

# FOOD SAFETY MANUAL FOR PRODUCTION AND PACKING OF BLUEBERRIES

Based on the CanadaGAP Fruit and Vegetable Manual

Version 11.0



Prepared by the BC Blueberry Council  
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## Acknowledgment

The **CanadaGAP Food Safety Manual for Fresh Fruits and Vegetables** and related materials were developed as part of the original On-Farm Food Safety Program led by the Fruit & Vegetable Growers of Canada, with the funding and support of Agriculture and Agri-Food Canada (AAFC). Effective November 1, 2012, the CanadaGAP program is operated by CanAgPlus, a Canadian not-for-profit corporation. CanAgPlus now owns, publishes and maintains the CanadaGAP manuals and related materials. The Fruit & Vegetable Growers of Canada is no longer involved with any publications or any other aspect of the CanadaGAP program.

Technical support for the development of this document was provided by various federal and provincial governments, regional associations and technical resources. This manual was developed by individuals from across Canada with employment or other relevant experience involving production, packing, repacking and storage of fresh food and vegetables. A list of contributors is available on the CanadaGAP website at [www.canadagap.ca](http://www.canadagap.ca).

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 research, development and publishing processes cannot be held responsible for any error or consequences that could result from use of this information.

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***This document is intended to provide general food safety guidelines for the production and handling 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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# Table of Contents

I.	Introduction	i
II.	Background	i
III.	Scope	ii
IV.	How Do I Use this Manual?	iii
	IV.i Food Safety Tools	iii
	IV.ii How is this Manual Organized?	iii
	IV.iii How to Complete the Manual	iv
	IV.iv Document Retention	x
	IV.v Food Safety Manual Document Control	x
	Glossary	xi
	To Do List – Outstanding Items to Complete in Manual	xxiii
	Operation Information	xxxii
	Index	xxxiii
1.	Commodity Starter Products	1
	1.1 Purchasing and Receiving	1
	1.2 Preparation	2
	1.3 Storage	2
2.	Premises	3
	2.1 Production Site and Surroundings Assessment	3
	2.2 Building Exterior and Surroundings Assessment, Cleaning, Maintenance, Repair and Inspection	4
	2.3 Building Interior Assessment, Cleaning, Maintenance, Repair and Inspection	5
3.	Commercial Fertilizers, Pulp Sludge and Soil Amendments	7
	3.1 Purchasing and Receiving	7
	3.2 Application	7
	3.3 Storage	8
4.	Manure, Compost/Compost Tea and Other By-Products	9
	4.1 Purchasing and Receiving	9
	4.2 Application	10
	4.3 Storage	10
5.	Mulch and Row Cover Materials	11
	5.1 Purchasing and Receiving	11
	5.2 Application	11
	5.3 Storage	11
6.	Agricultural Chemicals	13
	6.1 Purchasing and Receiving	13
	6.2 Application	13
	6.3 Storage	15
7.	Agricultural Water	17
	7.1 Source Assessment	17
	7.2 Storage	20
8.	Equipment	21
	8.1 Purchasing, Receiving and Installation	21
	8.2 Use, Cleaning, Maintenance, Repair and Inspection	22
	8.3 Calibration	25
	8.4 Storage	26
9.	Cleaning and Maintenance Materials	27
	9.1 Purchasing and Receiving	27
	9.2 Use	27
	9.3 Storage	28
10.	Waste Management	29
	10.1 Storage and Disposal of Garbage, Recyclables and Compostable Waste	29
	10.2 Storage and Disposal of Empty Agricultural Chemical Containers	29
	10.3 Disposal of Production Wastewater and Waste from Toilets and Hand Washing Facilities	30

11.	Personal Hygiene Facilities _____	31
11.1	Facilities _____	31
12.	Employee Training _____	35
12.1	Employee Training _____	35
12.2	Employee Illness _____	36
13.	Visitor Policy _____	39
13.1	Visitor Protocols _____	39
13.2	U-Pick Operations _____	39
14.	Pest Program for Buildings _____	41
14.1	Control and Monitoring _____	41
14.2	Storage _____	43
15.	Water (for Cleaning) _____	45
15.1	Water Assessment _____	45
15.2	Storage _____	47
15.3	Treatment _____	49
16.	Ice (N/A) _____	52
16.1	Purchasing and Receiving (N/A) _____	52
16.2	Application (N/A) _____	52
16.3	Storage (N/A) _____	52
17.	Packaging Materials _____	53
17.1	Purchasing and Receiving _____	53
17.2	Use of Packaging Materials _____	54
17.3	Storage _____	58
18.	Growing and Harvesting _____	59
18.1	Growing _____	59
18.2	Harvesting _____	59
19.	Sorting, Grading, Packing, and Storing _____	61
19.1	Selecting/Purchasing and Receiving Harvested/Market Product _____	61
19.2	Sorting and Grading _____	62
19.3	Packing _____	62
19.4	Application of Wax (N/A) _____	63
19.5	“Other Materials” (see glossary definition) _____	63
19.6	Environmental Monitoring Program (EMP) _____	64
19.7	Supplier Approval _____	65
20.	Temperature Conditioning/Holding/Storage of Product _____	67
20.1	Temperature Conditioning/Holding/Storage Conditions for Harvested Product _____	67
20.2	Temperature Conditioning/Holding/Storage Conditions for Market Product _____	68
21.	Transportation _____	71
21.1	Transportation of Harvested Product _____	71
21.2	Transportation of Market Product _____	71
22.	Identification and Traceability _____	73
22.1	Traceability System _____	73
23.	Deviations and Crisis Management _____	77
23.1	Minor Deviations and Corrective Action _____	77
23.2	Major Deviations and Corrective Action _____	77
23.3	Crisis Management _____	85
23.4	Complaint Handling _____	86
23.5	Food Defense _____	87
23.6	Allergens _____	88
23.7	Food Fraud _____	88
23.8	Food Safety Culture _____	89
24.	HACCP Plan and Food Safety Program Maintenance and Review _____	91
24.1	Site-Specific HACCP Plan _____	91
24.2	Protocols _____	91

## **Compendium of Food Safety Forms**

### **ANNUAL FORMS**

- A. Buildings Sketch and Agricultural Chemical Storage Checklist
- B. Storage Assessment
- C. Employee Personal Hygiene and Food Handling Practices Policy – Production Site
- D. Employee Personal Hygiene and Food Handling Practices Policy – Packinghouse/Product Storage
- E. Pest Control for Buildings
- F. Water (for Cleaning) Assessment
- S. Allergen Information - Assessment
- T. Food Defense
- U. Food Fraud Vulnerability Assessment
- V. Production Site Assessment

### **ONGOING FORMS**

- G. Cleaning, Maintenance and Repair of Buildings
- H1. Agronomic Inputs (Agricultural Chemicals)
- H2. Agronomic Inputs (Other)
- 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
- N1. Water Treatment Control and Monitoring
- O. Transporting Product
- P2. Harvesting and Storing Product
- Q. Packing and Storing of Market Product
- R. Deviations and Corrective Actions

**Use this manual with the CanadaGAP Appendices available at [www.canadagap.ca](http://www.canadagap.ca)**

### **APPENDICES**

- A Shock Chlorination of Well Water – An Example
- B Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example
- C Composting Livestock Manure – An Example and Compost Tea Information
- D Reference Lists: Packaging Materials, Inks, Lubricants, Maintenance Materials, Sanitizers, Water Treatment Aids and Food and Incidental Additives
- E Resources for Agricultural Chemical Application Equipment Calibration
- F General Guidelines for Adequate Lighting
- G Water Testing
- H Cleaning and Treating Cisterns – An Example
- I Hand Washing Sign Templates
- J Controlled Access Area Sign Templates
- K Agricultural Water Source Assessment
- L Temperature Monitoring For Internal Product and Water Temperature and Thermometer Use – An Example
- M Traceability and Product Identification – Some Examples
- N Sanitation Standard Operating Procedures (SSOP) – An Example
- O Examples of Backflow Prevention During Mixing of Agricultural Chemicals
- P Customizing Record Keeping Forms
- Q Documentation Requirements on Agricultural Chemicals for Exported Product

R	How to Conduct a Mock Recall – An Example
S	Recall Program
T	Food Defense: Assessment of Possible Risks and List of Security Measures
U	Introduction on How to Assess Risk – with Examples
V	Repacking and Wholesale Generic HACCP Model Workbook – An Example
W	Evaluating Food Safety Risks after Flooding Events - Resources
X	Environmental Monitoring Program (EMP) - Resources
Y	Food Safety Risks after Wildfires - Resources
Z	Food Traceability Final Rule – FSMA 204 Guidance

### **TABS**

Tab (File)	Letters of Assurance/Certificates
Tab (File)	Test Results
Tab (File)	Third Party Pest Control Records
Tab (File)	Calibration Instructions
Tab (File)	Other Procedures

## 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.

Many of the Good Agricultural Practices (GAPs) and Good Manufacturing Practices (GMPs) that are described in this Manual are already being carried out. However, in some instances very little documentation of these good practices exists. This Manual will help with the documentation of food safety practices. It is recommended that an electronic backup of the Manual is kept.

The user is responsible for implementation of the food safety program within their operation. This manual provides 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 user, not with the CanadaGAP Program as developer of the Manual.

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

Completion and implementation of the Food Safety Manual constitutes a commitment on the part of the person(s) responsible and the company's senior management to the development, management and continuous improvement of their food safety system. This includes creating, managing and maintaining a food safety culture within the organization.

## II. Background

Horticultural products are grown, harvested and handled under a wide range of 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 operation to another. Each operation will need to consider the GAPs/GMPs that promote the safety of products, taking into account the conditions specific to the site, the type of product produced and the production/handling 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 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.

The Production and Packing of Blueberries manual is based on the CanadaGAP Food Safety Manual for Fresh Fruits and Vegetables which was developed based on a Generic Food Safety Hazard Analysis and Critical Control Points (HACCP) Model. There shall be commitment from senior management for implementation of the aforementioned effective HACCP system.

The person responsible and senior management of each operation using and implementing this Production and Packing of Blueberries Manual are required to review the Food Safety 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 Production and Packing of Blueberries 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 Production and Packing of Blueberries Manual based on the CanadaGAP Fruit and Vegetable Manual is intended for the use of blueberry operations in Canada. The manual covers the production, packing (including field packing and both on and off farm packinghouses), and storage, of blueberries.

The Production and Packing of Blueberries Manual based on the **CanadaGAP Food Safety Manual for Fresh Fruits and Vegetables** for production, packing and storage covers **field grown product for fresh market** (including blueberries grown in non-controlled environments, e.g., high tunnels), and production/packing/storage of blueberries sent for further processing.

**Minimally processed fruits and vegetables (see glossary definition) are NOT included in the production/packing/storage scope.**

If products are sent for further processing a check with buyers for any additional requirements is recommended.

**This Manual is intended for the production, packing and/or storage of field grown blueberries.**

## IV. How Do I Use this Manual?

### **IMPORTANT NOTE**

It is very important that you read carefully the next few pages (Sections IV.i – IV.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 CanadaGAP Food Safety program by ensuring that you have a clear understanding of how to complete the Manual and of the terms and abbreviations used.

### IV.i Food Safety Tools

The CanadaGAP Food Safety tools developed by the CanadaGAP Program include the following:

#### **CanadaGAP 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 CanadaGAP Program implementation. To source these communication materials, visit the CanadaGAP website ([www.canadagap.ca](http://www.canadagap.ca)).

### IV.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.). Certain sections may not pertain to all products. The sections are further divided into Requirements (food safety requirements specific to horticultural products) and Procedures (how these requirements are to be met).

### **IMPORTANT NOTE**

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

- 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**

**Prevailing legislation (e.g., regulations at the federal, provincial, territorial, state, regional, local, municipal, etc. level) must be followed even if the corresponding requirements within the manual are less strict. However, in some cases the manual requires something that the prevailing legislation does not, and therefore the manual must be followed.**

**Example - Some provinces require that one toilet is provided for every 20 employees while the manual requires one toilet for every 35 employees. Therefore, the operation must follow the regulations in their province for one in 20 if it applies to them, since the prevailing legislation is stricter.**

**Example - In Quebec, according to the regulations, potable water parameters allow for 10 Total Coliforms and 0 E. coli. In order to follow the manual requirements, an operation would have to follow the potable water guidelines of 0 Total Coliforms and 0 E. coli, since the manual is stricter.**

**All prevailing legislation must be followed. The person responsible should find out whether 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**
- **Other applicable regulations**

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

The Manual can be completed independently or assistance may be sought to help address food safety requirements and concerns within the operation. The person responsible for the operation is named within this manual but 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 person responsible. The procedures in this manual may be carried out by a number of different individuals. Some operations may have a full or part-time Food Safety or HACCP coordinator and/or a Food Safety 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 Production and Packing of Blueberries Manual constitutes a commitment on the part of the person(s) responsible 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 qualified resources (including

suitably qualified personnel) needed to implement and improve the processes of the food safety program and to address customer satisfaction.

**Important Note: It is the responsibility of the operation to complete ALL of the requirements within the Production and Packing of Blueberries manual based on the CanadaGAP manual regardless of what may occur with the product (e.g., labelled, etc.) after it leaves the operation’s premises. Since activities further along the chain are out of the CanadaGAP-certified operation’s control, the operation cannot assume that anything more will occur with the product before it is consumed and must fulfill the requirements as stated.**

**Please note that operations may not have to complete all the requirements within the manual if there is a triangle bullet (Δ)stating a certification option (i.e., Option A1/A2) does not need to complete a specific sub-section.**

The following steps must be carried out in order to complete the Production and Packing of Blueberries Manual based on the CanadaGAP Food Safety Program:

1. Read and complete each section of the Manual.

When first implementing the Production and Packing of Blueberries 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 Food Safety 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, 2026					
<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>Procedures for hazards that require both monitoring and record-keeping, as determined by the Generic HACCP Model, are marked with an exclamation mark throughout this Manual. These procedures link to the table of deviations and corrective actions in Section 23.</b></p>
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The following schematic diagram 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 which Form(s) are applicable to the section.

**Rationale:**  
Provides background information appropriate to each section.

Forms Required	H2
----------------	----

## 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/Compost Tea and Other By-Products.*

**IMPORTANT NOTE**

It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in "direct contact with product" OR that may have an "impact on food safety through cross contamination".

**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:**

- The person responsible purchases or selects:
  - Commercial fertilizers that meet applicable regulations
  - ~~N/A~~  Pulp sludge that meets applicable regulations (e.g., provincial)
  - Soil amendments that meet applicable regulations (e.g., provincial)
- The person responsible receives only the commercial fertilizers and soil amendments that were purchased or selected
- ~~N/A~~  The person responsible receives only pulp sludge that was purchased or selected according to applicable regulations (e.g., provincial)

**Procedures:**  
Describes how the person responsible 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:**

- The person responsible 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 \_\_\_\_\_  
*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.

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/GMP. 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.

### 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/Compost Tea and Other By-Products.

<b>IMPORTANT NOTE</b>	It is assumed throughout the manual that <b>EACH</b> of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in "direct contact with product" OR that may have an "impact on food safety through cross contamination".
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#### 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:**

- The person responsible purchases or selects:
  - ☑ Commercial fertilizers that meet applicable regulations
  - N/A Pulp sludge that meets applicable regulations (e.g., provincial)
  - ☑ Soil amendments that meet applicable regulations (e.g., provincial)
- ☑ The person responsible receives only the commercial fertilizers and soil amendments that were purchased or selected
- N/A The person responsible receives only pulp sludge that was purchased or selected according to applicable regulations (e.g., provincial)

#### 3.2 Application

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

**PROCEDURES:**

- ☑ The person responsible ensures that commercial fertilizers, pulp sludge and soil amendments are applied according to expert recommendations
- ☑ The person responsible records all application details on Form (H2) Agronomic Inputs (Other) OR \_\_\_\_\_  
See Crop Management Form in files

You may put an N/A through the box:  
a) If the procedure does not apply to your operation,  
b) If you do not follow the procedure for any other reason, and document why you are not following the required GAP/GMP.

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

## IMPORTANT NOTE

The Production and Packing of Blueberry manual based on the CanadaGAP program consists of a food safety “standard” – that is, **requirements** that must be met to ensure product is produced, packed, stored safely. The main document for users is the Production and Packing of Blueberry manual, which identifies the general requirements of the standard, and detail the procedures that will fulfill those requirements.

The manual provides a toolkit and a “shortcut” to users, to help them *document the practices* that will meet the standard within their operation. This level of specificity was desired to better assist users with implementing the program requirements, and to improve consistency in user and auditor interpretation of the standard.

Each section of the Production and Packing of Blueberry manual based on CanadaGAP contains these two parts: *Requirements* (WHAT general actions and activities are needed to achieve food safety) and *Procedures* (HOW in specific terms these requirements are to be met). If the operation does not fulfill the requirements and follow the procedures, then they have not yet successfully implemented the Production and Packing of Blueberries Manual based on the CanadaGAP program.

The requirements along with their procedures were determined based on food safety risks that may be present in an operation. If the hazards are not controlled, there is potential for contamination of the product. To mitigate the risks the procedures need to be followed. **However, deviations from these procedures are possible and may be acceptable in completing the requirement. There may be a variety of ways to meet the requirements and still mitigate risk. An operation may choose to implement different procedures than those contained in the manual and these may be acceptable to satisfy program requirements.** A risk assessment would need to be completed (see *Appendix U: Introduction on How to Assess Risk - with examples*). Procedures would need to be carefully developed to ensure the hazards are controlled, and thoroughly documented to ensure the procedures are followed consistently. If this approach is taken the effectiveness of those procedures will have to be assessed during an audit. It will be up to the **certification body** to determine if procedures different from those provided in the manuals are acceptable or not.

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 person responsible (or Food Safety Program Contact or designate) must review the form to ensure that it is accurate and filled out correctly, then 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 person responsible (or Food Safety 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, 2026					
<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 person responsible (or Food Safety 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, 2026          

<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 and Agricultural Chemical Storage Checklist 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 person responsible must review and update each section of the Manual annually. The person responsible (or Food Safety 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, 2026					
<b>Initials</b>	JD					

#### **IV. iv Document Retention**

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

At least three months of records prior to the date of the initial audit are required for those seeking CanadaGAP Program Certification.

In the case of suspected or potential contamination, or other adverse event (e.g., recall, investigation by authorities, etc.), records should be available upon request within 24 hours and in the format required by the requester.

#### **IV.v Food Safety Manual Document Control**

Changes to the Production and Packing of Blueberry Manual will occur as a result of changes to the CanadaGAP Fruit and Vegetable manual based on new science, emerging pathogens, new hazards, legislative requirements and changes in practices in an operation. Therefore, document control is necessary to ensure that all documentation is properly updated and maintained, ensuring each and every page is current.

The document control box is located in the footer of each page. As updates are made, the document control box will also be updated. The **indexes** will also be updated.

## Glossary

**Accredited laboratory:** One whose accreditation has been obtained from an accrediting body that is a signatory to the International Laboratory Accreditation Cooperation (ILAC) MRA (mutual recognition agreement), using the internationally recognized criteria and procedures outlined in ISO/IEC 17025: (General requirements for Competence of Calibration and Testing Laboratories). There are two accreditation bodies in Canada which are the Standards Council of Canada and the Canadian Association of Laboratory Accreditation.

**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, weeds (e.g., pesticides such as herbicides, fungicides and insecticides). These can be used during the production of product.

**Agricultural water:** See “Water”.

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

**Allergen:** A protein or modified protein with the potential to cause an allergic reaction in people. Canada has identified a list of priority allergens that are responsible for the majority of allergic reactions to food in this country. These allergens are peanuts, tree nuts, sesame, soybeans, seafood (such as fish, crustaceans and shellfish), wheat and other cereals containing gluten, eggs, milk, mustard, and sulphites. For more information on food allergens in Canada go to <https://inspection.canada.ca/food-labels/labelling/industry/list-of-ingredients-and-allergens/eng/1628716222800/1628716311275>. For program users in other countries, consult the information published by your prevailing authority.

