

# Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain



2011

*Greenhouse Checklist*



# Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain, 2011

## Forward

Work on *Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain* (“Tomato Food Safety Protocol”) was initiated shortly after the successful completion of the *Commodity Specific Guidelines for the Fresh Tomato Supply Chain*, 2<sup>nd</sup> Edition (“2<sup>nd</sup> edition”), at the request of fresh tomato supply chain stakeholders who were concerned that the 2<sup>nd</sup> edition did not provide sufficiently auditable standards or “metrics”. The general omission of metrics from the 2<sup>nd</sup> edition was intentional, as the contributors believed that operations should establish food safety requirements for themselves, based on the considerations described in the 2<sup>nd</sup> edition. Nevertheless, both buyers and suppliers in the tomato supply chain expressed concern that they were unsure of what constituted “compliance”. Buyers were concerned that operations might interpret the considerations in the 2<sup>nd</sup> edition too loosely, allowing food safety risks to go uncontrolled. Suppliers were concerned that auditor interpretations of the 2<sup>nd</sup> edition would result in an unending spiral of ever increasing audit expectations, resulting in additional costs without improving food safety. Thus, the Tomato Food Safety Protocol was initiated in October 2008 in an effort to harmonize food safety audit standards for the fresh tomato supply chain.

To prevent the Tomato Food Safety Protocol from becoming just another standard, in addition to rather than replacing others, a critical mass of fresh tomato “buyers” (e.g., processors, foodservice and retail) were asked to participate and, if successful, be prepared to accept audits of their suppliers using this standard. In this way, the goal was ultimately to replace the multitude of similar but different audit standards with this one.

The Tomato Food Safety Protocol was developed during a series of open meetings. Invitations were extended to all participants in the 2<sup>nd</sup> edition – from industry, government and academia, Mexico and Canada – and additional participants welcomed as they were identified. In an effort to assure transparency, no one who asked to participate was excluded. The individuals and organizations participating in development of the Tomato Food Safety Protocol are listed below.

The Tomato Food Safety Protocol began with the 2<sup>nd</sup> edition as a basis, endeavoring to establish “requirements” that were as specific as possible, but keeping in consideration different needs based on region, sub-commodity (e.g., round vs. Roma vs. grape or cherry tomatoes), operation size and equivalent growing or handling practices. Every effort was made to base these requirements on current science, but the participants accepted that these requirements would likely change as future research provides better information.

Although the initial intention was to establish mandatory metrics (e.g., how often, how many, how far), the participants were, frankly, surprised to find that current science provided little basis for universal numerical standards. Consequently, requirements more often became performance expectations rather than numerical measurements.

The entire fresh tomato supply chain was considered in this effort, but the participants recognized that the goal of replacing other, existing audit standards with the Tomato Food Safety Protocol would only be successful in operations that are primarily handling tomatoes; e.g., open field operations, harvesting, field packing, greenhouses, packinghouses, tomato repackers, tomato distributors and warehouses. Other operations in the tomato supply chain, i.e., fresh-cut processors, retailers, and foodservice operations, while handling tomatoes, would also be handling a far greater diversity of foods. The participants considered tomato-specific standards for those operations but, since tomato-specific standards would not replace existing audit standards for such operations, ultimately decided not to establish stand-alone audits. Therefore, while the Tomato Food Safety Protocol may be informative to all operations that handle tomatoes, it is specifically targeted to operations that undergo tomato-specific audits.

### **Format of the Tomato Food Safety Protocol and Checklists and Their Use**

Four sets of Tomato Food Safety Protocols were developed for use by operations and auditors: Open Field Production, Harvest and Field Packing; Greenhouse; Packinghouse; and Repacking and Distribution. Each set contains auditable requirements – “Items” – that the participants concluded should be attainable and in place for any North America fresh tomato operation, regardless of region, size, growing practice (e.g., organic) or sub-commodity handled. As appropriate to the type of operation, the Items were further divided into sections that the participants considered critical for a food safety program, such as management responsibility, facility and environmental assessment, raw materials and inputs including water, pest control and pesticide usage, tomato cleaning operations, sanitation, food contact containers, food contact tools and equipment, employee health and hygiene, education and training, and traceback and recall programs.

