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	<b>(EFFECTIVE DATE)</b> <b>July 31, 2009</b> <b>(3<sup>rd</sup> Revision)</b>
<b>Title</b> Phytosanitary requirements for the importation from the continental United States and for domestic movement of commodities regulated for blueberry maggot.	

## SUBJECT

This directive sets out the phytosanitary requirements for the importation from the continental United States (U.S.) and for the domestic movement of regulated commodities for blueberry maggot (*Rhagoletis mendax*) in order to prevent the introduction and/or spread of this pest into pest free areas.

Previously, the requirements concerning blueberry maggot were set out in several different documents. This directive updates and consolidates all requirements for all hosts and pathways for blueberry maggot. These updates include the treatment of used containers, as well as expanding regulated areas of Quebec and Ontario.

*This revision removes the previous reference to Ontario and Quebec in Section 1.6 and clarifies when a municipality will be regulated for blueberry maggot.*

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## Review

This directive will be reviewed every five years. The next review date is July 31, 2014. The contact for this directive is Joanne Rousson. For further information or clarification, please contact the Canadian Food Inspection Agency (CFIA).

## Endorsement

Approved by:

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Chief Plant Health Officer

## Amendments

Amendments to this directive will be dated and distributed as outlined in the distribution below.

## Distribution

1. Directive mail list (Regions, PHRA, USDA)
2. Provincial Governments, Industry (determined by Author)
3. National Industry Organizations (determined by Author)
4. Internet

## Introduction

The blueberry maggot is a pest of both highbush and lowbush blueberries. This insect infests the fruit of the blueberry and makes it unmarketable. Reduction in yield, increases in the costs of production and market losses can result from infestation. This insect is native to eastern North America, including Nova Scotia, New Brunswick, Prince Edward Island and the eastern U.S. The blueberry maggot was discovered for the first time in the provinces of Ontario in 1993 and Quebec in 1996. In Ontario and Quebec, the blueberry maggot is limited in distribution. Extensive surveys have been conducted in Ontario and Quebec to delimit the infested areas.

Spread of the pest may occur when there is unrestricted movement of fresh blueberries, blueberry plants, used containers, farm machinery or soil from infested areas.

In 1999, the Blueberry Certification Program (BCP) was introduced by the CFIA to replace the requirement for a Grade Certificate to accompany shipments of fresh blueberries. Under the BCP, participants must produce and ship blueberries under a “systems approach”. A series of mitigation measures are used to eliminate blueberry maggot, including monitoring and control measures, fruit grading, sampling and testing. The program applies to blueberries shipped in any size container. Blueberries grown under the BCP are shipped with a specially designed Movement Certification Label, in lieu of a Phytosanitary Certificate or Movement Certificate. The previously approved options of fumigating blueberries or sending them to an approved processing plant in non-regulated areas with special handling and disposal procedures remain in effect.

British Columbia and Newfoundland have additional requirements to control blueberry maggot. For a summary of those additional requirements, see Appendices 2 and 3.

**Scope** This directive is intended for the use of CFIA inspection staff, the Canada Border Services Agency, importers, shippers and brokers, in order to outline the necessary requirements and inspection procedures for the movement of fresh blueberries from regulated areas of North America to non-regulated areas of Canada. It is also intended as a guide for processing plants and growers located in regulated areas participating in the BCP. To find out the requirements for imports from areas other than the continental U.S., contact the nearest CFIA office.

**Reference** Glossary of Phytosanitary Terms, ISPM No. 5, FAO, Rome (updated annually)

**This directive supersedes Directives D-02-04 (2<sup>nd</sup> Revision); D-99-02 (2<sup>nd</sup> revision dated June 9, 2000), D-95-16, D-97-09 and Directives 013-1 (Import) and 013-6 (Domestic) dated July 1990, Quarantine Directive Domestic - 6 (August 1990), the amendments of September 4, 1991, the memorandum of July 5, 1991 as well as the portions of Directive D-83-02 dealing with blueberries from the continental U.S.**

## Definitions, Abbreviations and Acronyms

Definitions for terms used in the present document can be found in the Plant Health Glossary of Terms at [www.inspection.gc.ca/english/plaveg/protect/dir/glosterme.shtml](http://www.inspection.gc.ca/english/plaveg/protect/dir/glosterme.shtml).

## 1.0 General Requirements

### 1.1 Legislative Authority

*The Plant Protection Act, S.C. 1990, c. 22.*

*The Plant Protection Regulations, SOR/95-212*

*The Canadian Food Inspection Agency Fees Notice, Canada Gazette, Part 1 (5/13/00)*

*The Fresh Fruit and Vegetable Regulations, SOR/98-155*

## 1.2 Fees

The CFIA is charging fees in accordance with the *Canadian Food Inspection Agency Fees Notice*. For further information regarding fees associated with imported product, please contact the Import Service Centres (ISC) at the following telephone numbers: Eastern ISC: 1-877-493-0468; Central ISC: 1-800-835-4486; Western ISC: 1-888-732-6222. For other information regarding fees, please contact any local CFIA office or check our Fees Notice Web Site : <http://www.inspection.gc.ca/english/reg/cfiaacia/feesfrais/feesfraise.shtml>

## 1.3 Regulated Pest

Blueberry maggot, *Rhagoletis mendax* Curran.

## 1.4 Regulated Commodities

Listed Host Species

lowbush blueberry (*Vaccinium angustifolium*, including *V. pennsylvanicum*)  
sourtop blueberry (*V. myrtilloides*, including *V. canadense*)  
highbush blueberry (*V. corymbosum*, including, *V. ashei* and *V. atrococcum*)  
small cranberry (*V. oxycoccus*)  
deerberry (*V. stamineum*)  
lingonberry (*V. vitis-idaea*)  
black huckleberry (*Gaylussacia baccata*)  
dangleberry (*G. frondosa*)  
dwarf huckleberry (*G. dumosa*)  
hillside blueberry (*V. pallidum*, including *V. vacillans*)

NOTE: *Vaccinium macrocarpon*, the cranberry commonly used for commerce, is not a host of Blueberry maggot and is not included in this list.

### 1.4.1 Fresh Fruit

Unprocessed fruit (not frozen, canned or dried) of cultivated and wild plants of the listed host species.

NOTE: In this directive, reference to “blueberries” is intended to include fruit of all listed host species.

### 1.4.2 Rooted Plants

Plants of the listed host species, with roots.

### 1.4.3 Used Containers

Any receptacle, package, box, tray or wrapper previously used for containing, transporting, packaging or wrapping the fresh fruit or plants of the listed host species, irrespective of size or material.

### 1.4.4 Used Farm Machinery and Equipment

All tractors, burners, harvesters, blowers, rakes, sprayers or cultivators used in the cultivation or management of the crop of the listed host species.

### 1.4.5 Transportation Vehicles

Any conveyance used to move fruit, used containers or plants of the listed host species.

### 1.4.6 Soil

Soil alone or attached to plants of the listed host species or as a contaminant of fruit, used containers, farm machinery and equipment, or transportation vehicles.

## 1.5 Exempt Commodities

Frozen and cleaned, dehydrated or canned blueberries, unrooted cuttings, seeds, new containers and plants in tissue culture.

## 1.6 Regulated Areas

For purposes of this directive, the regulated areas are the areas from which plants, plant products and other regulated articles are subjected to phytosanitary measures. See Appendix 1 for the list of blueberry maggot regulated areas of Canada and the US.

A municipality will be regulated for blueberry maggot when:

- 1) there is at least one infested natural (wild) site within the municipality; **OR**
- 2) there are host plants growing within 500 metres of an infested grower site.

