

# **SMALL FRUIT PRODUCER AND PACKER ON-FARM FOOD SAFETY MANUAL** ©

**Commodities covered within this Manual:  
Strawberries, Raspberries, Blackberries, Blueberries (High Bush, Wild),  
Cranberries, Saskatoon Berries, Currants (Red, Black)  
and Other (Gooseberries, Elderberries, etc.)**



**CANADIAN HORTICULTURAL COUNCIL  
CONSEIL CANADIEN DE L'HORTICULTURE**

9 Corvus Court  
Ottawa, Ontario, Canada K2E 7Z4

**Version 5.1**

**2011\_v5.1**

## Acknowledgment

The *Small Fruit Producer and Packer On-Farm Food Safety Manual* and related materials have been developed by the Canadian Horticultural Council with the funding and support of Agriculture and Agri-Food Canada.

Technical support for the development of this document was provided by various federal and provincial governments, regional producer associations and technical resources. This manual was developed by a group of producers, packers and their representatives from across Canada.

Every effort has been made to ensure the material presented herein is up-to-date and accurate; however, the organizations and individuals involved in the development processes cannot be held responsible for any error or consequences that could result from use of this information.

## Disclaimer

**“While the Canadian Horticultural Council has produced the contents of this Food Safety Program, it does not guarantee that it will identify all potential risks and all measures that may be required to eliminate or manage those risks. Risk management is the responsibility of the operator. To the full extent allowed by law, the Canadian Horticultural Council excludes liability for any loss arising through the provision of services by itself, its servants and its agents (including liability for negligence) and where liability cannot be excluded, limits that liability to either, at its choice supplying the relevant services again or paying the cost of having those services supplied.”**

*This document is intended to provide general food safety guidelines for the production and distribution of horticultural products. It is not intended to serve as, and does not constitute recommendations or legal advice for any of the material contained herein. Because food safety plans and issues are evolving, may vary, and could involve legal implications, the reader should consult legal counsel for advice on particular legal or regulatory matters that may arise.*



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Agri-Food Canada

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CHC / CCH VERSION 5.1

*Small Fruit Producer and Packer  
On-Farm Food Safety Manual  
2011\_v5.1*



1400 Merivale Rd.  
Ottawa, Ontario K1A 0Y9

June 12, 2009

Annie Fowlie  
Executive Vice- President  
Canadian Horticultural Council  
9 Corvus Court  
Ottawa, ON K2E 7Z4

Dear Ms. Fowlie,

On behalf of the Canadian Food Inspection Agency (CFIA), I congratulate you and your staff on successfully completing the requirements related to the technical review part 1 of an on-farm food safety program. On June 2, 2009, the CFIA-led technical review team completed their examination of the "Canadian Horticultural Council's Small fruit Producer and Packer On-Farm Food Safety Program" and as of June 2, 2009 found that it meets federal, provincial and territorial regulatory requirements. It also meets the definition of "Technical Soundness" in that it promotes the production of safe food at the farm level and adheres to Hazard Analysis Critical Control Point (HACCP) principles as defined by *Codex Alimentarius*. Any proposed changes or amendments to your Technically Reviewed program must be discussed with and approved by Agency officials prior to publication to ensure Technical Soundness is maintained.

Part 1 concludes the technical review of the generic HACCP model and producer manual elements of your Canadian Horticultural Council (CHC) on-farm food safety program. Part 2 of the technical review will evaluate the management system developed to support it.

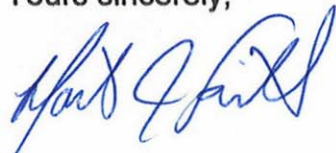
When the CHC has completed the development of its Management System, it can begin the next stage leading to recognition by sending a request for a Technical Review Part 2 (management manual and associated documentation) to:

Canadian Food Inspection Agency  
On Farm Food Safety Recognition Program  
Food Safety and Consumer Protection Directorate  
4<sup>th</sup> Floor, Room 117  
1400 Merivale Road, Tower 2  
Ottawa, ON K1A 0Y9

/2...

Once again, congratulations on successfully completing this part of the technical review, leading towards official recognition of the "Canadian Horticultural Council's Small Fruit Producer and Packer On-Farm Food Safety Program".

Yours sincerely,



Martin J. Firth  
Manager, Inspection Systems  
On-Farm Food Safety Recognition Section  
Food Safety and Consumer Protection Directorate

cc:

Sandra WIng, Vice-President Programs, CFIA  
Dr. Robert Charlebois, Executive Director, Food Safety and Consumer Protection Directorate, CFIA  
James Sefton, Acting, National Coordinator, On-Farm Food Safety Recognition Program, CFIA  
Germain Brazeau, Policy Analyst, On-Farm Food Safety Recognition Program, CFIA

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## I. Introduction

This document is intended to bring into focus the potential sources of biological (B), chemical (C) and physical (P) hazards for horticultural products from the field through to shipping. It contains basic information to support the horticultural industry as it develops, refines and implements measures to enhance the safety of the Canadian food supply.

Producers and packers are already carrying out many of the Good Agricultural Practices (GAPs) described in this Manual. However, in some instances very little documentation of these good practices exists. This Manual will help producers and packers document their on-farm food safety practices. It is recommended that producers/packers keep an electronic backup of the Manual.

The producer or packer is responsible for implementation of the food safety program within their operation. This manual provides users with the toolkit to document compliance with food safety management system requirements. At all times, ownership and responsibility for the company's food safety program belongs to the producer or packer, not with the CHC as developer of the Manual.

### ***Senior Management Commitment to Food Safety Management System***

Completion and implementation of the OFFS Manual constitutes a commitment on the part of the producer or packer and the company's senior management to the development, management and continuous improvement of their food safety system.

## II. Background

Horticultural products are grown, harvested and handled under a wide range of climatic conditions, using a variety of agricultural inputs and technologies (e.g., agricultural chemicals, commercial fertilizers) and on various sizes of farms. Biological, chemical and physical hazards may therefore vary significantly from one production site to another. Each production site will need to consider the GAPs that promote the safety of products, taking into account the conditions specific to the site, the type of product produced and the production methods used. Once produce is contaminated, removing or killing pathogens is difficult. Therefore, prevention of microbial contamination at all steps from production to distribution is strongly favoured over treatments to eliminate contamination after it has occurred. The individual producer/packer shall consider any additional testing that may be critical to confirming product safety within his operation; and based on the risk assessment of biological, chemical and physical hazards, prepare and implement a system to ensure that product/ingredient analyses critical to the confirmation of product safety are undertaken and that such analyses are performed to standards equivalent to ISO 17025.

Procedures associated with the production, harvesting and handling of horticultural products must be conducted under clean, sanitary conditions that minimize potential human health hazards due to contamination.

The Producer and Packer On-Farm Food Safety (OFFS) Manual has been developed based on a Small Fruit Generic OFFS Hazard Analysis and Critical Control Points (HACCP) Model. The HACCP-based Model is the tool used to assess the potential hazards associated with the growing and packing of products and in determining areas of higher risk. Producers can obtain the Generic HACCP Model if they wish. The Generic HACCP Model was developed according to the Canadian Food Inspection Agency's Hazard Analysis and Critical Control Point (CFIA HACCP) and Canadian On-Farm Food Safety (COFFS) Program requirements. For complete details on this program and its requirements, refer to the CFIA website at [www.inspection.gc.ca](http://www.inspection.gc.ca).



For further background information about specific OFFS hazards, please visit the Index of References on the CHC web site at: [www.canadagap.ca](http://www.canadagap.ca).

The CHC is committed to reviewing at least every eighteen months the Generic HACCP Model, which provides the technical backdrop to the requirements and procedures in the OFFS Manual. Corresponding review and updates to the Manual and record-keeping templates will take place at the same time. The CHC's commitment is to keep pace with advances in food safety science, and reflect new developments in industry practice, maintain the technical soundness and Canadian Government recognition status of the CHC OFFS Program materials, and ensure the continuing suitability, adequacy and effectiveness of the Generic HACCP Model and OFFS Manual for implementation by users.

The producer or packer, and senior management of each operation using and implementing this Manual, are required to review the OFFS program within the company at least annually, to ensure the continuing suitability, adequacy and effectiveness of their food safety system. Section 24 requires an annual review of the OFFS Manual to update procedures; account for new equipment, buildings or processes; take stock of deviations, complaints, corrective actions and any changes in procedures that arose as a result; and evaluate the need for changes to the food safety system, including related policies and objectives

### III. Scope

The CHC OFFS Manuals are intended for use by horticultural producers and packers in Canada. They cover the production, packing (including field packing and both on and off farm packinghouses) and storage of horticultural products. The Small Fruit OFFS Manual covers production and packing of **field-grown berries** (including berries grown in non-controlled environments, e.g., tunnels) **for fresh market** and production of berries sent for further processing. It is recommended that producers of berries sent for further processing check with their buyers for any additional requirements.

The CHC has divided the horticultural sector into the following crop groups: Combined Vegetables (Asparagus, Sweet Corn and Legumes; Bulb and Root Vegetables; Fruiting Vegetables); Greenhouse Production; Leafy Vegetables and Cruciferae; Potatoes; Small Fruit and Tree and Vine Fruit. Refer to the appropriate Manual(s) for the crops you produce.

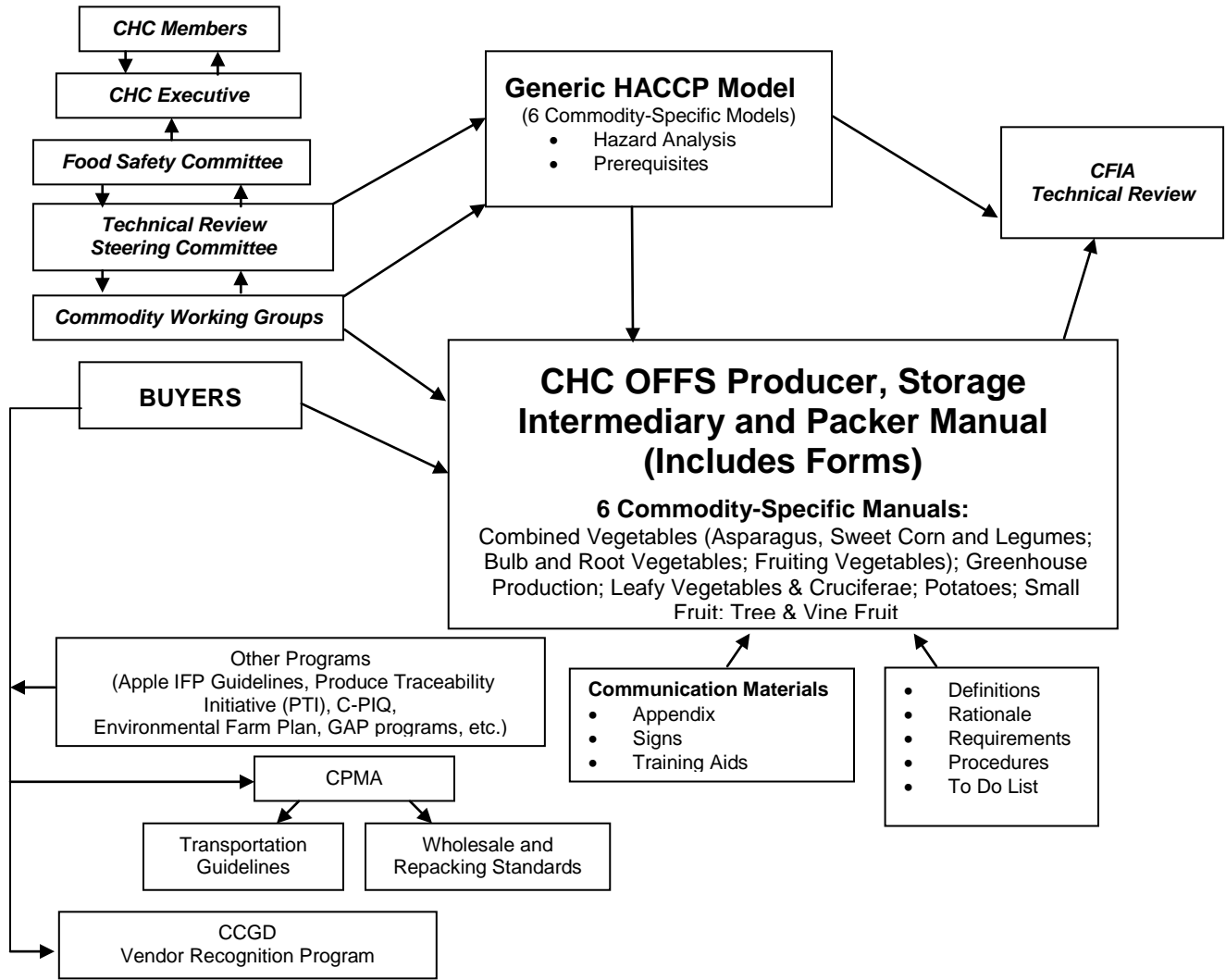
**This Manual is intended for all Small Fruit producers and/or packers of field-grown: Strawberries, Raspberries, Blackberries, Blueberries (High Bush, Wild), Cranberries, Saskatoon Berries, Currants (Red, Black) and Other (Gooseberries, Elderberries, etc.).**

### IV. Purpose

The OFFS Manual has been created to make the contents of the Generic HACCP Model operational and commodity-specific. The purpose of this OFFS Manual is to be the minimum requisite program for On-Farm Food Safety (i.e., recognized national standard). Producers or packers with an existing program should review the Small Fruit Producer and Packer OFFS Manual and should integrate the requirements with their existing program to form an all-encompassing/equivalent food safety system suited to their needs.

The schematic diagram on the following page provides an excellent overview of food safety initiatives within horticulture.

# V. Food Safety Roadmap for Horticulture





## VI. How Do I Use this Manual?

### **IMPORTANT NOTE**

It is very important that you read carefully the next few pages (Sections VI.i – VI.v) before proceeding to Section 1: Commodity Starter Products of the Manual, and that you refer often to the Glossary as you work through the Manual. This will help you successfully implement your OFFS program by ensuring that you have a clear understanding of how to complete the Manual and of the terms and abbreviations used.

### **VI.i OFFS Tools for Small Fruit Producers and Packers**

The On-Farm Food Safety tools developed by the CHC include the following:

#### **Small Fruit Producer and Packer On-Farm Food Safety Manual and Communication Materials**

The communication materials complement the manual and include items such as signs, training support aids, appendices (which provide tools/information for implementation) and any additional items/information required for OFFS implementation. To source these communication materials, visit the CHC website ([www.canadagap.ca](http://www.canadagap.ca)).

### **VI.ii How is this Manual Organized?**

The Manual is divided into two parts:

- i) Sections - The Manual content is organized into sections (e.g., Premises, Transportation, Traceability, etc.). The division of these sections has been pre-determined for all fruits and vegetables. Certain sections may not pertain to all products; however, they are included in this Manual. This is to ensure consistency with the other commodity-specific manuals being developed within horticulture so that those producers growing a number of different products and thus, requiring more than one manual, will have consistent numbering. Sections that are not applicable to specific crops have been clearly identified as N/A. The sections are further divided into Requirements (food safety requirements specific to horticultural products) and Procedures (how these requirements are to be met).
- ii) Record-Keeping Form Templates - These Forms are found at the end of the Manual in the Compendium of Food Safety Forms. Two types of record-keeping form templates exist based on the frequency of completion.
  - a) Forms that need to be completed once, annually, or as changes are made to the operation.
  - b) Forms that need to be completed on an ongoing basis during the season (e.g., daily, weekly, monthly).



## **IMPORTANT NOTE**

**Producers, storage intermediaries and packers are responsible to follow all applicable federal, provincial, territorial and municipal legislation and regulations. The producer/storage intermediary/packer is responsible for finding out whether legislation and regulations exist in the following or other areas:**

- **Purchasing, applying and storing commercial fertilizers and soil amendments**
- **Purchasing, receiving, applying and storing pulp sludge**
- **Spreading and storing manure and compost**
- **Purchasing, applying and storing agricultural chemicals**
- **Purchasing tertiary water**
- **Disposing of garbage, recyclables and compostable waste**
- **Disposing of empty agricultural chemical containers**
- **Disposing of production wastewater and waste from toilets and hand washing facilities**
- **Providing personal hygiene facilities**
- **Controlling pests inside buildings**
- **Human rights, privacy and employment standards**
- **Drinking water standards**

**Federal, provincial, territorial and municipal legislation and regulations SUPERSEDE the requirements in the manual and must be followed (e.g., Ontario regulations ask that all agricultural chemical applicators are licensed/certified, while the manual gives a choice that they are certified, trained or supervised by a licensed person. Therefore, an Ontario producer must follow the regulations and be licensed/certified.) However, if the manual requires something that legislation or the regulations do not, then the manual must be followed (e.g., in Alberta, according to the regulations, a producer does not have to have a license/certificate, training or be supervised by someone who is licensed. In order to follow the manual requirements, an Alberta producer would have to do one of the above).**

### **VI.iii How to Complete the Manual**

The Manual can be completed by the producer/packer on their own or they may seek assistance to help them address food safety requirements and concerns on their operation. While the person responsible for the operation becomes the “Producer/packer” named in this manual, it is important to note that all employees involved in a food operation have responsibility for the safe production of food. Food safety involves more than a single designated producer/packer. The procedures in this manual may be carried out by a number of different individuals. The person responsible for overseeing and carrying out your OFFS program may be someone other than the producer/packer. Some operations may have a full- or part-time Food Safety or HACCP coordinator and/or an OFFS team involving some or all employees. Regardless of the structure, the program will succeed only if everyone involved is aware of his or her role in achieving food safety.

Completion and implementation of the OFFS Manual constitutes a commitment on the part of the producer or packer and the company’s senior management to the development, management and continuous improvement of their food safety system. Senior management must determine and provide, in a timely manner, all the resources needed to implement and improve the processes of the food safety program and to address customer satisfaction

The following steps must be carried out in order to complete the OFFS Program:

1. Read and complete each section of the Manual.

When first implementing the OFFS Manual, complete it section by section. Do not continue to the next section until you have completed each of the previous sections or identified outstanding items that need to be completed (use the To Do List – Outstanding Items to Complete in Manual). The Manual is not complete until all items have been checked off your To Do List. The following box appears at the end of each section. The confirmation/update log is NOT to be signed and dated (by the OFFS Program Contact or designate) until all items have been completed in the section AND on the To Do List.

**Confirmation/Update Log:**

<b>Date</b>	Jan 10, 2011					
<b>Initials</b>	JD					

Make copies of Sections as needed, e.g., you may want to keep a clean copy and a working copy of each page.

<p><b>IMPORTANT NOTE</b></p> <p><b>!</b></p>	<p><b><i>Procedures for hazards that require both monitoring and record-keeping, as determined by the Generic HACCP Model for Small Fruit Production, are marked with an exclamation mark throughout this Manual. These procedures link to the table of deviations and corrective actions in Section 23.</i></b></p>
--	--

The schematic diagram on the next page provides an example of how to complete the Manual.

# How to Complete the Manual

**Legend:** The Reference box in the top right-hand corner of each section details whether the section applies to the producer/packer and which Form(s) are applicable to the section.

**Rationale:**  
Provides the producer/ packer with background information appropriate to each section.

Forms Required	Producer: Yes
H2	Storage Intermediary: No
	Packer: No

## 3. Commercial Fertilizers, Pulp Sludge and Soil Amendments

### RATIONALE:

Commercial fertilizers, pulp sludge and soil amendments can potentially contaminate product with toxic matter if the incorrect types are spread (e.g., materials containing mercury, arsenic, lead, etc.).

- Commercial fertilizers are used on the premises
- Pulp sludge is used on the premises
- Soil amendments are used on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 4: Manure, Compost and Other By-Products.*

**Requirement:**  
Outlines the actions and activities that must be followed in the operation.

### 3.1 Purchasing and Receiving

**REQUIREMENT** Commercial fertilizers, pulp sludge and soil amendments must be purchased/selected and received properly to minimize chemical contamination.

### PROCEDURES:

- Producer purchases or selects:
  - Commercial fertilizers from suppliers licensed under the *Fertilizers Act* or suppliers that meet provincial regulations
  - N/A**  Pulp sludge that meets provincial regulations
  - Soil amendments that meet provincial regulations
- Producer receives only the commercial fertilizers and soil amendments that were purchased or selected
- N/A**  Producer receives only pulp sludge that was purchased or selected according to provincial regulations

**Procedures:**  
Describes how the producer/ packer is to fulfill the requirements in each section.

### 3.2 Application

**REQUIREMENT** Commercial fertilizers, pulp sludge and soil amendments must be applied properly to minimize contamination.

### PROCEDURES:

- Producer ensures that commercial fertilizers, pulp sludge and soil amendments are applied according to label directions and/or expert recommendations
- Applicator records all application details on Form (H2) Agronomic Inputs OR \_\_\_\_\_  
See Crop Management Form in files

Certain sections allow for you to provide details on methods or procedures used in your operation. Please provide as much detail as possible.

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2008

There are **circles** (○) at the beginning of each section to check (✓) if the section pertains to your operation.

If the section does not pertain to your operation, leave the circle blank and follow the instructions to proceed to the next relevant section. The entire section can be left blank, including all check boxes (☐) within the section.

**Solid circles** (●) are used to introduce general procedures that may have several components. You do NOT need to check off solid circles (●). Each **component step** is listed below the general statement and is introduced with a box (☐) to check off (✓).

Every **check box** (☐) in the Manual must be completed, unless the entire section does not apply to your operation. Check (✓) all boxes (☐) unless there is an option indicating otherwise. When you check a box this indicates that you have understood and properly completed the requirement(s). If additional pages are required, make copies of the applicable sections, complete and add to the relevant section (e.g., if you have more than one water source, multiple storages).

**If you do not check a box, you are not following the required GAP. You must make the necessary changes, additions, etc. to your operation. Once this has been completed, you can check off the box.**

Arrow bullets (➤) are suggestions only and do not need to be checked.

Forms Required H2	Producer: Yes Storage Intermediary: No Packer: No
-------------------	---

### 3. Commercial Fertilizers, Pulp Sludge and Soil Amendments

**RATIONALE:**

Commercial fertilizers, pulp sludge and soil amendments can potentially contaminate product with toxic matter if the incorrect types are spread (e.g., materials containing mercury, arsenic, lead, etc.).

- Commercial fertilizers are used on the premises
- Pulp sludge is used on the premises
- Soil amendments are used on the premises

*# ANY of the above circles has been checked off, proceed below.  
# not, proceed to Section 4: Manure, Compost and Other By-Products.*

---

#### 3.1 Purchasing and Receiving

<b>REQUIREMENT</b>	Commercial fertilizers, pulp sludge and soil amendments must be purchased/selected and received properly to minimize chemical contamination.
--------------------	--

**PROCEDURES:**

- Producer purchases or selects:
  - Commercial fertilizers from suppliers licensed under the *Fertilizers Act* or suppliers that meet provincial regulations
  - N/A**  Pulp sludge that meets provincial regulations
  - Soil amendments that meet provincial regulations
- Producer receives only the commercial fertilizers and soil amendments that were purchased or selected
- N/A**  Producer receives only pulp sludge that was purchased or selected according to provincial regulations

#### 3.2 Application

<b>REQUIREMENT</b>	Commercial fertilizers, pulp sludge and soil amendments must be applied properly to minimize contamination.
--------------------	---

**PROCEDURES:**

- Producer ensures that commercial fertilizers, pulp sludge and soil amendments are applied according to label directions and/or expert recommendations
- Applicator records all application details on Form (H2) Agronomic Inputs OR \_\_\_\_\_

See Crop Management Form in files

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On-Farm Food Safety Manual  
2008

If the procedure is not applicable to your operation, **write N/A** through the box (☐).

If deviations from a procedure occur (e.g., non-compliance, incompleteness), refer to Section 23: Deviations and Crisis Management for the appropriate corrective action.



2. Complete each applicable record found in the Compendium of Food Safety Forms (or your own equivalent records).

When you are asked to complete a Form, remove the template from the Compendium of Food Safety Forms and follow the instructions. Do not continue to the next section until you have completed each of the required Forms. The Forms are proof of activities performed. Make additional copies of these Forms as necessary and complete Page \_\_\_ of \_\_\_ where applicable to indicate that more than one page is used.

