



PLANT HEALTH DIVISION PLANT PRODUCTS DIRECTORATE CANADIAN FOOD INSPECTION AGENCY 59 Camelot Drive Nepean, (Ontario), Canada K1A 0Y9 (Tel: 613-225-2342; FAX: 613-228-6602)	D-99-07
	(EFFECTIVE DATE) February 27, 2006 (4th Revision)
Title: Policy for Importation from the United States and Domestic Movement of Plum Pox Virus (PPV) susceptible <i>Prunus</i> Propagative Plant Material	

File

SUBJECT:

This directive describes the import requirements for *Prunus* (stone fruit) nursery stock, including seeds, from the continental United States (US) to Canada. Requirements from countries other than the US are not affected (see D-94-35). This directive also provides the movement requirements for *Prunus* nursery stock within Canada. Authorities in both the US and Canada continue to gather information on the presence of PPV in their respective countries through surveys.

The genus *Prunus* can be subdivided into smaller, more closely related groups, which share common characteristics. The D (Dideron) strain of plum pox virus found in Pennsylvania and Ontario does not affect species in three subgenera of the genus *Prunus*, namely subgenus *Cerasus*, *Padus* or *Laurocerasus* (See Appendix I). At present, the Canadian list of PPV non-susceptible *Prunus* species is more extensive and detailed than that of the US, as it incorporates recent hybrid species. As a result of this difference, *Prunus* trees that have been imported to Canada from the US may not be eligible for re-export to the US if they are not listed by the US policy. Although seed transmission of some plum pox virus strains in stone fruit stock has been demonstrated experimentally, stronger evidence now exists that Strain 'D' is not transmitted by seed. However, movement requirements for seed remain at this time. Pollen of *Prunus* spp. is already prohibited from all countries due to the potential transmission of pollen-borne viruses.

This revision is necessary to incorporate the recommendations made in NAPPO RSPM #18, "Guidelines for Phytosanitary Action Following Detection of Plum Pox Virus". In addition, based on extensive survey activities carried out in both Canada and the United States to date and as planned for future years, this policy has been updated.

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Review

This directive will be reviewed every year unless otherwise needed. The next review date for this directive is February 27, 2007. The contact for this directive is Joanne Rousson. For further information or clarification, please contact the Horticulture Section.

Endorsement

Approved by:

<hr/> <p>Director Plant Health Division</p>

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

Scope This directive is intended for the use of the Canadian public, CFIA inspection staff and the Canada Border Services Agency in order to prevent the entry and spread of the plum pox virus through the propagative material of susceptible *Prunus* species into and within Canada.

References CFIA, 2000. Plum Pox Potyvirus. Pest Risk Assessment # 99-48. Plant Health Risk Assessment Unit, Science Division, Canadian Food Inspection Agency. (Unpublished)

FAO ¹, 1996. ISPM Pub. No. 4. *Requirements for the Establishment of Pest Free Areas.*

FAO, 2002. ISPM Pub. No. 5. *Glossary of Phytosanitary Terms, 2002.*

Krüssman, G. (1978). *Hanbuch der Laubgehölze*, Verlag Paul Parey,

¹Additional information can be found via the internet website www.ippc.int/IPP/En/default.htm

Berlin et Hamberg. Manual of Cultivated broad-Leaved Trees & Shrubs by Timber Press, Portland, Oregon (1986)

NAPPO², 2002. Regional Standards for Phytosanitary Measures #18. Guidelines for Phytosanitary Action Following Detection of Plum Pox Virus in NAPPO Member Countries.

NAPPO, 2002. Regional Standards for Phytosanitary Measures #6. Guidelines for the development and amendment of NAPPO Standards for Phytosanitary Measures.

This directive supercedes D-99-07 (3rd Revision) dated February 14, 2002

Definitions, Abbreviations and Acronyms

AIRS	Automated Import Reference System
CFIA	Canadian Food Inspection Agency
FAO	Food and Agriculture Organization
NAPPO	North American Plant Protection Organization
PFA	Pest Free Area. An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained. (FAO, 2002).
PFPP	Pest Free Place of Production. Place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period (FAO, 2002).
PFPS	Pest Free Production Site. A defined portion of a place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period and that is managed as a separate unit in the same way as a pest free place of production (FAO, 2002).
PPV	Plum Pox Virus

²Additional information can be found via the internet website www.nappo.org

Quarantine area An area within which a quarantine pest is present and is being officially controlled (FAO, 2002).

