

Potato Wart Disease Communication Plan

Introduction

Potato wart is a regulated pest in Saskatchewan and Canada. This plan provides guidance for appointed pest control officers (PCOs), municipalities (as defined in *The Municipalities Act*, *The Cities Act*, and *The Northern Municipalities Act, 2010*), owners or occupants of land, industry stakeholders, producer groups and the public. It outlines key information on disease detection, regulatory guidelines, management practices and a response plan.

Legislative Authority

- [The Plant Health Act](#)
- [The Plant Health Regulations](#)

Overview

Potato wart is a serious disease affecting cultivated potatoes, caused by the soil-borne fungus *Synchytrium endobioticum*. This pathogen primarily infects the growing points of potato plants, mainly underground parts excluding the roots, resulting in the formation of warts (cauliflower-like growths). These deformities can reduce crop yield, leading to economic losses and potential trade disruptions. One of the major challenges in managing potato wart is its persistence; the fungus can survive in soil for over 40 years. Currently, there are no effective chemical treatments available to control the disease. In Canada, potato wart is present in Newfoundland and Labrador and Prince Edward Island.

Due to the high risk of spread and potential impact on trade and potato production, strict federal regulatory and quarantine measures are in place by the Canadian Food Inspection Agency (CFIA) under federal legislation. These include the National Potato Wart Response Plan and the National Potato Wart Survey, which are designed to monitor, contain and prevent further spread of the disease.

Symptoms

Symptoms may not always be visible above ground, making early detection difficult without regular scouting. Infected plants can appear healthy until harvest, when symptoms become more apparent. Warts may develop at the base of stems and a general decline in plant vigor may also be observed.

These warts vary in size and colour. Initially, they may appear white (Figure 1), matching the colour of the tuber, or green if exposed to light near the soil surface (Figure 2). As the warts become older, they will darken and decay. The texture is soft and pulpy, different from the firm texture of healthy tubers.

In severe infestations, tubers may be extensively covered in warts or become completely unrecognizable due to decay (Figure 3). Symptoms can also continue to develop during storage, further complicating disease management and marketability.



Figure 1. Small wart on a potato tuber

Photo credit: CFIA



Figure 2. Infected potato plant with green warts on the stem

Photo credit: CFIA



Figure 3. Heavily infected potato tubers

Photo credit: CFIA

Spread

Potato wart is primarily spread through the movement of infected seed potatoes, contaminated soil, contaminated soil adhering to plant products, machinery, equipment and organic waste from potato processing and packing facilities. Additionally, animal manure from livestock fed with infected potato culls or contaminated organic waste can contribute to the spread of the disease.

In spring, when soil temperatures rise above 8 C and moisture conditions are favourable, potato growing points can become infected. This occurs through contact with decaying warts or resting sporangia that have persisted in the soil, initiating new infections and continuing the disease cycle.

Regulatory Guidelines

Potato wart is a regulated pest in Canada under the *Plant Protection Act* and *Plant Protection Regulations* by the Canadian Food Inspection Agency (CFIA). Potato wart was newly declared as a pest in Saskatchewan in 2024 under *The Plant Health Act* (Act) and *The Plant Health Regulations* (regulations). In Saskatchewan, only potatoes grown for commercial sale are regulated.

The responsibility for response to potato wart is shared between federal and provincial jurisdictions. Federal legislation takes precedence, therefore CFIA will lead on response to any potato wart cases. Confirmed or suspected detection of potato wart **must be reported** to the CFIA (Regina – 306-780-5180, Saskatoon - 306-385-4949 or [online](#)) as soon as possible for rapid response to prevent the spread of the fungus.

