



## Davis Fresh

Farm/Ranch Audit  
Expectations Manual

Prepared by  
NSF-Davis Fresh  
195 Aviation Way Ste.101  
Watsonville, CA 95076  
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NSF-Davis Fresh audits focus on the implementation and documentation of Good Agricultural Practices especially as they relate to food safety. The audit evaluates the adequacy of documentation, compliance to documented policies, effectiveness of procedures to control risk factors and the ability to implement corrective and preventative action plans.

Specifically, the base audit evaluates 7 key areas:

- Ranch Documents
- Water Sources
- Employee Documents
- Chemicals
- Ranch Observations
- Employee Habits
- Harvest Operations

The following manual provides guidance regarding the criteria and expectations that the farm/ranch will be audited against. This manual is generic for all types of growing operations. Some specific criteria may not be applicable. It is the responsibility of the grower to justify that a specific criteria is not applicable. Likewise, some criteria may be added based on changing regulatory requirements, specific client needs or the ever-changing food safety environment.

The stated criteria and expectations are based on:

- Customer specifications and requirements
- Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables (1998)
- Foodborne Pathogenic Microorganisms and Natural Toxins Handbook
- Commodity Specific Food Safety Guidelines for the Production and Harvest of Leafy Greens (2007)



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\*Highlighted **red** Sections and Topics are considered critical which can cause the audit to fail if they are evaluated with a critical deficiency.



# LEVELS OF EVALUATION, SCORING FORMAT, AND OVERALL AUDIT GRADING

## Levels of Evaluation

The audit will have 3 layers of evaluation. The 3 layers of evaluation are Sections, Topics, and Pre-Defined Guidance. Sections represent a core portion of the ranch operation which, if not present, would not allow the ranch operation to function in a manner befitting best practice standards. Topics are a mixture of evaluative criteria that allow for a complete diagnosis of the section. Topics are related to documentation, physical attributes, policies, and other related criteria. Pre-defined guidance gives clearer guidelines and scoring criteria and allow for a closer dissection of the Topics.

## Section Evaluation

All 7 sections of the audit will be individually evaluated. Evaluations will be based on 5 levels of adherence:

- Acceptable (A)
- Needs Improvement (NI)
- Needs Correction (NC)
- Unacceptable (U)
- Critical (C)

## Topic Evaluation

All 25 Topics will be individually evaluated. Evaluations will be based on 5 levels of adherence:

- Acceptable (A)
- Needs Improvement (NI)
- Needs Correction (NC)
- Unacceptable (U)
- Critical (C)

## Pre-Defined Guidance

All pre-defined notes will have pre-defined significance criteria. These pre-defined levels of importance will be defined as:

- Acceptable (A)
- Needs Improvement (NI)
- Needs Correction (NC)
- Unacceptable (U)
- Critical (C)

## Section Evaluation and Scoring

Each section will have topics to help the auditor evaluate the section. Each topic has a maximum value of 20 points. Sections will be scored by total points and will also be given an evaluation level. Evaluation levels will be based on the lowest topic evaluation. For instance, if a section has 4 topics and the topics are evaluated as needs improvement, needs improvement, needs correction, and acceptable the overall evaluation will be needs correction.



See Topic Scoring on the next page for more explanation regarding how the total score is determined.

**Topic Evaluation Determination**

The Pre-Defined Guidance (PDG) that is associated with every Topic will guide the auditor regarding how to evaluate a Topic. This will determine if the Topic receives an Acceptable, Needs Improvement, Needs Correction, Unacceptable, or Critical evaluation.

Evaluations will be determined by using the following guide.

	A	NI	2NI	3NI	NC	2NC	3NC	U	C
A	A	*NI	NI	NC	NC	NC	U	U	C
NI	*NI	NI	NC	NC	NC	NC	U	U	C
2NI	NI	NC	NC	NC	NC	U	U	U	C
3NI	NC	NC	NC	NC	NC	U	U	U	C
NC	NC	NC	NC	NC	NC	U	U	U	C
2NC	NC	NC	U	U	U	U	U	U	C
3NC	U	U	U	U	U	U	U	U	C
U	U	U	U	U	U	U	U	U	C
C	C	C	C	C	C	C	C	C	C

\* NI could be classified as an A at auditor's discretion.



## Topic Scoring

Topics are worth 20 points each. Down scoring will occur due to the type of evaluation. Scoring is as follows:

Acceptable = 20 points or 100%

Needs Improvement = 15 points or 75%

Needs Correction = 5 points or 25%

Unacceptable = 0 points or 0%

\*Critical = Failed Audit

\* Not all Topics are considered Critical. Topics that are not considered Critical can only be evaluated as Unacceptable in which case the audit score would be reduced by the 20 points lost on the Topic.

