D-98-01: Import Requirements for Seed Potatoes and Other Potato Propagative Material

This page is part of the Guidance Document Repository (GDR).

Looking for related documents?
Search for related documents in the Guidance Document Repository

Effective Date: November 25, 2013
(9th Revision)

Subject:

This directive governs the admission of field-grown seed potatoes and potato propagative material such as true (botanical) seed, in-vitro plantlets, micro-tubers and mini-tubers into Canada.

This revision was a result of Canada's deregulation of Heterodera glycines - Soybean Cyst Nematode. Section 1.3 (Regulated pests) and Appendices 1, 2, 5 and 6 have been updated to reflect this change. Minor editorial changes have also been made to improve clarity.

Table of Contents

Review
Endorsement
Amendment Record
Distribution
Introduction
Scope
References
Definitions, abbreviations and acronyms
1.0 General Requirements
1.1 Legislative Authority
1.2 Fees
1.3 Regulated pests
1.4 Regulated Commodities
1.5 Commodities Exempt
1.6 Regulated Areas
2.0 Specific Requirement
2.1 True (botanical) seed
2.2 Field-grown seed potatoes

2.3 Protected environment: *in vitro* plantlets, micro-tubers, mini-tubers, cuttings
2.4 Non-Compliance
3.0 Appendices
Appendix 1: Quarantine pests of potatoes
Appendix 2: Background information for various pests
Appendix 3: North American Certified Seed Potato Health Certificate (NACSPHC)
Appendix 4: Assigning a Seed Certification Class to Imported Field-Grown Seed Potatoes
Appendix 5: The Occurrence of Potato Pests in Certain U.S. (United States) States that have a Recognized Seed Potato Certification Program
Appendix 6: Distribution of Regulated Potato Pests in the Continental United States

Review

This directive will be updated as required. For further information or clarification, please 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 mailing list (Regions, PHRA (Plant Health Risk Assessment), USDA (United States Department of Agriculture))
2. Provincial Government, Industry (via Regions or the Area Program Specialists)
3. National Industry Organizations (Canadian Horticulture Council)
4. Internet

Introduction

The introduction of economically important potato pests into Canada could result in substantial costs in eradication, containment or control. Pest establishment could lead to an increase in the use of chemical controls and could jeopardize export markets.

Scope

This directive provides detailed information to the CFIA (Canadian Food Inspection Agency) Operations staff, Canada Border Services Agency, Canadian importers, foreign exporters, international trade specialists, national plant protection organizations (NPPO) and the general public, on requirements that must be met in order to import seed potatoes and other propagative potato

material into Canada.

References

ISPM (International Standards for Phytosanitary Measures) 4: *Requirements for the Establishment of Pest Free Areas*, FAO (Food and Agriculture Organization), Rome 1995.

ISPM (International Standards for Phytosanitary Measures) 5: *Glossary of Phytosanitary Terms*, FAO (Food and Agriculture Organization), Rome (updated annually).

ISPM (International Standards for Phytosanitary Measures) 16: *Regulated non-quarantine pests: concept and application*, FAO (Food and Agriculture Organization), Rome, 2002.

ISPM (International Standards for Phytosanitary Measures) 33: *Pest free potato (Solanum spp. (species)) micropropagative material and minitubers for international trade*, FAO (Food and Agriculture Organization), Rome, 2010.

NAPPO (North American Plant Protection Organization), 2011. Regional Standards for Phytosanitary Measures No. (number) 3. *Movement of Potatoes into a NAPPO (North American Plant Protection Organization) Member Country.*

NAPPO (North American Plant Protection Organization), 2012. Regional Standards for Phytosanitary Measures No. (number) 5. *Glossary of Phytosanitary Terms*.

This directive supersedes D-98-01 (8th revision).

Definitions, abbreviations and acronyms

Definitions for terms used in the present document can be found in the *Plant Health Glossary of Terms*.

1.0 General Requirements

1.1 Legislative Authority

- The *Plant Protection Act, S.C. (Statutes of Canada) 1990, c. (chapter)22*
- The *Plant Protection Regulations, SOR (Statutory Orders and Regulations)/95-212*
- The *Canadian Food Inspection Agency Fees Notice, Canada Gazette, Part 1* (as amended from time to time)
- The *Seeds Act* R.S. (Revised Statutes of Canada), c. (chapter) S-8 and amendments 1976-77, c. (chapter)28 and 1985, c. (chapter)47.
- The *Seeds Regulations* Part II (2).

1.2 Fees

The CFIA (Canadian Food Inspection Agency) 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 Centre (ISC). Anyone requiring other information regarding fees may contact any local CFIA (Canadian Food Inspection Agency) office or visit our

Fees Notice Web Site.

1.3 Regulated pests

Appendix 1 contains a list of quarantine pests of current concern to Canada for potatoes and associated soil. This list may not be exhaustive and may be subject to change as circumstances dictate and information becomes available on various pests. The CFIA (Canadian Food Inspection Agency) has the authority to take action on any of the pests considered to be quarantine pests for Canada through its responsibility for the implementation of the *Plant Protection Act* and *Regulations*.