**Annual Forms:** For those Forms that are to be completed on an **annual** basis, the producer/packer (or OFFS Program Contact or designate) must sign and date the log at the bottom of the Form. **EXAMPLE:**

The following box appears at the bottom of Forms completed annually. Each year the producer/storage intermediary/packer (or OFFS Program Contact or designate) must review the annual Forms, update them as needed, sign and date the log:

**Confirmation/Update Log:**

<b>Date</b>	Jan 10, 2011					
<b>Initials</b>	JD					

**Ongoing Forms:** For those Forms that are completed on an **ongoing** basis (e.g., daily, weekly, monthly), once the Form has been completed or is full, the producer/storage intermediary/packer (or OFFS Program Contact or designate) must confirm that the Form was completed accurately and that all requirements were met by signing and dating the bottom of the Form. **EXAMPLE:**

The following appears at the bottom of Forms that are completed on an ongoing basis.

**Confirmation Signature:**                     John Doe                          **Date:**           January 10, 2011          

<b>IMPORTANT NOTE</b>	<p>If you have existing forms, separate records or other methods of documentation, you may use these instead (e.g., custom applicator documents, invoices, receipts); ensure they contain all of the same information as the template forms in this Manual.</p> <p>A space has been left at the end of each line requiring the completion of a Form (i.e., complete Form (A) Buildings Sketch (Interior Floor Plan) OR _____). The space is for you to document what the other method/form may be and where the documentation can be found. This is important if anyone would like to see your program (e.g., auditors). You may also modify the Forms in any way you like so they meet the needs of your operation, as long as they contain all of the relevant information (e.g., if a Form states it is for EACH field you may use it for ALL fields). <i>Refer to Appendix P -- Customizing Record Keeping Forms</i></p>
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3. Perform an annual review.

The producer/packer must review and update each section of the Manual annually. The producer/packer (or OFFS Program Contact or designate) signs off and dates the Confirmation/Update log found at the end of each Section as it is reviewed. **EXAMPLE:**

**Confirmation/Update Log:**

<b>Date</b>	Jan 10, 2011					
<b>Initials</b>	JD					

**VI.iv Form Retention**

All Sections (1-24), Forms, receipts, letters of assurance and certificates must be kept for a minimum of two years for audit, recall or other purposes.

Producers/packers seeking OFFS Program Certification are required to have at least three months of records prior to date of the initial audit.

**VI.v Food Safety Manual Document Control**

Changes to the Manual will occur as a result of new science, emerging pathogens, new hazards, legislative requirements and changes in practices on the farm. Therefore, document control is necessary to ensure that all documentation is properly updated and maintained, ensuring each and every page is current.

The CHC document control box is located in the footer of each page. As CHC updates the Manual content, the document control box will also be updated. The **indexes** will also be updated and reissued. If pages are added, an alphanumeric system will be used (e.g., if page 18 requires an additional page, the format of 18a, 18b, etc. will be used). **EXAMPLE:**



Annual updates will be posted on the CHC web site at [www.canadagap.ca](http://www.canadagap.ca).





## Glossary

**Absorbent pads:** Liners to absorb moisture in the bottom of market ready packaging materials.

**Accredited laboratory:** One that has been formally accredited/certified by a recognizing authority. A recognizing authority can include the Standards Council of Canada (SCC) Analyses must be performed to standards equivalent to ISO 17025.

**Active ingredient:** That ingredient of an agricultural chemical that actually controls the targeted pest.

**Adjacent:** Refers to areas across from or beside the production site.

**Agricultural activities:** Livestock and crop production, processing activities, etc.

**Agricultural chemicals:** A subset of pest control products used to control crop pests such as insects, diseases and weeds (e.g., pesticides such as herbicides, fungicides and insecticides).

**Agricultural water:** See “Water”.

**Agronomic inputs:** Include agricultural chemicals, biological controls, pollinators, commercial fertilizers, compost, cover crops/green manure, manure (livestock waste), mulch and row cover materials, other by-products, soil amendments and pulp sludge.

**Animal and bird activity:** Includes activity from both wild and domestic animals and birds.

**Bait:** Anything intended to attract, tempt or kill pests. It may NOT be used in the interior of buildings unless inside a trap.

**Berries:** Refers to both harvested and market produce.

**Biannually:** Twice a year.

**Biosolids:** The material, predominantly organic in nature, resulting from treatment of industrial sewage, municipal sewage and septic system waste.

**Building:** Any structure where berries are handled and/or stored, and any structure where market ready packaging materials, agricultural chemicals, commercial fertilizers, etc. are stored (e.g., packinghouse, storage areas, etc.).

**Building equipment:** Used in the packinghouse or storages (e.g., scales, baggers, hoppers, bin pilers, tables, pallets, forklifts, curtain doors; packing, washing, treating, drying, grading, sorting and handling equipment).

**Bulk:** Harvested berries that are not contained in packaging materials (e.g., in the cargo area of a truck, etc.).

**Bulk transport:** Putting harvested berries directly into the cargo area of a vehicle without being contained in packaging materials.

**Cargo area:** The part of the vehicle that is intended to transport berries (e.g., wagon, trailer, box).

**CCGD:** Canadian Council of Grocery Distributors.



**CCP:** Critical Control Point; a step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

**Certified applicator:** A person, who has successfully completed a voluntary or mandatory certification course, paid the certification fee and may apply agricultural chemicals.

**CFIA:** Canadian Food Inspection Agency.

**CHC:** Canadian Horticultural Council.

**Chemigation:** The application of agricultural chemicals through the irrigation system (using agricultural water).

**Chlorine:** A chemical element that is widely used for disinfection, water purification and cleaning.

**Total chlorine:** is the total amount of chlorine that has been used e.g., 1 cup/250 mL, 2 tsp/10 mL Measuring total chlorine is most useful when determining and checking how much chlorine to start with. 50-150 ppm is recommended for fresh fruit and vegetable applications (*See Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example*)

**Free chlorine:** is the amount of chlorine (from the total chlorine) that remains active when used. Measuring free chlorine is a much more accurate way of monitoring the effectiveness of a chlorination system over time. 2-7 ppm is recommended (*See Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example*)

**Cistern:** A container for collecting or holding water (e.g., well water in a tank, delivered commercial water, a tank for catching rainwater).

**Cleaning materials:** Products used to clean, sanitize or disinfect (e.g., cleaning agents, water treatment chemicals, sanitizers, brushes, scrubbers).

**Cleaning water:** See “Water”.

**CPMA:** Canadian Produce Marketing Association.

**Commercial fertilizers:** Substances containing one or more recognized plant nutrients that are designated for use in promoting plant growth.

**Commodity Starter Products:** beginning materials used to produce a product such as seeds, seedlings, plants, cuttings, canes, seed potatoes, nursery stock, etc

**Compost:** Solid mature product resulting from a managed process of bio-oxidation of a solid heterogeneous organic substrate including a thermophilic phase. (**Note:** *follow provincial/territorial guidelines for procedures to compost plant debris, dead stock, animal excrement, etc.*) For further information, see *Appendix C -- Composting Livestock Manure – An Example and Compost Tea Information* for an example of a general procedure to compost animal excrement.

**Compost tea:** A liquid solution made by steeping compost (produced properly by a managed process that includes a thermophilic phase) in water. It is used as both a fertilizer and a spray to control plant disease. For further information see *Appendix C -- Composting Livestock Manure – An Example and Compost Tea Information*.

**Compostable waste:** Organic matter that will decay over time, is NOT compost and requires disposal.

**Contamination:** Infection or pollution with biological, chemical or physical substances.

**Controlled-access area:** An area that only authorized persons are allowed to enter (e.g., packing area, storage area for packaging materials, agricultural chemical or berry storages).

**Corrective action:** An organized activity to fix a problem.

**Crisis management:** The act or practice of dealing with a crisis when it develops.

**Curtain doors:** Plastic strips that cover an entrance/opening.

**Deviation:** An alteration from the standard.

**Drip irrigation:** A low-pressure method of directing agricultural water to the root zone of the plant, with or without commercial fertilizers and/or agricultural chemicals.

**Earliest Allowable Harvest Date (EAHD):** The date on or after which product can be harvested; this date takes into consideration the agricultural chemical application date, and PHI (e.g., if an agricultural chemical has a PHI of 21 days and it was applied on June 1<sup>st</sup>, then the EAHD would be June 22<sup>nd</sup>).

**E. coli:** A bacterium (*Escherichia coli*) normally found in the animal and human gastrointestinal tract and existing as numerous strains, some of which are responsible for diarrheal diseases.

**Employee:** A person who works for another in return for financial or other compensation.

**Fertigation:** The application of commercial fertilizers through the irrigation system (using agricultural water).

**Fertilizers Act:** A federal Act that regulates some commercial fertilizers imported into or sold in Canada.

**Final rinse water:** See "Water".

**Fluming water:** See "Water".

**Food contact surface:** Surface where unpackaged berries may touch (e.g., conveyor belt, grading table, equipment, knife, harvest cup, cutting surface, cargo area of a vehicle).

**Generic:** Applies nationally to all producers involved in the production of a commodity.

**Generic HACCP Model:** Applies nationally to all producers involved in the production of a commodity, and involves conducting a hazard analysis for all production steps that results in the GAPs reflected in the OFFS Manual.

**Glue boards:** Larger versions of sticky traps. They are made of cardboard or plastic, coated with extremely strong, sticky glue. They are used for monitoring and control of rats and mice.

**Good Agricultural Practices/Good Production Practices (GAPs/GPPs):** General steps, measures or procedures that control the operational conditions within a production unit allowing for the environmental conditions that are favourable to the production of safe food.

**Grading:** Categorizing or separating berries by size, colour or quality (i.e., into pre-determined grades).



**Ground water:** See “Water”.

**Grower Requested Own Use Program:** A program managed by the Pest Management Regulatory Agency that allows growers to import the US version of Canadian-registered pest control products for their own use should they be available in that market at a lower price. More information can be found at: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca).

**Growing:** The development and maturation process of the berries that occurs in the production site and ends at harvest.

**Growing medium:** Material in which plants can grow (e.g., soil, peat, water, etc.).

**HACCP:** Hazard Analysis Critical Control Points; a system that is science-based and systematic and identifies specific hazards and measures for their control to ensure the safety of food. HACCP is a tool to assess hazards and establish control systems that focus on prevention rather than relying on end product testing.

**HACCP-based program:** A food safety program based on HACCP principles in which the hazard analysis conducted is **generic** (i.e., covers all of the producers in a given commodity sector) and results in a list of commonly accepted hazards and related controls, which are then translated into a series of good agricultural practices to which primary producers adhere.

**HACCP program:** An **operation-specific** (e.g., ABC Farm’s HACCP Plan) hazard analysis-applying HACCP principles and resulting in a site-specific HACCP plan. The hazard analysis conducted results in the identification of specific farm/packinghouse hazards and related controls, which are then translated into a series of good production practices to which the producer/packer adheres.

**Hand sanitizer:** Waterless, antibacterial liquid or gel used to disinfect hands.

**Hand wipes:** Disposable towels used to remove organic matter from hands (e.g., dirt, mud).

**Harvested berries:** Berries that have been picked by a producer, or purchased by a packer. Includes berries packed in bulk.

**Harvested berry packaging materials:** Containers that **will not go to the end consumer**. These materials may be reused and include picking containers harvested berries.

**Harvesting:** The physical act of the producer moving the berries from the production site to the container or taking the berries away from the production site, which can be done either manually or mechanically.

**Hazard:** A biological, chemical or physical agent in, or condition of food having the potential to cause an adverse health effect.

**Hazard analysis:** A comprehensive analysis of all the steps in a production system in accordance with HACCP principles in order to determine hazards, develop a HACCP model and elaborate controls for each hazard.

**Holding:** Keeping berries in a non-temperature controlled (ambient) environment for a few minutes to a few days.

**IFP:** Integrated Fruit Production; a systems approach to fruit production that promotes sustainable agriculture practices to produce optimal yields of high-quality fruit while protecting the environment.

**Input:** Anything needed to produce a crop.

**Inspect:** To examine carefully and critically.

**IPM:** Integrated Pest Management; A decision-making process that uses all necessary techniques to suppress pests effectively, economically and in an environmentally sound manner.

**Letter of assurance:** A written statement from a supplier/dealer that the product he or she is selling was produced under specified conditions and steps were taken to reduce biological, chemical or physical contaminants in accordance with all applicable legislation.

**Licensed applicator:** A person who has successfully completed the applicators' course, paid the licensing fee and may apply agricultural chemicals.

**Licensed dealer:** A person who has successfully completed the dealers/dispensers course, paid the licensing fee and may sell agricultural chemicals.

**Lot:** Berries packed during a period of time or according to a specific ID.

**Lot ID:** Any combination of letters OR figures, or letters AND figures, by which a unit of market product can be traced and identified in the packer's records (e.g., skid, block, box). Linked to Pack ID for complete traceability.

**Maintenance materials:** Products used on, or to repair, equipment and buildings (e.g., light bulbs, lubricants, oils, fuels).

**Major deviations:** Deviations that could lead to a major food safety concern; employees must advise the producer/packer immediately of the problem (see Section 23: Deviations and Crisis Management for a list of major deviations).

**Manure:** Animal excrement with or without bedding that has not been composted and is used to fertilize the soil. Includes all types (e.g., cow, sheep, horse, pig, chicken, etc.) as well as aged manure.

**Market berries:** Includes berries that are ready for sale (e.g., to a processor, packinghouse, retail, roadside stand) and encompasses the packing of these in the production site and in the packinghouse.

**Market ready packaging materials:** Containers that **will go to food service, retail (including retail wholesaler/broker/distribution centre) or directly to the end consumer**. There are two types:

- 1) Market ready **PRIMARY** packaging materials that come into direct contact with the berries (e.g., pints, quarts, clamshells); and
- 2) Market ready **SECONDARY** packaging materials (e.g., masters) that may be reused and do not come into direct contact with the berries.

**Minor deviations:** Deviations from procedures and the intent/plan of the food safety program that can be rectified immediately by the employee and that are not a major food safety concern (e.g., spilled berries on the floor).

**Mock recall:** A procedure to test the recall team's ability to find and trace their product during a recall

**Mulch materials:** Materials used to cover the soil in the production site to retain soil moisture, heat and humidity, and suppress weeds (e.g., straw, bark chips, sawdust, plastic film).

**Municipal water:** See "Water".



**Non-agricultural activities:** Dump sites, industrial activities and other human activities (e.g., golf course).

**Non-permanent structure:** Open-air, temporary packing area with a roof or cover (e.g., tarp)

**Non-porous surface:** A smooth solid surface that limits absorption and penetration of liquid (e.g., metal, stainless steel, hard plastic material, rubber).

**OFFS:** On-Farm Food Safety.

**Off-site:** Beyond the premises of the operation.

**On-site:** Within the premises of the operation.

**ORP:** Oxidation-Reduction Potential. A rapid and accurate way to measure chlorine effectiveness. ORP is measured using an ORP meter, similar to a digital thermometer or pH probe. Research has shown that water with an ORP value of 650-700 mV can kill bacteria such as *E. coli* in a few seconds while more resistant types of microorganisms are killed within a few minutes.

**Other by-products:** Include plant or animal debris used for soil and crop improvement (e.g., seafood waste, seaweed, peat moss, wood shavings, crop culls, cover crops/green manure, pomace, teas), i.e., to improve the biological, chemical and physical characteristics of the soil, including improving the tilth, porosity, aeration, aggregation, water holding potential, or to increase the organic content, ion exchange capacity and microbial viability, feather meal from chicken rendering.

**Own Use Import Program:** Allows the import of registered foreign pest control products, provided they are deemed to be chemically equivalent to registered Canadian pest control products are on the eligibility list and have received a permit from the PMRA. They also must bear the equivalent label information to that of the registered Canadian pest control product. Information can be found at [www.pmra-arla.gc.ca](http://www.pmra-arla.gc.ca).

**Pack ID:** Information identifying the producer and when the berries are packed. Linked to Lot ID for complete traceability.

**Packaging accessories:** Materials used to fasten, contain, protect or identify berries or packaging materials (e.g., liners, ties, tags, labels, elastics, rope, trays, dividers, slats, staples, ink, stickers, and wrap such as shrink wrap, pallet wrap or mesh/net).

**Packaging materials:** Include all containers and packaging accessories used for packing harvested and market berries.

**Packer:** Person who packs berries in preparation for sale, whether his/her own or another person's berries.

**Packing:** The physical act of taking harvested berries and putting into packaging materials (including picking containers). This includes packing done in the production site and in the packinghouse.

**Permanent structure:** See "Building".

**Personal effects:** Include employees' lunches, clothing, shoes, smoking materials, etc.

**Personal hygiene facilities:** Toilets, hand washing facilities, hand sanitizers and hand wipes. These may be located inside or outside and can be portable or non-portable.

**Pest:** An animal, plant or other organism that is directly or indirectly injurious, noxious or troublesome, and an injurious, noxious or troublesome condition or organic function of an animal, a plant or other organism (e.g., rats, mice, birds, reptiles, beetles, weeds, disease, etc.).

**Pest control product:** Any product, device, organism, substance or thing that is manufactured, represented, sold or used as a means for directly or indirectly controlling, preventing, destroying, mitigating, attracting or repelling any pest. Control products include active ingredients used in the manufacture of end-use products and the end-use products themselves. Includes herbicides, insecticides, fungicides, antimicrobial agents, pool chemicals, microbials, material and wood preservatives, animal and insect repellents, and insect- and rodent-controlling devices.

***Pest Control Products Act (PCP Act) and Regulations:*** A federal Act that enables the Pest Management Regulatory Agency (PMRA) to regulate all pest control products imported into, sold or used in Canada.

**Pest Management Regulatory Agency (PMRA):** Federal body responsible for administering the legislation under the *PCP Act*.

**Pest program:** Includes the control and monitoring of pests.

**pH:** A measure of acidity or alkalinity.

**PHI:** Pre-harvest interval; the time between the application of the agricultural chemical and harvest, as defined on the pest control product label.

**pH meter:** A device used to measure pH.

**Plants with Novel Traits:** A plant variety possessing characteristics that demonstrate neither familiarity nor substantial equivalence to those present in a distinct, stable population of a cultivated species of plant in Canada and that have been intentionally selected, created or introduced into a population of that species through a specific genetic change.

**Potable water:** See “Water”.

**Pre-cooling:** Reducing the temperature of berries prior to storage (i.e., removing field heat). Includes forced air and vacuum cooling.

**Pre-planting:** Time from harvest of prior crop to beginning of planting the current crop.

**Premises:** Includes production site(s), building(s) and immediate surrounding land.

**Preventative measures:** Actions taken that are intended to hinder or avert.

**Producer:** Person who grows berries.

**Production site:** Location where berries are grown. Also referred to as a field.

**Production site equipment:** Equipment used in the field including field – washing/packing equipment (e.g., agricultural chemical, manure or commercial fertilizer applicators, irrigation pipe, pump, nozzles, tubes, fittings, filters, tape, tractors, spreaders, planters, harrows, cultivators, tillers, windrowers, harvesters, tanks, conveyors).

**Production wastewater:** Water remaining from the cleaning of berries or equipment (e.g., flume, dump tank or wash water).



**Pulp sludge:** A solid residue that remains after wastewater is treated at pulp and paper mills. It is composed of input materials for making paper, which are primarily wood fibre, lime, clays, as well as excess organisms produced as part of the wastewater treatment process.

**Purchasing:** Buying or ordering a product.

**Recall:** Means for an operation to remove from further sale or use, or to correct, a marketed product (i.e., that has been sold or distributed) that may have an impact on food safety.

**Receiving:** Taking delivery of a product or an input that was purchased and/or selected.

**Recyclables:** Containers from maintenance materials, agricultural chemicals, commercial fertilizers, cleaning agents or water treatment chemicals, etc.

**Re-circulated water:** See “Water”.

**Registered agricultural chemicals:** Refers to products that have been approved under the *PCP Act* and that bear a Pest Control Products Number (PCP #).

**Reservoir:** A natural or artificial pond or lake used for collection or storage of water.

**Row cover:** Plastic film or material put over the crop to create a micro-climate and exclude some pests. Includes floating row covers and high and low tunnels.

**Seedling:** A plant/transplant used for propagation purposes.

**Selecting:** Obtaining or sourcing a product where it is not purchased (e.g., choosing a water source, building your own equipment).

**Separate:** Not on top of or underneath.

**Sewage sludge:** Includes all biosolids.

**Soap:** Cleaning agent used with water. Can be antibacterial or other.

**Soil amendments:** Ashes, gypsum and liming materials added to the soil for the purpose of improving the chemical properties (e.g., pH) of the soil. If liming materials are derived from biosolids, see requirements for sewage sludge/biosolids. If liming materials are derived from pulp and paper waste, refer to the requirements for the application of pulp sludge.

**Sorting:** Separating berries (e.g., edible from non-edible; removing green leaves, stones, other plant debris).

**SSOP:** Sanitation Standard Operating Procedure; specific sanitation practices that include detailed cleaning instructions (*refer to Appendix N -- Sanitation Standard Operating Procedures (SSOP) – An Example*)

**Sticky traps:** Devices used to monitor or control crawling insects/pests. Sticky traps for insects are made of heavy paper or cardboard coated with a non-repellent, sticky glue. Insects that crawl over the trap are held fast by the glue. In dusty sites, these traps may need to be replaced weekly to maintain effectiveness. To prevent dust from coating sticky traps, they can be placed inside open-ended tubes that allow pests access.

**Storage:** Keeping the berries in a pre-determined and controlled environment for a period of days to months (e.g., cooled, atmosphere controlled or modified; cooled, dry, contained location); or the location where berries are kept.

**Surface water:** See “Water”.

**Temperature conditioning:** (Pre) cooling.

**Tertiary water:** See “Water”.

**Total Coliforms:** A measurement of several bacteria belonging to the family Enterobacteriaceae spp., including *Escherichia coli* (*E. coli*) and various members of the genera Enterobacter spp., Klebsiella spp. and Citrobacter spp. These bacteria are typically found as a part of the intestinal microflora of warm-blooded animals and so are associated with fecal material. In addition, some members of this group of organisms can originate from nonenteric sources.

**Traceability:** Permits the source of the berries to be identified and maintained at any stage in the supply/distribution system.

**Training:** The transfer of technical and/or food safety-related information to employees. Employees include offshore, local, seasonal, part-time and management personnel. Training may take a variety of forms including on-the-job demonstrations, job shadowing, formal sessions, reading and discussing protocols or presentations.

**Transportation:** Includes all movement of berries, both on and off the premises.

**Traps:** Devices (baited or not) that pests enter and are unable to escape from. These may be used in the interior and exterior of buildings.

**Vehicles:** The means to transport berries (e.g., personal and private carriers, trucks, flatbeds, wagons).

**Visitor:** Includes anyone not directly involved/employed in the operation (e.g., transportation drivers, contractors, auditors).

**Wash water:** See “Water”.

**Waste:** Refers to any item or material requiring disposal (i.e., garbage, production wastewater).

**Water:**

**Agricultural water:** Water used for irrigation and the application of agricultural chemicals and commercial fertilizers.

**Cleaning water:** Includes all water except for agricultural water and is used for fluming, washing and rinsing berries. It also includes water used to wash hands in hygiene facilities and for cleaning equipment, harvested berry packaging materials, buildings, etc.

**Final rinse water:** Water used in the final step of the cleaning process before berries are packed into market ready packaging materials (i.e., high volume spray or drench).

**Fluming water:** Water used for transporting berries or for the initial step of the cleaning process.

**Ground water:** Water beneath the earth's surface, often between saturated soil and rock that supplies wells and springs.

**Municipal water:** Water supplied by the local government that is potable.

**Potable water:** Water that meets the parameters under the Canadian Water Quality Guidelines for Drinking Water Quality or other provincial and/or municipal drinking water quality standards (i.e., biological parameters are 0 total coliform and 0 *E. coli*).



**Re-circulated water:** Water that is being reused.

**Surface water:** Water that is exposed to the environment [e.g., ponds, streams, lakes, rivers, canals, dugouts, creeks rain (e.g., collected from the roof)].

