Cicadas

Chorus cicada, *Amphipsalta zelandica*

There are five species of cicada, all native to New Zealand, found in kiwifruit orchards, but the chorus cicada is the only species present in significant numbers to be considered a pest.

The greatest damage from cicadas is the economic impact from fruit loss due to sooty mould. Cicadas cause significant damage to canes, making them more susceptible to Psa. They also make working in the orchard unpleasant for workers.

When young cicada nymphs hatch from their eggs, they dig themselves into the ground where they spend three years spanning several life phases, or four molts. Underground they feed on the liquids from plant roots. The fifth molt occurs after the nymph has emerged from the soil in summer, and has found an upright structure on which to shed its skin. Adults usually live for 2-4 weeks, mating shortly after they emerge. Females lay about 250-300 eggs.

**Typical Symptoms of Plant Damage**

Large wounds can occur on canes due to cicadas laying eggs in the wood. These wounds cause weak points in the canes, which may break or absorb excessive hydrogen cyanamide, further weakening the cane.

Large nymph populations feeding on roots can also cause damage to the health of the vines.

**Life Cycle Stages and Control**

Insecticides have not proved effective against adults.

Egg nests in replacement canes can be targeted with sprays of Talstar and Engulf (a penetrant) in winter prior to winter pruning.

Talstar can also be applied as a ground spray as nymphs emerge in early summer, though results from this treatment have been variable and need to be reapplied for at least three years.

Sprays targeting nymphs only also fail to control adults entering the orchard from neighboring blocks.

Shallow cultivation in early January as nymphs emerge has also shown to reduce the numbers emerging by 50%.

**Stages of Crop Growth Susceptible to Damage**

The skins from the final molts on trunks and upright structures indicate the emergence of the adult cicadas. Egg laying begins several weeks after the first cicadas have emerged, in late January. Replacement canes are particularly susceptible at this time as nest sites.

The secretions from cicada on fruit are also susceptible to the development of a spotted sooty mould, which is very difficult to remove and will cause the fruit to be rejected at packing.