



Notification of Department of Agriculture
Re: Conditions for Import of Seed Potatoes from Canada
B.E. 2522 (2009)

The Department of Agriculture has completed pest risk analysis for commercial importation of seed potatoes from Canada into Thailand. By virtue of the provisions of Section 8 and Section 10 of the Plant Quarantine Act B.E. 2507 (1964) amended by the Plant Quarantine Act (No. 3) B.E. 2551 (2008) with particular provisions that may restrict the right and freedom of any person in which Section 29 together with Section 32, Section 33, Section 41 and Section 43 of the Constitution of the Kingdom of Thailand permits by virtue of the law. The Director-General of Department of Agriculture through the recommendation of the Plant Quarantine Committee, hereby announces the conditions that have to be met in order to import seed potatoes for propagation purpose from Canada into Thailand as follows:

1. Plant species

Seed potato, *Solanum tuberosum*

2. Quarantine pests of concern

2.1 A list of quarantine pests of current concern to Thailand for seed potatoes and associated soil from Canada is given in Appendix.

2.2 Quarantine pests requiring risk management measures in seed potatoes are as follows;

2.2.2 pale cyst nematode, *Globodera pallida*

2.2.3 golden nematode, *Globodera rostochiensis*

2.2.1 potato wart, *Synchytrium endobioticum*

2.2.4 bacterial ring rot, *Clavibacter michiganensis* subsp. *sepedonicus*

3. Responsible organizations

- 3.1 Thailand: Department of Agriculture
(hereinafter referred to as DOA)
- 3.2 Canada: Canadian Food Inspection Agency
(hereinafter referred to as CFIA)

4. Accredited/Approved laboratories

Testing for seed potato certification and phytosanitary certification shall be performed by CFIA-operated or CFIA-accredited/approved laboratories.

5. Import permit

Import permit issued by DOA is required.

6. Means of conveyance

Seed potatoes shall be imported from a port in Canada to a designated port in Thailand by ship cargo or air cargo.

7. Production areas

7.1 Seed potatoes shall be produced in Canada, where the CFIA designated as production areas for export to Thailand and the DOA has approved prior to export. and

7.2 Only seed potatoes produced in the following provinces in Canada are permitted to import into Thailand.

7.2.1 New Brunswick

7.2.2 Prince Edward Island

8. Production and certification

8.1 Seed potatoes from Canada must be certified in accordance with the requirements of a recognized certification agency and recognized seed potato certification programs. CFIA is a recognized Certifying Authority of seed potatoes in Canada and is responsible to verify and certify seed potatoes export to Thailand under Canadian Seed Potato Certification Program to meet the phytosanitary requirements indicated in this Notification.

- 8.2 Seed potatoes shall be produced and, except specify, certified in compliance with standards legislated under the Seeds Act (R.S., 1985, c. S-8) and the Seeds Regulations (C.R.C., c. 1400) Part II Seed Potatoes (sections 45 to 63).
- 8.3 It is recognized that there is zero tolerance for bacterial ring rot, *Clavibacter michiganensis* subsp. *sepedonicus* and *Potato spindle tuber viroid* (PSTVd) in Canadian Seed Potato Certification Program.
- 8.4 Certifying Authority shall issue a seed potato certification tag only for seed potatoes that meet all phytosanitary requirements specified in this Notification. A seed potato certificate number shall be indicated on the seed potato certification tag and the Phytosanitary Certificate to enhance the capability for trace-back of identified problems on import seed potatoes.

9. Requirements for soil

- 9.1 Potato tubers shall be practically free of soil.
- 9.2 The weight of loose soil shall not exceed 100 g per 50 kg seed potatoes (equivalent to 0.2 % soil by weight). For caked soil, seed potatoes which have more than 20 % of the surface of the tuber with caked soil should not exceed 30 tubers in a 600 unit sample (equivalent to 5 %).

10. Requirements for quarantine nematodes

- 10.1 Some areas in Alberta, British Columbia, Newfoundland and Labrador and Quebec provinces in Canada have been found to be infested with potato cyst nematode (pale cyst nematode, *Globodera pallida* and golden nematode, *Globodera rostochiensis*).
- 10.2 Seed potatoes produced in potato cyst nematode regulated areas in Canada are prohibited to import into Thailand. In addition, seed potatoes produced in land which as a result of an official soil test has been found to be contaminated with potato cyst nematode are prohibited to import into Thailand.
- 10.3 The phytosanitary regulations shall be in place prohibiting and restricting the transportation and movement of any plant or other matter that is likely to result in the spread of potato cyst nematode from infested areas.
- 10.4 It is mandatory that land on which the seed potatoes were grown must be subjected to an official soil test pre-planting or pre-harvest for the presence of potato cyst nematode. Only seed potatoes grown in fields free of potato cyst nematode are permitted to import into Thailand. The certification for the presence of potato cyst nematode in potato fields shall be done according to the agreed upon protocol. In addition, the samples of soil shall be analyzed only by CFIA-operated laboratories.

- 10.5 In addition to potato cyst nematode, seed potatoes shall be produced in fields free of nematodes of quarantine significance specified in this Notification, based on official surveillance.