**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.

**Biannually:** Twice a year.

**Biological controls:** The use of beneficial species, such as predatory and parasitic insects, nematodes or disease organisms to suppress populations of pests.

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

**Block:** Unit within a production site.

**Brokerage:** Activity where the operation is ONLY involved in arranging the transaction of product between a supplier and a buyer. The brokerage operation does NOT physically handle the product in any way. The person responsible for brokerage is the “broker”.

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

**Building equipment:** Used in the packinghouse grading areas etc. or storages (e.g., scales, hoppers, tables, pallets, forklifts, curtain doors, packing, grading, sorting and handling equipment, etc.).

**Calibration:** Determination of the accuracy of an instrument, usually by measurement of its variation from a standard, to ascertain necessary correction factors.

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

**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.

**Certification (codex):** Is the procedure by which official certification bodies and officially recognized bodies provide written or equivalent assurance that foods or food control systems conform to requirements. Certification of food may be, as appropriate, based on a range of inspection activities, which may include continuous on-line inspection, auditing of quality assurance systems, and examination of finished products.

**CFIA:** Canadian Food Inspection Agency.

**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 and/or tools used to clean, sanitize or disinfect (e.g., cleaning agents, water treatment chemicals, sanitizers, brushes, scrubbers, brooms, mops, scrub pads, pressure washers, squeegees, cloths/rags, dust pans, pails, shovels, etc.).

**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. Includes calcium.

**Commodity Starter Products:** Beginning materials used to produce a product such as plants, 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, deadstock, 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 a fertilizer. 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 within a building that only authorized persons are allowed to enter (e.g., packing area, storage area for market ready packaging materials, product or cleaning and maintenance materials).

**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>) and the 120 days between manure application and harvest (e.g., if manure is spread on April 1<sup>st</sup> the product cannot be harvested until August 1<sup>st</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 in return for financial or other compensation and/or who works in direct contact with the product or may have an impact on food safety through cross contamination.

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

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

**First Aid Kits:** Must include bandages to cover wounds.

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

**Food Fraud:** A collective term encompassing the deliberate and intentional substitution, addition, tampering or misrepresentation of food, food ingredients or food packaging, labelling, product information or false or misleading statements made about a product for economic gain that could impact consumer health.

**Food Safety Culture:** Shared values, beliefs and norms that affect mindset and behaviour toward food safety in, across and throughout an organization.

**Formal training:** Consists of a course offered by a recognized educational institution, government body or industry association/group for which a record of attendance is issued. Information about the training content is readily available from the course provider (e.g., course outline, online training materials, etc.).

**Free Chlorine:** See “chlorine”.

**Generic:** Applies nationally to all operations involved in the production, packing, repacking, storage, and/or wholesaling of a commodity.

**Generic HACCP Model:** Applies nationally to all operations involved in the production, packing, repacking, storage, and/or wholesaling of a commodity, and involves conducting a hazard analysis for all steps that results in the GAP's/GMP's reflected in the CanadaGAP 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/Good Manufacturing Practices (GAP's/GPP's/GMP's):** General steps, measures or procedures that control the operational conditions within an operation allowing for the environmental conditions that are favourable to the production of safe food.

**Grading:** Categorizing or separating product 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 Canadian Pest Management Regulatory Agency that allows operations 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 product that occurs in the production site and ends at harvest.

**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 operations 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 operations adhere.

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

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

**Hand washing facilities:** May include hand sanitizers, water, soap, paper towel and hand wipes.

**Hand wipes:** Pre-moistened (by the manufacturer) disposable towels designed FOR hands/skin that are used to remove organic matter from hands (e.g., dirt, mud, product juice, suntan lotion, cream, food, saliva, etc.).

**Harvested product:** Produce that has **not** been put into **market ready** packaging materials.

**Harvested product packaging materials:** Containers used or reused in the production site to hold product or in the packinghouse/storage as a secondary container to sort/hold product before it is transferred into **market ready packaging materials**. Include crates, totes, lugs, baskets, etc. This also refers to associated lids and covers.

**Harvesting:** The physical act of moving the product from the production site (e.g., picking it, separating it from the plant), 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 product 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.

**Impermeable:** Not permitting passage (as of a fluid) through its substance.

**Incoming:** Refers to receiving product onto the premises.

**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.

**Internal Audit:** Is conducted by the operation. See Section 24 for the choices on what may be used to complete it. The internal audit should be conducted before the certification audit and also when the operation's main activities (e.g., production, packing, storage etc.) are occurring. The operation should leave enough time for changes or complete fulfillment of requirements to occur.

**Labelling:** The physical act of putting information on or with product (e.g., attaching pallet tags, stickering, colour coding, numbering, lettering, etc.) to identify it for traceability, as per requirements within Section 17 and 22.

**Laundered:** Cleaned in a way that ensures the items (e.g., working effects such as gloves/aprons, etc.) will not contaminate product, packaging materials, etc. This cleaning must be under the operation's control (such as sending it to a third-party laundry service, laundering items on-site, outsourcing the cleaning to an appropriate person, etc.)

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

**Letter of no objection:** Letter expressing favourable opinion by the regulatory body (e.g., CFIA, Health Canada). Indicates that the product can be sold in Canada for the uses listed in the submission, and

outlines any restrictions or requirements relative to the regulatory body's decision.

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

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

**Lot Code:** A code that can be used to identify a lot that was manufactured, prepared, produced, stored, graded, packaged or labelled, under the same conditions. A lot code can be numeric, alphabetic or alphanumeric. Examples of lot code include: production date, best before date, establishment number, or CFIA SFCR licence number. In addition, the lot code may also be the harvest date, grower identification number, growing region or any other code that may be used for traceability purposes.

**Refer to CFIA's website for more information on Lot Code** <https://inspection.gc.ca/food/toolkit-for-food-businesses/glossary-of-key-terms/eng/1430250286859/1430250287405#a104>

**Refer to CPMA's website for further guidance on Lot Code** [https://cpma.ca/docs/default-source/industry/traceability\\_guidance\\_document\\_for\\_industry\\_compliance\\_with-the\\_sfc.pdf](https://cpma.ca/docs/default-source/industry/traceability_guidance_document_for_industry_compliance_with-the_sfc.pdf)

**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 operation's records (e.g., skid, 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, paints).

**Major deviations:** Deviations that could lead to a major food safety concern; employees must advise the person responsible 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, vermicast, etc.) as well as aged manure.

**Market product:** Produce that is in market ready packaging materials. It may be packed in the production site or packed in the packinghouse.

**Market ready packaging materials:** Containers that **will go to food service, retail, repacking, wholesale, or directly to the consumer**. These containers may first go through other facility(ies) (e.g., shipper, broker, marketer, handler, wholesaler, distributor/distribution centre, etc.) where further activity may occur (e.g., cooling, labelling/coding, etc.) before product reaches food service, retail, repacking or the consumer. The product does not leave these containers until it is either taken out by the consumer or by the food service, repacking or retail operation.

There are two types:

- 1) Market ready **PRIMARY** packaging materials that come into direct contact with product (e.g., boxes, clam shells, baskets, pints); and
- 2) Market ready **SECONDARY** packaging materials (e.g., masters, dividers) that may be reused and do not come into direct contact with product.

Product wrap is also considered as **primary** market ready packaging material if information other than a price, bar code, number code, environmental statement or product treatment symbol is included on the product wrap, such as brand, country of origin, etc.

**Minimal processing:** Transforming whole fruits and vegetables from their original state (e.g., peeling, slicing, shredding, coring, grinding, shelling, husking, chopping, combining/mixing ingredients, juicing, modified atmosphere packaging, ready-to-eat preparation, drying, etc.). Minimally processed fruit and

vegetables are sometimes also called ready-to-use, ready-to-eat, fresh-cut, or pre-cut fruits and vegetables.

The following are **not** considered minimal processing:

- Removing outer leaves (e.g., of cabbage, broccoli, cauliflower, lettuce, etc.) after harvesting
- Trimming off leaves, ends, tops or other parts of the product generally considered inedible or unsaleable (e.g., trimming ends from asparagus, removing outer stalks of celery, removing rhubarb leaves, trimming ends from rutabagas, etc.)
- Removing tops from vegetables such as carrots, beets, turnips, etc.
- Air drying or curing products such as onions, squash, etc.

**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 product 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, plastic film, bark chips, sawdust).

**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).

**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, feather meal from chicken rendering), 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.

**Other Materials:** Items used by operations where these materials are NOT included in another category such as agricultural chemicals, other by-products, fertilizers, etc. within the CanadaGAP glossary. These materials may include adjuvants, surfactants, storage aids such as ethylene, ozone, or nitrogen, etc.

**Outgoing:** Refers to product leaving the premises.

**Own Use Import Program:** Allows the import of registered foreign pest control products into Canada, 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 1) who produced the product and 2) when the product is packed. Linked to Lot ID for complete traceability.

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

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

**Packing:** Includes:

- 1) The physical act of taking harvested product and putting it into harvested product packaging materials AND/OR market ready packaging materials for the first time (both in the production site and in the packinghouse). This does not include repacking.
- 2) Activities (e.g., labelling/coding, cooling, etc.) that occur once product is in the packaging materials.

The operation involved with packing may or may not store and/or transport product.

**Packinghouse:** Where the packing activities occur

**Permanent structure:** See “Building”.

**Person Responsible:** The one(s) who carries out an activity (e.g., harvesting, packing, storage, cooling, labelling/coding, transporting, etc.) and ensures that the activity within his or her control is complete.

**Personal effects:** Include employees’ lunches, clothing, shoes, smoking materials, electronic devices, etc.

**Personal hygiene facilities:** Washrooms (i.e., toilets, toilet paper) and hand washing facilities (i.e., hand sanitizers, water, soap, paper towels 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 Canadian 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 in Canada 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.

**Pickling:** A controlled process that achieves a 5 log kill step.

**Plants with Novel Traits:** A plant with a novel trait is a plant that contains a trait which is both new to the Canadian environment and has the potential to affect the specific use and safety of the plant with respect to the environment and human health. These traits can be introduced using biotechnology, mutagenesis, or conventional breeding techniques.

**Potable water:** See “Water”.

**Pre-cooling:** Reducing temperature of product 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.

**Prior to Use** (for water testing): Before the water is used on hands, equipment, packaging materials, etc. for the first time in a season. Results of water testing need to show potability before water is used. The test will be taken as close as possible to the first use of the water, up to a maximum of 60 days before the first use. **NOTE:** Where there is an event or activity (e.g., maintenance of piping/pumps, leaking storage tanks, changes in colour/odour and/or turbidity, etc.) that may affect the potability of the water and it takes place after testing was completed (e.g., between the time of analysis and production/packing use, etc.), re-testing is performed. **NOTE:** For year-round operations, two tests must be taken per 365 days.

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

**Production:** Activities (e.g., growing, harvesting, putting harvested product into harvested product packaging materials, cooling, etc.) involved with harvested product. The production operation may or may not store and/or transport product.

**Production site:** Location where product is grown. Also referred to as a field.

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

**Production wastewater:** Water remaining from the cleaning of equipment (e.g., 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 and/or service.

**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.

**Recognized (codex):** Officially recognized inspection systems and officially recognized certification systems are systems which have been formally approved or recognized by a government agency having jurisdiction.

**Recyclables:** Containers from maintenance materials, agricultural chemicals, commercial fertilizers, cleaning agents or water treatment chemicals, etc. that are sent for recycling and are not re-used.

**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 #).

**Releasing:** Handing product over to another operation that is responsible for the next activity/function (e.g. labelling, storing), whether the product is purchased or not

**Repacking:** Includes:

- 1) Removing market product from its market ready packaging materials, re-handling the product (e.g., re-sorting, re-grading, re-trimming, re-washing, re-fluming, etc.), and putting it into market ready packaging materials. Product may also be combined with other product that differs in some way (e.g., type, origin, timeframe, etc.).
- 2) Activities (e.g., icing, labelling/coding, cooling, etc.) that occur once product is in the packaging materials.

The operation involved with repacking may or may not store and/or transport product.

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

**Reusable:** Designed so it is capable of being used more than once or repeatedly (e.g. hard plastic packaging materials, rubber gloves, etc.)

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

**Sanitary dip:** Container with water and sanitizer (e.g., chlorine, quaternary ammonium, etc.).

**Seedlings:** Plant/transplants, plugs used for propagation purposes.

**Second party audits:** Conducted by the operation (the person responsible) to determine if their suppliers have an effective food safety system in place. The operation would evaluate and assess risk using an applicable food safety standard (e.g., CanadaGAP Food Safety Program, Herb, Spice and Specialty Agriculture Association, other credible food safety standard, etc.).

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

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

**Sewage sludge:** Includes municipal 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 product (e.g., edible from non-edible; leaves, stones, other plant debris).

**SOP:** Standard Operating Procedure; a set of written instructions or steps for carrying out routine operations and established procedures. The details standardize the process and provide step-by-step instructions that enable anyone within an operation to perform a task in a consistent manner.

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

**Standalone Storage Operation:** One whose ONLY activity is to store harvested product.

**Start Date:** This is Day 0 for an operation. Nothing has occurred yet. NOTE: Water tests need to be taken after the start date.

**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 product in a pre-determined and controlled location for a period of days to months (e.g., atmosphere controlled or modified; cooled, dry, contained location); or the location where product is kept.

**Surface water:** See “Water”.

**Temperature conditioning:** Pre-cooling.

**Tertiary water:** See “Water”.

**Total Chlorine:** See “chlorine”.

**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 product 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 product, both on and off the premises.

**Trap Crops:** A planting that attracts insects away from nearby product(s) helping to reduce economic damage to harvestable product(s).

**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 product (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). Visitors are ONLY considered when entering controlled access areas.

**Washrooms:** Includes toilets and toilet paper.

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

## **Water**

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

**Cleaning water:** Includes all water (except for agricultural water). It includes water used to wash hands in hygiene facilities and for cleaning equipment, harvested product packaging materials, buildings, etc.

**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 (biological parameters are 0 Total Coliforms 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.

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

**Water storage:** Water that is held temporarily in a container/tank/cistern. These are not considered production site or building equipment. This includes water in coolers or jugs with a spigot, delivered municipal water stored in a tank, a cistern containing rainwater, water tank filled with well water, well water in a standalone handwashing tank/container, etc.

**Wholesaling:** Activity where operations are involved ONLY in storage of market product (see definition of "storage"). The operation may or may not transport product.

**Working effects:** Items that have been provided to the employees to minimize contamination to product (e.g., aprons, booties, gloves, smocks etc.)

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

**Instructions:** When you are completing your *Production and Packing of Blueberries Manual* based on the CanadaGAP 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>		<b>Portable toilets ordered – to be delivered April 12</b>	✓ April 15/2026	✓
<b>1. Commodity Starter Products</b>				
1.1	Purchasing and Receiving			
1.2	Preparation			
1.3	Storage			
<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			

Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
<b>4. Manure, Compost/Compost Tea and Other By-Products</b>				
4.1	Purchasing and Receiving			
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			
8.2	Use, Cleaning, Maintenance, Repair and Inspection			

Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
8.3	Calibration			
8.4	Storage			
<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			

Section in Manual		Items Not Yet Complete	Item(s) Completed (✓) and Date	Item(s) Checked Off in Manual (✓)
<b>14. Pest Program for Buildings</b>				
14.1	Control and Monitoring			
14.2	Storage			
<b>15. Water (for Cleaning)</b>				
15.1	Water Assessment			
15.2	Storage			
15.3	Treatment			
<b>16. Ice</b>		N/A	N/A	N/A
16.1	Purchasing and Receiving	N/A	N/A	N/A
16.2	Application	N/A	N/A	N/A
16.3	Storage	N/A	N/A	N/A
<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, Packing and Storing</b>				
19.1	Selecting/Purchasing and Receiving Harvested/Market Product			
19.2	Sorting and Grading			
19.3	Packing			
19.4	Application of Wax	N/A	N/A	N/A
19.5	Other Materials			
19.6	Environmental Monitoring Program (EMP)			
19.7	Supplier Approval			
<b>20. Temperature Conditioning/Holding/ Storage of Product</b>				
20.1	Temperature Conditioning/Holding/ Storage Conditions for Harvested Product			
20.2	Temperature Conditioning/Holding/ Storage Conditions for Market Product			
<b>21. Transportation</b>				
21.1	Transportation of Harvested Product			
21.2	Transportation of Market Product			
<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			
23.5	Food Defense			
23.6	Allergens			
23.7	Food Fraud			
23.8	Food Safety Culture			
<b>24. HACCP Plan and Food Safety Program Maintenance and Review</b>				
24.1	Site-specific HACCP Plan	N/A	N/A	N/A
24.2	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 and Agricultural Chemical Storage Checklist			
B.	Storage Assessment			
C.	Employee Personal Hygiene and Food Handling Practices Policy - Production Site			
D.	Employee Personal Hygiene and Food Handling Practices Policy – Packinghouse/Product Storage			
E.	Pest Control for Buildings			
F.	Water (for Cleaning) Assessment			
S.	Allergen Information - Assessment			
T.	Food Defense			
U.	Food Fraud Vulnerability Assessment			
V.	Production Site Assessment			
<b>ONGOING FORMS</b>				
G.	Cleaning, Maintenance and Repair of Buildings			
H1.	Agronomic Inputs (Agricultural Chemicals)			
H2.	Agronomic Inputs (Other)			

Compendium of Food Safety Forms		Item(s) Not Yet Complete	Item(s) Completed (✓)	Item(s) Checked Off in Manual (✓)
H3.	Agricultural Chemical Application (Post-Harvest)	N/A	N/A	N/A
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			
N1.	Water Treatment Control and Monitoring			
N2.	Water Temperature Control and Monitoring	N/A	N/A	N/A
O.	Transporting Product			
P1.	Harvesting and Storing Potatoes (FOR POTATOES ONLY)	N/A	N/A	N/A
P2.	Harvesting and Storing Product (FOR ALL COMMODITIES EXCEPT POTATOES)			
Q.	Packing, and Storing of Market Product			
R.	Deviations and Corrective Actions			

## Operation 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 person(s) responsible referred to in this Manual.)*

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

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

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

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

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

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

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

Draw below the operation's organizational structure (or attach the operation's organizational chart). Include name(s), job title(s), a brief description of job responsibilities and show the reporting relationship(s) (e.g., using arrows). Include only those people involved in activities relevant to food safety.

## Brief Background

Amount of land in blueberry production (owned and rented); length of the operation's season; whose product is being handled:

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## Operation 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 Production:	Type of Operation:
<input type="checkbox"/> Products for Fresh Consumption ( <i>list</i> ): _____ _____	<input type="checkbox"/> Production <input type="checkbox"/> Production Site Packing into Market Ready Packaging Materials <input type="checkbox"/> Packinghouse with No Washing <input type="checkbox"/> Packing for Other Operations (i.e., co-packing) <input type="checkbox"/> Importing Products <input type="checkbox"/> Storage
<input type="checkbox"/> Products for Processing ( <i>list</i> ): _____ _____ _____	<input type="checkbox"/> U-Pick Operation ( <i>list products</i> ): _____ _____
<input type="checkbox"/> Other Uses ( <i>describe</i> ): _____ _____ _____	<input type="checkbox"/> Processing ( <i>list products</i> ): _____ _____ _____
<input type="checkbox"/> Producing Own Commodity Starter Products	<input type="checkbox"/> Other ( <i>describe</i> ): _____ _____

<p>Other Crops Produced:</p> <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <p>Incompatible Operations [e.g., livestock, poultry, etc. (specify type)]:</p> <input type="checkbox"/> _____ <input type="checkbox"/> _____ <p>Other Products (non-produce items) handled or stored:</p> <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	<p>Other Farm Programs (please indicate date of last review):</p> <input type="checkbox"/> Environmental Farm Plan _____ <input type="checkbox"/> Other Food Safety Program(s)/Audit(s): _____ <input type="checkbox"/> Other Certifications Achieved: _____ <hr/> <input type="checkbox"/> Nutrient Management Plan: _____ <input type="checkbox"/> Reduced Input (e.g., no spray, IPM, IFP): _____ <hr/> <input type="checkbox"/> Organic Production: _____ <input type="checkbox"/> Other (describe): _____ <hr/> <hr/>
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**Annual Operation Start Date**

Give the date of when your season begins. If you are operating year-round then you must choose a start date (for information on selecting a start date, refer to the FAQ for Section 15 at [www.canadagap.ca](http://www.canadagap.ca)).