USDA United States Department of Agriculture

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 the CFIA's web site at www.inspection.gc.ca

1.3 Regulated Pests

Plum Pox Virus - Sharka

1.4 Exempt Commodities

See Appendix 1.

1.5 Regulated Commodities

All propagative material of PPV-susceptible *Prunus* species (see Appendix 2) including seed, excluding decorative material (see D-00-02).

1.6 Regulated Areas

Continental US and Canada.

2.0 Specific Requirements

2.1 Prohibitions

All susceptible material (Appendix 2), except seed, is prohibited from moving out of the PPV quarantine areas of Canada³ (in accordance with the PPV Infested Places Order) and entering Canada if originating from the quarantine areas of Pennsylvania⁴

2.2 Import Requirements

NOTE: Additional requirements may exist - please refer to the CFIA directives D-94-35 (directive for fruit tree and grape propagative material), and D-95-26 (soil directive). Importers are advised to verify requirements on the CFIA web site.

2.2.1 Pollen

No requirements related to PPV. Pollen is already restricted for other importation reasons.

2.2.2 PPV-susceptible *Prunus* Propagative Material - see Appendix 2.

2.2.2.1 Saleable Nursery Stock (PPV-susceptible)

A Permit to Import is required for all *Prunus* propagative material, including seed. Only stock from US states with approved virus certification programs are permitted entry (ie. California, Idaho, Michigan, Minnesota, Missouri, Montana, Oregon, non-quarantine areas of Pennsylvania, South Carolina and Washington).

All nursery stock must originate from mother stock that has been tested for PPV by the United States Department of Agriculture (USDA) or a USDA recognized laboratory and has been found to be negative.

The mother material and nursery stock must have been grown under a Canadian-approved virus certification program and;

- All nursery stock must come from a PFA established and maintained according to Section 3 of NAPPO RSPM #18. The establishment and maintenance of a PFA are based on survey and testing protocols agreed to by Canada and the USDA.

OR

³See Section 2.3

⁴ Quarantine area of Pennsylvania has been defined by the State of Pennsylvania and approved by the USDA. Additional information can be found via the USDA internet website www.aphis.usda.gov/ppq/plumpox.

- All nursery stock must come from a PFPP or PFPS established and maintained according to Section 4 of NAPPO RSPM #18. The establishment and maintenance of a PFPP or PFPS is based on survey and testing protocols agreed to by Canada and the USDA.

OR

- All nursery stock was grown within an area of the United States that has been declared free of PPV based on official surveys and testing protocols agreed to by Canada and the USDA. These surveys are based on the recommendations contained in NAPPO RSPM #18.

Propagators, exporters and importers must keep detailed records of all related paperwork, including species, variety, source of budwood and rootstock, year of propagation and areas of distribution.

A federal Phytosanitary Certificate is required. The origin (state) and botanical name of the nursery stock and/or seed, including genus and species name (or in the case of interspecific hybrid varieties, the species name of the parent plants) must be clearly stated in order to establish its eligibility to enter Canada.

The following additional declaration, referring to the Virus Certification Program of the respective approved state, is required on the Phytosanitary Certificate:

“All *Prunus* material in this consignment has been derived from parent material that has been tested according to recognized and appropriate procedures and produced under conditions that preclude reinfection and is therefore considered to be free of pests regulated by the CFIA”.

The Phytosanitary Certificate, which must accompany the nursery stock must be issued within 14 days prior to shipment.

2.2.2.2 PPV-susceptible *Prunus* Seed (see Appendix 2)

A Permit to Import is required. Only seed from U.S. states with approved virus certification programs are permitted entry (ie. California, Idaho, Michigan, Minnesota, Missouri, Montana, Oregon, Pennsylvania, South Carolina and Washington).

Seed must originate from mother material that has been tested for PPV and found negative, and for which such seed has been produced from mother plants grown under a virus certification program.

