

# Isomate<sup>®</sup> AVOCADO



Mating disruption dispensers

EFFECTIVE AGAINST THE BROWNHEADED LEAFROLLERS, *Ctenopseustis obliquana* and *C. herana* and THE GREENHEADED LEAFROLLERS, *Planotortrix octo* and *P. excessana*

## LEAFROLLERS? SWIPE LEFT.....

### Break the attraction, increase grower satisfaction

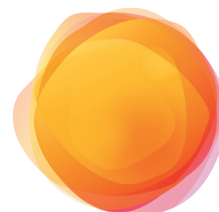


## TRUSTED & PROVEN MATING DISRUPTION

- Reduction in leafroller moth activity and damage.
- Targets specific insect species; safe for beneficials and leafroller parasitoids.
- Sustainable: environmentally friendly.
- No residues: market access.
- Basis for IPM tool.



Plant & Food<sup>™</sup>  
Research  
Rangahau Ahumāra Kai

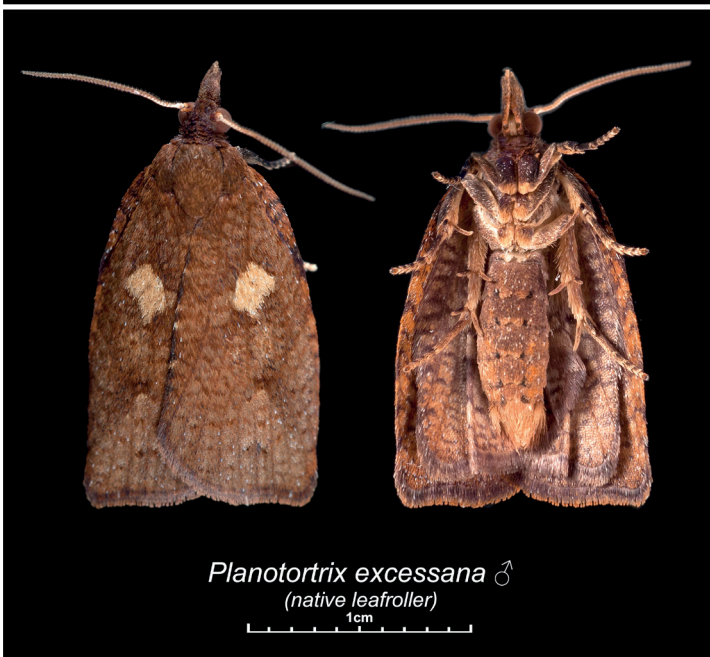
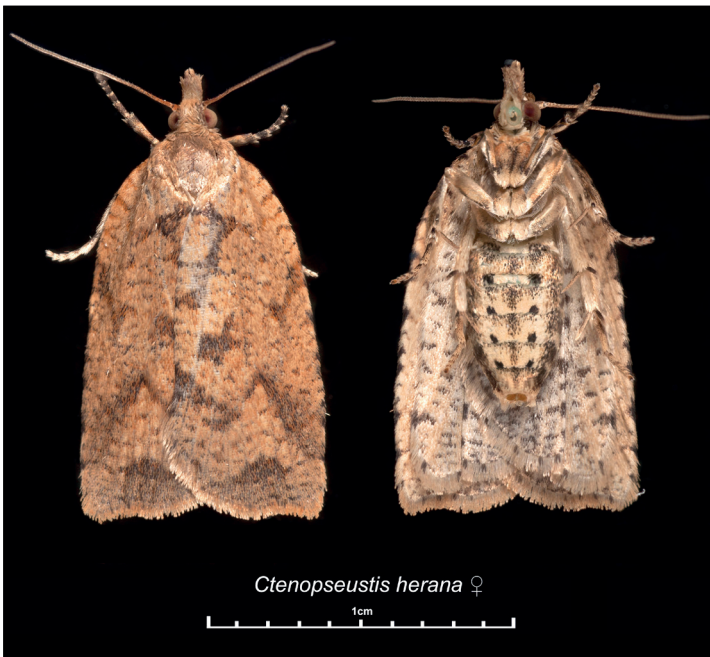


# UPL

# Isomate® AVOCADO

## DESCRIPTION

UPL's Isomate® mating disruption dispensers are widely used in pipfruit orchards around New Zealand, delivering synthetic pheromones that disrupt the signal of the insect's natural mating pheromone. Plant & Food Research scientists, in collaboration with UPL, have developed this technology for use in avocados targeting four key New Zealand species:



Photos: Plant & Food Research

## BEST PRACTICE RECOMMENDATIONS



- Apply Isomate® AVOCADO dispensers to trees as prescribed by an Avocado Industry protocol if applicable.
- Otherwise, choose either (1) apply mid-October to mid-November based on leafroller flight history, or (2) prior to the start of leafroller flight activity in spring.
- Apply 400-800 dispensers per hectare depending on wind exposure and orchard shelter.
- Place in the top 20-25% of tree canopy and refer to the label for factors affecting mating disruption and further recommendations.