Regulated Non-Quarantine Pests (RNQP) of potatoes are distinguished from quarantine pests based on specific criteria as set out in *Regulated non-quarantine pests: concept and application* (ISPM (International Standards for Phytosanitary Measures) 16, FAO (Food and Agriculture Organization), 2002), and must be under official control through the Canadian Seed Potato Certification program. The CFIA (Canadian Food Inspection Agency) is responsible for the Canadian Seed Potato Certification program through its responsibility for the implementation of the *Seeds Act* and *Regulations*.

1.3.1 Continental United States (U.S.)

The following quarantine pests are known to occur in the continental U.S. (United States) and are regulated under this directive:

- Colorado potato beetle (*Leptinotarsa decemlineata*)
    - Not known to occur in the province of Newfoundland and Labrador
- Columbia root knot nematode (*Meloidogyne chitwoodi*, Golden et al. (et alii) 1980)
- Golden nematode (*Globodera rostochiensis* Wollenweber)
- Pale cyst nematode (*Globodera pallida* Stone)
- Potato rot nematode (*Ditylenchus destructor* Thorne)

Most RNQPs (regulated non-quarantine pests) associated with imports of seed potatoes from the continental U.S. (United States) are managed through the acceptance of seed potatoes that are produced under a certification system that is considered to be substantially equivalent to the Canadian Seed Potato Certification Program (CSPCP). However, because of differences in certification standards, specific requirements apply to the following pest:

- Bacterial Ring Rot (BRR); *Clavibacter michiganensis* subsp (subspecies). *sepedonicus* (Spieckermann & Kotthoff 1914) Davis, Gillaspies, Vidaver & Harris 1984)

Background information for various pests is provided in Appendix 2.

1.4 Regulated Commodities

All potato parts (*Solanum tuberosum*, and other tuber bearing *Solanum* species), for propagation are regulated. This includes field-grown seed tubers, true (botanical) seed, *in vitro* plantlets, micro-tubers, mini-tubers, cuttings, etc. (et cetera)

Note 1: All quantities of seed are regulated equally. There is no exception for the importation of small quantities of seed.

Note 2: The import requirements for potatoes for consumption and processing are outlined in CFIA (Canadian Food Inspection Agency) Policy Directive D-96-05: Phytosanitary requirements for the

importation and domestic movement of non-propagative potatoes (*Solanum tuberosum*) and related potato articles, including associated soil.

1.5 Commodities Exempt

- Processed potatoes and frozen potato products (e.g. (for example) frozen fries, canned potatoes, potato chips, potato flakes, potato starch, etc (et cetera).).
- Frozen potatoes and potato products such as French fries, hash browns, etc (et cetera).

1.6 Regulated Areas

Potato propagative material is regulated from all origins but areas of particular phytosanitary interest (origin or destination) are:

1. All countries other than the continental U.S. (United States)
2. Areas of the U.S. (United States) (states) where at least one regulated pest listed in section 1.3.1 has been reported (see Appendix 6).
3. U.S. (United States) states that have a seed potato certification program considered substantially equivalent to the RSPCP (Recognized Seed Potato Certification Program) (see Appendix 5)
4. Consignments of potatoes destined for the Province of Newfoundland and Labrador.

2.0 Specific Requirements

Province of Newfoundland and Labrador:

The importation of purple and blue skinned potato varieties susceptible to potato wart disease (*Synchytrium endobioticum* (Schilb.) Perc.) into the Province of Newfoundland and Labrador is **prohibited**.

Exception: the following varieties are resistant to potato wart disease and may be imported:

- AC Blue Pride
- AC Domino
- Blue Mac
- Brigus

Potatoes imported into that province must be free of Colorado potato beetle (*Leptinotarsa decemlineata*).

A valid Phytosanitary Certificate **is required** for all imports from all orgins.

For field-grown seed potatoes intended to be imported into the province of Newfoundland and Labrador, the following additional declaration must appear on the Phytosanitary Certificate:

"The potatoes in this shipment have been officially inspected and are considered to be free from the Colorado Potato Beetle, Leptinotarsa decemlineata (Say)."

A copy of the Application for Permit to Import (CFIA/ACIA 5256) and information pertaining to the import policy directive D-97-04, are available on the Import Procedures web page.

2.1 True (botanical) seed

2.1.1 From areas other than the continental U.S. (United States).

A Permit to Import **is required**.

A valid Phytosanitary Certificate **is required**.

The following additional declaration must appear on the Phytosanitary Certificate:

"The potato plants from which the seed in this consignment was produced were free of seed-transmitted viruses and viroids".

Note 3: The declaration may be based on absence of the disease in the country of origin of the parent material (as determined by the phytosanitary officials of the country of origin, based on internationally accepted standards), or based on laboratory tests of the parent material and isolation to prevent infection with seed-transmitted viruses and viroids.

The following viruses and viroids are seed-transmitted:

- Andean potato latent virus (APLV)
- Arracacha virus B - Oca strain (AVB-O)
- Potato Spindle Tuber Viroid (PSTVd)
- Potato virus T (PVT)
- Potato yellowing virus (PYV)
- Tobacco ringspot virus - calico strain (TRSV-Ca)
- Tomato black ring virus (TBRV)

2.1.2 From the continental U.S. (United States)

A valid Phytosanitary Certificate **is required** and must indicate the state of origin.

The following additional declaration must appear on the Phytosanitary Certificate:

"The potato plants from which the seed in this consignment were produced were free of seed-transmitted viruses and viroids".

