Maximising macadamia yields

Australian research finds cross-pollination occurs in the majority of macadamia orchards

Cross-pollination plays a crucial role in maximising macadamia yields, accord to an Australian research and development project.

Conducted by Hort Innovation, the project has analysed crop pollination efficiency on macadamia orchards.

“The team did a lot of DNA paternity testing of macadamia nuts to understand if they were self- or cross-pollinated,” said Hort Innovation research and development manager Ashley Zamek.

“Work showed cross-pollination occurs in the majority of macadamia orchards, with only 2-6 per cent of nuts tested coming from self-pollination. This means cross-pollination is critical for nut production and maximising yields in macadamia orchards.”

The project – Increasing yield and quality in tropical horticulture with better pollination, fruit retention and nutrient distribution – aims to increase the productivity, profitability and global competitiveness of Australia’s horticultural industries. Research started in 2017 and will continue until 2023.

“The key objective of the six-year project is to increase yield and quality through better understanding of crop nutrition during crop pollination and through improved understanding of the effects of cross-pollination on a range of horticultural industries,” Zamek added.

The research will be used to produce a grower guide for Australian macadamia producers.

Jolyon Burnett, CEO of the Australian Macadamia Society, said the project has been well supported by industry members.

“Maximising the Australian macadamia crop via advances in pollination techniques had proven challenging for the industry and had only been a relatively recent priority,” Burnett explained.

This research is helping to put the pieces of the puzzle together. We’re now beginning to understand the critical components. There is a lot of interest from Australian macadamia growers because of the potential for better pollination to improve yields and increase kernel recovery.”