



Psyllid



Main problem Species:

Tomato Potato Psyllid (TPP) (*Bactericera cockerelli*)

Lifecycle:

Egg, 5 nymphal instars, adult

Egg to egg:

Shortest time, 19 days, at 27°C. Increases to 45 days at 10°C.

Scouting tips:

Eggs are easily visible around leaf margins from below. Adults may be observed on sticky traps or sitting on leaves. Once eggs hatch the juveniles cover the plant surface in "psyllid sugars" and liquid excreted sugars leading to a sticky, dirty plant. Over time plants can appear stunted (psyllid yellows) or die due to liberibacter, a bacteria-like organism spread by psyllid as they feed.

Yellow sticky traps are the easiest way to detect the early signs of a psyllid incursion. As with whitefly monitoring, they should be positioned near any greenhouse openings, historic trouble spots and randomly throughout the crop. Adults may also be observed sitting on leaves.

POTENTIAL CONTROL MEASURES FOR 'HOT' POPULATIONS

- When first observed, hang a sticky card above every infested plant and every plant within a 5 plant radius
- Spray the area with a physical mode of action chemical
- When dry, carefully remove any heavily infested leaves and plants, sealing them in a plastic bag immediately, before removing them
- Release *B. whitei* and *E. nicotinae* in the area to remove any survivors

What do I do?

Just a few:

- Sticky traps can suppress small localised populations
- Physical mode of action sprays can rapidly reduce a localised population
- *Buchananiella whitei* effectively cleans up juvenile populations
- *Engytatus nicotinae* releases can totally suppress psyllid if introduced early enough
- *Tamarixia triozae*, a tiny parasitic wasp (similar to *Encarsia formosa*) feeds on small TPP larvae and parasitises large larvae. A useful psyllid predator but not as effective as *Engytatus nicotinae*.

Doing damage:

If a liberibacter carrying population is present, use physical spray or soft agchem to quickly control the population, then release *Engytatus nicotinae* to prevent re-infestation.

Ongoing issue:

- Try to remove the source
- Introduce an *Engytatus nicotinae* population
- Use sticky traps to monitor adult populations
- Use soft chemical options as required



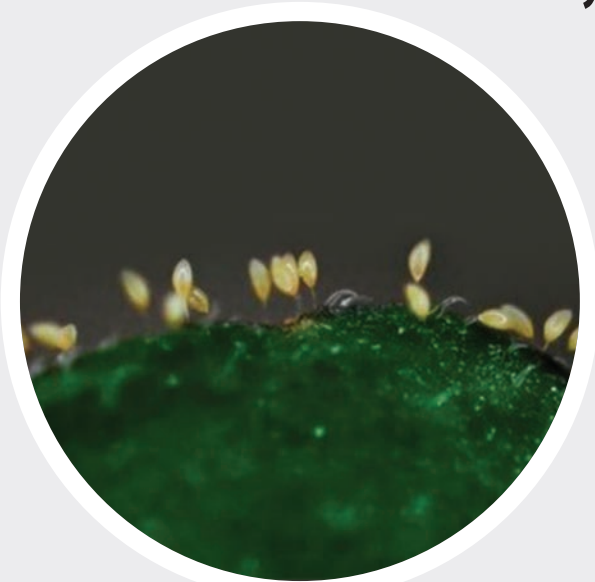
Psyllid

What you'll observe:

As psyllid inhabit the underside of leaves, they can be difficult to see. The first obvious sign of psyllid might be psyllid sugars



Psyllid sugars



Psyllid egg



Green psyllid nymph with black *Buchananiella whitei*