## Overall Audit Scoring (Failing Criteria)

### Failure Criteria

There are 4 ways to fail an audit. The 4 ways are:

1. Critical Section Failure
2. Critical Topic Failure
3. <85% Overall Score
4. Auditor Observation of Critical Deficiency.

### Critical Section Failure

All critical sections are highlighted in **red** in the table of contents. Receiving an unacceptable rating or receiving a critical failure on a topic question will cause the sections, highlighted in **red**, to fail.

### Critical Topic Failure

Receiving a Critical (C) level evaluation for any critical Topic will cause the audit to automatically fail. All critical Topics are highlighted **red** in the table of contents.

### Overall Audit Score

A property will not receive a passing audit with a score <85% of the total points available. The current ranch audit contains 25 Topics for a total of 500 points. A score < 425 will result in a failed audit when harvesting operations are present. A score of < 305 will result in a failed audit if harvesting operations are not present during the audit.

**\*Note: Auditors do have the authority to mark a topic or section as Critical if they observe practices that warrant such a rating. All topics or sections marked as Critical will automatically fail the audit.**



## **Expectations and Criteria for Farm/Ranch Operations**

In order to maintain a reputation for selling quality foods it is critical for processors and distributors to source product from suppliers who have demonstrated the ability to provide safe and wholesome foods on a consistent basis. The following requirements outline the policy, program and performance criteria expected of a modern farming/ranching operation in order to meet the food safety needs of the food buying community. Demonstrating consistent achievement of these criteria is the expectation of our clients.

The auditor will evaluate documentation available the day of the audit. Scoring will be based on this documentation. Documentation provided to the auditor after the conclusion of the exit meeting can change scoring but minimally a Needs Improvement will be used to evaluate that Topic and that Section. Changed scoring and evaluations will be at the discretion of NSF Davis Fresh management.



# 1. RANCH DOCUMENTS

## 1.1 Ranch History

1.1.1 The land selected for growing shall have a clean history free of any significant food safety risks.

1.1.2 In order to be considered clean the land shall not have a history of being used as, or be, a:

- a. Landfill
- b. Toxic Waste or Incinerator Waste Disposal Site
- c. Site for Animal Husbandry in the last 12 months
- d. Flood Zone within the last year.
- e. Have any evidence that the land is unfit for agricultural crop production or use.

1.1.3 If a documented history, or any other evidence, does not prove that the land is acceptable for agricultural use then there shall be evidence of a proper remediation program or plan to show that the land is acceptable for agricultural use. If the land is being used for edible crop production then the grower shall have a Phase I Environmental Assessment Report that addresses ASTM E-1527-05 auditing criteria and shall have a remediation plan that addresses all findings on the Phase I report.

## 1.2 Policies, Inspections, and Logs

1.2.1 The grower should have appropriate policies, inspection reports, and inspection logs that document that the growing operation is following necessary practices.

1.2.2 The operation should maintain the following documents:

- a. A policy that stipulates that the company will follow farming practices that prevent unanticipated contamination either by physical objects (such as foreign materials), chemical contaminants (such as fertilizers and pesticides), and biological contaminants (such as pathogenic bacteria, viruses, parasites, fungi, and other microorganisms that may cause illness or injury.)
- b. A policy regarding ranch security, a ranch security assessment, and a routine security inspection during the growing season.
- c. A pre-season risk assessment that assesses:
  1. Adjacent Land Use
  2. Flooding
  3. Animal Activity
  4. Ranch Security
  5. Water Distribution System Functionality
  6. Buffers, Ditches, and Berms
  7. Access Road Quality





- 8. \*Any concerns that are found during the assessment should be controlled with a feasible mitigation plan that addresses all concerns using best practices available.
- d. An animal intrusion inspection log of appropriate frequency.
- e. An annual water distribution system evaluation.
- f. An open water source inspection log of appropriate frequency.
- g. An open water source cleaning log of appropriate frequency.
- h. A storage area inspection log to include rodent control measures.

### **1.3 Approved Supplier Program**

1.3.1 All farm based inputs including soil amendments, plant source materials, irrigation materials, chemicals (pH adjusters, fertilizers, plant protection chemicals, etc), should be purchased from approved suppliers.

Acceptable evidence includes:

1.3.2 GAP/GMP documentation and letters of guarantee from suppliers showing that the appropriate programs are in place. AND/OR

1.3.3 A passing third party audit that shows that suppliers are adhering to GMPs or GAPs while producing materials. AND

1.3.4 A list of approved suppliers and locations or stores where supplies are purchased.



## 2. WATER SOURCES

### 2.1 Water Sources

2.1.1 Water used for all agricultural purposes including irrigation, chemical mixing and application, frost protection or other purposes shall be from a microbially acceptable, reliable source.