\_\_\_\_\_



# INDEX

<b>Section</b>	<b>Page Number</b>	<b>Title</b>	<b>Forms Required</b>	<b>CanadaGAP Version Number and Issue Date</b>
1.	1	Commodity Starter Products	N/A	Version 11.0 2026
2.	3	Premises	A, B, G, V	Version 11.0 2026
3.	7	Commercial Fertilizers, Pulp Sludge and Soil Amendments	H2	Version 11.0 2026
4.	9	Manure, Compost/Compost Tea and Other By-Products	H2	Version 11.0 2026
5.	11	Mulch and Row Cover Materials	H2	Version 11.0 2026
6.	13	Agricultural Chemicals	A, H1,	Version 11.0 2026
7.	17	Agricultural Water	A, I	Version 11.0 2026
8.	21	Equipment	A, I	Version 11.0 2026
9.	27	Cleaning and Maintenance Materials	N/A	Version 11.0 2026
10.	29	Waste Management	N/A	Version 11.0 2026
11.	31	Personal Hygiene Facilities	A, J	Version 11.0 2026
12.	35	Employee Training	C, D, K	Version 11.0 2026
13.	39	Visitor Policy	L	Version 11.0 2026
14.	41	Pest Program for Buildings	A, E, G, M	Version 11.0 2026
15.	45	Water (for Cleaning)	A, F, N1	Version 11.0 2026
16.	52	Ice	N/A	Version 11.0 2026
17.	53	Packaging Materials	A, I, Q	Version 11.0 2026
18.	59	Growing and Harvesting	H1, H2, P2, Q	Version 11.0 2026
19.	61	Sorting, Grading, Packing and Storing	P2,Q	Version 11.0 2026
20.	67	Temperature Conditioning/Holding/Storage of Product	A, P2, Q	Version 11.0 2026
21.	71	Transportation	O	Version 11.0 2026
22.	73	Identification and Traceability	O, P2, Q	Version 11.0 2026
23.	77	Deviations and Crisis Management	R, S, T, U	Version 11.0 2026
24.	91	HACCP Plan and Food Safety Program Maintenance and Review	N/A	Version 11.0 2026



# 1. Commodity Starter Products

Forms Required

N/A

## **RATIONALE:**

Commodity starter products, depending on the product, may include plants. These may be a source of chemical contamination if not treated properly or if certain cultivars/varieties are selected [e.g., Plants with Novel Traits (PNTs)]. The development of new varieties of products, 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 in Canada and are subject to federal regulation. Before being grown for human consumption, a food safety assessment of these new varieties must be completed by the prevailing authority (e.g., federal government).

- Commodity Starter Products are used on the premises

*If the above circle has been checked off, proceed below.*

*If not, proceed to Section 2: Premises.*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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## 1.1 Purchasing and Receiving

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

- When purchasing or selecting commodity starter products that may be considered as Plants with Novel Traits (PNTs), the person responsible purchases or selects only varieties that have been approved for use by the prevailing authority [(e.g. federal government - Refer to the CFIA website <https://active.inspection.gc.ca/netapp/plantnoveltraitpnt-vegecarnouvcn/pntvcne.aspx>) or that have been issued a letter of no-objection (e.g., from Health Canada) or talk to your supplier]
- The person responsible receives only the commodity starter products that were purchased

## 1.2 Preparation

**REQUIREMENT**

*Commodity starter products must be prepared in a manner that minimizes sources of contamination.*

**PROCEDURES:**

- The person responsible treats commodity starter products with agricultural chemicals according to the instructions in Section 6: Agricultural Chemicals

## 1.3 Storage

**REQUIREMENT**

*Commodity starter products must be stored in a manner that minimizes sources of contamination.*

**PROCEDURES:**

- The person responsible stores commodity starter products separate from agricultural chemicals and harvested and market product

**Confirmation/Update Log:**

Date						
Initials						

## 2. Premises

Forms Required

A, B, G, V

### **RATIONALE:**

Direct and indirect contamination of product can occur due to previous activities on a production site or activities on adjacent lands. Animals (both wild and domestic), insects and birds are potential sources of contamination to product 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 product. 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 product.

- Operation includes production site(s)
- Operation includes building(s)

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

*If not, proceed to Section 3: Commercial Fertilizers, Pulp Sludge and Soil Amendments.*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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### 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>
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#### **PROCEDURES:**

- The person responsible considers production site activities for the past five years of any site they are 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)
- The person responsible does not use production sites where sewage sludge has been applied.
- Annually – The person responsible considers production site activities and assesses potential hazards for ALL production sites. The person responsible 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, road salt, foreign objects (e.g., glass bottles, etc.)]
- Unusually high levels of animal and bird activity (e.g., migratory paths, nesting or feeding areas, presence of animal feces, large areas of animal tracks or burrowing, etc.)

**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 that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025* (File under Tab: Test Results)
- Avoiding growing an edible crop
- Incorporating manure into the soil in adjacent fields
- 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*): \_\_\_\_\_

- Annually (prior to using the production site) – The person responsible conducts an assessment of ALL production sites and completes Form (V) Production Site Assessment OR \_\_\_\_\_

## 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 – The person responsible, for EACH building that is a permanent structure, 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 (e.g., to lock storages when unsupervised)
    - Windows that can be closed OR have close-fitting screens (i.e., no gaps)

- Annually – The person responsible, for EACH building that is NOT a permanent structure (i.e., open-air, temporary), assesses all of the following potential exterior hazards:
  - Each structure is designed or constructed where there is or are:
    - A roof or cover (e.g., tarp)
    - Proper drainage around the structure (i.e., no standing water or wet areas)
    - No areas where pests (e.g., insects, mice, birds, rats) can hide/live/feed (e.g., junk piles, long grass, bushes, garbage, unused machinery)

!  Monthly (when in use) – The person responsible conducts an inspection of the exterior of buildings and completes Form (G) Cleaning, Maintenance and Repair of Buildings OR \_\_\_\_\_

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### 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 – The person responsible completes or updates Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

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- Annually – The person responsible, for EACH building, assesses all of the following potential interior hazards. Each building IS or HAS:
  - NOT used for livestock/poultry slaughter or meat processing/storage activities
  - No sources of cross-contamination that may be carried by air, foot, hands, equipment, etc. (e.g., livestock, poultry, fish, etc.)
  - 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 (e.g., prevent glass from falling onto product/materials) where product and packaging materials are handled or stored
  - Adequate drainage (i.e., floor sloped, sump pump for backup, drain covers, backflow preventers where necessary)
  - Pipes or condensation that does not leak onto product or packaging materials
  - Clean areas where product and packaging materials are handled and stored (e.g., free from garbage, spills, pests and pest droppings)
  - Walls, floors and ceilings without crevices
  - Adequate ventilation to prevent excessive heat, steam, condensation, dust, etc. and contaminated air (e.g. with allergens from dust/dry goods, etc.) is removed
- If there is potential for cross-contamination from hazards (e.g., from non-produce activities, processing, etc.) or items [e.g. allergens (e.g. nuts, wheat, raw meats, seafood)] being handled and stored on the premises, the person responsible implements the following control measures: (*check those that apply*)
  - Dedicated areas or barriers to prevent cross contamination
  - Air flow or ventilation to remove contaminated air

- Specific pathways for employees or equipment [i.e. employees and equipment do not move into produce handling and storage areas from areas where there are potential hazards unless procedures are implemented to prevent cross contamination (e.g. change of clothing and footwear)]
- Dedicated employees or dedicated working effects (e.g. gloves, footwear, aprons, clothing etc.)
- Dedicated equipment
- Separation by space or time
- Covered or secured items (e.g., inputs, equipment, etc.) to prevent dust, spilling, leaking or other potential sources of cross-contamination

**!**  Monthly (when in use) – Where possible (i.e., not a sealed storage), the person responsible conducts a monthly inspection of the interior of buildings, and completes Form (G) Cleaning, Maintenance and Repair of Buildings OR \_\_\_\_\_

\_\_\_\_\_

**For Harvested and Market Product Storages**

**!**  Annually [prior to first time (in a season) use] – The person responsible inspects the product 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

#### 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/Compost Tea and Other By-Products.*

#### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

#### 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:

- The person responsible purchases or selects:
  - Commercial fertilizers that meet prevailing legislation (e.g., federal regulations)
  - Pulp sludge that meets prevailing legislation (e.g., provincial regulations)
  - Soil amendments that meet prevailing legislation (e.g., provincial regulations)
- The person responsible receives only the commercial fertilizers and soil amendments that were purchased or selected
- The person responsible receives only pulp sludge that was purchased or selected according to prevailing legislation (e.g., provincial regulations)

#### 3.2 Application

##### REQUIREMENT

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

#### PROCEDURES:

- The person responsible 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.
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#### PROCEDURES:

- The person responsible stores commercial fertilizers, pulp sludge and soil amendments:
  - Separate from product and packaging materials
  - Only in product storage(s) when the storage(s) are not in use
  - 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

### RATIONALE:

Product 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 product. Presently there is little scientific information on pathogen survival when other by-products are applied in the production site (e.g., seafood waste, 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.*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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### 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>
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### PROCEDURES:

- The person responsible does NOT purchase or use sewage sludge on any production site intended for product production even in rotational years
- When purchasing or selecting manure or other by-products from a supplier (e.g., company, self, neighbour), the person responsible is aware of the type (e.g., cattle, horse or hog manure; 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]
- The person responsible 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)*

- The person responsible 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 (glass) contamination] and requests a letter of assurance

- !  The person responsible receives only compost/compost tea that was purchased along with the letter of assurance (one letter per supplier per season) (File under Tab: Letters of Assurance/Certificates)

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

- The person responsible 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*)
- !  The person responsible 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 product.</i>
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**PROCEDURES:**

- The person responsible spreads:
  - !  Manure only when the interval between application and harvest is greater than 120 days
  - Compost/compost tea (at any time)
- !  The person responsible 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**

- Manure is stored on the premises
- Compost/compost tea is stored on the premises
- Other by-products are stored 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>
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**PROCEDURES:**

- The person responsible stores manure, compost/compost tea and other by-products separate from each other, product, packaging materials, fuels, oils, chemicals and cleaning agents
- The person responsible stores manure and other by-products away from water sources
- The person responsible stores manure and compost/compost tea in a location where drifting or leaching will not be a source of contamination to product, 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

Forms Required

H2

### RATIONALE:

Product 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.*

### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” **OR** that may have an “impact on food safety through cross contamination”.

### 5.1 Purchasing and Receiving

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

- When purchasing or selecting mulch and row cover materials from a supplier (e.g., self, neighbour, company), the person responsible 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.)]
- The person responsible receives only the mulch and row cover materials that were purchased or selected

### 5.2 Application

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

- The person responsible records mulch and row cover material applications (except plastic) 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.*

**REQUIREMENT**

*Mulch and row cover materials must be stored in designated areas.*

**PROCEDURES:**

- The person responsible stores mulch and row cover materials (including reused plastic mulch and row covers) separate from product, packaging materials, manure, fuels, oils, chemicals and cleaning agents

**Confirmation/Update Log:**

Date						
Initials						

## 6. Agricultural Chemicals

Forms Required

A, H1

### RATIONALE:

Production of safe products requires a non-contaminated environment. The inappropriate use, handling and storage of agricultural chemicals may result in a chemical hazard. Prevailing legislation (e.g., federal, provincial, state or local regulations) must be adhered to.

- Agricultural chemicals are used on the premises
- Product is destined for export markets

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 7: Agricultural Water.*

### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” **OR** that may have an” impact on food safety through cross contamination”.

### 6.1 Purchasing and Receiving

#### REQUIREMENT

*Agricultural chemicals of the appropriate type must be purchased and received to minimize chemical contamination of product.*

#### PROCEDURES:

- The person responsible purchases agricultural chemicals registered for use on the applicable product in the country where it is grown, or permitted in Canada under the Own Use Import Program or the Grower Requested Own Use (GROU) Program, or permitted under comparable programs in other countries where product is grown
- The person responsible purchases agricultural chemicals from licensed dealers
- ! ● The person responsible 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 instructions for use are on the label)
  - !  A receipt and signs the receipt (File under tab: Letters of Assurance/Certificates) OR  
\_\_\_\_\_ )

### 6.2 Application

#### REQUIREMENT

*Agricultural chemicals must be applied by the appropriate person, following label instructions.*

#### PROCEDURES:

- !  Applicator follows prevailing legislation (e.g., provincial regulations) AND has completed formal training (e.g., online course, self-study course with materials and successful completion of exam, etc.) (File under Tab: Letters of Assurance/Certificates)
- !  The person responsible applies agricultural chemicals that are registered for use on the applicable product in the country where it is grown and not in excess of label recommendations and directions
- !  When agricultural chemicals are applied to the production site, the person responsible completes Form (H1) Agronomic Inputs (Agricultural Chemicals) OR \_\_\_\_\_

**Note:** In Canada, a PHI of 1 day means an operation may harvest product the day after application. The PMRA considers a 1 day PHI in terms of calendar days, not hours.

- The person responsible for the application of agricultural chemicals communicates with the person responsible for selling their product (e.g., packer, wholesaler, broker) and determines if the product is exported or not
- The person responsible for selling the product (e.g., packer determines whether the product is exported, and if so, communicates with the person responsible for the application of agricultural chemicals

**If product is exported continue below. If product is not exported continue to Section 6.3 Storage.**

**PRODUCT DESTINED FOR EXPORT MARKETS:** (Note: both the applicator of the agricultural chemicals and/or the exporter of the product would be the person responsible below).

- The person responsible 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 product, product labels, Maximum Residue Limits, banned lists, etc.) for agricultural chemicals in destination market(s)
  - Ensures only chemicals approved for use in the destination market(s) are used
  - Ensures chemical applications and application rates for target pests and diseases comply with label recommendations applicable to the destination market(s)
  - Ensures 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 that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 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 Exported 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 (<https://www.canada.ca/en/health-canada/corporate/about-health-canada/branches-agencies/pest-management-regulatory-agency.html>) and/or from the manufacturer.

### 6.3 Storage

- Agricultural chemicals are stored, *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>
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**PROCEDURES:**

- !  Annually – The person responsible records where agricultural chemicals are stored on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

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- ! ● Agricultural chemicals are stored:
  - !  In an area dedicated only to agricultural chemicals, commercial fertilizers and pest control products with a PCP#. Contained fertilizers (e.g., bag, jug, tote) may be stored in the chemical storage except where prohibited by prevailing legislation (e.g., provincial 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 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:**

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



## 7. Agricultural Water

Forms Required

A, I

### 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 (and these are NOT stored).  
*If so, proceed to Section 8: Equipment.*

### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

### 7.1 Source Assessment

#### REQUIREMENT

*Each agricultural water source must be identified, potential hazards must be assessed and preventative measures and/or corrective actions must be taken (when necessary).*

**Note:** *EACH water source used for irrigation and agricultural chemical or commercial fertilizer applications (e.g., overhead, spray, drip, trickle) must be assessed (e.g., ponds, streams, lakes, rivers, canals, creeks, springs, cisterns, reservoirs, ground, tertiary water).*

### PROCEDURES:

- The person responsible does NOT use untreated sewage water
- If purchasing or selecting tertiary water, the person responsible purchases or selects it following prevailing legislation (e.g., 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 person responsible does not spray or irrigate from that source

**Note:** *The next four bullets contain details regarding the agricultural water source risk assessment and subsequent corrective actions/preventative measures. Information on the agricultural water risk assessment will then need to be recorded in the chart found in the last requirement in Section 7.1.*

- Annually – The person responsible 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
  - Working condition of the well (e.g., seals and well casings fit tightly, pump functioning)

- Leaching of sunken wells by overland flooding
- Placement of irrigation water intake equipment. (Equipment should be placed where sediment is NOT pulled in with water)
- Storage of irrigation pipes where they could become contaminated by manure, pests or agricultural chemicals

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

- *There is a high risk of contamination associated with using poor quality agricultural water on product*
- *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 in the assessment of risk associated with their different water sources*

Water Source	Level of Risk
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) due diligence*
- *It is strongly recommended that agricultural water sources are tested. The test will provide a general idea of the quality of the water and help to determine if possible contamination is present. Water would be tested for Total Coliforms and E. coli using an accredited lab that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of ISO/IEC 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: Agricultural Water Source Assessment to help with your assessment (and for preventative measures/corrective actions).*

- After assessing the source, if the person responsible 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 that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 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 that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025*. See *Appendix G: Water Testing*
- Does not irrigate

- Annually (prior to using the agricultural water sources) – the person responsible records the risk assessment completed for ALL agricultural water sources (as outlined in the bullets above) and provides details in the chart below (*include other pages if necessary*):

Record all agricultural water sources below (e.g., municipal, well, tertiary, surface)	For each water source, choose 'yes' or 'no' to indicate if there were potential hazards (as determined through the risk assessment above)	
	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If any hazards were identified above, complete the following table:

Agricultural water source associated with the 'yes' in the table above	Describe the specific hazard and location (e.g., cattle grazing on SW side of pond 7, etc.)	Describe in detail the corrective actions/ preventative measures taken to mitigate the potential hazard (e.g., contacted upstream cattle owner who changed the cattle grazing location, etc.)

## 7.2 Storage

- Agricultural water is stored, *proceed below.*  
*If not, proceed to Section 8: Equipment.*

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

- Annually - The person responsible records location of water storage tank/container/cistern on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_
  
- Prior to first use (in a season) – The person responsible:
  - Cleans the tank, container or cistern used to store water (e.g., power washes, sanitizer) and records the cleaning on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
  
- AND**
- Follows instructions in *Appendix H: Cleaning and Treating Cisterns – An Example* OR other written instructions ( \_\_\_\_\_ )
  
- OR**
- Tests water using an accredited lab that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025* (File under Tab: Test Results) See *Appendix G: Water Testing*
  
- The person responsible ensures the tank, container or cistern has a lid, is free from rust and is closed when not in use

### Confirmation/Update Log:

Date						
Initials						

## 8. Equipment

Forms Required	A, I
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### **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 product. 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.