If that 500 metres is overlapping into another municipality, both municipalities will be regulated.

If there are no host plants located within 500 metres of the infested grower site then only that site will be regulated and not the entire municipality. Individually regulated infested grower sites may be considered free after five consecutive years of negative trapping results. A regulated municipality will continue to be regulated indefinitely.

## 1.7 Provincial programs

In some regions of Canada, provincial governments may have additional programs for growers that wish to participate in a voluntary detection program for blueberry maggot. These programs are complementary to CFIA's program and are subject to audit by CFIA.

## 2.0 Specific Requirements

### 2.1 Prohibitions

No regulated commodities may be moved from regulated areas to pest free areas in Canada except under the provisions specified in this directive.

### 2.2 Import and Domestic Movement Requirements for Regulated Commodities

#### 2.2.1 From Regulated Areas of Canada or the U.S. Intended for Shipment to pest free areas of Canada

##### 2.2.1.1 Fresh Fruit

#### 1. Summary of Conditions for Movement of fresh fruit

The blueberries must meet the requirements under one of the three options below.

Please note that the province of British Columbia as well as the province of Newfoundland and Labrador have specific regulations concerning blueberry maggot (see Appendices 2 and 3).

**1) Blueberry Certification Program:** The blueberries must originate from an approved grower under the BCP and be accompanied by a certificate in the form of a label called a Movement Certification Label (see Appendix 4).

The BCP is based on approval of growers, pest monitoring and control procedures, grading, fruit sampling and testing.

Shipments must be free of all living stages of quarantine pests and meet the conditions for other regulated pests, and be practically free of soil, sand, leaves and plant debris, including woody materials.

**2) Fumigation:** Imported shipments of blueberries must be accompanied by a Phytosanitary Certificate providing details of the treatment. Domestic shipments of blueberries must be accompanied by a Movement Certificate providing details of the treatment (see Appendix 5).

**3) Processing Plant:** The blueberries must be destined to a CFIA approved processing plant that is authorized to receive blueberries from regulated areas. The plant must meet the specified conditions and procedures for handling blueberries (see Appendix 6). A valid Permit to Import, issued by the CFIA, is required to receive blueberries from regulated areas of the U.S. A Movement Certificate issued by the CFIA must accompany shipments originating in regulated areas of Canada.

## 2. Detailed Conditions of Movement

### 1) BLUEBERRY CERTIFICATION PROGRAM

#### 1.1 Administrative Requirements

This program was designed to be implemented in Canada and the U.S. Some details relating to administrative requirements may differ between the two countries due to different legislative and administrative considerations, however, the same standards apply to all participants, whether they are located in the U.S. or Canada.

#### 1.2 Approved Growers

All blueberries shipped under the BCP must originate from growers approved by the National Plant Protection Organization or approved under its authority and must originate in a monitored production area. A monitored production area is a contiguous production unit operated by a single grower, consisting of plants belonging to the same maturity group and under similar pest management and cultural practices. Each approved grower will be assigned an identification number.

#### 1.3 Application for Approval

Each grower must apply for approval to participate in the BCP by submitting an application, completed and signed, to the National Plant Protection Organization or its designee. For growers located in Canada, the official document is the "Application for Approval under the Blueberry Certification Program" (see Appendix 7). If the applicant is able to meet the requirements of the program, an inspector authorized by the National Plant Protection Organization will approve the grower by signing the application. The grower must complete the application by the date specified by the National Plant Protection Organization and at least two weeks prior to the earliest expected emergence of the blueberry maggot fly. Approval must be renewed each year.

At the time of application, the grower must indicate the pest management scheme (Scheme A - Integrated Pest Management or Scheme B - Calendar Spray, sections 1.7 and 1.8 below) to be used for each Monitored production area. The grower must also indicate which shipper(s) he/she expects will be shipping the blueberries. A shipper

is the owner/broker/person having the possession, care or control of a shipment of fresh blueberries produced by approved growers.

To facilitate traceback, record-keeping and identification, each approved grower will be assigned a unique identification number preceded by a two-letter code for the province/state. Lists of the approved growers and their identification numbers will be maintained by the appropriate National Plant Protection Organization.

#### 1.4 Movement Certification Label

The Movement Certification Label is the label to be affixed to invoices to show compliance with the BCP. The National Plant Protection Organization authorizes approved growers to receive Movement Certification Labels. The grower identification number, as well as a serial number, appears on the Movement Certification Label. The identification number and serial number make each label unique and permit traceback to the particular monitored production area from which the blueberries were harvested and the date on which the fruit was harvested. An example of the Movement Certification Label is shown in Appendix 4.

In Canada, the approved grower is responsible for all costs associated with obtaining Movement Certification Labels, although they remain the property of the CFIA. The CFIA provides the specifications for the labels. An order form (Appendix 8) must be completed by the approved grower and forwarded to the applicable CFIA Area Office. A CFIA inspector will authorize the printing of the labels and indicate the serial numbers to be used for the label print.

The grower must also exercise strict control over the use of Movement Certification Labels. Records must be kept of serial numbers of labels in stock and of labels used for shipments. **Under no circumstances should labels which have not yet been affixed to an invoice be given to anyone other than a person authorized by and employed by the approved grower.** Failure to comply with this requirement will result in an immediate suspension from the BCP.

The grower must ensure that a Movement Certification Label is affixed to the invoice that is provided to the shipper. The shipper must ensure that all blueberries in the shipment originate from approved growers and that a Movement Certification Label is affixed to the shipping document provided by each grower.

For a "Pick-Your-Own" establishment, the label must be affixed to an invoice or bill that indicates the name and address of the establishment, date of sale and the number of containers sold. The operators of "Pick-Your-Own" establishments should ensure that customers are aware that they may need to present the invoice to Customs officials and/or CFIA inspectors. Customers who buy 12 kg or less of fresh blueberries in Canada from a "Pick-Your-Own" establishment do not need a

Movement Certification Label, although the blueberries must meet all the other requirements of the program.

### 1.5 Training

Before the beginning of the growing season and prior to approval, first time participants' growers shall undertake training under the authority of the National Plant Protection Organization on the components of the certification program including: blueberry maggot biology and identification, field monitoring, cultural and chemical control measures, sampling, testing and product grading.

### 1.6 Pest Management Measures

The measures listed below must be taken by the grower in order to ensure that there are no blueberry maggots in blueberries shipped from their premises.

A grower may designate a qualified person (trained employee or scout) to carry out functions as outlined in the program.

For the control of the blueberry maggot in a monitored production area, the grower will have the option to select between an IPM control program, which includes the placement of traps and the application of pesticides as required, or a calendar spray, which includes the application of a registered pesticide treatment as recommended by the National Plant Protection Organization or its designee. These schemes are covered separately under 1.7 and 1.8. All other pest management measures as outlined in this section must be followed by growers participating in the BCP.

### 1.7 Monitoring of the Production Area

Monitoring must be done either by the grower, as per the IPM scheme, or by the National Plant Protection Organization, as per the calendar spray scheme, as explained below. The unit for monitoring is the "Monitored production area". See Appendix 9 for a list of highbush blueberry maturity groups.

#### 1.7.1 Integrated Pest Management - trapping

Pherocon AM traps (or equivalent blueberry maggot traps), baited with ammonium acetate or other suitable bait, must be placed by the grower (or a qualified employee or scout) in each monitored production area or its vicinity. The traps must be placed at least two weeks prior to the earliest expected emergence of the fly. A recommendation of the trapping density is made by the National Plant Protection Organization or its designee, in conjunction with provincial and state specialists, but a minimum of three traps per monitored production area is required.

