

Monitoring for invasion of the tomato/potato psyllid, native psyllid populations and phytoplasmas in Australian potato crops

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Take home messages

- ❖ "Zebra Chip" is a new and important disorder of potato threatening the global processed potato industry.
- ❖ The causal agents (tomato/potato psyllid and *Candidatus liberibacter psyllauros* are not present in Australia, but are prevalent in New Zealand
- ❖ Native psyllid populations and distribution of associated phytoplasmas will be monitored in each of the major processing potato growing areas around Australia.
- ❖ Training in psyllid identification to assist in the event of an incursion will be critical

Introduction

"Zebra Chip" is a new and important disorder of potato threatening the global processed potato industry. The disease is associated with feeding damage of the Tomato/Potato psyllid (*Bactericera cockerelli*) and infection with the bacterium *Candidatus liberibacter psyllauros*. Both insect and bacterium are not currently present in Australia.

Objectives

Specific objectives of the project include: i) monitoring for psyllid and phytoplasma populations in each of the major processing potato growing areas around Australia; ii) raising the awareness within the potato industry of the Zebra Chip Disease Complex; and iii) training of staff to identify the Tomato/Potato psyllid should an incursion occur.

What has been done

Meetings have been held with key psyllid and phytoplasma researchers in Australia and New Zealand. This included a study tour of New Zealand by project and industry staff allowing observation of the damage caused by psyllid and liberibacter, and training on psyllid identification and trapping. Work has also commenced on a literature review on psyllids, liberibacter and phytoplasmas in potato.

Trapping within potato crops across SW Australia has commenced. Yellow sticky traps are placed at the crop margin and within the crop and replaced. Identification of common psyllid species is undertaken in collaboration with Dr Alan Yen (Agriculture Victoria).

Outcomes to date

To date over 200 sticky traps from the four regions have been screened for the presence of psyllids. No Tomato/Potato psyllids have been detected, despite conditions for possible wind-assisted migration from New Zealand to southern Australia occurring in March. Sticky traps from all regions contained low numbers of native psyllids with identification of common species in progress.

Funding and project duration

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Additional collaborators

- Simplot Australia Pty Ltd, McCain Foods (Aust) Pty, Snack Brands Australia, Tasmanian Seed Certification Scheme and Smiths Snackfood Company
- Plant & Food Research, New Zealand, and Agriculture Victoria



Paul Walker inspecting sticky traps in Pukekohe, NZ