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**D-00-07**

**(EFFECTIVE DATE)**

**October 15, 2008  
(5<sup>th</sup> Revision)**

**Title:** Import and domestic phytosanitary requirements to prevent the introduction and spread of apple maggot (*Rhagoletis pomonella* spp. (Walsh)).

## SUBJECT

This directive provides the requirements for the entry of hosts of apple maggot into British Columbia from Mexico and the continental United States (U.S.). This directive also incorporates domestic movement requirements in relation to apple maggot. These requirements are in addition to other restrictions such as those for Oriental Fruit Moth (OFM), designated virus diseases of fruit trees, and prohibitions such as soil from Mexico.

*This directive was revised to clarify the transit movement requirements.*

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## Review

This directive will be reviewed every 5 years or unless otherwise required. The next review date for this directive is October 15, 2013. The contact for this directive is Joanne Rousson. For further information or clarification, contact the Canadian Food Inspection Agency (CFIA).

## Endorsement

Approved by:

\_\_\_\_\_  
Chief Plant Health Officer

## Amendment Record

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 Government, Industry (via Regions)
3. National Industry Organizations (determined by Author)
4. Internet

## Introduction

Apple maggot is a serious pest of apples. The maggots tunnel within the fruit and the affected fruit rapidly rots due to infection caused by secondary organisms. The insect also attacks crab apples and the fruit of hawthorns over most of its range. Studies show it can also be found in *Aronia* spp., *Amelanchier* spp., *Cotoneaster* spp., *Rosa* spp., *Pyracantha* spp., common pears, Asian pears, plums and other fruits in the vicinity of its normal hosts. An apple maggot race which attacks cherries occurs in Utah and Wisconsin. Soil in association with, or in the vicinity of the hosts can be a pathway for apple maggot.

The apple maggot was detected in British Columbia (B.C.) during the annual detection survey of 2006. This is the first detection of apple maggot for B.C. The geographic areas in which apple maggot was detected are separated from the main apple-growing areas of B.C. by mountain ranges, therefore apple maggot cannot infest the main areas by natural spread. This directive includes the movement requirements for host fruit, used bins and nursery stock from areas where apple maggot has been detected in B.C. (regulated areas) to other areas of B.C. See Appendix 2 for a map of B.C. identifying the regulated areas.

For biological information, please refer to  
<http://www.inspection.gc.ca/english/sci/surv/data/rhapome.shtml>.

Introduction of the insect into B.C.'s main apple-growing areas could result in reduced marketability of the fruit, possible market losses and increased costs related to control, survey, storage and inspection.

**Note:** Fruit tree propagative plant material including *Malus* spp. and *Prunus* spp. is only admissible into Canada from certain U.S. states. It is not admissible from Mexico. Please refer to D-94-35 for more details.

**Scope** This directive is intended for the use of the CFIA inspection staff, Canada Border Services Agency (CSBA), importers, shippers and brokers in order to outline the necessary requirements and inspection procedures for the entry and movement of host material of apple maggot from Mexico, the continental States of the U.S., and the regulated areas of Canada and B.C. to non-regulated areas of B.C. It is also intended as a guide for producers located in regulated areas.

**References**

- D-94-02, Certification of apples for export for the presence of apple maggot, *Rhagoletis pomonella* (Walsh).
- D-94-35, List of sources approved to export fruit tree and grape propagative material to Canada.
- D-95-26, Phytosanitary requirements for soil & related matter, alone or in association with plants.
- ISPM No. 5: Glossary of Phytosanitary terms: FAO, Rome (2008).

**This directive supercedes D-00-07, 4<sup>th</sup> revision.**

## 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

*Canadian Food Inspection Agency Fees Notice*, Canada Gazette, Part 1 (05/13/2000)

## 1.2 Fees

The CFIA is charging fees in accordance with the *Canadian Food Inspection Agency Fees Notice*. For information regarding fees associated with imported product, please contact the Import Service Centres (ISC) at the following phone numbers: Eastern ISC 1-877-493-0468; Central ISC 1-800-835-4486; Western ISC 1-888-732-6222.

