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Avocados

AVOCADO EXPORT ANALYSIS

ALDI TO STOCK 100% AUSSIE AVOS THIS SEASON

EXPORT DEVELOPMENT STEPS UP



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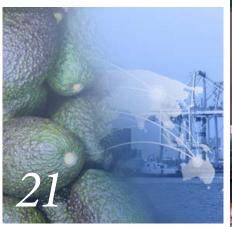
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AUSTRALIA



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COVER: John Tyas, Avocados Australia CEO, celebrates ALDI's commitment to stock 100% Australian avocados this season in their 586 stores.

CHAIR'S PERSPECTIVE

Brad Rodgers, Avocados Australia Limited



Welcome to the Spring issue of Talking Avocados magazine.

A lot has happened since my last article but one event that I believe should be highlighted first is ALDI's decision to stock 100% Australian avocados in their stores this season. This is a great achievement for ALDI and their commercial supply partners. Avocados Australia supported this achievement through positive media engagement recognizing their efforts. The media release produced to recognize ALDI's commitment has attracted media coverage that has reached an estimated 24.5 million people. ALDI's decision is a positive step for the industry moving forward given the strong supply forecasted. As John Tyas is quoted as saying "this is a great win for consumers, ALDI and the Australian industry". I'd like to thank everyone concerned and let's hope other retailers will follow.

On the 27 September, the "Australian Avocados Thailand Launch" took place at the iconic Sukhothai Hotel in Sathorn Bangkok. The event celebrated Thailand market access for Western Australian Hass avocados. Distinguished guests who attended and delivered speeches included the Australian Ambassador to Thailand, Dr Angela Macdonald, and Western Australia's Minister for Agriculture and Food, Forestry and Small Business the Honourable Jackie Jarvis. Also in attendance was Australia's Senior Trade and Investment Commissioner and Minister-Counsellor to Thailand, Michael Helleman, Western Australian growers, exporters and marketers along with many leading Thailand importers and retailers. Just over 100 people attended the launch. I gave a welcome speech to the gathering and in my speech thanked the Director General of the Thai Department of Agriculture and the Thailand Government, the Agricultural Counsellor for the Australian Government for Thailand, the Western Australian Department of Primary Industries and Regional Development, the Department of Agriculture, Fisheries and Forestry, and Hort Innovation for their R&D investments that helped our industry gain access to Thailand. Thailand market access came about through a real team effort between industry, State and Federal Government all working together. At the launch John Tyas gave an industry briefing reinforcing Australia's supply capacity, the benefits of Australian avocados and planned marketing activities in Bangkok during October and November. Flora Zhang presented an overview of the resources available to support best practice avocado handling and merchandising. The day included a cooking demonstration by celebrated Thai chef, Chef Jan, who highlighted the health and versatility of Australian avocados. Media were present to cover the event. As Chef Jan said, avocados are "good medicine" given all of its wonderful nutritional properties so Thai consumers who

love fresh healthy food will love Australian avocados. Those in attendance received special gift packs and Australian avocados featured extensively in the morning tea and buffet lunch. In all it was a wonderful celebration and I was glad to take part as it was an excellent opportunity to position Australian avocados as a dominant player in the Thai market.

I am pleased to see that Australian avocado export volumes reached 10,685 tonnes in 12 months to June 2023. Hong Kong, Singapore and Malaysia continue to account for 96% of all exports in FY23 and remain the largest destinations. Trade to Japan from Western Australia lifted to 277 tonnes. I hear that India is very close to being gazetted, that is, receiving formal approval. Look out for Avocados Australia notices for an update as soon as official announcements are made.

The Avocados Australia Annual Report for 2022-23 has been completed. A direct link to the report was provided to all Avocados Australia members in the recent Annual General Meeting notice that went out. A copy has also been uploaded to the Avocados Australia website in the members area (https://avocado.org.au/membership/member-area/). As I say in the Annual Report the 2022-23 financial year presented its challenges and Avocados Australia worked hard to achieve our strategic priorities. A lot of work has been undertaken to support the Australian avocado industry and I recommend that you read the Annual Report. 2023 has not only seen celebrations (such as the 20th Anniversary Celebration in New Zealand and the Australian Avocados Thailand Launch) but also challenges (managing the strong supply and subsequent low prices) and Avocados Australia is making inroads into addressing the priorities aimed at supporting the industry (increasing domestic and international consumption and increasing exports to overseas markets). You can provide your feedback about the Annual Report to Avocados Australia's communications manager email co@avocado.org.au or call 1300 303 971.

I'm saddened to hear that Daryl Boardman (AAL director for South Queensland) and Tom Silver (AAL Director for Tamborine/Northern Rivers) will not be continuing as directors. Daryl and Tom have made significant contributions to support the industry over a combined 30 years or so! Their service was of particular value to me, so my sincere thanks go to you both. We are looking forward to welcoming two new directors from Daryl and Tom's regions into the fold at the October Annual General Meeting.

That's all for now. Remember to have pride in what you produce and what you are happy to take to market.

CEO'S REPORT John Tyas, Avocados Australia Limited



Avocados Australia continues to progress export development and market access activities and as Brad mentioned a recent highlight of this activity was the Australian Avocados Thailand Launch held in Bangkok in September. It was a successful celebration of Australian avocados' market entry into Thailand and importers and retailers in attendance were very positive about Western Australian Hass avocados. I gave an industry briefing and outlined the planned marketing activities expected to take place in Bangkok during October and November. Look out for future issues of our enewsletter (Guacamole) and the next issue of Talking Avocados magazine for overviews about our international marketing activities.

Domestically, by far the highlight has been ALDI's commitment to stock 100% Australian avocados in their stores this season. Avocados Australia were pleased to be able to work closely with ALDI on announcing this news to the media and consumers.

On the biosecurity front the Varroa mite (Varroa destructor) emergency response took a turn. The National Management Group (NMG) confirmed at its meeting on 19 September that eradication of Varroa destructor is no longer feasible based on technical grounds, following advice from the Consultative Committee on Emergency Plant Pests (CCEPP), and we have now transitioned to a management phase. Varroa mite remains a key threat to Australia's honey and honey bee pollination plant industries, and Avocados Australia will continue to work with the government and industry to manage this pest. I want to acknowledge the enormous effort that has been undertaken in the emergency response to this pest so far and assure you that effort will continue to limit the impacts and slow the spread of varroa mite. The Varroa mite (Varroa destructor) incursion in NSW has highlighted the need for alternative pollinators in avocado production, rather than relying solely on honeybees. R&D projects investigating alternative pollinators have been undertaken in the past and current work is continuing, including a project that is aiming to develop commercial fly pollination methods. Avocados Australia, with assistance from the Queensland Department of Agriculture and Fisheries, is providing resources and information to industry about alternative pollinators. In this issue of Talking Avocados magazine you will find an R&D article entitled "Alternative pollinators for avocados". I recommend that you read this article and stay informed about the full range of pollinators available to avocado production. Avocados Australia will continue to provide updates (in Guacamole and in email notices) on the Varroa mite response as it happens. If you have any concerns or feedback about this

matter please contact Avocados Australia's communications manager, email *co@avocado.org.au* or call 1300 303 971.

In August the "Adoption of on-farm biosecurity practices" workshop was held at the Ecosciences Precinct (at Dutton Park in Brisbane). Avocado growers and staff from Avocados Australia, Plant Health Australia, the WA Department of Primary Industries and Regional Development (WA DPIRD), the Queensland Department of Agriculture and Fisheries (QDAF) and other invited participants and speakers attended the event. The workshop was facilitated by QDAF and WA DPIRD and its aim was to collaboratively develop on-farm biosecurity practices aimed at reducing the risk of incursions of high-priority pests, as well as, grower-appropriate resources and tools, extension methods, and adoption strategies. I believe this was an important event as it provided participants with valuable insights and they were able to share their experiences to facilitate discussions regarding the adoption of on-farm biosecurity practices. The workshop was an initiative of the Avocado industry biosecurity strategy 2022-2026 (AV21002) project which aims to bolster the biosecurity of the Australian avocado industry by implementing effective preparedness and prevention strategies.

Another key event that took place last month was the "Avocado R&D Forum" held in Brisbane. The event aimed to provide an opportunity for networking and cross pollination of ideas, culminating in a suite of avocado R&D recommendations aimed at improving on-farm productivity, profitability and fruit quality. Fifty-one people were in attendance including growers, researchers, packers, marketers and Hort Innovation representatives, Avocados Australia staff, and Department of Agriculture and Fisheries extension staff. Nineteen presentations were delivered from representatives from Avocados Australia, Hort Innovation, Applied Horticultural Research, Department of Agriculture and Fisheries, Queensland Alliance for Agriculture and Food Innovation, and Griffith University among others. A growerfocused ideation day took place in October that considered the recommendations from the R&D Forum and this day coincided with the Production R&D Panel meeting. You will hear more about this in our enewsletter, Guacamole.

The Avocados Australia Annual Report 2022-23 is now available from the members area of the Avocados Australia website. Considerable effort has been made to address our strategic priorities and I believe the activities and achievements that have taken place over the last financial year show we are moving in the right direction.

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AROUND AUSTRALIA



TRISTATE

By Kym Thiel

At time of writing this article it is a busy period for growers and packers in the Tri-state. Hass harvest is in full swing for most and has been for some time. Big crops are the norm across the country this year but what is surprising

is the amount of small fruit appearing on trees this year in the region. Older trees especially are showing the effects of three big crops in a row and have really struggled to produce fruit of a marketable size. In years gone by this fruit has found a home with viable returns on the export market but this year, with so much of it around, prices are very depressed and below cost of production. There has once again been exceptional quality fruit coming from young trees or where crops are more balanced. Mother nature did hot help us size this fruit as the mild summer and cool spring last year certainly delayed flowering and slowed growth rates.

Spring 2023 appears to be much more normal and in fact it has been quite warm and very dry and therefore flowering appears well ahead of normal. This has led to a rapid rise in the temporary market water price, but strangely a decrease in the permanent water price. With the possibility of further Government water buybacks in the Murray-Darling Basin it is a concern for all irrigators with this water being removed from the compositive pool which further puts pressure on water pricing as there is simply less to go around. Any water removed for environmental purposes must be by efficiency gains and not simply through buybacks.

Market access remains something Avocados Australia is actively pursuing for all growers and recent gains in this space are very welcome. Everybody concerned who has put in a big effort over the past years should be congratulated. I am confident that the short-term pain we are all experiencing in relation to oversupply and poor pricing COULD/SHOULD be a short-term thing if our export markets can absorb the increase in production we have all seen predicted. Season 2023 being the real first taste of life with over supply. The biggest shift for growers in the Tri-state wishing to take advantage of this will be the ability to work with like-minded growers wishing to export so volume and quality can be achieved to meet a burgeoning market offshore.



