

Industry Best Practices for Preventing Soil on Imported Produce

(excluding potatoes)



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Introduction

Quarantine plant pests pose a significant threat for Canada and can cause damage that is both costly and extensive. Quarantine plant pests include insects, other plants, or micro-organisms. According to the ISPM 5 definition, a quarantine pest is “A **pest** of potential economic importance to the **area endangered** thereby and not yet present there, or present but not widely distributed and being **officially controlled**.” The Canadian produce industry understands the importance of mitigating the risks posed by pests, for the protection and health of agriculture and the environment in Canada.

The most effective way to deal with plant or plant product pests is to prevent their entry into Canada. This requires a collaborative effort between the CFIA, domestic importers, foreign exporter communities, and our international partners.

Plant Protection in Canada is governed by the *Plant Protection Act* and its *Regulations*. The purpose of this Act is to protect plant life and the agricultural and forestry sectors of the Canadian economy by preventing the importation, exportation and spread of pests and by controlling or eradicating pests in Canada.

Soil is considered to be a high risk pathway for spreading a wide range of pests including, but not limited to: bacteria, fungi, insects, nematodes and weeds. Numerous soil-borne pests can survive for many years, with or without suitable hosts. Some of these pests can be detected visually while most soil borne pests are not visible to the naked eye. In the case of various identified nematode cysts, they may contain as many as 500 eggs and persist in the soil for decades until a suitable host is detected by the pest. In 1985, it was estimated that plant material infested with potato cyst nematodes in the Saanich area (BC) in the 1930s, had cost over \$10 billion related to regulation enforcement, compensation, market access loss, etc. More recent nematode detections in Quebec and Alberta incurred cost of over \$50 million for surveillance and laboratory testing. In Newfoundland, the cumulative costs for the quarantine for potato wart and golden nematode since the introduction of the *Destructive Insects and Pests Act* of 1910 exceed \$27 million.

In addition to plant pests, soil can also be a pathway to animal and human diseases. The costs of a foot and mouth disease outbreak in Canada has been estimated to be between \$30 billion and \$45.9 billion.

As a result, strict phytosanitary measures in relation to soil are necessary in order to limit the risks of introduction and spread of significant soil-borne quarantine pests into Canada. Therefore, **imported root crops and other plant material, including fresh produce, must be free from soil, from nearly all origins. No loose soil may be present inside or adhering to the outside of shipping containers.** The only exception to this rule is for parts of the continental US, if the shipment is accompanied by a phytosanitary certificate certifying the area is free from certain quarantine pests. However, phyto certificates can be time consuming or expensive to obtain.

For further information, please refer to Plant Health’s Directives no. [D-95-26: Phytosanitary requirements for soil and related matter, and for items contaminated with soil and related matter](#) (Effective Date: September 15, 2010 - 3rd Revision) also commonly known as the “Soil Directive” and [D-94-26: Phytosanitary import requirements for root crops \(other than ginseng or potato\), mushrooms,](#)

[and vegetables with attached roots for consumption or processing](#) (Effective Date: November 25, 2013), commonly known as the “root crops directive”.

The objectives of this Best Practices guide is twofold: to provide guidance to industry on their responsibilities for ensuring that product shipped to Canada is free of soil (e.g. develop a preventative control plan to mitigate loss and their associated costs), and to ensure a common understanding amongst CFIA inspectors that industry is aware of their responsibilities and the actions they should be taking. It is hoped such mutual awareness between CFIA inspectors and industry could encourage collaborative discussions when compliance issues do arise.

Please note that as potatoes are subject to differing CFIA requirements, this document does not apply to potato imports. For more information on CFIA requirements for potatoes, please see CFIA Directives [D-96-05: Phytosanitary requirements for the importation and domestic movement of non-propagative potatoes \(*Solanum tuberosum*\) and related potato articles, including associated soil](#) and [D-98-01: Import Requirements for Seed Potatoes and Other Potato Propagative Material](#).

Thank you to the members of the working group established to develop this document. This includes representatives from CFIA’s Plant Protection Division and Operations Branch, the Market and Industry Services Branch at Agriculture and Agri-Food Canada, the Ontario Produce Marketing Association, the Quebec Produce Marketing Association, the Canadian Horticultural Council and the Canadian Produce Marketing Association.