The provincial legislation and regulations may support any actions taken based on federal legislation. Key provisions include:

Reporting and Notification

- Every owner or occupant of land is required to control, prevent and report declared pests.
- If unable to reach the CFIA, report confirmed or suspected detection of potato wart to the Ministry of Agriculture (crops@gov.sk.ca), the municipality or PCO.
 - If potato wart is reported to the municipality, PCO or authorized person, they must notify the CFIA or ministry as soon as possible.
 - Municipalities should submit an annual pest report to the ministry (crops@gov.sk.ca) by December 31 each year.
- Upon laboratory confirmation of potato wart, the CFIA will contact the owner or occupant of land with instructions on the response plan.

Authority and Enforcement

- Municipalities may appoint any person they consider qualified to serve as a PCO to enforce the Act and the regulations within the municipality.
- A municipality appointed PCO can enter any land or premises (excluding dwelling houses) to investigate pest infestations, collect samples, take necessary actions and enforce the Act (with agreements and orders).
- An authorized person may conduct surveillance and sampling for pests and nuisance pests or pest control for pests with the permission of the owner or occupant.
- If the minister is satisfied that a pest or nuisance pest emergency exists, the minister may by order make an emergency declaration for rapid response and biosecurity measures. During the declared emergency period, authorized persons do not require permission from the owner or occupant.

Orders and Restrictions

- A municipality appointed PCO may issue an order to an owner or occupant (Section 24 of the Act) for the disposal of all potatoes that have tested positive for potato wart, as well as potatoes that may have been in contact with infected potatoes.

- Orders may mandate cleaning and disinfection of storage locations, field equipment, packaging equipment and other materials. It may also restrict access and movement of equipment, crop or crop part, animal or animal part, waste material, conveyance and any other terms or conditions.
- There is a requirement to plant on land free of potato wart. No owner or occupant can plant any class of potatoes on land infected with potato wart within the previous five growing seasons; spore counts higher than five spores per gram of soil or positive bioassay.

Seed and Planting Requirements

- To protect the potato industry in the province, every owner or occupant shall use only seed potatoes classified as Foundation class or higher as defined in the federal *Seeds Regulations*.
 - Equivalent certified seed from the United States may be used if approved by a recognized certification agency.
- All cull potatoes must be destroyed or disposed of by June 15 of each year.
- Potato growers must keep accurate records for at least three years of all potato plantings (seeding date, location, weight and class of certified seed used), disposed cull potatoes and bill of sale of the certified seed used in each growing season.

Best Practices for Prevention and Management

Strong biosecurity and agronomic practices are key to reducing the risk of introducing or spreading potato wart. Regular self-monitoring is essential to maintaining a zero or low risk of this disease.

Recommended Practices

- Develop a farm biosecurity plan to prevent pest introduction, contain infestations, minimize losses, etc. For guidance, refer to the *Resources* section below.
- Train all farm employees in disease identification, management, biosecurity measures and response procedures.
- Clean and disinfect all equipment thoroughly before it enters the farm.
- Inform visitors about the biosecurity risk posed by potato wart and regulate visitor access to all fields and farm facilities especially on seed potato farms.
- Purchase certified disease-free seed potatoes, foundation class or higher from reputable suppliers.
- Plant earlier generation seed potatoes, which carry a lower risk of potato wart infection.
- Plant whole seed potatoes whenever possible to avoid the risk of spreading potato wart during seed cutting. If seed cutting is necessary, ensure cutters are cleaned and disinfected before use and between seed lots.
- Use cup and belt type planters instead of pick style planters, which are more likely to spread potato wart. Clean and disinfect planters before use and between seed lots.
- Thoroughly clean, wash and disinfect harvest equipment, trucks, handling gear and the storage facility before harvest.
- Destroy cull piles in a non-field area by burial, disking under, freezing or by spraying the piles with a systemic herbicide to eliminate sprouting potatoes.
- Rotate with non-host crops to reduce pest pressure.
- Control potato volunteers that may host the pest.