CENTRAL NEW SOUTH WALES

By Ian Tolson

The challenges being faced by avocado producers are mounting. Weather, cost of production, poor returns and now Varroa mite.

The past two years have tested the mettle of Central NSW producers. Devastating floods wreaking havoc, saturating orchards causing significant long-term damage. However, as nature often does, the weather has swung to the other extreme, the region is now grappling with a prolonged dry spell.

The presence of dead and sick trees are the casualties of these extreme weather conditions which require careful management. Pruning or removal of trees, fertilisation, pest control and irrigation scheduling strategies need to be finetuned to ensure the health and productivity of the orchard is restored. Until then fruit quality and sizing will remain an underlying restriction to grower returns, couple that with the ever-increasing deluge of fruit in all market areas and growers are having a tough year.

Flowering across the region has commenced and looks good. Whether this flowering turns to a heavy fruit set is a wait and see situation. The Varroa Mite outbreak which has decimated the bee industry means this region will not have access to beehives, causing grave concerns for growers about pollination.

Harvest for some growers has been and gone, whilst others are debating whether it is worth picking at all, lots of decisions to be made and not a pleasant situation for the industry and growers to be in.

So where to from here? As an industry, providing quality produce for consumers is first and foremost, however how do we continue to maintain orchard health with increasing costs of production? Yes, exporting and processing (for lower grade fruit) are excellent avenues, however, they too will have their limits. An increase in consumption is desperately needed. Therein lies another challenge, how to convey the message of eating an avocado a day being beneficial to your health and not damaging the family budget.

It's a shame the media aren't out there sensationalising the value and availability of Australian avocados. Fresh produce is only newsworthy when it's expensive.

Congratulations to a certain retailer who has decided to support the local avocado industry. Good Different!



TAMBORINE AND NORTHERN RIVERS By Tom Silver

Harvest for the northern New South Wales and Tamborine growing region is all but over for the 2023 season. Trees continue to recover from last year's wet

conditions, with most orchards showing a strong flowering and at this stage what looks like a good set. In stark contrast to last year, conditions have been incredibly dry which up until now has probably helped orchards get back on their feet, however increasingly warm temperatures and the now officially called El Niño weather pattern will begin to effect trees, especially those on dry or limited irrigation.

Low returns to growers continue to be the most significant issue facing our industry. Agricultural enterprises always ride a cycle of peaks and troughs, but no one needs to be told this when you're at what seems like the bottom of the trough and the waves seem to be getting bigger! As individual growers, the best thing we can do is concentrate on what we can control, fruit quality. Striving to grow and supply only the best quality fruit means your avocados can command the best price, not be discounted to bring down overall market value, and can be sent anywhere, be it Rocklea markets, or export in southeast Asia.

As mentioned in my last report, I have decided to stand down from the board of Avocados Australia after 16 years. I have thoroughly enjoyed my time on the board for the peak body of our industry and thank all growers in this region for allowing me to represent you.

Thank you to Avocados Australia's CEO, John Tyas and his team, both past and present, for all their hard work for our industry. John came to the role of CEO in 2012, and walked into a storm that was the new Hort Innovation, which was confrontational and dismissive towards horticultural peak bodies and their representation of growers. John kept up the fight for our industry and levy payers across many horticultural crops when other CEOs chose to "not rock the boat". The result is now a great relationship between peak bodies and Hort Innovation, with all working towards the best outcomes for Australian horticultural producers/ levy payers, as they should, as we pay the bills! Thank you also to the previous CEO Antony Allen, and past chairs Rod Dalton, Henry Kwaczynski and Jim Kochi that have given our industry such a strong base.

I would also like to thank all past and present Avocados Australia directors for their service to the industry. I would especially like to thank Daryl Boardman, South Queensland Director and industry "big man", who is also stepping down. Daryl's hard work, commitment and insights have given the Australian Avocado industry so much. Daryl has always lobbied hard for export readiness and development, even when other industry players were naively resistant. He has always stood up for what is right for the industry and has never been

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afraid of ruffling the feathers of the biggest birds when needed. Thank you also to Sally Boardman and their farm and business team which allowed Daryl to make the numerous meetings, trips, phone calls, zoom meetings, etc. lobbying for trade and promoting Australian avocado exports. On behalf of industry and myself, thank you Daryl.

So that's all folks, the bike is fueled up, the surfboard is waxed and the Coopers reds are on ice!

Over and out.



WESTERN AUSTRALIA

By Brad Rodgers

We have had a good start to the season. Fruit size is a bit smaller this year compared with the previous season and fruit quality has been good. Weather-wise Spring so far has been very mixed in Western Australia. We

have had a cooler, wetter start to Spring particularly in the southwest. There were some reports of hail reported in the first week of October.

Orchard health is of course important to growers in our region and in the north once harvesting is finished pruning will follow. I recommend to growers to refer to the Best Practice Resource for guidance on the best pruning approaches (<u>https://avocado.org.au/best-practice-resource/</u>). Look at the Canopy Management content and resources located in the Growing section.

In the north flowering has been ok but it has been a subdued start in the southwest, some areas haven't started flowering as yet.

There was a good turn out at the EE Muir's hosted Avocado Grower Update held in Pemberton in late September. I would encourage all growers to attend events like this to keep up to date with improvements in orchard health and nutrition options.

From 24 June to week ending 22 September Infocado contributors reported that the WA region dispatched a total of 1,292,918 trays and a proportion of this was destined for export. Exports from Western Australia started off very strong this year and are up considerably when compared to prior years. WA growers have a number of exporting options available to them now. We are able to export to Thailand, Japan along with the other existing markets in southeast Asia. As a WA grower it was good to take part in the Australian Avocados Thailand Launch and to be able to represent our region at the launch. Along with the government dignitaries present there were a number of Western Australian growers, exporters and marketers and many leading Thailand importers and retailers. The Thailand market will be important to growers in our region as it will act as a lever to help manage our strong supply periods. After talking with launch attendees, importers and retailers, it was clear that they looked very positively on WA Hass avocados re-entering the Thailand market and this can only work in our favour when doing business there.

Department of Primary Industries and Regional Development are managing an incursion of the exotic pest red dwarf honey bee (Apis florea) discovered on the Burrup Peninsula around 1,500km north of Perth. Red dwarf honey bees are known to be a vector for numerous exotic bee pests, including brood diseases, internal and external mites, and bee viruses. The department is calling on WA's beekeepers and land managers to monitor their area for any unusual bees or nests. A Quarantine Area has been declared that surrounds Dampier and Burrup to support a biosecurity response to eradicate red dwarf honey bee. Beekeepers with hives, equipment or those who have collected swarms on the peninsula are not permitted to move them outside the Quarantine Area to prevent the pest from spreading. For more information and to stay up-to-date on this incursion go to the website www.agric.wa.gov.au/red-dwarf-honey-bee.

Daryl Boardman and Tom Silver will not be standing for reelection as directors for their respective growing regions so I would like to thank them for their significant contributions over many years. I have valued working with them over the last few years. I wish them and their families well for the future.



SOUTH QUEENSLAND

By Daryl Boardman

As I sat down to write this final Talking Avocados report, I thought no way 17 years is a bloody long time to have been boring you all with my quarterly weather report and regional and industry update. I will try in this

one to reflect on my 17 years of the South Queensland AAL director position and why we should all remain positive about this great industry.

I remember my first meeting in Bundaberg taking over from Rod Dalton who I would consider the Godfather of our industry. He was the person that transitioned the industry to the current Avocados Australia Limited and he did a lot of it as a 1-man band in the early days. This is a far cry from what it is today. The time and effort Rod put in was amazing so I had big shoes to fill taking over his position and I hope that I have continued helping industry in a way that Rod would have expected.

The industry has seen many changes over the last 17 years with increased production, Ponzi schemes, corporate farming, International Investment, too much rain, not enough rain, high prices low prices and all the usual things that most



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agricultural industries have probably dealt with over the same period. But what I think this industry has been able to do well through all these events is that most of us have all come from other industries or other walks of life, so we are all prepared to share and learn from each other to get the job done. This is what has kept the Avocado industry ahead of the changes and challenges that the industry has faced over the years and will continue to into the future.

In the early years it became very apparent that increased planting was going to cause an oversupply to the domestic market and that export markets needed to be developed and expanded. This I became very passionate about and still am to this day. In the early years prior to 2010 we formed, through the help of AAL a national export company called the AEC or the Avocado Export Company. This company was made up of some larger growing businesses, packers, and it worked well for several years until their own volumes increased to a point that some of them went their own way. It was, however, the start of export collaboration in a successful way. We still had not the best ability to report industry volumes, and this became very apparent in the summer of 2011 when we had a big price crash, and this is when I believe we had a major shift in the industry and consolidation of marketing which proved to give greater reporting and marketing capabilities. We then had several good years including Bernard Salt telling us people couldn't buy a house due to the smashed Avo phenomenon.

Back to market access this has been a long slow road. Slow Government to Government negotiations. Years of high pricing growers were not all that interested in export and didn't want to believe the data and maybe had their head in the sand, and sure why not take the high money while its around, but you have to establish markets for when you need them like today, I'm sure everyone is hurting at the moment and now we really need export markets. So, on the positive side I hope that my persistence and industry persistence over the past years is now coming home to reward us with the WA access for Japan, improved market access just opened for WA for Thailand and all Australia access for India. And who knows China may even not be that far away and this was a market that I spent a lot of time working on and was put back years due to covid comments. With a bit of luck, it's back on the drawing board and all of this makes for a prosperous and positive outlook for our industry.

I would like to thank all the people I have had the pleasure of meeting and dealing with in Government at all levels, Federally, state, and local but most importantly the Australian Department of Agriculture Fisheries and Forestry staff that I have worked with over the years and most recently with the India access. You have been outstanding and professional. Thank you.

Over the last 17 years I have sat on many committees IAC, OHMA, SIAP, Export Advisory Panel, just to name a few. All of which I have really enjoyed and some that I hope to still be



AROUND AUSTRALIA TALKING AVOCADOS SPRING 2023

involved with for some time to come. These committees are where the business happens and if any of you are interested in getting involved or feel you can add value to the industry, I urge you to give it a go if you have the time or opportunity. You will meet some great people and get exposed to lots of things that you may not otherwise.

To all the people in HAL, HIA and all the committees that I have sat on over the years, thanks for your friendship and knowledge that you have passed on. Also, I think the networking around the breakfast table or the odd rum at the bar (not that I like rum) has solved many industry and horticulture problems over the years. Yes, I have not always agreed with some of the changes and what I believe has been wasted levy money, but I feel that is my role to speak up if I feel something is not quite right. I will say that I do believe HIA is now working the best it has since its inception and is ensuring our levy is spent wisely.

