

# Zebra chip

*Candidatus Liberibacter solanacearum* (with known vector) (syn. *Candidatus Liberibacter psyllae*)

## What crops does it affect?

There are five types of *Candidatus Liberibacter solanacearum*. Types A and B affect Solanaceae (for example potato, tomato, tobacco, capsicum). Types C, D and E affect Apiaceae (carrots and celery).

## Which part of the plant will be damaged?

Whole plant.

## What should I look for?

Foliage symptoms in potato plants include stunting, yellowing, swollen nodes causing a zig-zag appearance of the upper growth, proliferated auxiliary buds, aerial tubers and leaf scorching that leads to early dieback.

Underground symptoms include enlarged lenticels and shortened or collapsed stolons. Tubers tend to be smaller and misshapen but more numerous and have rough skin. When tubers are cut in cross-sections, necrotic flecking and brown discolouration of the vascular ring can be seen.

Tuber dormancy is affected by this disease which results in premature sprouting, internal sprouting and tuber chaining. Affected tubers are unacceptable for planting.

Infected tubers are not hazardous to human health but are visually unappealing. The disease becomes most distinctive when potatoes are processed – a striped pattern of discolouration appears in fried cross-sections of potato tubers giving rise to the name zebra chip. Potato crisps made with infected potatoes have a burnt appearance and taste and are unmarketable.

The severity of symptom expression varies because the bacterium is unevenly distributed throughout the plant. The stage of growth when the plant becomes infected influences whether symptoms are evident in the tubers before they are processed.

## How does it spread?

Zebra chip is spread by tomato potato psyllids (page 47). The disease is not present in Australia and at the time of writing the psyllid was only in Western Australia.

It is not known if other psyllids that are present in Australia could spread this disease if it entered Australia. High risk pathways for the entry of the disease into Australia are via infected psyllids or infected plant material.

The disease complex is unlikely to spread mechanically through handling, pruning or other cultivation practices.



Potato leaves showing stunting, yellowing and a zig-zag of the upper growth.

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**IF YOU SEE ANYTHING UNUSUAL,  
CALL THE EXOTIC PLANT PEST HOTLINE**

 **1800 084 881**

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