11. Requirements for quarantine plant diseases caused by fungi

11.1 Potato wart, *Synchytrium endobioticum*

11.1.1 Seed potatoes from the fields found to be contaminated with potato wart are prohibited to import into Thailand.

11.1.2 Seed potatoes intended to export to Thailand shall be grown in the fields which potato wart have not been found within the minimum distance of 5 kilometers from the infected field.

11.1.3 Phytosanitary regulations shall be in placed prohibiting and restricting the transportation and movement of any plant or other matter that is likely to result in the spread of potato wart from infected areas.

11.2 The tolerance level for powdery scab, *Spongospora subterranea*, should not exceed 2% of the tubers with a detectable level of powdery scab. A detectable level is five lesions or more per tuber.

11.3 The tolerance level for skin spot, *Polyscytalum pustulans*, should not exceed 2 % of the tubers with a detectable level of skin spot. A detectable level is five lesions or more per tuber.

12. Requirements for quarantine plant diseases caused by bacteria

12.1 Seed potatoes from the fields found to be contaminated with bacterial ring rot, *Clavibacter michiganensis* subsp. *sepedonicus* and fields that shared equipment, facility, and/or staff, with the bacterial ring rot infected fields are prohibited to import into Thailand.

12.2 The phytosanitary regulations shall be in placed prohibiting and restricting the transportation and movement of any plant or other matter that is likely to result in the spread of bacterial ring rot from infected areas.

12.3 Seed potatoes from the field intended to export to Thailand shall be mandatory subjected to laboratory analysis for the presence of bacterial ring rot by CFIA-operated or CFIA-accredited/approved laboratories. Only seed potatoes grown in fields which are not found positive for bacterial ring rot are permitted to import into Thailand.

- 12.4 The testing protocol for bacterial ring rot shall be based on the Directive D-97-12, Title: Seed potato certification program – Bacterial ring rot testing program for field grown seed potatoes.

13. Requirements for quarantine plant diseases caused by viruses

- 13.1 Seed potatoes shall be grown in potato fields which shall be visually inspected by inspectors of the Certifying Authority for virus diseases during growing season according to requirements specified in the Seed Regulations Part II (sections 45 to 63) and shall be free of potato diseases caused by viruses of quarantine significance specified in Appendix, except those mentioned in Section 13.4. In addition, the threshold level for the total of all viruses other than viruses of quarantine significance shall not exceed 0.1 %.
- 13.2 In addition to visual inspection, it is required that seed potatoes shall be subjected to laboratory analysis according to the agreed upon protocol by approved laboratories for the percentage of *Potato virus Y* (PVY) and *Potato leaf roll virus* (PLRV) infection. The tolerance level for PVY and PLRV infection in potato tubers of identified fields should not exceed 4 %. Currently, the agreed upon testing methodology of PVY and PLRV on leave or sprouts is as follows.
- 13.2.1 Leaf testing: Leaves for ELISA testing must be collected before spray down and must be analyzed by using the following procedures.
- (a) The testing methodology involves of 300 leave from identified field (up to 10 hectares) bundled into 15 lots of 20 leave.
 - (b) The 15 tests will detect crops with viral infection level of <4 % with a probability at the 95 % confidence level. Six positive tests will result in rejection of the crop for export to Thailand.
- 13.2.2 Sprout testing: Sprouts for ELISA testing must be analyzed by using the following procedures.
- (a) The samples of 300 tubers from identified field (up to 10 hectares) are taken during harvesting or from the consignment. The eyes of the tubers are cut out and planted in a greenhouse.
 - (b) Samples of sprouts are separated into 15 lots of 20 sprouts. The 15 tests will detect crops with viral infection level of <4 % with a probability at the 95 % confidence level. Six

positive tests will result in rejection of the crop for export to Thailand.

- 13.3 Laboratory test report of PVY and PLRV infection on seed potatoes shall be kept by CFIA-operated or CFIA- accredited/approved laboratories and shall be made available to DOA upon request. Test report shall contain adequate information to assure traceability e.g. grower, supplier, seed potato certificate number, number of samples and results of analysis.
- 13.4 It is required that the tolerance level for visual symptoms of *Potato mop top virus* (PMTV) infection in seed potato tubers of identified fields should be nil.

14. Requirements for packing and labeling

- 14.1 Seed potatoes shall be packaged in bags that contain 25-50 kg, are new and closed after packing.
- 14.2 Each bag shall be affixed with a seed potato certification tag. The information labels on seed potato certification tag shall comply with CFIA's requirement.

15. Export inspection

- 15.1 The consignment of seed potatoes shall be inspected for export to Thailand prior to or during loading in the last mode of transportation. Following inspection, the container shall be immediately closed and sealed.
- 15.2 A Phytosanitary Certificate shall be issued only for the consignments that meet all phytosanitary requirements specified in this Notification.

16. Phytosanitary certification

- 16.1 A Phytosanitary Certificate must accompany with each consignment of seed potatoes from Canada and must indicate the province of origin.
- 16.2 A Phytosanitary Certificate shall bear the following additional declaration.

