

R&D Insights contains the latest levy-funded R&D project updates, research findings and related industry resources, which all happen under the Hort Innovation Olive Fund.

Hort Innovation partners with leading service providers to complete a range of R&D projects to ensure the long-term sustainability and profitability of the olive industry.



Engagement and energy mark 2025 National Olive Conference

Numbers were up and so was the enthusiasm as the Australian olive industry gathered in Adelaide for this year's National Olive Industry Conference & Exhibition.

The event was a 'sell-out' for the first time in many years, with capacity numbers for both the optional field day and Day 1 Conference plenary sessions. There were only a handful of seats available for Day 2, while the Conference Dinner - which brings together delegates, presenters, exhibitors and organisers for a relaxing night of networking over great food and wine - also saw the Kooyonga Golf Club's dining room filled to capacity.





New interest, new faces

"There's also a lot of buoyancy about the industry at the moment, particularly around olives as sustainable agriculture. They're evergreen, we're putting the waste products - prunings, and increasingly composted processing waste - back on the grove, and there are positive impacts on soil carbon from that. Whether people are starting from scratch with olives or diversifying their existing operation, it's a very attractive industry.

"That was certainly reflected in the Conference cohort, as there were a lot of new faces among the delegates."

Imparting experience

Southan said the calibre of this year's presenters was also a big part of the event's success.

"Right across the two days we had people with expert knowledge and experience in the industry, and the ability to impart that knowledge to a diverse audience.

"This year we also had an international speaker, Professor Arnon Dag. He was a fantastic presenter, and his research data on olive irrigation and nutrition was really interesting.

"Both of his presentations were very relevant but the big takeaway was when he talked about potassium. Their research showed that added potassium doesn't make much, if any, difference to flowering, whereas we're told that potassium is crucial for flowering in particular.

"It was a fantastic opportunity to gain a global research perspective on such an important area of olive production."

Irrigation best practice

Data was also the basis of another incredibly valuable presentation.

"Swan Systems' presentation around irrigation was great, as it used real grove practice as an example," he said.

"They used the data from Mel Hollick's irrigation regime in her Peninsula Providore grove and showed that she's doing a great job: irrigating at the right time and putting the right amount on.

"It was an excellent illustration of how software can be used to help people with the scheduling of irrigation to ensure the best efficiency and use of water resources."

Table olives in focus

"Another stand-out was the table olive session at the end of Day 2.

"The information on the new processing technique had everyone interested and then the guided tasting using slides kept everyone actively engaged to the end. It was great to see energy levels still really high as the conference drew to a close."

Positive feedback

Southan said attendee feedback has been very positive, and he saw that in action at the event.

"People really enjoyed it, and got a lot out of it. They learned a lot from the plenary sessions, sourced equipment and expert advice from the exhibitors, and such good attendance meant networking was excellent.

"The more people you have, the more opportunities for people to engage and interact. So with a full-house this year, that was really positive."

Newcomer: base knowledge

First-time delegate Stephen Angus travelled from Victoria for the Conference, despite not having a single olive tree in the ground. He said he'd hope to gain the foundation knowledge he needed before entering the industry, and wasn't disappointed.

"We've bought a block of land and are in the planning stages," he said.

"We solely use olive oil at home and won't buy imported. So we were already interested in the industry and, knowing there's a shortfall, we thought olives would be good to explore. We wanted to learn, and we wanted the Conference to be the first step in finding out what's involved.

"We know we're going to be niche and we came with a fair amount of reservation about whether what we are thinking about is realistic. We came away with a view that this is something we could achieve. It removed some of the mystery."

It also filled some gaps in the learning process.



"Probably the most important outcome was meeting industry experts, so we've now got a little cohort of people we can start tapping into. We didn't know how to do that but now we've got that expertise we can turn to," Angus said.

"The session on what equipment you need also really helped us newbies, and whet the appetite for other things we need to contemplate.

"Overall, we got a vibe that people do this in different ways - there's no one size fits all - and that we want to do is sensible and achievable. They were the main take-outs."

So was it worth going?

"I'd definitely recommend attending the Conference to other growers, particularly those new to the industry," Angus said

"There's a lot of information out there but actually getting it from the horse's mouth is invaluable: you get an understanding that you don't get from the written information.

"It was affordable, and people made us really welcome. We'll definitely be heading to Mildura next year."

Experienced grower: down-to-earth and practical

Regular attendee Alan Smith came from NSW's Hunter Valley, and was also happy he made the trip.