- Production site equipment is used on the premises
- Building equipment is used on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 9: Cleaning and Maintenance Materials.*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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### 8.1 Purchasing, Receiving and Installation

**Note:** *This section includes both new and current equipment.*

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

#### **Production Site Equipment**

- The person responsible ensures that calibration instructions are received with equipment or are written based on expert recommendations and made available (File under Tab: Calibration Instructions OR \_\_\_\_\_). Refer to *Appendix E: Agricultural Chemical Application Equipment Calibration - An Example* for further information
- The person responsible ensures that design and construction of production site equipment (e.g., tines, prongs of the harvester, cultivator/sprayer panels that touch product, field-packing equipment surfaces), will not be a source of contamination to the product, and:
  - Have food contact surfaces that are easy to clean
  - Are easily accessible for cleaning and maintenance
- The person responsible receives only the equipment that was purchased or selected

## Building Equipment

- Annually – The person responsible records where equipment is located/installed on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_
- The person responsible ensures that calibration instructions are received with equipment or are written based on expert recommendations and made available (File under Tab: Calibration Instructions OR \_\_\_\_\_) (e.g., for scales to weigh chemicals, water treatment equipment)
- The person responsible ensures that design and construction of building equipment (e.g., packing, sorting and grading), will not be a source of contamination to product, and:
  - 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, puckboard, rubber) (except for pallets, rollers and brushes)
  - Are equipped with shatterproof lights (if applicable), or are covered (e.g., prevent glass from falling onto product or packaging material) (e.g., packing line, forklift)
- The person responsible receives only the equipment that was purchased or selected
- When installing equipment (e.g., the packing line), the person responsible ensures that the equipment is installed with sufficient space between walls, floors and other equipment to allow easy access for cleaning and maintenance
- The person responsible ensures that:
  - If catwalks are located above packing lines or areas where market product is handled or stored, or where market ready packaging materials are handled or stored, they are protected and have kick plates and solid floors (e.g., rubber mats) to prevent contamination of product
  - Barriers are in place to eliminate unauthorized access to equipment (e.g., walls, doors, ropes, signs) *Refer to Section 13.1: Visitor Protocols*

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

<b>REQUIREMENT</b>	<i>Equipment use must not contribute to the contamination of product. Equipment must be properly cleaned, have planned maintenance, and be repaired and inspected. Maintenance activities must not contribute to the contamination of product.</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
- Before each use of production site equipment, the person responsible conducts a general inspection and ensures the equipment does not contribute to the contamination of product (e.g., checks for leaks, broken, corroded or damaged parts, cleanliness)

- !  Weekly (at a minimum when in use) – The person responsible inspects equipment (e.g. harvester, conveyors, tables) for proper functioning (e.g., checks for faulty or loose parts) and performs maintenance as needed. The results of the inspection are recorded on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_

- ! • Weekly (at a minimum when in use) – The person responsible ensures that production site equipment (e.g., mechanical harvester conveyer belt) is clean by *(choose at least one of the following options)*:

**Cleaning Procedure**

- 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

AND/OR

- 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.]

- !  Weekly - The person responsible records cleaning of equipment on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_

- If compressed air is used in direct contact with product or food contact surfaces, the person responsible maintains compressed air equipment as per manufacturer’s instructions or according to a written procedure based on expert recommendations (File under Tab: Other Procedures OR \_\_\_\_\_).

- Scales are cleaned between uses if the same scale is used to weigh product and agricultural chemicals
- Hoses for potable water uses are/have:
  - Ends that are kept up off the ground
  - Stored in a way that prevents contamination
  - Flushed out with potable water before EACH use
- !  Agricultural chemical application equipment is rinsed or flushed according to label instructions when applying agricultural chemicals (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 devices or other methods that do not present a risk of contamination are used when filling agricultural chemical application equipment to prevent backflow of agricultural chemicals into water sources or production site (*refer to Appendix O: Examples of Backflow Prevention During Mixing of Agricultural Chemicals*)

**Building Equipment (including equipment within open-air, temporary packing structures)**

- Equipment is not used (whether in use or not) for livestock/poultry slaughter or meat processing activities
- Before initial use of building equipment, the person responsible conducts a general inspection and ensures the equipment does not contribute to the contamination of product (e.g., checks for leaks, broken, loose, corroded or damaged parts, chipping paint, rust, rotting wood, cleanliness)
- !  Weekly (at a minimum when in use) – The person responsible inspects equipment (e.g., grading table, packing line,) for proper functioning (e.g., checks for faulty or loose parts) and performs maintenance as needed. The results of the inspection are recorded on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
- ! ● Weekly (at a minimum when in use) – The person responsible ensures that building equipment 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

AND/OR

- 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.]

- !  Weekly – The person responsible records cleaning of equipment on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
- If compressed air is used in direct contact with product or food contact surfaces, the person responsible maintains compressed air equipment as per manufacturer’s instructions or according to a written procedure based on expert recommendations (File under Tab: Other Procedures OR \_\_\_\_\_).
- Scales are cleaned between uses if the same scale is used to weigh product and agricultural chemicals
- Hoses for potable water uses are/have:
  - Ends that are kept up off the ground
  - Stored in a way that prevents contamination
  - Flushed out with potable water before EACH use

### 8.3 Calibration

<b>REQUIREMENT</b>	<i>An effective calibration program must be followed for all equipment requiring calibration.</i>
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#### **PROCEDURES:**

##### **Production Site Equipment**

- At the start of the season, when inspection results indicate a need, when equipment is changed and/or if tractor speeds are adjusted, the person responsible calibrates production site equipment as per calibration instructions.
- The person responsible calibrates the following production site equipment (*check all that apply; if not applicable, proceed to the next sub-section: Building Equipment*):
  - !  Agricultural chemical applicator (including granular/liquid applicator, etc.)
  - !  Scales (if used to weigh agricultural chemicals)

The person responsible records detailed results of the calibration for agricultural chemical applicators (File under Tab: Calibration Instructions).

!  The person responsible 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 (e.g., belts or sprockets are changed), the person responsible calibrates the equipment as per calibration procedures

! • The person responsible calibrates the following building equipment (*check all that apply; if not applicable, proceed to Section 8.4: Storage*):

- !  pH meter (if used to verify water treatment)
- !  ORP meter (if used to verify water treatment)
- !  Scales (if used to weigh agricultural chemicals)
- Other (*specify*): \_\_\_\_\_

!  The person responsible 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 product.</i>
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**PROCEDURES:**

- The person responsible stores production site equipment (when not in use) separate from product, water sources, market ready packaging materials and other sources of potential contamination
- The person responsible stores building equipment (when not in use) in a manner that prevents leakage of fuel, oil, gases, etc. from equipment coming into contact with product, water sources and market ready packaging materials

**Confirmation/Update Log:**

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

## 9. Cleaning and Maintenance Materials

Forms Required

N/A

### RATIONALE:

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

- Cleaning materials are used on the premises
- Maintenance materials are used on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 10: Waste Management.*

### IMPORTANT NOTE

It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

### 9.1 Purchasing and Receiving

#### REQUIREMENT

*Cleaning and maintenance materials must be properly purchased/selected and received to ensure the appropriate type for use.*

### PROCEDURES:

- When purchasing or selecting cleaning and maintenance materials (including materials used on food contact surfaces), the person responsible purchases or selects materials that are appropriate for their intended use
- The person responsible receives only the cleaning and maintenance materials that were purchased or selected and if applicable, 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

#### REQUIREMENT

*Cleaning and maintenance materials must be used so as not to be a source of contamination to product.*

- When using cleaning and maintenance materials, the person responsible:
  - 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
  - Avoids cross contamination from cleaning and maintenance materials (e.g., if a broom was used to sweep water into a drain, this broom cannot then be used to sweep a food contact surface, etc.).

**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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- The person responsible stores cleaning and maintenance materials:
  - Separate from product, equipment, waste, agricultural chemicals, market ready packaging materials and other sources of contamination
  - In a clean and dry location
  - If applicable, 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:**

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

# 10. Waste Management

Forms Required

N/A

## 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).

- Waste is on the premises

*If the above circle has been checked off, proceed below.*

*If not, proceed to Section 11: Personal Hygiene Facilities.*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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## 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>
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### PROCEDURES:

- The person responsible provides dedicated containers for waste that are:
  - In the appropriate areas/rooms (e.g., lunchroom, washroom, packinghouse, production site, storage)
  - Separate from product, 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 product and market ready packaging materials
- The person responsible 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 product and the premises.</i>
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### PROCEDURES:

- The person responsible does not reuse empty agricultural chemical containers for any purpose
- The person responsible triple rinses containers and empties the rinsate into the applicator tank
- The person responsible stores empty agricultural chemical containers:
  - Separate from product, water sources and market ready packaging materials
  - In a designated or labelled area/container
- The person responsible disposes of empty agricultural chemical containers by following prevailing legislation (e.g., federal, provincial, state or local regulations) for disposal of empty containers

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

<b>REQUIREMENT</b>	<i>Production wastewater, waste from toilets and wastewater from hand washing facilities must be disposed of in a manner that minimizes biological and chemical contamination of product, water sources and the premises.</i>
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**PROCEDURES:**

- The person responsible does not dispose of waste from toilets and wastewater from hand washing facilities in the production site
- The person responsible disposes of waste from toilets in a manner that prevents contamination of packaging materials, product, water sources, compost and other by-products
- The person responsible 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- The person responsible disposes of wastewater from hand washing facilities in a manner that prevents contamination of packaging materials, product, water sources, compost and other by-products
- The person responsible disposes of wastewater from hand washing facilities (*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 wastewater is disposed of):

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

- The person responsible disposes of production wastewater in a manner that prevents contamination of packaging materials, product, water sources, compost and other by-products
- The person responsible disposes of production wastewater by (*specify where and how wastewater is disposed of*):

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

**Confirmation/Update Log:**

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

# 11. Personal Hygiene Facilities

Forms Required

A, J

## 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.

- Operation includes production site(s)
- Operation includes packing and/or product storage

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 12: Employee Training.*

### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

## 11.1 Facilities

### REQUIREMENT

*Sufficient personal hygiene facilities must be available. All facilities must be accessible, properly stocked, cleaned and well-maintained.*

## PROCEDURES:

**In the Production Site** *[If not applicable, proceed to the sub-section: Packing and/or Product Storage]*

- Washrooms are provided **FOR** production site employees and include:
  - 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 product
  - on-site toilets (e.g., 500 m or 5 minute walk) or accessible through transportation provided (e.g., employee vehicle)
  - fully equipped (i.e., toilet paper)
- ! ● Properly stocked hand washing facilities that are easily accessible are provided for employees **IN** the production site and include:
  - **Note:** *Hand washing water stored in permanent tanks (e.g., within portable washrooms or as standalone facilities) is not considered potable UNLESS:*
    - *the water is tested from the tank each time the tank is filled to confirm potability, OR*
    - *the water is treated and tested to confirm potability is being maintained with treatment as per procedures in Section 15.3 Treatment, OR*
    - *the cleanliness of the tank is maintained, filling procedures are followed and the water is tested to confirm potability as per procedures in Section 15.2 Storage*

Choose at least one of the following 3 options (*The items within each option are to be used ONLY in the order that they appear*):

- !  hot and/or cold running **potable** water (with a receptacle to collect wastewater), soap and disposable paper towels

**OR**

- !  water (with a receptacle to collect wastewater), disposable paper towels and hand sanitizer

**OR**

- !  hand wipes and hand sanitizer

**AND**

- a garbage container
- all hand washing facilities have hand washing signs with understandable instructions (e.g., appropriate language for employees, pictograms) and that are appropriate for the handwashing option chosen. *Refer to Appendix I: Hand Washing Sign Templates*

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

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

- Annually – The person responsible records all locations of personal hygiene facilities on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

- The person responsible provides properly stocked handwashing facilities **IN** the packinghouse and **FOR** handling of market ready packaging materials and **FOR** product storage including:

- **Note:** *Hand washing water stored in permanent tanks (e.g., within portable washrooms or as standalone facilities) is not considered potable UNLESS:*
  - *the water is tested from the tank each time the tank is filled to confirm potability, OR*
  - *the water is treated and tested to confirm potability is being maintained with treatment as per procedures in Section 15.3 Treatment, OR*
  - *the cleanliness of the tank is maintained, filling procedures are followed and the water is tested to confirm potability as per procedures in Section 15.2 Storage*

*Choose at least one of the following 3 options (The items within each option are to be used ONLY in the order that they appear):*

- !  hot and/or cold running potable water (with a receptacle to collect wastewater), soap and disposable paper towels

**OR**

- !  water (with a receptacle to collect wastewater), disposable paper towels and hand sanitizer

**OR**

- !  hand wipes and hand sanitizer

**AND**

- a garbage container
- all hand washing facilities have hand washing signs with understandable instructions (e.g., appropriate language for employees, pictograms) and that are appropriate for the handwashing option chosen *Refer to Appendix I: Hand Washing Sign Templates*

- The person responsible provides washrooms:
  - !  in the packinghouse/market ready packaging material handling building/product storage

**OR**

- !** in the immediate vicinity of the packinghouse/market ready packaging material handling building/product storage (e.g., portable toilet, residence, bunkhouse)

**FOR STANDALONE HARVESTED PRODUCT STORAGES ONLY**

- The person responsible provides washrooms:
  - !** on-site (e.g., 500 m or 5 minute walk) or accessible through transportation provided (e.g., employee vehicle)

- Washrooms include:

- 1 toilet per 35 employees
- Fully equipped facilities (i.e., toilet paper)
- If the washroom is on-site (e.g., 500 m or 5 minute walk/in the vicinity of the packinghouse/market ready packaging material handling building/product storage or accessible through transportation, describe where it is located: \_\_\_\_\_

- !** Weekly (while in use) and daily (during the peak season) – The person responsible 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)**

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

**Confirmation/Update Log:**

Date						
Initials						



## 12. Employee Training

Forms Required

C, D, K

### RATIONALE:

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

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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### 12.1 Employee Training

<b>REQUIREMENT</b>	<i>All employees must receive training on their role in food safety, food handling, personal hygiene practices, bio-security 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 qualified resources (including suitably qualified personnel) needed to implement and improve the processes of the food safety system.</i>
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### PROCEDURES:

- Responsibility for overseeing employee training is assigned to [record name here: \_\_\_\_\_], who becomes the “person responsible” below
- Annually – The person responsible 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/Product Storage
- The person responsible provides training:
  - 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
- The person responsible provides appropriate training in a language and in a way employee(s) understand (Refer to the CanadaGAP website to obtain training materials: [www.canadagap.ca](http://www.canadagap.ca))
- The person responsible records employee personal hygiene, food handling practices and minor and major food safety deviations training activities and employees’ attendance on Form (K) Training Session OR \_\_\_\_\_
- The person responsible observes employees for compliance with the personal hygiene and food handling practices policy

- The person responsible trains employees on minor and major food safety deviations (*Refer to Section 23: Deviations and Crisis Management*)
- The person responsible provides job-related training to employees performing tasks that could lead to biological, chemical or physical contamination of product (*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
  - Allergen awareness (e.g. preventing cross contamination from allergens)
  - Purchasing/receiving/handling/storing procedures
  - Procedures for preventing cross-contamination from other non-produce activities that occur on the premises (e.g. food processing, cattle operation, etc.)
  - Handling of job-related electronic devices

## 12.2 Employee Illness

### **REQUIREMENT**

*The person responsible 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.*

### **PROCEDURES:**

- The person responsible abides by appropriate legislation (e.g., human rights, privacy, employment standards) and operation policies (written and verbal)
- The person responsible is aware that there are illnesses transferable to food (e.g., Hepatitis A, Salmonella, *E. coli* O157:H7)
- The person responsible trains employees to report if they have a disease or illness transferable to food, symptoms of such a disease or illness, or an open or infected lesion
- The person responsible informs employees to see a doctor when they are ill and excludes employees with symptoms of an active infectious disease from activities that may contaminate product, packaging materials or food contact surfaces
- The person responsible is alert to signs of employee illness, and encourages those employees to seek medical attention as soon as possible
- If the person responsible is advised that an employee has an illness transferable to food (e.g., Hepatitis A, Salmonella, *E. coli* O157:H7), advice, guidance and collaboration is sought with their local public health authority and/or other regulatory agencies (CFIA or provincial government representatives) and/or experts (e.g., food safety consultant, academic institution, etc.) to help determine when the employee can return to work and measures that can be taken (e.g., risk

assessment, corrective action, preventative measures, product recall etc.) if the product was potentially contaminated (e.g., handled by ill employee, cross-contamination risks, etc.)

- The person responsible 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

Forms Required	L
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## RATIONALE:

Restricting visitors from areas where product or market ready packaging materials are handled or stored helps to prevent contamination.

- Operation may have visitors on the premises

*If the above circle has been checked off, proceed below.  
If not, proceed to Section 14: Pest Program for Buildings.*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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## 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>
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### PROCEDURES:

- The person responsible determines controlled-access areas within the building(s) including areas where harvested and market product and market ready packaging materials are handled or stored, and where cleaning and maintenance materials are stored, and controls access to those designated areas (e.g., puts up signs, walls). *Refer to Appendix J: Controlled Access Area Sign Templates*
- The person responsible accompanies or designates a person to accompany first time visitors entering controlled-access areas
- The person responsible ensures visitors are informed of and understand the visitor policy on Form (L) Visitor Sign-In Log OR \_\_\_\_\_
- The person responsible 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 product contamination.</i>
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### PROCEDURES:

- The person responsible 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 harvest into clean containers
  - To remain in the designated harvesting area
  - To touch only the product they plan to purchase
  - That pets are not allowed in the U-pick area
  - To dispose of garbage in dedicated container(s)
  
- Before harvesting, U-pick customers are provided with instructions (verbal, written or visual):
  - To pick product only from the bush, not product that has fallen on the ground

**Confirmation/Update Log:**

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

# 14. Pest Program for Buildings

## RATIONALE:

Pests such as rodents, birds and insects are potential sources of contamination to product 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.

- Operation has building(s) on the premises

*If the above circle has been checked off, proceed below.  
If not, proceed to Section 15: Water (for Cleaning).*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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## 14.1 Control and Monitoring

<b>REQUIREMENT</b>	<i>An effective pest program must be in place for the exterior and interior of buildings to monitor and control pests.</i>
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**Note:** This section does not apply to stand-alone agricultural chemical storage buildings.

### PROCEDURES

- The person responsible 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 and Form (G) Cleaning, Maintenance and Repair of Buildings OR \_\_\_\_\_
  
- The person responsible prevents nesting of birds on the interior and exterior of buildings
  
- The person responsible does NOT allow animals, either wild or domestic (including pets), or pests (e.g., birds, rodents) in buildings
  
- The person responsible uses traps and 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)
  - Pest control products in bait and baited traps are registered for use in the country where they are used
  - They are set, at a minimum, on the inside of each entrance (doorways) on both sides (i.e., two traps per door)

**NOTE:** Snap traps may be used inside buildings but cannot be baited.

- !  The person responsible 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):

<b>! <input type="checkbox"/> Third Party Pest Program</b>	<b>! <input type="checkbox"/> Self-Managed Pest Program</b>
<ul style="list-style-type: none"> <li>! • The person responsible hires a licensed third party pest control company to monitor buildings (when in use). The company provides the person responsible 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 number, 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 product</li> <li>! <input type="checkbox"/> Pest control products are registered for this use in the country where they are used 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 person responsible</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>! • The person responsible implements a self-managed pest program. The person responsible 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 product</li> <li>! <input type="checkbox"/> Pest control products are registered for this use in the country where they are used 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 on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR _____ _____</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"/> The person responsible records PCP # on Form (E) Pest Control for Buildings OR _____ _____</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>! <input type="checkbox"/> After each visit, the person responsible 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 – The person responsible describes the pest program on Form (E) Pest Control for Buildings OR _____ _____</li> </ul>
<ul style="list-style-type: none"> <li>! <input type="checkbox"/> The person responsible files all records under Tab: Third Party Pest Control Records OR _____ _____</li> </ul>	<ul style="list-style-type: none"> <li>! <input type="checkbox"/> Monthly at a minimum (when in use) – The person responsible 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 - The person responsible 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 is observed, the person responsible takes corrective action and/or seeks expert advice on alternative control measures</li> </ul>

## 14.2 Storage

- Pest control products are stored on the premises

*If the above circle has been checked off, proceed below.  
If not, proceed to Section 15: Water (for Cleaning).*

<b>REQUIREMENT</b>	<i>Pest control products must be stored in designated areas and under the proper conditions.</i>
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### PROCEDURES:

- Annually – The person responsible records where pest control products are stored on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

- The person responsible stores pest control products:
  - Separate from product and packaging materials
  - In a covered, clean and dry location if necessary
  - With labels/identification intact and legible if applicable (e.g., name of product, active ingredient(s), concentration, PCP#)
  - In a manner that maintains the integrity of the container and its contents

### Confirmation/Update Log:

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



# 15. Water (for Cleaning)

Forms Required	A, F, N1
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## 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 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.*

**\* NOTE: Water (for Cleaning) should not be used in blueberry operations unless it is used for cleaning (equipment, buildings, containers, etc.) and/or hand washing in personal hygiene facilities.**

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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## 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 contamination (pathogenic bacteria, parasites, viruses) and chemical contamination.</i>
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## PROCEDURES:

- The person responsible never uses:
  - Untreated sewage water
  - Tertiary water
- The person responsible ensures that any system that supplies potable water is not cross-connected with any other water system, unless measures are taken to eliminate any risk of contamination to the product as a result of the cross-connection
- If an abnormal event occurs to cause contamination of water (e.g., chemical leakage, leaching of well by overland flooding, municipal boil water advisory), the person responsible does not use the water until remediation is possible to eliminate the contaminant or testing [if possible 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 Cleaning) Assessment OR \_\_\_\_\_, the person responsible:
  - !  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

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

**Note:** Composite Samples may be an option for water testing. Refer to Appendix G: Water testing 4. Composite Water Samples for further information.

