surface water must be approximately 100 feet away from untreated manure.
5. If the water source cannot be treated or repaired, an alternative water source should be used.
6. Retest water before use to verify corrective measure has worked.

Reclaimed Water

1. Test at a minimum annually for generic *E. coli*.
2. For reclaimed water from a municipal water company contaminated by microorganisms, a possible corrective measure would be to inspect the line searching for any breaks where contamination may have occurred. If no possible contamination routes are found, notify the municipal company.
3. If the water source cannot be treated or repaired, an alternative water source should be used.
4. Documentation must be available showing the reclamation process is conducted under the direction of a water reclamation management or authority and the frequency of said testing.

Water Sampling

1. Sample water source at the appropriate frequencies outlined above.
2. Sampling equipment is supplied by a third-party laboratory.
3. Complete the sample collection form including sample ID information, date, time, chain of custody, etc.
4. Water taps used for sampling should be free of aerators, hose attachments, etc.
5. Samples must be taken at a point as close to the point of use as possible where water contacts the crop so as to test both the water source and the water distribution system.
6. Prior to sample collection, thoroughly flush stagnant water and debris in the sample line for about 2-3 minutes. DO NOT rinse the sample bottle.
7. Fill the sterile *E. coli* sample bottle. Collect at least 100 mL of sample for analysis.
8. Chill sample as soon as possible to between 32– 50 degrees Fahrenheit until ready for immediate shipment.
9. Drop sample off at the lab or pack it for shipping.

Crop Protection
Policies and Procedures

Purpose:

To ensure personnel applying pre-harvest pesticides, growth regulators, and fertilizers have working knowledge of all applicable federal, state and local laws.

Policies:

Note: *Existing Pesticide Use Reports submitted to the county are sufficient to satisfy this requirement as long as they include all points listed below.*

1. All applicable federal, state and local training and licensing requirements will be met by the persons applying regulated or restricted use materials.
2. Growing operation must follow a pesticide application recording program. Records must include:
    a. Date and time of application
    b. Crop name/commodity
    c. Treated area size and location
    d. Brand/product name,
    e. EPA (or equivalent) registration information
    f. Active ingredient
    g. Amount applied (rate/dosage)
    h. Applicator name
    i. Pre-harvest interval
    j. Restricted entry interval
    k. Type of equipment used
    l. Target pest
3. Information may be recorded on separate documents providing all information is available and consistent.
4. If no restricted use materials are being used, the applicator will hold training documents to prove they have received training on proper usage.
5. Personnel mixing/loading/applying pesticides, growth regulators and fertilizers must have a working knowledge of the materials being applied, the appropriate strength level, and what to do if there is a spill or the strength is improperly mixed.
6. Personnel mixing/loading/applying crop protection materials must be licensed (qualified applicator) or have training recognized by prevailing national/local standards and guidelines; or must be under the supervision of a person who is licensed (qualified applicator) or has training recognized by prevailing national/local standards and guidelines.
7. Water used for mixing must meet water requirements defined in the Water Usage Policies and Procedures section of this manual.
8. All crop protection materials must be registered in the country of use for the target crop.
9. If product is going to be exported to another country, consideration must be given to ensure crop protection materials are registered for use in the destination country.
10. If exporting product, measures must be taken to comply with the country of destination's expectations regarding crop protection products used and maximum residue level tolerances.

Procedures:

Usage:

1. Crop protection applications are restricted by guidelines established by the label, manufacturer's recommendations and prevailing local/national guidelines.
2. Only properly licensed individuals, or those who have had training recognized by prevailing national/local standards and guidelines, make decisions on crop protection usage.
3. Copies of Qualified Applicators License and/or Pest Control Advisor License/Certificate, or another form of proof of training recognized by prevailing national/local standards and guidelines, must be available for review.
4. Applications are restricted when gusts of wind are excessive.
5. All pre-harvest and re-entry intervals that are stated on the label must be observed.
6. Posting of signs or warnings must take place on the area of treatment following the label and the law.
7. Equipment is examined prior to use to ensure it is in good working order.
8. If crop protection containers are stored on the property, they must be stored in a manner to prevent contamination and disposed of properly.

