

# Final report

*Project title:*

## Developing orchardists of the future

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## Public summary

The one-year *Developing orchardists of the future* pilot project built on APAL's existing Future Orchards® extension platform for Australia's apple and pear growers. The project was developed as an integrated model, linking technical expertise, improved financial literacy, professional development opportunities for staff, and improved knowledge about integrating market feedback into on-farm activities. This improved approach aimed to ensure that both current and future generations of Australia's apple and pear industry staff are engaged and equipped with the tools to adapt to current and future challenges, while simultaneously identifying and developing future industry leaders.

The project delivered the following key activities to support growers:

- Orchard walks and supporting content, including:
  - 2 series of orchard walks (spring 2024 and winter 2025) covering the majority of Australia's apple and pear growing regions, and a 3rd mini walk (summer 2025) in two regions of Victoria
  - South Africa grower education tour
  - 3 x webinars
  - 4 x technical articles published in *AFG* magazine, and shared on APAL website, *Industry Juice* e-newsletter and APAL's social media channels
- Education Program
  - Leadership Program
  - Technical Symposium and 6 x Masterclasses
  - Young Grower Immersion Program during the two series of orchard walks
- Trial Incubator
  - 7 x grower-led trials
- Data Measurement
  - Orchard Business Analysis (OBA) report
  - Quality Program
  - Crop Forecast
  - Tree removal

## Keywords

Future Orchards; apples and pears; extension; immersion program; young growers; quality; Technical Symposium; trial incubator; crop forecast; Orchard Business Analysis; benchmarking; orchard walk, efficiency, engagement

## Introduction

The one-year *Developing orchardists of the future* pilot project built on the Future Orchards extension platform, developed by APAL, for Australian apple and pear growers. The Future Orchards platform is an integrated model that links technical expertise, financial literacy, professional development opportunities and improved knowledge about integrating market feedback into on-farm activities.

### Challenge

Currently, the apple and pear industry in Australia is at a crossroads. Production on an annual basis sits at or above yearly consumption, with a significant number of young plantings yet to reach full production, and Australia does not currently have the scale required to export competitively.

Ongoing quality issues continue to hold the industry back, both from an economic perspective and a consumer experience. On top of this, there needs to be more engagement with and education for young growers to incentivise them to make a career in the tree fruit industry.

### Response

The aim of this program was to work with the industry to rectify some of the challenges facing apple and pear growers and enable the industry to accelerate and innovate, providing confidence to invest back into the industry, understand and rectify quality issues and, potentially, scale the sector back into being both a domestic and export industry.

The project focused on three key activity areas:

- Future Orchards
  - Orchard walks and extension of critical technical knowledge and a framework of financial performance analysis to participants.
  - A Trial Incubator allowing growers to design and implement small-scale trials on-farm to test new concepts in a supported manner.
  - Orchard Business Analysis allowing for average costs of production to be established and communicated to growers, as well as what makes high performers different.
- Education Program
  - A training and development program targeted at younger and emerging orchard managers to ensure retention of staff and opportunities for career development inclusive of the orchard walk immersion program and leadership course.
- Quality Program
  - Collection of data and feedback on market quality, with information provided to growers.
  - Provision of insights into market data, allowing for continual improvement in fruit quality and processes.

The Future Orchards activities built on previous extension initiatives within the apple and pear industry, with world-leading experts visiting growers to discuss and share technical skills with the group. A key step-change for the orchard walks in this pilot project was the direct targeting of younger growers and encouraging business owners to send their staff to attend orchard walks. Engaging with the next generation of growers and their staff is a critical strategy to help influence change in businesses. It provides the potential to engage with some businesses that have been slow to adopt modern practices. Integrating other activities within this program, such as the Orchard Business Analysis (a financial benchmarking exercise), webinars and technical articles, provided additional avenues for engagement and helped to further extend development opportunities to growers and their staff. This emphasis also saw increased interest in these data reports with an increase of 62% for OBA report requests.

The Trial Incubator awarded grants for seven small-scale, grower-led trials in 2024–25. This program saw significant knowledge sharing between growers, identified areas for further exploration and upskilled participants in evaluating new techniques and products and the impacts (or lack thereof) on their business's performance directly in line with challenges of the previous season or the emergence of new technologies.

The Education Program has enabled younger staff to further develop their skills across all aspects of production and business. As part of the LP23001 pilot project, a two-day Leadership Program (focusing on interpersonal skills and management) continued the skills development that had been introduced with Future Orchards' week-long technical Short Course in Fruit Production in 2024. Both emerging and established growers enhanced their knowledge during the two-day Technical Symposium and one-day series of Masterclasses. In addition, eight younger orchard staff participated in the Young Growers Immersion Program, travelling to a selection of growing regions for the week-long spring and winter orchard walks with the Future Orchards team and international guest presenters, allowing engagement with global experts, other regions and a range of growers across the country.