For each Item, the Tomato Food Safety Protocol contains a simply-stated Requirement, and a Procedure that restates the requirement in other words, in an effort to minimize misunderstanding. The Requirement and Procedure are instructions to the operation to clearly describe the programs that are expected to be in place and maintained, and that will be audited. Each Item also includes a Verification and Corrective Action/Disposition. The Verification is provided as instruction to the auditor how to verify whether the operation has complied with the Requirement. The Corrective Action/Disposition is provided as instruction to the operation if the audit determines that compliance has not been achieved. While each of these is not necessarily binding on the operation or the auditor – equivalent procedures and actions that meet the intent of

the Item are acceptable or, in some cases, not applicable – they are provided in an effort to minimize “standards creep”, which has led to the multitude of disparate and often conflicting standards.

Each of the four Tomato Food Safety Protocols is accompanied by a Checklist, which provides an audit format that auditors can use to assess and record compliance. Each Checklist begins with a cover page that provides information about the auditor, the audited operation and the audit. That is followed by an Audit Summary in which the auditor will indicate the number of Items rated as C, CAN, IAR and NA (see below) as well as listing the Item numbers requiring corrective action; i.e., judged as CAN or IAR. The participants intentionally chose not to “score” the audit, indicating that audit scores tend to distract from auditor observations and judgments.

The body of the Checklist mirrors the associated Tomato Food Safety Protocol, with all of the Items and Requirements listed. The Checklist also includes, for each Item, an opportunity for the auditor to indicate the level of compliance observed. The possible “judgments” were left generally broad and include the following: C, Compliant with requirement; CAN, Corrective Action Needed to be compliant; IAR, Immediate Action Required because of imminent food safety risk; and NA, not applicable or not needed. A judgment of C or NA is self-explanatory. A judgment of CAN, Corrective Action Needed to be compliant, is expected when the operation has clearly not complied with the intent of the Item, but that noncompliance is not reasonably likely to result in a food safety issue. A judgment of IAR, Immediate Action Required because of imminent food safety risk, is expected when a noncompliance may reasonably and directly result in an unacceptable food safety risk, and requires immediate corrective action to prevent the risk from continuing. IAR was not provided as a possible judgment for audit Items that the participants could not conceive of a noncompliance resulting in a food safety risk; e.g., Item 1.5 in the Greenhouse checklist, *Operation has a written procedure and timelines for implementing and documenting corrective actions*. The Checklist also has a space at each Item in which the auditor can provide Comments to explain the judgment. An Auditor Comment is required for all CAN and IAR judgments.

It was the intention in the development of these Tomato Food Safety Protocols for the *Commodity Specific Guidelines for the Fresh Tomato Supply Chain*, 2<sup>nd</sup> edition, to serve as a prerequisite reference to the use of this document. Each of the four Tomato Food Safety Protocols and their associated Checklists are intended for discrete segments of the fresh tomato supply chain, and it is the responsibility of the user to utilize the appropriate document. Throughout the documents, the term “shall” is used to indicate an action mandatory for compliance, while “should” indicates a recommended action that may not be necessary for some operations. In an operation’s food safety program that is compliant with the Tomato Food Safety Protocol, standard operating procedures (SOPs) may be designed to cover more than one requirement.