Seed must be accompanied by a federal Phytosanitary Certificate that states:

“All *Prunus* material in this consignment has been derived from parent material that has been tested according to recognized and appropriate procedures and produced under conditions that preclude reinfection and is therefore considered to be free of pests regulated by the CFIA”.

2.2.2.3 *Prunus* spp. not Susceptible -(see Appendix 1) (Saleable Nursery Stock or Seed)

A Permit to Import is required. Only stock from U.S. states with approved virus certification programs is permitted (i.e. California, Idaho, Michigan, Minnesota, Missouri, Montana, Oregon, Pennsylvania, South Carolina, Washington).

The mother material and nursery stock must have been grown under a Canadian-approved virus certification program.

A federal Phytosanitary Certificate is required. The botanical name of the nursery stock and/or seed, including genus and species name (or in the case of interspecific hybrid varieties, species name of the parent plants) must be clearly stated as well as its origin (state) in order to establish its eligibility to enter Canada.

The following additional declaration, referring to the Virus Certification Program of the respective approved state is required:

“All *Prunus* material in this consignment has been derived from parent material that has been tested according to recognized and appropriate procedures and produced under conditions that preclude reinfection and is therefore considered to be free of pests regulated by the CFIA”.

The Phytosanitary Certificate, which must accompany the nursery stock or seed, must be issued within 14 days prior to shipment.

2.3 Domestic Movement In Canada

The PPV quarantine areas in Canada consist of an area in Niagara which comprises the municipalities of Niagara-On-The-Lake, St. Catharines, Lincoln and Grimsby, and other isolated areas, the boundaries of which are at least 1.5 km from blocks where PPV has been detected, in Nova Scotia (Annapolis area) and those elsewhere in Ontario (Blenheim, Vittoria, Fonthill and Stoney Creek areas). Based on the PPV survey and delimitation results for PPV in Canada during 2000, 2001, and 2002 it is evident there is higher incidence of the disease in the Niagara area than in the other isolated areas. These domestic movement requirements are grouped as follows:

2.3.1 For Plants and Seed Originating Outside of the PPV Quarantine Areas Moving Anywhere in Canada:

There are no further requirements under this Directive, but please refer to the CFIA web site for other Plant Protection requirements.

2.3.2 Restrictions Governing Plant Movement from PPV Quarantine Areas of Canada

PPV-susceptible *Prunus* nursery stock is prohibited movement from all quarantine areas in Nova Scotia and Ontario. All susceptible stock which has been moved into these quarantine areas from other areas of Canada or the United States not affected by PPV is prohibited from re-shipment out of this area. Additionally, PPV-susceptible *Prunus* nursery stock is prohibited movement between quarantine areas. Movement restrictions for the PPV Affected Areas will be strictly enforced by the CFIA.

Dormant plant material of PPV-susceptible *Prunus* nursery stock grown outside of official quarantine areas may be moved into and out of a quarantine area for storage and grading purposes only, providing that:

- A Compliance Agreement for Movement of Dormant Stock has been completed and submitted to the CFIA for approval before PPV-susceptible *Prunus* nursery stock has been moved into the quarantine area.
- The CFIA has been informed and given approval to each such movement into and out of the quarantine area;
- All plant identification, isolation and other conditions and restrictions have been followed to the satisfaction of an inspector.

Seed of PPV-susceptible *Prunus* originating from individually tested mother stock found negative for PPV will be permitted movement as authorized by an inspector under and in accordance with a Movement Certificate.

For all non-susceptible *Prunus* stock, material is permitted movement from the PPV quarantine areas and must be identified under a plant identification system (ie specifying genus, species, and variety via current type tagging system used by industry) to the satisfaction of an inspector.

Nurseries are subject to facility inspections by the CFIA. They must keep detailed records which include the species and variety of all *Prunus* sp. and locations to which the material was distributed.

3.0 Inspection Procedures

All shipments are subject to inspection by an authorized CFIA inspector at the first point of entry or at a place in Canada determined by an inspector.