Underpinning these initiatives, the Quality Program provided growers and packhouses with direct feedback on the realities and perceptions of apples and pears on supermarket shelves. Integration of this data into technical discussions and regular reporting aimed to help growers target their orchard and postharvest management to improve the eating experience for consumers and gain an understanding of demand issues.

### **Benefit**

This improved approach ensures that the current and future generations of Australia's apple and pear industry staff are engaged and equipped with the tools to adapt to current and future challenges, while simultaneously identifying and developing future industry leaders.

In addition, the combination of activities in this pilot project has ensured that professional development opportunities are available to Australia's apple and pear growers, while also fast-tracking the identification and growth of the next generation of apple and pear growers in Australia.

This pilot project links to two outcomes of the *Apple and Pear Strategic Investment Plan 2022–26*:

- Outcome 2 Industry supply, productivity and sustainability: The Australian apple and pear industry has increased profitability, efficiency and sustainability through innovative R&D and sustainable best management practices.
- Outcome 3 Extension and capability: Improved capability and an innovative culture in the apple and pear industry maximises investments in productivity and demand.

## Methodology

A range of activities designed to upskill and inform orchardists was delivered over the one-year duration of the pilot program. The multi-faceted program delivered a suite of training, technical skills and information to growers via a range of formats.

LP23001 <i>Developing orchardists of the future</i> (PILOT)				
Future Orchards				
Orchard walks and supporting content		Education Program	Trial Incubator	Data Measurement
Spring 2024 walks	Webinars x3	Technical Symposium (presentations day and field day)	Grower-led trials x7	Orchard Business Analysis
Summer 2025 walks	Videos & slides of orchard walk presentations published	Masterclass Series (6 masterclasses, 4 topics)		
Winter 2025 walks	Grower tour to South Africa June 2025	2-day Leadership Course for young growers		Quality Program
Interpoma & ISHS Orchard Systems Conference	Technical articles in AFG magazine x4	Young Grower Immersion Program (during spring and winter orchard walks)		Crop Forecast
	Thinning workshop (TAS)			

## Results and discussion

See summary of events and outputs in [Table 1. Output summary](#).

A range of extension and data creation activities were completed over the course of the one-year *Developing orchardists of the future* (LP23001) pilot program, building on the initiatives of the Future Orchards program as well as data initiatives (Crop Forecast, Quality Hub, Orchard Business Analysis).

This pilot program enabled the continued implementation of these projects inclusive of further enhancements, namely:

- Immersion Program: an initiative where 2 young growers were able to shadow each orchard walk loop (4 per orchard walk series; 8 people in total)
- Webinar activities to communicate outcomes, inclusive of the Orchard Business Analysis (financial benchmarking)
- Professional recording of guest presentations for each orchard walk
- Increased video content and technical article content to support growers, particularly regarding efficiency and cost tracking
- International grower tour to South Africa (24 attendees)
- Trial Incubator: an initiative where 7 small-scale grower-led trials were undertaken in the 2024–25 season
- Technical Symposium (two day in-person technical event with presentations and a field day)
- Masterclass concept trialled whereby six 3-hour courses on 4 specialised topics were delivered in conjunction with Technical Symposium
- Leadership Course for young growers

Growers continue to view the orchard walks as of particularly high value (>80% as useful in feedback) with international guests well-received to introduce new concepts and practices to trial on-farm. The use of the theme “Improve or Remove” gave direction toward increasing financial literacy and this was seen in an increase from 29 to 47 requests for the Orchard Business Analysis report (29 prior to project for OBA 2023 vs 47 for 2024 report completed during project; an increase of 62% engagement). Trialling of field activities to objectively score blocks (beyond just financials) was very well received in winter 2025 with 77% intending to use the scorecard tool to assess their own blocks to guide decision-making regarding block improvement, or if necessary, removal. Intent for block removal through surveying suggested 47% of industry are considering block removals in the Victorian (largest) growing region. In this area, 77% of respondents tracked individual block financials.

Across the course of this program 546 hectares of apples and pears were removed, against a target of 250.

Overall, the suite of activities completed during the LP23001 pilot project has increased the capability of industry stakeholders, particularly the next generation, through targeted engagement, as well as increasing interest in financial benchmarking. As a result, removal of poor performing blocks is likely to be implemented in the coming years leading to an improvement in overall business profitability and efficiency gains by moving to modern technologies in high-density plantings.