2.1.2 To be considered microbially acceptable, all water sources shall be tested for quantitative Generic E. coli and be found to be within allowable limits.

a. Foliar Applications (Includes all applications where water contacts the edible portion of the plant)

1. If only one test of the irrigation water is conducted each season, Generic E. coli levels shall not exceed 126 MPN or CFU per 100 ml water sample.

2. If monthly tests of the irrigation water are conducted each season, Geometric mean for (up to) the five most recent tests for Generic E. coli shall not to exceed 126 MPN and no single sample may be >235 MPN/100 ml.

b. Non Foliar Applications (Furrow, drip, and other applications where the edible portion of the crop does not have contact by water

1. If only one test of the irrigation water is conducted each season, Generic E. coli levels shall not exceed 126 MPN or CFU per 100 ml water sample.

2. If monthly tests of the irrigation water are conducted each season, Geometric mean for (up to) the five most recent tests for Generic E. coli shall not to exceed 126 MPN and no single sample may be >576 MPN/100 ml.

2.1.3 Water testing shall be regular and shall be performed at least annually or at a frequency required by commodity specific guidelines. For water sources that use wells as the primary source the well also needs to be tested at least annually in addition to the testing of the source such as reservoirs.

2.1.4 All water testing shall be performed at a qualified, accredited lab, and shall use tests that are APHA or AOAC approved or approved by other appropriate certifying agencies such as the FDA or EPA.

\*Labs should be prepared to provide supporting documents that shows which lab methods that they are performing are supported by their accreditation.

2.1.5 Lab results should include the date of sample collection, the location of the sample collection, the result, the test method, and a signature from the lab.



## 3. EMPLOYEE DOCUMENTS

### 3.1 Company Policies – Toilet and Hand Washing Facilities

3.1.1 Growers should have written and documented toilet and hand washing facility policies.

3.1.2 All toilet and hand washing facility policies should be present and complete and all policies should be clearly titled.

3.1.3 The grower should have written policies that the organization will provide clean and stocked toilet facilities and hand washing stations. The policies will also have a maximum distance requirement and a maximum ratio of employees to Toilet facilities. Typically this is 1 bathroom for every 20 employees and a maximum distance of ¼ mile or 5 minutes.

3.1.4 The grower should have a policy mandating that employees wash their hands at the beginning of the work day, after using the toilet, after eating, after leaving the work area, after changing gloves, and any other time their hands may become contaminated.

3.1.5 Toilets should not be serviced in the field, or near the field, to avoid any potential spills in the field.

3.1.6 SSOPs should be available that outline the cleaning and maintenance procedures for the toilet facilities.

3.1.7 SSOPs should be available that outline the cleaning and maintenance procedures for the hand washing facilities.

\*When fields are not active (fallow or not planted) the company needs to show that they will provide toilets and hand washing facilities when employees will be present in the field.



### **3.2 Company Policies – Illness and Injury**

3.2.1 Growers should have written and documented blood contamination policies, injury policies, and illness policies.

3.2.2 All blood, or bodily fluid, contamination, employee injury, and employee illness policies should be present and complete and all policies should be clearly titled.

3.2.3 Blood policies should specify that all products exposed to blood, or bodily fluids, will be destroyed, that equipment exposed to blood, or bodily fluids, will be thoroughly cleaned and disinfected before being used.

3.2.4 Injury policies should specify that all employees with sores, cuts, boils, lesions, etc, on their hands shall have the areas covered with first aid materials and use appropriate gloves, such nitrile gloves, while working with products. (\*Due to allergy concerns latex gloves should not be used while working directly with product.)

3.2.5 Illness policies should specify that all employees who show signs of illness will not be permitted to perform job duties where they will come in to contact with product.

### **3.3 Company Policies – Restricted Behavior**

3.3.1 Growers should have written and documented policies designed to restrict the use of tobacco and food products, that restrict the use of jewelry and other loose items, and that restrict children and domestic animals from production areas such as growing, packing, food handling, and storage areas.

3.3.2 All restricted behavior policies should be present and complete and all policies should be titled appropriately.

3.3.3 Restricted behavior policies should clearly stipulate that the use of tobacco products and food products is not allowed in any production area and should explain the consequences associated with such actions.

3.3.4 Restricted behavior policies should clearly stipulate that the use of jewelry and other loose items is not allowed in any production area and should explain the consequences associated with such actions.

3.3.5 Restricted behavior policies should clearly stipulate that children and domestic animals are not allowed in any production area and should explain the consequences associated with such actions.



### **3.4 Employee Training**

3.4.1 All employees shall be trained in basic food safety and personal hygiene and shall be able to demonstrate their knowledge.