**Note: Potable water:** Water that meets the parameters under the Canadian Water Quality Guidelines for Drinking Water Quality (biological parameters are 0 Total Coliforms and 0 E. coli).

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

- ! ● At least twice annually (after your operation's start date) – If water is from a private well, the person responsible tests the well water for Total Coliforms and *E. coli* using an accredited lab that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025*, to ensure that the well water is potable (File under Tab: Test Results) Refer to Appendix G: Water Testing
  - ! □ Once prior to use
  - ! □ At least once more during the season to ensure water potability is being maintained
- The person responsible ensures the water sample is taken from the appropriate location (e.g., equipment, tap, storage cistern/tank/container, etc.)

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

**Note:** Municipal water is assumed to be potable; therefore, it does not need to be tested **UNLESS** it is stored (Section 15.2), treated (Section 15.3), recycled/recirculated or a test is required from the equipment. Testing may not be required even under those circumstances; therefore, carefully read Section 15 in its entirety.

- If water is provided by the municipality, the person responsible 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 Cleaning equipment, buildings, containers, water storages, etc. and hand washing in personal hygiene facilities)

- ! ● If water is from a surface water source, the person responsible:
  - ! □ Follows a water treatment program to make it potable as per Section 15.3: Treatment below
  - ! ● At least twice annually (after your operation's start date) - tests the treated water for Total Coliforms and *E. coli* using an accredited lab that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025*, to ensure that the treated water is potable (File under Tab: Test Results) Refer to Appendix G: Water Testing
    - ! □ Once prior to use
    - ! □ At least once more during the season to ensure water potability is being maintained

**Water for Cleaning (equipment, buildings, containers, water storages, etc. and hand washing in personal hygiene facilities)** (If not applicable, proceed to the Section: 15.2 Storage)

- The person responsible uses **potable water**:
  - ! □ For cleaning buildings, building equipment, containers, etc.
  - ! □ For cleaning production site equipment
  - ! □ In personal hygiene facilities for hand washing
- At least twice annually (after your operation's start date) – The person responsible tests the water for Total Coliforms and *E. coli* using an accredited lab that uses appropriate sampling and testing

methods to perform analyses in accordance with the applicable requirements of ISO/IEC 17025, to ensure that the water is potable (File under Tab: Test Results) *Refer to Appendix G: Water Testing*

- !  Once prior to use
- !  At least once more during the season to ensure water potability is being maintained
- The person responsible ensures the water sample is taken from the appropriate location (e.g., equipment, tap, storage cistern/tank/container, etc.).

## 15.2 Storage

- Water for cleaning is stored, *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:

**Note:** *Hand washing water stored in permanent tanks (e.g., within portable washrooms or as standalone facilities) is not considered potable UNLESS:*

- *the water is tested from the tank each time the tank is filled to confirm potability, OR*
- *the water is treated and tested to confirm potability is being maintained with treatment as per procedures in Section 15.3 Treatment, OR*
- *the cleanliness of the tank is maintained, filling procedures are followed and the water is tested to confirm potability as per procedures in Section 15.2 Storage*

**Note:** *If stored water is being treated according to the procedures outlined in 15.3 Treatment, then the requirements under 15.2 Storage are not applicable (e.g., cleaning and filling procedures are no longer necessary as proper water treatment occurs AFTER these activities have been completed, which mitigates any risks they may have posed).*

- Annually – The person responsible records location of water storage tank/container/cistern on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

- ! ● Annually (prior to use) and monthly (during use) - The person responsible ensures that the water storage tank/cistern/container is clean by:

#### Cleaning Procedure:

- 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
- 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, Appendix H: Cleaning and Treating Cisterns – An Example 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 cleaning your water storage tank/container/cistern.]

!  Annually (prior to use) and monthly (during use) – The person responsible records cleaning of water storage on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_

● Each time the tank/cistern/container is filled – The person responsible ensures that:

A description of the step-by-step filling instructions is given for each water source used:

Identify your water source: \_\_\_\_\_

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

[Filling in the above description completes your Standard Operating Procedure (SOP) for filling your water storage tank/container/cistern. **Complete a different SOP for each water source, type of tank/container/cistern or filling mechanism.**]

● The person responsible ensures that:

- Filling mechanism (e.g., hose) is not a source of contamination
- Employees filling tank/cistern/containers are not a source of contamination

- During Filling:
  - Contamination does not occur from outside sources (e.g., dirty hose, tank opening or lid not clean, etc.)
  - Tank/cistern/container must be closed immediately after filling
  - The part of the tank/cistern/container where the water is emptied from (e.g., spigot, tap, opening, etc.) is kept free from contamination.
- ! ● Regardless of water source (e.g., rain, municipal, private well water) - At least twice annually (after your operation's start date) and after abnormal events – The person responsible tests water from the cistern/tank/container for Total Coliforms and *E. coli* using an accredited lab that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025*, to ensure that the water is potable (File under Tab: Test Results). Refer to *Appendix G: Water Testing*
  - !  After cleaning, but prior to use
  - !  At least once more during the season to ensure water potability is being maintained
  - !  After abnormal events
- The person responsible ensures the water sample is taken directly from the cistern/tank/container when testing for potability
- The person responsible ensures the water storage tank, container or cistern has a lid, is free from rust, is closed when not in use and is protected from chemical contamination

### 15.3 Treatment

<b>REQUIREMENT</b>	<i>The treatment of water (for 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 product.</i>
--------------------	--

#### PROCEDURES:

- Water is treated, proceed below.  
If not, proceed to Section 16: Ice.

- When treating water the person responsible (*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, the person responsible 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., ¾ 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 ¾ cups of chlorine per 50 gallons) Add: \_\_\_\_\_

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

ORP is below 650 or free chlorine is below 2ppm (e.g. add 2 cups of chlorine) Add: \_\_\_\_\_

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

- !**  Daily (for alternative water treatment methods) – The person responsible monitors the equipment for proper functioning and records this on (*indicate name and location of form*): \_\_\_\_\_ (File under Tab: \_\_\_\_\_)

- ! ● At least twice annually (after your operation’s start date) – The person responsible tests the treated water for Total Coliforms and *E. coli* using an accredited lab that uses appropriate sampling and testing methods to perform analyses in accordance with the applicable requirements of *ISO/IEC 17025*, to ensure that the water is potable (File under Tab: Test Results). Refer to *Appendix G: Water Testing and Appendix B: Chlorination of Water for Fluming and Cleaning Fresh Fruits and Vegetables and Cleaning Equipment – An Example*.

- !  Once prior to use
- !  Once more during the season to ensure water potability is being maintained

- The person responsible ensures the water sample is taken directly from the equipment when testing treated water for potability

**Confirmation/Update Log:**

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

**16. Ice N/A**

<b>Forms Required</b>
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NA
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# 17. Packaging Materials

Forms Required

A, I, Q

## RATIONALE:

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

- Harvested product packaging materials are on the premises, either with product in them or not
- Market ready packaging materials are on the premises, either with product in them or not
- Packaging accessories are on the premises

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

### **IMPORTANT NOTE**

**It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.**

## 17.1 Purchasing and Receiving

### **REQUIREMENT**

*Packaging materials must be obtained with knowledge of origin and must be appropriate for use in the packaging of product.*

## PROCEDURES:

### Harvested Product Packaging Materials

- The person responsible purchases or selects materials that are:
  - Free of objects that may become embedded in product (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)
- The person responsible receives only the materials that were purchased or selected

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

- When purchasing or selecting packaging materials, the person responsible is aware of their origin (i.e., manufactured with components that are not a source of chemical contamination)
- The person responsible purchases or selects packaging materials (e.g., masters) that are free of loose objects that may become embedded in product (e.g., splinters, glass)
- The person responsible receives only the packaging 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, the person responsible is aware of their origin (i.e., manufactured with components that are not a source of chemical or physical contamination)
- The person responsible purchases or selects new packaging accessories if coming into direct contact with product (e.g., liners, tags)
- The person responsible 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 product packaging materials must be clean and properly maintained and repaired before use, and market ready primary packaging materials and accessories must not be a source of contamination.</i>
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### PROCEDURES:

#### a) Harvested Product Packaging Materials

- ! ● Annually (before first use) – The person responsible ensures that materials are 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

AND/OR

- Dry cleaning (e.g., broom, brushes, air)

AND/OR

- Using a third party (e.g., packinghouse or co-op providing containers that are cleaned according to one of the above procedures)

- 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)] OR receives a Letter of Assurance from the third party cleaning the packaging materials (one letter per supplier per season) (File under Tab: Letters of Assurance/Certificates):

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

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

- The person responsible records cleaning of materials on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_
- The person responsible uses materials that are:
  - Free of objects that may become embedded in product (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 or previously used to harvest other crops where agricultural chemical residues may contaminate product)
  - Any materials that have been used for other purposes are clearly marked (e.g., with paint) so they will not subsequently be used for product
  - Not removed from the premises by employees or taken home
- Covers/lids are:
  - Kept dry
  - Handled and stored in a way that prevents contamination (e.g., kept off the ground)
- The person responsible conducts a visual inspection of packaging materials before each use
- The person responsible for releasing harvested product keeps track of harvested product (e.g., harvest dates or date received) through the use of pallet/bin tags or some other form of identification

**Note: Refer to Section 22: Identification and Traceability for more information on labelling requirements**

#### **b) Market Ready Primary Packaging Materials**

- The person responsible 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 integrity-maintaining liner (e.g., liner creates a barrier that has no holes, rips, breaks or faults, liner remains intact if wet, liner is not a source of contamination, etc.)
  - !  Reusable containers made of non-porous materials (e.g., plastic, stainless steel) with a new integrity-maintaining liner (e.g., liner creates a barrier that has no holes, rips, breaks, or faults, liner remains intact if wet, liner is not a source of contamination, etc.) OR are cleaned before use by washing with/by (*choose at least one of the following four options*):
    - !  water with friction (e.g., pressure wash, wiping, scrubbing)
    - !  water and a sanitizer (e.g., chlorine, quaternary ammonium)
    - !  water and soap
    - a third party [e.g., Reusable Plastic Containers (RPC's)]

- !  The person responsible 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 and Appendix N: Sanitation Standard Operating Procedures (SSOP) – An Example)] OR receives a Letter of Assurance from the third party cleaning the packaging materials (one letter per supplier per season) (File under Tab: Letters of Assurance/Certificates):

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.]*

- !  The person responsible records cleaning of reusable packaging materials on Form (I) Equipment Cleaning, Maintenance and Calibration OR \_\_\_\_\_

- The person responsible 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 product
  - Handled in a way that maintains their integrity (e.g., protected from the elements, protected from chemicals, properly stacked, etc.) and that prevents cross-contamination before and during use (e.g., boxes placed on clean surfaces)
  - Are kept off the ground (e.g., placed on a cardboard slipsheet/pallet liner that is not a source of contamination) whether in the field or on platforms, stairs and catwalks where employees walk, etc. (except for pumpkins)
- Labelled with the correct identifying information (i.e., name and address) of
  - The operation that produced the product, **OR**
  - The operation that packaged the product, **OR**
  - The company for whom it was produced/packaged

- Labelled with Lot Code (see glossary definition)

**Note: Refer to CFIA's website for more information on Lot Code** <https://inspection.gc.ca/food/toolkit-for-food-businesses/glossary-of-key-terms/eng/1430250286859/1430250287405#a104>

- Labelled with Pack ID if there is no secondary packaging materials
  - Who produced the product **AND**
  - When the product is packed

**Note:** Including Pack ID on the primary market ready packaging materials can also satisfy the Lot Code requirement (i.e., producer identification).

**Note:** Refer to Section 22: Identification and Traceability for more information on labelling requirements

- The person responsible conducts a visual inspection of all packaging materials before use ensuring the packaging materials are/have:
  - Clean (e.g. free from stains, foreign objects, potential sources of contamination, etc.)
  - In good repair
  - Labelled correctly
- !  The person responsible records the inspection of reusable and new packaging materials on Form (Q) – Packing and Storing of Market Product OR \_\_\_\_\_

### c) Market Ready Secondary Packaging Materials

- The person responsible 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)
  - 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 product
  - Handled in a way that maintains their integrity (e.g., protected from chemicals, protected from the elements, properly stacked, etc.) and that prevents cross-contamination before and during use (e.g., boxes placed on clean surfaces)
  - Are kept off the ground (e.g., placed on a cardboard slipsheet/pallet liner that is not a source of contamination) whether in the field or on platforms, stairs and catwalks where employees walk, etc.
- Labelled (unless the secondary container is transparent e.g., a large clear plastic bag holding smaller labelled bags of carrots)] with the correct identifying information (i.e., name and address) of:
  - The operation that produced the product, **OR**
  - The operation that packaged the product, **OR**
  - The company for whom it was produced/packaged

Labelled with Lot Code (see glossary definition)

**Note:** Refer to CFIA's website for more information on Lot Code <https://inspection.gc.ca/food/toolkit-for-food-businesses/glossary-of-key-terms/eng/1430250286859/1430250287405#a104>

- Labelled with Pack ID
  - Who produced the product **AND**
  - When the product is packed

**Note:** Including Pack ID on the secondary market ready packaging materials can also satisfy the Lot Code requirement (i.e., producer identification).

**Note:** Refer to Section 22: Identification and Traceability for more information on labelling requirements

#### d) Packaging Accessories

- The person responsible uses only **new** packaging accessories
- The person responsible may reuse packaging accessories that do not come into direct contact with the product such as pallet dividers, slats and rope

**Note: Refer to CFIA's website for more information on Lot Code** <https://inspection.gc.ca/food/toolkit-for-food-businesses/glossary-of-key-terms/eng/1430250286859/1430250287405#a104>

### 17.3 Storage

- Harvested product 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>
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#### PROCEDURES:

- !  Annually – The person responsible records the storage locations for market ready packaging materials and accessories on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

#### Harvested Product Packaging Materials

- The person responsible 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

- The person responsible 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., product, water, equipment, fuels, agricultural chemicals, other non-produce items, etc.)
  - At least 8 cm away from any wall

#### Confirmation/Update Log:

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

# 18. Growing and Harvesting

Forms Required	H1, H2, P2, Q
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## RATIONALE:

Product harvested less than four months after the application of manure may be a source of biological contamination. Similarly, product 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. The product itself, packaging materials and anything else that may contribute to contamination is to be considered both before and during harvest.

- Growing of product occurs on the premises
- Harvesting of product occurs on the premises

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 19: Sorting, Grading, Packing, and Storing*

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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## 18.1 Growing

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

<b>REQUIREMENT</b>	<i>Product must be grown to minimize sources of chemical contamination.</i>
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## 18.2 Harvesting

<b>REQUIREMENT</b>	<i>Product must be harvested at appropriate times to minimize the source of contamination. Product, packaging materials and other substances' (e.g., weed, biological controls, etc.) risk must be assessed so as not to be a source of biological, chemical or physical contamination.</i>
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## PROCEDURES:

- ! ● Before harvesting – The person responsible 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
  - !  The pre-harvest interval (PHI) has been met for each agricultural chemical application
- Before harvesting – The person responsible surveys the production site to ensure there are no signs of obvious contamination (e.g., oil or chemical spill, portable toilet leaking, flooding, animal intrusion, etc.)
- The person responsible does not harvest product that has fallen on the ground
- When harvesting, the person responsible ensures that packaging materials are not a source of contamination (e.g., does not stack muddy containers on top of each other, etc.)

The person responsible visually inspects product before and during harvest to look for evidence of unusual animal or bird activity (i.e., excrement) and other possible contaminants (e.g., biological controls, etc.). Product (if it has been contaminated) and contaminants are discarded.

- ! ● The person responsible records all harvesting information:
    - !  If harvesting into **harvested product packaging materials**, by completing Form (P2) Harvesting and Storing Product OR \_\_\_\_\_
    - !  If harvesting into **market ready packaging materials**, by completing Form (Q) Packing and Storing Market Product OR \_\_\_\_\_
- 

**Confirmation/Update Log:**

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

# 19. Sorting, Grading, Packing, and Storing

**NOTE: Section 19 applies to MOST CanadaGAP operations, regardless of activities/scope of certification. Please read the circle bullets below carefully to determine if any apply to your operation.**

△ Sections 19.6 and 19.7 do not apply to certification option A1/A2

### RATIONALE:

Product that is properly handled, stored or packed will have a reduced likelihood of biological, chemical and physical contamination.

- Product is sorted or graded (in the production site/packinghouse)
- Inputs/materials are purchased/selected from suppliers
- Outside service providers are used
- "Other materials" are used (see glossary definition)
- Product is packed
- Product is stored (only applicable if storing someone else's product)

If **ANY** of the above circles has been checked off, proceed below.  
If not, proceed to Section 20: Temperature Conditioning/Holding/Storage of Product.

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in "direct contact with product" OR that may have an "impact on food safety through cross contamination".</b>
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## 19.1 Selecting/Purchasing and Receiving Harvested/Market Product

- Harvested product is selected/purchased
- Market product is selected/purchased

If **ANY** of the above circles has been checked off, proceed below.  
If not, proceed to Section 19.2: Sorting and Grading.

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

- The person responsible selects/purchases harvested/market product from operations that have successfully completed one of the options below and requests a copy of a current/valid certificate:
  - CanadaGAP
  - Other industry recognized third party food safety audit/certification

(\*\*\*Note: Person responsible for export ensures destination market MRLs are met for product being selected/purchased as per Section 6.2. The certificate would not replace this requirement).