## Outputs

Table 1. Output summary

Output	Description	Detail
November 2024 orchard walks	<p>Orchard walks were held 18–22 Nov 2024 facilitated by AgFirst NZ with guests Poliana Francescato (US) and Jeff Cleveringa (US). Presentations were shared online.</p> <p>Walks hosted in:</p> <ul style="list-style-type: none"> <li>• QLD = 17 – Aeroview Orchards</li> <li>• NSW = 16 – Mouat’s Farm</li> <li>• TAS = 20 – Lucaston Park</li> <li>• SA = 20 – Oakleigh (Rob Green)</li> <li>• WA = 25 – Newton Orchards Starkie orchard</li> <li>• VIC = 39 – Fankhauser Apples</li> </ul>	<p>National attendance register of 126 people over 7 walks (headcount = 137)</p> <p><b>Content links</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Apple Flower Bud Development and Return Bloom (slides)</a></li> <li>• <a href="#">What is separating the successful growers in Washington with unsuccessful growers?</a>   slides</li> <li>• <a href="#">Maximising profitability: Improving C1 yield and finding harvest efficiencies</a>   slides</li> <li>• <a href="#">Spring orchard walks – what we have seen and heard so far</a>   APAL website &amp; Industry Juice</li> <li>• <a href="#">Future Orchards Spring Series 2024 wrap-up</a>   APAL website &amp; Industry Juice</li> <li>• <a href="#">What is separating the successful growers in Washington with unsuccessful growers?</a>   YouTube (1022 views @ 4/9/25)</li> <li>• <a href="#">Apple flower bud development and return bloom</a>   YouTube (673 views@ 4/9/25)</li> <li>• <a href="#">Maximising profitability: Improving C1 yield and finding harvest efficiencies</a>   YouTube (212 views@ 4/9/25)</li> <li>• <a href="#">More value in the field and more value in the bin: steps to successfully lift Class 1 yield &amp; profit</a>   YouTube (178 views@ 4/9/25)</li> <li>• <a href="#">Successful growing: crop load management, lifting quality &amp; using reject analysis to drive decisions</a>   YouTube (227 views@ 4/9/25)</li> </ul> <p><b>Feedback</b></p> <ul style="list-style-type: none"> <li>• Total of 35 surveys nationally</li> <li>• AgFirst rating = 8.6/10</li> <li>• Guest speaker rating = 9.0/10</li> <li>• Orchard walk (in field) = 8.4/10</li> </ul>
January 2025 orchard walks	<p>Orchard walks were held 15–17 Jan 2025 in Victoria facilitated by APAL (Nic Finger) with international guests Luis González Nieto (Spain) and Mauricio Frias (Chile). Presentations were shared online.</p> <p>Walks hosted at:</p> <ul style="list-style-type: none"> <li>• Agriculture Victoria</li> </ul> <p>In-field discussion from Alessio Scalisi, Ian Goodwin, Lexie McClymont and Mirko Piani, plus international</p>	<p>GV = 39 headcount (30 on sheet) SVIC = 40 headcount (37 on sheet)</p> <p><b>Content links</b></p> <ul style="list-style-type: none"> <li>• <a href="#">2025 Future Orchards® Victoria summer orchard walks recap</a>   APAL website, Industry Juice</li> <li>• <a href="#">Climate change challenge: Strategies for apple growing in Catalonia (Spain)</a>   slides</li> <li>• <a href="#">Climate change challenge: Strategies for apple growing in Catalonia (Spain)</a>   YouTube (353 views @ 4//9/25)</li> <li>• <a href="#">450 tonnes/ha at 6th leaf, is this possible to achieve?</a>   slides</li> <li>• <a href="#">450 tonnes/ha at 6th leaf, is this possible to achieve?</a>   YouTube (1130 views @ 4//9/25)</li> </ul>