Note 4: The declaration may be based on known absence of the disease in the state of origin of the parent material (as determined by the phytosanitary officials of the U.S. (United States), based on internationally accepted standards), or based on laboratory tests of the parent material and isolation to prevent infection with seed-transmitted viruses and viroids mentioned above (section 2.1.1).

2.2 Field-grown seed potatoes

2.2.1 From areas other than the continental U.S. (United States)

A Permit to Import **is required**.

Prior approval by the CFIA (Canadian Food Inspection Agency) is required to import field-grown seed potatoes from areas other than the continental U.S. (United States) Field-grown seed potato tubers (usually 1 to 3 tubers per variety) can be imported through Post Entry Quarantine (PEQ), but growing parts will be initiated *in vitro* before testing can begin. In most cases, *in vitro* plantlets are imported for PEQ (Post Entry Quarantine) and only *in vitro* material is released for entry into Canada after PEQ (Post Entry Quarantine). Details are included in section 2.3 (Protected environment: *in vitro* plantlets,

micro-tubers, mini-tubers, cuttings).

The CFIA (Canadian Food Inspection Agency) may approve the import of commercial quantities of field-grown potatoes following the completion of a comprehensive pest risk analysis. Requirements for phytosanitary certification will be specified on the Permit to Import.

2.2.2 From the continental U.S. (United States)

2.2.2.1 Import Permit requirements

A Permit to Import **is required**.

Regular permits are valid for three years from the date of permit issuance. They are usually issued for "various exporters from the continental U.S. (United States)" for registered varieties of potatoes originating from one eligible state. Quantities are not limited. A list of potato varieties currently registered in Canada is available.

Special permits for limited quantities of potatoes of non-registered varieties or other non-certified seed potatoes for propagation (e.g. (for example) research, education, exhibition, commercial trials, etc. (et cetera)) may be issued for up to one year expiring September 1st. Import conditions for these permits will be specified on the permit and will be determined based on an evaluation of the risk of introduction of regulated pests represented by each individual situation.

2.2.2.2 Phytosanitary Certificate requirements

A valid Phytosanitary Certificate **is required** and must indicate the state of origin.

The following additional declaration(s) must appear on the Phytosanitary Certificate:

1. Additional declaration related to potato cyst nematodes:

"Field(s) used to produce the seed potatoes in this shipment were surveyed and tested according to the current PCN (potato cyst nematodes) Guidelines, and potato cyst nematodes (Globodera rostochiensis and Globodera pallida) were not detected."

2. Additional declarations related to other quarantine nematodes:

When the potatoes originate from a state affected by one or more regulated nematode pests (listed in Appendix 5) other than golden nematode (*Globodera rostochiensis*) and/or pale cyst nematode (*Globodera pallida*), the following additional declaration certifying freedom from each regulated nematode pest found in that state must be added:

"The material in this consignment was grown in an area free of (common and scientific name(s) of pest(s)); this declaration is made on the basis of official soil surveys."

3. Additional declaration related to *Bacterial Ring Rot (Clavibacter michiganensis* subsp. (subspecies) *sepedonicus*):

One of the following additional declarations must be included:

a. When testing **is completed** in a United States Department of Agriculture Animal and Plant Health Inspection Service (USDA-APHIS) approved laboratory:
(mandatory for seed potatoes intended for re-certification, details in section 2.2.3 below)
"A representative sample of each seed lot in the consignment was tested within the last growing season in a USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health

Inspection Services) approved laboratory and found free of Clavibacter michiganensis subsp. (subspecies) sepedonicus."

or

b. When the testing **is not completed** in a USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratory:
"A representative sample of each seed lot in the consignment was tested within the last growing season and found free of Clavibacter michiganensis subsp. (subspecies) sepedonicus."

2.2.2.3 Bacterial ring rot testing requirements

The Canadian Seed Potato Certification Program includes a mandatory laboratory testing program for BRR (Bacterial Ring Rot) for all seed potato farms. Equivalent requirements are applied to all imports of seed potatoes from the continental U.S. (United States) and laboratory testing is required for this pest in all instances.

Additional testing in Canada is not required if the CFIA (Canadian Food Inspection Agency) has previously determined that the U.S. (United States) State seed potato certification program is substantially equivalent to the Canadian testing program for the bacterial ring rot.

The required sample size for BRR (Bacterial Ring Rot) testing is a minimum of 1% of the tubers (minimum of 5 tubers) to a maximum of 400 tubers for every lot imported.

A list of laboratories - PDF (Portable Document Format) (7 kb (kilobyte)) approved by the USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) to test seed potatoes for BRR (Bacterial Ring Rot) is available. APHIS (Animal And Plant Health Inspection Services) will provisionally approve qualified private laboratories to conduct pathogen testing of potato minitubers (*Solanum tuberosum*) and plant tissues used for the production of minitubers in support of U.S. (United States) export certification. This pilot will allow APHIS to evaluate the use of private laboratory pathogen test results for phytosanitary certification prior to pursuing implementation through rulemaking.

USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) officials have established a quality assurance program for laboratories testing for specific potato pests. These laboratories are being monitored regularly by USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) officials and have adopted principles and testing procedures considered substantially equivalent to the ones used by laboratories approved under the CFIA (Canadian Food Inspection Agency) program. Testing results from USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratories are considered as equivalent under the *Seeds Regulations* and tubers from the respective seed lots can be imported and planted in Canada for recertification without further testing in a CFIA (Canadian Food Inspection Agency) approved laboratory. Specific declarations attesting that the testing was done in a USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratory are stated in section 2.2.2.2.(3).