**Tertiary water:** Waste water (e.g. municipal, industrial) that has received the third, or final, stage of water treatment. Primary treatment screens particulates and settles sludge in ponds. Secondary treatment removes harmful microorganisms and tertiary treatment passes the water through filters to remove organic pollutants that bacteria cannot break down. Tertiary treatment also uses chemicals to remove chemical pollutants such phosphorous and nitrogen.

**Wash water:** Water used during the cleaning process to remove organic material from berries (e.g., dump tanks, pits, sprays, drums).

**Water sources:** Ground, surface, municipal or tertiary water.

## To Do List – Outstanding Items to Complete in Manual

**Instructions:** When you are completing your OFFS manual have this “To Do List” handy. If you need to make a change in your operation or are unable to check off a procedure immediately due to circumstances outside of your control (i.e., will complete the task at a later date), record the information in the appropriate section below. Once you have gone through the entire manual those areas requiring change/completion will be documented and this will save you from having to look for those items later. After you have completed the procedure, record the date, go back to the manual and check both the appropriate box there and the last column below.

Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
<b>Example:</b>		Portable toilets ordered – to be delivered April 12	✓ April 15/11	✓
<b>1. Commodity Starter Products</b>				
1.1	Purchasing and Receiving			
<b>2. Premises</b>				
2.1	Production Site and Surroundings Assessment			
2.2	Building Exterior and Surroundings Assessment, Cleaning, Maintenance, Repair and Inspection			
2.3	Building Interior Assessment, Cleaning, Maintenance, Repair and Inspection			
<b>3. Commercial Fertilizers, Pulp Sludge and Soil Amendments</b>				
3.1	Purchasing and Receiving			
3.2	Application			
3.3	Storage			
<b>4. Manure, Compost/Compost Tea and Other By-Products</b>				
4.1	Purchasing and Receiving			



Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
4.2	Application			
4.3	Storage			
<b>5. Mulch and Row Cover Materials</b>				
5.1	Purchasing and Receiving			
5.2	Application			
5.3	Storage			
<b>6. Agricultural Chemicals</b>				
6.1	Purchasing and Receiving			
6.2	Application			
6.3	Storage			
<b>7. Agricultural Water</b>				
7.1	Source Assessment			
7.2	Storage			
<b>8. Equipment</b>				
8.1	Purchasing, Receiving and Installation (new and current)			
8.2	Use, Cleaning, Maintenance, Repair and Inspection			
8.3	Calibration			
8.4	Storage			

Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
<b>9. Cleaning and Maintenance Materials</b>				
9.1	Purchasing and Receiving			
9.2	Use			
9.3	Storage			
<b>10. Waste Management</b>				
10.1	Storage and Disposal of Garbage, Recyclables and Compostable Waste			
10.2	Storage and Disposal of Empty Agricultural Chemical Containers			
10.3	Disposal of Production Wastewater and Waste from Toilets and Hand Washing Facilities			
<b>11. Personal Hygiene Facilities</b>				
11.1	Facilities			
<b>12. Employee Training</b>				
12.1	Employee Training			
12.2	Employee Illness			
<b>13. Visitor Policy</b>				
13.1	Visitor Protocols			
13.2	U-Pick Operations			
<b>14. Pest Program for Buildings</b>				
14.1	Control and Monitoring			



Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
<b>15. Water (for Fluming and Cleaning)</b>				
15.1	Water Assessment			
15.2	Storage			
15.3	Treatment			
<b>16. Ice N/A</b>				
<b>17. Packaging Materials</b>				
17.1	Purchasing and Receiving			
17.2	Use of Packaging Material			
17.3	Storage			
<b>18. Growing and Harvesting</b>				
18.1	Growing			
18.2	Harvesting			
<b>19. Sorting, Grading and Packing</b>				
19.1	Purchasing and Receiving Harvested Berries			
19.2	Sorting and Grading			
19.3	Packing			
<b>20. Storage of Berries</b>				
20.1	Storage Conditions for Harvested Berries			
20.2	Storage Conditions for Market Berries			



Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
<b>21. Transportation</b>				
21.1	Transportation of Berries in Harvested Berry Packaging Materials			
21.2	Transportation of Berries in Market Ready Packaging Materials			
<b>22. Identification and Traceability</b>				
22.1	Traceability System			
<b>23. Deviations and Crisis Management</b>				
23.1	Minor Deviations and Corrective Action			
23.2	Major Deviations and Corrective Action			
23.3	Crisis Management			
23.4	Complaint Handling			
<b>24. On-Farm Food Safety Program Review</b>				
24.1	Protocols			



Compendium of Food Safety Forms		Item(s) Not Yet Complete	Item(s) Completed (✓)	Item(s) Checked Off in Manual (✓)
<b>ANNUAL FORMS</b>				
A.	Buildings Sketch (Interior Floor Plan)			
B.	Storage Assessment			
C.	Employee Personal Hygiene and Food Handling Practices Policy - Production Site			
D.	Employee Personal Hygiene and Food Handling Practices – Packinghouse/Product Storage			
E.	Pest Control for Buildings			
F.	Water (for Fluming and Cleaning) Assessment			
<b>ONGOING FORMS</b>				
G.	Cleaning, Maintenance and Repair of Buildings			
H1.	Agronomic Inputs (Agricultural Chemicals)			
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I.	Equipment Cleaning, Maintenance and Calibration			
J.	Cleaning and Maintenance – Personal Hygiene Facilities			
K.	Training Session			
L.	Visitor Sign-In Log			
M.	Pest Monitoring for Buildings			

Compendium of Food Safety Forms		Item(s) Not Yet Complete	Item(s) Completed (✓)	Item(s) Checked Off in Manual (✓)
N1.	Water Treatment Control and Monitoring			
O.	Transporting Berries			
P.	Harvesting and Storing Berries			
Q.	Packing Market Berries			
R.	Deviations and Corrective Actions			



## Farm/Packinghouse Information

**Note:** The purpose of completing this section of the Manual is to provide reviewers (e.g., auditors) with a general overview of your operation.

Legal Operating Name: \_\_\_\_\_

Name of Person(s)  
Responsible for the Operation: \_\_\_\_\_  
*(Note: This person(s) becomes the producer/packer referred to in this Manual.)*

Address:  
*(Physical address of office location)* \_\_\_\_\_  
\_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_

Cell: (\_\_\_\_) \_\_\_\_\_

Fax: (\_\_\_\_) \_\_\_\_\_

Email Address: \_\_\_\_\_

OFFS Program Contact(s) and Contact(s) Information (if different from above): \_\_\_\_\_  
*(Person(s) responsible for the OFFS Program)*

\_\_\_\_\_

Recall Coordinator(s) and Contact(s) Information (if different from above): \_\_\_\_\_

\_\_\_\_\_

### Brief Background

Amount of land in small fruit production (owned and rented); length of growing/packing season; who packer is packing/storing for:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Farm/Packinghouse Description

Describe [e.g., number of locations (production sites, packinghouses, storages, etc.)] \_\_\_\_\_

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Please Check and List All Applicable Items Below:

Type of Small Fruit Production:	Type of Small Fruit Operation:
<input type="checkbox"/> Berries for Fresh Consumption ( <i>list</i> ): _____ _____ <input type="checkbox"/> Berries for Processing ( <i>list</i> ): _____ _____ _____ <input type="checkbox"/> Other Uses ( <i>describe</i> ): _____ _____ _____	<input type="checkbox"/> Producer <input type="checkbox"/> Production Site Packing into Market Ready Packaging Materials <input type="checkbox"/> Packinghouse with Washing Activities <input type="checkbox"/> Packinghouse with No Washing <input type="checkbox"/> Packing for Other Producers (i.e., co-packing) <input type="checkbox"/> Storage <input type="checkbox"/> U-Pick Operation ( <i>list berries</i> ): _____ _____ <input type="checkbox"/> On-Farm Processing ( <i>list berries</i> ): _____ _____ _____ <input type="checkbox"/> Other ( <i>describe</i> ): _____ _____ _____
<input type="checkbox"/> Producing Own Seedlings, Cuttings, Canes and Plants	Other Farm Programs ( <i>please indicate date of last review</i> ): <input type="checkbox"/> Environmental Farm Plan: _____ <input type="checkbox"/> Other Food Safety Program(s)/Audit(s): _____ _____ <input type="checkbox"/> Other Certifications Achieved: _____ _____ <input type="checkbox"/> Nutrient Management Plan: _____ <input type="checkbox"/> Reduced Input (e.g., no spray, IPM): _____ _____ <input type="checkbox"/> Organic Production: _____ <input type="checkbox"/> Other ( <i>describe</i> ): _____ _____ _____
Other Crops Produced: <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ Livestock/Poultry Operations ( <i>specify type</i> ): <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	



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1.	1	Commodity Starter Products	▪ Producer	N/A	2011 Version 5.1
2.	3	Premises	▪ Producer ▪ Packer	A, B, G	2011 Version 5.1
3.	7	Commercial Fertilizers, Pulp Sludge and Soil Amendments	▪ Producer	H2	2011 Version 5.1
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# 1. Commodity Starter Products

<b>Forms Required</b>	<b>Producer: Yes</b>
N/A	<b>Packer: No</b>

## **RATIONALE:**

Commodity starter products for small fruits include seeds, seedlings, cuttings, canes and plants. The development of new varieties of small fruits, through conventional breeding or modern biotechnology, has the potential to create varieties with unknown chemical compositions that pose risks to human health. If new varieties are considered different enough from existing varieties they may be considered Plants with Novel Traits by the federal government and are subject to regulation. Before being grown for human consumption, a food safety assessment of these new varieties must be completed by the federal government.

## **1.1 Purchasing and Receiving**

<b>REQUIREMENT</b>	<i>Commodity starter products must be purchased and received properly to minimize chemical contamination. Plants with Novel Traits assessed for food safety by the federal government before being grown in Canada for food use.</i>
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## **PROCEDURES:**

- When purchasing or selecting commodity starter products that are genetically modified (Plants with Novel Traits) producer purchases or selects only varieties that have been approved for use by the federal government or that have been issued a letter of non-objection by Health Canada (Refer to the CFIA website <http://active.inspection.gc.ca/eng/plaveg/bio/pntvcne.asp> or talk to your supplier)
- Producer receives only the commodity starter products that were purchased

### **Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						



## 2. Premises

<b>Forms Required</b> A, B, G	<b>Producer:</b> Yes
	<b>Packer:</b> Yes

### **RATIONALE:**

Direct and indirect contamination of berries can occur due to previous activities on a site or activities on adjacent lands. Animals (both wild and domestic), insects and birds are potential sources of contamination to berries because they may carry a variety of pathogens. Therefore, production sites must be assessed before use to ensure all biological, chemical and physical hazards are minimized.

The design and construction of both the interior and exterior of buildings is important in preventing the contamination of berries. For example, improper drainage results in standing water or wet areas around facilities that can create breeding grounds for insects and other pests. Long grass and bushes around the exterior walls of buildings may also harbour pests. Pests allowed to live and breed directly outside of buildings, have a greater chance of entering the buildings and contaminating the berries.

### **2.1 Production Site and Surroundings Assessment**

<b>REQUIREMENT</b>	<i>Production sites must be assessed before use for biological, chemical and physical hazards due to previous use, and adjacent agricultural and non-agricultural activities.</i>
--------------------	---

### **PROCEDURES:**

- Producer considers production site activities for the past five years of any site the producer is farming for the first time and assesses potential hazards. Each new site is assessed for historical use of:
  - Persistent heavy metals such as mercury, lead, etc. remaining from previous applications of fertilizers, agricultural chemicals, sewage sludge or liming materials
  - Contaminants remaining from previous non-agricultural uses (e.g., landfills, refineries, buildings)
- Annually – Producer considers production site activities and assesses potential hazards for ALL production sites. Producer checks that EACH site has NO:
  - Adjacent areas where livestock excrement, dust, aerosols or feathers may drift or leach
  - Adjacent areas where crop production inputs may drift or leach (e.g., agricultural chemicals, soil amendments, fertilizers, pulp sludge)
  - Adjacent areas where cross contamination may occur from crops with novel traits
  - Adjacent areas where non-agricultural activities contribute to air, water or soil pollution [i.e., industrial activities, roadside debris, foreign objects (e.g., glass bottles, etc.)]
  - Unusually high levels of animal and bird activity (e.g., migratory paths, nesting or feeding areas)

**Note:** *If any of the above-noted hazards was identified, the following corrective actions are suggested as options:*

- Seeking and following expert advice
- Testing soil using an accredited lab where analyses are performed to standards equivalent to ISO 17025 (File under Tab: Test Results)
- Incorporating manure into the soil in adjacent fields
- Avoid growing an edible crop
- Constructing and maintaining barriers or production site perimeters (e.g., fences, ditches, storage pits, buffer zones)
- Using scaring devices (e.g., bangers, wailers)
- Other (*describe*): \_\_\_\_\_

**NOTE:** You may refer to the chart provided in Appendix K -- Production Site and Agricultural Water Source Assessment to help with your assessment.

## 2.2 Building Exterior and Surroundings Assessment, Cleaning, Maintenance, Repair and Inspection

<b>REQUIREMENT</b>	<i>The exterior of buildings and their surroundings must be assessed for the risk of biological, chemical and physical hazards and must be cleaned, maintained, repaired and inspected to minimize sources of contamination.</i>
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**NOTE:** Agricultural chemical storage buildings are not included in this section; see Section 6.3: Storage, for requirements on storage conditions for agricultural chemicals.

### PROCEDURES:

- Annually – Producer/packer, for EACH packinghouse and storage area, assesses all of the following potential exterior hazards:
  - Each building (when in use) is located where:
    - crop production inputs will not drift or leach (i.e., agricultural chemicals, soil amendments, fertilizers, pulp sludge or manure)
    - non-agricultural uses are not a source of air, water or soil pollution (e.g., landfills, refineries, water treatment plant, chemical processing plant, etc.)
    - livestock production is not a source of contamination
    - the area is not prone to flooding; there is proper drainage around the building (i.e., no standing water or wet areas)
    - any other air, soil or water pollutants are not a source of contamination
  - Each building is designed or constructed where there is or are:
    - no areas where pests (e.g., insects, mice, birds, rats) can hide/live/feed (e.g., junk piles, long grass, bushes, garbage, unused machinery)
    - no holes/crevices/leaks (e.g., walls, windows, screens)
    - doors that fit properly
    - doors that can be secured (i.e., to lock storages when unsupervised)
    - windows that can be closed OR have close-fitting screens (i.e., no gaps)
- !  Monthly (when in use) – Producer/packer conducts an inspection of the exterior of buildings and completes Form (G) Cleaning, Maintenance and Repair of Buildings OR \_\_\_\_\_

## 2.3 Building Interior Assessment, Cleaning, Maintenance, Repair and Inspection

<b>REQUIREMENT</b>	<i>The interior of buildings must be assessed for biological, chemical and physical hazards and must be cleaned, maintained, repaired and inspected to minimize sources of contamination.</i>
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**NOTE:** Agricultural chemical storage buildings are not included in this section; see Section 6.3: Storage, for requirements on storage conditions for agricultural chemicals.

### PROCEDURES:

- !  Annually – Producer/packer completes or updates Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_

- Annually – Producer/packer, for EACH building, assesses all of the following potential interior hazards. Each building IS or HAS:
  - No animals, either wild or domestic (including pets), pests (e.g., birds, rodents) or bird nests
  - Designated where livestock/poultry slaughter or meat processing activities do not occur (whether the building is in use or not)
  - Lighting that is adequate (e.g., easy to see in corners, suitable for grading) *Refer to Appendix F -- General Guidelines for Adequate Lighting*
  - Lighting that is shatterproof or covered where berries and market ready packaging materials are handled or stored
  - Adequate drainage (i.e., floor sloped, sump pump for backup, drain covers)
  - Pipes or condensation that do not leak onto berries or market ready packaging materials
  - Clean areas where berries and market ready packaging materials are handled and stored (e.g., free from garbage, spills, pests and pest droppings)
  - Walls, floors and ceilings without crevices
  
- !  Monthly (when in use) – Where possible (i.e., not a sealed storage) producer/packer conducts a monthly inspection of the interior of buildings, and completes Form (G) Cleaning, Maintenance and Repair of Buildings OR \_\_\_\_\_

**For Harvested and Market Berry Storages**

- !  Annually [prior to first time (in a season) use] – Producer/packer inspects the berry storage(s) and completes Form (B) Storage Assessment OR \_\_\_\_\_

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						





### 3. Commercial Fertilizers, Pulp Sludge and Soil Amendments

Forms Required H2	Producer: Yes
	Packer: No

#### RATIONALE:

Commercial fertilizers, pulp sludge and soil amendments can potentially contaminate berries with toxic matter if the incorrect types are spread (e.g., materials containing mercury, arsenic, lead, etc.).

- Commercial fertilizers are used on the premises
- Pulp sludge is used on the premises
- Soil amendments are used on the premises

*If ANY of the above circles has been checked off, proceed below.*

*If not, proceed to Section 4: Manure, Compost/Compost Tea and Other By-Products.*

#### 3.1 Purchasing and Receiving

<b>REQUIREMENT</b>	<i>Commercial fertilizers, pulp sludge and soil amendments must be purchased/selected and received properly to minimize chemical contamination.</i>
--------------------	---

#### PROCEDURES:

- Producer purchases or selects:
  - Commercial fertilizers that meet applicable regulations
  - Pulp sludge that meets provincial regulations
  - Soil amendments that meet provincial regulations
- Producer receives only the commercial fertilizers and soil amendments that were purchased or selected
- Producer receives only pulp sludge that was purchased or selected according to provincial regulations

#### 3.2 Application

<b>REQUIREMENT</b>	<i>Commercial fertilizers, pulp sludge and soil amendments must be applied properly to minimize contamination.</i>
--------------------	--

#### PROCEDURES:

- Producer ensures that commercial fertilizers, pulp sludge and soil amendments are applied according to expert recommendations
- Applicator records all application details on Form (H2) Agronomic Inputs (Other) OR \_\_\_\_\_

### 3.3 Storage

- Commercial fertilizers are stored on the premises
- Pulp sludge is stored on the premises
- Soil amendments are stored on the premises

If **ANY** of the above circles has been checked off, proceed below.

If not, proceed to Section 4: Manure, Compost/Compost Tea and Other By-Products.

<b>REQUIREMENT</b>	Commercial fertilizers, pulp sludge and soil amendments must be stored in designated areas and under the proper conditions.
--------------------	---

#### PROCEDURES:

- Producer stores commercial fertilizers, pulp sludge and soil amendments:
  - Separate from berries and market ready packaging materials
  - In a covered, clean and dry location if necessary
  - With labels intact and legible if applicable
  - In a manner that maintains the integrity of the containers and its contents
  - Other (describe): \_\_\_\_\_

#### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						

## 4. Manure, Compost/Compost Tea and Other By-Products

Forms Required H2	Producer: Yes Packer: No
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### RATIONALE:

Berries may become contaminated with biological, chemical or physical contaminants if manure, compost and compost teas are not properly handled, applied or stored. It is important when purchasing manure to know the type (e.g., cow, sheep, chicken, etc.) Manure is known to carry pathogenic bacteria (e.g., *E. coli* O157:H7, Salmonella). These organisms can be eliminated through proper composting of manure (e.g., time, temperature) so that it is not a source of contamination to berries. Presently there is little scientific information on pathogen survival when other by-products are applied in the field (e.g., seafood waste, vegetable culls). Refer to Section 23: Deviations and Crisis Management 23.2 Major Deviations and Corrective Action – Chart Section 4: Manure, Compost/Compost Tea and Other By-Products for action to take if deviations occur when purchasing/selecting/receiving compost and compost tea.

- Manure is used on the premises
- Compost/compost tea is used on the premises
- Other by-products are used on the premises

If **ANY** of the above circles has been checked off, proceed below.  
If not, proceed to Section 5: Mulch and Row Cover Materials.

### 4.1 Purchasing and Receiving

<b>REQUIREMENT</b>	<i>Manure, compost/compost tea and other by-products must be purchased or selected and received with knowledge of origin and handling.</i>
--------------------	--

#### PROCEDURES:

- Producer does NOT purchase or use sewage sludge on any production site intended for vegetable production even in rotational years
- When purchasing or selecting manure or other by-products from a supplier (e.g., company, self, neighbour), producer is aware of the type (e.g., cattle, horse or hog manure; vegetable culls; seafood waste) and its origin [i.e., produced under conditions that are not a source of chemical (e.g., heavy metals) or physical (e.g., glass) contamination]
- Producer receives only the:
  - Manure and other by-products that were purchased or selected

**Purchased Compost/Compost Tea** (If not applicable, proceed to the next sub-section: Compost/Compost Tea Produced On-Site)

- Producer purchases compost/compost tea from a supplier and is aware of origin [i.e., produced under conditions that are not a source of biological (e.g., pathogens), chemical (e.g., heavy metals) or physical (e.g., glass) contamination] and requests a letter of assurance
- !  Producer receives only compost/compost tea that was purchased along with the letter of assurance (one letter per season per supplier) (File under Tab: Letters of Assurance/Certificates)



**Compost/Compost Tea Produced On-Site** *(If not applicable, proceed to Section 4.2: Application)*

- Producer produces compost/compost tea under conditions that are not a source of biological (e.g., pathogens), chemical (e.g., heavy metals) or physical (glass) contamination, and records the composting procedure (See Appendix C -- Composting Livestock Manure – An Example and Compost Tea Information)
- !  Producer/packer receives only the compost/compost tea that was produced following a completed composting procedure. (File procedures/records under Tab: Letters of Assurance/Certificates)

**4.2 Application**

<b>REQUIREMENT</b>	<i>Manure and compost/compost tea must be spread at the appropriate time to minimize contamination of berries.</i>
--------------------	--

**PROCEDURES:**

- Producer spreads:
  - !  Manure only when the interval between application and harvest is greater than 120 days
  - Compost/compost tea (at any time)
- !  Producer records manure, compost/compost tea and other by-products (except cover crops/green manure) application details on Form (H2) Agronomic Inputs (Other) OR \_\_\_\_\_

**4.3 Storage**

- Producer stores manure on the premises
- Producer stores compost/compost tea on the premises
- Producer stores other by-products on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 5: Mulch and Row Cover Materials.*

<b>REQUIREMENT</b>	<i>Manure, compost/compost tea and other by-products must be stored in designated areas.</i>
--------------------	--

**PROCEDURES:**

- Producer stores manure, compost/compost tea and other by-products separate from each other, berries, market ready packaging materials, fuels, oils, chemicals and cleaning agents
- Producer stores manure and other by-products away from water sources
- Producer stores manure and compost/compost tea in a location where drifting or leaching will not be a source of contamination to berries, OR in a way that protects from leaching or drifting (e.g., tarped, lagoon, barrier, etc.)

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						

## 5. Mulch and Row Cover Materials

<b>Forms Required</b> H2	<b>Producer: Yes</b>
	<b>Packer: No</b>

### RATIONALE:

Berries may become contaminated if mulch and row cover materials are inappropriately used, handled or stored.

- Mulch material is used on the premises
- Row cover material is used on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 6: Agricultural Chemicals*

### 5.1 Purchasing and Receiving

<b>REQUIREMENT</b>	<i>Mulch and row cover materials must be acquired with knowledge of origin and handling.</i>
--------------------	--

#### PROCEDURES:

- When purchasing or selecting mulch or row cover material from a supplier (e.g., self, neighbour, company), producer has knowledge of its origin [i.e., materials that are appropriate for intended use (e.g., from a reputable supplier, clean, free of excrement, heavy metals, glass, metal, wood preservatives, agricultural chemicals, etc.)]
- Producer receives only the mulch and row cover materials that were purchased

### 5.2 Application

<b>REQUIREMENT</b>	<i>Application of mulch and row cover materials must be recorded.</i>
--------------------	---

#### PROCEDURES:

- Producer records mulch and row cover material (except for plastic) applications on Form (H2) Agronomic Inputs (Other) OR \_\_\_\_\_

### 5.3 Storage

- Mulch material is stored on the premises
- Row cover material is stored on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 6: Agricultural Chemicals.*

<b>REQUIREMENT</b>	<i>Mulch and row cover materials must be stored in designated areas.</i>
--------------------	--

#### PROCEDURES:

- Producer stores new plastic mulch and row cover materials separate from berries, agricultural chemicals, manure, fuels, oils and cleaning agents
- Producer stores all other mulch materials (including reused plastic mulch and row covers) separate from berries, market ready packaging materials, manure, fuels, oils, chemicals and cleaning agents

#### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						





## 6. Agricultural Chemicals

<b>Forms Required</b> A, H1	<b>Producer:</b> Yes
	<b>Packer:</b> No

### RATIONALE:

Production of safe berries requires a non-contaminated environment. The inappropriate use, handling and storage of agricultural chemicals may result in a chemical hazard. All federal and provincial regulations must be adhered to.