3.4.2 All food contact employees shall be trained in critical food safety topics including:

- a. Basic Food Handling
- b. Illness Recognition and Reporting
- c. Toilet Facility Usage
- d. Correct Hand Washing
- e. Blood Contamination
- f. Basics of Micro-Organisms

3.4.3 All training shall be documented and sign-in sheets shall be available for review.

3.4.4 Current employee rosters should be available and a system should be in place to ensure that all employees are current with their training.

3.4.5 Training documents, such as sign in sheets or training agendas, should reference the topics discussed.

3.4.6 The sign in sheets should have the printed name of the employee and their signature.

3.4.7 Third party and contractor labor companies should provide copies of training materials used for the same topics.

### **3.5 Supervisor Training**

3.5.1 Supervisors shall receive the same training as all employees but because of their responsibility they shall also be trained in how to recognize the symptoms of illness and shall be trained regarding how to manage ill employees.

3.5.2 Supervisors shall also be trained on how to manage employees who have injuries that may cause contamination.

3.5.3 All food handling supervisors shall be trained in critical food safety topics including:

- a. Illness recognition
- b. Injury recognition
- c. Management of Illness and Injury.

3.5.4 Supervisor training shall be directed toward supervisor level employees, or more senior level employees, and the documentation shall reference this distinction.

3.5.5 All training shall be documented and sign-in sheets shall be available for review.

3.5.6 Current employee rosters should be available and a system should be in place to ensure that all employees are current with their training.



3.5.7 Training documents, such as sign in sheets or training agendas, should reference the topics discussed.

3.5.8 The sign in sheets should have the printed name of the supervisor and their signature.

3.5.9 Third party and contractor labor companies should provide copies of training materials used for the same topics.



## 4. CHEMICALS

### 4.1 Fertilizer Usage (Includes all soil amendments)

4.1.1 Synthetic and non-synthetic fertilizers and soil amendments should be provided by reputable suppliers who provide evidence that the material is safe for use on food crops.

4.1.2 All fertilizers should be approved for use on the current crop.

4.1.3 Growers should provide information regarding the sources of all fertilizers, including where the product originated.

4.1.4 Letters of guarantee or other documentation that the fertilizers being applied are free of pathogens, toxins, or other contaminants that may cause illness or injury should be available for review.

4.1.5 If lab results are submitted as documentation, results should be from an accredited lab.

4.1.6 When animal manure, or other types of manure, is used the grower will supply documentation that the manure has been properly composted, or treated to kill pathogens, and that the application intervals, before planting, meet all necessary requirements

4.1.7 Fertilizer and soil amendment application records should include the following information:

- a. Date of Application
- b. Amount
- c. Fertilizer Name and Application Method
- d. Applicators Name
- e. Growth stage of product

4.1.8 All fertilizer and soil amendment application records should indicate the material's common name and the chemical or scientific name (If applicable).

4.1.9 All fertilizer and soil amendment application records should be current and complete.

4.1.10 Growers should maintain documentation necessary to perform a trace back that shows fertilizer application history for all products.

4.1.11 Synthetic and non-synthetic fertilizers and soil amendments should be stored properly, and secured, when not in use as to prevent possible contamination.

4.1.12 Growers should not use bio-solids.

### 4.2 Pesticide Application

4.2.1 All pest control chemicals should be safely and accurately applied by properly trained personnel.



4.2.2 All pesticide use recommendations should be made by a state licensed or trained person.

4.2.3 The grower should have a copy of the license issued to their PCA and should be able to verify work performed by the PCA. Such verification could include recommendation documentation with the PCA's name and/or signature.

4.2.4 If the grower acts as the PCA then the grower should provide appropriate supporting documentation that they are the only one who makes recommendations.

4.2.5 All applications should be made by a trained and/or certified applicator.

4.2.6 Proper certification documents or training documents should be available in order to show proper training has been performed.

4.2.7 All application records should be current and complete.

4.2.8 Procedures should be available for the calibration of spray equipment

4.2.9 Records verifying calibrations should be completed in required intervals.

4.2.10 There should be a designated individual who is responsible for inspecting spray equipment and verifying that the equipment is functioning adequately.

4.2.11 All application records should be available and records should include:

- a. Date of Application
- b. Re-Entry Intervals
- c. Type of Pesticide Used
- d. Crop Being Grown
- e. Quantity Used
- f. Purpose for the Application.

4.2.12 If a third party performs the application then a copy of all necessary records should be on file with the grower.

4.2.13 Spray equipment should be calibrated regularly and the calibration should be documented.

4.2.14 SOPs should be on file showing the process for calibration

4.2.15 A designated person should be available to review the equipment and to verify that it is working properly.

4.2.16 If this is performed by a third party then copies of these records should be on file with the grower.

### **4.3 Pesticide Regulation**

4.3.1 Pest control chemicals should be provided by reputable suppliers who provide evidence that the material is safe for use on food crops. The grower should be in compliance with all applicable regulations regarding the application of pest control chemicals.