"It was a good conference. Whilst probably more aligned to a mediumsized producer, as a micro producer, we got a lot out of it," he said.

"The conference proper started with Paul Miller: it was good to be reminded of the recent olive politics history. We tend to think of our industry as static in a regulatory sense, but that is far from the truth.

"Of special interest to me was Professor Arnon Dag: he reduced a lot of complexity regarding tree nutrition down to some simple points. I was personally gratified that the levels of nitrogen he recommended were what we are applying on Shalumar!

"Andrew Taylor, both in the field and in the room, is good value: a natural teacher. What I most appreciate is his down-to-earth approach to trees versus economics.



"And Professor John Fielke gave an interesting snapshot of his table olive production concepts. Whilst not relevant to me, this is highly relevant to some of my Hunter Valley colleagues.

"For me, though, the field day is the winner. Getting up close and personal to an olive tree is the only way to travel! Most of our grove is over 30 years in age, so being in a similar grove made that part of the day very down to earth and practical.

"The contract packaging visit was also interesting, but for our size, more of academic interest: watching a robot pack a pallet is quite mesmerising."

"The presentations were balanced in nature of topics and speakers; the exhibition space was well set-up, enabling dynamic interactions amongst attendees; and the dinner was an excellent platform for further conversations and relationship building."

Plenary Program Highlights

The plenary program gained very positive feedback overall from delegates, with several presentations standing out as favourites.

Top marks for quality

The highest rating was for the presentation by Modern Olives Laboratory Manager Claudia Guillaume, *EVOO quality - the whole picture*, which highlighted the importance of best practice along the entire production and retail chain.

Guillaume worked through the various elements which can affect quality - both positively and negatively - from the grove through to the consumer, sharing the over-riding message that the most important factor in quality olive oil is everything.

Noting that some factors are difficult to change and others are easier to manage, Guillaume emphasised that producing high-quality EVOO it far from a 'set-and-forget' production regime and that most quality issues are the result of poor management practices.

IPDM update

The olive industry's resident pest and disease 'guru', Robert Spooner-Hart, also made the favourites list with his presentation Sustainable Pest and Disease Management Update. Focussing on the industry's commitment to Integrated Pest and Disease Management (IPDM), which uses monitoring and the limited, strategic use of selected pesticides, and referencing the latest Olive Strategic Agrichemicals Review Process (SARP), Spooner-Hart worked through identification and available treatments for each of the key olive pests.

He then looked at the current Olive Industry Biosecurity Plan and provided a similar overview of the major exotic pest and disease threats for Australia - including the #1, Xylella fastidiosa.

His closing message was clear: there's a lot of scary stuff out there so develop and follow a biosecurity management plan on your property. And if you see something new, report it.

Water in the spotlight

International presenter Arnon Dag, from the Gilat Research Center's Agricultural Research Organization, focussed on one of the Conference's hot topics with his presentation Irrigation of olives with reclaimed wastewater.

The increased intensification of modern olive cultivation, with close-spaced plantings of fast-growing, high-yielding varieties, has also increased the need for irrigation and fertigation.

Given the scarcity of water available for irrigating olives, and the subsequent imperative to optimise irrigation, Dag took delegates through the MERC research project *Utilization of reclaimed wastewater for olive irrigation.*

Conducted over eight years, the research utilised an experimental 20-hectare orchard of Barnea and Leccino cultivars, planted at super high-density rate. Fresh water and recycled effluent were variously applied, with plots of each cultivar receiving one of three treatments:

Fresh Water; Recycled Water-Full Fertilization; or Recycled Water-Reduced Fertilization.

The researchers investigated the long term effects of irrigation with recycled water on soil properties, and the impact of fertilization practice and water source on both olive tree performance and olive oil quality.

The results for the Barnea varietals showed that, averaged over the eight years, the Recycled Water-Reduced Fertilization treatment produced the greatest fruit crop. Importantly, the researchers also concluded that the use of recycled water did not reduce fruit and oil yield, affect olive oil quality parameters or cause contamination of oil. They also noted the need for nutrients carried in recycled water to be taken into account when applying fertiliser, and that soil must be monitored for sodium levels.

More information

For those who weren't able to make the event, and those wanting to refresh on the information, the AOA makes the presentation slides from each year's plenary sessions available on the industry website. Just go to www.australianolives. com.au - Resources - Conferences - where you'll find presentations from the 2009 through to the present.

You can also access the 2025 Conference presentations directly *here*.



What would you like covered?