“The seed potatoes in this consignment were produced in Canada in accordance with the conditions governing entry of seed potatoes to Thailand.”

- 16.3 Container number (for sea freight only) and seed potato certificate number of seed potatoes in every container must be recorded on the Phytosanitary Certificate.

17. Import inspection

- 17.1 When the consignments of seed potatoes arrive at the port of entry in Thailand, the import inspection shall be conducted after confirming the respective documents accompanying the consignments concerned.
- 17.2 DOA reserved the right to have the consignment re-exported or destroyed at the importer's expenses, if the certification does not conform to phytosanitary import requirements or seals on the containers are damaged.
- 17.3 If quarantine pests of Thailand concern as stipulate in Appendix are found or exceed acceptable tolerance level during import inspection, the infested consignment shall be either re-exported or destroyed at the importer's expenses. The DOA will notify the CFIA of the non-compliance and, depending on the circumstances, may temporarily suspend importation of that lot, farm, province or the whole country.
- 17.4 CFIA shall immediately investigate the cause of such incidence and propose corrective actions. Suspension of import will be lift when the cause of non-compliance has been clarified and corrective actions have been implemented to the satisfaction of DOA.
- 17.5 If any live organism of potential quarantine concern to Thailand not listed in Appendix is found, the consignment shall be re-exported, destroyed or treated with an appropriated treatment (if available) at the importer's expenses. The DOA reserved the right to temporary suspension of import from the identified pathway until a risk assessment of intercepted organisms is determined.
- 17.6 Although the consignments of seed potatoes have been released from port of entry, if there is a reasonable ground from available evidence to believe that seed potatoes imported from certain production sites are likely to be contaminated with quarantine pests, seed potatoes shall be withheld from planting and subjected to appropriate phytosanitary measures to prevent the pests spread under DOA supervision. The costs of such action shall be borne by the importer.
- 17.7 It is the requirement that the importer shall promptly provide DOA upon request a list of growers and planting areas of importing seed potatoes. In addition, field survey shall be immediately carried out by plant quarantine officials if there is a reasonable ground to believe that quarantine pests associated with importing seed potatoes may be present in potato fields. The costs of such survey shall be borne by the importer.

18. Audit of export procedures

- 18.1 The seed potato production areas indicated in Section 7.2 are approved by DOA to export seed potatoes to Thailand. The export of seed potatoes from

non-approved production areas in Canada to Thailand shall only be initiated after the DOA has audited export certification procedures. The costs of such audits must be borne by Canada.

- 18.2 In the event of a suspension of import, DOA may audit export certification procedures in Canada prior to a decision being taken on resumption of import. Where DOA has determined that such audits are necessary, the costs of these audits must be borne by Canada.

Effective on this date henceforth.

Issued on 16 July B.E. 2552 (2009)

Mr. Somchai Charnnarongkul

Director-General
Department of Agriculture

Appendix

List of quarantine pests of seed potatoes and associated soil from Canada
attached to the Notification of Department of Agriculture
Re: Conditions for Import of Seed Potatoes from Canada B.E. 2552 (2009)

Scientific name	Common name
Plant Pathogens	
Nematodes	
<i>Ditylenchus destructor</i>	potato rot nematode
<i>Ditylenchus dipsaci</i> (potato race)	stem and bulb nematode
* <i>Globodera pallida</i>	pale cyst nematode
* <i>Globodera rostochiensis</i>	golden nematode
<i>Heterodera glycines</i>	soybean cyst nematode
Fungi	
<i>Polyscytalum pustulans</i>	skin spot
<i>Spongospora subterranea</i>	powdery scab
* <i>Synchytrium endobioticum</i>	potato wart
<i>Verticillium albo-atrum</i>	verticillium wilt
Bacteria	
* <i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i>	bacterial ring rot
Viruses	
<i>Alfalfa mosaic virus</i> (AMV)	alfalfa yellow spot
<i>Pepino mosaic virus</i> (PepMV)	
<i>Potato latent virus</i> (PotLV)	
<i>Potato mop top virus</i> (PMTV)	potato mop-top
<i>Potato virus A</i> (PVA)	
<i>Potato virus M</i> (PVM)	
<i>Potato yellow dwarf virus</i> (PYDV)	yellow dwarf of potato
<i>Potato yellow mosaic virus</i> (PYMV)	
<i>Tobacco rattle virus</i> (TRV)	spraing of potato
<i>Tobacco ringspot virus</i> (TRSV)	annulus tabaci
<i>Tobacco streak virus</i> (TSV)	stunt of asparagus
<i>Tomato spotted wilt virus</i> (TSWV)	tomato spotted wilt
Viroids	
<i>Potato spindle tuber viroid</i> (PSTVd)	spindle tuber of potato
Phytoplasmas	
<i>Aster yellows phytoplasma group</i>	
<i>Potato marginal flavescens</i>	
<i>Potato parastolbur</i>	
<i>Potato purple top wilt</i>	
<i>Potato stolbur</i>	
<i>Potato witches' broom</i>	

* Required risk management measures.

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- UNOFFICIAL TRANSLATION
 - This is an English translation. In case of any difference in meaning between the Thai text and the English translation, the Thai text shall be applied.