



# Potato Wart (*Synchytrium endobioticum*)

**Potato wart is a fungal disease that is difficult to eradicate and can seriously impact our potato industry.**

## Significant potato disease

Potato wart is a soil-borne fungal disease that can survive in soil for over 30 years. It does not pose a threat to human health, but diseased tubers are unfit for human consumption. The spread of this pathogen to commercial production areas would seriously impact the New Zealand potato industry. Potatoes are the only cultivated plants affected by potato wart.

## Infected plants have characteristic wart-like symptoms

The pathogen infects mostly underground plant parts, e.g. stem bases, stolon buds, and tuber eyes. Usually the plants appear healthy and the disease is hidden until harvest. Symptoms include:

- very small to large warty (cauliflower-like) white to black growths developing from the eyes;
- distorted and spongy tubers (in severe infections);
- reduced vigour in above ground plant parts.

## The pathogen spreads with infected soil and plant material

While the fungus *S. endobioticum* is not able to spread far on its own, it can be easily spread to new areas on diseased potato tubers or with manure from animals that have been fed diseased potatoes.

The pathogen can also be spread with soil from contaminated gardens and fields, where the resting spores of *S. endobioticum* can remain viable for a long time. This means it can be spread with other plant roots, bulbs, and tools that were used in infected areas.

## Potato wart has been detected in New Zealand in the past

The pathogen has been found in home gardens in and around Invercargill, most recently in 2012. Potato wart is a notifiable organism under the Biosecurity Act 1993 and is a pest for eradication under the Environment Southland Regional Pest Management Strategy.

## Reduce the risk of introducing or spreading potato wart

The spread of potato wart can be prevented by following these recommendations:

- Plant only commercially produced certified healthy seed potatoes.
- Clean garden tools, machinery, and footwear before leaving your property.
- Don't plant or share saved seed potatoes.
- Don't share other garden plants, but if you do use cuttings, wash off all the soil before they leave your garden.



Cauliflower-like growth on potato tuber.



Severely infected deformed potato tuber.

### Contact us if you think you've found potato wart:

- Take pictures.
- Call Biosecurity New Zealand's Exotic Pest and Disease hotline: 0800 80 99 66 (or if you are in Invercargill, contact Environment Southland).
- [www.biosecurity.govt.nz](http://www.biosecurity.govt.nz)