The annual National Olive Industry Conference is your event and the AOA's organising team are keen to ensure that the program and other activities meet the needs, wants and interests of all attendees. Feedback from each year's delegates helps guide the program design for the following year, and input from the wider industry is also welcomed.

Program planning for the 2026 event in Mildura is about to get underway, so if there's a topic you'd like to know more about, an issue you really need dealt with and/or a relevant speaker you'd like to hear, please let the organising team know so they can add it to the discussion mix.

Your feedback will be greatly appreciated and will help ensure the next National Olive Industry Conference is the event you want to attend!

Please send your suggestions to AOA Administration Manager Liz Bouzoudis at secretariat@ australianolives.com.au

The National Olive Conference & Trade Exhibition is facilitated by the Australian Olive Association, partially funded by Hort Innovation using the Olive R&D levy, with in-kind contributions from the Australian Olive Association and funding from the Australian Government. The event is also supported by a range of industry sponsors and exhibitors.







Hort Innovation Industry Service Managers Nicole Dimos Byrnes (left) and Molly Black joined exhibitors at the recent AOA National Olive Industry Conference to gain direct grower feedback on the priority strategies for the new industry Strategic Investment Plan.

Face-to-face input on SIP priorities

Held in conjunction with the AOA National Olive Conference, the annual industry Trade Exhibition puts specialist service providers directly in front of producers. It's a chance to showcase the latest in industry-specific equipment and services, and for producers, an opportunity to gain individual recommendations and advice to suit their circumstances.

For Hort Innovation, the not-forprofit, grower-owned Research and Development Corporation (RDC) for Australia's horticulture industry, attending the event as an exhibitor provided the ideal opportunity to gain both direct feedback on current olive levy activity, and input on the direction of investments into the future.

Hort Innovation Industry Service Manager Nicole Byrnes said this year's Conference came at an ideal time in the Olive Fund's planning cycle.

"Every five years the Olive Fund's Strategic Investment Plan (SIP) gets refreshed, with the current SIP expiring in June 2026," she said.

"Developing the next plan means identifying the strategies that will direct us for the next five years: finding out the priorities that olive growers have for project funding and the direction they feel industry R&D should take.

"It's always best to get that feedback in person, so being at the conference was invaluable. It was the best opportunity to get in front of growers and stakeholders and have an actual discussion, to make sure we're heading in the right direction as the next funding roadmap evolves.

"And having the survey on mobile devices for delegates to complete at the time meant that they could provide additional feedback and ideas as they went.

"There were 15 identified strategies to vote on in the survey and we got some additional ideas from growers to help round those out. We found that a lot of those new ideas actually fit into the strategy headings, we just need to fine-tune the wording, so it was really helpful to get that verbal feedback around new R&D possibilities for the industry."

Conference experience

Dymos said the annual olive conference is a highlight of her calendar.

"Everyone is so welcoming, the program is always engaging, and it's great to reconnect with familiar faces while also seeing so many new growers coming to the event to learn," she said.

"I took note of how much discussion the new growers were having with the experienced growers, who were all happy to share their wisdom with new industry members. "I also really enjoyed getting into the grove the day before and being able to have discussions outside, where growers generally prefer to be.

"Probably the best thing, though, was that people were really keen to have their say, which is exactly why we were there."

Survey still open: have your say

Nicole said Hort are keen to hear from as many growers as possible, so are keeping the survey open until mid-January. The priority strategies will then be confirmed by the industry Strategic Investment Advisory Panel in February.

"We had a lot of South Australian and Victorian growers take part at the conference and would love input from a wider demographic of growers, so we're asking all R&D Insights readers to please complete the survey online," she said.

"There are just 21 questions and 15 strategies to vote on, so it takes less than 10 minutes. The levy is your money and we want to spend it on what olive growers feel should be the main focus, so this is your chance to have your say."

Access the online survey form here.

If you have any comments or questions on the survey or the SIP process, you can contact Nicole directly at *nicole.byrnes@horticulture.com.au* or 0499 989 791.



The SIP's role in olive R&D Investment

The olive Strategic Investment Plan (SIP) is the roadmap that guides Hort Innovation's oversight and management of the olive industry's individual investment programs. It lays the foundation for decision-making in investments and represents the balanced interest of olive levy payers.

The function of the SIP is to ensure that the investment decisions align with olive industry priorities. Every levy-funded R&D project for the olive industry reflects at least one of the SIP priority outcomes.