## Recommended trapping density for IPM scheme

Monitored Production Area		Number of traps
Acres	Hectares	
5 or less	2 or less	3
6-15	3-6	4
16-40	7-16	5
41-70	17-28	7
71-100	29-40	9
over 100	over 40	9 + 1 trap for every additional 15 acres (6 hectares) over 100 acres/40 hectares in a Monitored Production Area

At least some of the insect traps must be placed near the perimeter of the fields, preferably in weedy sites or sites sheltered from the prevailing winds. For lowbush/wild blueberry or other small plants, the traps must be suspended approximately 10 to 15 cm (4 to 6 inches) above the plants. For highbush blueberry or other large plants, the insect traps must be suspended in the upper part of the plant, approximately 1.5 to 2.0 metres (4 to 6 feet) above the ground. The traps must be made visible by removing twigs and foliage in the vicinity of the trap. The traps must be placed in a “V” shape (approximately 45 degree angle), with the apex and yellow sticky surface facing the ground.

The traps must be monitored at least twice a week until all the fruit has been harvested. The grower or scout must check for blueberry maggot flies by examining the wing patterns of the trapped insects. If any blueberry maggot flies are found, the grower must immediately commence chemical treatment, as prescribed under 1.8.1. If the grower is unsure of the identity of the trapped insects, the entire trap must be submitted to the National Plant Protection Organization or its designee for identification. The grower must not attempt to remove the suspect fly from the trap. If the fly cannot be identified before the time by which a first spray application would be required for a positive find, the grower must consider the fly as a positive find and spray within the required time limit.

The grower must replace traps as required, throughout the growing season (approximately every two weeks), as traps become damaged, filled with insects and debris, the bait loses its efficacy, or as traps are removed for identification of suspect flies.

### 1.7.2 Calendar Spray - timing

The National Plant Protection Organization or its designee will ensure timely dissemination of information on the first detection of blueberry maggot flies in Pherocon AM traps in all monitored areas, by notice or via newsletter accessible by fax, Internet or regular postal service mail.

Upon notification by the National Plant Protection Organization or its designee of the trapping of the maggot in the vicinity of the Monitored production area, the grower must commence chemical treatment as prescribed in 1.8.2.

## 1.8 Chemical Controls

### 1.8.1 Integrated Pest Management

When a blueberry maggot fly is found in a trap within a Monitored production area, the grower will be required to spray all the blueberry plants in the Monitored production area.

The plants must be sprayed within five days of finding the first fly in abandoned or wild areas in the vicinity of the Monitored production area, or within five days of finding the first fly within the Monitored production area. A second spraying must be carried out seven to ten days after the application of the first spray. Subsequent sprays must be applied within five days if another blueberry maggot fly is trapped within a Monitored production area until shipping ceases. Insecticides approved for use on blueberries against blueberry maggot must be used at the rates, dosages and intervals specified on the pesticide label and according to provincial or state recommendations.

### 1.8.2 Calendar Spray

The first insecticide application must be made within five days of the first detection of blueberry maggot, as determined by the National Plant Protection Organization or its designee, and subsequent sprays continued at seven-to-ten day intervals until the end of harvest.

## 1.9 Cultural Controls

Growers must use all cultural measures for blueberry maggot, such as weed suppression practices, proper disposal of culled blueberries, and other measures as recommended by the National Plant Protection Organization or its designee, in conjunction with provincial or state specialists.

### 1.10 Grading

All harvested fruits, except those picked by individuals in “Pick-Your-Own” establishments, must be graded to meet the requirements of this program. Fruits are graded either mechanically or by hand, to remove the soft, shrivelled and decayed berries which may be an indication of the presence of larvae, as well as soil and debris which tend to harbour the maggot. The grower must also ensure that fruit of *Vaccinium angustifolium*, *V. corymbosum*, *V. myrtilloides* and *V. oxycoccus* meet US No. 1 or Canada No. 1 grade criteria, as required under the *Canadian Fresh Fruit and Vegetable Regulations*. However, a Grade Certificate is not required.

### 1.11 Fruit Sampling and Testing

Before grading, the National Plant Protection Organization or its designee will verify that the harvested blueberries are free from blueberry maggot by taking samples as specified below:

A minimum of one 2-litre sample of blueberries must be randomly taken for each harvest from each Monitored production area. If the Monitored production area being sampled is more than 20 hectares in total, one additional 2-litre sample must be taken. Each sampling of fruit from a Monitored production area will be valid for fruit harvested during a subsequent three-day period. Samples must be taken within 24 hours prior to harvesting.

The National Plant Protection Organization or its designee will subject the samples to a hot water or brown sugar test (see Appendix 10, Part 2). When using the brown sugar test, extreme care must be taken to follow the instructions precisely in order to obtain accurate results.

If more than one maggot is found in any one 2-litre sample in the Monitored production area, the fruit harvested that day may not be shipped to the fresh market in a non-regulated area. The fruit may, however, be sent to a processing plant in a non-regulated area, provided that the plant is approved by the National Plant Protection Organization to receive shipments, as specified in this directive (see Appendix 6). These fruits may also be fumigated (see Appendix 5) or frozen for 40 days prior to sale.

If only one maggot is found in a 2-litre sample, the fruit may be graded, either mechanically or by hand picking and sorting, resampled and retested. If, upon retesting, no blueberry maggot is found, the blueberries may be shipped to the fresh market in a non-regulated area. If the blueberries cannot be graded, as would be the case in “Pick-Your-Own” establishments, the blueberries from that harvest for that Monitored production area may not be sold on the fresh market.

**NOTE:** In the case of producers that are on the program for more than one shipping season and if plant health inspectors are fully satisfied with producers' compliance / performances under the BCP, producers may be authorized to carry out interim sampling and testing of their own produce, provided that plant health inspectors conduct inspection visits at producer premises at least every two weeks during the growing season, including audit samples and testing and producers' immediately notify the local inspectors of any pest find.

## 1.12. Record Keeping

### 1.12.1 Growers

The grower shall keep records of the following and provide all records upon request by an inspector authorized by the National Plant Protection Organization:

- 1.12.1.1 Under the IPM scheme: where traps are placed; who performed the placement; when and who conducts monitoring; pests collected; who performed the identification.
- 1.12.1.2 Under the Calendar Spray scheme: copy of notification received by the National Plant Protection Organization or its designee.
- 1.12.1.3 Pesticide applications: including the name of the pesticide(s) used; method of pesticide application (e.g. type of sprayer used); date(s) of the pesticide application(s); rate of pesticide application(s); a map illustrating areas that have been sprayed.
- 1.12.1.4 Cultural measures used for blueberry maggot control, including weed suppression practices, disposal of culled blueberries and other control measures recommended by a plant protection inspector in conjunction with provincial/state specialists.
- 1.12.1.5 If authorized by NPPO, when and who performs fruit sampling and testing; records as to pests detected, sample size, etc.
- 1.12.1.6 Serial numbers of Movement Certification Labels in stock and those used for shipment.
- 1.12.1.7 All unused Movement Certification Labels must be kept.

1.12.1.8 Information relevant to each certification label's unique serial number that will permit traceback to the particular Monitored production area from which the blueberries were harvested, and the harvest dates.

1.12.1.9 Shipping records including, for "Pick-Your-Own" establishments, records of sales to each customer.

#### 1.12.2 Shippers

The shipper must ensure that all blueberries in the shipment originate from approved growers and that the invoice provided by each grower has a Movement Certification Label affixed, which must show the grower identification number, a serial number that relates to the Monitored production area and the date harvested.