Performance of an audit to verify compliance with the Tomato Food Safety Protocol is expected to include reviews of pertinent policies and SOPs, official records demonstrating compliance, and visual observations of the operation to determine the current level of compliance. In order to demonstrate compliance, all required documentation shall be kept on file and made available for review by the auditor. Lot-specific records shall be retained for two (2) years or as required by prevailing laws or regulations. Observation of incomplete or otherwise noncompliant records required for compliance shall require a corrective action, such as retraining of the responsible individuals. The operation shall assess whether the noncompliant records indicate a potential food safety risk. Where training is required, it is expected that employees sign their training records, indicating that they understand and agree to follow the policy or procedure that is the subject of the training. Observations of noncompliances that may result in a risk of contamination of public health concern shall require an immediate corrective action and an assessment of the actual noncompliance and, if contamination is reasonably likely to have occurred, a corrective action shall be taken to prevent the affected product from being harvested or distributed into commerce. Such corrective actions shall be documented and those records shall be available for regulatory review, in compliance with prevailing laws and regulations. It is a violation of federal law (i.e., Federal Food, Drug and Cosmetic Act) to introduce or deliver for introduction into interstate commerce any food that is adulterated or misbranded. Foods, including fresh tomatoes, that are discovered to be adulterated and have been released into commerce should be recalled and the prevailing regulatory authorities notified.

## **2011 Revision**

In late 2010, the tomato industry reconvened to review the performance of the Tomato Food Safety Protocol, and recommended several changes. In the Greenhouse document that accompanies this Checklist, the Procedure and auditor Verification for item 2.1 and the Procedure for item 13.6 were clarified, and a new item 2.2 was added. This Checklist was also amended to include the new item 2.2. The changed sections are displayed in **red**.

**Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain, 2011  
Greenhouse - Checklist**

**Company / Farm / Field Name or Number** \_\_\_\_\_  
**Company Address** \_\_\_\_\_  
**Audited Operation Address/GPS** \_\_\_\_\_  
**Company Contact** \_\_\_\_\_  
**Title** \_\_\_\_\_  
**Phone** \_\_\_\_\_ **Fax** \_\_\_\_\_ **Email** \_\_\_\_\_  
**Date of audit** \_\_\_\_\_  
**Audit start time** \_\_\_\_\_ **Audit end time** \_\_\_\_\_

**Description of operation** \_\_\_\_\_  
\_\_\_\_\_

**Harvest Company Name (if applicable)** \_\_\_\_\_  
**Other Contractors** \_\_\_\_\_  
**Other Contractors** \_\_\_\_\_  
**Other Contractors** \_\_\_\_\_  
**Other Contractors** \_\_\_\_\_

**Audit Company / Agency** \_\_\_\_\_  
**Auditor Name** \_\_\_\_\_  
**Auditor Signature** \_\_\_\_\_

**Auditee Representative Name** \_\_\_\_\_  
**Signature** \_\_\_\_\_

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**Audit Summary**

		<b>C</b>	<b>CAN</b>	<b>IAR</b>	<b>NA</b>	<b>Q# requiring corrective actions for CAN or IAR</b>
<b>1.</b>	<b>Management Responsibility</b>					
<b>2.</b>	<b>Farm History and Assessment</b>					
<b>3.</b>	<b>Greenhouse</b>					
<b>4.</b>	<b>Soil and Soil Amendments</b>					
<b>5.</b>	<b>Preharvest Agricultural Water</b>					
<b>6.</b>	<b>Pest Control and Pesticide Usage</b>					
<b>7.</b>	<b>Tomato or Equipment Sanitizing Agents Used During Harvest</b>					
<b>8.</b>	<b>Equipment, Containers and Packaging Materials</b>					
<b>9.</b>	<b>Cleaning and Washing Procedures</b>					
<b>10.</b>	<b>Transportation</b>					
<b>11.</b>	<b>Employee Hygiene Policies and Employee Training</b>					
<b>12.</b>	<b>Education and Training</b>					
<b>13.</b>	<b>Record Keeping and Traceability</b>					

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<b>1. Management Responsibility</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
1.1	Operation has designated an individual responsible for food safety.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
1.2	Responsible individual has evidence of training in food safety relevant to tomatoes.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
1.3	Operation has current copies of the <i>Commodity Specific Food Safety Guidelines for the Fresh Tomato Supply Chain, Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain</i> and additional food safety documents as required by state and/or federal regulation.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
1.4	Operation has procedures for conducting self-audits, and conducts self-audits to verify compliance with established internal policies and procedures.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	