- !  The person responsible receives only the harvested/market product that was selected/purchased along with the certificate (one certificate per season per supplier) (File under Tab: Letters of Assurance/Certificates)

- The person responsible inspects the cargo area of the incoming vehicle and the received harvested/market product for damage or sources of contamination (e.g., glass, rodent droppings/feces) and if contamination is observed, they notify the operation of the problem and take appropriate action (e.g., sorts, grades, removes contamination, refuses product, identifies and segregates product as required, etc.)
- !• If services are selected/purchased from an outside service provider to perform activities on behalf of the person responsible (e.g., harvesting, packing, storing in a standalone storage operation), regardless of whether product comes back from the service provider, the person responsible obtains a copy of a current/valid certificate (one certificate per season per service provider) (File under Tab: Letters of Assurance/Certificates):
  - CanadaGAP
  - Other industry recognized third party food safety audit/certification

**Note:** *The certificate alone may not contain all of the necessary information that is required nor be clear enough to ensure that the outside provider is performing the intended service. Therefore, it may be necessary to have the entire audit report or other supporting documentation available for review during an audit.*

## 19.2 Sorting and Grading

<b>REQUIREMENT</b>	<i>Product, 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 or equipment:
  - Separate foreign objects (e.g., stones, glass), damaged, rotten product and crop debris (e.g., stems, leaves) from marketable product
  - Discard foreign objects, culls and debris in the appropriate location (e.g., back in the production site, labelled container)

#### In the Packinghouse

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

## 19.3 Packing

<b>REQUIREMENT</b>	<i>Harvested and market product, 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.</i>
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### 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.*
- The person responsible records all packing information by completing:

- Form (P2) Harvesting and Storing Product OR \_\_\_\_\_  
**AND/OR**
- Form (Q) Packing and Storing of Market Product OR \_\_\_\_\_

**In the Packinghouse**

- Packing is done in the packinghouse, *proceed below.*  
*If not, proceed to Section 19.5 Other Materials*

- The person responsible records all packing information by completing Form (Q) Packing, and Storing of Market Product OR \_\_\_\_\_

**19.4 Application of Wax N/A**

**Note:** See Section 15 Water (for Cleaning): Water used for “Other Materials”, Water used for Lubrication and Water used for the Application of Wax for water requirements

**19.5 “Other Materials” (see glossary definition)**

- “Other materials” are used on the premises, *proceed below.*  
*If not, proceed to Section 19.6. Environmental Monitoring Program (EMP).*

<b>REQUIREMENT</b>	“Other materials” must not contribute to the contamination of the product.
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**PROCEDURES:**

- When purchasing or selecting “other materials”, the person responsible purchases or selects materials that were manufactured with ingredients that are appropriate for their intended use
- The person responsible receives only the “other materials” that were purchased or selected
- When using “other materials”, the person responsible is aware of their origin (i.e., manufactured with ingredients that are not a source of contamination) and uses/applies it according to the recommended label instructions (if applicable)
- The person responsible lists the “other materials” used:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- When storing “other materials”, the person responsible ensures they are not a source of contamination and that they cannot become contaminated

**Note:** If “other materials” are being applied/used with agricultural water (e.g., adjuvants used with agricultural chemicals), then water is not required to be potable.

**Note:** See Section 15 Water (for Cleaning): should not be used in blueberry operations unless it is used for cleaning (equipment, buildings, containers, etc.) and/or hand washing in personal hygiene facilities.

## 19.6 Environmental Monitoring Program (EMP)

△ Section 19.6 does not apply to certification option A1/A2

- Market product is handled/stored  
*If the above circle has been checked off, proceed below.  
If not, proceed to 19.7 Supplier Approval.*

<b>REQUIREMENT</b>	<i>A risk-based approach must be in place to define the microbiological environmental monitoring program. The program must be established, implemented and maintained to reduce the risk of product contamination.</i>
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**NOTE:** An environmental monitoring program is an operation-specific program that helps to assess the effectiveness of sanitation practices and to provide information for preventing potential microbial contamination of product.

### PROCEDURES:

- Annually, the person responsible has completed a risk assessment by assessing the following areas/sources for risks of contamination:
  - Surfaces/Areas which are often wet
  - Surfaces/Areas with high humidity
  - Surfaces/Areas where dirtier activities occur
  - Surfaces/Areas with high levels of staff activity
  - Surfaces/Areas with high levels of equipment movement
  - Areas that are cooled (e.g., with a condenser unit)
  - Handling/storing of high risk product(s)
- Annually, the person responsible has mitigated the identified risks by following the procedures outlined in the following sections of the manual:
  - Section 2: Premises
  - Section 8: Equipment
  - Section 9: Cleaning and Maintenance Materials
  - Section 11: Personal Hygiene Facilities
  - Section 12: Employee Training
  - Other: \_\_\_\_\_
- If the risk assessment completed above identified the need to confirm the cleanliness of the environment or the effectiveness of sanitation, the person responsible develops a sampling plan. (File under Tab: Test Results) See *Appendix X. Environmental Monitoring Program (EMP) - Resources* for additional guidance.
- If the results of the sampling plan indicated a need for further action, the person responsible:
  - Implements procedures to improve cleaning and sanitation
  - Re-tests
  - Completes Form (R) Deviations and Corrective Actions OR \_\_\_\_\_
- The person responsible maintains the environmental monitoring program on an on-going basis and makes changes as necessary (e.g., from sampling results, if new surfaces/areas are identified, etc.).

## 19.7 Supplier Approval

△ Section 19.7 does not apply to certification option A1/A2

- Inputs/materials are purchased/selected  
*If the above circle has been checked off, proceed below.  
 If not, proceed to 20. Temperature Conditioning/Holding/Storage of Product.*

<b>REQUIREMENT</b>	<i>A procedure for the approval of suppliers shall be established, implemented and maintained. This shall include procurement in emergency situations.</i>
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### PROCEDURES:

- The person responsible has procedures in place for approving suppliers when purchasing/selecting inputs and materials.
- The person responsible keeps a list OR \_\_\_\_\_ of ALL approved suppliers that the operation may use to purchase/select their inputs and materials. This may include suppliers of commodity starter products, commercial fertilizers, pulp sludge, soil amendments, manure, compost/compost tea, other by-products, mulch and row cover materials, agricultural chemicals, equipment, cleaning and maintenance materials, pest control products, personal hygiene supplies, water, packaging materials, “other materials” and any other input or materials used within an operation.

Input/Material	Approved Supplier (Name and Contact Information)

- If the person responsible is not able to procure inputs/materials from a supplier on their approved list (i.e., in the case of emergency), the alternate supplier’s information will be recorded below:

Date	Input/Material	Supplier (Name and Contact Information)

- Annually - The person responsible reviews the list of approved suppliers to ensure all of the information is accurate and up to date.

### Confirmation/Update Log:

Date						
Initials						



## 20. Temperature Conditioning/ Holding/Storage of Product

Forms Required

A, P2, Q

### RATIONALE:

Proper temperature conditioning/holding/storage of product will reduce the risk of biological, chemical and physical contamination.

#### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

### 20.1 Temperature Conditioning/Holding/Storage Conditions for Harvested Product

- Harvested product undergoes temperature conditioning
- Harvested product is held
- Harvested product is stored

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

*If not, proceed to Section 20.2: Temperature Conditioning/Holding/Storage Conditions for Market Product.*

#### REQUIREMENT

*Harvested product must be held or stored in designated areas and handled under the proper conditions to minimize contamination.*

### PROCEDURES:

- !**  Annually – The person responsible records the storage locations for harvested product on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

#### a) Temperature Conditioning (Pre-Cooling)

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

#### b) Holding

- Harvested product is held on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Storage.*
- The person responsible holds harvested product in an environment that:
  - Does not contaminate the product or the containers it is in (e.g., clean and well-maintained holding area)
  - Is separate from other product, equipment, fuels, agricultural chemicals, market ready packaging materials and non-produce items

### c) Storage

- Harvested product is put into storage on premises, *proceed below.*  
*If not, proceed to Section 20.2: Storage Conditions for Market Product.*

- The person responsible stores harvested product:
  - In a predetermined environment (e.g., temperature is appropriate for product)
  - In an environment that does not contaminate the product or the containers they are in (e.g., clean and well-maintained storage area)
  - In a manner that prevents cross contamination from non-produce items
  - Separate from other product, equipment, fuels, agricultural chemicals and market ready packaging materials
  - At least 8 cm away from any wall
- When harvested product is put into storage, the person responsible records all storing information by completing Form (P2) Harvesting and Storing Product OR \_\_\_\_\_

## 20.2 Temperature Conditioning/Holding/Storage Conditions for Market Product

- Product undergoes temperature conditioning
- Product is held
- Product is stored

*If ANY of the above circles has been checked off proceed below.*  
*If not, proceed to Section 21. Transportation.*

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

- !  Annually – The person responsible records the storage locations for market product on Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist OR \_\_\_\_\_

### a) Temperature Conditioning (Pre-Cooling)

- Market product undergoes temperature conditioning on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Holding.*

- The person responsible pre-cools market product to a predetermined temperature in an environment that:
  - Does not contaminate product (e.g., clean tarping material is used, proper air flow)
  - Prevents contact between harvested and market product
  - Is separate from equipment, fuels, agricultural chemicals and packaging materials

### b) Holding

- Market product is held on the premises, *proceed below.*  
*If not, proceed to the next sub-section: Storage.*

- The person responsible holds market product in an environment that:
  - Does not contaminate the product or the containers it is in (e.g., clean and well-maintained holding area)

- Is separate from other product, equipment, fuels, agricultural chemicals, packaging materials and non-produce items

**c) Storage**

- Market product is put into storage on premises, *proceed below.*  
*If not, proceed to Section 21: Transportation*

- The person responsible stores market product:
  - In a predetermined environment (e.g., temperature is appropriate for product)
  - In an environment that does not contaminate the product or the containers they are in (e.g., clean and well-maintained storage area)
  - In a manner that prevents cross contamination from non-produce items
  - Separate from other product, equipment, fuels, agricultural chemicals and packaging materials
  - At least 8 cm away from any wall
  - Off the floor/ground

- !  When market product is put into storage, the person responsible records all storing information by completing Form (Q) Packing and Storing of Market Product OR \_\_\_\_\_

**Confirmation/Update Log:**

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



## 21. Transportation

Forms Required

0

### RATIONALE:

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

- Harvested product is transported
- Market product is transported

*If ANY of the above circles has been checked off, proceed below.  
If not, proceed to Section 22: Identification and Traceability.*

### IMPORTANT NOTE

**It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.**

### 21.1 Transportation of Harvested Product

#### REQUIREMENT

*To minimize the potential for contamination, vehicles transporting harvested product must have a clean and well-maintained cargo area.*

#### PROCEDURES:

- Before loading each vehicle, the person responsible ensures that an inspection is made of the cargo area of the vehicle to ensure it is appropriate for intended use, clean and well-maintained
- The person responsible records information about product being transported to someone else's premises on Form (O) Transporting Product OR \_\_\_\_\_

### 21.2 Transportation of Market Product

#### REQUIREMENT

*To minimize the potential for contamination, vehicles transporting market product must have a clean and well-maintained cargo area, and product must be covered and care taken to prevent cross contamination from products other than product.*

#### PROCEDURES:

- Before loading each vehicle, the person responsible 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 product is transported to someone else's premises, the findings are recorded along with any necessary corrective actions on Form (O) Transporting Product OR \_\_\_\_\_
- Before loading, the person responsible 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, the person responsible ensures that product does not come in contact with other products/material being transported that may be a source of contamination (e.g., allergens, non-produce items, etc.)
- During transportation, the person responsible ensures that covered vehicles are used to transport market product, or that the integrity of the load is secured with a protective covering (e.g., tarp, plastic sheeting)
- The person responsible records information about product being transported to someone else's premises on Form (O) Transporting Product OR \_\_\_\_\_  
\_\_\_\_\_

**Confirmation/Update Log:**

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

## 22. Identification and Traceability

Forms Required

O, P2, Q

### RATIONALE:

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

#### IMPORTANT NOTE

It is assumed throughout the manual that **EACH** of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.

### 22.1 Traceability System

#### REQUIREMENT

A traceability system that allows all product to be traced in the event of a recall must be in place.

### PROCEDURES:

**Note:** As much identification as is practically possible will assist in minimizing financial losses in the event a recall is necessary (i.e., being able to identify a pallet as opposed to a production site). For complete traceability, a Lot ID is to be assigned to all market product and recorded on Form (Q) Packing, and Storing of Market Product. Refer to Appendix M: Traceability and Product Identification – Some Examples. Operations that export product to the USA may need to comply with FSMA 204 requirements. Refer to Appendix Z: Food Traceability Final Rule – FSMA 204 Guidance, for more information and guidance

- The person responsible for releasing harvested product:
  - Keeps track of harvested product (e.g. harvest dates or date received) through the use of pallet/bin tags or some other form of identification
  - Records field #/pallet/bin tag information for harvested product on:
    - Form (P2) Harvesting and Storing Product OR \_\_\_\_\_

**AND**

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

**Choose ONE of the following 2 options below:**

- The person responsible for putting product into market ready packaging materials:
  - Identifies all market product with a Lot code on the packaging materials
  - Identifies all market product with a Pack ID on the primary or secondary market ready packaging materials
  - Records Lot code, Pack ID and lot ID for market product on:
    - Form (Q) Packing, and Storing Market Product OR \_\_\_\_\_

**AND**

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

**OR**

- In exceptional cases where market product is put into market ready packaging materials at one operation and delivered unlabelled directly to another operation, the person responsible for production/packing and releasing the unlabelled market product:
  - Keeps track of market product through the use of pallet/bin tags or some other form of identification
  - Records pallet/bin tag information for market product on:
    - Form (Q) Packing and Storing Market Product  
OR \_\_\_\_\_
    - AND**
    - Form (O) Transporting Product OR \_\_\_\_\_
  - Obtains written confirmation from the operation completing the labelling that market product is labelled immediately upon receipt and in accordance with labelling requirements for market product in Section 17: Packaging Materials (File under Tab: Letters of Assurance/Certificates)

**Incoming Product**

- The person responsible for incoming product:
  - Records incoming information (e.g., Field/Pallet #/Bin Tag/Lot code/Pack ID/Lot ID, etc.) for incoming product on:
    - Form (P2) Harvesting and Storing Product OR \_\_\_\_\_
    - AND/OR**
    - Form (Q) Packing and Storing Market Product OR \_\_\_\_\_

**Outgoing Product**

- The person responsible for outgoing product:
  - Records outgoing information (e.g., Field/Pallet #/Bin Tag/Lot code/Pack ID/Lot ID, etc.) for product on:
    - Form (O) Transporting Product OR \_\_\_\_\_
    - AND/OR**
    - Form (P2) Harvesting and Storing Product OR \_\_\_\_\_
    - AND/OR**
    - Form (Q) Packing and Storing of Market Product OR \_\_\_\_\_

The diagram below shows the basic steps in production, packing and storage, the forms and information recorded at each step and how the records link to the product identification (such as a Lot code/pack ID labelled on a box) for traceability.

**Confirmation/Update Log:**

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





## 23. Deviations and Crisis Management

Forms Required

R, S, T, U

### RATIONALE:

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

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in “direct contact with product” OR that may have an “impact on food safety through cross contamination”.</b>
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### 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 person responsible

### 23.2 Major Deviations and Corrective Action

<b>REQUIREMENT</b>	<i>A major deviation must be identified, reported immediately to the person responsible and recorded. Corrective actions must be taken immediately by the person responsible 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 person responsible
- The person responsible 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
- The person responsible completes Form (R) Deviations and Corrective Actions OR \_\_\_\_\_

The following are major deviations that may occur at an 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 product has 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 problems that could occur; see Section 23.3: Crisis Management for further suggestions.

Section	Major Deviations	Specific Examples	Corrective Action(s)
<b>Section 2: Premises</b>	The person responsible selects a packinghouse or storage area that could contaminate product or packaging material	<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 product or packaging</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Identifies and isolates any contaminated product, packaging material or equipment</li> <li>• Cleans and maintains the packinghouse and storage areas (i.e., storage for product 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 product 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>	The person responsible receives compost/compost tea that has not been properly composted or without knowing if it has 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>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Refuses, returns or disposes of compost/compost tea and reorders new compost/compost tea</li> <li>• Asks again 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 product if compost/compost tea was spread without knowing if it was properly composted</li> </ul>
	The person responsible spreads manure when the interval between application and harvest is less than 120 days		<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Identifies which fields and crops are affected and does not harvest the product until the 120 days has elapsed [refer to Form (H2) Agronomic Inputs (Other)]</li> </ul>
<b>Section 6: Agricultural Chemicals</b>	The person responsible receives the incorrect agricultural chemical from supplier	<ul style="list-style-type: none"> <li>• Agricultural chemical is not registered for the applicable product in the country where it is grown</li> <li>• Containers are damaged and/or labels are illegible</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Returns or refuses and reorders agricultural chemicals</li> <li>• Identifies whether field/product has been sprayed with wrong agricultural chemicals</li> <li>• Disposes of incorrect chemical</li> <li>• Re-trains employees or takes refresher course on agricultural chemical application</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
	The person responsible uses a storage location for agricultural chemicals that is not designated only for that purpose and/or is not covered, clean, dry and controlled access	<ul style="list-style-type: none"> <li>• Leaks or spills from agricultural chemicals because they are not properly stored</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Moves chemicals to a proper storage facility/location or conducts maintenance on agricultural chemical storage</li> <li>• Cleans any spills or leaks resulting from improper storage</li> <li>• Identifies whether product/package materials has been contaminated and disposes of any affected product</li> <li>• Re-trains employees on storage location and proper storage of agricultural chemicals</li> </ul>
	The person responsible fails to follow the label recommendations and directions when applying agricultural chemicals	<ul style="list-style-type: none"> <li>• Too much agricultural chemical is applied</li> <li>• Agricultural chemical is mixed incorrectly</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Stops application</li> <li>• Identifies which field/products are affected</li> <li>• Obtains expert advice on the risk of contamination and, if necessary, disposes of product</li> <li>• Retrains employees or takes refresher training on applying agricultural chemicals</li> <li>• Identifies whether product has been contaminated and disposes of any affected product</li> </ul>
	The person responsible applies the incorrect agricultural chemical	<ul style="list-style-type: none"> <li>• Agricultural chemical used is not registered for the applicable product in the country where it is grown</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Identifies whether field/product have had wrong agricultural chemicals applied</li> <li>• Identifies whether product has been contaminated and if disposal of affected product is required</li> <li>• Obtains expert advice as required and, if necessary, disposes of product</li> <li>• Re-trains employees on chemical application</li> </ul>
<b>Section 8: Equipment</b>	The person responsible does not clean or maintain production site equipment regularly (e.g., annually, weekly, daily) or properly (e.g., pressure washer, sanitizer)	<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>The person responsible:</p> <ul style="list-style-type: none"> <li>• Stops activities (harvesting)</li> <li>• Isolates any product in contact with contaminated equipment</li> <li>• Cleans and maintains affected production site equipment</li> <li>• Makes necessary changes to cleaning procedure or schedule</li> <li>• Re-trains employees to adhere to annual/weekly/daily cleaning and maintenance schedule</li> <li>• Disposes of product if it has come into direct contact with contamination.</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
	The person responsible does not clean or maintain packinghouse equipment regularly (e.g., daily, weekly) or properly (e.g., pressure washer, sanitizer)	<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>The person responsible:</p> <ul style="list-style-type: none"> <li>• Stops activities (sorting, grading packing)</li> <li>• Isolates any product 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 daily/weekly cleaning and maintenance schedule</li> <li>• Disposes of product if it has come into direct contact with contamination.</li> </ul>
	The person responsible applies inaccurate rates of agricultural chemicals because he/she did not calibrate spray equipment properly or at all	<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>The person responsible:</p> <ul style="list-style-type: none"> <li>• Identifies and isolates affected product</li> <li>• Obtains expert advice on the risk of contamination and, if necessary, does not harvest the product</li> <li>• Re-calibrates equipment properly</li> <li>• Re-trains employees on calibration schedule and procedures</li> </ul>
	The person responsible applies inaccurate rates of water treatment aids because he/she did not calibrate water treatment equipment properly or at all (i.e., 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>•</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Calibrates equipment</li> <li>• Re-checks ORP/pH</li> <li>• Treats the water and re-tests to check potability OR disposes of the water.</li> <li>• Disposes of any product that has 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>	The person responsible did not follow instructions for use, or used the wrong product for water treatment	<ul style="list-style-type: none"> <li>• Using high concentrations</li> <li>• Using wrong product</li> <li>• Product is mixed incorrectly</li> <li>• Label was not intact or not read correctly</li> </ul>	<p>The person responsible:</p> <ul style="list-style-type: none"> <li>• Stops washing activities</li> <li>• Adds water (if too much product was added)</li> <li>• Re-trains employees on treatment methods</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
	The person responsible notices equipment (e.g., gear boxes, hydraulic lines) leaking oils, lubricants onto the sorting/grading equipment (belts, tables)	<ul style="list-style-type: none"> <li>• Visible 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>The person responsible:</p> <ul style="list-style-type: none"> <li>• Stops activities (e.g., sorting, grading)</li> <li>• Isolates any product in contact with contaminated equipment</li> <li>• Cleans and maintains affected equipment</li> <li>• Makes necessary changes to cleaning procedure or schedule</li> <li>• Re-trains employees to adhere to daily/weekly cleaning and maintenance schedule</li> <li>• Disposes of product if it has 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>	<p>The person responsible:</p> <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 product has been contaminated</li> <li>• Washes equipment as necessary</li> <li>• Disposes of product if they have come into direct contact with contamination</li> </ul>
<b>Section 14: Pest Program for Buildings</b>	The person responsible does not have an effective pest control program	<p>Evidence of pest infestation is noticed such as:</p> <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>	<p>The person responsible:</p> <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 product or packaging materials that may be contaminated</li> <li>• Develops and implements a pest control program, hires a third party pest control company or seeks expert advice on improving pest control program</li> <li>• Re-trains employees on use of pest controls products</li> <li>• Re-evaluates and revises pest control program where necessary</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
	The person responsible does not follow the pest control 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 and/or not registered for use in the country where they are used</li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>● Removes all bait that is not secured in a trap</li> <li>● Disposes of any product that has 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 proper use of pest control products and monitoring procedures</li> </ul>
<b>Section 15: Water (for Cleaning)</b>	The person responsible 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>	The person responsible: <ul style="list-style-type: none"> <li>● Stops using water</li> <li>● Treats the water and re-tests to check potability before using water.</li> <li>● Disposes of any product that has come into contact with contaminated water</li> </ul>
	The person responsible 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>	The person responsible: <ul style="list-style-type: none"> <li>● Stops using water</li> <li>● Treats the water and re-tests to check potability before using water.</li> <li>● Disposes of any product that has come into contact with contaminated water</li> </ul>
	The person responsible 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>	The person responsible: <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 when tank is empty</li> <li>● Re-tests to check potability before using water</li> <li>● Repairs or replaces lid</li> <li>● Disposes of any product that has come into contact with contaminated water</li> <li>● Re-trains employees on water treatment procedures</li> </ul>
	The person responsible 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 is below 2 ppm</li> <li>● Water tests results show contamination</li> <li>● ORP reading is below 650 mV</li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>● Stops using water</li> <li>● Treats the water and re-tests to check potability before using water.</li> <li>● Disposes of any product that has come into contact with contaminated water</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
<b>Section 17. Packaging Materials</b>	The person responsible fails to clean harvested product packaging materials properly annually	<ul style="list-style-type: none"> <li>Harvested product packaging materials have dirt, debris, etc.</li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>Stops harvesting</li> <li>Cleans packaging materials according to SSOP</li> <li>Disposes of any product in contact with contaminated packaging materials</li> <li>Retrains employees on cleaning procedures for packaging materials</li> </ul>
	The person responsible fails to clean reusable (non-porous) packaging materials properly before use	<ul style="list-style-type: none"> <li>Reusable packaging materials have dirt or debris or are damaged</li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>Stops packing</li> <li>Cleans reusable packaging according to SSOP</li> <li>Disposes of any product in contact with contaminated packaging</li> <li>Retrains employees on cleaning procedures for reusable packaging</li> </ul>
	The person responsible fails to check market ready packaging materials before use	<ul style="list-style-type: none"> <li>Packaging materials are damaged, or dirty</li> <li>The wrong packaging materials are reused e.g., porous packaging materials are reused without a new liner; packaging materials marked as not for reuse are used</li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>Stops packing</li> <li>Checks packed product for dirty or damaged packaging</li> <li>Disposes of any product 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 and using market ready packaging</li> </ul>
<b>Section 18: Growing and Harvesting</b>	The person responsible harvests product without allowing the proper interval (of more than 120 days) to elapse between the application of manure and harvest		The person responsible: <ul style="list-style-type: none"> <li>Identifies which fields/ products are affected</li> <li>Disposes of product</li> </ul>
	The person responsible harvests product without allowing the pre-harvest interval to elapse for the application of agricultural chemicals		The person responsible: <ul style="list-style-type: none"> <li>Identifies which fields/ products are affected</li> <li>Disposes of product</li> </ul>