Anyone requiring other information regarding fees may contact any local CFIA office or visit our Fees Notice Web Site :

<http://www.inspection.gc.ca/english/reg/cfiaacia/feesfrais/feesfraise.shtml>.

## 1.3 Regulated pests

The apple maggot, *Rhagoletis pomonella* spp. (Walsh) (Diptera: Tephritidae)

## 1.4 Regulated Commodities

### Plants

Rooted plants of all species, hybrids and horticultural varieties of *Malus* spp., *Crataegus* spp., *Prunus avium* and *P. cerasus* spp.

Note: *Prunus* spp. and *Malus* spp. plant material is additionally regulated or prohibited for other pests. Please refer to D-94-35 for further details.

### Fresh Fruit

Fresh fruit of *Malus* spp., *Crataegus* spp. and depending on the origin, *Prunus avium* spp. and *P. cerasus* spp., whether intended for consumption or processing.

### Containers (Used)

Pallet boxes, crates or other containers previously employed to transport fresh fruit listed under “Fresh Fruit” above.

Note: Used containers may also be regulated for Oriental fruit moth (OFM) if the containers are interchanged with, or stored adjacent to, OFM hosts. Please refer to D-87-29 for further details.

### Soil

Alone or in association with host plants listed under “Plants” above

Note: Soil movement into Canada is also regulated or prohibited for other pests. Please refer to D-95-26 for further details.

## 1.5 Commodities exempt from requirements specific to apple maggot

Unrooted and in vitro cuttings of the regulated species, hybrids and varieties, if free of soil and fruit

Seeds of the regulated species, hybrids and varieties.

**Note:** Other requirements for unrooted cuttings and seeds of *Malus* spp., *Crataegus* spp., *Prunus avium* spp. and *P. cerasus* spp. still apply and may be found in other directives.

Herbarium specimens of the regulated commodities.

Processed fruit of the regulated species (canned, frozen).

## 1.6 Regulated Areas

United States: All continental states

**Note:** Appendix 1 lists counties in the U.S. which are free of apple maggot on the basis of official annual surveys. Only the counties listed in Appendix 1 are eligible for the various certification options in this directive regarding county freedom.

Mexico: All states

Canada: All provinces and territories. For B.C., the following areas:

Vancouver Island and the regional districts of:

Mount Waddington, Comox Strathcona, Powell River, Sunshine Coast, Greater Vancouver, Fraser Valley (except the electoral district of Fraser Valley A).

**Note:** See Appendix 2 for map of regulated areas in B.C.

## 2.0 Specific Requirements

### 2.1 Prohibitions

- *Malus* spp. and *Prunus* spp. plants from Mexico (prohibited entry to all of Canada due to other pests as specified in other directives).
- Fresh fruit of *Prunus avium* spp. and *P. cerasus* spp., as well as containers used for these fresh fruits, from Utah and Wisconsin

### 2.2 Import and Domestic Requirements for movement of material into and within

## British Columbia

The regulated commodities described under Section 1.4 shall not be imported, transported or otherwise moved into non-regulated areas of B.C., from any of the areas listed under Section 1.6 of this directive, except in accordance with the following provisions:

### 2.2.1 Rooted Plants

*Malus* spp., *Crataegus* spp., *Prunus avium* spp., and *P. cerasus* spp. from the U.S. and regulated areas of Canada as well as *Crataegus* spp. from Mexico.

#### 2.2.1.1 Permit to Import (U.S. and Mexico)

Required.

#### 2.2.1.2 Phytosanitary Certificate (U.S. and Mexico) or Movement Certificate (Canada)

Rooted plants require a Phytosanitary Certificate (U.S. and Mexico) or a Movement Certificate (Canada) if entering a non-regulated area of BC. The certificate must include **one** of the following two declarations:

“The plants in the consignment are free of fruit and washed free of soil.”

### OR

“The plants in the consignment were grown in a county in the United States (or a municipality/county in Canada) in which, on the basis of annual surveys, the apple maggot does not occur.”