Surveillance and Testing

- Conduct regular scouting throughout the growing season. The best time to monitor fields for potato wart is late August prior to senescence or top killing, but it is difficult to identify at low levels in the field.
- Maintain detailed surveillance records to support traceability and inform future management decisions.
- Inspect all potato seed lots prior to purchase to ensure they are free of potato wart and meet certification standards.
- Perform soil sampling and tuber inspection as part of routine disease monitoring.
- Communicate proactively with anyone who has recently visited your farm, has access to your facilities, or has purchased potatoes from your operation. This is required to raise awareness and prevent further spread if potato wart is suspected or confirmed.

Response Plan

A response plan is designed to enable rapid and effective action when a pest outbreak occurs. The National Potato Wart Response Plan by the Canadian Food Inspection Agency (CFIA) provides detailed information on quarantine and phytosanitary measures to help contain, control and prevent the spread of potato wart. It is available here: [National Potato Wart Response Plan](#).

Ministry Contacts

Ministry staff (authorized persons) who may be initially involved include:

- Provincial Specialist, Vegetable Crops, 306-535-0987
- Provincial Specialist, Pest Regulatory, 306-787-7474
- Provincial Specialist, Plant Disease, 306-787-4671
- Manager, Crop Protection Laboratory, 306-798-0100

Emergency Response Coordination

In a plant health emergency, response is coordinated by plant health partners with the CFIA as the lead agency.

Responsibilities

Saskatchewan Ministry of Agriculture

- Work collaboratively with the CFIA on any suspected or confirmed cases of potato wart.
- Administer legislation and regulations related to potato wart as a declared pest.
- Compile and distribute the potato wart communication plan.
- Support and stay informed on current research of potato wart.
- Provide education and outreach to the vegetable industry on potato wart.
- Provide support to CFIA, as needed, in the inspection of facilities following cleanup activities to ensure compliance with orders.

Municipalities and Pest Control Officers

- Municipalities may appoint a PCO to investigate and take appropriate measures with respect to declared pests like potato wart with direction from the CFIA and the ministry.
- Collaborate with the CFIA and ministry on any necessary investigation and the implementation of appropriate management actions.
- A municipality appointed PCO can enforce *The Plant Health Act*, including issuing orders or entering agreements with owners or occupants of land to control, destroy and prevent the spread of declared pests like potato wart. Federal legislation takes precedence.

Producers

- Implement best management practices and a biosecurity plan in alignment with the potato wart communication plan.
- Report any suspected or confirmed potato wart cases to the CFIA (Regina at 306-780-5180, Saskatoon at 306-385-4949 or [online](#)) or ministry (crops@gov.sk.ca) if the CFIA cannot be reached.
- Take necessary actions to control, destroy and prevent the spread of potato wart on any land or premises owned or occupied by them based on direction from the CFIA and ministry.
- Comply with any federal or provincial orders issued to control, destroy and prevent the spread of potato wart.

Producer Groups - Saskatchewan Seed Potato Growers Association and Saskatchewan Vegetable Growers Association

- Promote best management practices and biosecurity plans in alignment with the potato wart communication plan.
- Raise awareness among members and stakeholders of the risks of potato wart and the importance of timely reporting.
- Share reports of suspected or confirmed potato wart cases with the CFIA (Regina at 306-780-5180, Saskatoon at 306-385-4949 or [online](#)) or ministry (crops@gov.sk.ca) if the CFIA cannot be reached.
- Collaborate with governments agencies to support coordinated response efforts when needed.

Contacts

For questions about potato wart and management practices, contact:

- Provincial Specialist, Vegetable Crops - 306-535-0987

For questions on legislation and regulatory guidelines, contact:

- Provincial Specialist, Pest Regulatory - 306-787-7474

Resources

[National Potato Wart Response Plan - inspection.canada.ca](https://inspection.canada.ca)

[Potatoes | Horticultural Crops | Government of Saskatchewan](#)

[Potatoes: Guidance documents - inspection.canada.ca](https://inspection.canada.ca)

[Crop Biosecurity Guidelines](#)

[Farm Biosecurity Guide for Saskatchewan Vegetable Crop Producers](#)

References

Note: The websites cited within the following references were accessed in September 2025

1. About Potato Wart. Website: [Link](#)