Where do I think the industry is headed in the future? I do believe it has a positive future. Although we may have a few more tough years ahead and we will have to change some things as a bigger portion of our crop will be heading offshore. I would expect that up to 40% of our production will have to be exported into the future and as can be seen today, we need to do this to be able to push our returns to a profitable level. We must remember we are the only ones that can make the changes to be profitable, no one else will do this for us. Although we are all doing it tough this year it will not be the time to cut costs in the field as quality will be the only way to win this battle. If you are struggling a bit, I would suggest doing part of your farm well rather than doing all your farm poorly. Remember to use all the tools available to you such as the best practice resource that AAL has for free on the website, attend information days and roadshows, go to conferences and world conferences if you can as they are an invaluable experience. Whatever you do, strive to improve quality as this will be the key for this industry in the future. I hate to say it but people who don't grow quality may not remain in the industry into the future. This will be due to a market that won't tolerate that type of fruit any longer, which is a bitter pill to swallow for many I know.

To the AAL staff, past and present, thank you for looking after me over the years, organizing me for meetings and reminding me to get my Talking Avocados report in, organizing flights and accommodation, and all other things. Thanks, and all the best for the future.

Sitting on the board for all these years, I have sat with many board members from all regions of Australia, to all of you that I have served with I say thank you and I really have appreciated your friendship and knowledge over the years. There are too many of you to list but you all know who you are, and I wish you and your families all the best for the future.

To the South Queensland growers, thank you for entrusting me to be your director for the past 17 years. I have always had this region as my number 1 priority although I have understood it needed to fit into the whole of Australia program. I hope I have done my best for the region and the industry, but I feel that it is time that someone else has a go. I wish you all the best for the future and that it's not too long before we see the market improve, which I don't think will be that far away. Also, in these tough times look out for each other and remember we are all the one family so if you need a hand with growing advice or even if a piece of machinery breaks down don't be afraid to ask for help if you need to. All the best and thanks.

Finally, to my wife Sally and my kids Jackson and Gabrielle who have lived a life of Avocados and had to put up with me being away a lot and this has been at times during school holidays or not at convenient times. So, thank you very much.

Now it is time to pass the baton to the new SQ Director who I'm confident will represent the region extremely well and I wish that person all the best.



CENTRAL QUEENSLAND/ SUNSHINE COAST

By Eric Carney

Another season is done. As I write this article, for some orchards the peak of flower has passed with good initial

sets showing. Generally flowering seems to be strong, but not too crazy and leaf coverage looks good. Fruit Spotting Bug damage is already showing up and growers will need to be on top of those initial sprays and chemistry to arrest the attacks. It has been mentioned before in different communications, but as a reminder there has been testing showing resistance to Colletotrichum with the use of strobilurin fungicides. Growers will need to consider their immediately available chemistry options. AAL and Hort Innovation have been working to secure an emergency permit for the use of alternative chemistry, hopefully an announcement is made before this article is published.

ALDI have recently announced their commitment to sourcing 100% Australian grown avocados this season. This is a great result for the industry, the consumer and the efforts of the suppliers who have made the commitment to supply. Sadly, the two major chains have not made the commitment to honour their own Australia first sourcing policy.

After years of lobbying and engagement, more and more opportunities for exports are opening up. I highly encourage growers to take advantage of these new markets and to leverage established markets. Every tray that we export is one less tray to compete on the domestic market. Stay tuned for announcements regarding new and promising opportunities.

We can't escape the obligatory conversation regarding

weather. For Central Queensland/Sunshine coast it has been a mild winter which has allowed a slightly earlier flower as well as early arrival of pests. We all know it is dry out there and the outlook isn't encouraging. So perhaps there will be less fungal problems, but we will need to stay on top of that irrigation. You can check out the Best Practice Resource (BPR) on the Avocados Australia website for great information around irrigation management such Evaporation Replacement, Managing with limited water, monitoring, etc. Just login to the BPR, go to GROWING near the top and then click on Irrigation on the side.

One last note. I just want to say thanks to Tom Silver and Daryl Boardman for their numerous years and thousands of hours of commitment, service and sacrifice to the betterment of the industry as serving Board Members. Even though Tom and Daryl are retiring, I am confident that the incoming directors for TNR and SQ will bring the same dedication and spirit to help direct the industry.



12

NORTH QUEENSLAND

By Matt Kleyn

Hi all, it is that time again and I hope you are all enjoying a well-earned break. The past season was reasonable overall with some ups and downs which were quite confusing.

I would like to encourage each of you to please email me if you have questions that Avocados Australia and I can help you with, regarding the management of our industry. Please email me at <u>m.kleyn@avocado.org.au</u> if you think we could do something better than we are, or if you feel I could do something better than I am, then please let me know.

As you all know the supply quantity of avocados is only going up in the coming years, so I would like to stress that exporting a portion of our crop is becoming more and more important. As I have said before the Australian domestic market can handle a certain number of trays per week and then it will collapse as we have seen in recent years. To ensure this doesn't happen then we ALL need to be sending some of our fruit overseas. There are now good markets for our fruit which are competitive with the Australian market. The prices in these markets are also based on the Australian price, so the stronger we can make that price, the better the export prices will be. In short, the best way to ensure this happens is to export. I personally have a current target of 30% of our crop. If we all did this, we would be far better off overall. Whoever your marketer is, please tell them of this goal. If they cannot achieve this for you then please look for another or an extra one to do this for you. You are welcome to contact me if this advice seems confusing. THIS IS THE ONLY WAY WE ARE GOING TO ENSURE OUR SURVIVAL.

If your current marketer doesn't do this then please do not ask their advice as it will be biased. It is your livelihood that depends on this. The Australian avocado industry has invested a lot of your levy funds to create and expand these markets for us all, so we need to take advantage of the traction we are getting in these markets. In our last season while the Australian market was glutted we were having difficulty filling our overseas orders. If we can take some pressure off the domestic market we will all be far better off.

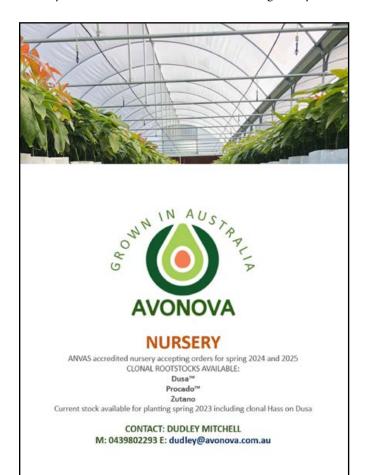
You can see our progress and the efforts and advertising in these markets on the Best Practice Resource on the Avocados Australia website.

It is great news for North Queensland Hass growers that, all going well, we will have access to send fruit to India. Our first protocol market access. A great reason for celebration.

Work is currently being done to try and start the same opportunities for Shepard growers, albeit that this will not be fast, but the quicker we start, the quicker we will get somewhere.

Now I will get off my soap box and talk about the current flowering, which I am seeing is good overall but maybe slightly later than normal. Temperatures have been beneficial for fruit set with no frosts and minimal heat waves. Tinaroo is still at a good level which is also great news. Hopefully all these flowers have now turned into a great fruit set by the time this is published.

I wish you all well and I look forward to hearing from you.





Fibre Packaging for a Sustainable Future

Hawk Group is a family-owned company that manufactures moulded fibre fruit packaging from its purpose-built facility in Hastings, New Zealand.

With our origins dating back to the early 1970's and now spanning three generations, the family's industry knowledge and experience of fibre recovery, recycling and moulded fibre manufacturing has seen Hawk become an industry leader in their field. Hawk currently supplies more than 80% of NZ's apple and avocado trays and has also had a successful presence in the Australian market through the supply of apple trays since 2016.

One of our primary goals is to make it easy for our customers to work together with us. As such, service excellence is at the forefront of our offering. Continuous improvement across product, service, systems, and strong industry understanding are areas we strive to excel in every day. Our trays are specifically designed for the protection of fruit during the packing. storage, and transport process - from packhouse to end customer. From consignment stock and virtual inventory management to tray design, marketing and automation - we have built an offering that supports all aspects of our customer's operations.

Energy efficiency and sustainability are key drivers in our manufacturing process. This is the best strategy to future proof not just our business, but our customer's business also. All products are made from 100% recycled paper. We do not use any bleaches, pigments, biocides, or toxic chemicals in our manufacturing. Our products are recyclable and compostable after end-use. Hawk is compliant with internationally recognised standards including HACCP Food Safety, ISO 9001:2015, ISO45001:2008 and FSC Chain of Custody Certification. Certificates are available to view or be downloaded from our website. For avocado, we have a full count range available from fruit size 16 to 30. We also have a full range of RDT trays for plastic crates available if required.

Please contact us or view our website for full product specifications at **www.hawk.net.nz.**

We are here to help and answer all of your questions! Our Australian representative, Craig Fraser, can be reached on 041 931 1191 or call **freephone 1800 845 256** or email **sales@hawk.net.nz**.

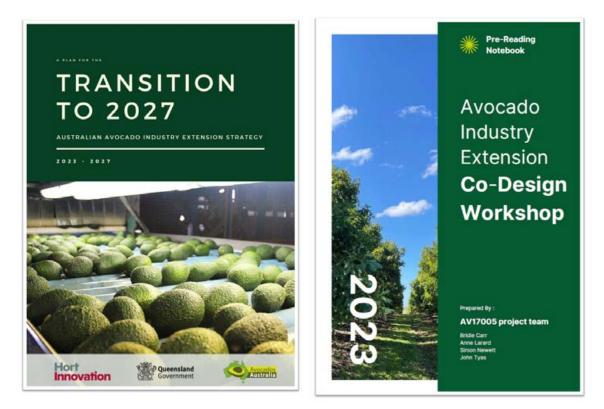
Craig is happy to meet personally with you and discuss in more detail how Hawk can benefit your business.

NEWS

Extension News —

Co-designing with industry – the future of avocado extension

By Bridie Carr, Queensland Department of Agriculture and Fisheries



Documentation that helped support the co-design of a new five-year Australian Avocado Industry Extension and Development Project.

The development of the 'Avocado Industry Extension Strategy 2023-2027' in collaboration with industry laid the groundwork for supporting the co-design of a new five-year Australian Avocado Industry Extension and Development Project. This co-design initiative engaged growers and industry stakeholders with a shared goal: to establish a globally competitive and sustainable Australian avocado industry.

Funded by Hort Innovation, the co-design workshop held in Brisbane on 18-19 May, was crafted to ensure active participation from growers and industry stakeholders in shaping decisions about the resourcing of extension support to the Australian avocado industry.