Mixing:

1. Before handling pesticides, growth regulators and/or fertilizers, READ THE LABEL.
2. Based on the label recommendations, wear appropriate protective equipment.
3. Inspect application equipment to make sure it is in good working order.
4. Mix product in a place with good lighting and ventilation away from the growing area, food, unprotected people, and water sources so they are not affected.
5. Water used for mixing must meet water requirements defined in the Water Usage Policies and Procedures section of this manual.
6. Measure accurately based on label requirements.

Rinsing:

1. Adhere to product label and all laws and regulations.
2. Wear all required Personal Protective Equipment.
3. Fill pesticide container ¼ full of water. Close tightly and shake.
4. Pour all rinse water into mix tank.
5. Repeat steps 2 and 3 at least three additional times.
6. Rinsing and cleaning of crop protection equipment must be performed safely and within a distance where land and water sources are not affected.

Spills:

1. Administer first aid, if appropriate.
2. Wear the appropriate protective clothing and Personal Protective Equipment.
3. Ventilate spill area. Stop the damaged container from leaking.
4. Cover the spill using absorbent material (i.e., soil, kitty litter, commercial products specific for spills, etc.) Do not use sawdust.
5. Clean up the absorbent material by sweeping or shoveling it into a

sealable drum or other suitable container.

6. Refer to the product's Safety Data Sheet for decontamination steps or contact the manufacturer.

Storage:

1. Pesticide containers should be stored securely: Away from other materials, locked, signs posted, away from any water source, off the floor, well-ventilated and inventory kept.
2. Empty pesticide containers should be kept in a secured storage area until they can be recycled or disposed properly.
3. Containers must be disposed of in accordance with label directions and the law.
4. An inventory must be maintained on a monthly basis. It must contain the following information:
    a. The product or chemical names
    b. Container volumes
    c. Number on hand
    d. Location of containers

Calibration:

1. Read the product label for calibration instructions.
2. Wear appropriate protective equipment.
3. Different types of sprayers will require different calibration techniques.
4. Record calibration information for the spray equipment and any measuring device at least annually.

Records:

1. Pesticide Use Reports
2. Worker Training
3. Current PCA/QAL Licenses
4. PCA recommendations
5. Calibration records for spray equipment and any measuring devices
6. Letters of Guarantee from companies used to apply pesticides
7. Chemical Inventory Log

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Chemical Inventory Log

Chemical Store Inventory System:

1. Perform a chemical inventory on a monthly basis and record the results below.
2. Note product name, pack size, container volume and where the chemical is stored.
3. Record stock on-hand.
4. Include signature of person performing inventory in "Inventory Performed By" box.

Date		Date		Date	
Product Name/Pack Size/Volume/Location	Stock on Hand	Product Name/Pack Size/Volume/Location	Stock on Hand	Product Name/Pack Size/Volume/Location	Stock on Hand
Inventory Performed By:		Inventory Performed By:		Inventory Performed By:	

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WORKER HEALTH AND HYGIENE

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Bleeding/Bodily Fluids and In-Field Illness

Policies and Procedures

Purpose:

To address the potential contamination issues caused by workers who are bleeding or appear to be injured or ill.

Policies:

Bleeding and Bodily Fluids

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

Illness

1. Workers showing symptoms of diarrhea, vomiting or symptoms of other infectious diseases are excluded from work assignments that involve direct contact with fresh produce.

Return to Work

1. Workers may return to their normal duties once they have not experienced diarrhea, vomiting, or other symptoms of infectious diseases for at least 24 hours and have checked in with their supervisor.

Procedures:

Bleeding and Bodily Fluids

1. Notify the appropriate supervisor.
2. Supervisor determines the type of injury and provides appropriate first aid. If appropriate, 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 latex-free 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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Worker Health and Hygiene
Policies and Procedures

Purpose:

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

Policies:

1. Potable water is available to all workers to drink and wash hands.
2. Visitors and workers 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 workers have been trained on proper sanitation and hygiene practices quarterly and are required to follow proper sanitation and hygiene practices. New workers will receive all necessary training prior to working in the grove.
5. Workers must sign documentation that they have been trained on proper sanitation and hygiene practices.
6. Signs are posted in English and Spanish in the vicinity of the toilet facility instructing workers to wash their hands before beginning work or returning to work.
7. Infants and toddler age children are not allowed in the growing and equipment storage areas.