2.2.2.4 Recognized certification agency

Under the *Seeds Act* and the *Seeds Regulations*, seed potatoes from the U.S. (United States) must be certified and packaged in accordance with the requirements of a recognized certification agency, and the requirements must be substantially equivalent to the requirements specified in the Canadian *Seeds Regulations* (sections 45 to 62). A limited number of states have recognized seed potato

certification programs (see Appendix 5). Only field-grown seed potatoes from these states are permitted entry into Canada for propagation. Proper documentation (e.g. (for example), tags, movement certificates, etc. (et cetera)) must accompany each shipment.

2.2.2.5 Non-registered varieties

It is a requirement under the *Seeds Act* that imported seed potatoes must be of a variety registered in Canada, except where otherwise provided by the *Seeds Regulations* (see "Garden Varieties" below)

Seed potatoes of a variety not registered in Canada can only be imported for experimental purposes or for production for export (*Seed Regulations*, section 59 (4)(a)). "Experimental purposes" includes evaluation of the variety for registration. The justification for import (experimental or for re-export) as well as the expected quantity to be imported must be indicated on the Application for a Permit to Import.

Non-registered varieties of potatoes have not been officially approved for production in Canada. Importers are producing these potato varieties at their own risk.

Part of the variety registration process is to ensure that total glycoalkaloid levels of a registered variety are within the limits established by Health Canada. It is the responsibility of the importer to ensure that potatoes of a non-registered variety, sold for human consumption, meet Health Canada's standards.

2.2.2.6 Garden Varieties

Potatoes with unique characteristics such as purple skin, blue flesh or frost tolerance often have limited commercial production potential and value, but may be of interest to home gardeners. Garden varieties are potato varieties which were granted an exemption from registration or for which registration has been cancelled due to minimal production. They are exclusively intended for personal production and consumption by home gardeners and can only be imported for this purpose.

More information on garden varieties can be found in CFIA (Canadian Food Inspection Agency) policy directive D-98-04: *Seed Potato Program - Certification of Garden Potato Varieties in Canada*.

Similar to non-registered varieties, most garden varieties have not been officially approved for production in Canada and for that reason may not have been evaluated for Total Glycoalkaloid levels. Gardeners are producing these potatoes at their own risk.

2.2.2.7 Requirements of other Canadian jurisdictions

Depending on planting locations, other requirements (e.g. (for example) provincial, municipal) may apply. It is the responsibility of the importer to ensure compliance.

2.2.3 Field-grown seed potatoes intended for planting on a seed potato farm in Canada

Where imported seed potatoes are intended for planting on a farm participating in the CSPCP (Canadian Seed Potato Certification Program), it is the responsibility of the importer to obtain a 'North American Certified Seed Potato Health Certificate' (NACSPHC; see Appendix 3) for each seed lot imported. The information on this form is used by the CFIA (Canadian Food Inspection Agency) to assign an equivalent Canadian seed potato certification "Class" to the imported seed lot. A complete procedure is described in Appendix 4.

Assignment of an equivalent class is necessary **for all** imported seed potato lots intended for planting

on a seed potato farm, even if they are not intended for re-certification. All seed potatoes planted on farms participating in the CSPCP (Canadian Seed Potato Certification Program) must be of a class equivalent to or better than the Foundation class. Provincial requirements may also require the assignment of an equivalent class to determine their eligibility for planting within that province.

a) When imported **for re-certification or planting on a seed farm:**

When a shipment of seed potatoes is imported for planting on a seed potato farm unit, the testing of a sample representing the seed lot for BRR (Bacterial Ring Rot) must be carried out in a CFIA (Canadian Food Inspection Agency)-approved laboratory or in a laboratory which can reasonably be considered as equivalent (USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratory). It is the responsibility of the importer to provide the results of tests performed on a representative sample of each seed lot. The samples must be found negative for BRR (Bacterial Ring Rot) prior to planting. The required sample size for BRR (Bacterial Ring Rot) testing is a minimum of 1% of the tubers (minimum of 5 tubers) to a maximum of 400 tubers for every lot imported.

If the testing is to take place in a CFIA (Canadian Food Inspection Agency)-approved laboratory in Canada prior to the actual commercial import of tubers from the seed lot, the CFIA (Canadian Food Inspection Agency)-approved laboratory must obtain a Permit to Import under section 43 of the *Plant Protection Regulations* for authorization to import tuber samples for testing. The CFIA (Canadian Food Inspection Agency) issues one permit that covers all states. The permit states the following conditions:

"Material must be routed directly to the authorized laboratory (identified on the permit). The material must be packaged and transported in sturdy, leak-proof containers. Not for sale/distribution. For laboratory analysis use only. Residual material to be incinerated or autoclaved before disposal, or be transported in leakproof containers to a CFIA (Canadian Food Inspection Agency)-approved landfill site."

"A list of all samples imported will be retained by the importer for review by a CFIA (Canadian Food Inspection Agency) inspector. Date and process of disposal are to be indicated. If test results are used by U.S. (United States) officials for the issuance of a Phytosanitary Certificate for potatoes exported into Canada, sampling must be done under the supervision of such officials."