Before commencing the co-design process, the project team conducted a comprehensive gap analysis of all existing Australian avocado research and development projects to pinpoint areas where additional extension support was needed, and this analysis was shared with co-design participants.

The project team would like to express their appreciation to the following industry participants for generously dedicating their valuable time and contributions on behalf of the industry:

NEWS TALKING AVOCADOS SPRING 2023

- Alan Blight Manager, Avowest (Western Australia)
- Chris Searle MacAvo Consulting (Consultant)
- Eric Carney Carney Farms (Central Queensland)
- Matt Fealy Blue Sky Produce (North Queensland)
- Simon Grabbe Simpson Farms (Central Queensland)

The primary achievement of the co-design workshop was for industry to prioritise the sixteen high-priority practice change areas in the "Australian Avocado Industry Extension Strategy 2023-2027" that were identified as having extension gaps. These areas were recognised as those where the industry requires additional support in the next five years.

Due to resource constraints, not all practice change areas will and can be managed by the new project, so a critical prioritisation process was necessary.

The following practice change areas were identified and endorsed by the industry as lead practice change areas for the new five-year Avocado Industry Development and Extension Project:

- Disease management
- Nutrition management
- Pest management
- Irregular and alternate bearing
- Irrigation management
- Propagation practices (including rootstock and variety selection)

These lead practice change areas will be the project's responsibility for managing and ensuring delivery. This will be achieved by aligning project resources and outcomes with the targeted strategies for each practice change area.

Additionally, the industry identified and endorsed partner practice change areas:

- Pollination management
- Environmental sustainability

These partner practice change areas will not be directly delivered by the project. Instead, they will be addressed through supporting R&D project leaders when their outcomes align with or enhance the activities related to the lead practice change areas.

The identified and endorsed support practice change areas include:

- Labour management
- Quality monitoring and communications (on-farm)
- Quality monitoring and communications (packer onwards)
- Quality monitoring and communications (export)
- Export MRL management
- Crop supply and forecasting
- Management of fruit robustness
- Postharvest temperature management

These support practice change areas are those which the project will not be responsible for co-ordinating the delivery

of. Instead, the management of delivering these practice change areas and their strategies will be overseen by the RD&E coordinator and the 'National Avocado Extension Committee'.

The commencement of the new five-year Avocado Industry Development and Extension Project is anticipated for December 2023. The procurement process is currently in progress, and an update on its status will be provided to the industry in the near future.

You can access the 2023-2027 Practice Change Strategies online at <u>https://avocado.org.au/public-articles/setting-extension-priorities/</u>.

If you have any questions regarding the co-design for the new project, please feel free to reach out to Bridie Carr at 0436 675 740 or *bridie.carr@daf.qld.gov.au*.

Acknowledgement

This project has been funded by Hort Innovation using the avocado research and development levy and funds from the Australian Government. Hort Innovation is the growerowned, not-for-profit research and development corporation for Australian horticulture.

> Hort AVOCADO Innovation FUND



10 Years of verifying supply data

By Daniel Martins, Avocados Australia Data Analyst

Ensuring consistently accurate and reliable reporting of industry and market data is key in maintaining the trust and participation of our stakeholders. One way we ensure this is by regularly verifying collected data with suitable sources and/or techniques throughout the year, as new data becomes available.

The Levies Revenue Service (LRS) is part of the Department of Agriculture, Fisheries and Forestry (DAFF), and is responsible for the administering, collecting, and disbursing of levies. Each quarter Avocados Australia is supplied with LRS' levy receipts reports which are then used to verify supply volumes reported on Infocado, against production quantities stated on LRS' receipts reports.

As levy payments are mandatory, the dataset of levied volumes that we utilise as the verifying reference, is therefore considered to be a complete and reliable source of supply information.

The weekly report is informed directly by the activity of packers that pack just over 90% of total volume produced. The system benefits from a high participation rate, particularly in the high production region of Western Australia, Northern Queensland, and Central Queensland. Other methods are used to estimate total output of the remainder of packhouses that do not regularly contribute data directly into the Infocado system. In their case, with the majority, we maintain contact throughout the year at the beginning and the end of their season. These packhouses represent the remaining percentage that is required to compile the quarterly report.

The quarterly report data is validated against levy data from DAFF. The report is typically within a 10% margin of difference, i.e. sometimes Infocado covers 90% of quarterly levy volume, sometimes it is 110%, but these variances from one period to another are often due to the timing of when data is reported to us, and when the levies are collected. However, on an annual basis the total volumes are more closely aligned.

We receive levy data from DAFF at the end of each quarter, which allows us to undertake the validation on a quarterly basis. The graph below shows the relationship between Infocado dispatch volumes and levy receipt volumes on a quarterly basis dating back to 2013-14. For the total of the 10-year period between July 2014 and June 2023, on average 92.68% of levy volume has been captured in the Infocado data system. For a data system that requires avocado packers from all regions of Australia to voluntarily provide information about their supply volumes across the year, the system is very robust. Through ongoing efforts, we aim to ensure that the system continues to be as reliable and accurate as possible. A key to this is the ongoing participation of packers across the country as well as the application of other data validation tools.

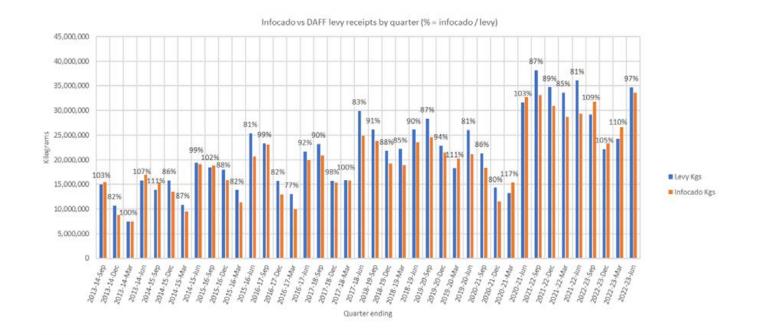
Acknowledgement:

The Avocado industry and market data capture and analysis (AV20000) project is funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

FY	Levies	Infocado	% coverage
FY2013-14	8,905,228	8,857,217	99%
FY2014-15	10,912,825	10,471,887	96%
FY2015-16	13,757,989	12,130,207	88%
FY2016-17	13,415,882	11,998,467	89%
FY2017-18	15,408,252	14,005,754	91%
FY2018-19	17,502,442	15,553,808	89%
FY2019-20	17,361,735	15,917,477	92%
FY2020-21	14,649,360	14,197,282	97%
FY2021-22	25,926,529	22,217,709	86%
FY2022-23	20,042,825	20,979,061	105%
	157.883.066	146.328.869	92.68%

Table showing Infocado versus levy volumes by financial year (5.5kg tray equivalents).

— Data News —





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Australian avocado production area nears 20,000 hectares!

By Craig Shepard, University of New England

Working directly with Avocado Australia, researchers at the University of New England's Applied Agricultural Remote Sensing Centre (AARSC) have updated the national map of commercial avocado orchards under the Hort Innovation funded project 'Advancing the delivery of national mapping applications and tools (AV21006)'. Here are the key findings.

Key findings:

- The Australian Tree Crop Map was updated on 30 May 2023 and now includes 19,223 ha of avocado orchards.
- Largest production area by Local Government Area (LGA) is Bundaberg with 3,434 ha (18%) followed by Manjimup with 3,186 ha (17%). In Far-north Queensland, Mareeba has 2,663 ha (14%) and Tablelands has 2,463 (13%).
- Field validation was completed in Central Queensland (April), and Northern Rivers and Mid North Coast of NSW (May).
- Since October 2022, the Port Macquarie-Hastings LGA (Comboyne) has exhibited the greatest area of new plantings with 104 ha.
- 70% of the orchards mapped in Australia are current to 2022 (mapped in year) or sooner.
- Contribution to the map by industry using location-based tools continues to inform updates, this feedback is essential for mapping new plantings.

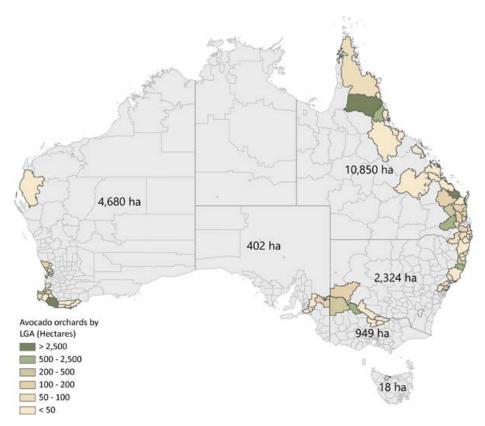
Main points

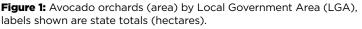
The second major update of the national map of avocado orchards (Hort Innovation Project AV21006) was published into the Australian Tree Crop Map Dashboard on the 30 May 2023. The total area of commercial avocado orchards mapped across Australia is currently 19,223 ha.

Mapping was updated primarily with interpretation of high-resolution publicly accessible imagery (eg. Google Earth and Esri Basemaps), complemented by very recent Planet satellite imagery.

This latest mapping update includes complete revision and updates within the growing regions of Sunshine Coast and South-east Queensland, and the Northern Rivers and Central NSW including the Comboyne. Elsewhere Bundaberg and Childers have also been updated following fieldwork which was completed in April.

Figure 1 presents the national map of avocado orchards summarised by Local Government Area (LGA). Total figures for production area are shown (labelled) for each state. At state-level, Queensland has the largest area of avocado orchards with 10,850 ha (56%), followed by Western Australia with 4,680 ha (24%). Bundaberg is the largest LGA with 3,434 ha (18% of the national total) followed by Manjimup with 3,186 ha (17%). Mareeba has 2,663 ha (14%) and Tablelands has 2,463 ha (13%).





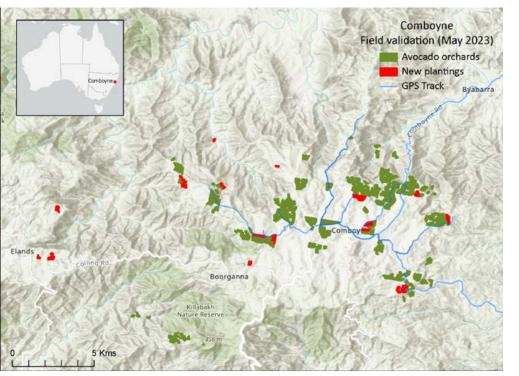


Figure 2: Field validation of the Comboyne growing region (May 2023).



Figure 3: The ATCM Dashboard is a great tool to understand where Australia's tree crops are grown.

