

Bacterial ring rot

What is Bacterial ring rot?

Bacterial ring rot (*Clavibacter michiganensis* pv. *sepedonicus*) is one of the most feared diseases of the potato industry, particularly for seed producers. The pathogen can spread quickly through a crop or property, which usually results in serious losses.

What does it look like?

Symptoms include wilting and yellowing of the leaf, and markings which later turn brown and appear 'burned'. In the later stages of the disease, lower leaves and stems may die and leaf margins become brittle.

Tubers rot from the inside, initially in the vascular ring of the tuber. Infected tubers exude a creamy, odourless bacterial exudate in cheese-like ribbons when squeezed and tuber skins can crack under heavy infection levels.

What can it be confused with?

Bacterial ring rot can be confused with potato brown rot caused by *Ralstonia solanacearum* which is already present in Australia. If you are unsure, have it checked out by an expert.

What should I look for?

Symptoms rarely develop quickly and infections usually remain latent for long periods. Watch out for wilting and yellowing of above ground plant parts and frequently dig developing tubers to check for symptoms.



Tubers initially rot from the inside

William M. Brown Jr., Bugwood.org



Rotten tubers exude a creamy white bacterial ooze

Central Science Laboratory, Harpenden Archive, British Crown, Bugwood.org



Above-ground symptoms include wilting and yellowing of leaves

J.D. Janse, Plant Protection Service, Bugwood.org



How does it spread?

Bacterial ring rot is usually transmitted in infected tubers and micro-propagated plantlets. The bacteria can survive in soil (usually in association with unharvested tubers) and on volunteers and plant debris.

The bacteria can also survive for several years on contaminated equipment. It can survive in water for more than a month and can be transmitted through wash water.

Where is it now?

Bacterial ring rot is currently found in Europe, North America, Asia, North Africa, Mexico and Venezuela.

How can I protect my farm from Bacterial ring rot?

Source seed tubers and plant material only from clean, accredited suppliers. Keep equipment clean and remove plant debris from growing sites.

Check your farm frequently, especially in the heat of the day, for the presence of new pests and unusual symptoms. Make sure you are familiar with common pests of the vegetable industry so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**



Rotting and discolouration of the vascular ring caused by Bacterial ring rot

Dr Selke H. De Boer, Canadian Food Inspection Agency



Tuber skins may crack under high disease intensity

Lary L. Strand, University of California Statewide IPM Program



At later stages leaves turn brown and appear burned

William M. Brown Jr., Bugwood.org

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