1.12.2.1 Approved growers' invoices with Movement Certification Labels affixed.

1.12.2.2 Shipping records.

1.12.2.3 Any other relevant document required to permit traceback to the Monitored production area.

1.12.3 The National Plant Protection Organization will keep all necessary records to allow audits.

#### 1.13 Inspection Requirements

1.13.1 National Plant Protection Organization Audit Inspection Procedures

##### 1.13.1.1 At origin

The program will be monitored to ensure compliance with this policy every two weeks throughout the season by an inspector authorized by the National Plant Protection Organization. This will include (but is not limited to) verification of the grower's control program, collection and testing of blueberry fruit for larvae, monitoring of the disposal of culls, documentation controls and review of trapping program. For fruit sampling and testing, the inspector should take a representative sample using the schedule and tests for blueberry maggot given in Appendix 10.

The National Plant Protection Organization or its designee may audit any facet of the BCP, including on-site visits to U.S. or Canada approved growers, to monitor compliance with the program.

## 2) FUMIGATION

The blueberries must be fumigated according to the requirements listed in Appendix 5, and accompanied either by a Phytosanitary Certificate (for importation into Canada) or by a Movement Certificate (for movement within Canada), issued under the authority of the National Plant Protection Organization. A report on a quarantine application of methyl bromide must be sent to Ottawa if the fumigation is performed in Canada. Refer to Technical Reference R-005, *Implementation policy for the quarantine and pre-shipment treatment applications of the fumigant methyl bromide in Canada*, for the procedure for preparing and submitting this report.

Full details of the treatment used, as per the attached schedule in Appendix 5, must be stated on the Phytosanitary Certificate (for importation into Canada) or Movement Certificate (for movement within Canada).

In addition to plant health requirements, fresh fruit is subject to grade requirements. Pursuant to the Canadian Fresh Fruit and Vegetable Regulations, fresh fruit of *Vaccinium angustifolium*, *V. corymbosum*, *V. myrtilloides* and *V. oxycoccus* must be U.S. or Canada No. 1 grade. Contact the CFIA for more details.

## 3) PROCESSING PLANT

Blueberries from a regulated area may be shipped to a processing plant in a non-regulated area which meets the conditions as outlined in Appendix 6.

Shippers must verify prior to shipment that the processing plant is authorized by the CFIA to receive blueberries for processing. The plant must meet specified conditions and procedures for handling blueberries (see Appendix 6). This authorization must be renewed each year, between the processing plant and the CFIA. Prior to approval, the processing plant must be inspected by the CFIA. The plant will be subject to audit inspection throughout the season. A valid Permit to Import, issued by the CFIA, is required by processing plants to receive shipments of blueberries from regulated areas of the US. A Movement Certificate issued by the CFIA must accompany shipments originating in regulated areas of Canada. For the purposes of the *Plant Protection Act* and *Regulations*, approved processors in Canada must have facilities which are considered as designated areas for the purpose of handling blueberry fruit and blueberry containers from blueberry maggot regulated areas.

Although grading is not required for plant health purposes, US No. 1 or Canada No. 1 grade is required under the *Canadian Fresh Fruit and Vegetable Regulations* for fruit of *Vaccinium angustifolium*, *V. corymbosum*, *V. myrtilloides* and *V. oxycoccus*.

#### 2.2.1.2 Rooted Plants

##### 1. CONDITIONS

The shipment must meet one of the following sets of conditions:

The blueberry plants were grown in a greenhouse (i.e. indoors) in a growing medium which was sterilized before use or which was not previously used for blueberry production. The plants were rendered free of flowers and kept isolated from possible infestation (not hardened off outdoors or in a shadehouse).

OR

The blueberry plants were washed completely free of soil and plant debris when harvested, to ensure freedom from the blueberry maggot.

OR

The plants were prevented from flowering. They were also grown in a soil or a growing medium in which an insecticide, recognized as effective against blueberry maggot, was incorporated at the appropriate time of the growing season. The insecticide, to prevent the larvae from pupating, must be approved and registered for this purpose. The plants were then shaken when harvested so as to remove the soil.

##### 2. DOCUMENTATION REQUIREMENTS

For imported shipments, the importer must first obtain a **Permit to Import** issued under the *Plant Protection Regulations*. A federal **Phytosanitary Certificate**, issued by or under the authority of USDA/APHIS, is also required. This certificate must contain the following additional declaration:

*The material was produced and prepared for export in accordance with Canadian phytosanitary requirements to eliminate blueberry maggot (*Rhagoletis mendax*).*

For domestic shipments, a **Movement Certificate** issued by an inspector authorized under the *Plant Protection Regulations* must accompany the plants.

This certificate must specify that the Canadian phytosanitary requirements have been met.

#### 2.2.1.3 Used Containers

##### 1. CONDITIONS

The shipment must meet one of the following sets of conditions:

The containers were washed and then immersed in a hot water bath (85° C) for at least two minutes (see Appendix 11).

OR

The containers were washed and then frozen for at least 40 consecutive days at a temperature of 0°C or lower (see Appendix 11).

OR

The containers were washed and fumigated in accordance with the treatment scheme applicable to the fruits (see Appendix 5).

The treatment of the containers by any other method must first be officially approved by a CFIA inspector.

##### 2. DOCUMENTATION REQUIREMENTS

For imported shipments, a **Treatment Certificate of Quality and Control (FV146, FV147)** issued by or under the authority of the USDA/APHIS must accompany the shipment (see appendix 12). This certificate must indicate which one of the above-mentioned methods was used.

For domestic shipments, the shipper must first obtain a **Movement Certificate** issued by a CFIA inspector. This certificate must indicate which method was used, the license plate number of the truck as well as the number of containers.

#### 2.2.1.4 Used Farm Machinery and Equipment

##### 1. CONDITIONS

The equipment must have been washed completely free of soil, sand, fruits and plant debris that may harbour one of the stages of the blueberry maggot. Washing with water under pressure constitutes an acceptable method.

## 2. DOCUMENTATION REQUIREMENTS

For imported shipments, a certificate (form FV146, FV147, etc., see Appendix 12) issued by or under the authority of the USDA/APHIS must confirm that the shipment has been washed completely free of soil, fruits and plant debris.

For domestic shipments, the shipper must first obtain a Movement Certificate issued by a CFIA inspector.

### 2.2.1.5 Transportation Vehicles

The interior of any vehicle used to transport fruits, containers or rooted plants belonging to listed host species and which carries empty used containers into a blueberry production area in the non-regulated area, must be washed at origin in such a way as to completely eliminate soil, fruits and plant debris. For domestic shipments, CFIA inspectors shall seal at the place of origin any vehicle transporting used containers and shall unseal them at the destination.

### 2.2.1.6 Soil

Requirements relating to the movement and treatment of soil adhering to regulated plants, containers, machinery, equipment and vehicles are described in Sections 2.2.1.2 to 2.2.1.5. The transportation of soil alone or soil contaminated containers, machinery, equipment and vehicles is prohibited unless a Movement Certificate for domestic movement authorizes the movement. Importations of soil and related matter from regulated areas may only occur when a Permit to Import is issued under Section 43 of the *Plant Protection Regulations* by the Chief Plant Health Officer, if for the purpose of being used for scientific research, educational, processing, industrial or exhibition purposes. In order for the authorization of an application to be considered, certain conditions, including those set out below, must be met:

- the soil is sourced from an area free from the regulated pest(s) on the basis of official surveys; or
- the soil has been treated by a method approved by a CFIA inspector to render the material free from viable forms of the pest; or
- the soil will be subject to a process or treatment that will render the material free from viable forms of the pest; and
- untreated soil from infested areas must be transported in a manner to prevent the spread of the pest and authorized to move under special authorization given by CFIA authorities in Ottawa.