Procedures:

Hygiene

1. Water testing records must be available for drinking water provided to workers showing the water is potable.
2. Workers must wash hands before work, after using the restroom, after breaks, and any other time hands may become contaminated.
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 in areas already harvested in the current harvest cycle.
5. Workers must remove unsecured jewelry and other objects that might fall into the product and cause potential contamination.

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 workers 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 into a 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.

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Toilet and Hand Washing Facilities
Policies and Procedures

If toilet and hand washing facilities are serviced by an outside company, attach servicing company's policies and procedures regarding maintenance and sanitation of toilet and hand washing facilities.

Purpose:

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

Policies:

Toilet and Hand Washing Facilities

1. Workers 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.
2. One toilet facility must be provided for each group of 20 workers.
3. Toilet and hand washing facilities must be placed within a quarter mile or five-minute walking distance of all workers.
    - Where there are two or less workers present and workers have transportation that is immediately available to toilets, toilets within a five-minute drive is acceptable.

Procedures:

Toilet and Hand Washing Facility Maintenance:

1. Toilet facilities must be in good repair, clean and properly stocked with toilet paper.
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, unscented soap, a place to dispose of trash and potable water for hand washing.

Permanent Toilet and Hand Washing Facility Cleaning

Note: *Toilets will have a service log.*

1. Clean floor, toilet, urinal, and sink.
2. Empty trash.
3. Stock facility with toilet paper, liquid unscented soap, and single use paper towels.
4. Sign and date Toilet and Hand Washing Station Maintenance log.
5. Toilet should be cleaned on an as needed basis.

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.

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 unscented 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.

Hand Washing Sign

NOTICE
WASH HANDS BEFORE RETURNING TO WORK

AVISO
LÁVESE LAS MANOS ANTES DE REGRESAR AL TRABAJO

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TOILET AND HAND WASHING STATION MAINTENANCE LOG

1. Check and restock required supplies (Paper towels, toilet paper, potable water for washing, soap).
2. Pick up trash from floor and remove trash from trash can.
3. Check for needed repairs or other maintenance (schedule as needed).
4. Record all activity on log.

Date	Time	Unit #	Item Checked												Other	Initials
			✓		✓		✓		✓		✓		✓			
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		
				Paper Towels		Toilet Paper		Hand Soap		Potable Water		Remove Trash		Clean Restroom		

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Food Safety and Security Training Outline

Food Safety Policy

We are committed to providing a safe product to our end users and achieving continuous improvement in our growing operations. In order to accomplish this we follow food safety laws/regulations, adhere to industry food safety best practices and fulfill customer requirements.

Management is committed to providing the resources necessary to implement, maintain and improve our food safety program. Examples of these resources include worker training, equipment, supplies, and testing services.

The integrity of our food safety program is sustained through internal and external processes. Independent third-party audits are conducted to ensure that we are meeting or exceeding all Global Food Safety Initiative (GFSI) and Food Safety Modernization Act (FSMA) standards.

Food Safety Training for All Workers

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 workers 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 workers must wash their hands with soap and water at the beginning of the workday, after using the toilet, after eating, after breaks, and any other time hands may become contaminated.
    a. Wet hands with potable water; apply soap and work into a 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.

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 worker will not be allowed to work in any aspect with fresh produce or related equipment.

Ensure Visitors Follow Good Hygienic Practices

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

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. If single-service disposable gloves are used, they should be latex-free.
3. The use of gloves in no way lessens the need or importance of hand washing and proper hygienic practices.