Field validation of the map was completed in two separate trips. Bundaberg, Childers and Maryborough were field validated in April, coinciding with the field validation of another AARSC project (mapping soybean crops for QDAF). This very recent field work has identified a further 61 ha of new avocado plantings added to the map within the Bundaberg LGA. AARSC completed field validation in the Northern Rivers and Mid North Coast of NSW in May—including the Comboyne. Figure 2 shows the route (GPS track) and highlights the new plantings mapped. Analysis within the Port Macquarie-Hastings LGA shows 104 ha have been added to the map.

Analysis of the currency of the map shows that 19% of orchards in the map

are current to 2023 (observed in year) and 70% of the map is current to at least 2022.

The mapping program will continue to progress with major updates now scheduled for the Tristate growing region, including Mildura and Renmark, which AARSC aim to publish in November. AARSC will also continue to update and maintain the map elsewhere across Australia based on feedback received from the locationbased industry engagement tools.

Australian Tree Crop Map Dashboard

(www.une.edu.au/webapps)

This dashboard-style web application features the latest map and includes metrics for avocado, mango, macadamia, citrus, olive, banana and truffle orchards (area of production in hectares). At national scale, clicking the map will return the total area of orchards by state and territory in a pop-up (Figure 3), while zooming in to the map will show Local Government Areas (LGA). Navigation around the map can be achieved by using the bookmark tool, or the user can simply type an address or place name into the search box and/ or simply pan and zoom the map. The dashboard will update the summary statistics for each tree crop (at bottom) on-the-fly, based on the map view extent.

Help maintain the map

The phenomenal growth in new orchards highlights the ongoing need to maintain the map at least annually. Mapping the new crops is best informed with the engagement of industry and growers using location-based tools built by the AARSC.

Anyone can review the map in the 'Industry Engagement Web App' (best viewed on desktop, go to this website: www.une.edu.au and search using the words "Industry Web Applications and Maps") or use the ATCM Survey (best for mobile, you can access it using the QR code provided) to provide feedback, which is also hosted on the AAL homepage (<u>https://avocado.org.</u> <u>au/</u>). Since 16 November 2022, 22 new surveys for 'avocado' observations have been received from external sources (i.e. industry) and actioned as updates to the map. Analysis of these survey data shows 100 ha of new avocado plantings were added around Australia and 226 ha was confirmed and updated for currency. As a mechanism to inform on-going updates the survey continues to prove very successful.

If anything is missing or incorrectly mapped, or a new orchard is being planted – either of these tools can be used to bring it to the attention of the research team at AARSC. Figure 4 shows an example of a survey submitted for a new avocado orchard (including photo), which has since been actioned and updated in the map, with the extent of the new avocado orchard shown.

The ATCM survey is designed for your mobile device (it uses your GPS). You can complete a survey in a few simple steps:

- Access the survey from the Avocados Australia website (avocado.org.au), or scan the QR code (the survey will open in a web browser on any device).
- 2. Add location of the orchard by clicking on the map:
 - either select the cross-hair button to quickly 'find my location' or search for an address.
 - place the pin on the orchard by clicking the map and continue the survey (from a mobile device confirm the location by selecting either the ✓ or the back arrow (<) button in the top-left corner to continue the survey).
- 3. Select tree crop type and optionally attach a photo.
- 4. Click submit to complete the survey!

Spatially enabling tree crop industries in Australia

Under a new project (funded by the Future Food Systems CRC, Hort Innovation, UNE, Avocados Australia (AAL), Australian Banana Growers Council, Australian Macadamia Society and Citrus Australia the Australian



Figure 4: Growers can help maintain the accuracy of the map by submitting their feedback through the ATCM Survey.

Tree Crop Map will be taken to the next level as a high value industry-only data collation, analysis and presentation tool.

Each industry body will work with their respective grower base using an AARSC developed 'Block Builder' application (app) to assign information to orchards at block level (e.g variety, planting date). This data will not be accessible to the public and the avocado records will only be visible to AAL staff maintaining the records. AARSC will provide in-house training to each industry body to facilitate this data collection. Industry-only maps can capture more detailed spatial and temporal data that will further support improved decision-making around processes such as traceability and biosecurity. Importantly, the Block Builder app and all data within is managed and secured by AARSC under strict sign-in access for AAL only. The app will also be supported through a mobile data collection tool which runs on a tablet device.

This map supports AAL to make more powerful and informed decisions for the industry, beyond the limits of the ATCM which only includes the extent of avocado orchards.

Acknowledgement

This project (AV21006) has been funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

For more information:

Contact Craig Shephard, Senior Researcher, Applied Agricultural Remote Sensing Centre, University of New England (Armidale, NSW), email <u>cshepha2@une.edu.au</u>.

Hort AVOCADO Innovation FUND

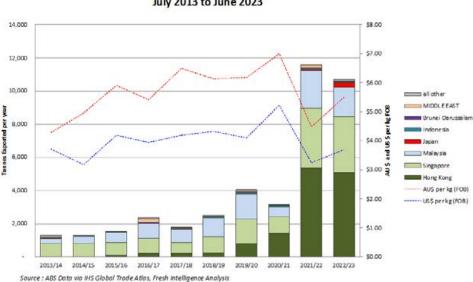
Avocado Export analysis 2022/23

By Wayne Prowse, Fresh Intelligence Consulting

Australian Avocado Exports

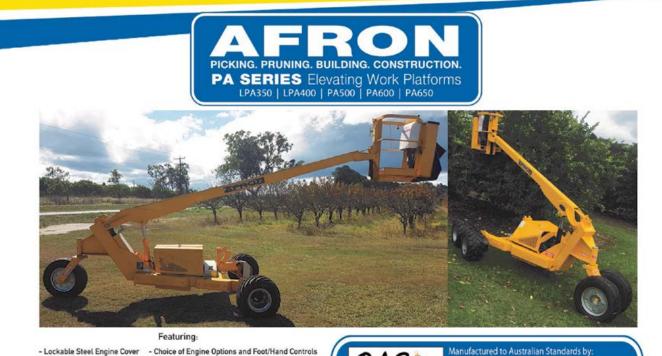
According to the Australian Bureau of Statistics data Australian avocado export volumes reached 10,685 tonnes in 12 months to June 23, which was 8.0 per cent lower compared to last year valued at \$58.82 million. Unit prices were 23 per cent higher at \$5.51 per kg reflecting a better return to growers.

Australian avocado exports had accelerated in 2021/22 influenced by a domestic supply surplus and aggressive competitive pricing in key markets of Hong Kong, Singapore, and Malaysia. This momentum eased slightly though remains well ahead of previous years.



Australian Avocado Exports - Annual Volume by key market July 2013 to June 2023

Figure 1: 10-year growth of avocado exports.



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Hong Kong was the largest export destination for Australian avocados reaching 5,074 tonnes and accounted for 48 per cent of all export volumes from Australia. Hong Kong imported 23,000 tonnes and Australia was the second largest supplier after Peru. Most of the Peruvian avocados are reexported to China leaving Australia as the largest supplier to the Hong Kong domestic market.

Singapore was supplied with 3403 tonnes of Australian avocados which was 67 per cent of all avocados imported by Singapore and 32 per cent share of Australian avocado exports. Singapore is a highly price sensitive market though is loyal to Australia when supplied with a consistent quality and price point year-round. We see volumes drop quickly when our prices rise above a threshold level.

Volumes to Malaysia dropped 22 per cent to 1,752 tonnes or 16 per cent share of exports. Australia remained the leading supplier with 57 per cent share of Malaysia's total imports of 4,121 tonnes. Although Australia is the preferred supplier Malaysia imported avocados from 10 countries in 2022/23 including United States, Kenya, Mexico, New Zealand, and Indonesia underscoring the importance of maintaining consistent quality and service to the market to hold our leading position.

Trade to Japan from Western Australia lifted to 277 tonnes and accounted for 3 per cent of Australian avocado exports with increasing volumes already on track for 2023/24. Japan is the largest importer of avocados in Asia and imported 57,173 tonnes of avocados last year of which 75 per cent were supplied from Mexico and 24 per cent from Peru. Australia is now the third largest supplier albeit with 0.6 per cent share and increasing.

Exports by State

Queensland was the largest export state and increased 30 per cent to 7,217 tonnes and accounted for 68 per cent of Australia's avocado exports followed by New South Wales

	2021/22	2022/23	Chg LY	share
1000	Tonnes	Tonnes	%	%
Queensland	5,537	7,217	30%	68%
New South Wales	2,195	1,527	-30%	14%
Western Australia	2,653	1,210	-54%	11%
Victoria	926	461	-50%	4%
South Australia	280	267	-5%	2%
Other	20	2		0%
Total	11,611	10,685	-8%	100%

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

 Table 1: Australia Avocado exports by State.

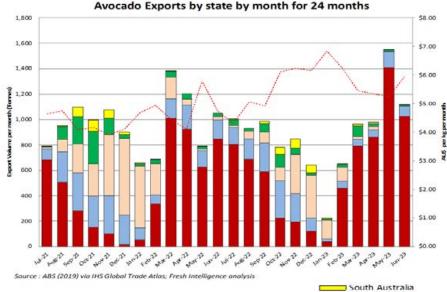


Figure 2: Avocado exports by state by month with average recorded prices.

South Australia Victoria Western Australia New South Wales Queensland average AUS

with 14 per cent share of the export volumes.

Western Australia's exports decreased by 54 per cent to 1,210 tonnes due to a lighter crop and stronger domestic demand though should increase again in 2023/24.

By month, the unit values tracked higher through most of the year while volumes pared back due to the price sensitivity of the export markets and balancing the expectations of growers for viable returns. Higher returns are balanced with the need to export more volume at globally competitive price points. Figure 2 demonstrates the falling volumes when prices exceed A\$5.00 per kg, which is often driven by the Australian domestic demand rather the global market prices.

Global Trade

Globally 2.93 million tonnes of avocados were exported in 2022/23, including from Europe that are mostly re-exported volumes from Latin America. The result was 3.2 per cent lower than the previous year influenced by some supply conditions in Mexico, the world's largest producer and exporter. Australia accounted for 0.4 per cent of global avocado trade.

Asian markets imported 132,000 tonnes of avocados in 2022, which was 16 per cent less than the previous year trending down around 3 per cent per year over 5 years. Japan remained the largest importer in Asia, importing mostly from Mexico though declined 34 per cent in 2022 impacted by the supply conditions from Mexico. This is changing in 2023 with supplies from Mexico increasing. China had been Asia's growth driver from zero to 44,000 tonnes by 2018 and has held at 41,000 in 2022. Local production in China is starting to have an impact on the long-term growth potential of imports by China. South Africa has recently gained access and it will be interesting to monitor their progress.