CFIA inspectors should:

1. Verify that the phytosanitary certification requirements have been met and that the *Prunus* species named on the Phytosanitary Certificate originates in the continental US from an approved state as required.
2. Verify that shipments are free of visible symptoms of quarantine pests, and in the case of seed shipments, verify that they are free of soil, sand, leaves, and plant debris.
3. Inspect seed according to the general instructions in the Plant Protection Import Inspection Manual for seed, section 4.02.01.
4. Take specimens, if any pests are found, or if audit testing is requested, according to the instructions in the Plant Protection Import Inspection Manual, section 4.11, and submit them for identification to the Centre for Plant Health, Sidney, B.C. (viral pests) or the Centre for Plant Quarantine Pests, Nepean, Ontario (non-viral pests). While tests are completed, material may be held until results are available.

4.0 Non-Compliance

Shipments must meet all requirements when they reach first point of entry in Canada. Shipments that do not meet requirements or that are found to be infested with quarantine pests may be refused entry and returned to origin, or disposed of. Infested shipments may be treated prior to disposal. The importer is responsible for all costs relating to treatment, disposal, or removal.

5.0 Appendices

- Appendix 1: List of *Prunus* species of the subgenera *Cerasus*, *Padus* and *Laurocerasus* that are non-susceptible to the D-strain of PPV
- Appendix 2: List of *Prunus* species that are susceptible to the D-stain of PPV

Appendix 1

**LIST OF *PRUNUS* SPECIES OF THE SUBGENERA *CERASUS*, *PADUS* AND
LAUROCERASUS THAT ARE NON-SUSCEPTIBLE TO THE D-STRAIN OF PPV**

The genus *Prunus* is in the plant family Rosaceae. The group *Prunus* can be subdivided into smaller, more closely related groups, which share common characteristics. The D (Dideron) strain of plum pox virus found in Pennsylvania and Ontario does not affect species in three subgenera of the genus *Prunus*, namely subgenus *Cerasus*, *Padus* or *Laurocerasus*. The following classification of these three subgenera is an abbreviation of that provided in the “Manual of Cultivated Broad-leaved Trees & Shrubs” by Gerd Krüssmann, 1978, translated by Michael E. Epp, 1986, Timber Press, Portland, Oregon.

Species in the three subgenera listed below may be imported into Canada or moved domestically within Canada. Imported material must be clearly marked to show species (scientific name), or in the case of interspecific varieties, species of parents (scientific names). For example, the cherry rootstock hybrid Geisela 5 is a cross between *P. cerasus* and *P. canescens* ((Geisela 5 = *P. cerasus* X *P. canescens*).

Subgenus *Cerasus* includes many of the species commonly called cherries; it has been broken up into several subgroups according to group form and relationships between species. Although some of these species are now known to be susceptible to cherry strains (PPV-C) of plum pox, none are known to be susceptible to other strains, such as PPV-M and PPV-D. In some species, inoculation studies have shown that the virus may be introduced to a plant but replication does not occur and the infection dies out.

Species in this subgroup include:

<i>P. apetala</i>	<i>P. fontanesiana</i>	<i>P. pennsylvanica</i>
<i>P. avium</i>	<i>P. fruticosa</i>	<i>P. pilosiuscula</i>
<i>P. campanulata</i>	<i>P. gonduinii</i>	<i>P. pleiocerasus</i>
<i>P. canescens</i>	<i>P. hillieri</i>	<i>P. pseudocerasus</i>
<i>P. cerasoides</i>	<i>P. hirtipes</i>	<i>P. rufa</i>
<i>P. cerasus</i>	<i>P. incisa</i>	<i>P. sargentii</i>
<i>P. changyangensis</i>	<i>P. juddii</i>	<i>P. schmittii</i>
<i>P. conadenia</i>	<i>P. kurilensis</i>	<i>P. serrula</i>
<i>P. concinna</i>	<i>P. litigiosa</i>	<i>P. serrulata</i>
<i>P. cyclamina</i>	<i>P. maackii</i>	<i>P. setulosa</i>
<i>P. dawyckensis</i>	<i>P. macradenia</i>	<i>P. speciosa</i>
<i>P. dielsiana</i>	<i>P. mahaleb</i>	<i>P. subhirtella</i>
<i>P. effusa</i>	<i>P. maximowiczii</i>	<i>P. tatsienensis</i>
<i>P. emarginata</i>	<i>P. mugus</i>	<i>P. yedoensis</i>
<i>P. eminens</i>	<i>P. nipponica</i>	

Subgenus *Padus* is a small group of ornamental cherry species which are also not susceptible to common strains of PPV.

