



A Lighter Touch

Project Final Report

Agroecological approaches to insect pest control in perennial crop systems

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Location: Gisborne
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Acknowledgements: Braemark Vineyards and IKO Orchard (trial sites), Citrus NZ, Dr Charles Merfield, Dr Asha Chhagan (PFR).

Key findings:

- Being a demonstration trial, a vast amount of knowledge was gained from the practical application of agroecological science, which will be invaluable to growers seeking to establish cover crops with the purpose of enhancing biodiversity and the abundance of beneficial insect predators in perennial crops. Key learnings included:
 - the importance of comprehensive planning in the establishment phase, including species selection, soil preparation, sowing and maintenance;



Beneficial plant species established in the interrow.

- the requirement for more detailed crop monitoring in order to provide useful information back to growers on the ecological shifts on orchard. A revised crop monitoring protocol was developed to provide more robust data, which, when analysed, will support orchard managers in making evidence-based IPM decisions, enabling them to move away from calendar based, crop protection interventions;

- provision of a roadmap that other crop groups can follow by applying the same ecological principles and on-orchard activity to address their own specific insect pest issues. Summerfruit NZ is now adopting the learnings from this project and applying them in their own production systems in Central Otago;



First stages of the Summerfruit project, with under storey planting in a Roxburgh apricot orchard, and a Cromwell cherry orchard sprayed off in preparation for planting.

- the production of strong extension outcomes with a fieldday and workshops held during the project and the production of a range of grower resources, including educative webinars, toolkits and videos, sharing knowledge gained from the project. All of these are available through both the [ALT website](#) or from Citrus NZ.



Fielddays, workshops, webinars – all captured on video for further grower extension.



- The short time frame of the project, combined with adverse weather events and monitoring protocols requiring redesign mid-project, meant the project was not able to achieve its key objective being *Enhancing the abundance of beneficial insect predators to potentially reduce the need for applications of agrichemicals.*



While the understory was successfully established, resowing proved problematic later in the year with rain continuing to keep the ground soggy, then came Cyclone Gabrielle in Feb 2023.

- However, Citrus NZ is now set up to continue with the foundation set by the project which, as always intended, will show longer term benefits than its two-year duration.

A more detailed final report is available to growers whose industry bodies are partners in the A Lighter Touch programme. If you would like the full report, please contact your industry body.

“I feel that the results of this trial will give us industry best practice that will be of benefit to all growers in our region, so am really glad to be a part of it.”

GROWER TAM JEX-BLAKE

Owner of IKO Orchard,
a trial site for the project