

Scaring Birds Smarter, Not Harder

Wendy Morris, Berry Industry Development Officer, Queensland
Drone-Enabled Bird Management for Australian Horticulture (AS24007)

Late last year, a new project got underway to tackle the rising crop and financial losses caused by bird damage in Australian horticulture. The project will develop and commercialise drone-based bird-deterrence solutions in partnership with AERIUM Analytics. The collaboration combines AERIUM's expertise in drone technology and wildlife management with Hort Innovation's leadership in agricultural research and industry impact.

Over the next three years, trials using fixed-wing and flapping-wing RoBird™ drones will be conducted on key bird-affected crops, including almonds, summer and pome fruit in the Goulburn Valley, Victoria, and strawberries in Caboolture, Queensland. RoBird is a drone system engineered to mimic the behaviours and responses of a peregrine falcon. The project aims to assess how these technologies can enhance the efficiency of bird deterrence and fit naturally into day-to-day farm operations.

"Traditional bird deterrence methods often lose effectiveness as birds adapt and return to the same sites. Through this project with Hort Innovation, we aim to demonstrate how RoBird creates sustained predatory presence over time, shaping bird behaviour naturally and consistently. By establishing that presence early and maintaining it throughout the season, we help prevent new bird pressure while steadily decreasing activity in areas already impacted, ultimately supporting growers with more reliable, efficient, and sustainable outcomes," explains Jill Viccars, Chief Growth Officer at AERIUM Analytics.

Anthony Kachenko, General Manager, Sustainability and Production R&D at Hort Innovation, highlighted the project's broader impact.

“**Bird damage is a persistent challenge for growers across Australia. This project brings together cutting-edge drone technology and expert wildlife management to deliver practical, scalable solutions that protect crops, improve productivity and do not harm local bird wildlife.**”

Early field trial results demonstrate a strong reduction in crop loss and bird pressure across Australian almond orchards. The trials evaluated both operational performance and impact on crop outcomes. Results showed an 89% reduction in fruit loss within monitored trial blocks, alongside a 94% bird displacement rate following RoBird engagement.



ROBIRD™

Flapping Wing (RoBird™ FL-1) Photos credit: AERIUM Analytics



Beyond the initial results, what stands out is the system's ability to shape bird behaviour over time. We observed increasing effectiveness throughout the trial period, with no signs of habituation. This is critical for growers, as it allows for sustained protection and a more strategic approach to managing bird pressure across the season. Looking ahead, we're focused on expanding operations and supporting broader adoption of the system across Australian horticulture, says Jill.

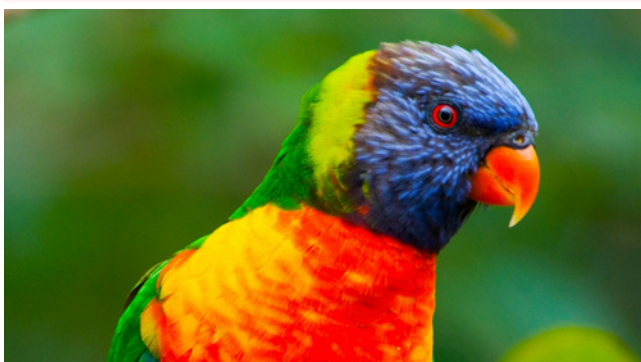


Designed to replicate an authentic falcon in both appearance and flying behaviour, establishing a credible predatory presence that triggers natural flock response and territorial displacement of pest bird populations

Photos credit: AERIUM Analytics



Harry Lagastes & Jill Viccars from AERIUM Analytics showcasing the RoBird at Taste n'See in May Photo credit: Jane Richter



Rainbow Lorikeets and Sulphur Crested Cockatoos are the primary pests damaging fruit at Taste n'See Photo credits: Canva

The field trial findings also highlight key operational learnings that will guide the next phase of the project. In Phase 2, trials will shift toward more concentrated management approaches across crops such as pome fruit, cherries and summer fruit, allowing for longer engagement periods and clearer demonstration of impact. The program will also expand toward managing larger production areas and further integrate RoBird into existing bird management strategies used by growers.

This year, a trial is underway at Queensland strawberry businesses TSL Family Farms and Stothart Family Farms, joint producers of the premium Taste n'See brand.

The farms have revealed that bird damage currently costs at least \$100,000 per week during the harvest season and it is hoped that the RoBird drone can provide a sustainable and non-lethal deterrence for the cockatoos and rainbow lorikeets wreaking havoc.

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If you weren't able to attend, you can watch a short virtual version of the demo at youtu.be/711UGR14Bl8