The appropriate condition must be stated on the Movement Certificate.

See Directive D-95-26 for the requirements for other pests.

2.2.2 From Regulated Areas of the U.S. Intended for Shipment to Regulated Areas of Canada  
OR From Pest Free Areas of the U.S. Intended for Shipment to All Regions of Canada

2.2.2.1 Fresh Fruit

No requirement concerning blueberry maggot. The place of origin of blueberries shipped between non-regulated areas must be clearly indicated on the shipping documents.

2.2.2.2 Rooted Plants

No requirement concerning blueberry maggot. The importer must first obtain a **Permit to Import** issued under the *Plant Protection Regulations*.

A **Phytosanitary Certificate** issued by or under the authority of USDA/APHIS is also required. No additional declaration concerning blueberry maggot is necessary.

**NOTE:** Requirements for other pests, e.g. Sudden Oak Death may apply.

2.2.2.3 Used Containers and Used Farm Machinery and Equipment

No restriction concerning blueberry maggot. The place of origin of these items which are shipped between non-regulated areas must be clearly indicated on the shipping documents.

2.2.2.4 Transportation Vehicles

No restriction concerning blueberry maggot.

2.2.2.5 Soil

No requirement concerning blueberry maggot. See Directive D-95-26 for the requirements concerning other pests.

2.2.3 From Regulated Areas of Canada Intended for Shipment to Regulated Areas of Canada  
OR From Pest Free Areas of Canada Intended for Shipment to All Other Regions of Canada

No restriction concerning blueberry maggot. For soil, see Directive D-95-26 for the requirements concerning other pests.

## **2.3 Inspection procedures at destination or at first point of entry for shipments from regulated areas to pest free areas**

The following procedure must be adhered to at the time of inspection:

### **2.3.1 Fresh Fruit**

Shipments covered by Movement Certification Labels are subjected to an audit inspection by sampling and testing on arrival at the recipient's warehouse or at the distribution centre, in order to determine whether blueberry maggot is present. For domestic shipments, the recipient must advise the CFIA local office immediately upon arrival of a shipment.

The inspectors must verify whether the documents meet the requirements set out in this directive and whether the grower is approved under the BCP; they must also record the number of Movement Certification Labels as well as the name of the grower and the number shown on the labels of the sampled containers.

When a shipment is selected for audit inspection purposes, the inspector must examine the shipment to verify that it is free of quarantine pests, soil, sand, leaves and plant debris, and take a representative sample using the schedule and tests for blueberry maggot given in Appendix 10.

For shipments that have been fumigated, testing may be carried out by CFIA to verify the efficacy of the treatment and ensure no live maggots are present.

For shipments that are destined to a processing plant, inspectors must verify that documentation is correct and that the shipment is destined to an approved processing plant.

### **2.3.2 Rooted Plants**

For certification based on removal of soil by washing, inspect the plants to confirm that no soil is adhering to the roots. This soil must be removed because it may harbour overwintering blueberry maggot pupae.

For plants that were grown in soil treated with an insecticide, ensure that the roots are shaken when harvested so as to remove the soil and that the insecticide used is indeed recognized as effective against blueberry maggot. Also inspect the base of the plants in order to ensure that no pupae are attached.

### 2.3.3 Used Containers

Examine the used containers for the presence of whole or crushed blueberries that may harbour one of the stages of the blueberry maggot and verify compliance with documentation requirements.

### 2.3.4 Used Farm Machinery and Equipment

Machinery and equipment must be free of soil, fruits and plant debris. During inspection, pay particular attention to the surfaces that are difficult to reach with washing equipment.

Whenever possible, imported equipment must be inspected at the first point of entry into Canada. If the inspection cannot be performed there, the shipment should be released for the purposes of inspection and/or treatment at an approved site located within Canada that has facilities considered adequate and safe. The equipment cannot be allowed to proceed to a site within Canada if the pest is likely to escape during transport.

### 2.3.5 Transportation Vehicles

Verify the internal cleanliness of the vehicles. For domestic shipments, the CFIA inspectors must seal at the place of origin any vehicle transporting used containers. At the destination, a CFIA inspector must unseal the truck.

### 2.3.6 Soil

Verify that the conditions required by the Permit to Import or the Movement Certificate issued have been fully met.

### 2.3.7 Processing plants - auditing

Processing plants, which after their initial approval, are audited and are found not in compliance with the required conditions, will have their approval revoked until the conditions and procedures are rectified to the satisfaction of the CFIA inspector. While approval is revoked, the plant is not permitted to receive shipments from regulated areas.

## 2.4 Non-Compliance

### 2.4.1 Fresh Fruit

#### 2.4.1.1 BLUEBERRY CERTIFICATION PROGRAM

##### Imported Shipments

Imported shipments inspected on an audit basis and found to be infested with pests will be detained pending laboratory identification and notification to the importer. Shipments may be refused entry and returned to origin or disposed of if they do not meet requirements or if they are found to be infested with blueberry maggot or any other quarantine pests. If determined feasible by the inspector, such shipments may be rerouted to other destinations, or diverted to approved processing facilities, or fumigated, or frozen for 40 days, provided such a course of action does not cause unwarranted pest risk.

If during audit sampling by the CFIA, a sample is found to be infested with a blueberry maggot larva, the USDA must be notified and the Monitored production area from which the blueberries were harvested will be rejected by the USDA for the remainder of the season. The identified specimen and associated lot identity will be kept on file by the CFIA for no longer than one production season and will be shared with the APHIS of the USDA if requested.

The person in possession, care or control is responsible for any and all costs relating to disposal, removal, re-routing or diversion to processing facilities, including costs incurred by the CFIA to monitor the action taken.

##### Domestic Shipments

For domestic shipments, if any of the conditions in this document have not been complied with or there has been a contravention of the *Plant Protection Act* or *Regulations*, a Movement Certification Label may not be used, and if any have been issued, they must be returned.

If during audit sampling by the CFIA, a sample is found to be infested with a blueberry maggot larva, the Monitored production area from which the blueberries were harvested will be rejected by the CFIA for the remainder of the season. Blueberries may still be fumigated or shipped to approved processing facilities.

The person in possession, care or control is responsible for any and all costs relating to disposal, removal, rerouting or diversion to processing facilities, including costs incurred by the CFIA to monitor the action taken.

#### 2.4.1.2 FUMIGATION

Imported fruit shipments for which the fumigation details on the Phytosanitary Certificate are missing or incorrect may be refused entry. The shipments may, however, be allowed to proceed to an approved processing plant. For domestic shipments, CFIA officials will verify that fumigation has been properly carried out.

#### 2.4.1.3 PROCESSING PLANT

Processing plants found to not be complying with the required conditions, will have their approval revoked until the conditions and procedures are rectified to the satisfaction of the CFIA inspector. While approval is revoked, the plant is not permitted to receive shipments from regulated areas.

#### 2.4.2 Other Commodities

Shipments that do not meet the requirements or are infested by quarantine pests may be refused entry into Canada or into the pest free area, returned to the country of origin or destroyed at the importer's expense. Used containers may, however, be allowed to proceed to an approved processing plant. The importer is responsible for any and all costs relating to treatment, destruction or removal including those incurred by the CFIA to supervise these activities.