	<p>guests.</p> <ul style="list-style-type: none"> <li>○ Discussed narrow orchard systems project, pear growing systems, overhead cooling and research tools used on-farm.</li> <li>○ Group discussed strategies to manage multi-leader systems as well as Luis and Mauricio (guest presenters) engaging with their experience globally.</li> </ul> <ul style="list-style-type: none"> <li>● Sanders Apples</li> </ul> <p>In-field discussion led by Nic Finger and Kevin Sanders, plus international guests.</p> <ul style="list-style-type: none"> <li>○ Group discussed multi-leader systems, vigour control, grafting option and irrigation management.</li> </ul>	<p><b>Feedback</b></p> <ul style="list-style-type: none"> <li>● Total of 19 survey respondents</li> <li>● Feedback attached (30% responded to survey in SVIC, 15% in GV) <ul style="list-style-type: none"> <li>○ 68% of respondents were orchard staff/owners</li> <li>○ Average usefulness rating (guest presenters) 8.74/10</li> <li>○ Average usefulness rating (orchard walk discussion) 9.11/10</li> <li>○ 79% of respondents actively monitor and track block costs and returns</li> <li>○ 47% considering removal of some orchard blocks, 11% unsure, 42% not considering</li> </ul> </li> </ul>
<p>July 2025 orchard walks</p>	<p>Orchard walks were held 30 July – 6 Aug 2025, facilitated by AgFirst NZ with guests Alberto Dorigoni (Italy) and Ben James (NZ). Presentations were shared online.</p> <p>Walks were hosted in:</p> <ul style="list-style-type: none"> <li>● QLD = 32 – Savio Orchards</li> <li>● NSW = 13 – Barolli Orchards</li> <li>● TAS = 30– Scott Bros Orchards</li> <li>● SA = 22 – Joyson Orchards</li> <li>● WA = 40 – Santa Rita Orchard</li> <li>● VIC = 80+ across field day – Tatura SmartFarm; Jassi &amp; Hardeep Bhangu’s Orchard; Plunkett Orchards</li> </ul>	<p><b>Content links</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Advanced tree training for orchard efficiency   slides</a></li> <li>● <a href="#">Building the team and setting up processes for on-farm success   slides</a></li> <li>● <a href="#">Introducing the Future Orchards Scorecard   slides</a></li> </ul> <p><b>Feedback</b></p> <ul style="list-style-type: none"> <li>● Total of 35 survey respondents</li> <li>● Feedback attached <ul style="list-style-type: none"> <li>○ 71% of respondents were orchard staff/owners</li> <li>○ Average usefulness rating (guest presenters) 8.91/10</li> <li>○ Average usefulness rating (AgFirst presenters) 8.91/10</li> <li>○ Average usefulness rating (orchard walk discussion) 8.74/10</li> <li>○ 44% of respondents actively monitor and track block costs and returns</li> <li>○ 77% intend to complete the block scorecard on their farm</li> </ul> </li> </ul>

<p>Webinars</p>	<p>3 (of a targeted 6) webinars were held.</p> <p>An additional article was completed by Nic Finger “It’s not going to fix itself” as well as an in-person update on South Africa trip.</p> <p>An additional workshop on spray thinning was held by Ian Cover at RW Squibb &amp; Sons’ orchard in Tasmania and facilitated by PIPS researcher Letitia Reis and agronomist Peter Morrison.</p>	<p>Orchard business analysis – Sarah McAarley</p> <ul style="list-style-type: none"> <li>Confidential recording (to growers) available by request (ask APAL for access to recording)</li> <li>37 attended and 159 have watched the online recording</li> </ul> <p>Postharvest management – Hannah James</p> <ul style="list-style-type: none"> <li><a href="#">Webinar: Maturity and postharvest management</a></li> <li>36 online attendees (90 registered)</li> <li>291 views at time of writing</li> </ul> <p>Orchard development decisions – Jack Wilson</p> <ul style="list-style-type: none"> <li><a href="#">Webinar: Orchard development decisions – from start to finish</a></li> <li>32 online attendees (90 registered)</li> <li>302 views at time of writing</li> </ul> <p>Article – It’s not going to fix itself</p> <ul style="list-style-type: none"> <li><a href="#">It’s not going to fix itself</a>   AFG, APAL website, Industry Juice and social media channels</li> </ul> <p>An additional “Learnings from South Africa” in-person event was delivered by Nic Finger to the Gippsland Fruit Growers annual meeting on 19 August 2025 to 17 growers and stakeholders.</p> <p>See Appendix for Thinning workshop event summary.</p>
<p>Interpoma and ISHS Orchard Systems Conference</p>	<p>Nic Finger attended Interpoma in November 2024 and ISHS Orchard System Conference in January 2025</p>	<p><b>Content links</b></p> <ul style="list-style-type: none"> <li><a href="#">Trip report: Interpoma 2024</a>   AFG Summer 2024, APAL website, Industry Juice and social media channels</li> <li><a href="#">Canopy design – new systems, same challenges</a> – reports on additional findings from Europe and messages from NZ   AFG Autumn 2025, APAL website, Industry Juice and social media channels</li> <li>EU trip labelled photos (691) – <a href="https://adobe.ly/414uHdI">https://adobe.ly/414uHdI</a></li> </ul>
<p>Technical articles and videos</p>	<p>5 (of 4) articles have been published in AFG and 2 (of 2) videos uploaded to YouTube and shared to growers.</p>	<p>Articles shared via print media (AFG, 900+ copies) as well as online via APAL website, Industry Juice e-newsletter and social media (LinkedIn, Facebook and X).</p> <p><b>Video content</b></p> <ul style="list-style-type: none"> <li><a href="#">Irrigation systems – Start up and operational checks</a>   YouTube (726 views @ 5/9/25)</li> <li><a href="#">Setting a crop up for an efficient harvest</a>   YouTube (313 views @5/9/25)</li> </ul> <p><b>Article content</b></p> <ul style="list-style-type: none"> <li><a href="#">Spring–summer crop management</a></li> <li><a href="#">Strategies for improving efficiency at harvest</a></li> <li><a href="#">Economics of block removal for redevelopment</a></li> <li><a href="#">Pruning to plan</a></li> <li><a href="#">It’s not going to fix itself</a></li> </ul>