Although Australia has a significant share of Malaysia and Singapore markets, in context these markets combined have a 7 per cent share of all avocado imports by Asian region. However, consumption per capita of avocados in all Asian markets remains very low compared to North America and Europe underpinning the longterm growth potential for avocados in Asia.

Acknowledgement:

The Avocado industry and market data capture and analysis (AV20000) project is funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Hort AVOCADO Innovation FUND



Varroa Mite Rapid Response Map

By Daniel Martins, Avocados Australia Data Analyst

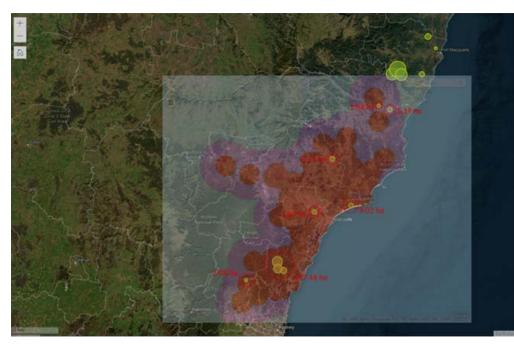
Orchard mapping represents the convergence of sophisticated technologies, including remote sensing, geographic information systems (GIS), and data analytics. This digital cartographic representation of our landscape has become a key asset in the fight against Varroa mite (*varroa destructor*).

The recent mapping of the NSW Varroa mite incursion provided a further demonstration of the significant benefit an established national map of avocado orchards offers the industry. The map has been analysed for potential impacts to crops based on the current surveillance zones.

The Applied Agricultural Remote Sensing Centre (AARSC) at the University of New England built the Varroa Mite Rapid Response Map, a web map application leveraging the national map of tree crops and protected cropping systems maps, together with the current NSW DPI surveillance zones.

Thanks to the geographical data that has been made available through the Varroa Mite Rapid Response Map, we have been able to link up the incursion epicentres with grower records in our database, and thus to rapidly communicate with growers within the former eradication and surveillance zones, and the current management zone, prompting them to take measures and assist containing the outbreak by following the protocols as directed by the New South Wales DPI.

On 19 September, a decision was made by the National Management Group (NMG) to shift the focus of the response from eradication to management of the Varroa mite.



AAL was able to link up the incursion epicentres with grower records in our database.

At the time of writing, right before the new emergency order, some 20 businesses representing around 330 hectares of avocado orchards were within the eradication zone (10km) and a further 303 hectares were located within the surveillance zone (25km). Following the decision to transition to management, the surveillance (Purple) zones ceased, along with the smaller regional outlier eradication (Red) zones.

The former eradication (red) zones in the Kempsey, Hunter and Central Coast regions have now become 'management' zones.

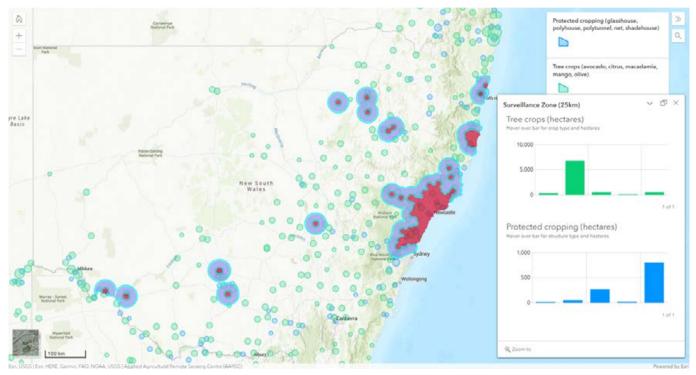
The businesses located in the affected areas were contacted by email and/or phone and provided with an update and advice on how to stay up to date on the emergency response (by way of the NSW DPI emergency response webpage link - <u>https://bit.ly/45uBiwz</u>). The people contacted were encouraged to call or

email Avocados Australia if they had any concerns or required support. In addition, Avocados Australia and the Queensland Department of Agriculture and Fisheries worked together to provide industry with resources and information concerning alternative pollinators to support growers (one resource is the Alternative Pollinators article contained in this magazine additional resources are to follow).

Avocado growers in these affected zones are encouraged to understand their responsibilities, remain compliant, keep thorough records, and if in use of commercial beekeeper services, stay in contact with their beekeeper for updates.

We would like to acknowledge the work of Craig Shepard and the team at the AARSC for developing this map, as well as to thank growers that have maintained their orchard records. We

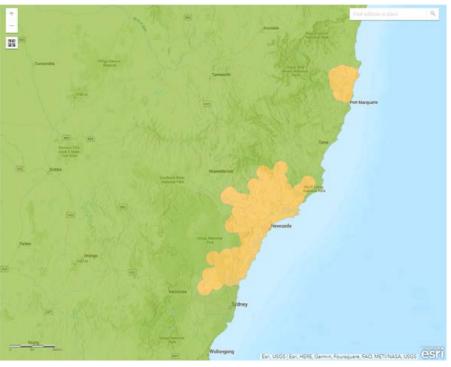
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Varroa Mite Rapid Response Map under former emergency order, showing impacted crops within the eradication and surveillance zones. The chart presents total area of crops within the current eradication zone (330 hectares of avocado orchards).

would like to set this as an example to highlight the importance of creating and maintaining these records, and invite growers that haven't done so yet, to ensure your orchards are correctly labelled and boundaries are correctly set.

The avocado only version of the AARSC map is featured front and centre on Avocados Australia's home page, in it you will find some simple instructions on how to navigate the map and report errors or missing information. It is important as an industry to participate in this initiative as we can then ensure its completeness and accuracy as it is a very valuable tool that will continue to evolve and be refined over time.



Varroa mite emergency response map under current emergency order, showing the management emergency zones (yellow) and suppression emergency zones (green).]

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"Daniel and Nathan would be a great asset to any business – specialising in all matters in finance" – Graham Anderson OAM for services to the Avocado industry



Daniel Abbey from Scarlett Financial has been servicing Graham Anderson from Anderson Horticulture since 2016. Daniel services Anderson Horticulture, plus all of his family entities financial needs, from payroll, BAS, bookkeeping and tax. Anderson Horticulture is Australia's oldest specialty Avocado nursery (40 years) and orchard (65 years).

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Export development activities step up

By Flora Zhang, Avocados Australia Export Development Manager



Since the last issue of Talking Avocados much has happened to progress Avocados Australia's Export development activities. In this article I touch on three activities that significantly added value to our efforts.

Attendance at Asia Fruit Logistica

Australian Avocados and Avocados Australia's attendance at Asia Fruit Logistica each year is very useful for developing trade connections in our region. Asia Fruit Logistica (AFL) returned to Hong Kong this year with a two-day event between 6-7 September. More than 13,000 trade visitors from over 70 different countries and regions met with over 700 exhibitors from some 43 countries or regions. In this issue of Talking Avocados Hort Innovation provides an article about AFL attendance that I recommend you read. My key takeaway points from the event are that the first two days of AFL were rich with opportunities and a number of Australian growers and exporters took advantage of our trade presence there. The event did not open on its final day (8 September) due to an extreme weather event involving excessive rain. Local authorities in Hong Kong had issued a "black rainstorm warning" that remained in place for more than 12 hours. Nonetheless overall AFL successfully brought Australian avocado industry stakeholders together to network with importers and retailers.

Avocado growers, exporters and marketers that attended

represented the avocado industry and the Hort Innovation stand showcased Australian avocados under the national "Grown in Good Nature" banner. During AFL, the business development managers from India, Thailand and Hong Kong provided our growers and exporters with market briefings and some tips on how to tackle the new markets especially like India. I, along with Richard Magney, Avocados Australia's Chief of Export – Market Access, engaged with other delegates that included importers, retailers and other key stakeholders from existing export destinations as well as prospective markets.

As part of the AFL avocado specific program, I worked with our Trade and Investment Queensland's (TIQ's) team in Hong Kong and delivered a networking dinner followed by an evening wholesale market walk. It was a great experience to visit the containers unloading and to see how the pallets and trays are being distributed to the vendors. Four Hong Kong importers joined this evening program with us.

At AFL there were over 200 Chinese companies exhibiting, with over a hundred from other Asian countries. The show organisers said they were happy to see so many Chinese companies back at the show after a smaller presence last year in Bangkok. The fair attracted wide interest from attendees from across the Asia region. As per last year, stand participants made new trade contacts and gathered essential

TALKING AVOCADOS SPRING 2023 NEWS

market insights. Australian exporters also picked up ideas about innovative packaging.

My thanks go to Hort Innovation, Austrade, and Trade and Investment Queensland for helping with organising the stand and running additional programs. I'm sure AFL2024 will build on this year's foundations.

Avocados Evaluation Mission

In June this year over four days - under levy funded project AV23001 - Kylie Hudson (GM of Marketing and Demand Creation at Hort Innovation) and I took part in an avocados marketing program Evaluation Mission to Singapore and Malaysia. This evaluation mission is part of a three-year project, and the June mission was the first in a range of overseas visits that are planned. The Evaluation Mission aims to conduct market research to gain reliable qualitative data about specific markets and target customers (importers and retail buyers). In the last 3 years, the avocado industry's levy investment in export marketing has been tripled with a much more comprehensive program involving seven export markets. Hence this evaluation mission aimed to understand how we are tracking and learn any other innovative ways to do export marketing along with discovering other ways we can improve our international market development efforts.

The Evaluation Mission research will be conducted over multiple periods and segmented into focus areas for improving and growing the industry (eg. increasing volume, sales, adding new marketing activities, and/or improving customer service). It is planned that a total of three industry representatives will visit each market and meet with key stakeholders to conduct the evaluation on behalf of the avocado industry.

As part of this project customer research tools will be developed to help us target and understand our buyer's behaviours, wants and needs. These tools will also benchmark us as an industry in market compared to our competitors.

The market research that was conducted involves data sourced from mystery shopper activities and includes:

- Improve customer satisfaction Create an exceptional customer service culture, gain more repeat customers and referrals while attracting more new customers and increasing profits.
- Maximise advertising spend Ensure the branding promise is delivered on the retail floor.
- A competitive edge Understand how your business performs in relation to customer service, pricing, product quality and more when compared to your competition.
- Identifying problems Early detection of potential problems.
- **Identify training needs** Identifying specific training needs with retailers and importers.

The customer research involves data and insights into:

• What, when and how often customers want to buy from Australia (quantitative data), and





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• Why they make their decisions (qualitative insights).

By exploring customer profiles and motivations, we can gain insight into demographics, buying habits, preferences and the projected growth or decline of targeted groups. Using a combination of market and customer research will help the industry to keep up to date with market trends and build reliable customer profiles to target.

The next evaluation mission activity will take place in Tokyo and Hong Kong. I believe this project will shed light on valuable market insights and help us to evaluate and guide our international market development activities.