### 3.0 List of Appendices

- Appendix 1: Blueberry Maggot Regulated Areas
- Appendix 2: Summary of Provincial Maggot Control Regulations in British Columbia (B.C. Reg. 280/90)
- Appendix 3: Summary of Newfoundland Berry Regulations, 1996
- Appendix 4: Samples of Movement Certification Labels
- Appendix 5: Fumigation of Containers and Blueberries
- Appendix 6: Application by Processing Plants for Approval
- Appendix 7: Application for Approval under Blueberry Certification Program (Canadian Growers)
- Appendix 8: Application Form to Order Movement Certification Labels
- Appendix 9: Highbush Blueberry Maturity Groups
- Appendix 10: Testing of Blueberries for Blueberry Maggot
- Appendix 11: Treatment of Used Containers
- Appendix 12: USDA Certificate of Quality and Condition

APPENDIX 1

**BLUEBERRY MAGGOT REGULATED AREAS - UNITED STATES**

Alabama  
Connecticut  
Delaware  
District of Columbia  
Florida  
Georgia  
Illinois  
Indiana  
Kentucky  
Maine  
Maryland  
Massachusetts  
Michigan  
Missouri  
New Hampshire  
New Jersey  
New York  
North Carolina  
Ohio  
Pennsylvania  
Rhode Island  
South Carolina  
Tennessee  
Vermont  
Virginia  
West Virginia

**APPENDIX 1 (cont'd)**

**BLUEBERRY MAGGOT REGULATED AREAS - CANADA**

<http://www.inspection.gc.ca/english/plaveg/protect/dir/blueberrye.shtml>

## APPENDIX 2

**SUMMARY OF PROVINCIAL BLUEBERRY MAGGOT CONTROL REGULATIONS  
IN BRITISH COLUMBIA (B.C. Reg. 280/90)**

The following summarizes the British Columbia provincial regulations (in effect at the date of writing of this directive) as applied to blueberry maggot. This summary has been prepared for reference only and has no legal force or effect.

## Section 2

“To prevent the spread within the province of blueberry maggot, the province is declared to be a quarantine area.”

## Section 3

“No person shall move fresh blueberries into the quarantine area from an infested area unless:

a) the blueberries have been fumigated with methyl bromide at atmospheric pressure in accordance with one of the following:

- i. 32 g/m<sup>3</sup> for 2 hours at 27.7°C or above;
- ii. 32 g/m<sup>3</sup> for 2.5 hours at 22.2°C to 27.2°C;
- iii. 32 g/m<sup>3</sup> for 3 hours at 16.6°C to 21.6°C;
- iv. 32 g/m<sup>3</sup> for 3.5 hours at 10°C to 16.1°C;

b) the residues of methyl bromide on the blueberries do not exceed the maximum residue limit established under the *Food and Drugs Act* (Canada); and

c) the blueberries are accompanied by:

- i. proof satisfactory to an inspector of compliance with the requirements in paragraph a) and b); and
- ii. a certificate stating the name and address of the grower.

## Section 4

“No person shall sell or offer for sale within the quarantine area any fresh blueberries that have been moved into the quarantine area from an infested area, except if that person possesses, for those blueberries, a copy of both the proof and the certificate referred to in section 3 c).”

N.B.: “Infested area” is defined in the B.C. Reg. 280/90 as “any place listed in the Schedule or any other place where blueberry maggot is known to be established”.

## APPENDIX 3

**SUMMARY OF NEWFOUNDLAND BERRY REGULATIONS, 1996,  
(NEWFOUNDLAND REGULATION 1195/96)**

The following summarizes the Newfoundland provincial regulations (in effect at the date of writing of this directive) as applied to blueberry maggot. This summary has been prepared for reference only and has no legal force or effect.

## Section 11:

“(1) A person shall not

- (a) bring or cause to be brought into the province;
- (b) transport or cause to be transported from place to place within the province; or
- (c) have, sell or offer for sale, exchange or otherwise market or dispose of for any use;

any berries originating in an infested area unless it can be shown to the satisfaction of an inspector that those berries have been treated in a way that eradicates the blueberry maggot or its reproductive capabilities.

(2) The minister may, by order, specify the type of treatment required to eradicate the blueberry maggot or its reproductive capabilities for blueberries from an infested area.

N.B.: In the Schedule, Nova Scotia, New Brunswick, Prince Edward Island and Ontario are listed as infested areas in Canada where blueberry maggot is known to occur.

APPENDIX 4

SAMPLES OF MOVEMENT CERTIFICATION LABELS

	<p><b>Government of Canada</b></p> <p><b>Canadian Food Inspection Agency</b></p>	<p><b>Gouvernement du Canada</b></p> <p><b>Agence canadienne d'inspection des aliments</b></p>	<p>Serial No. / N° de série</p>
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**Blueberry Fruits in Canada  
Bleuets produits au Canada**

N°


"This shipment of fresh blueberry meets the requirements of the Canada/United States Blueberry Certification Program." Issued by the Canadian Food Inspection Agency.

"Ce chargement de bleuets frais rencontre les exigences du programme canadien et américain de certification des bleuets." Émis par l'Agence canadienne d'inspection des aliments.

CFIA / ACIA 5102 (98/06)

**Canada**

**United States Department of Agriculture**  
Animal and Plant Health Inspection Service



**Serial No.**

This shipment of fresh blueberries meets the requirements of the Canada/United States Blueberry Certification Program.

**NJ -**

## APPENDIX 5

**FUMIGATION OF CONTAINERS AND BLUEBERRIES****Treatment schedule for blueberry maggot larvae**

Methyl bromide at Normal Atmospheric Pressure		
Temperature of the fruit	Dosage	Duration
27.7°C (82°F) or above	32 g/m <sup>3</sup> (= 2 lb/1,000 ft <sup>3</sup> )	2 hours
22.2°C - 27.2°C (72°F - 81°F)	32 g/m <sup>3</sup>	2.5 hours
16.6°C - 21.6°C (62°F - 71°F)	32 g/m <sup>3</sup>	3 hours
10°C - 16.1°C	32 g/m <sup>3</sup>	3.5 hours

**Responsibility of the fumigation establishment and the fumigator**

The establishment or fumigator which uses fumigation with methyl bromide as a treatment method against blueberry maggot must draft a protocol as well as all the accompanying documents in order to proceed. The protocol will detail the process that the company or fumigator agrees to follow in order to ensure a complete and effective follow-up of the operations based on the procedure outlined below. The establishment or fumigator must, at all times, ensure the integrity of the containers or blueberries fumigated and maintain their integrity from the beginning of fumigation until their shipment. In addition, the establishment or fumigator agrees to keep records, and all documents must be kept until October 30 of the year, for purposes of audit by the CFIA. These records must contain all the information (date, quantity of containers, registration number of the trailer, etc.) which will allow the CFIA to certify the fumigation. In addition, the establishment or fumigator agrees to inform the CFIA, 24 hours in advance, of the date and time of fumigation in order to allow the inspector to plan the supervision of the fumigation process.

Therefore, in order to ensure that the treatments are effective and safe, fumigators must comply with the following procedure as well as with the requirements on the methyl bromide label.

**FUMIGATION PROCEDURE**

1. All empty containers intended for fumigation must be washed with water and be free of residues prior to treatment. (For other treatment options for used containers see Appendix 11.)
2. Verify the condition of the trailer or tarpaulin before beginning fumigation of the containers or blueberries in order to ensure that it is gas-tight.