		Future Orchards material on APAL website for 12-month period (1 September 2024 to 31 August 2025) was 1,337 views.
International grower tour to South Africa	24 people participated in the tour from 8–15 June 2025	<p><b>Content links</b></p> <ul style="list-style-type: none"> <li>• <a href="#">South Africa tour gives insights into growing in a low-labour-cost, export focused industry</a>   APAL website, Industry Juice and social media channels</li> <li>• <a href="#">Growing for quality, tonnage and export in South Africa</a>   APAL website, Industry Juice and social media channels</li> <li>• <a href="#">Quality first in Dutoit’s data-driven approach to a profitable future</a>   APAL website, Industry Juice and social media channels</li> </ul> <p>Additional 2 articles to be published in AFG Spring 2025, on APAL website, Industry Juice and social media channels.</p> <p><b>Feedback</b></p> <ul style="list-style-type: none"> <li>• Total of 7 survey respondents</li> <li>• In-orchard discussion rated 3.6/4</li> <li>• Overall rated 8.0/10</li> </ul> <p>Selection of comments:</p> <ul style="list-style-type: none"> <li>• “Agtech evening was a great way to see some local technology that wouldn’t happen only with orchard walks.”</li> <li>• “Quality not quantity. Getting the right rootstock for the site and variety.”</li> <li>• “Group size was pretty good, as was having international growers involved. Possible thoughts for somehow getting our marketers to attend or learn new techniques and see how to best add value.”</li> </ul> <p>Feedback here: <a href="https://www.surveymonkey.com/results/SM-e_2F8v3MWWVzW6Qzu7de2vJkA_3D_3D/">https://www.surveymonkey.com/results/SM-e_2F8v3MWWVzW6Qzu7de2vJkA_3D_3D/</a></p>
APAL Technical Symposium	130 delegates attended the Symposium in Shepparton on 5 and 6 August 2025	See Appendix for APAL Technical Symposium agenda booklet. See Appendix for attendee feedback.
Masterclasses	<p>6 in-person Masterclasses held on 4 August 2025 before Technical Symposium.</p> <p>41 people participated.</p> <p>4 topics were offered for the Masterclasses:</p> <ul style="list-style-type: none"> <li>• Budgets and cashflow planning</li> <li>• IPDM</li> <li>• Sprayer calibration</li> <li>• Postharvest management</li> </ul>	<p>See Appendix for attendee feedback.</p> <p>Summary</p> <ul style="list-style-type: none"> <li>• 10 completed feedback survey</li> <li>• 70% orchard staff/owners</li> <li>• 90% provided good value (1 thought half the day did)</li> <li>• 60% would prefer in-person sessions in future again; 40% a hybrid option (initially in person then follow-ups online)</li> </ul> <p>Ratings out of 10</p> <ul style="list-style-type: none"> <li>• Cashflow/budget session = 8.4</li> <li>• IPDM = 9.0</li> <li>• Sprayer calibration = 8.0</li> <li>• Postharvest = 9.5</li> </ul>