- 4.3.2 Pesticides should be authorized for use on the current crop by the US EPA or other appropriate authority
- 4.3.3 There should be procedures in place to verify compliance with the pesticide regulations in the country of origin and in the destination countries.
- 4.3.4 All pesticide pre-harvest intervals should be documented and observed.
- 4.3.5 The grower should provide documentation that they can perform a trace back that shows pesticide application history for all products.
- 4.3.6 If pesticide application is performed by a third party applicator then copies of these records should be on file with the grower.
- 4.3.7 The grower should have a mechanism or process for verifying that the pesticides being applied will be accepted, and are authorized, by the destination countries of the crop being grown. This is also the case for the country of origin.
- 4.3.8 If a third party is used for applications then copies of this information should be on file with the grower.
- 4.3.9 A policy and program should be in place that clearly documents that pre-harvest intervals are being adhered to and followed.
- 4.3.10 The grower should be able to clearly trace when a product was harvested against the last pesticide application.
- 4.3.11 If products are being analyzed for pesticide residue the analysis should be performed by an accredited laboratory.



## 5. RANCH OBSERVATIONS

### 5.1 Adjacent Land

5.1.1 The farming operation should not be next to, or should be isolated and/or protected from, the following potential adjacent land hazards:

- a. Mining Operations
- b. Industrial Sites
- c. Municipal Waste Storage
- d. Animal Husbandry Sites
- e. Animal Manure Storage
- f. Open Wilderness Areas
- g. Urbanized and/or Residential Areas including structures with and without leach fields.

5.1.2 If the farming operation is adjacent to any of the above mentioned potential hazards then adequate protection shall be instituted in order to prevent contamination. Adequate protection may be, but is not limited to:

- a. Buffer zones
- b. Physical barriers such as fences and ditches
- c. Security measures such as regular inspections or patrols
- d. Adequate composting of manure
- e. Other measures such as those defined by commodity specific criteria such as those found in the Leafy Greens Marketing Agreement.

5.1.3 Appropriate mitigation plans should be in place which outline procedures and protocols in the event of an unexpected contamination due to adjacent land concerns.

### 5.2 General Field Disposition

5.2.1 The condition of the field shall not cause a food safety hazard.

5.2.2 The fields should be free of garbage, trash, and other high risk contaminants such as biological waste.

5.2.3 Fields should be free of items that may cause foreign material contamination such as natural material from nearby trees or vegetation, rocks that may end up in product (especially if automatically harvested), pieces of drip tape, wood, etc.

5.2.4 Garbage and trash should be located in appropriate receptacles and should not be in the field. This includes wind blown garbage from adjacent areas, employee refuse such as food wrappers, food refuse and food waste, soda cans, harvest company waste, and visitor refuse.

5.2.5 All equipment, owned or not owned, in the field should be in good condition, operational, and not used or stored in a manner that may lead to a contamination issue.



5.2.6 Equipment should be maintained in a manner so that it appears clean and is not leaking oil, excessively rusting or flaking paint, releasing grease in an amount that may cause contamination, or any other condition in which the equipment may cause a possible food safety risk.

5.2.7 Equipment is operational and not in a state of disrepair in the field.

5.2.8 All fencing and/or barriers should be in good condition and be of a type that is appropriate for its intended use.

5.2.9 Fencing should be whole, not broken, and should not have fallen over.

5.2.10 The fence should be of a type that will prevent the intended risk for which it was installed.

5.2.11 Chemicals, such as the type used for agricultural purposes like fertilizers and pesticides, should be stored appropriately and locked or secured when not in use. Empty containers also need to be stored appropriately.

5.2.12 All field signs such as ranch identification signs, pesticide re-entry signs, or other notifications should be in appropriate locations that are easy to see, are in appropriate languages, and are large enough to see.

5.2.13 All ditch or canal materials, used to assist irrigation practices, should be removed in an appropriate time frame.

5.2.14 Barriers, such as berms, ditches, or other structures, used to prevent runoff contamination should be whole, not broken, and of sufficient depth, or height, in order to prevent the intended hazard.

5.2.15 Field roads should be maintained in good condition and should be easy to navigate. Roads should not have large potholes, should not be obstructed with items that will cause drivers to possibly need to drive in to the growing areas, and should be wide enough to allow for reasonable amounts of traffic.

### **5.3 Water Distribution System**

5.3.1 The water distribution system, on the ranch, should be in good condition and shall not cause a food safety hazard.

5.3.2 High risk animals and humans shall not be present in the water or distribution systems.

5.3.3 Adequate buffers and pollution control measures should be in place to prevent contamination of the water system by chemicals or other possible contaminants being stored in the area.