3. During placement of the containers in the trailer or under the tarpaulin, care must be taken that the space is sufficient to ensure proper circulation as well as penetration of the gas in the containers. Among other things, it is suggested that a ventilation system be installed in order to facilitate the distribution of the gas.
4. When the containers are placed in the trailer or under the tarpaulin, vials of living control insects must also be placed, and distributed uniformly in the load, at several levels (the blueberry maggot "*Rhagoletis mendax*" will be used if available, otherwise a similar species will be used as a control).
5. After closing the trailer or tarpaulin, inject the gas according to the concentration indicated in the attached treatment schedule.
6. Measure the gas concentrations at the beginning and at the end of fumigation. It will be necessary to ensure that the concentration required in the treatment schedule is maintained at an acceptable level until the trailer or tarpaulin is opened. Otherwise, the fumigator must start the treatment over again.
7. Take a sample of the concentrations during aeration until a maximum concentration of 3 ppm of methyl bromide in the air is obtained.
8. Produce a fumigation report including the following information:
  - ▶ type of structure
  - ▶ total volume of space to be fumigated
  - ▶ quantity of containers or blueberries to be fumigated
  - ▶ outside and inside temperature and weather conditions
  - ▶ temperature before beginning the treatment and temperature at the end
  - ▶ date and location of fumigation
  - ▶ quantity of gas used
  - ▶ stage of development and mortality rate of the control insects
  - ▶ gas exposure time and aeration time
9. Produce a of fumigation certificate and a gas free certificate.

APPENDIX 6

APPLICATION BY PROCESSING PLANT FOR APPROVAL

Processing Plant: \_\_\_\_\_  
\_\_\_\_\_

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

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

CONDITIONS FOR PROCESSING PLANTS LOCATED IN PEST FREE AREAS RECEIVING SHIPMENTS OF BLUEBERRIES FROM BLUEBERRY MAGGOT REGULATED AREAS:

1) All shipments from blueberry maggot regulated areas must be off loaded in a contained, indoor receiving area for trucks and containers.

2) All trucks and empty containers must be cleaned as follows in a washing area:

- empty containers must be washed and  
treated in a hot water bath for a minimum of 2 minutes at 85°C OR  
frozen for at least 40 consecutive days at a temperature of 0°C OR  
Fumigated as outlined in Appendix 5
- truck interiors must be cleaned with water under pressure, steam under pressure or the following method approved in advance by an inspector:

\_\_\_\_\_

3) All debris and waste must be collected by:

- filtration of recirculated water AND
- flotation of debris and waste from wash water AND
- decantation of debris and waste from wash water OR
- the following method approved in advance by an inspector:

\_\_\_\_\_  
\_\_\_\_\_

4) All debris and waste must be treated by:

- incineration OR
- cold treatment at 0°C for 40 days OR
- underground burial OR
- the following method approved in advance by an inspector:

\_\_\_\_\_  
\_\_\_\_\_

5) The plant agrees to retain the Movement Certificates as well as the documents concerning the treatment and any other relevant documents until October 30 of the current year.

6) The plant must be inspected to the satisfaction of a CFIA inspector before a Permit to Import or a Movement

Certificate will be issued. An application needs to be submitted each year.

I hereby certify that I have read and fully understood all the conditions and requirements for receiving blueberries for processing, as set out in CFIA Directive D-02-04, and will fully comply with all the specified conditions and requirements.

Further, I am and shall be responsible for and shall indemnify and save harmless Her Majesty the Queen in Right of Canada, including the Canadian Food Inspection Agency, Her Officers, Servants, Employees, Successors and Assigns, from and against all manners of actions, causes of action, claims, demands, loss, costs, damages, actions or other proceedings by whomsoever made, sustained, brought or prosecuted in any manner based upon, caused by, arising out of, attributable to or with respect to any failure, inadvertent or otherwise, by act or omission, to fully comply with the said conditions and requirements.

Dated \_\_\_\_\_ at \_\_\_\_\_, Province of \_\_\_\_\_

\_\_\_\_\_  
Applicant's Signature

Approved for Receipt of Blueberries for Processing:

\_\_\_\_\_  
CFIA Inspector

\_\_\_\_\_  
Date

APPENDIX 7

APPLICATION FOR APPROVAL UNDER THE BLUEBERRY CERTIFICATION PROGRAM  
(CANADIAN GROWERS)

Grower Name: \_\_\_\_\_  
\_\_\_\_\_

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

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

Location of each monitored production area \_\_\_\_\_

I hereby certify that I have read and fully understood all the conditions and requirements for production and shipment of blueberries under the Blueberry Certification Program, as set out in CFIA Directive D-02-04 and will fully comply with all the specified conditions and requirements.

I shall keep all records required under CFIA Directive D-02-04, including shippers used, and shall produce them upon request by a CFIA inspector.

Further, I am and shall be responsible for and shall indemnify and save harmless Her Majesty the Queen in Right of Canada, including the Canadian Food Inspection Agency, Her Officers, Servants, Employees, Successors and Assigns, from and against all manners of actions, causes of action, claims, demands, loss, costs, damages, actions or other proceedings by whomsoever made, sustained, brought or prosecuted in any manner based upon, caused by, arising out of, attributable to or with respect to any failure, inadvertent or otherwise, by act or omission, to fully comply with the said conditions and requirements.

Additional information to be completed by growers:

I will produce blueberries under the \_\_\_\_\_ (IPM/Calendar Spray Production Scheme).

Shippers I will likely use:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dated \_\_\_\_\_ at \_\_\_\_\_, Province of \_\_\_\_\_

\_\_\_\_\_

Applicant's Signature

Approved for Participation in the Blueberry Certification Program:

\_\_\_\_\_  
CFIA Inspector

\_\_\_\_\_  
Date

Grower identification number assigned

This form is for use by the Canadian Food Inspection Agency in approving Canadian growers under the Blueberry Certification Program. Separate forms will be used by the appropriate agencies in the United States.

**APPENDIX 8**

**APPLICATION FORM TO ORDER MOVEMENT CERTIFICATION LABELS / FORMULAIRE DE COMMANDE POUR ÉTIQUETTES DE CERTIFICATION DE CIRCULATION**

Note: This form is for use in Canada

**PART I / PARTIE I**

**PERSON ORDERING / PERSONNE PLAÇANT LA COMMANDE:**

NAME/NOM:	
GROWER IDENTIFICATION NUMBER/ NUMÉRO D'IDENTIFICATION DU PRODUCTEUR:	
NUMBER REQUIRED/NOMBRE REQUIS:	
SIGNATURE :	
DATE :	BILLING ADDRESS/FACTURER À:

**FOR GOVERNMENT USE ONLY / POUR USAGE OFFICIEL SEULEMENT**

**PART II / PARTIE II**

**AUTHORIZED BY CANADIAN FOOD INSPECTION AGENCY INSPECTOR / AUTORISÉ PAR UN INSPECTEUR DE L'AGENCE CANADIENNE D'INSPECTION DES ALIMENTS**

<b>SERIAL NUMBERS/NUMÉROS DE SÉRIE</b>	
NAME/NOM:	
SIGNATURE:	
	DATE:

**PART III / PARTIE III**

**REGIONAL OFFICE / BUREAU RÉGIONAL:**

PRINTER (NAME AND ADDRESS)	
IMPRIMEUR (NOM ET ADRESSE):	
PLEASE SEND THE MOVEMENT CERTIFICATION LABELS TO/ VEUILLEZ FAIRE PARVENIR LES ÉTIQUETTES DE CERTIFICATION DE CIRCULATION À :	
SIGNATURE OF AUTHORIZED PERSON/SIGNATURE DE LA PERSONNE AUTORISÉE:	
	DATE:

ORIGINAL >>> REGIONAL OFFICE/BUREAU RÉGIONAL  
 COPY 1/COPIE 1 >>> CANADIAN FOOD INSPECTION AGENCY INSPECTOR / INSPECTEUR DE L'AGENCE CANADIENNE D'INSPECTION DES ALIMENTS