**Note:** U.S. counties *free of* apple maggot are listed in Appendix 1. Canadian regulated and protected areas are shown in Appendix 3

### 2.2.2 Fresh fruit

All fresh fruit, either for consumption or processing must enter the province of B.C. in new containers.

#### 2.2.2.1 Fresh fruit of *Malus* spp. and *Crataegus* spp.

##### 2.2.2.1.1 Permit to Import (U.S. and Mexico)

Not required.

##### 2.2.2.1.2 Phytosanitary Certificate (U.S. and Mexico) or Movement Certificate (Canada)

Fresh fruit requires a Phytosanitary Certificate identifying the county of origin if originating from the U.S., or requires a Movement Certificate if originating from Canada.

The shipment must conform to **one** of the following two options:

*Option 1: Cold storage treatment*

The certificate must contain **one** of the following two additional declarations:

“The fruit was inspected at time of shipment and is apparently free of apple maggot and has been continuously maintained at a maximum temperature of 0.6°C (33°F) for a minimum of 42 days.”

**OR**

“The fruit was inspected at time of shipment and is apparently free of apple maggot and has been continuously maintained at a maximum temperature of 3.3°C (38°F) for a minimum of 90 days.”

**OR**

*Option 2: Pest Freedom*

Certification for freedom from apple maggot is based on the results of official annual surveys, isolation from sources of infestation and systematic sampling and inspections of the fruit prior to export.

The shipment is exempted from cold storage treatment if certified free from apple maggot by listing **one** of the following three additional declarations on the certificate:

For states or provinces free from apple maggot:

“The fruit in this shipment originates in a state of the continental U.S., or province of Canada in which, on the basis of the official annual surveys, the apple maggot does not occur.”

**OR**

For counties within the continental U.S. which are free from apple maggot:

“Fruit was grown in a county which has been surveyed annually in a manner which clearly establishes that the apple maggot does not occur and in addition this fruit was harvested a minimum of one mile from any neighbouring county infestations.”

**Note:** U.S. counties free from apple maggot are listed in Appendix 1.

**OR**

For commercial orchards free from apple maggot located within infested counties in the continental U.S.:

“The fruit of this consignment was harvested from a commercial orchard in the designated apple maggot free zone \_\_\_\_\_ (identification name or number) in the county of \_\_\_\_\_.”

**Note:** Producers wishing to qualify for such an exemption for their commercial orchard must file a request for exemption with their state certification authority. The state of origin must then make representation to the Animal and Plant Health Inspection Service of the United States Department of Agriculture (USDA) in Washington D.C. Details concerning the name of grower(s), location of orchard(s), isolation factors including proximity to nearest known apple maggot infestation, survey methods and results would be required and should be included in such a representation.

2.2.2.2 Fresh fruit of *Prunus avium* spp. and *P. cerasus* spp.

For sources other than Utah and Wisconsin, a Permit to Import, Phytosanitary Certificate or Movement Certificate are not required. Fresh fruit of *Prunus avium* spp. and *P. Cerasus* spp. from Utah and Wisconsin is prohibited (as stated in Section 2.1).

2.2.3 Containers (used)

2.2.3.1 Containers used for fresh fruit of *Malus* spp. and *Crataegus* spp.

**Note:** See 1.4 for information on interchanging with, or storing containers near Oriental fruit moth hosts.

2.2.3.1.1 Permit to Import

Not required.

#### 2.2.3.1.2 Phytosanitary Certificate (U.S. and Mexico) or Movement Certificate (Canada)

Used empty containers require a Phytosanitary Certificate, or a Movement Certificate if moved from regulated provinces to B.C. or from regulated areas of B.C. to non-regulated areas of B.C.. The certificate must state that the containers are free of apple maggot, soil and plant debris as a result of a decontamination treatment using a steam or high pressure water wash or other specified treatment as approved by the CFIA. The treatment details must be specified in the treatment section of the Phytosanitary Certificate.