It is possible to import seed potatoes that have not been tested in a CFIA (Canadian Food Inspection Agency)-approved laboratory or in a laboratory considered as equivalent (USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratory), however a sample representing the shipment of seed potatoes will need to be tested at a CFIA (Canadian Food Inspection Agency) approved facility before they can be recognized for planting on a seed potato farm unit.

b) When imported and **not intended for planting on a seed farm**:

Test requirements for BRR (Bacterial Ring Rot) testing apply to all the imported lots of seed potatoes even if they are not intended for re-certification or planting on a seed farm. However, the testing **does not need** to be performed in a CFIA (Canadian Food Inspection Agency)-approved laboratory or in a laboratory considered as equivalent (USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratory), if it is not going to be planted on a seed potato farm unit. It is the responsibility of the U.S. (United States) official signing the Phytosanitary Certificate to ensure the validity of such testing and to apply the appropriate additional declaration as specified in section 2.2.2.2 (3).

2.3 Protected environment: *in vitro* plantlets, micro-tubers, mini-tubers, cuttings

To be eligible for import, the material must meet the requirements described in D-97-08: *Production, maintenance, multiplication and certification of nuclear stock seed potatoes*. The material must have been grown in a soil-less medium and in a protected environment (i.e. (that is to say), a laboratory, greenhouse, screen house or growth chamber). When soil has been used to grow this material, requirements of field-grown potatoes apply (see Section 2.2 of the current directive).

2.3.1 From countries other than the continental U.S. (United States)

A Permit to Import **is required**.

Prior approval by the CFIA (Canadian Food Inspection Agency) is required to import *in vitro* plantlets, micro-tubers, mini-tubers, and cuttings from areas other than continental U.S. (United States)

Consignments must be routed directly by mail from the exporting country to the CFIA (Canadian Food Inspection Agency) PEQ (Post Entry Quarantine) facility at the CFIA (Canadian Food Inspection Agency) Charlottetown Laboratory, 93 Mount Edward Road, Charlottetown, P.E.I. (Prince Edward Island), C1A 5T1. Under post-entry quarantine, each individual accession is tested and phytosanitary certification at origin is waived.

If the shipment of potato propagative material is delivered to the CFIA (Canadian Food Inspection Agency) Charlottetown Laboratory from a location within Canada, it is considered a contravention of the permit conditions and the shipment may be confiscated and/or destroyed at the importer's expense.

The material must be packaged and transported in sturdy leak-proof containers. All variety/clone names must be listed on the Permit to Import and must match the variety/clone names on/in the containers.

It is the responsibility of the importer to ensure that the imported material is free of quarantine pests of concern to Canada (see Appendix 1); infested material will be rejected and destroyed. PEQ (Post Entry Quarantine) is a process that can take approximately 8-12 months to complete when the starting material is *in vitro*. In the event that non *in vitro* material is received (e.g. (for example) tubers, cuttings, etc. (et cetera)), the material may be initially introduced *in vitro* which will increase the time required to complete the process.

Note 5: Under special circumstances, the CFIA (Canadian Food Inspection Agency) may approve the import of *in vitro* plantlets, micro-tubers, mini-tubers, and cuttings for further multiplication as seed, following the completion of a comprehensive pest risk analysis on the country of origin.

When a producer wishes to **multiply material released from PEQ (Post Entry Quarantine) as certified seed potato material under CSPCP (Canadian Seed Potato Certification Program),** the following documents are required to support an Application for Seed Potato Crop Inspection Grower's Declaration - (CFIA/ACIA 1317).

- Laboratory test results;
- Notice of Release from Quarantine (CFIA/ACIA 0109); and
- Other relevant documentation sent with the line/variety (i.e. (that is to say): Permits to Import, line/variety descriptions, letters from supplier/breeder, Bills of Lading etc. (et cetera)), that normally accompany the lines/varieties that are released from quarantine after the PEQ (Post Entry Quarantine) process has been completed.

2.3.2 From the continental U.S. (United States)

A Permit to Import **is required**.

Import is permitted from all states of the continental U.S. (United States), however only material from the U.S. (United States) recognized seed certification program will be considered for re-certification.

Regular permits are valid for three years from the date of permit issuance. They are usually issued for "various exporters from the continental U.S. (United States)" for registered varieties of potatoes originating from one eligible state. Quantities are not limited.

A valid Phytosanitary Certificate **is required** for each shipment and supports that the potato material is not infested with a quarantine pest and has been grown in a soil-less medium.

For mini-tubers, the following additional declaration must appear on the Phytosanitary Certificate:

"The articles in this shipment were grown in a PCN (Potato Cyst Nematodes)-free place of production and in a manner to prevent infestation by Potato Cyst Nematodes (*Globodera rostochiensis* and *Globodera pallida*)."

Special permits for limited quantities of potatoes of non-registered varieties or other non-certified seed potatoes for propagation (e.g. (for example) research, education, exhibition, commercial trials, etc. (et cetera)) are generally issued for one year from the date of permit issuance. Import conditions for these permits will be specified on the permit and will be determined based on an evaluation of the risk of introduction of regulated pests represented by each individual situation.

a) When a producer wishes to **multiply imported potatoes produced in a protected environment from the continental U.S. (United States) as certified seed potato material under the CSPCP (Canadian Seed Potato Certification Program),** the following steps apply:

1. Growers must indicate their intentions of entering imported material in the Certification program by submitting an Application Application for Seed Potato Crop Inspection - Grower's Declaration (CFIA/ACIA 1317) to CFIA (Canadian Food Inspection Agency).