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1.5	Operation has a written procedure and timelines for implementing and documenting corrective actions.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
1.6	Operation has a “zero tolerance” policy for controllable practices and conditions that result in immediate food safety risks.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>2. Farm History and Assessment</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
2.1	An environmental assessment has been conducted, including potential hazards on the property, past property use and adjacent land.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
2.2	The environmental assessment shall consider domestic animal operations.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
2.3	Grounds are reasonably free of litter, debris and standing water.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
2.4	System for removing waste materials from product handling area works efficiently.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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2.5	Outside garbage receptacles/dumpsters are covered or are located away from greenhouse entrances, and areas around such sites are reasonably clean.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>3. Greenhouse</b>			
Q#	Requirement		Auditor Comments
3.1	The greenhouse shall be enclosed.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
3.2	A foot dip station or other measure should be used to prevent the introduction of harmful microorganisms or agents and a written record of the sanitizer and maintenance kept.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
3.3	Glass and brittle plastic items are excluded to the extent practical from and/or protected in packing or processing areas. Lights have shatterproof bulbs or covers in all areas where tomatoes or packaging are handled or held.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>4. Soil and Soil Amendments</b>			
Q#	Requirement		Auditor Comments

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4.1	Soil or other growth medium shall be stored in a manner that minimizes opportunities for contamination.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
4.2	Fertilizer manufacturer's instructions for usage and storage shall be followed.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
4.3	If fertilizers containing manures or composts are used, only properly treated (composted or heat treated) manures are allowed for use in greenhouses. Biosolids are not permitted.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>5. Preharvest Agricultural Water</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
5.1	The sources of water used in the greenhouse are documented.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
5.2	The type of irrigation used (flood, drip, sprinkler overhead, others) is documented.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
5.3	A sanitary survey was completed for each water source.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
5.4	Water tests are conducted.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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5.5	If water is treated to bring it into compliance, records are maintained of treatments and testing.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
5.6	<b>Non-Foliar</b> The water test meets EPA recreational water standards for E. coli; i.e., 40 CFR Part 131.41(c).	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
5.7	<b>Foliar</b> The water test meets EPA microbial standards for drinking water; i.e., 40 CFR Part 141.63.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>6. Pest Control and Pesticide Usage</b>			
<b>A. Pest Control in Facility</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
6.1	Operation has a written pest control program, performed by a trained pest control operator. Pest control operators are licensed where required by prevailing regulation or law.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
6.2	There is a clear area surrounding the facility to deter pest infestation.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	

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6.3	There is no evidence of significant pest populations (birds, rodents, insects) reasonably likely to contaminate tomatoes.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
6.4	There are no bait stations containing toxic baits inside the facility.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
6.5	Traps do not contain toxic bait and are placed at the interval and location recommended by the pest control operator. Traps must be labeled with a number or other identifier and their locations are documented on a map.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
6.6	Bug zappers and insect attractant devices, if used, are not placed in a location where product or food handling equipment or food packaging materials may become adulterated.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
6.7	Operation has a written policy prohibiting domestic animals in the greenhouse.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

**B. Pesticide Usage**

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<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
6.8	Pesticide chemicals and their use must comply with all requirements of national (e.g., EPA) registration and any federal, state or local regulations.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
6.9	Equipment used to apply pesticides shall be maintained and calibrated at a frequency sufficient to assure accuracy of delivery.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
6.10	Water used to mix pesticides meets EPA microbial standards for drinking water; i.e., 40 CFR Part 141.63.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>7. Tomato or Equipment Sanitizing Agents Used During Harvest</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
7.1	All compounds used to clean or sanitize food contact containers, tools, utensils, equipment or other food contact surfaces are approved for that use by the US EPA, FDA or other prevailing agency. Actual use conforms to label directions.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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7.2	Chemicals used on product that are not registered pesticides may be permitted for food contact use if allowed under regulations of the FDA or prevailing agency.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
7.3	All chemicals, cleaning compounds and solvents are stored in a secure and locked location.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>8. Equipment, Containers and Packaging Materials</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
8.1	Harvest and other food contact implements, buckets and totes are clean and sanitized as necessary according to SOP.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
8.2	Reusable containers and food contact equipment and utensils shall be constructed of impervious materials that can be easily cleaned and sanitized.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
8.3	All containers shall be marked for their intended use (finished produce containers, trash containers, etc.).	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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8.4	Operation has a written procedure for inspecting incoming packaging material.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
8.5	Finished product containers are prohibited from direct contact with the floor, and pallets, slip sheets, and supports used to keep product containers off the floor are clean and in good condition.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
8.6	Bins, trays, and pallets shall be stored in a secure, clean location.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