Field Sanitation

1. Trash must be disposed of in the proper trash receptacles. Do not leave trash in the ranch.
2. Domestic and wild animals are not allowed in the growing area.
3. Evidence of animal fecal material must be buried. Fruit that comes in contact with fecal material must be thrown away.
4. Dead animals in the growing area must be removed and properly disposed of.
5. Windfallen fruit must be discarded.
6. Infants and toddlers are not allowed in the growing area.

Toilet and Hand Washing Facility Maintenance (Where Facilities Are Not Serviced By An Outside Company):

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.

Permanent Toilet and Hand Washing Facility Cleaning

Note: *Toilets will have a service log.*

1. Clean floor, toilet, urinal, and sink.
2. Empty trash.
3. Stock facility with toilet paper, liquid soap, and single use paper towels.
4. Sign and date Toilet and Hand Washing Station Maintenance log.
5. Toilet should be cleaned on an as needed basis.

Portable Toilet Facility Cleaning

Note: *Toilets will have a service log.*

Place toilet facilities at a distance and in an area that minimizes risk of product contamination.

1. Pump waste from the holding tank. Remove trash and other debris.
2. Clean floor, toilet, and urinal.
3. Add fresh solution to the tank as needed.
4. Replace and replenish toilet paper as needed.
5. Sign and date service log sticker in each unit. Toilets should be serviced on an as needed basis.
6. Return toilet facility to appropriate location.

Portable Hand Washing Facility Cleaning

Note: *Hand washing facilities will have a service log.*

Place hand washing facilities at a distance and in an area that minimizes risk of product contamination.

1. Pump waste from the holding tank.
2. Remove trash and ensure drain is fully operational.
3. Clean and scrub surfaces with appropriate brush.
4. Add fresh **POTABLE** water to tank.
5. Replace and replenish single use towels and hand soap.
6. Sign and date service log sticker on each unit. Hand washing facilities should be serviced on an as needed basis.
7. Return hand washing facility to appropriate location.

Food Security Training for All Workers

Ranch Security:

1. The purpose of ranch security is to prevent and deter deliberate tampering and adulteration to food items produced on the site.
2. Where necessary, entrances to ranch roads are restricted by gates or chains. Gates and chains are kept locked.

Water Source Security:

1. Wells and other water sources are designed to prevent tampering.
2. Water sources are monitored for signs of tampering. Records are documented on the Perimeter and Water Source Monitoring Log.
3. Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary.

Chemical Security:

1. All agricultural chemicals are kept in locked storage.
2. Equipment is examined for tampering prior to use.

Worker Security:

1. Personal items are kept away from harvest operations.
2. Workers are trained on food security and educational materials related to security are made available.
3. Workers are encouraged to report suspicious activity to their supervisor. Where necessary, appropriate regulatory agencies, such as the sheriff, are notified.

Visitor Security:

1. All visitors (including contractors) must review and follow proper hygiene and security procedures when visiting the ranch.
2. Visitors must be accompanied by the owner/ranch manager/designated worker while on the ranch.
3. Visitors are not permitted to take samples, photographs, or videos without permission from the owner/ranch manager.
4. All visitors must sign in and out when entering and exiting the property.

Food Borne Illness Training for Supervisors

Infected workers, 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 workers who present a risk of transmitting food borne pathogens to fresh produce or to other workers.

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

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WORKER HEALTH/HYGIENE, FOOD SAFETY AND SECURITY TRAINING LOG

Ranch:_____Address:_____

Training Topic:

_____

Instructor:_____ Date/Time:_____

Training Materials Used / Training Details:

Name	Signature
1.	
2.	
3.	
4.	
5.	
6.	
7.	
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18.	