2. Such material must be free of all diseases, as described in CFIA (Canadian Food Inspection Agency) Policy Directive D-97-08: *Production, maintenance, multiplication and certification of Nuclear Stock seed potatoes*.

3. All potato lines/varieties listed on the Application (CFIA/ACIA 1317) must be accompanied by the necessary documentation to support the origin and the phytosanitary status. Applicable documentation includes:
   A 'North American Certified Seed Potato Health Certificate' stating the disease testing status with dates (e.g. (for example) assigned the class "Nuclear Stock" or equivalent) **must be submitted**

   and

   Any additional documents (Permits to Import, laboratory testing results, Phytosanitary Certificates, Bills of Lading, etc. (et cetera)) that will allow the Inspector to determine the origin and disease status of the material **may also be submitted**.

4. As specified in the *Seeds Regulations*, testing for BRR (Bacterial Ring Rot) must be carried out

in a CFIA (Canadian Food Inspection Agency)-approved laboratory, a laboratory considered as equivalent (USDA (United States Department of Agriculture)-APHIS (Animal And Plant Health Inspection Services) approved laboratory) or testing must be done in Canada prior to submitting application. Proof that such testing has been carried out must also accompany the Application (CFIA/ACIA 1317).

5. The Inspector evaluates all the information submitted as outlined in 2.3.2, 1 to 4 above. When all of the requirements have been met, an applicable class and certification number will be assigned for further reference of this material as a certified seed potato line. Official movement documents such as Seed potato tags: Nuclear (CFIA/ACIA 5298), Nuclear Stock Certificate (CFIA/ACIA 4351), and Certification of Authorization (CFIA/ACIA 4378) can only be issued by a CFIA (Canadian Food Inspection Agency) Inspector when proper certification status has been determined and granted.

2.4 Non-Compliance

Shipments not meeting Canadian Plant Health import requirements will be refused entry and must be returned to the country of origin or destroyed at the importer's expense. Material which does not meet requirements under the *Seeds Act* and *Seeds Regulations* may be allowed entry, under the provisions of the D-96-05, but will not be given seed status and is not eligible for certification under the Canadian Seed Potato Certification Program. Additional information is described in CFIA (Canadian Food Inspection Agency) directive D-01-06: *Canadian phytosanitary policy for the notification of non-compliance and emergency action*.

3.0 Appendices

Appendix 1: Quarantine Pests of Potatoes

Viruses

- Andean potato latent virus (APLV)
- Andean potato mottle virus (APMoV)
- Arracacha virus B - Oca strain (AVB-O)
- Beet curly top virus (BCTV)
- Potato deforming mosaic virus (Brazil) (PDMV)
- Potato virus T (PVT)
- Potato virus U (PVU)
- Potato virus V (PVV)
- Potato yellow vein virus (PYVV)
- Potato yellowing virus (PYV)
- Tobacco ringspot virus - calico strain (TRSV-Ca), a stain of Potato black ringspot virus (PBRSV)
- Tomato black ring virus (TBRV)

Viroid

- Potato Spindle Tuber Viroid (PSTVd)

Bacteria

- Brown rot (*Ralstonia solanacearum* (Smith) Yabuuchi et al. (et alii), race 3 (biovar 2))

Nematodes

- Columbia root knot nematode (*Meloidogyne chitwoodi* Golden et al. (et alii), 1980)
- Golden nematode (*Globodera rostochiensis* (Wollenweber) Behrens)
- Stem and bulb nematode (potato race) (*Ditylenchus dipsaci* (Kuhn) Filipjev)
- Potato rot nematode (*Ditylenchus destructor* Thorne)
- Pale cyst nematode (*Globodera pallida* (Stone) Behrens)

Fungi

- Common potato rust (*Puccinia pittieriana* P.Hennings)
- Potato gangrene (*Phoma exigua* Desmazieres var. *foveata* (Foister) Boerema)
- Potato smut (*Thecaphora solani* (Thirumulachar & O'Brien) Mordue)
- Potato wart disease (*Synchytrium endobioticum* (Schilbersky) Percival)

Insect

- Colorado potato beetle (*Leptinotarsa decemlineata*)

Note: This list may not be exhaustive and is subject to change as circumstances dictate and as new pest information becomes available.

Appendix 2: Background Information for Various Pests

Bacterial Ring Rot (BRR; *Clavibacter michiganensis* subsp (subspecies). *sepedonicus*)

The presence of BRR (Bacterial Ring Rot) affects exports to many countries. Through the use of disease free Nuclear Stock class seed potatoes, mandatory laboratory testing, and the application of zero tolerance for certified seed potatoes, BRR (Bacterial Ring Rot) has been virtually eradicated from the Canadian seed potato production.

Columbia root knot nematode (*Meloidogyne chitwoodi* Golden et al. (et alii), 1980)

The Columbia root knot nematode is a soil-borne and tuber-borne pest of potatoes and of cereals, such as wheat. It survives in egg masses embedded in the tuber or detached in the soil. The nematodes can also overwinter as infective second stage juveniles (J2), free-living in the soil. Both infested tubers, and infested soil can serve as pathways for introduction and dissemination of the pest.