#### 2.2.3.2 Containers used for fresh fruit of *Prunus avium* spp. and *P. cerasus* spp.

For sources other than Utah and Wisconsin, a Permit to Import, Phytosanitary Certificate or Movement Certificate are not required. Containers used for fresh fruit of *Prunus avium* spp. and *P. Cerasus* spp. are prohibited from Utah and Wisconsin (as stated in Section 2.1).

#### 2.2.4 Other Requirements

Articles listed under Section 1.4 - Regulated Commodities may enter for certain uses if authorized by the Director under the authority of Section 43 of the *Plant Protection Regulations* (conditions of entry shall be specified on the Permit to Import).

### 2.3 Transit Requirements

In addition to meeting CBSA's reporting requirements, regulated commodities entering regulated areas within Canada in transit to other destinations within Canada or the U.S. must either be shipped by a bonded carrier or meet the entry requirements of the province through which they are transiting. For more information about CBSA's reporting requirements, please visit [www.cbsa.gc.ca/import/menu-eng.html](http://www.cbsa.gc.ca/import/menu-eng.html).

### 2.4 Instruction to CFIA staff regarding inspections

#### 2.4.1 Document Verification

CFIA will verify that the documentation as required in Section 2.2 is complete and with each shipment.

## 2.4.2 Product Examination

### 2.4.2.1 Fresh Fruit

To inspect fresh fruit: Look for small holes, pinpricks or small dots on the fruit skin, as well as any apples which show signs of discolouration, dimpling or distortion. With a sharp knife, cut successive thin slices immediately below the suspicious area to determine if tunnelling is present. Tunnelling will show that an insect larva is present, but a maggot must be found for positive identification of the causal species. If tunnelling is present and a maggot cannot be found, this may be because the maggot is young and very small. If possible, put the fruit in a container in a dark, cool place and re-inspect in a few days.

To certify that cold treatment requirements have been met:

- A. At the time that the apples are put into cold or controlled atmosphere storage, the inspector shall verify that the apples have been packed and labelled in such a manner that they can be identified as to orchard of origin. The starting date of the storage period is to be indicated on the label or packaging material.
- B. During the time that apples are undergoing cold or controlled atmosphere storage, an inspector shall inspect the storage facilities approximately once every 20 days to verify that all conditions are as prescribed.

### 2.4.2.2 Rooted Plants

To inspect fruit tree or ornamental nursery stock hosts of this orchard pest, carefully examine for the presence of fruit such as the haw of hawthorn, as the fruit may contain live larval stages of the apple maggot. The roots of such plants should also be inspected for the presence of soil which could contain apple maggot pupae. The presence of fruit or soil on regulated nursery stock hosts from regulated areas would render all such nursery stock inadmissible.

### 2.4.2.3 Used Containers

Verify absence of soil, apple maggot and plant debris

## 2.5 Non-Compliance

Shipments which do not meet requirements, or are found to be infested with any quarantine pests may be refused entry, returned to origin, or disposed of at the importer's expense. If determined feasible by the inspector, such shipments may be rerouted to other destinations, provided such a course of action does not cause unwarranted pest risk.

Notifications of non-compliance will be issued in accordance with D-01-06: *Canadian Phytosanitary Policy for the Notification of Non-compliance and Emergency Action*.

### **3.0 Appendices**

- Appendix 1: Counties in the Continental United States which are Considered Free of Apple Maggot on the Basis of Official Annual Surveys
- Appendix 2: Map of Regulated Areas for Apple Maggot in British Columbia

**Counties in the Continental United States which are Considered Free of  
Apple Maggot on the Basis of Official Annual Surveys**

[www.inspection.gc.ca/english/plaveg/protect/dir/appmaggote.shtml](http://www.inspection.gc.ca/english/plaveg/protect/dir/appmaggote.shtml)

**Map of Regulated Areas for Apple Maggot in British Columbia**

[www.inspection.gc.ca/english/sci/surv/2008maps/rpqzbc2008e.shtml](http://www.inspection.gc.ca/english/sci/surv/2008maps/rpqzbc2008e.shtml)