

Low incidence of *Liberibacter*-positive psyllids (*Bactericera cockerelli*) in Pukekohe potato growing area

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In the Pukekohe region, potatoes grown over the summer season without insecticide protection typically have 40% of tubers with symptoms of zebra chip (ZC), a disease caused by the bacterium *Candidatus Liberibacter solanacearum* (Lso). The bacterium is vectored by the pest psyllid species *Bactericera cockerelli*, known in New Zealand as the tomato potato psyllid (TPP). Although TPP has been present in New Zealand since at least 2006, relatively little is known about the incidence of Lso or the Lso-titre levels in New Zealand TPP populations. Preliminary sampling work conducted near the Pukekohe Research Station over the summer of 2013/2014 is presented. One-hundred TPP adults were collected from sticky traps in potato fields over 4 months. Each insect was tested for the presence of Lso using established qPCR diagnostic protocols. For comparison, 100 TPP from laboratory colonies were also tested for Lso over the same time period. Although plants with ZC symptoms were widespread in the sampling area, only 2% of the TPP sampled from sticky traps had detectable levels of Lso, and Lso-titre in the Lso-positive TPP was extremely variable. In contrast, colony TPP (originally collected from potatoes and then maintained on tomato plants) tested 100% positive for Lso and had consistently high Lso-titre.

On-orchard habitats for *Nysius huttoni* – an important kiwifruit passenger pest

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Nysius huttoni is a native species of wheat bug, which is an occasional quarantine pest on export kiwifruit. Wheat bug has a wide range of host plants, including wheat and brassica crops as well as many weed species. The kiwifruit harvest of 2013 had a high incidence of wheat bug finds on fruit in packhouses. In response, an orchard survey was undertaken to identify orchard habitats used by wheat bug. Twenty-five orchards where wheat bug was found during packing in 2013 were surveyed from the Te Puke area from February to March. At each orchard, four habitats were searched: (1) ground vegetation under the kiwifruit canopy, (2) the loadout zone, (3) edge of the loadout zone and (4) grassland surrounding the loadout zone. Twenty 0.25 m² quadrats were searched for 1 min in each habitat. Most (96%) wheat bug was found in and around the loadout zone associated with weed species, notably *Polygonum aviculare*, the dominant weed species in loadout zones. No wheat bug was found under the kiwifruit canopy and the remaining 4% were found in grassland. This preliminary survey suggests that the risk of wheat bug infestation can be reduced considerably by keeping loadout zones free of weeds during spring and summer.