5.3.4 Unauthorized equipment should not be in the distribution system. No other contamination source or issue should be evident in the distribution system.

5.3.5 Wells and well casings should be intact and free of leaks.

5.3.6 Canals should not have any significant structural issues such as damaged cement.

5.3.7 All open water sources, including canals, ditches, and reservoirs should be free of debris. This includes garbage, irrigation accessories, broken or



abandoned equipment, dead animals, green waste or yard waste, or other items that might present an animal harborage or food safety risk.

5.3.8 Chemicals should not be stored next to, mixed next to, or otherwise manipulated near the water system.

5.3.9 If there is any potential that a water system could be subjected to high risk animal or human activity, or that chemicals will be stored near the water system, then adequate measures should be taken in order to prevent the contamination of the water system. This includes the use of buffer zones and other barriers.

#### **5.4 Animal Activity**

5.4.1 High risk animals should not be present in the field this includes, but is not limited to, cows, horses, goats, sheep, pigs and wild pigs, deer, or other high risk animals.

5.4.2 There should be no evidence of high risk animal activity in the field.

5.4.3 Large quantities of low risk animals should not be in the field such as migratory birds or rodent infestations.

5.4.4 Other evidence of high risk animal activity such as feeding, tracks, or other signs should not be present.

5.4.5 When high risk animal activity is imminent then the grower shall have the necessary mitigation plans in place to prevent the harvest of contaminated products.

5.4.6 Evidence of low risk animal activity, such as small mammals, birds, reptiles, predatory animals, etc, should be noted and monitored. These animals don't pose the same risk microbiologically but can cause high risk foreign material contamination, especially for mechanically harvested products.

5.4.7 Low risk animal tracks should be reviewed and the areas where these animals were in the field should be inspected and logged. Any fecal contamination should be removed and contaminated products also removed.



## 6. EMPLOYEE HABITS AND CONDITIONS

### 6.1 Toilet and Hand Washing Facilities

6.1.1 Adequate toilets and hand washing facilities shall be provided and maintained for employee use.

6.1.2 Toilet and hand washing facilities shall be made available to employees who are working in the field. A minimum of 1 toilet for every 20 employees and all toilets should be within 5 minutes, or a ¼ mile, from the work area.

6.1.3 All toilet facilities shall be maintained so that they are clean and have all supporting equipment such as toilet paper.

6.1.4 All hand washing stations shall be maintained so that they are clean and have all supporting equipment such as potable water, liquid hand soap, single use towels, and a garbage receptacle to collect used towels.

6.1.5 All toilet facilities shall be monitored daily by a responsible individual and a checklist shall be available for review.

6.1.6 Toilets shall have signs, in the appropriate language, that hand washing is mandatory after use.

6.1.7 Toilets shall be made of cleanable materials such as stainless steel or plastic and shall use hands free technology when available.

\*When fields are not active (fallow or not planted) the company needs to show that they will provide toilets and hand washing facilities when employees will be present in the field.



## **6.2 Employee Behavior**

6.2.1 Employees shall always follow GAPs and food safety protocols while working in production locations such as in the field, in post-harvest facilities, or in storage areas.

6.2.2 Employees shall not work while they are ill.

6.2.3 Employees shall always follow good hygiene practices.

6.2.4 Employees should come to work clean and come to work in clean clothes.

6.2.5 Employees shall always wash their hands before they start working, after breaks, after bathroom use, and whenever their hands may have become contaminated.

6.2.6 Employees should not use tobacco products, drink, eat food or candy, or chew gum while in production locations. Drinking water is acceptable in these areas.

6.2.7 Employees should not be wearing jewelry, or other loose items, and should always wear appropriate personal protective equipment such as gloves and hairnets, when appropriate.

6.2.8 Gloves, when used, should not be excessively dirty or torn or damaged.



## 7. HARVEST OPERATION

### 7.1 SSOPs

7.1.1 Documented SSOPs in appropriate languages, which are legible and relevant to the equipment being used should be available.

7.1.2 SSOPs that outline how all food contact and non-food contact surfaces are cleaned should be available.

7.1.3 SSOPs should have information regarding:

- a. Equipment Name
- b. Frequency of Cleaning
- c. Chemicals Used and Dilutions
- d. Applicable Verification Procedures
- e. Forms Used to Verify Cleaning.
- f. All chemicals shall be approved for use by the US EPA and/or FDA.

7.1.4 All SSOPs should be in appropriate languages and shall be legible.

7.1.5 SSOPs should describe an appropriate cleaning procedure.

### 7.2 Harvest Cleaning Logs

7.2.1 All necessary cleaning logs, and/or checklists, should be available for review and should be up to date.

7.2.2 All logs should be legible and should be in appropriate languages.

7.2.3 Cleaning records should be available for review and should be current and entries should be legible.

7.2.4 Logs should include sanitizing records for food contact and non-food contact areas of all harvesting implements.

7.2.5 Signed documents should be available showing that the product containers were cleaned prior to receipt and cleaning process for the containers should be available.