Signature of the Food Safety Coordinator: _____ Date Reviewed: _____

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AUDIT CHECKLISTS

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PRE-SEASON SELF-ASSESSMENT CHECKLIST

Date: Conducted by:

Grower:

Ranch Name:

Pre-Season Self-Assessment Must be Conducted Prior to Harvesting

Issue	Yes	No	Comments / Corrective Actions & Completion Dates
Ground History			
Has the land in production been previously used for:			
Non-agricultural functions?			
Animal husbandry or grazing lands?			
Waste storage?			
Is there evidence of animal activity?			
Has flooding from uncontrolled causes occurred?			
Is the growing area a new purchase or lease?			
Adjacent Land Use			
Is adjacent land:			
Used for intensive livestock production?			
Used for manure, compost, or biosolid storage?			
Fertilizer/Crop Nutrition			
Is raw or not fully composted manure used?			
Are biosolids used?			
Is composted manure used?			
Is heat treated manure used?			
Are soil amendments not containing manure used?			
Are any non-synthetic crop treatments used?			
Are fertilizers and/or fertilizer containers stored in a manner to prevent contamination in the growing area or to any water sources?			
Irrigation/Water Use			
What are the potential sources for irrigation water?			
Municipal or district water			
Wells			
Reservoirs or ponds			
Surface water/canals			
Reclaimed			
Reused			
Are microbial tests, including generic *E. coli* conducted on water?			
Are check valves or other back flow prevention systems in use when, and where, necessary?			
Is the water delivery system in good condition?			
Have any potential risk factors been identified? If so, which ones?			

Worker Hygiene			
Are there permanent and/or portable worker toilet and hand washing facilities on the ranch?			
Are the toilet and hand washing facilities checked and cleaned regularly?			
Have workers been trained on proper hygiene, food safety and food security?			
Are first aid kit supplies up-to-date?			
For toilet and hand washing facilities that are brought onto the ranch on an as needed basis:			
Are the access roads of reasonable grade to allow safe access?			
Are toilet facilities in a suitable location to prevent contamination to the growing area?			
Have the servicing company's policies and procedures regarding toilet and hand washing facilities maintenance and sanitation been acquired?			
Necessary Records			
Current PCA/QAL license(s)			
Current letters of guarantee from suppliers			
Pesticide Use Reports			
Generic *E. coli* water tests			
Perimeter and Water Source Monitoring Log			
Restroom Maintenance Log			
Worker Health/Hygiene, Food Safety and Security Training Log (Completed Quarterly)			
Food Safety Committee Log (Quarterly)			
Management Verification Review and Food Safety Resource Analysis (Annually)			
Fertilizer Application Log			
NUOCA (Notice of Unusual Occurrence and Corrective Action) Form(s)			
Chemical Inventory Log (Monthly)			

Field Risk Assessment

Person Performing Assessment:_____Date:_____
Ranch Name:_____
Grower Name:_____
Location (GPS, APN):_____ Total Acres:_____
Food Safety Coordinator:_____

Crops Grown	Acreage

Ranch Overview:

Structures on property (houses, barns, storage sheds, etc.): _____
Previous land use:_____
Has any part of the grove(s) recently been affected by a significant flood event? **Yes** | **No**
Adjacent land use (describe): _____

Potential Risks	Biological	Chemical	Physical	Justification/Preventive Measure	Verification/ Supporting Documentation
Contamination from structures or animal activity on the property	*E. coli*, *Salmonella* from animals **Probability:** Low **Severity:** Low	None	Trash or unwanted items from residents **Probability:** Medium **Severity:** Low	-Fences and perimeter monitoring in place to prevent unwanted intrusion of humans and animals - Product is on trees and does not contact ground	1. Field Risk Assessment 2. Internal audits 3. Perimeter and Water Source Monitoring Log
Previous land use	None	None	None	-Land was previously fallow or used for other crops. All lands used for crop production have NOT been used for any activity that would render the land unsuitable for agriculture.	1. Soils and Land Use Policies and Procedures 2. Internal audits