Pale cyst nematode (*Globodera pallida* (Stone) Behrens)
Golden nematode (*Globodera rostochiensis* (Wollenweber) Behrens)

These two species of potato cyst nematodes are both obligate parasites of the potato family. They attack the roots of the potato and can persist in the soil as cysts for extended periods (i.e (that is to say). minimum of 12 years to over 25 years) in the absence of a host. Both infested soil and infected tubers can serve as pathways of introduction. More information on these pests can be found on the CFIA (Canadian Food Inspection Agency) web site, under *Globodera rostochiensis* and *Globodera*

pallida.

Potato rot nematode (*Ditylenchus destructor* Thorne)

Potatoes are the main host for the potato rot nematode, but this pest also attacks a wide range of other crops including onion and garlic bulbs. Seed potatoes are considered the most important pathway for its spread.

Potato Mop Top Virus (PMTV)

PMTV (Potato Mop Top Virus) survives in the soil within dormant resting spores of its fungal vector *Spongospora subterranea* (the powdery scab fungus). These infected viable resting spores can persist for up to 18 years in the soil. Systemic movement of the virus within the plant is generally slow and erratic. The most important means of transmission is via the obligate vector, powdery scab (primary infection), as well as PMTV (Potato Mop Top Virus) tubers planted as seed, which will pass the virus on as a secondary infection to only a limited number of progeny tubers (secondary infection).

Tobacco Rattle Virus (TRV)

TRV (Tobacco Rattle Virus) has a very wide host range involving potatoes, a number of flower bulbs, vegetables and many weed species. Transmission of this virus is by its vector, stubby root nematodes (*Trichodorus* and *Paratrichodorus* spp. (species)) and can cause the symptoms 'Spraing' or Corky ringspot.

Potato Spindle Tuber Viroid (PSTVd)

PSTVd (Potato Spindle Tuber Viroid) is now considered to be officially eradicated from the Canadian potato industry. The disease has not been found in Canadian potato crops since 1980. A survey for the viroid was completed for Prince Edward Island and New Brunswick in 1989, and for the western provinces of British Columbia, Alberta and Saskatchewan in 2002. In 2004 the PSTVd (Potato Spindle Tuber Viroid) survey was completed in the remaining provinces of Manitoba, Ontario, Quebec, Nova Scotia, and Newfoundland and Labrador.

Colorado potato beetle (*Leptinotarsa decemlineata*)

The Colorado potato beetle (CPB) occurs in all the major potato regions of the world, but it is not present in the province of Newfoundland and Labrador. Measures are in place to maintain Newfoundland and Labrador free of CPB (Colorado potato beetle).

Appendix 3: North American Certified Seed Potato Health Certificate

Click on image for larger view

RDIMS 1506430

NORTH AMERICAN CERTIFIED SEED POTATO HEALTH CERTIFICATE - Crop Year 2013

NORTH AMERICAN CERTIFIED SEED POTATO HEALTH CERTIFICATE - Année de récolte 2013

Identification	*Grower / Producteur*	*Importer / Importateur*
Name/ *Nom* :		
City, State/Prov: / *Ville, État/Prov.*		

Lot information / *Information sur le lot*

Variety / *Variété*		Quantity shipped / *Quantité expédiée*	
Acres/ *Acres*		Size / *Volume*	

Lot certification / *Certification du lot*		**Lot origination from tissue culture** / *Lot provenant d'une culture de tissus*		
Certification # / *# de Certification*		Lot originating from tissue culture / *Lot provenant d'une culture de tissus*	No / *Non*	Yes / *Oui*
Seed Class/Gen. / Classe et génération de la semence		Year micropropagated for planting / *Année de multiplication par micropropagation en vue d'une plantation*		

Certifying Agency: / *Organisme de certification*		By / *Par*:	

Production Environment Pedigree Fill in 1 column per production year; use different initials in Greenhouse and Field boxes for different farms (eg. JSF for John Smith Farms); indicate a tuber-united lot with a "+" after the initials; describe other footnotes in "Notes" below.

Historique de l'environnement de production : *Remplir 1 colonne par année de production, utiliser des initiales différentes dans les cases "Serre" et "Champ" pour des exploitations différentes (p. ex. JSF pour John Smith Farms); identifier les lots à tubercules à l'aide d'un « + » après les initiales de l'exploitant; décrire toutes autres commentaires dans l'espace "Remarques" prévu à cet effet ci-dessous.*

Number of years produced in field soil: _____ *Nombre d'années de production en champ :* _____

Year of production / *Année de production*	2005	2006	2007	2008	2009	2010	2011	2012
Greenhouse (insect excluding) & sterile soil / *Serre (insectes exclus) et sol stérile*								
Field (note special measures below) / *Champ (noter les mesures particulières dans l'espace "Remarques" prévu à cet effet ci-dessous)*								
Certification no./ *No. de certification*								
Certifying Agency / *Organisme de certification*								

Summer Field Readings (field inspection)/
Relevés au champ pour la saison estivale *(inspection au champ)*

	1er / 1re	2nd / 2 ième	3e / 3 ième	Final
% leafroll / *% enroulement*				
% mosaic / *% virus mosaïque*				
% varietal mix / *% de mélange de variété*				
% blackleg / *% de jambe noire*				
% vert + % fusarium + % early blight / *% de verti + % de fusarium + % brûlure hâtive*				