7.2.6 There should be an inspection log for all incoming packaging materials to prevent adulterated or contaminated packaging from being used.

7.2.7 The water used to perform cleaning shall be from a clean and documented source. This documentation should be available for review.

7.2.8 All test strips should be used within their expiration dates and they should be appropriate for the concentrations being used. Other testing methods, (colorimetric, ORP, digital) should be appropriate and used appropriately.

### 7.3 Harvest Tools

7.3.1 All harvest tools that contact the edible portion of the product shall be clean, and should be made of cleanable materials, and should be stored properly when not in use.



7.3.2 All harvest tools should be made of cleanable materials such as stainless steel and plastic.

7.3.3 Tools should be free of rust and damage.

7.3.4 All tools shall be clean when in use and shall be routinely checked and cleaned by personnel when necessary.

7.3.5 Tools should be in control of the grower or harvesting company and there should be records that show harvest tools are being managed appropriately.

7.3.6 All tools should be stored properly when not in use. Knife sheaths made of porous materials should not be used for storage.

7.3.7 Tools should be stored in a sanitizer solution when employees are on breaks.

7.3.8 Sanitizer solution containers should be adequate in size and should have enough solution to properly cover all tools when they are not being used.

7.3.9 Tools, that could pose a contamination risk, for any reason, shall not be used until they have been properly inspected or properly cleaned and have been approved for use by the harvesting supervisor.

#### **7.4 Containers and Packaging**

7.4.1 Containers and packaging should be free of contamination and should be clean and in operational condition.

7.4.2 All packaging should be stored so that it excludes birds and other animals.

7.4.3 Packaging should only be used for its intended purpose.

7.4.4 Packaging should not be stored for long periods of time in the field.

7.4.5 Cardboard should not be re-used unless with a single use liner and the container is clean and in good condition.

7.4.6 All packaging shall be free of contamination. This includes evidence of bird, rodent, or insect adulteration or infestation.

7.4.7 All packaging shall be clean and shall be in good condition.

7.4.8 Packaging, used for products not grown in soil, should not touch the ground.

7.4.9 Packaging should only be used for product storage. Packaging should never be used to store garbage, tools, or employee articles.

7.4.10 All cardboard should be used only once. If used more than once then a one time use liner shall be used.

#### **7.5 Food Contact Surfaces and Equipment**

7.5.1 All food contact surfaces shall be cleaned regularly and shall appear clean.

7.5.2 Food contact surfaces shall be free of rust or corrosion.

7.5.3 All seams shall be smooth and shall have complete access for cleaning.





7.5.4 All materials, used for food contact, shall be made of cleanable materials such as stainless steel, UHMW, plastic, or other similar, non-porous material.

7.5.5 All areas near food contact zones shall be designed to prevent contamination. This includes, but is not limited to, shatter resistant lights and light covers, drip pan design for motors or other bearings, and kick plates to prevent shoe drip in walk over areas.

## **7.6 Transportation**

7.6.1 All vehicles, used to transport product, should be clean and functional.

7.6.2 Transportation vehicles should be dedicated and shall not be used for the transportation of animals, or other items, that might cause a contamination issue.

7.6.3 All trucks shall have a pre-load checklist that verifies that the trucks are clean, that refrigeration units are clean and working properly, that no animals or animal products were transported, and that trucks are locked.

## **7.7 Post Harvest Water**

7.7.1 Post harvest water shall be free of generic E. coli.

- a. Water for use post harvest shall be tested for generic E. coli. Testing methods, with lower detection limits no greater than 2.2 MPN or CFU per 100 ml, shall be used or presence/absence testing shall be used.

7.7.2 Post harvest water shall be sanitized using an US EPA or FDA approved sanitizer and the sanitizer shall be maintained within an effective concentration range and within allowable limits.

7.7.3 Re-circulated water shall be changed at least daily and logs should include sanitizer concentration, pH if sanitizer is pH dependent, and/or ORP records.