- Agricultural chemicals are used on the premises, *proceed below.*  
*If not, proceed to Section 7: Agricultural Water.*

### 6.1 Purchasing and Receiving

<b>REQUIREMENT</b>	<i>Agricultural chemicals of the appropriate type must be purchased and received to minimize chemical contamination of berries.</i>
--------------------	---

#### PROCEDURES:

- Producer purchases agricultural chemicals registered for use on the applicable berries in Canada or permitted under the Own Use Import Program or the Grower Requested Own Use (GROU) Program
- Producer purchases agricultural chemicals from licensed dealers
- ! ● Producer receives:
  - !  Only the agricultural chemicals that were purchased
  - !  Containers that are not damaged
  - !  Containers that are clearly and properly labelled and legible (name of product, active ingredient(s), concentration, PCP#, manufacturer's name, address and contact information and the instructions for use are on the label)
  - !  A receipt and signs the receipt (File under Tab: Letters of Assurance/Certificates OR \_\_\_\_\_)

### 6.2 Application

<b>REQUIREMENT</b>	<i>Agricultural chemicals must be applied by the appropriate person, following label instructions.</i>
--------------------	--

#### PROCEDURES:

- !  Applicator has an applicator's license or is certified, or is trained or supervised by a licensed person (File under Tab: Letters of Assurance/Certificates)
- !  Producer applies agricultural chemicals that are registered for use on applicable product in Canada and not in excess of label recommendations and directions
- !  When agricultural chemicals are applied to the production site, the producer completes Form (H1) Agronomic Inputs (Agricultural Chemicals) OR \_\_\_\_\_

#### FOR PRODUCT DESTINED FOR EXPORT MARKETS:

- Producer/storage intermediary/packer ensures that agricultural chemical residues on product do not exceed the published Maximum Residue Limits (MRL) in the destination market. Person responsible:



- Has information (e.g., registration for the specific crop, product labels, Maximum Residue Limits, banned lists, etc.) for agricultural chemicals in destination market(s)
- Uses only chemicals approved for use in the destination market(s)
- Ensures chemical applications and application rates for target pests and diseases comply with label recommendations applicable to the destination market(s)
- Demonstrates the timing between chemical application and harvest complies with the approved harvest interval in the destination market(s)
- For those whose customers require agricultural chemical residue testing: Annually - Conducts agricultural chemical residue testing of market product using an accredited lab where analyses are performed to standards equivalent to ISO 17025, or participates in a third party agricultural chemical residue monitoring system which is traceable to the farm

*Refer to Appendix Q: Documentation Requirements on Agricultural Chemicals for Producers or Packers who are Exporting Product.*

**Note:** *Refer to Section 8.2: Use, Cleaning, Maintenance, Repair and Inspection for rinsing and flushing application equipment. Further pest control product information is available on the Pest Management and Regulatory Agency (PMRA) web site (<http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/pmra-arla/index-eng.php>) and the Crop Life Canada ([www.cropro.org](http://www.cropro.org)) MRL database.*

### 6.3 Storage

- Agricultural chemicals are stored on the premises, *proceed below.*  
*If not, proceed to Section 7: Agricultural Water.*

<b>REQUIREMENT</b>	<i>Agricultural chemicals must be stored in designated areas and under the proper conditions.</i>
--------------------	---

#### PROCEDURES:

- !  Annually – Producer records where agricultural chemicals are stored on Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_
- ! ● Agricultural chemicals are stored:
  - !  In an area dedicated only to agricultural chemicals and commercial fertilizers. Contained fertilizers (e.g., bag, jug, tote) may be stored in the chemical storage except where prohibited by applicable regulations. Fertilizers must be stored in a designated area separate from agricultural chemicals
  - !  In a clearly identified location (i.e., sign on door)
  - !  In a locked or controlled-access location
  - !  In a covered, clean and dry location that is temperature appropriate (e.g., to prevent chemicals from freezing)
  - With labels/identification intact and legible (name of product, active ingredient(s), concentration, PCP#, manufacturer's name and address are on the label; the manufacturer's contact information and the instructions for use do not need to be on the label but are readily available)
  - In a manner that maintains the integrity of the container and prevents leakage (e.g., closed bag, in a container, with a lid)

**Note:** *Refer to Section 10.2: Storage and Disposal of Empty Agricultural Chemical Containers.*

#### Confirmation/Update Log:

Date						
Initials						

## 7. Agricultural Water

Forms Required	Producer: Yes
N/A	Packer: No

### RATIONALE:

Agricultural water is an essential element used for multiple purposes in the production of horticultural products. However, water may also be a source of biological or chemical contamination. The risk of contamination is dependent on the quality of the agricultural water source and the way in which it is stored and used to irrigate crops (e.g., drip, overhead, sprinkler, trickle).

- Agricultural water is used on the premises, *proceed below.*  
*If not, proceed to Section 8: Equipment.*
- All sources of agricultural water are municipal.  
*If so, proceed to Section 8: Equipment.*

### 7.1 Source Assessment

<b>REQUIREMENT</b>	<i>Each agricultural water source must be identified, potential hazards must be assessed and preventative measures and/or corrective actions must be taken (when necessary).</i>
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**Note:** *EACH water source used for irrigation and agricultural chemical or commercial fertilizer applications (e.g., overhead, spray, drip, trickle, furrow) must be assessed (e.g., ponds, streams, lakes, rivers, canals, creeks, springs, cisterns, reservoirs, ground, tertiary water).*

### PROCEDURES:

- Producer does NOT use untreated sewage water
- If purchasing or selecting tertiary water, producer purchases or selects it following provincial regulations
- If an abnormal event occurs to cause contamination of the water source (e.g., publicly announced breach of sewage system, chemical leakage), the producer does not spray or irrigate from that source
- Annually – Producer assesses all of the following potential hazards for each agricultural water source:
  - Unusually high levels of wild animal and bird activity (e.g., migratory paths, nesting or watering areas)
  - Access by livestock, domestic animals and birds
  - Recreational use (e.g., swimming area)
  - Upstream contamination sources
  - Runoff or spills from agricultural chemicals, oil, fuel, manure, etc.
  - Contamination in pipes
  - Storage of irrigation pipes where they could be contaminated by manure, pests or agricultural chemicals
  - Working condition of the well (e.g., seals and well casings fit tightly, pump functioning)
  - Leaching of sunken wells by overland flooding

### Refer to the following to help with the assessment:

- *There is a high risk of contamination associated with using poor quality agricultural water on berries*
- *If the agricultural water is potable then there may be no risk from the source itself*



- *Drip or trickle irrigation methods may reduce the risk of contamination because the water is less likely to come into direct contact with the edible portion of the product.*
- *Water quality varies depending on the water source. The chart below is provided to help producers assess the risk associated with their different water sources*

<b>Water Source</b>	<b>Level of Risk</b>
Municipal Water	Lowest
Well Water and Tertiary Water	Low
Pond/Reservoir/Dugout Fed by Groundwater (springs/wells) or Rainwater	Moderate
Lake	Medium
Pond/Dugout Fed by Stream, Ditch or Run-Off	High
River, Stream, Creek, Canal, Flooding	Highest

- *Water testing conducted early in the irrigation season may be used as an indicator of the risk associated with different water sources*
- *Water testing may provide evidence of (or increase) a producer's due diligence*
- *It is strongly recommended that producers test their agricultural water sources. The test will provide a general idea of the quality of the water and help to determine if possible contamination is present. Producers would test water for Total Coliforms and *E. coli* using an accredited lab where analyses are performed to standards equivalent to ISO 17025. See Appendix G--Water Testing for examples of how to take a sample, where to take it and how to interpret the results.*

**Note:** *You may refer to the chart provided in Appendix K -- Production Site and Agricultural Water Source Assessment to help with your assessment (and for preventative measures/corrective actions).*

- After assessing the source, if the producer determines that it may be contaminated an alternate water source is used (if available)
- If no other water source(s) are available, **corrective actions are required.** The following are some **options** (*check those that apply*):
  - Construct barriers (e.g., fences, ditches, storage pits)
  - Control runoff with sod strips, grass waterways, vegetative buffers, etc.
  - Level ground to prevent runoff
  - Spread manure during dry weather or incorporate manure within 24 hours of spreading
  - Leave a manure-free protective strip at least 10 m wide around surface water sources
  - Ensure all equipment is well-maintained
  - Ensure equipment is not cleaned, maintained or drained where the water source may become contaminated
  - Ensure proper operation of sewer/septic system
  - Install aeration or filtration systems
  - Follow expert advice
  - Irrigate in the morning to increase rapid drying and reduce pathogen survival with ultra violet light
  - Allow as long a period as possible between irrigating and harvest
  - Retest water for Total Coliforms and *E. coli* using an accredited lab *where analyses are performed to standards equivalent to ISO 17025. See Appendix G-- Water Testing*
  - Does not irrigate

- **Preventative measures are also required to reduce the risk of contamination in the water source.** The following are some options (*check those that apply*):
  - Construct barriers (e.g., fences, ditches, storage pits)
  - Control runoff with sod strips, grass waterways, vegetative buffers, etc.
  - Level ground to prevent runoff
  - Spread manure during dry weather or incorporate manure within 24 hours of spreading
  - Leave a manure-free protective strip at least 10 m wide around surface water sources
  - Ensure all equipment is well-maintained
  - Ensure equipment is not cleaned, maintained or drained where the water source may become contaminated
  - Ensure proper operation of sewer/septic system
  - Install aeration or filtration systems
  - Follow expert advice
  - Irrigate in the morning to increase rapid drying and reduce pathogen survival with ultra violet light
  - Allow as long a period as possible between irrigating and harvest
  - Test water for chemicals if you know of a particular problem (e.g., agricultural chemical spill where you know what chemical was spilled) and if the test is available
  - Test water for Total Coliforms and *E. coli* using an accredited lab *where analyses are performed to standards equivalent to ISO 17025. See Appendix G-- Water Testing*
  - Does not irrigate

## 7.2 Storage

- Producer stores agricultural water, *proceed below.*  
*If not, proceed to Section 8: Equipment.*

<b>REQUIREMENT</b>	<i>Cisterns, tanks or containers used to store agricultural water must not be a source of contamination to water or berries.</i>
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### PROCEDURES:

- Prior to first use (in a season) – Producer:
  - Cleans the cistern, tank or container used to store water (e.g., power washes, sanitizer)
  - Follows instructions in *Appendix H -- Cleaning and Treating Cisterns – An Example* OR \_\_\_\_\_

OR

- Tests water for Total Coliforms and *E. coli* using an accredited lab *where analyses are performed to standards equivalent to ISO 17025* (File under Tab: Test Results) See *Appendix G -- Water Testing*
- Producer ensures the water storage cistern, tank or container has a lid, is free from rust and is closed when not in use

### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						





## 8. Equipment

<b>Forms Required</b> A, I
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<b>Producer: Yes</b>
<b>Packer: Yes</b>

### **RATIONALE:**

A good agricultural practice is to clean and maintain production site, packinghouse and storage equipment to reduce the potential for biological, chemical (residues) and physical (e.g., metal, glass, plastic, wood) contamination. The appropriate cleaning methods and materials will depend on the type of equipment and the nature of the berries. Procedures may include the removal of debris from equipment surfaces, application of soaps/detergents, scrubbing/friction, rinsing with water, and where appropriate, disinfection/sanitization. When required, equipment must be calibrated to ensure accurate application and delivery.

### **8.1 Purchasing, Receiving and Installation (new and current)**

<b>REQUIREMENT</b>	<i>Equipment must be purchased or built so that its design, construction and installation are not a source of contamination to berries.</i>
--------------------	---

### **PROCEDURES:**

#### **Production Site Equipment (Including trailers or wagons used for field packing market berries)**

- Producer ensures that calibration instructions are received with equipment or are written and made available (File under Tab: Calibration Instructions OR \_\_\_\_\_). If manufacturer's instructions are not available, refer to *Appendix E -- Agricultural Chemical Application Equipment Calibration - An Example*
- Producer ensures that design and construction of production site equipment that may have an impact on food safety (e.g., tines, prongs, picking head of the harvester, cultivator/sprayer panels that touch berries), will not be a source of contamination to berries. **All equipment and components that could come into direct contact with berries:**
  - Have food contact surfaces that are easy to clean
  - Are easily accessible for cleaning and maintenance
- Producer receives only the equipment that was purchased or selected

#### **Building Equipment**

- Producer/packer ensures that design and construction of building equipment that may have an impact on food safety (e.g., packing surfaces), will not be a source of contamination to berries. **All equipment and components that could come into direct contact with berries:**
  - Have food contact surfaces that are easy to clean
  - Are easily accessible for cleaning and maintenance
  - Are made of non-porous surfaces (e.g., metal, stainless steel, hard plastic material, rubber)
  - Are equipped with shatterproof lights (if applicable), or have covered lights (if applicable) (e.g., packing line)
- Producer/packer receives only the equipment that was purchased or selected
- Producer/packer ensures that calibration instructions are received with equipment or are written and made available (File under Tab: Calibration Instructions OR \_\_\_\_\_) (e.g., for scales to weigh chemicals, water treatment equipment)



- When installing equipment (e.g., the packing line), producer/packer ensures that the equipment is installed with sufficient space between walls, floors and other equipment to allow easy access for cleaning and maintenance
- Producer/packer ensures that:
  - If catwalks are located above packing lines or areas where market berries are handled or stored, or where market ready packaging materials are stored, they are protected and have kick plates and solid floors (e.g., rubber mats) to prevent contamination of berries
  - Barriers are in place to eliminate unauthorized access to equipment (e.g., walls, doors, ropes, signs) *Refer to Section 13.1: Visitor Protocols*
- Annually – Producer/packer records where equipment is located/installed on Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_

## 8.2 Use, Cleaning, Maintenance, Repair and Inspection

<b>REQUIREMENT</b>	<i>Equipment use must not contribute to the contamination of berries. Equipment must be properly cleaned, maintained, repaired and inspected.</i>
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### PROCEDURES:

#### Production Site Equipment

- Equipment is not used (whether in use or not) for livestock/poultry slaughter or meat processing activities
- Knives are not retractable (e.g., boxboard cutters, retractable utility knives)
- Annually (prior to initial use) – Producer ensures that production site equipment in direct contact with berries is clean by:

#### **Cleaning Procedure** *(choose at least one of the following options)*

- Washing with *(choose at least one of the following options)*:
  - Water and friction (e.g., pressure wash, wiping, scrubbing)
  - Water and a sanitizer (e.g., chlorine, quaternary ammonium)
  - Water and soap
- Dry cleaning (e.g., broom, brushes, air)

Describe your step-by-step cleaning instructions [include any soaps or sanitizers, concentrations and equipment used (*refer to Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example, for examples of chlorine solutions for equipment cleaning and Appendix N -- Sanitation Standard Operating Procedures (SSOP) – An Example*)]:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

*[Filling in the above description completes your Sanitation Standard Operating Procedure (SSOP) for equipment cleaning.]*

- Before each use of production site equipment that comes into direct contact with berries or that may have an impact on food safety, producer conducts a general inspection and ensures the equipment does not contribute to the contamination of berries (e.g., checks for leaks, broken, corroded or damaged parts, cleanliness)
- Scales are cleaned between uses if the same scale is used to weigh berries and agricultural chemicals
- Agricultural chemical application equipment is rinsed or flushed according to label instructions when applying agricultural chemical(s) (e.g., on a crop for which the previous chemical used is not registered)
- Agricultural chemical application equipment is NOT cleaned, used for mixing, maintained, rinsed or flushed where water source(s) or the production site may become contaminated
- Backflow prevention or other devices are used when filling agricultural chemical application equipment to prevent backflow of agricultural chemicals into water sources (*refer to Appendix O -- Examples of Backflow Prevention During Mixing of Agricultural Chemicals*)

### **Building Equipment**

- Equipment is not used (whether in use or not) for livestock/poultry slaughter or meat processing activities
- Knives are not retractable (e.g., boxboard cutters, retractable utility knives)
- Before initial use of building equipment, producer/packer conducts a general inspection and ensures the equipment does not contribute to the contamination of berries (e.g., checks for leaks, broken, loose, corroded or damaged parts, chipping paint, rust, rotting wood, cleanliness)
- !**  Weekly (at a minimum when in use) – Producer/packer inspects equipment in direct contact with berries (e.g., grading table, packing line, baggers) or that may have an impact on food safety for proper functioning (e.g., checks for faulty or loose parts). Producer/packer records the inspection on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
- !** ● Weekly (at a minimum when in use) – Producer/packer ensures that building equipment in direct contact with berries is clean by:



**Cleaning Procedure** (choose at least one of the following options)

- Washing with (choose at least one of the following options):
  - Water with friction (e.g., pressure wash, wiping, scrubbing)
  - Water and a sanitizer (e.g., chlorine, quaternary ammonium)
  - Water and soap
- Dry cleaning (e.g., broom, brushes, air)

Describe your step-by-step cleaning instructions [include any soaps or sanitizers, concentrations and equipment used (refer to Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example, for examples of chlorine solutions for equipment cleaning and Appendix N -- Sanitation Standard Operating Procedures (SSOP) – An Example)]:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

*[Filling in the above description completes your Sanitation Standard Operating Procedure (SSOP) for equipment cleaning.]*

- !**  Producer/packer records cleaning of equipment in direct contact with berries on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
- Scales are cleaned between uses if the same scale is used to weigh product and agricultural chemicals

**8.3 Calibration**

<b>REQUIREMENT</b>	An effective calibration program must be followed for all equipment requiring calibration.
--------------------	--

**PROCEDURES:**

**Production Site Equipment**

- !**  At the start of the season, when inspection results indicate a need, when key components are replaced (e.g., sprayer nozzles, belts or sprockets are changed), and if tractor speeds are adjusted, producer calibrates production site equipment as per manufacturer’s recommended calibration

procedures. If manufacturer's procedures are not available refer to *Appendix E -- Agricultural Chemical Application Equipment Calibration - An Example*

- Producer calibrates the following production site equipment (*check all that apply; if not applicable, proceed to the next sub-section: Building Equipment*):
  - !  Agricultural chemical applicator (i.e., sprayer nozzle, hopper for granular application)
  - Spreader (e.g., manure, fertilizer)
  - Scales (if used to weigh agricultural chemicals)

- !  Producer records the calibration activity on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_

**Building Equipment**

- !  At the start of the season, or when inspection results indicate a need, or when key components are replaced, producer/packer calibrates the equipment as per manufacturer's recommended calibration procedures
- ! ● Producer/packer calibrates the following building equipment (*check all that apply; if not applicable, proceed to Section 8.4: Storage*):
  - !  Chlorinator
  - !  pH meter (if used to verify water treatment)
  - !  ORP meter (if used to verify water treatment)
  - Scales used to weigh chemicals
  - Other (*specify*): \_\_\_\_\_

- !  Producer/packer records the calibration activity on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_

**8.4 Storage**

<b>REQUIREMENT</b>	<i>Equipment must be stored in designated area(s) so that it will not contribute to the contamination of berries.</i>
--------------------	---

**PROCEDURES:**

- Producer stores production site equipment (when not in use) separate from berries, water sources and market ready packaging materials
- Producer/packer stores building equipment (when not in use) in a manner that prevents leakage of fuel, oil, gases, etc. from equipment coming into contact with berries, water sources and market ready packaging materials

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						



## 9. Cleaning and Maintenance Materials

Forms Required	Producer: Yes
N/A	Packer: Yes

### RATIONALE:

Cleaning and maintenance materials can be a source of chemical and physical contamination if the proper materials and procedures are not used.

### 9.1 Purchasing and Receiving

<b>REQUIREMENT</b>	<i>Cleaning and maintenance materials must be properly purchased and received to ensure the appropriate type for use.</i>
--------------------	---

### PROCEDURES:

- When purchasing or selecting cleaning and maintenance materials that **come into direct contact with berries** (including materials used on food contact surfaces), producer/packer purchases or selects materials that are appropriate for their intended use
- Producer/packer receives only the cleaning and maintenance materials that were purchased or selected and verifies that the label contains the name of product, active ingredient(s), concentration and the manufacturer's name and address; the manufacturer's contact information and the instructions for use do not need to be on the label but are readily available

**Note:** For materials, refer to Appendix D -- Reference Lists: Packaging Materials, Inks, Lubricants, Maintenance Materials, Sanitizers, Water Treatment Aids and Food and Incidental Additives.

### 9.2 Use

<b>REQUIREMENT</b>	<i>Cleaning and maintenance materials must be used so as not to be a source of contamination to berries.</i>
--------------------	--

- When using cleaning and maintenance materials, producer/packer:
  - Mixes materials by following the instructions for use and the concentration guidelines
  - Uses the appropriate material for its intended use
  - Follows the instructions for use during the application process

**Note:** Refer to Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example, for examples and information on using chlorine to sanitize equipment.

### 9.3 Storage

<b>REQUIREMENT</b>	<i>Cleaning and maintenance materials must be stored in designated areas and under proper conditions.</i>
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- Producer/packer stores cleaning and maintenance materials:
  - Separate from berries, equipment, waste, agricultural chemicals and market ready packaging materials
  - In a clean and dry location
  - With labels/identification intact and legible (name of product, active ingredient(s), concentration and the manufacturer's name and address are on the label; the



manufacturer's contact information and the instructions for use do not need to be on the label but are readily available)

- In a manner that maintains the integrity of the container/contents and prevents leakage (e.g., closed bag, in a closed container, with a lid)

**Confirmation/Update Log:**

Date						
Initials						

## 10. Waste Management

<b>Forms Required</b>	<b>Producer: Yes</b>
N/A	<b>Packer: Yes</b>

### **RATIONALE:**

Proper waste management is required to prevent biological, chemical or physical contamination of your premises (e.g., culls left to rot in a pile near a building can attract pests).

### **10.1 Storage and Disposal of Garbage, Recyclables and Compostable Waste**

<b>REQUIREMENT</b>	<i>Areas for garbage, recyclables and compostable waste (when applicable) must be identified, and all waste must be stored and disposed of in a manner to minimize contamination.</i>
--------------------	---

### **PROCEDURES:**

- Producer/packer provides dedicated containers for waste that are:
  - In the appropriate areas/rooms (e.g., lunchroom, washroom, packinghouse, production site)
  - Separate from berries, water sources and market ready packaging materials
  - Designated or labelled for each applicable type of waste (i.e., garbage, recyclables, compost, etc.)
  - Covered where pest or animal intrusion may be a problem
  - Of sufficient quantity and size
  - Cleaned thoroughly at least monthly (e.g., pressure washed, scrubbed, change plastic liners) in an area separate from berries and market ready packaging materials
- Producer/packer disposes of waste as soon as the container is full (or before) or as frequently as required to avoid attracting pests (e.g., flies, rodents)

### **10.2 Storage and Disposal of Empty Agricultural Chemical Containers**

<b>REQUIREMENT</b>	<i>Empty agricultural chemical containers must be stored and disposed of in a manner that minimizes the potential for chemical contamination of berries and the premises.</i>
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### **PROCEDURES:**

- Producer does not reuse empty agricultural chemical containers for any purpose, as prescribed by the *Pest Control Products Act and Regulations*
- Producer triple rinses containers and empties the rinsate into the applicator tank
- Producer stores empty agricultural chemical containers:
  - Separate from berries, water sources and market ready packaging materials
  - In a designated or labelled area/container
- Producer disposes of empty agricultural chemical containers by following applicable federal, provincial, territorial and municipal regulations for disposal of empty containers

### **10.3 Disposal of Production Wastewater and Waste from Toilets and Hand Washing Facilities**



**REQUIREMENT**

*Production wastewater and waste from toilets and hand washing facilities must be disposed of in a manner that minimizes biological and chemical contamination of berries, water sources and the premises.*

**PROCEDURES:**

- Producer/packer does not dispose of waste from toilets and hand washing facilities in the production site
- Producer/packer disposes of waste from toilets in a manner that prevents contamination of packaging materials, berries, water sources, compost and other by-products
- Producer/packer disposes of waste from toilets (*choose at least one of the following*):
  - Into a septic system or municipal sewer system
  - By contracting with a portable toilet company or cleaning service
  - Other (*specify where and how waste is disposed of*):

Describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- Producer/packer disposes of waste from hand washing stations in a manner that prevents contamination of packaging materials, berries, water sources, compost and other by-products
- Producer/packer disposes of waste from hand washing stations (*choose at least one of the following*):
  - Into a septic system or municipal sewer system
  - By contracting with a portable toilet company or cleaning service
  - Other (*specify where and how waste is disposed of*):

Describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- Producer/packer disposes of production wastewater in a manner that prevents contamination of packaging materials, berries, water sources, compost and other by-products
- Producer/packer disposes of production wastewater by (*specify where and how wastewater is disposed of*):

Describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Confirmation/Update Log:**

Date						
Initials						

# 11. Personal Hygiene Facilities

Forms Required  
A, J

Producer: Yes  
Packer: Yes

## RATIONALE:

Humans may be a source of biological contamination (e.g., Hepatitis A, Salmonella, *E. coli* O157:H7) especially if unable to properly wash their hands. Therefore, it is important to provide personal hygiene facilities and to keep them well-maintained.