What does industry need to know when importing produce?

When importing produce into Canada, industry members need to be aware of the specific import requirements for the product they are bringing into Canada and that all of these requirements must be met when the product arrives at the Canadian border.

CFIA inspectors are responsible for enforcing the policy after a shipment enters Canada, while the Canada Border Services Agency is responsible for enforcing the CFIA directive at the border.

Canadian import requirements state that fresh produce must be free from soil. There is zero tolerance when CFIA plant health inspectors examine produce for soil contamination. A fine film of dust as might be left by dirty wash water is, however, permitted. Any thicker films, patches or clumps of soil constitute a non-compliance. In some cases, the commodity itself may be free of soil however the box or pallet containing the load may have soil present which is also non-compliant. The trucks and trailers containing the shipment must also be free of soil. CBSA agents will be monitoring for this and can refuse entry if soil is found.

When soil is present, the product is detained and must be removed from Canada or disposed of (e.g. by deep burial), as per CFIA policy. Importers are not given the opportunity to re-grade, wash, brush or otherwise remove the soil from the detained product.

There are no exceptions to the zero tolerance applied by CFIA for soil imported into Canada, other than those mentioned above relating to certain parts of the US when accompanied by a phytosanitary

certificate. It is the responsibility of the importer, in conjunction with their suppliers, to employ every practice possible to meet this zero tolerance.

Further information on import requirements can be found on the CFIA website:

[Automated Import Reference System \(AIRS\)](#)

[Importing plants and plant products: what you need to know](#)

[Pests Regulated by Canada](#)

[Fresh Fruit and Vegetable Regulations](#)

[Plant Protection Regulations](#)

[Plant Health Glossary of Terms](#)

What is the impact on industry from soil presence?

- Lost sales due to disposal of product;
- Replacement cost of rejected product;
- Additional costs for disposal of detained product;
- In many instances, any disposal costs and the cost of rejected product are being passed back to vendors; this has resulted in some very trusted vendors cutting off importers and choosing not to ship to them as they cannot bear the risk of having a shipment detained and examining all pieces of a shipment isn't feasible;
- This has created product shortages in some instances and the inability of retailers to have product available for sale to consumers.

What preventative control measures should industry be undertaking?

General

- Staff training and knowledge of import requirements for soil;
- Supplier awareness of Canadian import requirements for soil;
- Traceability system in place to quickly identify the source of a non-compliance and rapidly correct the problem;
- When an issue arises, suppliers should make the importer aware in as timely a manner as possible;
- Conversely, importers should also alert their suppliers of any non-compliance in as timely a manner as possible;

- Where possible, plans for dealing with a non-compliant shipment should be in place ahead of time to allow for faster decision making when they do occur. A slow decision can add extra costs.
- After an issue arises, suppliers must assure future compliance;
- Importers should ensure extra communications to new suppliers to ensure that they are aware of and interpreting Canadian requirements properly.

For the commodity and shipment

- Do not to harvest in the rain when soil can be splashed onto and into products, such as lettuce;
- Pack and load the shipment in a clean area so as to ensure no soil presence on boxes, pallets or trucks;
- A Quality Manager should be onsite to verify the cleanliness of the product and thoroughness of the washing before it leaves the facility and determine if the load needs to be rewashed ;
- If there is any soil presence found, double-wash product with any indication of residual soil, even triple wash if unsure;
- In the case of produce with rootlets, trim/cut off the rootlets of leeks, green onions and any of the bunched greens that normally have the roots attached;
- Phytosanitary certificates can be obtained from Plant Health officials in the continental US only from the United States Department of Agriculture’s Animal and Plant Health Inspection Service who maintain detailed lists of regulated areas. A phytosanitary certificate can be expensive or time consuming to obtain;
- While a shipment containing a US phytosanitary certificate wouldn’t be rejected for presence of soil, it is still subject to CFIA inspection and could be rejected for the presence of pests.

What can industry expect during an inspection?