		<p>Future topics requested:</p> <ul style="list-style-type: none"> <li>• Irrigation</li> <li>• Nutrition</li> <li>• Soil biology/young tree performance</li> <li>• Pheromone use and predator management</li> <li>• Orchard renewal (extension of cashflow/budgets)</li> <li>• Nursery trees procurement to standards</li> </ul>
Leadership Course	17 young growers attended the course from 7–8 August 2025 which was facilitated by Marcus Oldham College	<p>See Appendix for course agenda.</p> <p>See Appendix for attendee feedback.</p> <p><b>Feedback</b></p> <ul style="list-style-type: none"> <li>• Total of 15 survey respondents</li> <li>• Overall usefulness 9.0/10</li> <li>• Course satisfied expectations/objectives. Yes 100%</li> </ul>
Young Grower Immersion Program	<p>First Immersion Program cohort attended November 2024 orchard walks.</p> <p>Second cohort attended July 2025 orchard walks.</p>	<p><b>Content links</b></p> <p><u><a href="#">New program to upskill current and future generations in the apple and pear industry</a></u>   AFG Summer 2025, APAL website, Industry Juice and social media channels</p> <p>Q&amp;A with July 2025 cohort to be published in AFG Spring 2025.</p>
Trial Incubator	A total of 7 trials were completed, with trial reports published on the APAL website and communicated through the industry communications program.	<p>Trial reports available here: <a href="https://apal.org.au/programs/future-orchards/trial-program/">https://apal.org.au/programs/future-orchards/trial-program/</a></p> <p>Topics in the 2024–25 season were:</p> <ul style="list-style-type: none"> <li>• Automated bird control using Burro</li> <li>• Herbicide options after glyphosate (survey)</li> <li>• Salinity identification and management</li> <li>• Improving Glomerella control</li> <li>• Improving Alternaria control</li> <li>• Do mowing intervals affect predatory mite prevalence?</li> <li>• Mealybug control in older pear trees through soil drenching</li> </ul> <p>Total webpage views for the 12-month period (1 September 2024 – 31 August 2025) was 545 views with an average dwell time of 1 minute and 55 seconds, with additional communication via APAL’s Industry Juice e-newsletter.</p>
Orchard Business Analysis	<p>A total of 21 businesses (of a targeted 24) participated.</p> <p>A video on orchard systems and efficiency was made to compensate for shortfall (3).</p> <p>The report is confidential to industry and should not be shared.</p>	<p>The OBA report is confidential and only available on request to commercial levy-paying growers.</p> <p>Total requests for OBA report: 47 YTD (29 requests for previous report).</p> <p><u><a href="#">Setting a crop up for an efficient harvest</a></u>   YouTube (313 views @ 5/9/25)</p>

<p>Quality Program</p>	<p>The Quality Program collects Pink Lady and Gala apples and either Williams or Packham pears at supermarkets in Brisbane, Sydney and Melbourne.</p> <p>Fruit is then tested for Brix and pressure, and a leaderboard is published for all packhouses for which a sufficient sample has been tested.</p> <p>APAL can show Hort Innovation the Data Hub via a Teams meeting if required.</p>	<p>A login has been created for Matt Reynolds to login and review. The data is not available for public consumption.</p> <p>Available via Data Hub (within APAL Member Hub) to commercial levy-paying apple and pear growers and packhouses.</p>
<p>Crop Forecast</p>	<p>The Crop Forecast was completed using sample data from 78 growers.</p> <p>The report is confidential to industry and should not be shared.</p>	<p>Report released 19/3/25 via APAL.</p> <p>The Crop Forecast is confidential and available via APAL Data Hub to growers.</p>

## Outcomes

Table 2. Outcome summary

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
<p>The <i>Developing orchardists of the future</i> pilot program and its associated components are regarded as a trusted and valued resource in informing orchard business decision-making.</p>	<p><i>Apple and Pear Strategic Investment Plan 2022–26:</i></p> <p>Outcome 2 Industry supply, productivity and sustainability: The Australian apple and pear industry has increased profitability, efficiency and sustainability through innovative R&amp;D and sustainable best management practices.</p> <p>Outcome 3 Extension and capability: Improved capability and an innovative culture in the apple and pear industry maximises investments in productivity and demand.</p>	<p>Communication of current best practice and positioning for future adoption was made through the orchard walk events. A particular emphasis on cost efficiency (labour and maximising return on investment) was made, with an emphasis on continual block improvement and decision-making regarding removal of poor performers to enhance overall profitability. This messaging was supported by data resources like the Crop Forecast and Orchard Business Analysis (OBA).</p> <p>Data-driven insights (enabled by data collection projects) were made during orchard walks to set a framework for block removal or reinvestment to improve performance.</p> <p>Engagement of young growers in the Leadership Program, Immersion Program and Masterclasses has seen renewed interest at orchard walks and improved attendance in this age group.</p>	<p>Feedback forms following walks, with targeted questions regarding data tracking of individual blocks and intention to remove poor performers.</p> <p>44% of respondents (winter 2025) actively monitor individual block costs. 77% intended to utilise the ‘block scorecard’ method to evaluate blocks.</p> <p>The Trial Incubator evaluated new techniques and the outputs were accessed 545 times during the 12-month period.</p> <p>Engagement of 8 immersion program participants and 17 young growers in the Leadership Course has generated an engaged group of young industry members with improved networks (long-term industry sustainability).</p>
<p>Industry has access to knowledge ‘of high quality and relevance’ to decision-making needs.</p>	<p>Outcome 2/3</p>	<p>Face-to-face engagement via orchard walks, webinars, educational programs and international tours.</p>	<p>Attendance at events (nationally) over 100, with each region attracting an average of 31 attendees per orchard walk event.</p> <p>Videos and material available online (APAL website/YouTube channel) as well as confidential</p>