### 11.1 Facilities

<b>REQUIREMENT</b>	<i>Sufficient personal hygiene facilities must be available. All facilities must be accessible, properly stocked, cleaned and well-maintained.</i>
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## PROCEDURES:

### In the Production Site

- Personal hygiene facilities are provided for employees who are in the production site and include:
  - Washrooms:
    - 1 toilet per 50 employees
    - toilet(s) (portable and non-portable) located so as not to be a source of contamination to water sources and berries
    - on-site toilets e.g., 500 m or 5 minute walk) or accessible through transportation provided by producer/packer/other (e.g., employee vehicle)
    - fully equipped (i.e., garbage container and toilet paper)
  - Personal hygiene facilities are provided for those employees handling berries in the production site and include:
    - ! ● Properly stocked hand washing facilities (*choose at least one of the following*):
      - !  hot and/or cold running **potable** water (with a receptacle to collect wastewater), disposable paper towels, soap and a garbage container
      - OR**
      - !  water to remove soil from hands (with a receptacle to collect wastewater), paper towel to dry hands, hand sanitizer and a garbage container
      - OR**
      - !  hand wipes, hand sanitizer and a garbage container
      - AND**
      - all personal hygiene facilities have hand washing signs with understandable instructions (e.g., appropriate language for employees, pictograms) Refer to *Appendix I -- Hand Washing Sign Templates*
- !  Weekly (while in use) and daily (during the peak season) – Producer/packer cleans and maintains the personal hygiene facilities and records the activity on Form (J) Cleaning and Maintenance – Personal Hygiene Facilities OR \_\_\_\_\_

**In the Packinghouse/Product Storage** [*If not applicable, proceed to the sub-section: Other Facilities: In the Production Site and Building(s)*]

- Annually – Producer/packer records all locations of personal hygiene facilities on Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_



- Packer provides personal hygiene facilities in the packinghouse/product storage including:
  - ! ● properly stocked hand washing facilities (*choose at least one of the following*):
    - !  hot and/or cold running **potable** water (with a receptacle to collect wastewater), disposable paper towels, soap and a garbage container
    - OR**
    - !  water to remove soil from hands (with a receptacle to collect wastewater), paper towel to dry hands, hand sanitizer and a garbage container
    - OR**
    - !  hand wipes, hand sanitizer and a garbage container
    - AND**
    - all personal hygiene facilities have hand washing signs with understandable instructions (e.g., appropriate language for employees, pictograms) Refer to *Appendix I -- Hand Washing Sign Templates*
  - Washrooms:
    - !  in the packinghouse/product storage
    - OR**
    - !  in the immediate vicinity of the packinghouse/product storage (e.g., portable toilet, packer's residence, bunkhouse)
- Washrooms include:
  - 1 toilet per 35 employees
  - Fully equipped facilities (i.e., garbage container and toilet paper)
  - If the washroom is in the vicinity of the packinghouse/product storage, describe where it is located: \_\_\_\_\_

!  Weekly (while in use) and daily (during the peak season) – Packer cleans and maintains the personal hygiene facilities and records the activity on Form (J) Cleaning and Maintenance – Personal Hygiene Facilities OR \_\_\_\_\_

**Other Facilities: In the Production Site and Building(s) (e.g., lunchroom, break area)**

- Producer/packer provides:
  - Fully stocked first aid kits
  - Waterproof covering for bandaged wounds on hands
- Producer/packer provides a dedicated storage area for personal effects separate from berry handling areas and washrooms
- Producer/packer provides a dedicated lunchroom/break area separate from berry handling areas
- Producer/packer ensures employees remove working effects prior to entering washrooms and before breaks (e.g., reusable gloves/aprons)
- Producer/packer ensures employees store working effects in a designated location separate from smoking areas and surfaces where food is prepared or eaten

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						

## 12. Employee Training

<b>Forms Required</b> C, D, K	<b>Producer: Yes</b>
	<b>Packer: Yes</b>

### **RATIONALE:**

Employees must be trained on good personal hygiene practices and safe berry handling to help prevent the biological, chemical and physical contamination of berries. Job-specific training is also important to ensure food safety related practices are adhered to.

### 12.1 Employee Training

<b>REQUIREMENT</b>	<i>All employees must receive training on their role in food safety, food handling, personal hygiene practices, biosecurity and any other area related to food safety for their job. Senior management must demonstrate its commitment to determining and providing, in a timely manner, all the resources needed to implement and improve the processes of the food safety system.</i>
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### **PROCEDURES:**

- Annually – Producer/packer assigns a person responsible for overseeing employee training
  - Annually – Producer/packer uses the following Employee Personal Hygiene and Food Handling Practices Policy Forms for training (*check those that are applicable*):
    - Form (C) Employee Personal Hygiene and Food Handling Practices Policy – Production Site
    - Form (D) Employee Personal Hygiene and Food Handling Practices Policy – Packinghouse
  - The person responsible provides training (to employees in direct contact with berries/packaging materials/food contact surfaces):
    - To all employees at the beginning of each season
    - To new employees
    - As a refresher to reinforce good practices (i.e., as a result of non-conformances or mid-way through the season)
    - To provide feedback from an audit, or information on new techniques, new science or other technical findings
  - Person responsible provides training and training materials in a language and comprehension level applicable to employee(s). (Refer to the CHC web site to obtain training materials: [www.canadagap.ca](http://www.canadagap.ca))
  - Person responsible records employee personal hygiene and food handling practices training activities and employees' attendance on Form (K) Training Session OR \_\_\_\_\_
- 
- Producer/packer observes employees for compliance with the personal hygiene and food handling practices policy
  - Producer/packer trains employees on minor and major food safety deviations (*Refer to Section 23: Deviations and Crisis Management*)
  - Producer/packer provides job-related training to employees performing tasks that could lead to biological, chemical or physical contamination of berries (*check those that are applicable*):



- Calibration of production site equipment
- Calibration of building equipment
- Use of cleaning and maintenance materials (including water treatment chemicals)
- Production site equipment cleaning and maintenance procedures
- Building equipment cleaning and maintenance procedures
- Record keeping procedures (i.e., forms applicable to job)
- Application of agronomic inputs
- Harvesting procedures
- Sorting, grading and packing procedures

## 12.2 Employee Illness

<b>REQUIREMENT</b>	<i>Producer/packer must be aware of and know how to manage the risks associated with illnesses transferable to food. All employees must be informed of their role in the potential transfer of illness to food and trained to report illnesses or symptoms to their supervisor.</i>
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### PROCEDURES:

- Producer/packer abides by appropriate legislation (e.g., human rights, privacy, employment standards) and producer/packer policies (written and verbal)
- Producer/packer is aware that there are illnesses transferable to food (e.g., Hepatitis A, Salmonella, *E. coli* O157:H7)
- Producer/packer informs employees to see a doctor if they are ill and excludes employees with symptoms of an active infectious disease from activities that may contaminate product, packaging or food contact surfaces
- Producer/packer is alert to signs of employee illness, and encourages those employees to seek medical attention as soon as possible
- If producer/packer is advised that an employee has an illness transferable to food (e.g., Hepatitis A, Salmonella, *E. coli* O157:H7), producer/packer seeks advice, guidance and collaboration with their local public health authority including advice on when the employee can return to work
- Producer/packer keeps all records confidential, including copies of correspondence, doctor's notes, etc. in a secure location that is not accessible to unauthorized people

### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						

## 13. Visitor Policy

<b>Forms Required</b>	<b>Producer: Yes</b>
L	<b>Packer: Yes</b>

### RATIONALE:

Restricting visitors from areas where berries or market ready packaging materials are handled or stored helps to prevent contamination. Controlling visitor access to other areas such as agricultural chemical storages is for their own safety as well as the prevention of chemical contamination of berries (e.g., carrying chemicals on their feet into storages).

### 13.1 Visitor Protocols

<b>REQUIREMENT</b>	<i>Visitors must adhere to protocols when on the premises so as not to be a source of contamination.</i>
--------------------	--

### PROCEDURES:

- Producer/packer determines controlled-access areas within the building(s) including areas where harvested and market berries, market ready packaging materials and agricultural chemicals are handled or stored, and controls access to those designated areas (e.g., puts up signs, walls). Refer to *Appendix J -- Controlled Access Area Sign Templates*
- Producer/packer accompanies or designates a person to accompany first time visitors entering controlled-access areas
- Producer/packer ensures visitors are informed of and understand the visitor policy on Form (L) Visitor Sign-In Log
- Producer/packer or designated person ensures all visitors entering controlled-access areas sign in using Form (L) Visitor Sign-In Log OR \_\_\_\_\_

### 13.2 U-Pick Operations

- U-pick is available on the premises, proceed below.  
*If not, proceed to Section 14: Pest Program for Buildings.*

<b>REQUIREMENT</b>	<i>U-pick customers must not be a source of berry contamination.</i>
--------------------	--

### PROCEDURES:

- Producer ensures U-pick customers have access to fully-equipped and properly stocked personal hygiene facilities (*Refer to Section 11: Personal Hygiene Facilities, for requirements*)
- Before harvesting, U-pick customers are provided with instructions (verbal, written or visual):
  - To use personal hygiene facilities while in the production site
  - To wash or sanitize hands before picking
  - To not pick up berries that have fallen on the ground
  - To harvest into clean containers
  - To remain in the designated harvesting area
  - That pets are not allowed in the U-pick area
  - To dispose of garbage in dedicated container(s)

#### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						





## 14. Pest Program for Buildings

<b>Forms Required</b> A, E, G, M	<b>Producer: Yes</b>
	<b>Packer: Yes</b>

### **RATIONALE:**

Pests such as rodents, birds and insects are potential sources of contamination to berries as they may carry a variety of pathogens. The use of traps, chemicals, tape or bait, and monitoring these continually can be effective in controlling pests.

### **14.1 Control and Monitoring**

<b>REQUIREMENT</b>
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<i>An effective pest program must be in place for the exterior and interior of buildings to monitor and control pests.</i>
--

**NOTE:** This section does not apply to stand-alone agricultural chemical storage buildings.

### **PROCEDURES:**

- Producer/packer completes pest risk assessment for the interior and exterior of buildings by reviewing Sections 2.2: Building Exterior and Surroundings Assessment, Cleaning, Maintenance, Repair and Inspection and 2.3: Building Interior Assessment, Cleaning, Maintenance, Repair and Inspection of the Manual and Form (G) Cleaning, Maintenance and Repair of Buildings OR \_\_\_\_\_

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- Producer/packer prevents nesting of birds on the interior and exterior of buildings
- Producer/packer does NOT allow animals including pets into buildings
- Producer/packer, if using traps, ensures that:
  - They are flush against the wall
  - If using bait inside buildings, it is in a trap from which rodents cannot escape (e.g., tin cat, iron cat, ketch-all)
  - They are set, at a minimum, on the inside of each entrance (doorways) on both sides (i.e., two traps per door)
  - Pest control products in bait or baited traps are registered for use in Canada
- !  Producer/packer adheres to a pest control and monitoring program (*you **MUST** choose one of the two options listed on the following page and complete the associated sub-bullets*):

! <input type="checkbox"/> <b>Third Party Pest Program</b>	! <input type="checkbox"/> <b>Self-Managed Pest Program</b>
<ul style="list-style-type: none"> <li>! ● Producer/packer hires a licensed third party pest control company to monitor buildings (when in use). The company provides the producer/packer with:               <ul style="list-style-type: none"> <li>! <input type="checkbox"/> A contract/agreement/letter of assurance showing company's name and the applicator's license number</li> <li>! <input type="checkbox"/> A written pest control manual detailing the procedures, pest control products used, PCP numbers, frequencies (minimum of once monthly) and methods used</li> </ul> </li> <li>! ● The company ensures that:               <ul style="list-style-type: none"> <li>! <input type="checkbox"/> Bait (unless inside a trap) is not used in the interior of buildings</li> <li>! <input type="checkbox"/> Bait is not in contact with berries</li> <li>! <input type="checkbox"/> Pest control products are registered for use in Canada and used according to label directions</li> <li>! <input type="checkbox"/> All pest control devices are clearly numbered/labelled/identified</li> <li>! <input type="checkbox"/> The location of building exterior and interior pest control devices is recorded and provided to the producer/packer</li> <li>! <input type="checkbox"/> All leftover bait, damaged traps, used glue boards and pests are disposed of in a sealed container and placed in the garbage</li> <li>! <input type="checkbox"/> A record of detailed findings and suggested control measures are provided after each scheduled visit</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>! ● Producer/packer implements a self-managed pest program. Producer/packer ensures that:               <ul style="list-style-type: none"> <li>! <input type="checkbox"/> Bait (unless inside a trap) is not used in the interior of buildings</li> <li>! <input type="checkbox"/> Bait is not in contact with berries</li> <li>! <input type="checkbox"/> Pest control products registered in Canada for this use and are used according to label directions</li> <li>! <input type="checkbox"/> All pest control devices are clearly numbered/labelled/identified</li> <li>! <input type="checkbox"/> The location of building exterior and interior pest control devices is recorded on Form (A) Buildings Sketch (Interior Site Plan) OR _____</li> </ul> </li> <li>! <input type="checkbox"/> All leftover bait, damaged traps, used glue boards and pests are disposed of in a sealed container and placed in the garbage</li> <li>! <input type="checkbox"/> After handling bait, devices, or disposing of pests, proper hand washing techniques are followed</li> <li>! <input type="checkbox"/> Producer/packer records PCP # on Form (E) Pest Control for Buildings OR _____ _____ _____</li> </ul>
<ul style="list-style-type: none"> <li>! <input type="checkbox"/> After each visit, producer/packer reviews the record left by the company and signs the record for confirmation of activities</li> </ul>	<ul style="list-style-type: none"> <li>! <input type="checkbox"/> Annually – Producer/packer describes the pest program on Form (E) Pest Control for Buildings OR _____</li> </ul>
<ul style="list-style-type: none"> <li>! <input type="checkbox"/> Producer/packer files all records under Tab: Third Party Pest Control Records OR _____ _____</li> </ul>	<ul style="list-style-type: none"> <li>! <input type="checkbox"/> Monthly (when in use) – Producer/packer monitors the pest program and records findings on Form (M) Pest Monitoring for Buildings OR _____</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Annually - Producer/packer reviews the company's program (procedures, numbering of devices, monitoring frequency, etc.) for effectiveness</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> If a persistent problem, pattern or increases in pest populations are observed, the producer/packer takes corrective action and/or seeks expert advice on alternative control measures</li> </ul>

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						

## 15. Water (for Fluming and Cleaning)

<b>Forms Required</b> F, N1	<b>Producer: Yes</b>
	<b>Packer: Yes</b>

### RATIONALE:

Water may be used in an operation for a number of different reasons, using a variety of practices. It is important to assess the quality of the water as it may be a source of biological or chemical contamination.

- Water is used for fluming, washing or rinsing of berries
- Water is used for cleaning equipment, containers, buildings, etc.
- Water is used in personal hygiene facilities for hand washing

*If **ANY** of the above circles has been checked off, proceed below.  
If not, proceed to Section 16: Ice.*

### 15.1 Water Assessment

<b>REQUIREMENT</b>	<i>Water source must be identified and potential hazards assessed. The required preventative measures must also be determined and implemented to prevent biological (pathogenic bacteria, parasites and viruses) and chemical contamination.</i>
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### PROCEDURES:

- Producer/packer never uses:
  - Untreated sewage water
  - Tertiary water
- If an abnormal event occurs to cause contamination of the water (e.g., chemical leakage, leaching of well by overland flooding, municipal boil water advisory), the producer/packer does not use the water until remediation is possible to eliminate the contaminant or testing [i.e. contaminant (e.g., agricultural chemical) is known and tests are available] indicates the water is safe to use
- ! ● Annually – By completing or updating Form (F) Water (for Fluming and Cleaning) Assessment OR  
\_\_\_\_\_  
producer/packer:
  - !  Identifies the water sources
  - !  Describes the intended use of each water source
  - !  Describes the method of application
  - !  Assesses the potential hazards for each source considering its use
  - !  Determines the appropriate action or preventative measures needed to control the hazards

**Note:** *To assist with the assessment, the following **MUST** be adhered to:*

**Private Well Water** *(If not applicable, proceed to the next sub-section: Municipal Water)*

- !  At least twice annually [once prior to use and at least once more during the season to ensure water potability is being maintained] – if water is from a private well, producer/packer tests the well water for Total Coliforms and *E. coli* using an accredited lab where analyses are performed to standards equivalent to ISO 17025, to ensure that the well water is potable (meets provincial/municipal standards) (File under Tab: Test Results) Refer to *Appendix G -- Water Testing*
- Producer/packer ensures the water sample is taken from the tap closest to the water source (unless water is being treated, in which case the sample is taken after treatment)



**Municipal Water** (If not applicable, proceed to the next sub-section: Surface Water)

- If water is provided by the municipality, the producer/packer receives notification if the supply becomes contaminated along with the appropriate treatment method(s)

**Surface Water** (If not applicable, proceed to the next sub-section: Water for Final Rinsing of Cranberries)

- ! ● If water is from a surface water source, the producer/packer:
  - !  Follows a water treatment program to make it potable as per Section 15.3: Treatment below
  - !  At least twice annually [once prior to use and at least once more during the season to ensure water potability is being maintained] - tests the treated water for Total Coliforms and *E. coli* using an accredited lab where analyses are performed to standards equivalent to ISO 17025, to ensure that the treated water is potable (meets provincial/municipal standards) (File under Tab: Test Results) Refer to *Appendix G -- Water Testing*

**Water for Final Rinsing of Cranberries** (If not applicable, proceed to the next sub-section: Water for Cleaning)

- !  If water has been used to flume or wash cranberries, producer/packer provides a **final potable water rinse**
- !  Regardless of source, at least twice annually [once prior to use and at least once more during the season to ensure water potability is being maintained] – If providing a final rinse, producer/packer tests the water for Total Coliforms and *E. coli* using an accredited lab where analyses are performed to standards equivalent to ISO 17025, to ensure that the water is potable (meets provincial/municipal standards) (File under Tab: Test Results) Refer to *Appendix G -- Water Testing*
- !  Producer/packer ensures water sample is taken directly from rinse equipment when testing for potability

**Water for Cleaning (equipment, buildings, containers, etc. and hand washing in personal hygiene facilities)**

- Producer/packer uses potable water:
  - !  For cleaning buildings, equipment, containers, etc.
  - !  In personal hygiene facilities for hand washing

**15.2 Storage**

- Producer/packer stores water for fluming and cleaning, *proceed below.*  
*If not, proceed to Section 15.3: Treatment.*

<b>REQUIREMENT</b>	<i>Cisterns, tanks or containers used to store water may be a source of contamination. Water must be stored in clean cisterns, tanks and/or containers.</i>
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**PROCEDURES:**

- !  Regardless of water source (e.g., rain, municipal, private well water) - At least twice annually [once prior to use and at least once more during the season] and after abnormal events – producer/packer tests water from the cistern/tank/container for Total Coliforms and *E. coli* using an accredited lab where analyses are performed to standards equivalent to ISO 17025, to ensure that the water is potable (meets provincial/municipal standards) (File under Tab: Test Results). Refer to *Appendix G -- Water Testing*
- If water tests show that the water in the cistern/tank/container is NOT potable – Producer/packer:

- Cleans the cistern, tank or container used to store water
- Follows instructions in *Appendix H -- Cleaning and Treating Cisterns – An Example* OR \_\_\_\_\_

**Note:** *It is recommended that cisterns/tanks/containers are cleaned annually regardless of water test results.*

- Producer/packer ensures the water storage tank, container or cistern has a lid, is free from rust, is closed and is protected from chemical contamination when not in use

### 15.3 Treatment

<b>REQUIREMENT</b>	<i>The treatment of water (for fluming and cleaning) with chlorine or other methods must be controlled and monitored to ensure appropriate chemical concentrations or functioning of equipment and to prevent both the biological and chemical contamination of berries.</i>
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**PROCEDURES:**

- Producer/packer treats water, proceed below.  
*If not, proceed to Section 16: Ice.*
- When treating water producer/packer (*choose those that are applicable*):
  - !  Follows instructions in *Appendix A -- Shock Chlorination of Well Water – An Example* OR \_\_\_\_\_
  - !  Follows instructions in *Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example* OR \_\_\_\_\_
  - !  Follows instructions in *Appendix H -- Cleaning and Treating Cisterns – An Example* OR \_\_\_\_\_
  - !  Other instructions (*specify or describe*): \_\_\_\_\_
  - !  Uses an alternative method to chlorination (e.g., hydrogen peroxide, ozone, ultra violet light, reverse osmosis) as per manufacturer’s instructions (*describe method*): \_\_\_\_\_
  - !  Records the control and monitoring of alternative water treatment on (*indicate name and location of form*): \_\_\_\_\_  
 \_\_\_\_\_ (File under Tab: \_\_\_\_\_)

**Note:** *Seek expert or professional advice for proper setup and monitoring of alternative water treatment systems.*

- !  If adding water treatment aids (i.e., chlorine) manually and monitoring treatment with chlorine/pH strips or ORP, producer/packer establishes a standard operating procedure following instructions in *Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example* OR \_\_\_\_\_  
AND fills out the right hand column of the chart below



Volume of water in wash tank or system: \_\_\_\_\_

Water treatment used (e.g., 5.25% household bleach): \_\_\_\_\_

Initial amount of treatment chemical added and target concentration (ppm) (e.g., 3/4 cups of chlorine per 50 gallons to reach 50 ppm): \_\_\_\_\_

What are you using to monitor levels (e.g., chlorine strips/pH strips, ORP)? \_\_\_\_\_

How often do you check treatment levels (e.g., every hour during use)? \_\_\_\_\_

How often is water changed (e.g., daily, weekly)? \_\_\_\_\_

What is the target level (for ORP/chlorine/pH)?  
ORP =700 or greater; pH=6-0-7.5;  
free chlorine = between 2-7 ppm  
Other: \_\_\_\_\_

Actions taken if:

ORP is between 650-700 (e.g., add 3/4 cups of chlorine per 50 gallons) Add: \_\_\_\_\_

Recheck ORP/free chlorine/pH and record on Form N1 or \_\_\_\_\_

ORP is below 650/chlorine or free chlorine is below 2ppm (e.g., add 2 cups of chlorine) Discard or rewash any product that has come in contact with contaminated water

!  Daily (for chlorination)– Producer/packer controls and monitors (as applicable) chlorine/pH levels or Oxidation-Reduction Potential (ORP) in water and records this on Form (N1) Water Treatment Control and Monitoring OR \_\_\_\_\_

!  Daily (for alternative water treatment methods) – Producer/packer monitors the equipment for proper functioning and records this on (indicate name and location of form): \_\_\_\_\_ (File under Tab: \_\_\_\_\_ )

!  At least twice annually [once at the beginning of the season and once more during the season to ensure water potability is being maintained] – Producer/packer tests the treated water for Total Coliforms and *E. coli* using and accredited lab where analyses are performed to standards equivalent to ISO 17025, to ensure that the water is potable (meets provincial/municipal standards) (File under Tab: Test Results). Refer to *Appendix G -- Water Testing*

Producer/packer ensures water is taken directly from equipment when testing treated water for potability

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						

## 16. Ice

Forms Required	Producer: No
N/A	Packer: No

**Ice is not used in the production or packing of small fruit.**



## 17. Packaging Materials

<b>Forms Required</b> A, I, Q	<b>Producer:</b> Yes
	<b>Packer:</b> Yes

### RATIONALE:

Packaging materials that are not handled or stored properly may contribute to the biological, chemical and physical contamination of berries.