- Plant health inspectors will ask for the separation of the lot(s) for the inspection in question and assistance in drawing samples;
- Inspectors will be looking for the tiniest evidence of soil on the product, on containers, pallets, trucks, etc.
- A fine film of dust as might be left by dirty wash water is permitted. Any thicker films, patches or clumps of soil constitute a non-compliance.
- For certain products such as leeks and green onions, dirty wash water may collect in the axils of the leaves. While in some cases this will be clear as fitting within CFIA guidelines, in some cases where a larger amount of dust has collected, it could be difficult to tell during an inspection if it is truly dust collection or if there is soil present that would result in a non-compliance. This situation would result in a judgment call by the inspector.
- CFIA inspectors do not normally do destructive sampling (i.e. cutting the product), however in some situations it may be necessary for inspectors to cut product if there is any evidence indicating the presence soil or pests.
- Timely decisions are important throughout the inspection process. Industry should ensure that the importer or a person in charge who is not the customs broker is available upon the arrival of an inspector. Their name should be clearly indicated and this person should be able to be quickly

and easily in contact with inspectors and have the ability to answer questions relating to inspections such as dividing lots, moving pallets, and be able to make decisions when dealing with a non-compliant shipment, etc.

What happens when a shipment is non-compliant?

- If there is soil found, the lot will be detained and the importer will be given two choices: have it removed from Canada or have it disposed of by a method identified by the CFIA.

What steps should industry take when a shipment is non-compliant?

- Importers can ask inspectors to document the non-compliance. While it is often routine practice to take photos, it is not a requirement. Industry can encourage inspectors to take photos;
- It is up to the company involved to determine what option to take. Acting in as timely a manner as possible can save costs. Importers should contact their vendor immediately by phone and preferably by e-mail to explain what has happened;
- Options for disposal vary across the country. Some locations may have companies in the region offering multiple options (i.e. removal from Canada, deep burial or incineration), whereas other locations may be limited or only offer one option;
- The local CFIA office can advise on what options are available in the relevant region and on the companies with approved facilities;
- As options and the companies supplying the service can vary, the costs also vary. Those with non-compliant shipments are advised to contact the local service providers as quickly as possible to determine or negotiate a price as quickly as possible to lower potential costs;
- An action plan should be developed by the shipper as to how this problem will be dealt with so that it does not happen again;
- This plan should be communicated to the importer and the importer should send a copy to CFIA, Plant Health so that there is documentation on record that the problem has been rectified.
- If the product has been distributed prior to inspection and non-compliance is identified, the importer must be prepared to consolidate the entire non-compliant lot, including anything that was distributed.

How will this document be used/referenced by CFIA inspectors?

Inconsistency in inspections is a big concern within the industry and it is hoped that this Best Practices document can help to ensure a common understanding of industry requirements and efforts amongst CFIA inspectors.

The CFIA will continue to inspect imported produce in accordance with its policies and procedures to verify compliance with import requirements. The Best Practices document may be used by CFIA inspection staff to better understand the procedures put in place by CPMA members to reduce the incidence of soil detections, as well as preventing the re-occurrence of such detections.

Written communication with vendors

- Letters, notices, e-mails should be regularly sent to vendors at the beginning of each shipping season to remind them of their responsibility not to ship product / packages with smeared, caked and adhering soil;
- All written correspondence should be kept on record by the importer in the event they are found to have a product with soil so that they show CFIA that they have done their due diligence; this may help when decisions are being made to issue an Administrative Monetary Penalty by the CFIA;
- If the product is detained, a copy of the letter could be sent to the local inspector to put in the file on the non-compliance;
- In the event of AMPs being imposed and the importer requesting a review by the Canada Agricultural Review Tribunal, preventative measures, which such letters would support, are considered;
- Template letters can be found in Annex A.

Who bears the cost of disposal if your shipment is detained?

- Importers are ultimately responsible for all disposal costs;
- However, in many instances, any disposal costs and the cost of rejected product are passed back to vendors;
- Fines (AMPs) may be imposed on non-compliant shipments, which increase with the amount of violations an importer may have. Please see the box below.

An Administrative Monetary Penalty (AMP) can be either a notice of violation with a warning, or a notice of violation with a penalty.

- The amount of the penalty given to a person for an offence that is committed **other than in the course of business, and that is not committed to obtain a financial benefit** can be between \$500 and \$1300.
- The amount of the penalty given to a person for an offence that is committed **in the course of business, or in order to obtain a financial benefit** can be between \$1300 and \$10 000.
- Penalties can be increased by 50 per cent of the original fine based upon the gravity of the violation and the compliance history of the offender, up to a maximum of \$15,000.