			<p>material via request.</p> <p>Technical Symposium engaged 130 attendees (sold out) with 45% of attendees identifying as growers/orchard staff.</p>
<p>Knowledge transfer is occurring through high engagement with outputs.</p>	<p>Outcome 2/3</p>	<p>Key Quality Program outputs including APAL Data Hub and packhouse performance.</p>	<p>Quality Hub views: 403 views (12-month period)</p> <p>Data Hub access (individuals) total: 73 (12-month period)</p>
<p>Industry is aware of R&amp;D investment process and outcomes and how to access and apply at orchard level towards achieving greater profitability and sustainability.</p>	<p>Outcome 2/3</p>	<p>Industry data to enable decision-making, including Orchard Business Analysis and Crop Forecast.</p>	<p>Crop Forecast open rate: 28 (5-month period, April 2025 – September 2025).</p> <p>OBA request rate was 47 for the current report (compared to 29 for the previous year's report) signalling improved interest/awareness.</p>

## Monitoring and evaluation

Table 3. Key Evaluation Questions

Key Evaluation Question	Project performance	Continuous improvement opportunities
Is the program regarded as a trusted and valued resource for informing orchard business decision-making?	<p>Growers and industry advisors continue to attend the project events in large numbers and reference its materials in regards to orchard management and technical skills.</p> <p>Data material (e.g. Orchard Business Analysis, Quality Hub) used to provide data-driven advice to support industry and for advocacy efforts.</p>	<p>Encouraging business owners to send their staff to all events, highlighting the value in professional development and networking.</p> <p>Further emphasis on understanding financial metrics.</p>
Are the outputs of the project regarded as of high quality and relevance to decision-making needs by the industry?	<p>Participant feedback was &gt;80% in all aspects of project in regard to usefulness/applicability. On-farm discussion led to local adoption and encouragement of participants to try new techniques on-farm.</p> <p>77% of attendees (winter 2025) planned to use the block scorecard tool to evaluate some of their orchard blocks.</p>	<p>Continual engagement with a diverse range of growers, marketers and packers is critical to ensure that events and data collection activities provide relevant and timely insights.</p> <p>Future projects could establish a key technical reference group (a targeted project reference group for each relevant component of the larger project).</p>
Is industry engaged with/accessing the outputs of the project?	<p>~45% of respondents actively monitor their costs on-farm at a block level.</p> <p>Viewership of resources on the APAL website was 1,337 views for the 12-month period of the project.</p>	<p>Continued communication of materials through the AP21000 <i>Apple and pear industry communications program</i>.</p> <p>Material remains available through APAL website and YouTube channel for current and future industry members to access.</p> <p>Highlight and reference key material as time-sensitive materials to reinforce use of material in decision-making.</p>
Did the engagement process with industry provide for a wide and diverse range of input?	<p>The project engaged with a range of industry stakeholders across a diverse range of positions, ages and regions through the orchard walks, data materials and webinars.</p> <p>Multiple methods of communication were utilised to enable access, as well as recording/publication of non-sensitive material being made public for future use.</p> <p>Feedback was sought at events to</p>	<p>Additional emphasis on understanding why some growers and packhouse marketers choose not to interact with relevant material is needed. This could be achieved through direct consultation in a one-on-one environment to understand what is/isn't being provided for those groups.</p>

	facilitate future improvement.	
What efforts did the project make to deliver the program more efficiently?	<p>All orchard walk guest presentations were videoed and uploaded to improve access for growers.</p> <p>NSW and Victorian regions were combined for orchard walk activities, with growers encouraged to visit other regions to 'see something different' as well as enable increased networking.</p>	<p>Enhanced search capability of resources, possibly leveraging AI summaries.</p> <p>Explore opportunity for hybrid learning (in-person and online) for education opportunities (e.g. Masterclasses, Leadership Course, technical material and discussion groups).</p>

