

Chilli Thrips Population Dynamics in Citrus Under Protective Screen

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Take Home Message:

- Chilli thrips are a pest of citrus production in CUPS and nurseries.
- Yellow sticky cards can be used to monitor populations.
- Populations increase inside of CUPS houses in the spring and late summer.

Summary: Chilli thrips are a pest of citrus production in greenhouses and screenhouses. They cause rind damage to developing fruit, leaf damage, and death of growth terminals. The objectives of this study were to evaluate sampling methods for use in citrus, document seasonal population patterns to time management actions, and develop an

understanding of the spatial patterns of infestation in screenhouses. We evaluated alcohol washes, yellow sticky cards, and tap sampling over a one-year period and found that for growers, yellow sticky cards are the easiest tool for determining when populations are high. However, for researchers, the alcohol washes provided more information regarding the life stage(s) present on foliage. Chilli thrips populations have been sampled for a year and a half. In the spring, we see an increase in the adult chilli thrips without an increase in juveniles, suggesting that this may be a period of migration into the citrus under protective screen (CUPS)

houses. If this is correct, management timed to migration should reduce the population of chilli thrips that remain in the house to mate and grow the resident population. We also see an increase in both the adult and juvenile populations in the late summer, though the adult population increase is not as drastic as it is in the spring, suggesting that this increase may be due to reproduction inside of the CUPS houses. We also see higher abundances of chilli thrips in traps and trees at the edges of CUPS plantings. This suggests that the thrips may not fully migrate into the screenhouse and that we may be able to target management to the edge trees.

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