For more information, visit the [CFIA website here](#).

Q&A

Question: Can the soil taken / scraped / kneaded / brushed / dug from the product be tested for regulated pests before product is destroyed, especially if the importer is willing to pay for the tests done?

Answer: No. Soil can include a very large number of different plants pests, ranging from viruses to insects. It is not possible/practical to test for all possible pests that could be in the soil. Even testing for a few specific pests would require the CFIA's inspector to collect all the soil from all the items in the inspection sample to ensure a representative quantity of soil for analysis. This and the lab analyses of the soil would be overly resource-intensive.

Question: Can the importer re-work the detained product to bring the detained product back into compliance either by re-washing, brushing, re-sorting, etc.?

Answer: At this point, no. Plant Health officials are conducting a pilot project with the Canadian bulb industry to see if re-sorting bulbs can successfully bring a lot back into compliance. Once the results are known, they will be shared with the produce industry in the hope that some form of procedure(s) may be allowed to salvage produce loads.

ANNEX A

Below are template letters that can be sent to suppliers in order to show due diligence before a potential non-compliant shipment or following a violation. These letters can be customized to an importer's particular circumstances and agreements with their suppliers.

DRAFT

Generic Letter on Adhering Soil – Following a Violation

Date:

To:

Re: **Violation of Canada's Import Requirements – Adhering Soil**

P.O. or Bill of Lading Number:

CFIA Detention Tag Number:

We regret to inform you that the above lot of produce has been detained by the Canadian Food Inspection Agency (CFIA) under the authority of the *Plant Protection Act* and the *Plant Protection Regulations*. The detention pertains to the presence of soil in the lot. **Canada has a zero tolerance policy for soil in or on produce and its associated shipping containers.**

The only two options available to us are to re-export the product to be removed from Canada or disposed of (e.g. by deep burial) at a CFIA approved facility. Either of these options is at our company's expense. There is also the possibility that the CFIA will assign an Administrative Monetary Penalty (AMP) or fine to our company. The fines could be substantial.

In taking a proactive approach to this detention, we wish to remind you of the preventative control measures that you should be taking:

- not to harvest in the rain when soil can be splashed onto and into products like lettuce;
- pack and load the shipment in a clean area so as to ensure no soil presence on boxes, pallets or trucks;
- double-wash product with any indication of residual soil; even triple wash if unsure;
- in the case of produce with rootlets, trim/cut off the rootlets of leeks, green onions and any of the bunched greens that normally have the roots attached;
- only clean boxes should be shipped; any boxes / RPCs or trucks with smeared or caked dirt are also subject to the zero tolerance for soil.

In future, please advise us in advance if you feel that a shipment might not meet the CFIA's zero tolerance for the presence of soil so that together, we might make other arrangements for the load. Repeated violations of the Act or the regulations increase the risks of being fined.

Thank you for your cooperation and future close attention to this matter.

c.c. CFIA Local District Office

Generic Letter on Adhering Soil - Pre-season

Date:

To:

Re: **Canada's Import Requirements – Adhering Soil**

We wish to remind you again this season that produce can be detained by the Canadian Food Inspection Agency (CFIA) under the authority of the *Plant Protection Act* and the *Plant Protection Regulations* for having adhering soil on imported produce or on their shipping containers. Canada has a **zero tolerance** policy for soil in or on produce and its associated shipping containers.

In the event of a detention, the only two options available to us are to remove the product from Canada or for it to be disposed of (e.g. by deep burial) at a CFIA approved facility. Either of these options is at our company's expense. Section 25 (3) of the Plant Protection Regulations state: *"An inspector may authorize an activity referred to in paragraph (1)(c) where the activity is necessary in order to detect, eradicate, or prevent the spread of a pest or biological obstacle to the control of a pest."*

There is also the possibility that the CFIA may assign an Administrative Monetary Penalty (AMP) or fine to our company for each violation of this soil directive. The fine could be substantial.