## Recommendations

### Orchard walks

- In-field delivery continues to be well-received in each region.
  - Attendance numbers in some regions continue to challenge the cost:benefit of these events; continued focus on highlighting value and opportunity cost to growers is required to justify expense.
    - Videos produced from guest content are highly popular and extends this value to those who cannot attend, as well as those joining industry in future.
    - Business owners (particularly in low-attendance regions) to be encouraged to send all key orchard staff as a professional development opportunity.
  - In-field activities (e.g. the block scorecard completed winter 2025) proved to be of interest to growers. Moving forward, orchard walk events should aim to include a direct group learning activity such as this rather than purely a lecture and field demonstration as traditionally completed.
- International tours provide an opportunity for growers to both network and explore innovative techniques.
  - A desire to visit Europe (combined with Interpoma) was strongly expressed by attendees on the grower tour to South Africa.
  - Consideration to feedback regarding North America (specifically Washington) should also be made in future trip planning.
  - Additionally, the semi-structured approach (own travel to match itinerary and some group dinners/some self-organised) was appreciated by attendees and significantly reduced administration load and risk of organising these types of events.
    - Consideration to highly targeted agendas (in smaller groups) should also be made (e.g. Group 1 looks at automation, group 2 looks at canopy structure, and all report back on shared days – could also extract additional value to group and industry).
- A desire for topics in pre/postharvest management, learning opportunities (new skills), demonstrations and ‘how other growers do it’ has been expressed to be focused on in future years.

### Technical Symposium

- Well attended and well received.
- Rural location seems to increase percentage of growers attending.
  - Consideration of an alternate region should be made to ensure field visits remain ‘fresh’.
- Opportunity for managed variety and similar meetings to be held alongside event if communicated early.

### Education activities

- A desire for additional masterclass topics to be offered was communicated.
  - Potential topics: irrigation; nutrition; soil biology/young tree performance; pheromone use and predator management; orchard renewal (extension of cashflow/budgets); nursery trees procurement.
- A hybrid model for education (in-person then follow-up online) was supported in survey responses.
  - Length of time indoors was highlighted as a challenge for some participants.
- Consideration should be made for a basic series of modules covering several topics that offer hybrid delivery to support people entering the industry as well as those learning new techniques.
- Webinars provide a cheap method of information delivery, but attendance tends to be a smaller subset of growers.

## Innovation

- Grower-led trial programs would benefit from additional structure with 'seed idea' sessions to generate areas of interest to encourage both growers and service providers to submit trials addressing those issues.
- Growers tend to have interest in trials and completing them but tend to lack the time to effectively manage and report on an on-farm, robust trial. Local grower groups using service providers (as adopted in WA and QLD) are effective ways to implement this and should be encouraged in other regions.

## Data Measurement

- Outcomes of the fruit Quality Program highlight areas for improvement.
  - Future extension should ensure that fruit maturity and storage intervals are aligned.
    - Updating Maturity Assessment guides (parameters and suggested storage length and conditions) is one area that could be worth considering to generate appropriate and updated reference material for both growers and postharvest staff.
  - Continued monitoring and ensuring compliance are critical to match marketing spends in other areas – fruit needs to match consumer expectations.
- Crop estimate data linked to planted area provides a clearer picture of regional volumes as well as the potential for disaster response and quantification.
  - Future projects should emphasise reconciliation of data (total bins picked relative to estimate) by mid-winter to ensure confidence in dataset and late season weather and size profiles are quantified effectively.
- Orchard Business Analysis report (benchmarking) provides value to industry-level discussion.
  - Future projects should release standard chart of accounts documentation as well as a 'next steps' guide for monitoring and, potentially, discussion groups.
  - A long-term aspiration should be toward an online system where data can be categorised to allow self-benchmarking independently for all growers, as well as guidance on areas for improvement.
- Continued reluctance to remove poor performing blocks continues to be a challenge.
  - Improved data flow from market/packhouse to growers is imperative to enable effective decision-making.

## Refereed scientific publications

None to report.

## Intellectual property

No project IP or commercialisation to report.

## **Appendices available on request**

Future Orchards walk feedback – spring 2024

Future Orchards walk feedback – summer 2025

Future Orchards walk feedback – winter 2025

APAL Leadership Course feedback – winter 2025

APAL Masterclasses feedback – winter 2025

2025 APAL Technical Symposium – Evaluation Summary

2025 APAL Technical Symposium Program

Leadership Course agenda

Thinning workshop Tasmania event summary