Avocados Australia receives FF2M Grant from Queensland Government

Our Shepard avocado exports received a welcome boost as a result of additional funds recently awarded from the Queensland Government as part of their "Food and Fibre to Market: Industry Partnerships Program" (FF2M). The FF2M - Industry Partnerships Program was looking for 6 to 12 projects that support the development of innovative and collaborative supply chain projects focused on international markets. Avocados Australia's application was successful, and we received \$100,000 towards further developing Shepard avocado supply chains to Hong Kong, Malaysia and Singapore. The funding will also assist with consumer research, educational workshops for importers, and new marketing resources targeting both consumers and chefs. Importantly, this grant will serve to fuel the growing demand in Asia for Queensland's Shepard avocados.

The FF2M grant is a welcome addition to our funding. With it our team has been interviewing overseas importers and retailers, soaking up their insights and fresh ideas. We're on a mission to supercharge the current levy funded campaign with more content around Shepard avocados to engage our overseas stakeholders.

Once again, I'd like to thank the Queensland Government for supporting our exporting efforts.

Contact Information:

For more information contact Flora Zhang, AAL's Export Development Manager, email <u>export@avocado.org.au</u> or call 0499 600 613.

Acknowledgement:

This Avocado market access and trade development (AV20004) project has been funded by Hort Innovation, using the Avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.





Gaining market insights and connecting with key contacts progresses Shepard market opportunities.



Forging strong connections with key stakeholders at AFL.

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Market Access Update

By Richard Magney, Avocados Australia Chief of Export - Market Access

The avocado market access arena continues to be a hive of activity. Avocados Australia (AAL) hosted the representatives from the Thailand Ministry of Agriculture to undertake Western Australian verification visits to accredited properties. The Avocado Collective subsequently sent a successful verification shipment from their property in Manjimup, to Bangkok. On 27 September AAL held the official Thailand launch function in Bangkok with our esteemed Thailand Ag Counsellor, Amber Parr, Brad Rodgers (AAL Chair), John Tyas (AAL CEO), and Flora Zhang (AAL Market Export Development Manager). Distinguished guests who attended and also delivered speeches included the Australian Ambassador to Thailand, Dr Angela Macdonald, and Western Australia's Minister for Agriculture and Food, Forestry and Small Business the Honourable Jackie Jarvis. Also in attendance was Australia's Senior Trade and Investment Commissioner

and Minister-Counsellor to Thailand, Michael Helleman, Western Australian (WA) growers, exporters and marketers along with many leading Thailand importers and retailers. Just over 100 people attended the launch. A big congratulations to Flora for curating and coordinating a hugely successful day.

The Department of Agriculture, Fisheries and Forestry (DAFF) have edged ever so close to formalising gazettal of the India protocol with the Indian Ministry of Agriculture. We wait patiently for news on official approvals and AAL will look forward to advising industry as soon as the news comes to hand. There will be a strategic approach to registering and accrediting industry for India as India is our first market access protocol for all regions of Australia, and DAFF and AAL will need to be diligent to ensure adequate resourcing is allocated for efficiently and effectively administering the

process. Albeit we are extremely excited to open a new protocol market for the entire Australian avocado industry and make steady but certain inroads to the growing consumption of avocado in India.

AAL and DAFF have finalised the visit and itinerary for the Japan Ministry of Agriculture, Forestry and Fisheries (MAFF) to undertake their annual WA audit visit. Integrated into the new \$130M FASTA Fruit Fly R&D Investment, AAL and the FASTA governance committee, in December, will be convening an R&D ideation roundtable to ensure we capture necessary R&D to bolster the revised data package to present to Japan MAFF in the effort to seek market access improvement for the inclusion of the broader industry.

Early August, I undertook a market visit to Hanoi, Vietnam. I had the pleasure to spend time at the



Australian Avocados Thailand Launch group photo, in attendance were Brad Rodgers (AAL Chair), John Tyas (AAL CEO), and Flora Zhang (AAL Market Export Development Manager). Distinguished guests who attended included the Australian Ambassador to Thailand, Dr Angela Macdonald, and Western Australia's Minister for Agriculture and Food, Forestry and Small Business the Honourable Jackie Jarvis.

Australian Embassy meeting with our Agricultural Counsellor, Tony Harman, Trade Commissioner, Chris Morley, and Chris' associate, Dung Dong. Between the group, we discussed strategies and likely event sequencing to help Australian avocados advance prioritisation for market access. Interestingly, Vietnam have not approved one market access application for avocado access, and it is with optimism, Australia could be the first to achieve this milestone given this year signifies the 50-year celebration of trade between Australia and Vietnam, coupled with the tremendously healthy bilateral relations between nations. DAFF advise they remain on target to complete negotiations for plums and blueberries in 2024, and at this time, Australian avocados will make the business and technical case for prioritisation amongst the International Market Access Assessment Panel (IMAAP) pool.

Along with the visit to Vietnam, I visited Shanghai and Beijing, China. I was fortunate to have support from DAFF, Australian Embassy China, and Trade Investment Queensland (TIQ). All three organisations were instrumental in making key introductions to avocado importers, wholesalers, retailers, researchers, and important institutions that operate as subsidiaries of the Chinese government. A follow up visit was made in October to attend the Guangzhou Import Fruit Expo, followed up with some strategic meetings with China Academy of Tropical Agricultural Sciences (CATAS), a subsidiary of China Ministry of Agriculture and Rural Affairs. AAL are planning to convene the MOU Signing Ceremony in Beijing, Friday 10 November, with China Import-Export Quarantine Association, in the company of Queensland Premier the Honorable Annastasia Palaszczuk. The purpose of the MOU is to advance the partnership and gain assistance with biosecurity and quarantine intelligence to help support future prioritisation and market access opportunities.



The Australian Avocados Thailand Launch included a cooking demonstration with local Thai celebrity chef, Chef Jan.



Richard Magney (AAL Chief of Export - Market Access) making a presentation in Guangzhou at the China Fruit and Vegetable Import Export Expo.

ALDI commits to stocking 100% Aussie avos this season

By Hayleigh Dawson and Anna Petrou, Avocados Australia

On 13 September, ALDI officially announced that it would stock 100% Aussie avocados this season. Avocados Australia welcomed the news that ALDI had chosen to become the first supermarket in Australia to exclusively range 100% Australian avocados in all of their 586 stores, ahead of a strong Summer season.

Whether Avo lovers prefer them smashed, sliced or diced, this is certainly welcome news, as data released by Avocados Australia showed that in 2021/22 avo-hungry Australians consumed about 4.76kg of avocados per person¹. With Australian production more than doubling1 over the past 10 years, the demand for Australian-grown avocados is continuing to gain strong traction, as consumers look to support local growers and regional communities.

Avocados Australia welcomed this news with CEO John Tyas saying, "ALDI's commitment to stock Australian avocados exclusively for this season ahead is a positive step forward for the industry given the strong supply we have forecasted from the region."

"The Australian avocado industry invests heavily in delivering consistent and high-quality Australian avocados to consumers, so this is a great win for consumers, ALDI and the Australian industry."

"Avocados have well and truly become a staple in many of our customer's weekly shops. By making this commitment this year, we are proud to be forming long term relationships with local growers and supporting them and their businesses to grow. Seeing that Avo farmers around Australia are having a strong start to the season, particularly through the September to February harvesting period means we can meet our customers' insatiable demand for avos with purely Aussie fruit. It is always our intention to support Aussie growers first, so it makes complete sense for us to stock only Australian avocados in our stores," says Matt Atley, Group Director, Produce at ALDI Australia.

"We work closely with all our Aussie growers to ensure a wide range of quality produce is available at affordable prices in all our ALDI stores. Our Aussie first supplier policy means that we turn to our local Aussie growers for more than 97 per cent of the produce in our stores. It is only when we can't get the volume, or the items are out of season, that we have to look outside Aussie shores to meet demand," Mr Atley continued.

Avocados Australia CEO, John Tyas said "excellent growing conditions in Western Australia and Tristate this year means that we will have a great supply over the summer season. It is



great to see ALDI take this opportunity and demonstrate their support for Australian farmers by choosing not to import any avocados this season."

Brad Rodgers, Avocado grower and Chair of Avocados Australia said "Australian retailers have first sourcing policies and these policies play an important role in the sustainability of the avocado industry here in Australia. It's great to see ALDI stand by their commitment to support Australian farmers first particularly considering that we have a strong supply of quality Australian avocados this summer season. This commitment puts money back into Aussie farms like ours, so that we can continue to deliver fresh avos for consumers into the future."

The updated long-term forecast suggests Australia's avocado production is expected to continue to increase to about 170,000 tonnes by 2026. Avocados Australia expects Australia's reliance on imported Avocados to diminish, as Australian growers can supply all year round.

¹ 2021-22 AAL Facts-at-a-glance

Avocados Australia CEO meets with Indian stakeholders

By Anna Petrou, Avocados Australia Communications Manager

Market access to India is very close, with Indian officials getting close to gazetting, officially approving, Australia's market access. In early July John Tyas, CEO of Avocados Australia, made his first visit to India post-Australian avocados provisional access into the India Market as part of a delegation with the Honourable Murray Watt, Minister for Agriculture, Fisheries and Forestry. John had the chance to hold his first tray of Australian avocados in India. These were Costa Group avocados grown in Queensland and John met with Indian importers Sudhir Suri CEO and Manav Suri COO of Suri Agri Fresh. Together they discussed the promising future of Australian Avocados in the dynamic India Market.

Additionally, John took part in retail visits to Nature's Basket, Modern Bazaar and conducted a walk-through of

the Traditional Retail Khan Market and INA Market. This provided John with a comparative view of the Indian trade environment. In retail stores John saw very little point-of-sale information which suggests an opportunity for strong country of origin branding and consumer education.

John also had the opportunity to meet with Tejaswi Rathore (Head of Marketing Austrade Food & Beverage) to discuss marketing and category development ideas for Australian Avocados. He also met with Sumit Saran from SS Associates who is managing the World Avocado Organisation (WAO) marketing program currently underway in India. Talks are underway for Australia to participate in the WAO program to grow the avocado category in India.





AAL CEO John Tyas holds his first tray of Australian avocados in India, he is accompanied by importers Sudhir Suri CEO and Manav Suri COO of Suri Agri Fresh.



John reviewing an avocado display at Nature's Basket Store in New Delhi.

John attended special events at the High Commission and saw presentations from key Australian government representatives. While in India, he also had the opportunity to engage with the Honourable Minister Watt, Minister for Agriculture, Fisheries and Forestry, on issues of importance to the Australian avocado industry.

Updates on market access to India will be sent out to industry stakeholders via Guacamole and our email notices.