Section	Major Deviations	Specific Examples	Corrective Action(s)
<b>Section 19: Sorting, Grading, Packing, and Storing</b>	The person responsible receives harvested/market product from an operation not following a food safety program or without a current/valid certificate		The person responsible: <ul style="list-style-type: none"> <li>Refuses the product and reorders the product; or asks for a current/valid certificate and does not pack or sell the product until it is received</li> </ul>
	The person responsible receives harvested/market product from suppliers without a credible food safety program		The person responsible: <ul style="list-style-type: none"> <li>Refuses the product and reorders the product; or asks for evidence of a credible food safety program and does not pack or sell the product until it is received</li> </ul>
	The person responsible selects/purchases services from an outside service provider that is not following a food safety program or is without a current/valid certificate	<ul style="list-style-type: none"> <li>Providers of outside services that are performed on behalf of the operation (e.g., packing, a standalone storage operation, etc.) do not have CanadaGAP or other industry recognized third party food safety audit/certification</li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>Cancels services or asks for a current/valid certificate and does not continue with the service until it is received</li> </ul>
<b>Section 20: Temperature Conditioning /Holding /Storage of Product</b>	The person responsible selects a storage area that could contaminate product or packaging material	<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> <li></li> </ul>	The person responsible: <ul style="list-style-type: none"> <li>Isolates any contaminated product or packaging</li> <li>Cleans and maintains the storage area (i.e., storage for product 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 product and market ready packaging materials that have come into direct contact with contamination</li> </ul>

### 23.3 Crisis Management

**REQUIREMENT**

*A crisis management plan must be established in the event that product needs to be recalled.*

**PROCEDURES:**

**Note:** Recall procedures and forms are included in Appendix S: Recall Program. (Further information on recalls is available from CFIA at: <https://www.inspection.gc.ca/food-safety-for-industry/recall-procedure/eng/1535516097375/1535516168226>)

- Annually – The person responsible reviews Appendix S: Recall Program OR \_\_\_\_\_ and updates recall team names and contact information below:

Recall Team [as of (date) _____]			
Record the names and contact information for each member of the recall team. Include, if possible, work, mobile and after-hours contact numbers. (Note, for some operations the recall team may consist of only one person). Include alternate names in case of sickness, absence, etc.			
	Name	Contact Information	Roles and Responsibilities
Recall Coordinator(s)			
Recall Team Members			

- The person responsible keeps lists of all product suppliers and customers with up-to-date contact information
- Annually (current season’s product) – The person responsible conducts a mock recall to test the effectiveness of the operation’s entire 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 (e.g., contamination or potential contamination of product, recall, regulatory investigation, etc.), the person responsible follows the following steps to manage the risk :
  - Stops current activity (if applicable) (e.g. shuts down packing line) to prevent further contamination
  - Identifies and isolates the product and equipment affected
  - Notifies authorities/person responsible/certification body/CanadaGAP (as applicable)
  - Determines whether product has been contaminated
  - Determines and conducts appropriate course of action (e.g. disposes of product, 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 product, flooding event, portable toilet spilling into the production site, hydraulic line breaks and fluid leaks on to product.*

Example 1: Employee cuts hand during packing and product is contaminated with blood. The person responsible or employee:

- Stops packing line
- Holds product on the line
- Sends injured employee for immediate medical attention
- Disposes of product in the vicinity
- Notifies person responsible (if applicable)
- Identifies which product and equipment is contaminated and isolates product to prevent further contamination
- Disposes of all contaminated product and cleans and disinfects all affected equipment
- Approves the release of unaffected product
- Re-trains all employees on workplace safety practices and policies
- Performs required maintenance of equipment if faulty equipment caused injury
- Records information on Form (R) Deviations and Corrective Actions

Example 2: A hydraulic line breaks during mechanical harvest and fluid leaks into the production site. The person responsible or employee:

- Stops harvester
- Prevents further leaking of fluid into production site if possible
- Identifies which product (production sites, plantings, rows) and equipment is contaminated
- Notifies person responsible (if applicable)
- Disposes of all contaminated product
- 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 product has left the premises, food safety has been compromised and the public is at risk, the person responsible initiates the Recall process
- The person responsible contacts and informs the certification body (if certified) when a recall occurs

### 23.4 Complaint Handling

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

- The person responsible has a system in place to receive, document and take action in response to complaints (e.g. from customers, consumers etc.)
- The person responsible records complaints received on Form (R) Deviations and Corrective Actions OR \_\_\_\_\_
- The person responsible includes a review of all complaints during the annual review of the Food Safety Program (See Section 24: HACCP Plan and Food Safety Program Maintenance and Review)

## 23.5 Food Defense

△ Section 23.5 does not apply to certification option A1/A2

<b>REQUIREMENT</b>	<i>Food defense risks must be addressed and a system to reduce or eliminate identified risks must be in place. Potential threats to food security in all phases of the operation must be identified and assessed.</i>
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### **PROCEDURES:**

Responsibility for food defense/security is assigned to a knowledgeable person(s) [record name(s) here: \_\_\_\_\_ ]

● The person responsible ensures that:

- All commodity starter products/harvested products/other inputs are from safe and secured sources
- All product handling and storage areas are safe and secured
- All market product is safe and secured
- All transportation is safe and secured

**Note:** Refer to the appropriate sections for input/product/transportation requirements. Refer to Section 13: Visitor Policy for more information on controlled access areas. Refer to Form (A) Buildings Sketch and Agricultural Chemical Storage Checklist to ensure all areas have been considered.

The person responsible assesses potential food defense/security risk factors by completing Form (T) Food Defense OR \_\_\_\_\_

**Note:** Refer to the chart provided in Appendix T: Food Defense: Assessment of Possible Risks and List of Security Measures to help with your assessment.

The person responsible has information on all employees and visitors that can be found within the following records (e.g., employee records, Form L, etc.): \_\_\_\_\_

● In case of an intentional threat/incident, the person responsible has procedures for corrective actions in place which include:

- Investigating threats (e.g., signs of tampering, malicious, criminal or terrorist actions, etc.)
- Alerting the appropriate people (e.g., law enforcement, public health authorities, customers, consumers, etc.)
- Recalling product (if necessary)
- Evaluating security measures to reduce the risk of reoccurrence

The person responsible reviews all threats/security measures during the annual review of the Food Safety Program (See Section 24: HACCP Plan and Food Safety Program Maintenance and Review)

## 23.6 Allergens

△ Section 23.6 does not apply to certification option A1/A2

Allergens that are present on site may be a source of cross-contamination. An assessment of potential allergens will help to determine whether additional control measures are required.

<b>REQUIREMENT</b>	<i>An allergen program is in place to ensure that cross contamination does not occur.</i>
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### **PROCEDURES:**

- The person responsible has procedures in place to avoid cross contamination of product with allergens not present in the product (e.g., from production site, packing line, vehicle, storage, etc.)
- If undeclared allergens are handled (e.g. sorted, graded, packed) on equipment used for market product, the equipment is cleaned before it is used for market product (Refer to *Section 8.2 Use, Cleaning, Maintenance, Repair and Inspection* for equipment cleaning and record keeping procedures), and if necessary, precautionary labelling is used.
- Sulphites [e.g. sulphur dioxide (SO<sub>2</sub>)] are not used on market product
- The person responsible labels product (e.g., on packaging materials) with allergen information (if applicable) (Refer to the CFIA website for more information on labelling requirements in Canada: <https://inspection.canada.ca/en/food-labels/labelling/industry/allergen-labelling>)
- The person responsible performs an annual review of the allergen program and makes any updates or changes necessary
- Annually – The person responsible assesses potential risks from allergens and records the information Form (S) Allergen Information - Assessment OR \_\_\_\_\_

## 23.7 Food Fraud

△ Section 23.7 does not apply to certification option A1/A2

<b>REQUIREMENT</b>	<i>Food fraud vulnerabilities must be assessed and a plan must be in place to reduce or eliminate any identified vulnerabilities.</i>
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### **PROCEDURES:**

- Responsibility for food fraud is assigned to a knowledgeable person(s) [record name(s) here: \_\_\_\_\_ ]
- The person responsible assesses potential food fraud vulnerabilities by completing Form (U) Food Fraud Vulnerability Assessment OR \_\_\_\_\_
- The person responsible implements any food fraud mitigation measures identified on Form (U) Food Fraud Vulnerability Assessment

## 23.8 Food Safety Culture

△ Section 23.8 does not apply to certification option A1/A2

<b>REQUIREMENT</b>	<i>Commitment must be made to maintain a strong food safety culture within the operation through communication, training, feedback and performance measurement. Senior management must commit to establishing direction, engaging personnel, and providing sufficient resources to maintain a positive food safety culture.</i>
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### PROCEDURES:

- Responsibility for food safety culture belongs to senior management
- The person responsible creates, assesses, implements and maintains food safety culture by:
  - Communicating food safety policies and responsibilities frequently and effectively
  - Engaging and involving all employees
  - Training and reinforcing food safety
  - Measuring and assessing performance regularly
  - Ensuring feedback on food safety related issues is received from all employees
  - Making a long-term commitment to sustaining and improving food safety, including providing sufficient resources
  - Ensuring consumer focus
- The person responsible performs an annual review of the operation's food safety culture and makes changes or improvements as necessary

### Confirmation/Update Log:

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



## 24. HACCP Plan and Food Safety Program Maintenance and Review

Forms Required

N/A

### RATIONALE:

A site-specific HACCP plan ensures that hazards specific to the operation are identified and controlled in a systematic way. The operation's program needs to be maintained continuously to ensure success. An annual review allows the person responsible and senior management of the company to ensure that the CanadaGAP Food Safety Manual is being followed effectively. A review determines if any problems were encountered during the growing/harvesting/storing/packing season. The result of a review is a more effective and efficient Food Safety program.

<b>IMPORTANT NOTE</b>	<b>It is assumed throughout the manual that EACH of the requirements (along with their procedures) are to be considered in terms of food safety. The risks are from those hazards that are in "direct contact with product" OR that may have an "impact on food safety through cross contamination".</b>
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### 24.1 Site-Specific HACCP Plan N/A

### 24.2 Protocols

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

- The person responsible maintains the operation's food safety program on an ongoing basis
- The person responsible reviews previous audit findings (if applicable) and determines whether there are opportunities for continuous improvement
- The person responsible ensures that the most current updated pages issued by CanadaGAP are used when reviewing the Production and Packing for Blueberries Manual based on the CanadaGAP Food Safety Manual Fresh Fruits and Vegetables

**Note:** *Revisions to the Fruit and Vegetable Manual are available on the CanadaGAP web site ([www.canadagap.ca](http://www.canadagap.ca)).*

- The person responsible annually reviews the Production and Packing of Blueberries based on the CanadaGAP Food Safety Manual for Fresh Fruits and Vegetables by completing and updating the applicable sections and forms of the Manual
- The person responsible annually reviews the major deviations and complaints and makes any necessary changes to food safety policies and procedures

- Annually - The person responsible conducts a pre-audit by performing an internal audit of the entire operation by completing the CanadaGAP Self-Assessment Checklist or Audit Checklist (File under Tab: \_\_\_\_\_), or by using an outside party (Download checklists at [www.canadagap.ca](http://www.canadagap.ca))
- The person responsible reviews the internal audit findings and makes any necessary changes to food safety policies and procedures
- The person responsible records that the Production and Packing of Blueberries Manual based on the CanadaGAP 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	CanadaGAP Version Number and Issue Date	Form Location*
<b>ANNUAL FORMS</b>			
A.	Buildings Sketch and Agricultural Chemical Storage Checklist	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
B.	Storage Assessment	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
C.	Employee Personal Hygiene and Food Handling Practices Policy – Production Site	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
D.	Employee Personal Hygiene and Food Handling Practices Policy – Packinghouse/Product Storage	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
E.	Pest Control for Buildings	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
F.	Water (for Cleaning) Assessment	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
S.	Allergen Information - Assessment	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
T.	Food Defense	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
U.	Food Fraud Vulnerability Assessment	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
V.	Production Site Assessment	Version 11.0 2026	FOOD SAFETY MANUAL (Tab: FORMS)
<b>ONGOING FORMS</b>			
G.	Cleaning, Maintenance and Repair of Buildings	Version 11.0 2026	
H1.	Agronomic Inputs (Agricultural Chemicals)	Version 11.0 2026	
H2.	Agronomic Inputs (Other)	Version 11.0 2026	
H3.	Agricultural Chemical Application (Post-Harvest) N/A	Version 11.0 2026	
I.	Equipment Cleaning, Maintenance and Calibration	Version 11.0 2026	
J.	Cleaning and Maintenance – Personal Hygiene Facilities	Version 11.0 2026	
K.	Training Session	Version 11.0 2026	
L.	Visitor Sign-In Log	Version 11.0 2026	
M.	Pest Monitoring for Buildings	Version 11.0 2026	
N1.	Water Treatment Control and Monitoring	Version 11.0 2026	
N2.	Water Temperature Control and Monitoring N/A	Version 11.0 2026	
O.	Transporting Product	Version 11.0 2026	
P2.	Harvesting and Storing Product	Version 11.0 2026	
Q.	Packing and Storing of Market Product	Version 11.0 2026	
R.	Deviations and Corrective Actions	Version 11.0 2026	

\* 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 product). 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?			
Product in the storage area is kept in proper conditions (e.g., on pallets)?			
Product is 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?			
Treated seed is stored according to the label directions (i.e., stored away from product)?			
Oil/gas furnace is exhausting outside the storage?			
When the storage is in use, oil/fuel storage tanks are stored elsewhere or contained to prevent contamination of product?			
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, garbage, chemicals)?			
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)?			
FOR POTATOES ONLY: Potatoes in storage are kept in the dark?	N/A	N/A	
FOR POTATOES ONLY: Potatoes are free from direct contact with pressure treated wood?	N/A	N/A	
Other ( <i>specify</i> ):			

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

**Confirmation/Update Log:**

Date						
Initials						



# 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. Write N/A beside those not applicable to your operation.

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

<p><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 product</li> <li><input type="checkbox"/> Open wounds are treated and covered with a waterproof covering (e.g., rubber gloves)</li> </ul>	<p><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 product (e.g., fuelling equipment, spraying)</li> </ul> </li> <li><input type="checkbox"/> Hands and reusable gloves (except 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)</li> <li>• 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 to facilitate soil/organic matter/juice etc. removal 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><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><b>Employee Jewellery and Other Personal Effects</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bracelets, necklaces and other jewellery (except for rings) are not worn</li> <li><input type="checkbox"/> Rings are covered with gloves</li> <li><input type="checkbox"/> False fingernails, false eyelashes or other such effects are not worn</li> <li><input type="checkbox"/> Items are removed from shirt pockets (e.g., pens, etc.)</li> <li><input type="checkbox"/> Loose buttons on shirts/jackets are fixed</li> </ul>	
<p><b>Production Practices</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Employees are trained to inspect each container and harvest only into clean containers</li> <li><input type="checkbox"/> Employees are trained to not stand in or on packaging materials or accessories unless potential contamination risks are mitigated (e.g., wear different footwear, booties, materials are protected with new cardboard, etc.)</li> <li><input type="checkbox"/> Employees are trained to visually inspect product during harvest to look for evidence of unusual animal or bird activity (i.e., excrement) and discards product if it has been contaminated</li> <li><input type="checkbox"/> Employees are trained not to harvest product that has fallen on the ground</li> </ul>	

**C. Employee Personal Hygiene and Food Handling Practices Policy – Production Site  
(continued)**

**Employee Glove and Apron Use**

- Gloves are used
- Aprons are used

*Gloves and aprons are not mandatory. If gloves and aprons are used, proceed below.  
If gloves and aprons are not used, proceed to the next sub-section (Other)*

*Note: Working effects must be provided/laundered by the operation, not by the employee.*

- Gloves are made of rubber, nitrile, polyethylene, polyvinyl chloride, polyurethane, cloth (including coated cloth)
- Hands are washed and dried, before gloves are put on
- Gloves are removed when leaving the work area and stored in a designated location
- If gloves are not new (except for cloth gloves), they are washed (using proper hand washing technique) before beginning work each day, when changing tasks, and/or after any contact that could potentially contaminate the product
- Cloth gloves (including coated cloth) must be laundered daily by the operation (employees start with a fresh pair every day) and changed after any contact that could potentially contaminate the product.
- Aprons:
  - are made of an appropriate material (e.g., rubber, plastic, vinyl, etc.)
  - if reusable are washed daily by the operation
- Gloves and aprons are replaced when ripped or worn out

**Other**

- Employees know the difference between and how to handle major and minor food safety deviations
- Employees adhere to the following:
  - Always use toilet facilities
  - Always dispose of toilet paper in toilet (i.e., not in garbage can)
  - Never spit
  - Dispose of waste in designated containers
  - 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)
  - Put personal effects in designated areas (e.g., lunches, clothing, shoes, smoking materials, electronic devices, etc.)