Post harvest Reading / *Relevés post-récolte*

Visual / Visuelle	
Sample no. / *No. d'échantillon*	
Plant count / *Nbre. de plants:*	

location / *Emplacement* :
Post harvest lab test results for viruses *Dépistage de virus en laboratoire pour les tests post-récolte*
% PVY :
% PVX :
% PLRV :

Other diseases / *Autres maladies*

	Not known to occur in grower's area. / *Aucune présence dans la région des producteurs à notre connaissance*	No. of years since last found on grower's farm, or NONE ON RECORD if free > 10 years / *Nbre d'années depuis la dernière détection du virus sur l'exploitation du producteur, ou AUCUNE DANS LES DOSSIERS si la période est sup. à 10 ans*	Not found this year during normal certification field inspections / *Présence non détectée cette année durant les inspections de certification normales sur le terrain*
Bacterial Ring Rot / *Flétrissement bactérien*			
Late Blight / *Mildiou*			

Eligible for re-certification in the area of production / *Admissibilité à une recertification dans la zone de production*	No / *Non*	Yes/ *Oui*

Notes / *Remarques*:

The above information is accurate to the best of our knowledge / *L'information ci-dessus est, à ma connaissance, exacte* :

Program official & title / *Responsable du programme / Titre*:	Date / *Date*:
Signature / *Signature* :	Telephone / *Téléphone* :
Agency / *Organisation* : Canadian Food Inspection Agency / *Agence canadienne d'inspection des aliments*	Fax / *Télécopieur* :

Approved for use by the Certification Section of the Potato Association of America/Approuvé par la section de la certification de la Potato Association of America pour fin d'utilisation

▶ Description of the North American Certified Seed Potato Health Certificate

Appendix 4: Assigning a Seed Certification Class to Imported Field-Grown Seed Potatoes.

To be carried out by a CFIA (Canadian Food Inspection Agency) seed potato inspector or Regional/Area Program Officer:

1. Identify the number of years the seed lot has been grown in the field. This is the generation number.
   Do not rely on the class name for generations as they are not consistent from state to state and are not necessarily consistent with Canada's interpretation. For example, in many states the first generation in the field is the "nuclear class" and second field generation is called "Generation 1".

2. Compare field readings of the lot with the tolerance for the equivalent generation in the Canadian *Seeds Regulations*.
   - Generation 1 - Pre-Elite
   - Generation 2 - Elite I (1)
   - Generation 3 - Elite II (2)
   - Generation 4 - Elite III (3)
   - Generation 5 - Elite IV (4)
   - Generation 6 - Foundation

- Generation 7 - Certified

Assign a corresponding class to the imported seed lot if the final field reading listed on the 'North American Certified Seed Potato Health Certificate' meets the *Seeds Regulations* tolerances for that class. If the field readings exceed the tolerance for that class, compare to the tolerances of the next lower class, until the readings are less than or equal to the tolerances set under the *Seed Regulations*.

The class assigned shall be the highest class allowed according to the tolerances set by the *Seed Regulations*, but no higher than the equivalent number of generations.

e.g. (for example): A seed lot from California is submitted for classification has a 0.3 mosaic field reading and is classed as Generation 3 (G3) by the State Certification Agency.

G3 in California represents a class that has been in the field for four years (N being the first field generation followed by, G1, G2, G3). This would be equivalent to Elite 3 (E3) in the Canadian Certification Program. The disease tolerance for viruses is 0.2; this does not qualify for E3. The best class that can be assigned to the lot is Elite IV (4) (tolerance of 0.3 for viruses).

Appendix 5: The Occurrence of Potato Pests in Certain U.S. (United States) States that have a Recognized Seed Potato Certification Program

State Certification Programs	CRKN (Columbia root knot nematode)	GN (Golden nematode)	PRN (Potato Rot Nematode)	PN (Pale cyst nematode)
Alaska				
California	X (designated pest is known to occur)		X (designated pest is known to occur)	
Colorado	X (designated pest is known to occur)			
Idaho	X (designated pest is known to occur)		X (designated pest is known to occur)	X (designated pest is known to occur)
Maine				
Michigan				
Minnesota				
Montana				
Nebraska				

State Certification Programs	CRKN (Columbia root knot nematode)	GN (Golden nematode)	PRN (Potato Rot Nematode)	PN (Pale cyst nematode)
New York		X (designated pest is known to occur)		
North Dakota				
Oregon	X (designated pest is known to occur)		X (designated pest is known to occur)	
Utah	X (designated pest is known to occur)			
Washington	X (designated pest is known to occur)		X (designated pest is known to occur)	
Wisconsin			X (designated pest is known to occur)	
Wyoming	X (designated pest is known to occur)			

X - designated pest is known to occur
PRN (Potato Rot Nematode) - Potato Rot Nematode (*Ditylenchus destructor*)
CRKN (Columbia root knot nematode) - Columbia root knot nematode (*Meloidogyne chitwoodi*)
GN (Golden nematode) - Golden nematode (*Globodera rostochiensis*)
PN (Pale cyst nematode) - Pale cyst nematode (*Globodera pallida)*

Note: The data presented in this appendix is based on information provided by USDA (United States Department of Agriculture)-APHIS (Animal and Plant Health Inspection Service) at the time of the current revision.

Appendix 6: Distribution of Regulated Potato Pests in the Continental United States

Distribution of Regulated Potato Pests in the Continental United States

Share this page

Date modified:
2016-12-28