Current key outcome areas

The four priority outcome areas of the current SIP are:

- Extension and capability: building capability and innovative culture; managing the knowledge, relationships, systems and processes required to communicate effectively with internal and external stakeholders.
- Industry supply, productivity and sustainability: improve industry productivity (inputs/outputs) to maintain local and international competitiveness and viability of supply; accelerate the adoption of production practices that optimise returns and reduce risks to growers.
- Demand creation: maintain and strengthen consumer demand in domestic and international markets to support sustainable expansion of production and farmgate grower returns.

 Business insights: measure industry supply (production) and demand (consumer behaviour) data and insights to inform decision-making and drive success in the other three outcome areas

The overarching strategic intent of the SIP is to optimise grove productivity and product quality, to position Australia as a high-integrity producer of ultra-premium EVOO and table olives, both domestically and internationally.

The current SIP represents the Australian olive industry's collective view of its R&D needs over the five years from 2022-2026. Its development incorporated learning, achievements and analysis of the previous SIP, consultation with Australian olive levy payers and synthesis of various strategic documents.

Olive Strategic Investment Advisory Panel

Potential levy investments are weighed up through an advisory process to ensure they reflect the agreed strategic objectives for the industry. Hort Innovation is assisted in this process by the olive Strategic Investment Advisory Panel (SIAP), comprised of levy-paying growers, technical experts and a representative of the peak industry body.

The SIAP uses the SIP to help guide their advice to Hort Innovation in relation to both new R&D concepts and ongoing projects, based on potential industry impact as well as the availability of levy funds.

Olive Annual Investment Plan

The investments that have been prioritised and actioned are outlined in the olive Annual Investment Plan (AIP), published each year over the lifespan of the SIP.

The AIP sets out levy fund investment over the 12-month period and provides detailed information on funding availability, current R&D investments, financial statements and how investments relate to olive SIP outcomes.

More information

The current Olive SIP 2022-2026 is available on the Hort Innovation website *here*.

The Olive Fund Annual Investment Plan 2025/26 is available *here.*

And there's more information on Olive Fund Management <u>here</u>.



Research recap

PROJECT NAME: Olive oil quality monitoring program (OL23002)

PROJECT AIM: To monitor olive oil quality and compliance with Australian standards, to ensure consumer confidence in the quality and value of olive oil they are purchasing and that Australian producers can compete on quality.

RESEARCH PROVIDER:Australian Olive Association

FUNDING: Hort Innovation Olive

Fund

PROJECT TERM: 3 years **PROJECT ENDS:** 2027

KEY INFORMATION:

- The Australian Standard for Olive oils and olivepomace oils - AS5264-2011 describes the minimum quality parameters for each grade of olive oil.
- The program will determine the level of compliance with the Australian Standard and identify brand owners who need assistance with quality and compliance issues.
- 120 EVOO samples will be collected and tested over the project's three-year life (40 samples reported each year.)
- Samples will be tested for Free Fatty Acid content, Peroxide Value, UV Coefficients, Pyrophytins (PPPs), DAGs (1,2-diacylglycerols), and sensory testing for defects, fruitiness, bitterness, and pungency.
- Where standards are not met, the Australian Olive Association will provide constructive feedback on test results and information on how to improve quality outcomes.

The olive oil quality monitoring program (OL23002) is a strategic levy investment in the Hort Innovation Olive Fund, funded by Hort Innovation using the olive research and development levy, co-investment from the Austraian Olive Association and contributions from the Australian Government.



Monitoring project confirms EVOO quality; shelf life needs work

In a world where food fraud is almost commonplace, the quality of olive oil in the Australian marketplace is proving an exception. The first year of the Hort Innovation Olive Levy R&D project Olive oil quality monitoring program (OL23002) has found that the majority of products sold as 'EVOO' in Australia are indeed extra virgin quality.

The three-year project commenced in late 2024 and is monitoring compliance with the *Australian Standard for Olive oils and olive-pomace oils* (AS5264-2011), Australian Consumer Law and Food Labelling Regulations.

Being undertaken by the peak industry body, the Australian Olive Association (AOA), the project involves the ongoing testing of a cross-section of olive oils being sold across retail, food service and other channels throughout Australia.

AOA CEO Michael Southan said the results from the first year of product testing and scrutinising are generally positive.

"We're seeing generally good compliance with the standard, particularly in terms of the chemistry," he said.

"In most cases, what's labelled as EVOO when it's sent into the marketplace meets the quality standards for extra virgin olive oil."

The test of time

That's not always the case, however, once they've been stored for a while.

"We've been monitoring for over 12 months now and so have started testing some of the samples retained from earlier lots," Southan said.