- Harvested berry packaging materials are used on the premises
- Market ready packaging materials are used on the premises
- Packaging accessories are used on the premises

If **ANY** of the above circles has been checked off, proceed below.  
If not, proceed to Section 18: Growing and Harvesting.

### 17.1 Purchasing and Receiving

<b>REQUIREMENT</b>	<i>Packaging materials must be obtained with knowledge of origin and must be appropriate for use in the packaging of berries.</i>
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### PROCEDURES:

#### Harvested Berry Packaging Materials

- Producer/packer purchases or selects materials that are:
  - Free of objects that may become embedded in berries (e.g., material is in good repair, no splinters, glass)
  - Clean and free of debris (e.g., from other crops, compostable waste, garbage)
  - Have not been used for any other purpose that may be a source of contamination (e.g., to carry tools, personal effects, cleaning agents, agricultural chemicals, maintenance materials)
- Producer/packer receives only the materials that were purchased or selected

#### Market Ready (Primary and Secondary) Packaging Materials

- When purchasing or selecting packaging materials, packer is aware of their origin (i.e., manufactured with components that are not a source of chemical contamination)
- Packer purchases or selects **primary** materials (e.g., bags, boxes) that are (*choose one of the following*):
  - New, OR
  - If reused, new liners are used (**Note:** *liners are considered packaging accessories, not primary packaging materials*)
- Packer purchases or selects materials (e.g., masters) that are free of loose objects that may become embedded in berries (e.g., splinters, glass)
- Packer receives only the materials that were purchased or selected

**Note:** For materials, refer to Appendix D -- Reference Lists: Packaging Materials, Inks, Lubricants, Maintenance Materials, Sanitizers, Water Treatment Aids and Food and Incidental Additives



## Packaging Accessories

- When purchasing or selecting packaging accessories, packer is aware of their origin (i.e., manufactured with components that are not a source of chemical or physical contamination)
- Packer purchases or selects new packaging accessories (e.g., liners, ties, tags, rubber bands) if coming into direct contact with berries
- Packer receives only the packaging accessories that were purchased or selected

**Note:** For packaging accessories, refer to Appendix D -- Reference Lists: Packaging Materials, Inks, Lubricants, Maintenance Materials, Sanitizers, Water Treatment Aids and Food and Incidental Additives.

## 17.2 Use of Packaging Materials

<b>REQUIREMENT</b>	<i>Harvested berry packaging materials must be clean and properly maintained and repaired before use, and market ready primary packaging materials and accessories (in direct contact with berries) must not be a source of contamination.</i>
--------------------	--

### PROCEDURES:

#### Harvested Berry Packaging Materials

- Producer/packer uses materials that are:
  - Free of objects that may become embedded in berries (e.g., material is in good repair, no splinters, glass)
  - Clean and free of debris (e.g., from other crops, compostable waste, garbage)
  - Have not been used for any other purpose that may be a source of contamination (e.g., to carry tools, personal effects, cleaning agents, agricultural chemicals, maintenance materials)
  - Any materials that have been used for other purposes are clearly marked (e.g., with paint) so they will not subsequently be used for berries

#### Market Ready Primary Packaging Materials

- Producer/packer uses materials that are:
  - !  New or reusable containers that are in good repair
  - !  Reusable containers made of porous materials (e.g., wood, wicker, cardboard) with a new liner
  - !  Reusable containers made of non-porous materials (e.g., plastic, stainless steel) with a new liner OR that are cleaned before use by washing with (*choose at least one of the following options*):
    - !  Water with friction (e.g., pressure wash, wiping, scrubbing)
    - !  Water and a sanitizer (e.g., chlorine, quaternary ammonium)
    - !  Water and soap
  - !  Packer describes the step-by-step cleaning instructions [include any soaps or sanitizers, concentrations and equipment used (*refer to Appendix B -- Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example, for suggested chlorine solutions for cleaning Appendix N -- Sanitation Standard Operating Procedures (SSOP) – An Example*) ]:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

*[Filling in the above description completes your Sanitation Standard Operating Procedure (SSOP) for cleaning of packaging materials.]*

- !  Producer/packer records cleaning of reusable packaging materials on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
- Packer uses materials that are:
  - Not used for any other purposes that may be a source of contamination (e.g., to carry tools, personal effects, cleaning agents, agricultural chemicals, maintenance materials)
  - Any materials that have been used for other purposes are clearly marked (e.g., with paint, marker) so they will not subsequently be used for berries
  - Handled in a way that maintains their integrity [e.g., protected from the elements, protected from chemicals, properly stacked, kept up off the ground (including platforms, stairs and catwalks where employees walk) etc.]
  - Labelled with the correct identifying information of the producer, packer or company for whom the berries were packed (i.e., name and address of operation) EXCEPT FOR STRAWBERRIES AND RASPBERRIES
  - Labelled with Pack ID if there is no secondary packaging materials
- !  Producer/packer conducts a visual inspection of all materials before use and records this information on Form (Q) – Packing Market Berries OR \_\_\_\_\_

### **Market Ready Secondary Packaging Materials**

- Producer/packer uses materials that are:
  - Clean, free of debris and in good repair
  - Have not been used for any other purposes that may be a source of contamination (e.g., to carry tools, personal effects, cleaning agents, agricultural chemicals, maintenance materials)
  - Handled in a way that maintains their integrity [e.g., protected from the elements, protected from chemicals, properly stacked, kept up off the ground (including platforms, stairs and catwalks where employees walk), etc.]
  - Labelled with the correct identifying information of the producer, packer or company for whom the berries were packed (i.e., name and address of the operation)
  - Labelled with the Pack ID

- If there is **NO** market ready primary OR secondary packaging materials used, the packer labels the pallet/skid with:
  - The correct identifying information of the producer, packer or company for whom the berries were packed (i.e., name and address of operation)
  - The Pack ID

**Packaging Accessories**

- Packer uses only **new** packaging accessories that may come into direct contact with the berries or have a food safety impact on the berries such as liners, shrink and pallet wrap, coupons, tags, ties and staples
- Packer may reuse packaging accessories that do not come into direct contact with the berries such as pallet dividers, slats and rope

**17.3 Storage**

- Harvested berry packaging materials are stored on the premises
- Market ready packaging materials are stored on the premises
- Packaging accessories are stored on the premises

*If **ANY** of the above circles has been checked off, proceed below.  
If not, proceed to Section 18: Growing and Harvesting.*

<b>REQUIREMENT</b>	<i>Packaging materials must be stored in designated areas and under the proper conditions to prevent biological, chemical and physical contamination.</i>
--------------------	---

**PROCEDURES:**

- !  Annually – Producer/packer records the storage locations for market ready packaging materials and accessories on Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_  
\_\_\_\_\_

**Harvested Berry Packaging Materials**

- Producer/packer stores these separate from potential sources of contamination and damage (e.g., equipment, fuels, agricultural chemicals)

**Market Ready Primary and Secondary Packaging Materials and Accessories**

- Packer stores these:
  - In a clean, covered, dry location and off the ground (e.g., on a shelf or pallet)
  - Separate from potential sources of contamination and damage (e.g., berries, water, equipment, fuels, agricultural chemicals)
  - At least 8 cm away from any wall

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						

# 18. Growing and Harvesting

<b>Forms Required</b> H1, H2, P, Q	<b>Producer:</b> Yes
	<b>Packer:</b> No

## RATIONALE:

Berries harvested less than four months after the application of manure may be a source of biological contamination. Similarly, berries harvested before a pre-harvest interval (PHI) has elapsed may be a source of chemical contamination. Product release procedures include checking that the appropriate intervals have elapsed, and that the production site is assessed before harvest.

## 18.1 Growing

**Note:** Refer to Sections 3, 4, 5, 6, 7 for requirements and procedures related to inputs used during the growing period.

## 18.2 Harvesting

<b>REQUIREMENT</b>	<i>Berries must be harvested at appropriate times to minimize the source of contamination of berries.</i>
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## PROCEDURES:

- ! ● Before harvesting – Producer refers to Forms (H1) and (H2) Agronomic Inputs and ensures that:
  - !  A minimum 120-day period has elapsed between the spreading of manure and the initial harvest period
  - !  The required pre-harvest interval (PHI) has elapsed between the application of agricultural chemicals and the initial harvest
- Producer does not harvest berries that have fallen on the ground **except** for cranberries
- Before harvesting – Producer surveys the production site to ensure there are no signs of obvious contamination (e.g., oil or chemical spill, portable toilet leaking, flooding, etc.)
- When harvesting, producer ensures that packaging materials are not a source of contamination (e.g., does not stack muddy containers on top of each other, etc.)
- Producer visually inspects berries before and during harvest to look for evidence of animal or bird activity (i.e., excrement) and discards berries if they have been contaminated
- ! ● Producer records all harvesting information:
  - !  If picking into **harvested berry packaging materials**, by completing Form (P) Harvesting and Storing Berries OR \_\_\_\_\_
  - !  If picking into **market ready packaging materials**, by completing Form (Q) Packing Market Berries OR \_\_\_\_\_

### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						





## 19. Sorting, Grading and Packing

<b>Forms Required</b> P, Q	<b>Producer: Yes</b>
	<b>Packer: Yes</b>

### RATIONALE:

Berries that are properly handled or packed will have a reduced likelihood of biological, chemical and physical contamination.

- Producer/packer sorts, grades or packs berries, *proceed below.*  
*If not, proceed to Section 20: Storage of Berries.*

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### 19.1 Purchasing and Receiving Harvested Berries

- Packer purchases harvested berries, *proceed below.*  
*If not, proceed to Section 19.2: Sorting and Grading.*

<b>REQUIREMENT</b>	<i>Harvested berries must be purchased and received to not be a source of contamination.</i>
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### PROCEDURES:

- Packer purchases harvested berries from CanadaGAP-certified producers and requests a copy of the certificate or requests a letter of assurance from non-certified producers
- !  Packer receives only the harvested berries that were purchased along with the certificate or letter of assurance (one letter per season per producer) (File under Tab: Letters of Assurance/Certificates)
- Packer inspects the received harvested berries for sources of contamination (e.g., glass, rodent droppings/feces) and if contamination is observed, packer notifies producer of the problem and takes appropriate action (e.g., sorts, grades, trims, removes contamination, refuses product, etc.)

### 19.2 Sorting and Grading

<b>REQUIREMENT</b>	<i>Harvested berries, in the production site or in the packinghouse, must be sorted and graded in a manner that minimizes sources of biological, chemical and physical contamination.</i>
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### PROCEDURES:

#### In the Production Site

- During sorting and grading, employees:
  - Separate foreign objects (e.g., stones, glass), damaged or rotten berries and crop debris (e.g., stems, leaves) from marketable berries
  - Discard foreign objects, culls and debris in the appropriate location (e.g., back in the field, labelled container)

#### In the Packinghouse

- During sorting and grading, employees or equipment:
  - Separate foreign objects (e.g., stones, glass), damaged or rotten berries and crop debris (e.g., stems, leaves) from marketable berries
  - Discard foreign objects, culls and debris in the appropriate container
  - Discard berries if they become contaminated



### 19.3 Packing

**REQUIREMENT**

*Harvested and market berries, whether out in the production site or in the packinghouse, must be packed in a manner that minimizes sources of biological, chemical and physical contamination.*

**PROCEDURES:**

**In the Production Site**

- Packing is done in the production site, *proceed below.*  
*If not, proceed to the next sub-section: In the Packinghouse.*
- Producer records all packing information by completing:
  - Form (P) Harvesting and Storing Berries OR \_\_\_\_\_  
\_\_\_\_\_

**AND/OR**

- Form (Q) Packing Market Berries OR \_\_\_\_\_  
\_\_\_\_\_

**In the Packinghouse**

- Packing is done in the packinghouse, *proceed below.*  
*If not, proceed to Section 20: Storage of Berries.*
- Packer records all packing information by completing Form (Q) Packing Market Berries OR \_\_\_\_\_  
\_\_\_\_\_

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						

## 20. Storage of Berries

<b>Forms Required</b> A, P, Q	<b>Producer: Yes</b>
	<b>Packer: Yes</b>

### RATIONALE:

Proper storage of berries will reduce the risk of biological, chemical and physical contamination.

### 20.1 Storage Conditions for Harvested Berries

- Berries are temperature conditioned, held or stored in harvested berry packaging materials or in bulk, *proceed below.*  
*If not, proceed to Section 20.2: Storage Conditions for Market Berries.*

<b>REQUIREMENT</b>	<i>Harvested berries must be held or stored in designated areas and handled under the proper conditions to minimize contamination.</i>
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### PROCEDURES:

- !  Annually – Producer/packer records the storage locations for harvested berries on Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_

#### Temperature Conditioning [(Pre-) Cooling]

- Harvested berries are temperature conditioned on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Holding.*
- Producer/packer (pre-) cools harvested berries to a predetermined temperature in an environment that:
  - Does not contaminate the berries (e.g., clean tarping material is used, proper air flow)
  - Prevents contact between harvested and market berries
  - Is separate from equipment, fuels, agricultural chemicals and market ready packaging materials

#### Holding

- Harvested berries are held on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Storage.*
- Producer/packer holds harvested berries in an environment that:
  - Does not contaminate the berries or the containers they are in (e.g., clean and well-maintained holding area)
  - Is separate from market berries, equipment, fuels, agricultural chemicals and market ready packaging materials

#### Storage

- Harvested berries are put into storage on premises, *proceed below.*  
*If not, proceed to Section 20.2: Storage Conditions for Market Berries.*
- Producer/packer stores harvested berries:
  - In a predetermined environment (e.g., temperature is appropriate for berries)
  - In an environment that does not contaminate the berries or the containers they are in (e.g., clean and well-maintained holding area)
  - Separate from market berries, equipment, fuels, agricultural chemicals and market ready packaging materials
- When harvested berries are put into storage, producer/packer records all storing information by completing Form (P) Harvesting and Storing Berries OR \_\_\_\_\_



## 20.2 Storage Conditions for Market Berries

- Berries are temperature conditioned, held or stored in market ready packaging materials, *proceed below.*  
*If not, proceed to Section 21: Transportation.*

<b>REQUIREMENT</b>	<i>Market berries must be held or stored in designated areas and handled under the proper conditions to minimize contamination.</i>
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### PROCEDURES:

- !  Annually – Packer records the storage locations for market berries on Form (A) Buildings Sketch (Interior Floor Plan) OR \_\_\_\_\_

### Temperature Conditioning [(Pre-) Cooling]

- Market berries are temperature conditioned on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Holding.*
- Packer (pre-) cools market berries to a predetermined temperature in an environment that:
  - Does not contaminate the berries (e.g., clean tarping material is used, proper air flow)
  - Prevents contact between harvested and market berries
  - Is separate from equipment, fuels, agricultural chemicals and packaging materials

### Holding

- Market berries are held on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Storage.*
- Packer holds market berries in an environment that:
  - Does not contaminate the berries or the containers they are in (e.g., clean and well-maintained holding area)
  - Is separate from harvested berries, equipment, fuels, agricultural chemicals and packaging materials

### Storage

- Market berries are put into storage on premises, *proceed below.*  
*If not, proceed to Section 21: Transportation.*
- Packer stores market berries:
  - In a predetermined environment (e.g., temperature is appropriate for berries)
  - In an environment that does not contaminate the berries or the containers they are in (e.g., clean and well-maintained holding area)
  - Separate from harvested berries, equipment, fuels, agricultural chemicals and packaging materials
  - 8 – 30 cm away from any wall
  - Off the floor/ground
- !  When market berries are put into storage, packer records all storing information by completing Form (Q) Packing Market Berries OR \_\_\_\_\_

### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						

## 21. Transportation

Forms Required	Producer: Yes
0	Packer: Yes

### RATIONALE:

Transportation vehicles that do not have properly cleaned and/or maintained food contact surfaces may be a potential source of contamination to berries. Bulk transport is included within 21.1 of this section. Product release procedures include inspecting outgoing product for signs of contamination before loading onto vehicles.

### 21.1 Transportation of Berries in Harvested Berry Packaging Materials

<b>REQUIREMENT</b>	<i>To minimize the potential for contamination, vehicles transporting berries in harvested berry packaging materials or in bulk must have a clean and well-maintained cargo area.</i>
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### PROCEDURES:

- Before loading each vehicle, producer/packer ensures that an inspection is made of the cargo area of the vehicle to ensure it is clean and well-maintained
- Producer/packer records information about berries being transported to someone else's premises on Form (O) Transporting Berries OR \_\_\_\_\_

### 21.2 Transportation of Berries in Market Ready Packaging Materials

<b>REQUIREMENT</b>	<i>To minimize the potential for contamination, vehicles transporting berries in market ready packaging materials must have a clean and well-maintained cargo area, berries must be covered, and care must be taken to prevent cross contamination from products other than berries.</i>
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### PROCEDURES:

- Before loading each vehicle, producer/packer ensures that:
  - An inspection is made of the cargo area of the vehicle to ensure it is clean and well-maintained (e.g., no holes, splinters, debris, signs of pest intrusion, etc.)
  - If the berries are transported to someone else's premises, the findings and any corrective actions are recorded on Form (O) Transporting Berries OR \_\_\_\_\_
- Before loading, producer/packer inspects outgoing product for sources of contamination (e.g., glass, rodent droppings) and if contamination is observed, takes appropriate action (e.g., sorts, removes product, removes contamination, etc.)
- When loading, producer/packer ensures that berries do not come in contact with other products/materials being transported that may be a source of contamination
- During transportation, producer/packer ensures that :
  - Covered vehicles are used to transport berries in market ready packaging materials, or that the integrity of the load is secured with a protective covering (e.g., tarp, plastic sheeting),
  - If the berries are transported to someone else's premises, this information is recorded on Form (O) Transporting Berries OR \_\_\_\_\_

- Producer/packer records information about berries being transported to someone else's premises on Form (O) Transporting Berries OR \_\_\_\_\_

**Confirmation/Update Log:**

Date						
Initials						

## 22. Identification and Traceability

<b>Forms Required</b> O, P, Q	<b>Producer: Yes</b>
	<b>Packer: Yes</b>

### RATIONALE:

Berries that are identifiable and traceable are easily and quickly traced back to the point of origin. Contaminated berries can be distinguished from those that are not, and product loss may be limited in the event of a recall (i.e., one identified lot versus an entire harvest).

### 22.1 Traceability System

<b>REQUIREMENT</b>	<i>A traceability system that allows all berries to be traced in the event of a recall, must be in place.</i>
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### PROCEDURES:

**Note:** *As much identification as is practically possible will assist in minimizing producer/packer financial losses in the event a recall is necessary (i.e., being able to identify a pallet as opposed to a field). For complete traceability, it is recommended that the packer assign a lot ID to all market berries, if not directly on packaging materials, then on Form (Q) Packing Market Berries. Refer to Appendix M -- Traceability and Product Identification – Some Examples*

- Producer/packer keeps track of stored berries (e.g., harvest dates or date received from producer) through the use of pallet/bin tags or some other form of identification
- Producer records Field # information for harvested berries on:
  - Form (P) Harvesting and Storing Berries OR \_\_\_\_\_

**AND**

- Form (O) Transporting Berries OR \_\_\_\_\_
- Packer identifies all market berries with a Pack ID on the primary or secondary market ready packaging materials
- Packer records Pack ID and, if applicable, lot ID for market berries on:
  - Form (Q) Packing Market Berries OR \_\_\_\_\_

**AND**

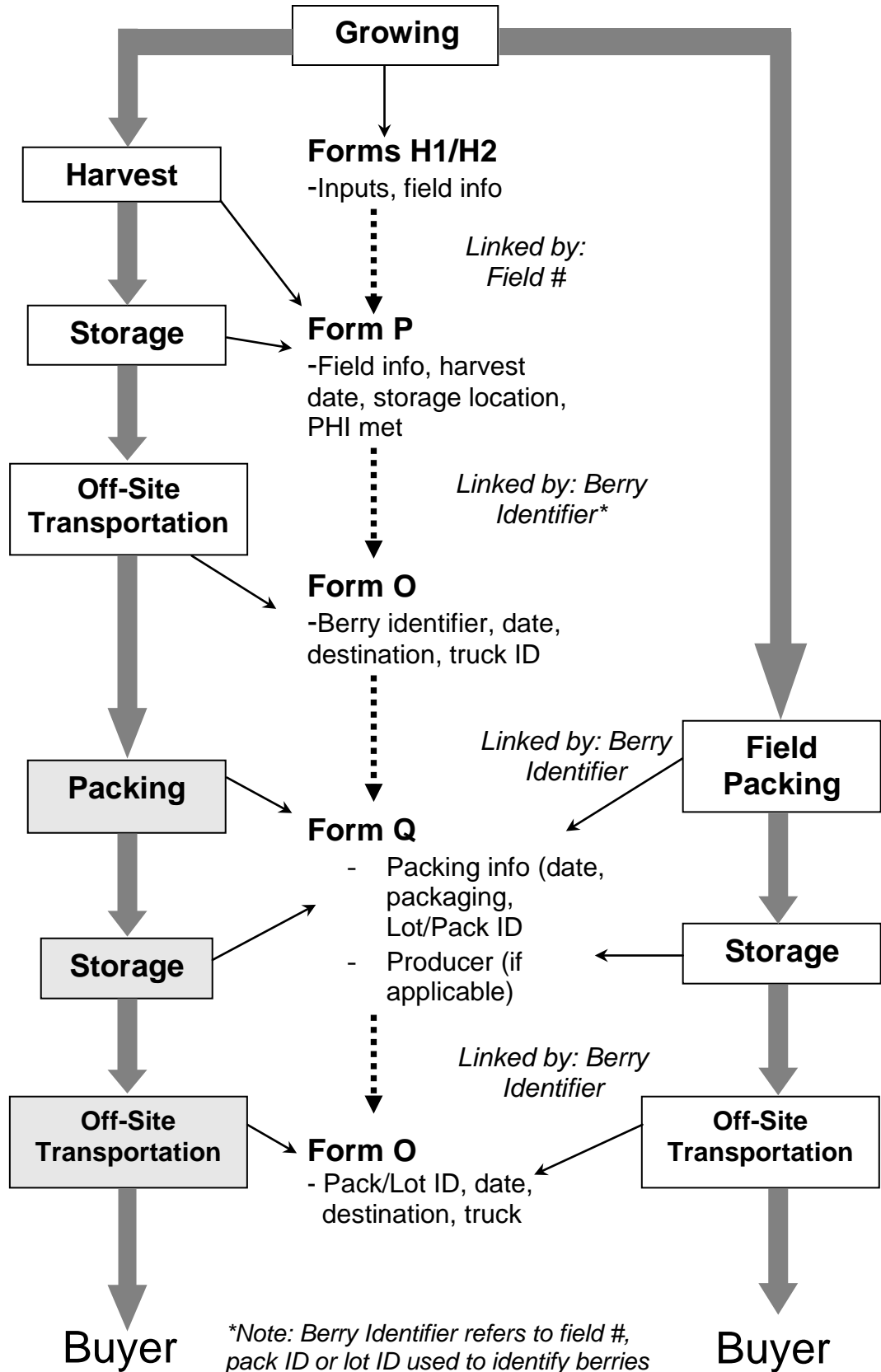
- Form (O) Transporting Berries OR \_\_\_\_\_

The diagram below shows the basic steps in small fruit production, the forms and information recorded at each step and how the records link to the berry identifier (such as a pack ID labelled on a box) for traceability.

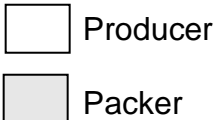
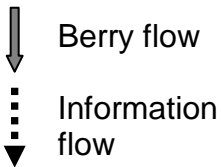
#### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						

# Traceability Flow Diagram



## LEGEND



## 23. Deviations and Crisis Management

Forms Required	Producer: Yes
R	Packer: Yes

### RATIONALE:

The key to an effective On-Farm Food Safety program is identifying, rectifying and documenting major deviations in order to prevent recurrence.