In taking a proactive approach to this soil directive, we wish to remind you of the preventative control measures that you should be taking:

- not to harvest in the rain when soil can be splashed onto and into products like lettuce;
- pack and load the shipment in a clean area so as to ensure no soil presence on boxes, pallets or trucks;
- double-wash product with any indication of residual soil; even triple wash if unsure;
- in the case of produce with rootlets, trim/cut off the rootlets of leeks, green onions and any of the bunched greens that normally have the roots attached;
- only clean boxes should be shipped; any boxes / RPCs with smeared or caked dirt are also subject to the zero tolerance for soil.

This season, please advise us in advance if you feel that a shipment might not meet the CFIA's zero tolerance for the presence of soil. Repeated violations of the Act or the Regulations increases the risk of being fined and increases the amount of the fine each time it is applied. We would rather suspend the order until the adhering soil risk has diminished rather than risk incurring fines and the high costs of destroying product.

Thank you for your attention to this matter.

c.c. CFIA Local District Office

ANNEX B

Product can be imported from most areas of the continental U.S. with soil as long as it is accompanied by a Phytosanitary Certificate stating that the product was grown in an area that is free from soil-borne quarantine pests regulated by Canada. The CFIA does not maintain a detailed list of the locations where these pests are present in the U.S.; the USDA or their delegates maintain this information and use it when issuing the Phytosanitary Certificates. All product, even with a Phytosanitary Certificate, is always subject to inspection on arrival in Canada. If the material is accompanied by a Phytosanitary Certificate with the required additional declarations for soil-borne pests, it would not be rejected for presence of soil, only for presence of pests. A non-exhaustive list of states with regulated pests for information purposes can be found on the [CFIA website here](#).

From the CFIA Website

The following table indicates the states from which the CFIA restricts the importation of material with soil due to the presence or possible presence of specific soil pests in all or part of the state.

Note: This data is based on information provided by the U.S. Department of Agriculture at the time of the latest version. Pest occurrence records may be updated at any time without notice.

- **CA:** European brown garden snail (*Cornu aspersum*, syn. *Helix aspersa*)
- **DD:** Potato rot nematode (*Ditylenchus destructor*)
- **GP/GR:** Potato cyst nematodes (pale cyst nematode and golden nematode: *Globodera pallida* and *G. rostochiensis*)
- **MC:** Columbia root knot nematode (*Meloidogyne chitwoodi*)
- **PJ:** Japanese beetle (*Popillia japonica*)
- **PR:** Ramorum blight and dieback (*Phytophthora ramorum*)
- **RM:** Blueberry maggot (*Rhagoletis mendax*)
- **RP:** Apple maggot (*Rhagoletis pomonella*)

Not known to be present in the United States:

- Potato brown rot (*Ralstonia solanacearum*, race 3)
- Potato wart (*Synchytrium endobioticum*)

U.S. States	CA	DD	GP/GR	MC	PJ	PR	RM	RP
Alabama					X		X	X
Alaska					X			X

Arizona	X							X
Arkansas		X			X			X
California	X	X		X		X		X
Colorado				X	X			X
Connecticut					X		X	X
Delaware					X		X	X
District of Columbia					X		X	X
Florida					X		X	X
Georgia					X		X	X
Idaho	X	X	X	X				X
Illinois					X		X	X
Indiana		X			X		X	X
Iowa					X			X
Kansas					X			X
Kentucky					X		X	X
Louisiana	X				X			X
Maine					X		X	X

Maryland					X		X	X
Massachusetts					X		X	X
Michigan					X		X	X
Minnesota					X			X
Mississippi					X			X
Missouri					X		X	X
Montana								X
Nebraska					X			X
Nevada	X			X				X
New Hampshire					X		X	X
New Jersey					X		X	X
New Mexico	X			X	X			X
New York			X		X		X	X
North Carolina					X		X	X
North Dakota					X			X
Ohio					X		X	X
Oklahoma					X			X

Oregon	X	X		X		X		X
Pennsylvania					X		X	X
Rhode Island					X		X	X
South Carolina		X			X		X	X
South Dakota					X			X
Tennessee					X		X	X
Texas	X			X	X			X
Utah	X			X				X
Vermont					X		X	X
Virginia					X		X	X
Washington	X	X		X			X	
West Virginia		X			X		X	X
Wisconsin		X			X			X
Wyoming				X	X			X