

# Bacterial wilt

*Ralstonia solanacearum*

## What crops does it affect?

Bacterial wilt attacks more than 200 species. These include economically important hosts such as potato, tobacco, tomato, eggplant, pepper, banana, peanut and beans. Thorn apple and nightshade are two common weed hosts that can harbour the disease.

## Which part of the plant will be damaged?

Roots and tubers, but can lead to wilting of whole plant.

## What should I look for?

Typical symptoms are wilting, yellowing and some stunting of the plants, which eventually die back. Wilting is first seen as a drooping of the tip of some of the lower leaves similar to that caused by a temporary shortage of water. Affected leaves later become permanently wilted and roll upwards and inwards from the margins. The wilting then extends to leaves further up the stem, followed by yellowing.

Brownish-grey areas can be seen on the outside of tubers, especially near the point of attachment of the stolon. Cut tubers may show pockets of white to brown pus or browning of the vascular tissue which, if left standing, may exude dirty white globules of bacteria. As the disease progresses bubbly globules of bacteria may exude through the eyes; soil will often adhere to the exuded bacteria, hence the name 'sore eyes' or 'jammy eyes'.

## How does it spread?

Infected seed potatoes are a significant route of dissemination, both locally and over considerable distances. It is not the heavily infected tubers that are the problem since these generally rot away, only contaminating the land in which they were grown. However, lightly infected tubers, which show no visible symptoms, pose a serious threat of spreading the disease to new areas.

If a paddock is infected with bacterial wilt the disease may remain in it for five or six years after the initial outbreak.

Bacteria can also be spread to clean tubers from an infected seed-cutter or knife. There is also a danger of infection if second hand bags are used or if bins have held infected potatoes and not been cleaned properly. Growers should be aware of these risks and take precautionary measures. Spread between areas usually involves vegetative propagating material that carries latent infections or is contaminated with the pathogen.

## Distribution in Australia

Found in all states and territories except Tasmania.

## State movement controls or impacted markets

No specific movement controls exist but spread of this pest onto your property can be limited through implementation of biosecurity measures.



Symptoms of bacterial wilt on a potato plant.

*National Plant Protection Organization, The Netherlands, Bugwood.org*

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