### 23.1 Minor Deviations and Corrective Action

<b>REQUIREMENT</b>	<i>A minor deviation must be identified and assessed. Corrective actions must be taken immediately.</i>
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### PROCEDURES:

- When an employee identifies a minor deviation, the employee:
  - Takes immediate corrective action
  - Communicates the minor deviation and corrective action to the producer/packer

### 23.2 Major Deviations and Corrective Action

<b>REQUIREMENT</b>	<i>A major deviation must be identified, reported immediately to the producer/packer or OFFS program contact and recorded. Corrective actions must be taken immediately by the producer/packer or OFFS program contact and recorded.</i>
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### PROCEDURES:

**Note:** See table below for major deviations and corrective actions.

- When an employee identifies a major deviation, the employee immediately reports it to the producer/packer or OFFS program contact
- Producer/packer or OFFS program contact assesses the situation and determines:
  - The required corrective action
  - The cause of the major deviation
  - The required preventative action needed to prevent recurrence of the major deviation
  - New procedures or modifications to current procedures as required to address the identified major deviation, and trains employees on the new or modified procedures
- Producer/packer or OFFS program contact completes Form (R) Deviations and Corrective Actions  
OR \_\_\_\_\_

The following are major deviations that may occur at a producer's/packer's operation and their respective corrective actions. These represent deviations from the procedures that are identified in the manual with an exclamation mark (Level B Good Agricultural Practices). It is assumed that the deviation can be corrected on the premises and that the berries have not left the operation. In certain situations, there may be other appropriate actions and guidance should be sought from qualified experts. These are not all of the deviations that may occur; see Section 23.3: Crisis Management for further suggestions.

Section	Major Deviations	Specific Examples	Corrective Action(s)
<b>Section 2: Premises</b>	Producer/packer selects a packinghouse (e.g., fluming, washing, rinsing, brushing, drying, sorting, grading, packing and/or area) or storage (e.g., harvested or market berries, agricultural chemicals, packaging materials, etc.) area that could contaminate berries or packaging materials	<ul style="list-style-type: none"> <li>• Debris or spills on the floor</li> <li>• Animals present</li> <li>• Broken glass or lights</li> <li>• Incorrect lights (not shatterproof or covered)</li> <li>• Leaking of fluid or liquid on to berries or packaging materials</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Identifies and isolates any contaminated berries, packaging materials or equipment</li> <li>• Cleans and maintains the packinghouse and storage areas (i.e., storage for berries and market ready packaging materials)</li> <li>• Selects another storage area if storage area cannot be cleaned (i.e., is not usable)</li> <li>• Replaces lighting (uses shatterproof or covered lighting)</li> <li>• Disposes of berries and market ready packaging materials if they have come into direct contact with contamination</li> </ul>
<b>Section 4: Manure, Compost, Compost Tea and Other By-Products</b>	Producer receives compost/compost tea without knowing if it has been properly composted, or that has not been properly composted	<ul style="list-style-type: none"> <li>• No letter of assurance</li> <li>• Composting records are incomplete or missing</li> <li>• Composting records indicate full composting process has not been achieved</li> </ul>	Producer: <ul style="list-style-type: none"> <li>• Refuses, returns or disposes of compost/compost tea and reorders new compost/compost tea</li> <li>• Producer again asks for letter of assurance and does not spread the compost/compost tea until the letter is received</li> <li>• Continues/restarts composting process for compost/compost tea made on site and does not spread compost/compost tea until the proper process has been completed</li> <li>• Waits 120 days before harvesting berries if compost/compost tea was spread without knowing if it was properly composted</li> </ul>
	Producer spreads manure when the interval between application and harvest is less than 120 days		Producer: <ul style="list-style-type: none"> <li>• Identifies which fields and crops are affected and does not harvest the berries until the 120 days has elapsed [refer to Form (H2) Agronomic Inputs (Other)]</li> </ul>
<b>Section 6: Agricultural Chemicals</b>	Producer/packer receives the incorrect agricultural chemical from supplier	<ul style="list-style-type: none"> <li>• Agricultural chemical is not registered for the applicable small fruit in Canada</li> <li>• Containers are damaged and/or labels are illegible</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Returns or refuses and reorders agricultural chemicals</li> <li>• Identifies whether field/planting/berries have been sprayed with wrong agricultural chemicals</li> <li>• Disposes of incorrect chemical</li> <li>• Re-trains employees or takes refresher training on agricultural chemical application</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
	<p>Producer/packer uses a storage location for agricultural chemicals that is not designated only for that purpose and/or is not covered, clean or dry and access to it is not controlled</p>	<ul style="list-style-type: none"> <li>Leaks or spills from agricultural chemicals because they are not properly stored</li> </ul>	<p>Producer/packer:</p> <ul style="list-style-type: none"> <li>Moves chemicals to a proper storage facility/location or conducts maintenance on current agricultural chemical storage</li> <li>Identifies whether berries have been contaminated and disposes of any affected berries</li> <li>Cleans any spills or leaks resulting from improper storage</li> <li>Re-trains employees on storage location and proper storage of agricultural chemicals</li> </ul>
	<p>Producer/packer applies the incorrect agricultural chemical</p>	<ul style="list-style-type: none"> <li>Agricultural chemical used is not registered for the applicable small fruits in Canada</li> </ul>	<p>Producer/packer:</p> <ul style="list-style-type: none"> <li>Identifies whether field/planting/berries have been sprayed with wrong agricultural chemicals</li> <li>Disposes of affected berries</li> </ul>
	<p>Producer/packer fails to follow the label recommendations and directions when applying agricultural chemicals</p>	<ul style="list-style-type: none"> <li>Too much or too little agricultural chemical is applied</li> <li>Agricultural chemical is mixed incorrectly</li> </ul>	<p>Producer/packer:</p> <ul style="list-style-type: none"> <li>Stops spraying</li> <li>Identifies which fields/plantings/berries are affected</li> <li>Obtains expert advice on the risk of contamination and, if necessary, disposes of berries</li> <li>Retrains employees or takes refresher training on applying agricultural chemicals</li> <li>Identifies whether berries have been contaminated and if so, disposes of affected berries</li> </ul>
<p><b>Section 8: Equipment</b></p>	<p>Packer does not clean or maintain packinghouse equipment regularly (e.g., weekly) or properly (e.g., pressure washer, sanitizer)</p>	<ul style="list-style-type: none"> <li>Visible debris or contamination is observed on equipment</li> <li>Equipment breaks down causing chemical or physical contamination</li> <li>Lubricants, oils and fuels leak on to food contact surfaces</li> </ul>	<p>Packer:</p> <ul style="list-style-type: none"> <li>Stops activities (sorting, grading, packing)</li> <li>Isolates any berries in contact with contaminated equipment</li> <li>Cleans and maintains affected packinghouse equipment</li> <li>Makes necessary changes to cleaning procedure or schedule</li> <li>Re-trains employees to adhere to weekly cleaning and maintenance schedule</li> <li>Disposes of berries if they have come into direct contact with contamination</li> </ul>
	<p>Producer/packer applies inaccurate rates of agricultural chemicals because he/she did not calibrate the spray equipment properly or at all</p>	<ul style="list-style-type: none"> <li>Sprayer runs out of chemical too early</li> <li>Sprayer has too much chemical left over after spraying</li> </ul>	<p>Producer/packer:</p> <ul style="list-style-type: none"> <li>Identifies and isolates affected berries</li> <li>Obtains expert advice on the risk of contamination and, if necessary, does not harvest the berries</li> <li>Re-calibrates equipment properly (following manufacturer's guidelines)</li> <li>Re-trains employees on calibration schedule and procedures</li> </ul>



Section	Major Deviations	Specific Examples	Corrective Action(s)
	Producer/packer applies inaccurate rates of water treatment aids because he/she did not calibrate water treatment equipment properly or at all (i.e., chlorinators and ORP/ pH meters)	<ul style="list-style-type: none"> <li>• Unusually high or lack of chemical (chlorine) odours</li> <li>• Change in rate that treatment aids are used</li> <li>• Discolouration or pitting of berries</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Stops washing/fluming activities</li> <li>• Calibrates equipment</li> <li>• Re-checks ORP/chlorine levels/pH</li> <li>• Treats the water and re-tests to check potability OR disposes of the water</li> <li>• Rinses or disposes of any berries that have come into direct contact with the contaminated water</li> <li>• Re-trains employees on calibration schedule and procedures</li> </ul>
<b>Section 9: Cleaning and Maintenance Materials</b>	Packer did not follow the instructions for use of the water treatment product or used the wrong product for water treatment	<ul style="list-style-type: none"> <li>• Too much water treatment product is added</li> <li>• Product is mixed incorrectly</li> <li>• Label was not intact or not read correctly</li> </ul>	Packer: <ul style="list-style-type: none"> <li>• Stops washing/fluming activities</li> <li>• Adds water (if too much product was added)</li> <li>• Empties tank and cleans if necessary</li> <li>• Disposes of any berries that have come into direct contact with the contaminated water</li> <li>• Retrains employees on water treatment procedures</li> </ul>
	Equipment (e.g., gear boxes, hydraulic lines) leaks onto the sorting/grading/packing equipment	<ul style="list-style-type: none"> <li>• Oils and/or lubricants leak onto the cups, belts, tables, etc.</li> </ul>	Packer: <ul style="list-style-type: none"> <li>• Stops activities (sorting, grading, packing)</li> <li>• Isolates any berries in contact with contaminated equipment</li> <li>• Cleans and maintains affected packinghouse equipment</li> <li>• Makes necessary changes to maintenance procedure or schedule</li> <li>• Re-trains employees to adhere to weekly maintenance schedule</li> <li>• Disposes of berries if they have come into direct contact with contamination</li> </ul>
<b>Section 11: Personal Hygiene Facilities</b>	Personal hygiene facilities are not maintained and cleaned weekly (while in use) and daily (during peak season)	<ul style="list-style-type: none"> <li>• Washrooms are not properly stocked (paper towels, soap, sanitizer)</li> <li>• Visible debris or contamination in facilities</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Ensures and confirms that hygiene facilities are cleaned and stocked</li> <li>• Instructs employees to re-wash hands</li> <li>• Re-trains employees on weekly/daily cleaning and maintenance schedule</li> <li>• Re-evaluates maintenance schedule</li> <li>• Determines whether any equipment or berries have been contaminated</li> <li>• Washes equipment as necessary</li> <li>• Disposes of berries if they have come into direct contact with contamination</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
<b>Section 14: Pest Program for Buildings</b>	Producer/packer does not have an effective pest control program	Evidence of pest infestation is noticed such as: <ul style="list-style-type: none"> <li>• Presence of rodents, animals or feces</li> <li>• Chewed boxes, walls or packaging materials</li> <li>• Nests or nesting materials</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Removes all feces, nesting materials, rodents or animals</li> <li>• Washes equipment and building areas as necessary</li> <li>• Disposes of any berries or packaging materials that may be contaminated</li> <li>• Develops and implements a pest program, hires a third party pest control company or seeks expert advice on improving the current pest program</li> <li>• Re-trains employees on use of pest control products</li> <li>• Re-evaluates and revises pest program where/when necessary</li> </ul>
	Producer/packer does not follow the pest program properly	<ul style="list-style-type: none"> <li>• Bait inside buildings is not secured in a trap</li> <li>• Pest control products are used improperly</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Removes all bait that is not secured in a trap</li> <li>• Disposes of any berries that have come in to contact with bait or other pest control products</li> <li>• Washes any equipment that has come into contact with pest control products or pests</li> <li>• Re-trains employees on use of pest control products</li> <li>• Re-evaluates and revises pest program where/when necessary</li> </ul>
<b>Section 15: Water (for Fluming and Cleaning)</b>	Producer/packer purchases/selects a water source that is not potable	<ul style="list-style-type: none"> <li>• Water test results show contamination</li> <li>• Notification from municipality</li> <li>• Adverse event causing contamination of source</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Stops using water source</li> <li>• Treats the water and re-tests to check potability before using water</li> <li>• Rinses (with potable water) or disposes of any berries that have come into contact with contaminated water</li> </ul>
	Producer/packer receives water from a source that is not potable	<ul style="list-style-type: none"> <li>• Water test results show contamination</li> <li>• Notification from municipality</li> <li>• Adverse event causing contamination of source</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Stops using water source</li> <li>• Treats the water and re-tests to check potability before using water</li> <li>• Rinses (with potable water) or disposes of any berries that have come into contact with contaminated water</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
	Producer/packer stores water in an unclean cistern, tank or container or with a damaged lid/no lid	<ul style="list-style-type: none"> <li>• Water test results show contamination from cistern/tank/container</li> <li>• Adverse event causing contamination of cistern/tank/container</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Stops using water</li> <li>• Empties and cleans cistern/tank/container or treats water then cleans cistern/tank/container</li> <li>• Re-tests to check potability before using water</li> <li>• Repairs or replaces lid</li> <li>• Rinses (with potable water) or disposes of any berries that have come into contact with contaminated water</li> <li>• Retrains employees on water treatment procedures</li> </ul>
	Producer/packer does not treat water properly (i.e., for potability)	<ul style="list-style-type: none"> <li>• Free chlorine test strips show that free chlorine in wash or flume water is below 2 ppm</li> <li>• Water tests results show contamination in water</li> <li>• ORP reading is below 650 mV</li> </ul>	Producer/packer <ul style="list-style-type: none"> <li>• Stops using water</li> <li>• Treats the water and re-checks chlorination levels OR re-tests to check potability before using water</li> <li>• Rinses (with potable water) or disposes of any berries that have come into contact with contaminated water</li> <li>• Retrains employees on water treatment procedures</li> </ul>
	Producer/packer does use a final potable water rinse on cranberries	<ul style="list-style-type: none"> <li>• No final potable water rinse is used on cranberries</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>• Stops fluming/washing and packing and identifies berries that have come into contact with contaminated water</li> <li>• Implements a final potable water rinse</li> <li>• Rinses (with potable water) or disposes of any berries in contact with contaminated water</li> </ul>
<b>Section 17: Packaging Materials</b>	Packer fails to clean reusable (non-porous) packaging materials properly before use	<ul style="list-style-type: none"> <li>• Reusable packaging materials have dirt and/or debris or are damaged</li> </ul>	Packer: <ul style="list-style-type: none"> <li>• Stops packing</li> <li>• Cleans reusable packaging materials according to SSOP</li> <li>• Disposes of or rewashes any product in contact with contaminated packaging materials</li> <li>• Retrains employees on cleaning procedures for reusable packaging materials</li> </ul>
	Packer fails to check market ready packaging materials before use	<ul style="list-style-type: none"> <li>• Reusable packaging materials are damaged or dirty</li> <li>• Porous packaging materials are reused without a new liner</li> </ul>	Packer: <ul style="list-style-type: none"> <li>• Stops packing</li> <li>• Checks packed berries for dirty or damaged packaging</li> <li>• Disposes or rewashes any berries in contact with contaminated packaging</li> <li>• Disposes of any damaged and unusable packaging</li> <li>• Washes any reusable packaging</li> <li>• Re-trains employees on procedures for inspecting market ready packaging</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
<b>Section 18: Growing and Harvesting</b>	Producer harvests berries without allowing the proper interval (of more than 120 days) to elapse between the application of manure and harvest		Producer: <ul style="list-style-type: none"> <li>Identifies which fields/plantings/berries are affected</li> <li>Disposes of berries</li> </ul>
	Producer harvests berries without allowing the pre-harvest interval to elapse for the application of agricultural chemicals		Producer: <ul style="list-style-type: none"> <li>Identifies which fields/plantings/berries are affected</li> <li>Disposes of berries</li> </ul>
<b>Section 19: Sorting, Grading and Packing</b>	Packer receives harvested berries from a producer not following a food safety program or without a letter of assurance		<ul style="list-style-type: none"> <li>Packer refuses the berries and reorders the berries; or asks for letter of assurance and does not pack or sell the berries until it is received</li> </ul>
<b>Section 20: Storage of Berries</b>	Producer/packer selects a storage area that could contaminate berries or packaging materials (e.g., garbage and/or animals present, lights are not shatterproof or covered)	<ul style="list-style-type: none"> <li>Garbage, spills or other contaminants in the storage</li> <li>Lighting not covered or shatterproof</li> <li>Broken glass or lights in the storage</li> </ul>	Producer/packer: <ul style="list-style-type: none"> <li>Isolates any contaminated berries or packaging materials</li> <li>Cleans and maintains the storage area (i.e., storage for berries and market ready packaging materials)</li> <li>Replaces broken lights with shatterproof or covered lighting</li> <li>Selects another storage area if storage area cannot be cleaned (i.e., is not usable)</li> <li>Disposes of berries and market ready packaging materials that have come into direct contact with contamination</li> </ul>

### 23.3 Crisis Management

<b>REQUIREMENT</b>	<i>A crisis management plan must be established in the event that berries need to be recalled.</i>
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#### PROCEDURES:

Note: Recall procedures and forms are included in Appendix S -- Recall Program.

Annually – Producer/packer reviews Appendix S -- Recall Program OR \_\_\_\_\_ and updates recall team name(s) and contact information if necessary

The producer/packer keeps up-to-date contact information for all suppliers and customers

Annually – Producer/storage intermediary/packer conducts a mock recall to test the effectiveness of the traceability system by completing the forms in Appendix S: Recall Program OR \_\_\_\_\_ (File completed forms under Tab: Recall Program)



**Note:** Refer to Appendix R: How to Conduct A Mock Recall – An Example

- If an abnormal event occurs that causes contamination of berries, producer/packer follows the following basic steps to manage the risk of contamination of berries:
  - Stops current activity (if applicable) (e.g., shuts down packing line) to prevent further contamination
  - Identifies and, if possible, isolates the berries and equipment affected
  - Notifies authorities/person responsible
  - Determines whether berries have been contaminated
  - Determines and conducts appropriate course of action (e.g., disposes of berries, cleans equipment)
  - Approves the release of unaffected product
  - Identifies cause of problem and undertakes preventive measures (e.g., preventive maintenance, training of employees)
  - Records this information on Form (R) Deviations and Corrective Actions OR \_\_\_\_\_

**Note:** This basic procedure can be used in the case of most adverse events such as blood on berries, flooding events, portable toilets spilling into the field, hydraulic line breaks and/or fluid leaks on to berries. Detailed examples are provided below.

*Example 1: Employee cuts hand during packing and berries are contaminated with blood.*

*Packer or employee:*

- Stops packing line
- Sends injured employee for immediate medical attention
- Identifies which berries and equipment is contaminated and isolates berries to prevent further contamination
- Notifies packer
- Disposes of all contaminated berries and cleans and disinfects all affected equipment
- Approves the release of unaffected product
- Re-trains all employees on workplace safety practices and policies
- Records information on Form (R) Deviations and Corrective Actions

*Example 2: A hydraulic line breaks during mechanical harvest and fluid leaks into the field.*

*Producer or employee:*

- Stops harvester
- Prevents further leaking of fluid into production site if possible
- Identifies which berries (fields, plantings, rows) and equipment is contaminated
- Notifies producer
- Disposes of all contaminated berries
- Approves the release of unaffected product
- Repairs and cleans harvester and reviews and updates preventive maintenance schedule
- Records information on Form (R) Deviations and Corrective Actions

- In the event that the berries have left the premises, food safety has been compromised and the public is at risk, the producer/packer initiates the Recall process

## 23.4 Complaint Handling

<b>REQUIREMENT</b>	A complaint handling system must be established to manage complaint data and control and correct shortcomings in food safety.
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**PROCEDURES:**

- Producer/packer has a system in place to receive, document and take action in response to complaints (e.g. from customers, consumers etc.)
- Producer/packer records complaints received on Form (R) Deviations and Corrective Actions OR  
\_\_\_\_\_
- Producer/packer includes review of complaints during the annual review of the OFFS Program (See Section 24: On-Farm Food Safety Manual Review)

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						



## 24. On-Farm Food Safety Manual Review

<b>Forms Required</b>	<b>Producer: Yes</b>
N/A	<b>Packer: Yes</b>

### RATIONALE:

An annual review allows the producer/packer and senior management of the company to ensure that the On-Farm Food Safety Manual is being followed effectively. A review determines if any problems were encountered during the growing/packing season. The result of a review is a more effective and efficient On-Farm Food Safety program.

### 24.1 Protocols

<b>REQUIREMENT</b>	<i>A protocol must be in place to review the On-Farm Food Safety Manual annually to ensure complete and effective implementation. Senior management must demonstrate its commitment to the continuing suitability, adequacy and effectiveness of the company's food safety system, including related policies and procedures.</i>
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### PROCEDURES:

- Producer/packer ensures that the most current updated pages issued by the CHC are used when reviewing the Producer and Packer On-Farm Food Safety Manual

**Note:** The list of updated pages will be available on the CHC web site ([www.canadagap.ca](http://www.canadagap.ca)).

- Producer/packer annually reviews the Producer and Packer On-Farm Food Safety Manual by completing and updating the applicable sections and forms of the Manual
- Producer/packer annually reviews the major deviations and complaints and makes any necessary changes to food safety policies and procedures
- Producer/storage intermediary/packer prepares for an audit by completing the CHC OFFS Self-Assessment Checklist or Audit Checklist (File under Tab: \_\_\_\_\_), or by using an outside party to perform a pre-audit (Download checklists at [www.canadagap.ca](http://www.canadagap.ca))
- Producer/packer records that the OFFS Manual has been annually reviewed by initialling the Confirmation/Update Log at the end of each section and below

#### Confirmation/Update Log:

<b>Date</b>						
<b>Initials</b>						



# COMPENDIUM OF FOOD SAFETY FORMS

## INDEX

Form	Title	CHC Issue Date and Version Number	Form Location*
<b>ANNUAL FORMS</b>			
A.	Buildings Sketch (Interior Floor Plan)	2011 Version 5.1	OFFS BINDER (Tab: FORMS)
B.	Storage Assessment	2011 Version 5.1	OFFS BINDER (Tab: FORMS)
C.	Employee Personal Hygiene and Food Handling Practices Policy – Production Site	2011 Version 5.1	OFFS BINDER (Tab: FORMS)
D.	Employee Personal Hygiene and Food Handling Practices Policy – Packinghouse/Product Storage	2011 Version 5.1	OFFS BINDER (Tab: FORMS)
E.	Pest Control for Buildings	2011 Version 5.1	OFFS BINDER (Tab: FORMS)
F.	Water (for Fluming and Cleaning) Assessment	2011 Version 5.1	OFFS BINDER (Tab: FORMS)
<b>ONGOING FORMS</b>			
G.	Cleaning, Maintenance and Repair of Buildings	2011 Version 5.1	
H1.	Agronomic Inputs (Agricultural Chemicals)	2011 Version 5.1	
H2.	Agronomic Inputs (Other)	2011 Version 5.1	
I.	Equipment Cleaning, Maintenance and Calibration	2011 Version 5.1	
J.	Cleaning and Maintenance – Personal Hygiene Facilities	2011 Version 5.1	
K.	Training Session	2011 Version 5.1	
L.	Visitor Sign-In Log	2011 Version 5.1	
M.	Pest Monitoring for Buildings	2011 Version 5.1	
N1.	Water Treatment Control and Monitoring	2011 Version 5.1	
O.	Transporting Berries	2011 Version 5.1	
P.	Harvesting and Storing Berries	2011 Version 5.1	
Q.	Packing Market Berries	2011 Version 5.1	
R.	Deviations and Corrective Actions	2011 Version 5.1	

\*Refers to where you place/keep/store your Forms (e.g., office, washroom door, entrance to packinghouse)









**B. Storage Assessment**

**Instructions:** This Form must be completed prior to using storages for the first time in a season (use one Form per storage for harvested and market berries). If an item is not applicable, indicate N/A, Make additional copies as necessary and complete as Page \_ of \_ to indicate more than one page if required.