**9. Cleaning and Washing Procedures**

**A. Cleaning Materials Including Cloths**

<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
9.1	Operation shall have a policy that cloths, towels, or other cleaning materials shall not be used to wipe tomatoes.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

**B. Product Wash Water Management**

<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
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9.2	Only sanitizers or sanitizer systems registered or approved by EPA or the prevailing regulatory agency for their specific intended use may be used in the dump tank wash water, on the spray line or other food contact purposes.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.3	Wash water sanitizer is used in accordance with operational procedure, manufacturer instructions, and records are kept.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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9.4	In systems where tomatoes are submerged or dwell in water, water temperature is monitored and controlled. Water temperature should be at least 10°F above highest measured pulp temperature of tomatoes when entering the water. If operation can demonstrate retention times are never more than two minutes and water submersion does not exceed 1 ft, water temperature shall be controlled to be not be less than highest measured pulp temperature.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.5	Operations utilizing spray systems in place of whole tomato immersion shall design the line so that the entire tomato surface is rinsed.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.6	Re-circulated and re-used water is changed at least daily, and records of changes are kept.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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9.7	If water quality is based upon a chlorine-based sanitizer and Oxidation Reduction Potential (ORP), the process shall be targeted to be at least 800 mV. ORP levels shall not be less than 650 mV, measured at the exit of the product from the water system, unless validation data are available to demonstrate a lower ORP is effective under operating conditions.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.8	If an ORP system is used, an independent measurement is used to verify compliance.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.9	If water quality is based upon an aqueous chlorine dioxide sanitizer, chlorine dioxide levels shall not be less than 1 ppm, measured at the exit of the product from the water system, unless validation data are available to demonstrate a lower level is effective under operating conditions.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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9.10	If water quality is based upon a peroxyacetic, peracetic or peracid system, levels shall not be less than 30 ppm, measured at the exit of the product from the water system, unless validation data are available to demonstrate a lower level is effective under operating conditions.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.11	If a sanitizer system other than aqueous chlorine dioxide, peracid, or hypochlorous and ORP is used, the system shall be operated and controlled to levels of equivalent efficacy of pathogen cross-contamination control in tomato wash systems.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
9.12	All instruments used to measure temperature, pH, sanitizer levels and or other important devices used to monitor requirements in this section shall be calibrated at a frequency sufficient to assure continuous accuracy.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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9.13	Instruments, test methods or test strips used to monitor requirements shall be appropriate to their use and sufficiently sensitive to their intended purpose.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
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**10. Transportation**

Q#	Requirement		Auditor Comments
10.1	Shipping unit is clean, functional and free of objectionable odors before loading. A responsible individual signs the completed checklist.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
10.2	Vehicles and containers used to transport produce shall not be used to transport trash, animal carcasses or raw animal products that may be a source of microbial contamination unless cleaned and sanitized by a procedure sufficient to ensure that microbial contamination of produce does not occur.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