Contamination from domestic animals, wildlife, manure storage, composting operations	*E. coli, Salmonella* from animal intrusion or runoff **Probability:** Low **Severity:** Low	None	None	-Fences and perimeter monitoring in place to prevent unwanted intrusion of humans and animals - Product is on trees and does not contact ground -Fields are assessed at the beginning of the season and prior to harvest for food safety risks	1. Field Risk Assessment 2. Internal audits 3. Perimeter and Water Source Monitoring Log
Contamination from animals of potential significance: cattle, sheep, pigs, deer	*E. coli, Salmonella* from animal intrusion or runoff **Probability:** Low **Severity:** High	None	None	-Fences and perimeter monitoring in place to prevent unwanted intrusion of humans and animals - Product is on trees and does not contact ground - Fields are assessed at the beginning of the season and prior to harvest for food safety risks	1. Field Risk Assessment 2. Perimeter and Water Source Monitoring Log 3. Internal audits
Flood water contacting product	*E.coli, Salmonella, Listeria* contamination **Probability: H**igh **Severity:** High	Heavy metal or chemical contamination **Probability:** High **Severity:** High	Trash, rocks, other debris **Probability:** High **Severity:** High	-After significant flooding, the grower must: create a documented evaluation, perform soil tests and remove any product that may have come in contact with the flood water	When applicable: 1. Flood event evaluation 2. Soil samples

Water Use

Water source(s):_____

Has a water test been conducted on each source at the required frequency? **Yes | No**

Water Source	Biological	Chemical	Physical	Justification/ Preventive Action	Supporting Documents
Well	*E.coli, Salmonella* contamination due to compromised well **Probability:** Low **Severity:** Low	None	None	-Well is maintained in good condition and inspected regularly -Water has minimal contact with product -Outside peel of product is not consumed -Industry data (when available) -Wells are designed to prevent tampering -Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary	1. Perimeter and Water Source Monitoring Log 2. Annual water tests 3. Food Defense Policy

District or municipal water	*E. coli* contamination due to a compromised line **Probability:** Low **Severity:** Low	None	None	-Water is treated to acceptable standards and tested before arriving at the ranch -Water has minimal contact with product -Outside peel of product is not consumed -Industry data (when available) -Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary	1. Perimeter and Water Source Monitoring Log 2. Annual water tests 3. Food Defense Policy
Reservoir/ non-flowing open water source	*E.coli, Salmonella* contamination due to animal intrusion or runoff **Probability:** Medium **Severity:** Low	None	None	-Reservoir is maintained in good condition and inspected regularly -Water has minimal contact with product -Outside peel of product is not consumed -Industry data (when available) -Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary	1. Perimeter and Water Source Monitoring Log 2. Quarterly water tests 3. Food Defense Policy
Creek/flowing open water source	*E. coli, Salmonella* contamination due to animal intrusion or runoff **Probability:** Medium **Severity:** Low	None	None	-Creek is inspected regularly -Water has minimal contact with product -Outside peel of product is not consumed -Industry data (when available) -Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary	1. Perimeter and Water Source Monitoring Log 2. Quarterly water tests 3. Food Defense Policy
Reclaimed water	*E. coli* contamination due to improperly treated water or a compromised line **Probability:** Low **Severity:** Low	Chemical contaminati on due to improperly treated water **Probability:** Low **Severity:** Low	None	-All water is treated to comply with EPA standards -Water lines are inspected regularly -Water has minimal contact with product -Outside peel of product is not consumed -Water sources are fitted with check valves, anti-siphon devices or other backflow prevention systems when and where necessary	1. Perimeter and Water Source Monitoring Log 2. Annual water tests 3. Food Defense Policy

Crop Protection, Fertilizers, and Soil Amendments

Fertilizer and soil amendment supplier(s):_____

Contact information on file for fertilizer and soil amendment suppliers? **Yes | No**