These species include:

P. alabamensis
P. buergeriana
P. cornuta
P. grayana
P. laucheana

P. padus
P. sericea
P. serotina
P. ssiori
P. vaniotii

P. virens
P. virginiana
P. wilsonii

Subgenus *Laurocerasus* includes the cherry laurels and, like other cherries, none of these has been shown to be susceptible to common strains of plum pox, such as PPV-M or PPV-D.

These species include:

P. caroliniana
P. ilicifolia
P. laurocerasus

P. lusitanica
P. lyonii
P. spinulosa

P. wallichii
P. zippeliana

APPENDIX 2

LIST OF *PRUNUS* SPECIES THAT ARE SUSCEPTIBLE TO THE D-STRAIN OF PPV

All commercial and ornamental propagative material of *Prunus* spp., (other than those listed elsewhere in this directive, that are considered non-susceptible) mainly contain plums, apricots, peaches, almonds, and related species (including, trees, cuttings, budwood, scionwood and rootstocks) including but not limited to:

Subgenus <i>Prunus</i>	Subgenus <i>Amygdalus</i>	Subgenus <i>Lithocerasus</i>
<i>P. alleghaniensis</i>	<i>P. amygdalo-persica</i>	<i>P. besseyi</i>
<i>P. americana</i>	<i>P. arabica</i>	<i>P. bifrons</i>
<i>P. angustifolia</i>	<i>P. argentea</i>	<i>P. cistena</i>
<i>P. armeniaca</i>	<i>P. arnoldiana</i>	<i>P. glandulosa</i>
<i>P. blireana</i>	<i>P. baldschuanica</i>	<i>P. humilis</i>
<i>P. bokhariensis</i>	<i>P. bucharica</i>	<i>P. incana</i>
<i>P. brigantina</i>	<i>P. davidiana</i>	<i>P. jacquemontii</i>
<i>P. cerasifera</i> (includes <i>P. myrobalana</i> and its cultivars)	<i>P. dulcis</i>	<i>P. japonica</i>
<i>P. cocomilia</i>	<i>P. fasciculata</i>	<i>P. microcarpa</i>
<i>P. consociiflora</i>	<i>P. fenzliana</i>	<i>P. prostrata</i>
<i>P. curdica</i>	<i>P. kansuensis</i>	<i>P. pumila</i>
<i>P. dasycarpa</i>	<i>P. mira</i>	<i>P. tomentosa</i>
<i>P. domestica</i>	<i>P. mongolica</i>	<i>P. utahensis</i>
<i>P. dunbarii</i>	<i>P. pedunculata</i>	
<i>P. gigantea</i>	<i>P. persica</i>	
<i>P. gracilis</i>	<i>P. petunnikowii</i>	
<i>P. gravesii</i>	<i>P. pilosa</i>	
<i>P. gymnodonta</i>	<i>P. skinneri</i>	
<i>P. hortulana</i>	<i>P. spinosissima</i>	
<i>P. insititia</i>	<i>P. sweginzowii</i>	
<i>P. mandshurica</i>	<i>P. tangutica</i>	
<i>P. maritima</i>	<i>P. tenella</i>	
<i>P. mexicana</i>	<i>P. triloba</i>	
<i>P. monticola</i>	<i>P. vavilovii</i>	
<i>P. mume</i>	<i>P. webbii</i>	
<i>P. munsoniana</i>		
<i>P. nigra</i>		
<i>P. orthosepala</i>		
<i>P. pseudoarmeniaca</i>		
<i>P. reverchonii</i>		
<i>P. salicina</i>		
<i>P. sibirica</i>		
<i>P. simonii</i>		
<i>P. spinosa</i>		
<i>P. subcordata</i>		
<i>P. umbellata</i>		
<i>P. ursina</i>		
<i>P. ussuriensis</i>		