**Completed by:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Page** \_\_\_\_\_ **of** \_\_\_\_\_

**Storage ID #/Name:** \_\_\_\_\_

Requirement	Yes (✓)	No (✓)	Action Taken if Answered "No"
Storage is secured (e.g., with a lock) when unsupervised?			
Lights in the storage area are shatterproof or covered?			
Berries in the storage area are kept in proper conditions (e.g., on pallets)?			
Berries are stored away from leaky areas (e.g., from roofs, pipes, condensation)?			
When the storage is in use, production site equipment and fertilizers are stored and repaired elsewhere? Agricultural chemicals are never stored in product storages?			
When the storage is in use, treated seed is stored elsewhere or contained to prevent contamination of the berries?			
When the storage is in use, oil/fuel storage tanks are stored elsewhere or contained to prevent contamination of berries?			
Oil/gas furnace is exhausting outside the storage?			
Oil/gas furnace is contained to prevent contamination of the berries?			
Floor of the storage is clean and free from contaminants (e.g., oil, wood, plastic, glass, metal, garbage, chemicals)?			
Walls/ceilings of storage are clean and in good condition (e.g., free from contamination from oil, wood, plastic, glass, metal)?			
The storage is a no-smoking zone?			
Storage is free from animals (wild or domestic) or evidence of animals (droppings) and other pests (birds, insects, rodents)?			
Other (specify):			

How and when was the storage cleaned? (describe): \_\_\_\_\_

\_\_\_\_\_

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						





# C. Employee Personal Hygiene and Food Handling Practices Policy – Production Site

**ANNUAL**

**Instructions:** This Form is intended to assist you in setting your policy, to itemize the policy components and to be used as a training tool and possible handout to employees. All items need to be addressed during the training session for employees coming into direct contact with berries/packaging materials/food contact surfaces. Write N/A beside those not applicable to your operation.

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

<p style="text-align: center;"><b>Employee Illness, Disease and Injury</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Persons able to transmit, or suffering from, a contagious disease and/or illness transferable to food (e.g., Hepatitis A, Salmonella, <i>E. coli</i> O157:H7) and those with a temporary illness (e.g., bad cold, diarrhea and vomiting) are advised to see a doctor</li> <li><input type="checkbox"/> Employees are trained on the role and responsibility they play in preventing the contamination of berries</li> <li><input type="checkbox"/> Open wounds are treated and covered with a waterproof covering (e.g., rubber gloves)</li> </ul>	<p style="text-align: center;"><b>Employee Hand Washing</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Hands are washed and dried:             <ul style="list-style-type: none"> <li>• Before beginning work each day</li> <li>• Before entering the production site</li> <li>• Before putting on gloves (if used)</li> <li>• After every visit to the washroom</li> <li>• After a break or meal</li> <li>• After smoking</li> <li>• After hand-to-face contact (e.g., coughing, sneezing, blowing nose)</li> <li>• After applying sunscreen and insect repellent</li> <li>• After handling any materials other than the berries (e.g., fuelling equipment, spraying)</li> </ul> </li> <li><input type="checkbox"/> Hands and reusable gloves (except for cloth) are washed using proper hand washing techniques:             <ul style="list-style-type: none"> <li>• Wet hands, lather soap for approximately 20 seconds</li> <li>• Scrub well (especially fingernails and knuckles) Use fingernail brushes if needed/required</li> <li>• Rinse</li> <li>• Dry hands and wrists with paper towel</li> </ul> </li> <li><input type="checkbox"/> If no water is available, hand wipes and hand sanitizer are used</li> <li><input type="checkbox"/> Hand wipe and hand sanitizer use:             <ul style="list-style-type: none"> <li>• Use hand wipes (or water) to facilitate soil removal (if hands are dirty), AND</li> <li>• Use one squirt of waterless, antibacterial, alcohol-based product</li> </ul> </li> <li><input type="checkbox"/> Gloves are not worn as a substitute for hand washing</li> </ul>
<p style="text-align: center;"><b>Employee Biosecurity</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Employees are aware of their surroundings and the people they come in contact with, in and around the production site</li> <li><input type="checkbox"/> Employees inform person responsible (name of person responsible: _____) of unknown visitors</li> <li><input type="checkbox"/> Employees are trained in precautions they need to take when moving between production areas (e.g., from livestock areas/field to storage/packinghouse)</li> </ul>	<p style="text-align: center;"><b>Production Practices</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Employees are trained to visually inspect berries during harvest to look for evidence of unusual animal or bird activity (i.e., excrement) and discards berries if they have been contaminated</li> <li><input type="checkbox"/> Employees are trained to harvest into clean containers</li> </ul>
<p style="text-align: center;"><b>Employee Glove and Apron Use</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Gloves are used</li> <li><input type="radio"/> Aprons are used</li> </ul> <p><i>If gloves and aprons are not used, proceed to the next sub-section</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Gloves are made of rubber, nitrile, polyethylene, polyvinyl chloride, polyurethane or cloth</li> <li><input type="checkbox"/> Hands are washed and dried, before gloves are put on and after they are removed</li> <li><input type="checkbox"/> Aprons are made of rubber</li> <li><input type="checkbox"/> Employees wear aprons when they hold berries against their upper body (e.g., to trim product)</li> <li><input type="checkbox"/> Gloves and aprons are replaced when ripped or worn out</li> <li><input type="checkbox"/> Reusable aprons are washed daily</li> <li><input type="checkbox"/> Gloves are removed when leaving the work area and replaced upon return. If reusable, gloves are washed (using proper hand washing technique) after being put back on or laundered daily (for cloth)</li> </ul>	<p style="text-align: center;"><b>Other</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Employees know the difference between and how to handle major and minor food safety deviations</li> <li><input type="checkbox"/> Employees adhere to the following:             <ul style="list-style-type: none"> <li>• Always use toilet facilities</li> <li>• Never spit</li> <li>• Eat food, drinks, gum, candy or use tobacco products (including chewing tobacco and snuff) only in areas designated for this purpose (e.g., outside, in lunchroom)</li> <li>• Put personal effects in designated areas (e.g., lunches, clothing, shoes, smoking materials)</li> <li>• Dispose of waste in designated containers</li> </ul> </li> </ul>

**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						





# D. Employee Personal Hygiene and Food Handling Practices Policy – Packinghouse/Product Storage

**ANNUAL**

**Instructions:** This Form is intended to assist you in setting out your policy, to itemize the policy components and to be used as a training tool and possible handout to employees. All items need to be addressed during the training session for employees **coming into direct contact with berries/packaging materials/food contact surfaces**. Write N/A beside those not applicable to your operation.

**Completed by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

<p style="text-align: center;"><b>Employee Illness, Disease and Injury</b></p> <p><input type="checkbox"/> Persons able to transmit, or suffering from, a contagious disease and/or illness transferable to food (e.g., Hepatitis A, Salmonella, <i>E. coli</i> O157:H7) and those with a temporary illness (e.g., bad cold, diarrhea and vomiting) are advised to see a doctor</p> <p><input type="checkbox"/> Employees are trained on the role and responsibility they play in preventing the contamination of berries</p> <p><input type="checkbox"/> Open wounds are treated and covered with a waterproof covering (e.g., rubber gloves)</p> <hr/> <p style="text-align: center;"><b>Employee Biosecurity</b></p> <p><input type="checkbox"/> Employees are aware of their surroundings and the people they come in contact with, in and around the packinghouse/product storage</p> <p><input type="checkbox"/> Employees inform person responsible (name of person responsible: _____) of unknown visitors</p> <p><input type="checkbox"/> Employees are trained in precautions they need to take when moving between production areas (e.g., from livestock areas/field to storage/packinghouse)</p> <hr/> <p style="text-align: center;"><b>Production Practices</b></p> <p><input type="checkbox"/> Employees adhere to the following:</p> <ul style="list-style-type: none"> <li>• Only authorized employees handle market berries</li> <li>• Only authorized employees may enter controlled-access areas</li> </ul> <hr/> <p style="text-align: center;"><b>Employee Jewellery and Other Personal Effects</b></p> <p><input type="checkbox"/> Bracelets, necklaces and other jewellery (except for rings) are not worn</p> <p><input type="checkbox"/> Rings are covered with gloves.</p> <p><input type="checkbox"/> False fingernails, false eyelashes or other such effects are not worn</p> <p><input type="checkbox"/> Items are removed from shirt pockets (e.g., pens, etc.)</p> <p><input type="checkbox"/> Loose buttons on shirts/jackets are fixed</p> <hr/> <p style="text-align: center;"><b>Employee Glove and Apron Use</b></p> <p><input type="radio"/> Gloves are used                      <input type="radio"/> Aprons are used <i>If gloves and aprons are not used, proceed to the next sub-section.</i></p> <p><input type="checkbox"/> Gloves are made of rubber, nitrile, polyethylene, polyvinyl chloride or polyurethane</p> <p><input type="checkbox"/> Hands are washed and dried, before gloves are put on and after they are removed</p> <p><input type="checkbox"/> Aprons are made of rubber</p> <p><input type="checkbox"/> Employees wear aprons when they hold berries against their upper body (e.g., to trim product)</p> <p><input type="checkbox"/> Gloves and aprons are replaced when ripped or worn out</p> <p><input type="checkbox"/> Reusable aprons are washed daily</p> <p><input type="checkbox"/> Gloves are removed when leaving the work area and replaced upon return. If reusable, gloves are washed (using proper hand washing technique) after being put back on</p>	<p style="text-align: center;"><b>Employee Hand Washing</b></p> <p><input type="checkbox"/> Hands are washed and dried:</p> <ul style="list-style-type: none"> <li>• Before beginning work each day</li> <li>• Before putting on gloves (if used)</li> <li>• After every visit to the washroom</li> <li>• After a break or meal</li> <li>• After smoking</li> <li>• After hand-to-face contact (e.g., coughing, sneezing, blowing nose)</li> <li>• After applying insect repellent</li> <li>• After handling any materials other than the berries (e.g., garbage, cleaning and maintenance materials)</li> </ul> <p><input type="checkbox"/> Hands and reusable gloves are washed using proper hand washing techniques</p> <ul style="list-style-type: none"> <li>• Wet hands, lather soap for approximately 20 seconds</li> <li>• Scrub well (especially fingernails and knuckles)</li> <li>• Use fingernail brushes if needed/required</li> <li>• Rinse</li> <li>• Dry hands and wrists with paper towel</li> </ul> <p><input type="checkbox"/> If no water is available, hand wipes and hand sanitizer are used</p> <p><input type="checkbox"/> Hand wipe and hand sanitizer use:</p> <ul style="list-style-type: none"> <li>• Use hand wipes (or water) to facilitate soil removal (if hands are dirty) AND</li> <li>• Use one squirt of waterless, antibacterial, alcohol-based product</li> </ul> <p><input type="checkbox"/> Gloves are not worn as a substitute for hand washing</p> <hr/> <p style="text-align: center;"><b>Employee Cleanliness, Footwear and Hair</b></p> <p><input type="checkbox"/> A degree of personal cleanliness is maintained which includes starting each day wearing clean clothing and (<i>specify other</i>) _____</p> <p><input type="checkbox"/> Clean footwear is always worn (no dirt or other foreign matter)</p> <p><input type="checkbox"/> Long hair touching the shoulders is restrained (e.g., hat, hairnet, tied)</p> <hr/> <p style="text-align: center;"><b>Other</b></p> <p><input type="checkbox"/> Employees know the difference between and how to handle major and minor food safety deviations</p> <p><input type="checkbox"/> Employees adhere to the following:</p> <ul style="list-style-type: none"> <li>• Always use toilet facilities</li> <li>• Never spit</li> <li>• Eat food, drinks, gum, candy or use tobacco products (including chewing tobacco and snuff) only in areas designated for this purpose (e.g., outside, in lunchroom)</li> <li>• Put personal effects in designated areas (e.g., lunches, clothing, shoes, smoking materials)</li> <li>• Dispose of waste in designated containers</li> </ul>
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**Confirmation/Update Log:**

<b>Date</b>						
<b>Initials</b>						





**E. Pest Control for Buildings**

*Instructions: For each type of pest being controlled, specify the pest control method used. This Form is to be completed annually. Make additional copies as necessary and complete as Page \_ of \_ to indicate more than one page if required.*

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

Building ID #/ Name: \_\_\_\_\_

Pest	Control Method and Description	Person Responsible									
Birds	<b>Around building exterior</b> <input type="checkbox"/> Deterrent or other devices (specify) _____										
	<b>Inside building</b> <input type="checkbox"/> Deterrent or other devices (specify) _____										
Rodents	<b>Around building exterior (perimeter)</b> <input type="checkbox"/> Bait (specify type) _____ <input type="checkbox"/> Traps (specify type) _____ <input type="checkbox"/> Chemicals (specify below) <table border="1" data-bbox="448 831 1295 930"> <thead> <tr> <th>Name of chemical</th> <th>PCP #</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <input type="checkbox"/> Other (specify) _____	Name of chemical	PCP #	Concentration							
	Name of chemical	PCP #	Concentration								
<b>Inside building</b> <input type="checkbox"/> Traps (specify type) _____ <input type="checkbox"/> Other (specify) _____											
Insects	<b>Around building exterior</b> <input type="checkbox"/> Bait (specify type) _____ <input type="checkbox"/> Traps (e.g., glue boards, sticky traps) _____ <input type="checkbox"/> Chemicals (specify below) <table border="1" data-bbox="448 1224 1295 1323"> <thead> <tr> <th>Name of chemical</th> <th>PCP #</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <input type="checkbox"/> Other (specify) _____	Name of chemical	PCP #	Concentration							
	Name of chemical	PCP #	Concentration								
<b>Inside building</b> <input type="checkbox"/> Traps (e.g., glue boards, sticky traps) _____ <input type="checkbox"/> Chemicals (specify below) <table border="1" data-bbox="448 1476 1295 1575"> <thead> <tr> <th>Name of chemical</th> <th>PCP #</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <input type="checkbox"/> Other (specify) _____	Name of chemical	PCP #	Concentration								
Name of chemical	PCP #	Concentration									
Other (specify)	_____ _____ _____										

**Confirmation/Update Log:**

Date						
Initials						





# F. Water (for Fluming and Cleaning) Assessment

ANNUAL

**Instructions:** Complete and/or update annually for all water sources. Check off (✓) those items that apply. Make additional copies as necessary and complete Page \_\_\_ of \_\_\_ to indicate more than one page if required.

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

Water source (e.g., municipal, well, surface)	Re- cycled (✓)?	Stored (✓)?	Use	Method	Items to Assess (check each item)	Date of water tests	Corrective Actions (*see examples below)	Cleaning and Treatment**
			<input type="checkbox"/> Fluming <input type="checkbox"/> Washing <input type="checkbox"/> Final rinse <input type="checkbox"/> Hand washing <input type="checkbox"/> Cleaning equipment/ containers/ building	<input type="checkbox"/> Pit <input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <input type="checkbox"/> Dump tank <input type="checkbox"/> Pressure wash <input type="checkbox"/> Other: _____	<input type="checkbox"/> Animal access <input type="checkbox"/> Runoff <input type="checkbox"/> Working condition of well/pipes <input type="checkbox"/> Other possible hazards assessed (describe):			<input type="checkbox"/> Cleaned <input type="checkbox"/> Treated <input type="checkbox"/> Cistern <input type="checkbox"/> Well <input type="checkbox"/> Other: Using Appendix: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> H <input type="checkbox"/> OR: _____
			<input type="checkbox"/> Fluming <input type="checkbox"/> Washing <input type="checkbox"/> Final rinse <input type="checkbox"/> Hand washing <input type="checkbox"/> Cleaning equipment/ containers/ building	<input type="checkbox"/> Pit <input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <input type="checkbox"/> Dump tank <input type="checkbox"/> Pressure wash <input type="checkbox"/> Other: _____	<input type="checkbox"/> Animal access <input type="checkbox"/> Runoff <input type="checkbox"/> Working condition of well/pipes <input type="checkbox"/> Other possible hazards assessed (describe):			<input type="checkbox"/> Cleaned <input type="checkbox"/> Treated <input type="checkbox"/> Cistern <input type="checkbox"/> Well <input type="checkbox"/> Other: Using Appendix: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> H <input type="checkbox"/> OR: _____
			<input type="checkbox"/> Fluming <input type="checkbox"/> Washing <input type="checkbox"/> Final rinse <input type="checkbox"/> Hand washing <input type="checkbox"/> Cleaning equipment/ containers/ building	<input type="checkbox"/> Pit <input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <input type="checkbox"/> Dump tank <input type="checkbox"/> Pressure wash <input type="checkbox"/> Other: _____	<input type="checkbox"/> Animal access <input type="checkbox"/> Runoff <input type="checkbox"/> Working condition of well/pipes <input type="checkbox"/> Other possible hazards assessed (describe):			<input type="checkbox"/> Cleaned <input type="checkbox"/> Treated <input type="checkbox"/> Cistern <input type="checkbox"/> Well <input type="checkbox"/> Other: Using Appendix: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> H <input type="checkbox"/> OR: _____

**Assessment Guide:** Assessment should include runoff from agricultural chemicals, fuels or manure; contamination in pipes, cleanliness of cistern etc.

- \*Corrective Actions:**
- Install devices to prevent backflow
  - Consult with experts
  - Install filtration
  - Use alternate source
  - Construct barriers (e.g., fences, ditches)
  - Maintenance of well or cistern
  - Level ground to prevent runoff
  - Test water for Total Coliforms and *E. coli* using an accredited lab conforming to ISO 17025 or equivalent
  - Appendix A: Shock Chlorination of Well Water – An Example*
  - Appendix B: Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example*
  - Appendix H: Cleaning and Treating Cisterns – An Example*

**\*\*Cleaning & Treatment:** ✓ to indicate cleaning &/or treatment, what was cleaned/treated, which instructions were followed or what treatment method used (e.g., UV)

### Confirmation/Update Log:

Date						
Initials						



**G. Cleaning, Maintenance and Repair of Buildings**

**Instructions:** An inspection of both the interior and exterior of your buildings (e.g., packinghouse, storages) (except agricultural chemical storage buildings) must be conducted monthly [when in use and where possible (i.e., not a sealed storage)] and the following checklist completed. Place N/A if certain structures are not applicable to your operation.

**Completed by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Building ID #/Name:** \_\_\_\_\_

Interior of Building	Exterior of Building
<ul style="list-style-type: none"> <li><input type="checkbox"/> No holes/crevices/leaks in the building (e.g., walls, windows, screens)</li> <li><input type="checkbox"/> Lights are shatterproof and adequate</li> <li><input type="checkbox"/> No pipes or condensation leaking</li> <li><input type="checkbox"/> Floor drainage is good (floor sloped, drain covers clear)</li> <li><input type="checkbox"/> Floors, walls and ceilings are clean and free from garbage, spills, rodent droppings, etc.</li> <li><input type="checkbox"/> Floor is free of crevices that could harbour pests or debris</li> <li><input type="checkbox"/> Fans are dust-free and clean</li> <li><input type="checkbox"/> Animals (wild or domestic), pests (insects, rodents, etc.) and bird nests are not present</li> <li><input type="checkbox"/> All materials are in designated areas (e.g., packaging materials and berries)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> No holes/crevices/leaks in the building (e.g., walls, windows, screens)</li> <li><input type="checkbox"/> All windows can be closed OR have close-fitting screens that are in good condition</li> <li><input type="checkbox"/> ½ meter wide perimeter strip of stone or crushed gravel OR short grass around building</li> <li><input type="checkbox"/> No junk piled within 3 m of building (e.g., old or unused machinery, garbage)</li> <li><input type="checkbox"/> Weeds are controlled</li> <li><input type="checkbox"/> Land drainage around building is good</li> <li><input type="checkbox"/> Dumpsters are emptied as needed to prevent pest infestation, and surroundings are free of debris</li> <li><input type="checkbox"/> All doors are close-fitting</li> <li><input type="checkbox"/> Doors that can be secured (i.e., to lock storages when unsupervised)</li> </ul>
<p style="text-align: center;"><b>Maintenance required</b></p> <p>If any of the above have NOT been checked off (✓), please describe the maintenance required:</p> <p>_____</p> <p>_____</p> <p>(Use the reverse of this Form if more space is needed)</p> <p>Date and Name of Person work was completed by:</p> <p>_____</p> <p>Date and Signature of Person overseeing the work:</p> <p>_____</p>	<p style="text-align: center;"><b>Maintenance required</b></p> <p>If any of the above have NOT been checked off (✓), please describe the maintenance required:</p> <p>_____</p> <p>_____</p> <p>(Use the reverse of this Form if more space is needed)</p> <p>Date and Name of Person work was completed by:</p> <p>_____</p> <p>Date and Signature of Person overseeing the work:</p> <p>_____</p>

**Confirmation Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_



# H1. Agronomic Inputs (Agricultural Chemicals)

*Instructions: Includes all applications from pre-planting through to, and including, harvest. One Form must be completed for EACH PRODUCTION SITE.*

<b>Producer Name:</b>	<b>Previous Year Crop(s):</b>	<b>Current Crop:</b>	
<b>Production Site Information (e.g., Field # or Name/ID):</b>	<b>Production Site Area (e.g., # of acres/hectares):</b>	<b>Date Planted:</b>	<b>Variety:</b>

Application Date	Product/Trade Name and PCP # and Lot #	Actual Quantity Used (e.g., 22.28 kg)	Rate Applied Per Unit (e.g., hectare, acre, cwt, tonne)	Label Instructions Followed (✓)	Area Treated	Method of Application (air, ground, furrow, seed, foliar)	Earliest Allowable Harvest Date and PHI	Weather Conditions	Signature of Applicator or if Custom Application Invoice is Attached

**Confirmation Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_



## H2. Agronomic Inputs (Other)

**ONGOING**

*Instructions: Includes all applications from pre-planting through to, and including, harvest. One Form must be completed for EACH PRODUCTION SITE.*

Producer Name:		Previous Year Crop(s):		Current Crop:
Production Site Information (e.g., Field # or Name/ID):		Production Site Area (e.g., # of acres/hectares):	Date Planted:	Variety:

### COMMERCIAL FERTILIZER APPLICATION

Date	Blend	Rate	Fertilizer Lot # (if applicable)	Applicator's Name

### MANURE\*/COMPOST/COMPOST TEA/OTHER BY-PRODUCTS†/PULP SLUDGE/SOIL AMENDMENT/MULCH AND ROW COVER APPLICATIONS

Date	What is Applied	Type*†	Supplier's Name	Rate	Earliest Allowable Harvest Date* (according to appropriate time delay)	Applicator's Name

\*Manure (cattle, hog, poultry, horse, etc.)

†Other by-product (seafood waste, vegetable culls, etc.)

**Confirmation Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

















# L. Visitor Sign-In Log

*Instructions: All visitors must sign in prior to entering controlled-access areas (within buildings).*

**VISITOR POLICY**

**All visitors must:**

- Remain in the area they are given permission to be in (e.g., contractor remains in work area only)
- Wash hands before entering controlled-access areas
- Not handle berries or materials unless given permission
- Wear appropriate protective and/or food safety-related clothing  
This includes: \_\_\_\_\_
- Shoes must be cleaned, changed or covered prior to entering if they are visibly dirty or soiled
- Other (*specify*): \_\_\_\_\_
- Sign in below to indicate they are informed of and understand the visitor policy

Date	Visitor's Name	Company Name, Purpose of Visit and Location on Premises

**Confirmation Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_















**P. Harvesting and Storing Berries**

**Instructions:** Complete for all harvested berries packed into **harvested berry packaging materials** or in bulk and transported to packer or to market or put into storage.

**Completed by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Storage Name/Area/ID#:** \_\_\_\_\_

Berries and Variety	*PHI/EAHD met (Forms H1 and H2 verified) (✓) and Initial	Harvest Date	Quantity/ Units Harvested	Field # (Same as Forms H1 and H2)	Packaging Materials Used	Date Berries Put into Storage

\*Forms H1 and H2 have been verified to ensure that harvested berries meet the required pre-harvest interval PHI/EAHD for agricultural chemical application and the spreading of manure.

**Confirmation Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_







**R. Deviations and Corrective Actions**

*Instructions: List all major deviations, complaints and their related cause(s), corrective action(s), preventative measures and modified procedures. Record that employees have been trained on the new procedures.*

Date/Time of Deviation or Complaint and Person Notified	Major Deviation/Complaint and Description	Cause of Deviation/Complaint	Corrective Action(s)	Prevention of Recurrence (e.g., training employee)	New/Modified Procedures	Employees Trained on New/ Modified Procedures? (✓)	Signature of Person Responsible for Re-Training/ Carrying out Deviation Procedure

**Confirmation Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_