Get on top of your Psyllid control

The Scoping study of integrated pest management (IPM) in tree oil plantations (AgriFutures, March 2021) reports that management of the tea tree psyllid (Trioza melaleucae Martoni sp. nov.) in plantations is a “major concern” for 90% of tea tree growers.

Being proactive about psyllid control in the early stages of seedling development is critical. As the industry has transitioned to earlier planting, nearer Spring, increased psyllid pressures are being experienced in the cooler conditions.

Why are they a problem?

Psyllids impact tree establishment, growth and overall productivity. Winged adults will lay eggs on newly planted seedlings within days of planting under the right conditions. It is estimated that a single seedling of 15cm height may have 5000 - 10000 eggs laid on it when infestations are severe.

They then go on to damage coppice growth late in the season (autumn). Damage to the plant occurs when the nymphs puncture the leaf surface and begin to feed. The leaves become distorted and new growth is stopped. This can delay first harvest by up to 6 to 12 months.

The growth of a mature crop can be affected after harvest in late autumn to early winter. The slow growth period afterwards, when the crop coppices and then stops growing, can allow psyllid numbers to rise to problematic populations when the rapid spring growth occurs.

Whilst low populations cause minimal damage, numbers can multiply quickly if chemical spraying or predation by natural enemy interventions are not used.

What can I do?

There are several pesticides that are partially effective in controlling psyllids. These include broad-spectrum insecticides such as methomyl, dimethoate, deltamethrin and beta-cyfluthrin however the effectiveness of these chemicals is thought to be declining. Dimethoate should be used as a last resort in control options due to a five month withholding period and the harshness of the chemical which will kill all beneficials along with target insects. Abamectin and spinosad are options that are softer and have minimal impact on beneficial organisms yet are effective on moderate populations.

The Enhanced extension for the Australian tea tree oil industry project has a demonstration site established to improve industry understanding of the potential control options for psyllids in the early stages of seedling establishment. The replicated plot trial is looking into application rates of two neonicotinoid class insecticides, imidacloprid and clothianidin, and beta-cyfluthrin, a pyrethroid. The trial will assist industry to better understand whether soil drench application can offer effective control.

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