"They've been kept in storage and we've tested them again to be able to demonstrate we're confident in the results we're getting.

"So far the vast majority have passed on the chemical parameters but some have failed on sensory this time around - both Australian and imported products. They were rancid and if you looked at the shelf life based on the chemistry, they were old."

"With some of the retained products we found that they didn't have much of a shelf life when first tested: they only just passed, and the second time they didn't pass. The oil has basically expired in terms of being extra virgin quality, yet the label says it has months to go.

"That's why we re-tested those samples, to confirm that they had run out of shelf life."

Non-compliant labelling

As a result, Southan said, those products don't meet either the standards or legislation around labelling.

"The biggest issue we've found is that the best before date (BBD) on the labels didn't align with the calculated BBD based on the chemistry," he said.

"Packagers are not actually testing the oil for its shelf life, they're just giving it an arbitrary two years, and the actual shelf life may be way shorter than what's on the label. "So while it's great news that consumers can be very confident that when they buy oil off a supermarket shelf it's going to be EVOO, inaccurate best before dates for some oils is really bad news.

"That's why we focussed so heavily on that in the AOA labelling webinar* earlier this year, as it's putting the reputation of Australian EVOO at risk.

"Interestingly, it also highlights the credentials of the Australian Standard over the IOC Standard, which doesn't even test for shelf life."

Expanding sample range

With just under two years of the project still remaining, Southan said there's still plenty of work to do.

"We're continuing testing on a regular basis, including new season's samples of some of the products we've tested in the last 12 months," he said.

"We're still testing retention samples, and also looking to get some new ones. In particular, we're hoping to extend the sample base from food service and some of the smaller suppliers – products which are not as readily available to consumers.

"And when we do identify any problems, there's a constructive process of notification and assistance, giving producers the information and skills they need to fix them."

"The good news is that consumers can be very confident when they buy oil off a supermarket shelf that it's going to be EVOO. The bad news is that the shelf life isn't necessarily what it says it will be."

Winning reputation

"The aim is to further increase the level of compliance to the Australian Standard by the end of the project and that means working with the industry to ensure we're all on the same quality page.

"The results to date are showing that that most people are striving to make sure they're doing the right thing. That's really pleasing, particularly as we've gone through the recent global olive oil shortage and seen a lot of associated fraudulent activity in the sector.

"The winners are Australian consumers and also the producers themselves, upholding the reputation we're growing so strongly at present."



Calculating shelf-life made easy

So we've identified that the issue of shelf life or best before date/BBD is still a problem for some producers and packagers. But what exactly is the 'shelf life' of olive oil and how do you calculate it?

The answers are at hand in the article Determining shelf life: how can small growers do it on a minimum budget?, published in the September 2017 edition of Australian & New Zealand Olivegrower & Processor. Authored by Leandro Ravetti, then Technical Director at Boundary Bend, the article defines the 'shelf life' of extra virgin olive oil as:

"the length of time, under normal storage conditions, within which no off-flavours or defects are developed and quality parameters such as peroxide value and specific absorbance are retained within accepted limits of the relevant standards."

and 'best before date (BBD)' as:

"a mandatory labelling inclusion under the Australian Standard AS 5264-2011, providing consumers with a reasonable prediction of the length of time a product will retain its quality parameters."

Ravetti then takes us through the method and considerations involved in calculating the BBD of your oil. The calculation uses an empirical formula determined by the Modern Olives research team, evaluated through the analysis of more than 400 commercial oil samples. He provides examples for reference and comparison, works through the variables affecting EVOO shelf-life and provides a correcting formula to account for those variables.

It's information gold for anyone bewildered by BBDs, and available to all by accessing the September 2017 *Olivegrower & Processor* digital back-issue from the AOA's online Resource Library <u>here</u>. Just flip through to pages 31-33 to view the full article.

More information

The information was also presented at the 2016 Australian National Conference & Exhibition in Geelong. You can access Ravetti's presentation from the AOA Conference Resource archive *here*.

If you're keen to know more about the technical side of the equation, the full results of the study behind the Modern Olives' method are available in the peer reviewed paper: Shelf-Life Prediction of Extra Virgin Olive Oils Using an Empirical Model Based on Standard Quality Tests; author(s): Claudia Guillaume and Leandro Ravetti; Journal of Chemistry Volume 2016, Article ID 6393962, available here.

*The recording of the AOA labelling webinar, *Getting Your Labels Right*, can be accessed <u>here.</u>

There's also more labelling information available in the Resources Library of the AOA website <u>here.</u>