**Confirmation/Update Log:**

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

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

**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. Write N/A beside those not applicable to your operation. (This form is also intended for employees who are handling market ready packaging materials.)

**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 product</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 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 product (e.g., garbage, cleaning and maintenance materials)</li> </ul> </li> <li><input type="checkbox"/> Hands and reusable gloves 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)</li> <li>• 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 to facilitate soil/organic matter/juice etc. removal 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 Cleanliness, Footwear and Hair</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A degree of personal cleanliness is maintained which includes starting each day wearing clean clothing and (specify other) _____</li> <li><input type="checkbox"/> Clean footwear is always worn (no dirt or other foreign matter)</li> <li><input type="checkbox"/> Long hair touching the shoulders is restrained (e.g., hat, hairnet, tied)</li> </ul>	
<p style="text-align: center;"><b>Operation Practices</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Employees adhere to the following:</li> <li><input type="checkbox"/> Only authorized employees handle market product</li> <li><input type="checkbox"/> Only authorized employees may enter controlled-access areas</li> <li><input type="checkbox"/> Employees are trained to not stand in or on packaging materials or accessories unless potential contamination risks are mitigated (e.g., wear different footwear, booties, materials are protected with new cardboard, etc.)</li> </ul>	
<p style="text-align: center;"><b>Employee Jewellery and Other Personal Effects</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bracelets, necklaces and other jewellery (except for rings) are not worn</li> <li><input type="checkbox"/> Rings are covered with gloves</li> <li><input type="checkbox"/> False fingernails, false eyelashes or other such effects are not worn</li> <li><input type="checkbox"/> Items are removed from shirt pockets (e.g., pens, etc.)</li> <li><input type="checkbox"/> Loose buttons on shirts/jackets are fixed</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 packinghouse/product storage</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>

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

### Employee Glove and Apron Use

- Gloves are used
- Aprons are used

*Gloves and aprons are not mandatory. If gloves and aprons are used, proceed below.  
If gloves and aprons are not used, proceed to the next sub-section (Other)*

*Note: Working effects must be provided/laundered by the operation, not by the employee.*

- Gloves are made of rubber, nitrile, polyethylene, polyvinyl chloride, polyurethane, coated cloth
  - Coated cloth gloves** may ONLY be used where they **cannot get wet**.
- Hands are washed and dried before gloves are put on
- Gloves are removed when leaving the work area and stored in a designated location
- If gloves are not new (except for coated cloth gloves), they are washed (using proper hand washing technique) before beginning work each day, when changing tasks, and/or after any contact that could potentially contaminate the product.
- Coated cloth gloves must be laundered daily by the operation (employees start with a fresh pair every day), replaced when changing tasks, changed after any contact that could potentially contaminate the product.
- Aprons:
  - are made of an appropriate material (e.g., rubber, plastic, vinyl, etc.)
  - if reusable are washed daily by the operation
- Gloves and aprons are replaced when ripped or worn out.

### Other

- Employees know the difference between and how to handle major and minor food safety deviations
- Employees adhere to the following:
  - Always use toilet facilities
  - Always dispose of toilet paper in toilet (i.e., not in garbage can)
  - Never spit
  - 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)
  - Put personal effects in designated areas (e.g., lunches, clothing, shoes, smoking materials, electronic devices, etc.)
  - Dispose of waste in designated containers

### Confirmation/Update Log:

Date						
Initials						

**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="459 831 1308 932"> <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="459 1220 1308 1320"> <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="459 1461 1308 1562"> <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 Cleaning) Assessment

**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 (✓)?	Commodity ***	Use	Method	Items to Assess (check each item)	Water tests			Corrective Actions (*see examples below)	Cleaning & Treatment**
							When will the water first be used?	Dates			
								Prior to use test	2 <sup>nd</sup> water test		
				<input type="checkbox"/> Hand washing <input type="checkbox"/> Cleaning equipment/containers/building	<input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <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"/> Hand washing <input type="checkbox"/> Cleaning equipment/containers/building	<input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <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"/> Hand washing <input type="checkbox"/> Cleaning equipment/ containers/building	<input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <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"/> Hand washing <input type="checkbox"/> Cleaning equipment/ containers/building	<input type="checkbox"/> Spray <input type="checkbox"/> Hose <input type="checkbox"/> Tap <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
- Construct barriers (e.g., fences, ditches)
- Maintenance of well or cistern

-Test water for Total Coliforms and *E. coli*

*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*

- Use alternate source
- Level ground to prevent runoff

*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)

\*\*\* Assess water uses for each commodity and ensure water tests are taken at the appropriate time(s)

**Confirmation/Update Log:**

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

**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:** \_\_\_\_\_

<p style="text-align: center;"><b>Interior of Building (Permanent Structures)</b></p> <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 (e.g., packinghouse is bright)</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 and/or air filters are dust-free, clean and working properly</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 product)</li> <li><input type="checkbox"/> Adequate ventilation</li> <li><input type="checkbox"/> Control measures are in place to prevent cross-contamination from other activities/items (e.g., employee movement, dedicated areas/equipment, etc.)</li> </ul>	<p style="text-align: center;"><b>Exterior of Building (Permanent Structures)</b></p> <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>Exterior of Building (Non-Permanent Structures)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Roof or cover (i.e., tarp)</li> <li><input type="checkbox"/> Land drainage around structure is good</li> <li><input type="checkbox"/> No areas where pests can live/feed/hide within 3 m of structure (e.g., old or unused machinery, garbage)</li> <li><input type="checkbox"/> Weeds are controlled</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> <hr/> <hr/> <p>(Use the reverse of this Form if more space is needed)</p> <p>Date and Name of Person work was completed by:</p> <hr/> <p>Date and Signature of Person overseeing the work:</p> <hr/>	<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> <hr/> <hr/> <p>(Use the reverse of this Form if more space is needed)</p> <p>Date and Name of Person work was completed by:</p> <hr/> <p>Date and Signature of Person overseeing the work:</p> <hr/>

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

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

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



## H2. Agronomic Inputs (Other)

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

Operation Name:		Previous Year Crop(s):		Current Crop:	
Production Site Information (e.g., Field # or Name/ID/Legal Description):		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 (except for plastic)						
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:** \_\_\_\_\_



# I. Equipment Cleaning, Maintenance and Calibration

*Use this Form to record production site AND building equipment cleaning, maintenance AND calibration*  
**\*\*\*This form is also to be used to record water storage (e.g., tank/cistern/container) and packaging material cleaning although neither are considered as production site or building equipment.**

**Instructions:** An inspection of your production site and building equipment (e.g., harvester, packing lines, conveyors, belts, chlorinator, sprayer) must be conducted at least weekly (when in use). Check for leaks, broken, loose, corroded or damaged parts, soil, mud, build-up, etc. and any cleaning, maintenance and calibration needed. See Section 8: Equipment for requirements for production site equipment. Record required activities below and give a brief description of why and how you are performing the activity.

Date	Employee Completing Job	Equipment Activity Performed On	Activity Code*	Brief Description of Activity

\* Activity Codes: 1 – Calibration 2- Maintenance 3 – Repair 4 – Cleaning 5 - Inspection 6 – Other (specify)

**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)
- Refrain from entering controlled-access areas if the visitor has a disease or illness transferable to food, symptoms of such a disease or illness, or an open or infected lesion
- Wash hands before entering controlled-access areas
- Not handle product 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:** \_\_\_\_\_



















**Q. Packing and Storing of Market Product**

**Instructions:** Complete for any of the following activities:

- Harvested product being packed into **market ready packaging materials** (both in the production site and packinghouse, and includes your own and others' product)
- All packing activities that involve **market product** (see glossary definition of "Packing");
- Market product being put into storage

Date Harvested /Market Product Received/ Put into Storage	†Pro-duct is Rotated Appropriately (✓)	Name of person who Produced /Packed /Stored the Product	Product Variety	*PHI/ EAHD met (Forms H1 and H2 verified) (✓)	** Product-ion site was assessed (✓)	Harvest Date	Field (Same as on Forms H1and H2 or P2)	Incoming Lot Code/ Pack ID and/or Lot ID	Packing Date	Outgoing Lot Code/ Pack ID	Quantity	Lot ID	Primary Packag-ing Material Used	Secondary Packaging Material Used	Pack-aging Materials Checked (✓ if OK)	Date Market Product Put into Storage

†The operation considers shelf-life when managing product (e.g., first in first out, ripeness, etc.)  
 \* Forms H1and H2 have been verified to ensure that harvested product meets the required pre-harvest interval PHI/EAHD for agricultural chemical application and the spreading of manure.  
 \*\*The production site was surveyed to ensure that there were no signs of obvious contamination (e.g., oil or chemical spill, portable toilet leaking, flooding, animal intrusion, etc.) before harvest.

**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:** \_\_\_\_\_



## S. Allergen Information – Assessment

**Instructions:** Fill out the chart below to assess the potential risks of allergens in your operation. Column I indicates the allergens from a practice used in the production of the product. Column II indicates the allergens from something in the production site (e.g., rotational crop) or something found in the adjacent area. Column III indicates the allergens that may be found in the product, from addition or cross-contamination. Column IV indicates the allergens present in other products that are run on the same equipment/area but at a different time. Column V indicates whether any allergens are present in a building/vehicle.

Each box of the table must be filled with a YES or a NO. If YES, describe (if applicable) any control measures used in the last row. All allergens listed are those identified by Health Canada and enforced for labelling by the Canadian Food Inspection Agency for Canadian operations. Different or additional allergens may be identified in other jurisdictions.

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

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

	Column I	Column II	Column III	Column IV	Column V
Component	Present from a production practice	Present in the production site or adjacent area	Present in the product	Present in other products handled on the same line/area	Present in the same building/vehicle
<b>Peanut or its</b> derivatives, e.g., Peanut - pieces, protein, oil, butter, flour, and mandelona nuts (an almond flavoured peanut product) etc. Peanut may also be known as <b>ground nut</b> .					
<b>Tree Nuts</b> e.g., almonds, Brazil nuts, cashews, hazelnuts (filberts), macadamia nuts, pecans, pine nuts (pinyon, pinon), pistachios and walnuts <b>or their</b> derivatives, e.g., nut butters and oils etc.					
<b>Sesame or its</b> derivatives, e.g., paste and oil etc.					
<b>Milk or its</b> derivatives, e.g., milk caseinate, whey and yogurt powder etc.					
Eggs or its derivatives, e.g., frozen yolk, egg white powder and egg protein isolates etc.					
<b>Fish or its</b> derivatives, e.g., fish protein and extracts etc.					
<b>Shellfish</b> (including crab, crayfish, lobster, prawn and shrimp) <b>and Molluscs</b> (including snails, clams, mussels, oysters, cockle and scallops) <b>or their</b> derivative, e.g., extracts etc.					
<b>Soybeans or its</b> derivatives, e.g., lecithin, oil, tofu and protein isolates etc.					
<b>Cereals containing gluten</b> and their derivatives (specify which cereal (wheat, rye, barley, oats, spelt, kamut or their hybridized strains)).					
<b>Sulphites</b> , e.g., sulphur dioxide and sodium metabisulphites etc. If yes, what is the amount in ppm? _____					
<b>Mustard</b> and products thereof					
<b>Others</b> (as considered necessary for the customer or by the prevailing authority)					
<b>Comments and/or Additional Control Measures</b> (if applicable)					

### Confirmation/Update Log:

Date						
Initials						



## T. Food Defense

**Instructions:** This form is intended to assess whether potential food defense/security risk factors exist. Consider if there could be a risk in the following categories and implement appropriate security measures. If additional risks were identified, describe them below. Detailed information can be found in Appendix T: Food Defense: Assessment of Possible Risks and List of Security Measures if further assistance is required.

### Inside Security Risk Assessment

To protect product from intentional contamination, assess possible inside risks (e.g., packing/facility security, agricultural chemical storage security, product security, information security, etc.).

**The following potential risk factors have been assessed and appropriate security measures have been implemented:**

- General security (e.g., signs, observations, areas etc.)
- Storage/Building Security
- Water Security
- Agricultural Chemical/Cleaning and Maintenance Materials Control Security
- Information Security

#### Personnel Security Risks

To prevent personnel security risks, ensure that only authorized personnel (e.g., employees, visitors, etc.) are within the operation and employees are trained on food defense/security measures

**The following potential risk factors have been assessed and appropriate security measures have been implemented:**

- Personnel Security (e.g., check references, check IDs, security training, etc.)

### Outside Security Risk Assessment

To prevent unauthorized access by people, entry of unapproved inputs, or intentional contamination of product assess possible outside risks (e.g., production site/building security, mail handling security, etc.)

**The following potential risk factors have been assessed and appropriate security measures have been implemented:**

- Physical Security (e.g., door locks, lighting etc.)
- Entry of inputs/product (e.g., loading/unloading etc.)

If other risks have been identified, list those below, along with the corrective actions taken:

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#### Confirmation/Update Log:

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



## U. Food Fraud Vulnerability Assessment

**Instructions:** This form is intended to assess whether potential food fraud vulnerabilities exist. If a vulnerability is identified, mitigation measures need to be developed and implemented.

Assess the following elements:	Yes	No	Mitigation Measures if applicable (e.g., surveillance plan, supplier relationship, testing, etc.)
<b>1. Suppliers and Supply Chain</b> Are you receiving product or inputs from suppliers: <ul style="list-style-type: none"> <li>• whose businesses are healthy?</li> </ul>			
<ul style="list-style-type: none"> <li>• who are under financial strain?</li> </ul>			
<ul style="list-style-type: none"> <li>• who have sound and ethical business practices (e.g., no past criminal offences, not associated with incidents of previous food fraud, low levels of corruption)?</li> </ul>			
Is your food supply chain transparent, with business relationships that are characterized by trust?			
Does the level of competition across your sector increase the potential for food fraud?			
Do you monitor your suppliers (product and inputs)?			
<b>2. Company and Employees</b> Does your company: <ul style="list-style-type: none"> <li>• have a good business strategy with an ethical culture?</li> </ul>			
<ul style="list-style-type: none"> <li>• require personnel to follow an ethical code of conduct?</li> </ul>			
<ul style="list-style-type: none"> <li>• have a reporting system for unauthorized activities?</li> </ul>			
<ul style="list-style-type: none"> <li>• monitor integrity of employees?</li> </ul>			
<ul style="list-style-type: none"> <li>• operate in a country with a low level of corruption?</li> </ul>			
<ul style="list-style-type: none"> <li>• operate profitably?</li> </ul>			
<b>3. Product and Input Risks</b> Would your products and inputs: <ul style="list-style-type: none"> <li>• be difficult to counterfeit or adulterate?</li> </ul>			
<ul style="list-style-type: none"> <li>• command higher prices or higher demand if they could be altered for economic gain?</li> </ul>			
<ul style="list-style-type: none"> <li>• be easily detected if they were counterfeit or adulterated (e.g., by visual inspection, smelling)?</li> </ul>			
Are technologies and/or methods to adulterate your products or inputs available, known or reported?			
Do you monitor your products and inputs for adulteration?			
Have there been incidents of food fraud associated with the same products or inputs that you produce or handle?			

**Confirmation/Update Log:**

Date						
Initials						



## V. Production Site Assessment

**Instructions:** Assess whether the following potential hazards exist in your production site(s). All scenarios should be considered and recorded below. If any items in the left hand column have NOT been checked off, more information should be provided in the next two columns regarding the actual hazard and the action(s) taken.

**Production Site(s):** \_\_\_\_\_ **Commodity:** \_\_\_\_\_

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

Assess the following potential hazards:	If a box in the left hand column has NOT been checked off, describe the potential hazard that may exist:	For potential hazards that may exist, chose or describe the action(s) taken to reduce the potential hazard:
<input type="checkbox"/> Sewage sludge has NOT been applied to the production site		
<input type="checkbox"/> No adjacent areas where livestock excrement, dust, aerosols or feathers may drift or leach (also consider exhaust fans from barns blowing dust into fields)		<input type="checkbox"/> Install fencing around production sites <input type="checkbox"/> Increase or create buffer zones around productions sites - record approximate distances: _____ <input type="checkbox"/> Plant hedges or windbreaks <input type="checkbox"/> Seek expert advice and/or cooperation from neighbours <input type="checkbox"/> Other:
<input type="checkbox"/> No adjacent areas where crop production inputs may drift or leach (e.g., agricultural chemicals, soil amendments, fertilizers, pulp sludge)		<input type="checkbox"/> Increase or create buffer zones around production sites - record approximate distances: _____ <input type="checkbox"/> Plant hedges or windbreaks <input type="checkbox"/> Seek expert advice and cooperation with neighbours <input type="checkbox"/> Other:
<input type="checkbox"/> No potential manure usage or storage on adjacent land		<input type="checkbox"/> Increase or create buffer zones around production sites - record approximate distances: _____ <input type="checkbox"/> Seek expert advice and/or cooperation with neighbours <input type="checkbox"/> Incorporate manure into soil (if under your control) <input type="checkbox"/> Ensure manure is stored properly (if under your control) <input type="checkbox"/> Other:
<input type="checkbox"/> No adjacent areas where non-agricultural activities contribute to air, water or soil pollution [i.e., industrial activities (refineries, manufacturing plants), roadside debris, road salt, foreign objects (e.g., glass bottles, etc.)]		<input type="checkbox"/> Increase or create buffer zones around production sites - record approximate distances: _____ <input type="checkbox"/> Plant hedges or windbreaks <input type="checkbox"/> Seek information from source of hazard, experts or government on potential risks <input type="checkbox"/> Other:

<input type="checkbox"/> No risks from urban areas (e.g., pet access to production sites, leaching of septic beds, walking trails, campsites, etc.)		<input type="radio"/> Seek expert advice and/or cooperation with neighbours, land owners, government, etc. <input type="radio"/> Other:
<input type="checkbox"/> No unusually high levels of animal and bird activity (e.g., migratory paths, nesting or feeding areas, presence of animal feces, large areas of animal tracks or burrowing, etc.)		<input type="radio"/> Remove habitat or food sources (e.g., cull piles) <input type="radio"/> Conduct ongoing monitoring for evidence of animal intrusion (e.g., footprints, feces) <input type="radio"/> Train employees to monitor and report evidence of pest intrusion <input type="radio"/> Install wildlife deterrents (e.g., bird scaring devices) Describe: _____ <input type="radio"/> Other: _____
<input type="checkbox"/> No flooding of production site in the past year		<input type="radio"/> Allow soil to dry and be reworked before planting <input type="radio"/> Take soil samples (Note: sampling does not guarantee that the crop will not be contaminated) <input type="radio"/> Other:
<input type="checkbox"/> Other (please describe):		
<input checked="" type="bullet"/> Pest control products are used in production site? <input type="checkbox"/> YES <input type="checkbox"/> NO	If YES was answered in the left hand column, describe the pest control products used:	<input type="checkbox"/> Pest control products used in the production site are stored according to the requirements found in Section 6.3 Storage/Section 14.2 Storage

**Confirmation/Update Log:**

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

## TABS

- Letters of Assurance/Certificates
- Test Results
- Third Party Pest Control Records
- Calibration Instructions
- Other Procedures