## APPENDIX 9

**Highbush Blueberry Maturity Groups**

**THIS LIST IS PROVIDED TO ASSIST IN THE DETERMINATION OF  
MONITORED PRODUCTION AREAS**

Early-season varieties	Mid-season varieties	Late-season varieties
Bluetta Chanticleer Croatan Earliblue Harrison Morrow Sunrise Weymouth Wolcott	Berkley Bluechip Bluecrop Bluehaven Bluejay Blueray Bounty Concord Collins Darrow Dixi Duke Ivanhoe Meader Murphy Patriot Pemberton Rancocas Rubel Sierra Spartan Stanley Toro	Angola Bluegold Coville Elizabeth Elliott Herbert Jersey Lateblue Nelson

## APPENDIX 10

## TESTING OF FRESH BLUEBERRIES FOR BLUEBERRY MAGGOT

## 1.0 Audit sampling of blueberries by the National Plant Protection Organization:

A number of boxes containing fruit in bulk should be sampled as follows:

<i>Number of primary containers (e.g. pints, quarts, litres)</i>	<i>Sample size/No. of containers (e.g. pints, quarts, litres)</i>
<i>0 - 100</i>	<i>4</i>
<i>100 - 300</i>	<i>6</i>
<i>300 - 500</i>	<i>8</i>
<i>500 and above</i>	<i>10</i>

N.B.: Samples taken should be in the same units as the containers used. For example, if the blueberries are shipped in pint containers, then the samples taken should also be in pints.

## 2.0 Testing of blueberries for blueberry maggot

## 2.1 Water test

- 1) Place 1 litre (2 pints) of blueberries in a pot.
- 2) Nearly cover the blueberries with water.
- 3) Bring berries and water to a frothy boil and boil for at least 1 minute.
- 4) Empty berries into a 4 mesh per inch screen.
- 5) Gently crush berries in screen with the back of a spoon.
- 6) Rinse berries with cold running water and collect water and solids in a pan with a black bottom.
- 7) Allow the debris to settle and decant floating solids and most of the water.
- 8) Repeat rinsing and decanting until water is clear.
- 9) White maggots will be visible against the black bottom of the pan.

## 2.2 Brown sugar test

Sugar concentration = 3.5 kg brown sugar per 20 litres of water.

- 1) Place 1 litre (2 pints) of blueberries in a 4-litre container.
- 2) Gently crush berries in container.
- 3) Add sugar concentrate to 3 cm above crushed berries.
- 4) Agitate crushed berries in sugar solution.
- 5) Allow maggots to float to the surface.

N.B.: When using the brown sugar test, extreme care must be taken to follow the instructions precisely, in order to obtain accurate results.

## APPENDIX 11

**TREATMENT OF USED CONTAINERS**

Used containers can undergo either a hot water treatment, a cold treatment or fumigation as outlined in Appendix 5.

**HOT WATER TREATMENT**

Each container must undergo both 1. and 2. described below. The order in which the actions take place may be determined by the shipper.

1. Wash the container with water under pressure.
2. Immerse the container in a hot water bath in such a manner that all surfaces of the container have been exposed to a temperature of 85°C for at least 2 minutes. Attach a continuously recording thermometer to the hot water bath, so it can be demonstrated by means of a thermograph that the temperature did not drop below the minimum acceptable temperature during the time that the containers were being treated.

An authorized agent must inspect the facilities at the beginning of each shipping season, then regularly during the season, in order to ensure compliance with the conditions. Treated containers must be kept separately from untreated containers. Records including all the relevant information on the treatment (date, number of containers, treatment and other information) must be kept until October 30 of the current year, for purposes of verification by a CFIA inspector.

OR

**COLD TREATMENT**

Each container must undergo both 1. and 2. described below.

1. Wash the container with water under pressure.
2. Freeze the container for a period of at least 40 consecutive days at a maximum temperature of 0°C.

An authorized agent must inspect the facilities at the beginning of each shipping season, then regularly during the season, in order to ensure compliance with the conditions. Treated containers must be kept separately from untreated containers. Records including all the relevant information on the treatment (date, number of containers, treatment and other information) must be kept until October 30 of the current year, for purposes of verification by a CFIA inspector.

These conditions apply to the issuance of a Permit to Import or a Movement Certificate concerning the importation or domestic shipment of containers which have contained fresh fruit of the listed host species originating in a regulated area, when those containers are shipped to a non-regulated area and/or from a processing plant in the regulated area. An agent appointed under the *Plant Protection Act* must meet with the plant manager every year to verify compliance with the conditions. These provisions must be negotiated every year, between the processing plant and the CFIA.

The plant and the handling methods are the subject of periodic inspection intended to ensure compliance with the conditions. Any activity contrary to the spirit of the requirements will result in revocation of the right to receive fresh blueberries from regulated areas.

In order for a processing plant to obtain a Permit to Import or a Movement Certificate enabling it to receive fresh blueberries from regulated areas, it must have adequate washing and handling facilities which include the following.

1. An inside receiving area capable of accommodating all the trucks transporting fruits from infested areas to the plant.
2. A washing area capable of rendering the trucks and containers free of any stage of the blueberry maggot. The trucks must be washed with water under pressure or steam under pressure. The containers must be washed and treated at 85 °C for 2 minutes or frozen for at least 40 days at a maximum temperature of 0 °C. The plant must have a flotation and filter system capable of separating all the debris and waste from the wash water; another method may also be used, subject to prior agreement.
3. All waste and debris must be incinerated properly, buried immediately, or frozen and kept at a maximum temperature of 0 °C for at least 40 days.
4. If the appropriate treatment facilities are not available, the containers must be returned to the place of origin in a truck sealed by a CFIA inspector.

APPENDIX 12

USDA CERTIFICATE OF QUALITY AND CONDITION

09-07-2001 15:16 DE ACIA H 15142831919 P.02

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE		Please refer to this certificate by number and inspection office.
<b>CERTIFICATE OF QUALITY AND CONDITION</b> (PROCESSED FOODS)		
This certificate is receivable in all courts of the United States as prima facie evidence of the truth of the statements therein contained. It does not excuse failure to comply with any applicable Federal or State laws. <b>WARNING: Any person who knowingly falsify, make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both 17 U.S.C. 1622 (N).</b> The conduct of all services and the licensing of all personnel under the regulations governing such services shall be accomplished without discrimination as to race, color, religion, sex, or National Origin.		Y -
APPLICANT		DATE
RECEIVER OR BUYER	ADDRESS	
SOURCE OF SAMPLES	PRODUCT INSPECTED	
CODE MARKS ON CONTAINERS	VARIOUS ITEMS	
Un-coded.		
PRINCIPAL LABEL MARKS		

Condition of Container: Washed




GRADE: RESTRICTED CERTIFICATE Condition of Container only.

REMARKS: This certificate covers 2640 bisectonal plastic field boxes, 47 wooden 4 way pallets, and 150 corrugated cardboard corner irons. The plastic bisectonal field boxes have been washed. The pallets, corner irons and plastic lugs appear free of the Blueberry Fruit Fly (Rhagoletis). The above items are stored at .

Trucking Company:  
Trailer No.:  
License No.:

Pursuant to the regulations issued by the Secretary of Agriculture under the Agricultural Marketing Act of 1946, as amended (7 U.S.C. 1621-1627), governing the inspection and certification of the product designated herein, I certify that the quality and condition of the product as shown by samples inspected on the above date were as shown, subject to any restrictions specified above.

 <p>ADDRESS OF INSPECTION OFFICE</p> <p>165 Lancaster St., Portland, ME 04101</p>	<p>SIGNATURE OF INSPECTOR</p>
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FORM FV-146 (12-81)

ORIGINAL