**11. Employee Hygiene Policies and Employee Training**

**A. Toilet Facilities**

Q#	Requirement		Auditor Comments
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11.1	Clean and sanitary toilet facilities are provided for all employees and toilets are made from cleanable materials and are cleaned and sanitized daily or sufficiently often to be maintained in a clean and sanitary manner.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.2	The number of toilet facilities meets state and federal requirements.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
11.3	Toilets are located within a five minute walk of work areas.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.4	Restrooms should not open directly into greenhouse production areas.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.5	All toilet facilities contain toilet paper.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.6	There is a program for the sanitary disposal of used toilet paper.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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11.7	Hand washing facilities, with soap, water and disposable hand-drying towels, or air blowers, and refuse containers are provided.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.8	If permanent handwashing facilities are not used, gray water is captured and disposed of away from tomato handling areas.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.9	If portable hand wash water tanks are used, they are cleaned and sanitized and the water is changed periodically.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.10	The source of water used to fill hand washing tanks meets the microbial standard for potable water and is documented.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.11	Toilet and hand washing facilities are inspected by a designated individual at a sufficient frequency during use to assure cleanliness, condition and adequate supplies.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>B. First Aid Policies</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>

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11.12	There is a written policy describing procedures which specify handling/disposition of produce or treatment of food contact surfaces that have come into contact with blood or other bodily fluids.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.13	There is a written policy instructing workers to seek prompt treatment for cuts, abrasions and other injuries and first aid supplies are provided.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>C. Habits and Conditions</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
11.14	There is a written Hygiene Practices policy including, but not limited to, policies and procedures on hand washing, toilet use, and requiring handwashing at beginning of shift and prior to returning to production line, for all employees and visitors.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	

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11.15	Policies shall require hand washing with soap and potable water at the appropriate time, such as before starting work, after use of toilet facilities, after breaks and when hands may have become contaminated. Policy shall apply to employees, outside contractors, inspectors, and visitors. Compliance is emphasized by management.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.16	There are signs, either in the appropriate language or pictorially, reminding workers to wash their hands after using the toilet.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
11.17	If gloves are used, there must be a written SOP regarding their use.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.18	Operation shall have a written policy regarding employees' outer garments.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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11.19	SOPs establishing the operation's illness policy provide that workers who show signs of illness (vomiting, jaundice, diarrhea) or open or exposed sores or lesions on their hands are not permitted to perform job duties where they will come in direct contact with raw product or food contact surfaces.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.20	There is a written policy regarding the use of hair restraints.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
11.21	There is a written policy regarding jewelry, nail polish and false nails in the workplace	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
11.22	Food and tobacco products are only in designated areas as specified in company SOP.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
11.23	Drinking water shall be provided in fountains or single use containers. Drinking water containers shall be handled in a manner that prevents them from becoming sources of contamination.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	

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11.24	There is a written policy prohibiting the storage and use of personal items outside of designated areas.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>12. Education and Training</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
12.1	Employees shall receive mandatory safe product handling and personal hygiene education at time of hire with reinforcements as detailed in company SOP.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
12.2	Individuals shall be trained on all food safety requirements specific to their assigned duties.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
12.3	Workers are trained and follow the policy that product dropped on the floor is discarded.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
12.4	Supervisors are trained to look for, recognize and react to symptoms of potentially infectious illness.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>13. Record Keeping and Traceability</b>			
<b>A. Greenhouse Packing</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>

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13.1	Documentation of greenhouse packed tomatoes shall include sufficient information about the growing and harvest of each lot (i.e. greenhouse location and history, grower, personnel/crew involved in the harvesting and packing) as well as the customer receiving the product to allow for the appropriate tracing of product.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
13.2	Containers shall be accurately labeled with commodity name, greenhouse firm name and information sufficient to allow for source and lot identification.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
13.3	Documentation maintained for each lot shipped shall include sufficient information about the customer receiving the product to allow for the appropriate tracing of product.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>B. Packinghouse Packed Greenhouse Tomatoes</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>

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13.4	The greenhouse shall maintain supply chain information available to the packinghouse to facilitate accurate traceability; i.e., quantity, greenhouse identification and date of harvest/pack.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> IAR <input type="checkbox"/> NA	
<b>C. Other</b>			
<b>Q#</b>	<b>Requirement</b>		<b>Auditor Comments</b>
13.5	There are written product tracing and recall procedures.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
13.6	Operation routinely tests the product tracing procedures.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	
13.7	A successful mock recall test has been performed in the last 12 months.	<input type="checkbox"/> C <input type="checkbox"/> CAN <input type="checkbox"/> NA	

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