FOR ADDITIONAL INFORMATION REFER TO THE LABEL @ [www.upl-ltd.com/nz](http://www.upl-ltd.com/nz)



Isomate® AVOCADO consists of a unique blend of pheromones in a 20-cm twin-tube (loop) dispenser

## MONITORING

### • Pheromone traps:

These are the most cost-effective way of determining the effectiveness of mating disruption. High dose (10x concentrate) Desire® caps (lures) are required to monitor the activity of each of the four leafroller species, *Planotortrix excessana*, *Planotortrix octo*, *Ctenopseustis herana* and *Ctenopseustis obliquana* in the presence of pheromone dispensers. At least one trap per species should be placed along each border of treated blocks at a height of

1.2- 1.5m. Traps should be spaced at least 20m apart. Traps should be cleared and the number of moths recorded every two to four weeks to enable informed spray decisions.

### • Bases and caps:

Bases should be changed every two to four weeks and Desire® pheromone lures 6 weekly.

### • Insecticide treatments:

Follow fruit export protocols and Avocado industry guidelines for the application of insecticides.

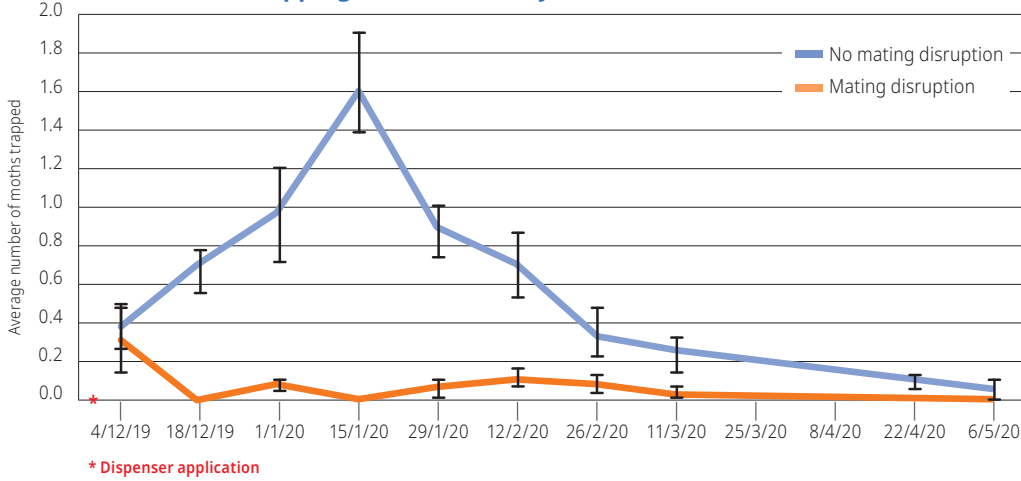
# TRIAL RESULTS

- Significant reduction in leafroller moth activity within orchard blocks treated with mating disruption.
- Reduction in fruit damage throughout the season.
- Reduction in the number of insecticides applied for leafroller.

Results presented are from 2019-20 and provide a summary from seven orchards (within each orchard, one block where no mating disruption is applied and one block with mating disruption).

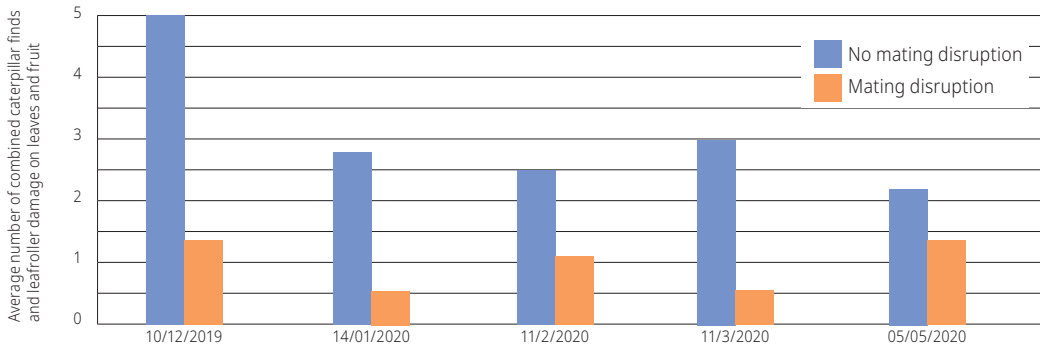
All orchards maintained leafroller monitoring and sprayed if thresholds for leafroller were exceeded. On-orchard trials have been in progress from 2014.

## Leafroller moth trapping: Dec, 2019 - May 2020

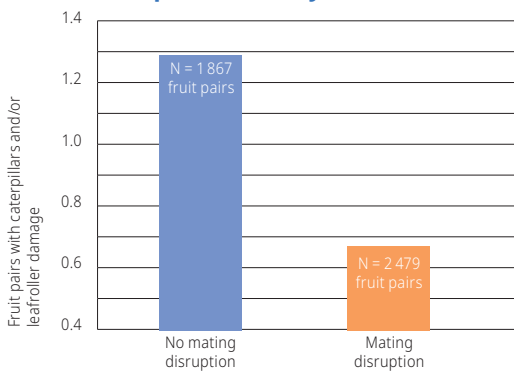


A reduction in leafroller moth activity after the application of mating disruption dispensers

## Crop monitoring: Dec, 2019 - May 2020



## Fruit inspections: May, 2020



= a reduction in leafroller finds and damage on trees and fruit

Plant & Food Research



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