7.7.4 Water shall not be otherwise contaminated.



## 8. DEFINITIONS

Animal by-product	Most parts of an animal that do not include muscle meat including organ meat, nervous tissue, cartilage, bone, blood and excrement.
Biosolids	Solid, semisolid, or liquid residues generated during primary, secondary, or advanced treatment of domestic sanitary sewage through one or more controlled processes.
Clean	Means that food or food-contact surfaces are washed and rinsed and are visually free of dust, dirt, food residues, and other debris.
Coliforms	Gram-negative, non-sporeforming, rod-shaped bacteria that ferment lactose to gas. They are frequently used as indicators of process control, but exist broadly in nature.
<i>E. coli</i>	<i>Escherichia coli</i> are common bacteria that live in the lower intestines of animals (including humans) and are generally not harmful. <i>E. coli</i> is frequently used as an indicator of fecal contamination, but can be found in nature from non-fecal sources.
Food-contact surfaces	Those surfaces that contact fresh produce and those surfaces from which drainage onto the produce or onto surfaces that contact the produce may occur during the normal course of operations. "Food-contact surfaces" includes equipment, such as containers and conveyor belts, which contact fresh produce, whether used in harvesting, postharvesting, or packaging operations. It would not include tractors, forklifts, handtrucks, pallets, etc., that are used for handling or storing large quantities of contained or packed fresh produce and that do not come into actual contact with the food.
Good Agricultural Practices GAPs	Refer to the guidelines set forth in the Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables," which was published by the U.S. Food and Drug Administration in 1998. ( <a href="http://www.foodsafety.gov/~dms/prodguid.html">www.foodsafety.gov/~dms/prodguid.html</a> ).
High Risk Crop	Edible, minimally processed, food crops with edible portions of the crop that are or are likely to be exposed to irrigation water. Seasonally or annually planted minimally processed food crops with edible portions of the crop that are exposed to irrigation water or other water sources.



Human pathogen	Means a microorganism capable of causing disease or injury to people.
Irrigation water	Refers to water used in the growing environment (for example, field, vineyard, or orchard) for agronomic reasons. Typical sources of irrigation water include flowing surface waters from rivers, streams, irrigation ditches, open canals, impoundments (such as ponds, reservoirs, and lakes), wells, and municipal supplies.
Sanitize	Means to treat produce by a process that is effective in destroying or substantially reducing the numbers of microorganisms of public health concern, as well as other undesirable microorganisms, without adversely affecting the quality of the product or its safety for the consumer.
Shall	Indicates an item that is considered critical to food safety.
Should	Indicates an item that is highly recommended for a complete food safety program.
Soil amendment	Elements added to the soil, such as compost, peat moss, or fertilizer, to improve its capacity to support plant life.

### **Definitions: Scoring and Evaluations**

#### **Predefined Guidance**

Critical (C)	Are those that directly and evidently lead to widespread contamination of food, likely resulting in a food borne illness outbreak. Such risks must be addressed immediately.
Unacceptable (U)	Are those that show a severe documentation program deficiency which does not allow for clarity, review, and confirmation that programs are being adhered to or performed. Also, evidence of unlawful, or otherwise abhorrent or objectionable acts, that do not necessarily cause a food borne illness concern.
Needs Correction (NC)	Are those that present a high risk of contamination of food, possibly resulting in a food borne illness outbreak under unfavorable circumstances. These issues must be addressed promptly to minimize contamination risks and have a satisfactory food safety program in place.



Needs Improvement (NI) Are those that may lead to potential contamination of edible products, but are not likely to directly lead to widespread contamination or food borne illness. All issues in his category must be addressed to achieve certification, but they do not pose an immediate threat of widespread food borne illness.

### Topic Evaluation

Acceptable (A) Evaluation demonstrates that all necessary requirements and expectations have been met.

Needs Improvement (NI) Evaluation demonstrates minimal deficiencies. The deficiencies are such that a food safety risk is not imminent or evident.

Needs Correction (NC) Evaluation demonstrates major deficiencies. The deficiencies are such that a food safety risk could occur if the deficiencies are not addressed.

Unacceptable (U) Evaluation demonstrates severe deficiencies. The deficiencies are such that they do not allow the auditor to perform their inspection sufficiently. The evaluation also demonstrates program deficiencies that don't give operation management sufficient ability to verify internal programs.

Critical (C) Evaluation demonstrates severe deficiencies. The deficiencies are such that a food safety risk is imminent or evident. This evaluation grade will cause the audit to fail.

### Section Evaluation

Acceptable (A) Evaluation demonstrates that all necessary requirements and expectations have been met.

Needs Improvement (NI) Evaluation demonstrates minimal deficiencies. The deficiencies are such that a food safety risk is not imminent or evident.

Needs Correction (NC) Evaluation demonstrates major deficiencies. The deficiencies are such that a food safety risk could occur if the deficiencies are not addressed.



Unacceptable (U)	Evaluation demonstrates severe deficiencies. The deficiencies are such that they do not allow the auditor to perform their inspection sufficiently. The evaluation also demonstrates program deficiencies that don't give operation management sufficient ability to verify internal programs.
Critical (C)	Evaluation demonstrates severe deficiencies. The deficiencies are such that a food safety risk is imminent or evident. This evaluation grade will cause the audit to fail.