Are soil amendments containing manure or animal products used? **Yes | No**

If yes, where are they stored?_____

Pesticide supplier(s):_____

Contact information on file for pesticide suppliers? **Yes | No**

Potential Risks	Biological	Chemical	Physical	Justification/ Preventive Action	Verification/ Supporting Documentation
Contaminated synthetic fertilizer or soil amendments	None	Heavy metals that may affect human health (cadmium, arsenic, chromium, lead, mercury) **Probability:** Low **Severity:** Low	None	-Materials are sourced from reputable vendor -Letter of Guarantee and/or Certificate of Analysis is on file -Materials are stored and applied in a manner that prevents contact with fruit	1. Letters of Guarantee and/or Certificates of Analysis 2. Fertilizer Application Log 3. Internal audits
Contaminated animal manure or bio solids	*E. coli, Salmonella, Listeria monocytogenes* from animal products **Probability:** Low **Severity:** Low	Heavy metals that may affect human health (cadmium, arsenic, chromium, lead, mercury) **Probability:** Low **Severity:** Low	None	-Materials are sourced from a reputable vendor - Letter of Guarantee and/or Certificate of Analysis is on file for pathogen testing and heavy metal content -Materials are stored and applied in a manner that prevents contact with fruit -Proper pre harvest intervals are followed	1. Letters of Guarantee and/or Certificates of Analysis 2. Fertilizer Application Log 3. Internal audits
Contamination from improper pesticide application	None	High residue levels of applied pesticide **Probability:** Low **Severity:** Medium	None	-Materials are regulated by local, state and federal laws and regulations -Applications are made by a licensed or trained applicator only -Label instructions are followed -Spray equipment is calibrated and cleaned -SOP for pesticide use and storage	1. Pesticide Use Reports 2. Applicator license or training records 3. Pesticide label 4. Crop Protection Policies and Procedures

Contamination from improper chemical storage	None	Chemical contamination from spilling or leaking **Probability:** Low **Severity:** Low	None	-Chemicals are stored securely and away from product -Spill containment is used as necessary -Product is not grown on the ground so contact is unlikely in the event of a spill -SOP for pesticide use and storage	1. Food Defense Policy 2. Crop Protection Policies and Procedures

Worker Health and Hygiene

What type of toilet and hand wash facilities are on site (circle)? **Permanent | Portable | N/A**

Who performs cleaning and maintenance on toilet and handwashing facilities?_____

Potential Risks	Biological	Chemical	Physical	Justification/ Preventive Action	Verification/ Supporting Documentation
Contamination of soil or fruit from toilet/handwashing facilities due to location, waste containment issues and/or cleaning	Human pathogens spread through fecal matter **Probability:** Low **Severity:** High	None	None	-Facilities comply with all local, state and federal standards -SOPs are in place for proper location, servicing and stocking	1. Toilet and Hand Washing Station Cleaning Logs 2. Accidental spill procedure 3. Internal audits 4. NUOCA Log

Labor and Harvesting

Who is labor hired by (circle)? **Grower | Farming Company | Labor Contractor**

Who arranges harvest crew (circle)? **Packer | Grower | Other**_____

Is harvesting crew certified in Good Harvesting Practices? **Yes | No**

Potential Risks	Biological	Chemical	Physical	Justification/ Preventive Action	Verification/ Supporting Documentation
Worker contamination of fruit or grove due to poor health or hygiene practices	*E. coli, Salmonella, Listeria* contamination due to poor hygiene practices. Blood borne pathogen contamination from blood, bodily fluids, or employees with illnesses or open wounds. **Probability:** Low **Severity:** Medium	None	Trash and unwanted debris due to improper trash disposal **Probability:** Low **Severity:** Low	-Workers are trained in safe food handling, health and hygiene and food defense upon hire and quarterly -SOPs are in place to identify appropriate practices -Labor contractors and all visitors are required to follow the SOPs -Trash receptacles are in place as needed -Harvesting, and other contractors, follow the California Avocado Commission's voluntary recommended GAPs and GHPs	1. Worker Health and Hygiene Training 2. Food Safety and Security Training 3.Food Borne Illness Training for Supervisors 4. Worker Training Logs 5. Internal audits 6. GHP certificate, Letter of Guarantee, or training records from labor contractors
Contamination of soil and fruit from equipment, foreign materials	*E. coli, Salmonella, Listeria* contamination from poorly cleaned equipment **Probability:** Low **Severity:** Medium	Hydraulic fluid or oil from transportation vehicle. **Probability:** Low **Severity:** Low	Loose parts or small tools **Probability:** Low **Severity:** Low	-Equipment has minimal contact with product -SOPs are in place to address spills and leaks -Equipment is maintained in good condition	1. Internal audits 2. Visual inspection

Name/Title:_____Signature:_____Date:_____

Reviewed By:_____Date Reviewed:_____