In July 2023, John Tyas, AAL CEO, joined the Hon. Murray Watt, Minister for Agriculture, Fisheries and Forestry, and other key Indian stakeholders in marking the arrival of Australian avocados in an Indian store.

Upcoming Domestic Competition Policy Reviews

By Hayleigh Dawson, Avocados Australia Market Development Manager

On 23 August 2023, we saw the treasurer, The Hon Jim Chalmers MP and the Assistant Minister for Competition, Charities and Treasury, Dr Andrew Leigh announce a review of competition policy settings in Australia. There is no doubt the existing duopoly in the domestic retail landscape has an impact on our growers, our consumers and the broader economy.

Competition policy is a key area of focus for the Horticulture Council of which Avocados Australia is an active member. Important events in the legislative landscape which industry need to be aware of are:

- Albanese Government Announces Competition Policy Reforms – 23 August 2023
- Food and Grocery Code Review 3 October 2023

Competition Policy Review Announced 23 August

The competition policy review announced on 24 August 2023, will look at competition laws, policies and institutions. There will be a focus on reforms that would increase productivity, reduce the cost of living and boost wages.

The National Farmers' Federation Horticulture Council joined with the National Farmers' Federation (NFF), and other agriculture industry bodies including Avocados Australia, in welcoming the announcement by Treasurer Jim Chalmers of a competition policy review.

Chair of the Council Jolyon Burnett said the review had come at a critical juncture for the national horticulture industry and consumers.

"Growers are currently getting squeezed like never before. There are few businesses making money at the moment," said Mr Burnett.

"Clearly market concentration and a lack of genuine competition is a driving factor, most obviously at the retail end of the supply chain, but also all the way along it, starting with agricultural inputs.

"With record profits being announced its clear that it's not just growers but also consumers who are paying the price in the middle of a cost-of-living crisis.

"Perhaps most galling for growers is the messaging they receive as consumers, that efforts from the two major supermarkets to keep prices low are centred on paying their suppliers less.

"This is as they both post profits past \$1 billion, built on prices that have gone up more quickly than inflation. It's a particularly brazen, and to date successful, attempt at having cake and eating it.

While the review has been welcomed, the horticulture industry is putting the Albanese Government on notice that significant reform must now be made.

"We have had any number of reviews into competition policy over decades, but not one government has arrested the trajectory toward greater market concentration," said Mr Burnett.

"Growers are weary of expectations left unmet and wary of any new review. We need confidence in the Treasurer's desire to grasp the nettle.

"To achieve necessary reforms, we need to constantly remind the public, consumers, and even our own industry, that the way markets work is a choice we make as a society.

"Currently, market concentration is having the effect of transferring jobs, wealth and wellbeing out of rural Australia. Country towns are continuing to hollow out for the sake of dividends and executive bonus payments.

"If markets are working in ways that no longer serve our collective interests and values, then we need to reform them. We are not beholden to the narrow interests of corporates and their shareholders of profit above all else."

A Competition Taskforce has been established in Treasury to conduct the review, which will be progressed over two years and involve targeted public consultation. It will provide continuous advice rather than a formal report, so progress can be made over time.

Food and Grocery Code Review – October 2023

Following the review of the Dispute resolution process provisions of the Food and Grocery Code which was conducted in 2022, there will be a review of the remaining provisions of the Code in October 2023. Details will be shared and input will be sought from industry via Guacamole newsletters, when further information becomes available.

Resources

There are a number of resources available to industry and for growers, it is of critical importance you are aware of your rights and obligations under Horticulture Produce Agreements and the Horticulture Code of Conduct.

Horticulture Code of Conduct

- The Horticulture Code of Conduct is a mandatory industry code prescribed under the Competition and Consumer Act 2010
- The code's aim is to improve clarity and transparency of trade between growers and Traders
- The code requires all trade in Horticulture produce to have a horticulture produce agreement
- Growers and Traders must deal in good faith and failure to do so can lead to penalties.

Food & Grocery Code of Conduct

- The Food and grocery Code of Conduct is a voluntary code. It is prescribed under the Competition and Consumer Act 2010.
- ALDI, Coles, Woolworths and Metcash are signatories of the code and therefore suppliers doing business with these grocery retailers/wholesalers, has rights and protections under the code and under the Competition and Consumer Act 2010.
- The Food and Grocery Code of Conduct governs certain behaviour by some grocery retailers and wholesalers in their dealings with suppliers.
- The code does not override existing rules in the Australian Consumer Law.

Raising a Complaint About Retailer Dealings

If you are a supplier doing business directly with ALDI, Coles, Woolworths or Metcash then you can benefit from the protections under the Food and Grocery Code. If you feel like you have experienced poor behaviours by the buying team within the major supermarkets or wholesaler you can lodge a complaint using the Code.

Step 1: Lodge your complaint with the Independent Code Arbiter

You can start by lodging your complaint with the new Code Arbiters.

The Code Arbiters are individuals appointed by the supermarkets/wholesalers to investigate and resolve your complaints. They will investigate your complaint and can offer you a proposed remedy – which can include compensation of up to \$5 million if you have suffered loss as a result of the buyers' actions. Your complaint will be treated confidentially, and you can control when you want your identity (or the identity of your organisation) to be disclosed to the supermarket/wholesaler. You can remain anonymous but should be aware that this may limit the ability of the Code



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NEWS

Arbiter to fully investigate your complaint and provide you with a proposed remedy. When lodging your complaint, you must include the following details:

- The supplier's identification details (including business or trading name).
- Contact details for the supplier, or the person dealing with the complaint on behalf of the supplier (including name, title and contact number).
- Details of the conduct giving rise to the complaint (you may include any documents or other information that would assist the investigation of the complaint).
- The provision of the code you think is relevant to the complaint.

There is no cost to you as the supplier for using this Code Arbiter process.

The contact details for the Code Arbiters are provided below.

Coles

Hon. Jeff Kennett AC Phone: (03) 9421 0977 Email: <u>*ikennett@ausresolve.com*</u>

Woolworths

Helen McKenzie Phone: 0499 885 090 Email: <u>codearbiter@wowgrocerycode.com.au</u>

ALDI

Bronwyn Gallacher Phone: 0433 292 777 Email: <u>bronwyn@cclconsultants.com.au</u>

Metcash

Martin Shakinovsky Phone: 0416 235 766 Email: <u>complaints@metcashcodearbiter.com.au</u>

Step 2: If you are unsatisfied with the process, you can refer your complaint to the Independent Reviewer.

After completing the complaints process with the Code Arbiter, if you are unsatisfied with the steps taken by the Code Arbiter in dealing with your complaint – you can request a review by the Independent Reviewer.

The duty of the Independent Reviewer is to help ensure that the dispute resolution systems are working as intended – including that you received due process and proper procedures were followed.

The Independent Reviewer will not consider the merits of the Code Arbiter's decision or whether the outcome is considered fair or not. They will not be re-prosecuting the case or substituting a decision.

During the Independent Reviewer's review of your complaint, he/she will conduct an investigation and may request further information from the parties. Following his/her consideration, recommendations can be made to the Code Arbiter to reconsider your case if deficient practices or grounds exist.

If the Independent Reviewer becomes aware of possible breaches of the Grocery Code that have not been adequately dealt with by the Code Arbiter or supermarket/wholesaler – then they may refer the matter to the Australian Competition and Consumer Commission (ACCC) for potential enforcement action.

All requests made to the Independent Reviewer will be treated confidentially. Your identity will not be disclosed to the supermarket/wholesaler unless your consent is provided.

In your request you must also include:

- The supplier's identification details (including business or trading name).
- Contact details for the supplier, or the person dealing with the complaint on behalf of the supplier (including name, title and contact number).
- Details of the process giving rise to the Independent Reviewer request (you may include any documents or other information that would assist the Independent Reviewer to review the Code Arbiter's process).

If you have not lodged a complaint through the Code Arbiter, you can still report to the Independent Reviewer any experiences or dealings with the supermarkets/wholesaler that you believe fall short of the standards outlined in the Code.

There is no cost to you as the supplier for this Independent Reviewer process.

Step 3: Mediation and arbitration

As a supplier you have the right to choose the alternative dispute resolution process that works best for you. In addition to the Code Arbiter and Independent Reviewer process set out in the Code, you can also invoke third party mediation or arbitration.

Provisions in the Code make it compulsory for the supermarkets/wholesaler to take part in mediation or arbitration in good faith.

It is up to the parties to organise a mediator or arbitrator to hear the dispute and both parties are responsible for paying the associated costs. You should discuss these matters with your chosen mediator or arbitrator.

The purpose of the dispute resolution process under the Code is to help resolve your complaint in a timely and cost-effective manner. However, this does not prevent you from taking your own legal action or lodging a complaint directly with the Australian Competition and Consumer Commission (ACCC) for an alleged breach of the Code or other provisions in the *Competition and Consumer Act 2010*. Further guidance for suppliers is available on the ACCC website (<u>www.accc.gov.au</u>).

TALKING AVOCADOS SPRING 2023 NEWS

Driving avocado nutrition awareness among health professionals

Penny Eustace, Bite Communications

The Hort Innovation program to Educate health professionals on the nutrition and health benefits of avocados (AV20003) has continued to gain momentum over last six months. Designed to improve the awareness, knowledge and attitude of health professionals regarding the nutrition and health benefits of avocado, the program encourages recommending avocados to their patients as part of a healthy and nutritious diet, ultimately helping increase avocado consumption.

This phase of the program is in its third year and continues to work on strengthening connections with health professionals. If you are not sure what the program involves, below is an overview of the last six months of activity:

• The Australian Avocados' health professional digital hub now houses a comprehensive raft of educational resources and research updates containing evidencebased information on the health and nutrition benefits of avocados. It also provides a suite of tools to directly support members of the Australian avocado industry.

Looking for some inspiration and ideas about all the wonderful health and nutrition claims that can be made about avocados? Visit the hub online <u>https://</u> <u>australianavocados.com.au/health-professional</u> and click on the Industry Portal to access the password-protected industry section of the website (the password is AAIP). The health claims in this document are consumer-friendly versions of officially permitted claims that comply with the Australian New Zealand Food Standards Code. • A core activity of the program is the representation of Australian Avocados at health professional conferences across the country. Australian Avocados recently created a trade exhibit at its fourth health practitioner conference: Lifestyle Medicine, 8-9 September in Melbourne. Presented by the Australasian Society of Lifestyle Medicine, this international medical conference offered high-level training for health professionals in the application of Lifestyle Medicine.

The Avocado nutrition hub was showcased, and the full set of health professional and patient resources were promoted. The conference was well represented with more than 400 health professionals attending across the two days. More than 290 delegates signed up to the Australian Avocados' Healthcare Professional e-newsletter with more than 1,000 hard copies of educational resources distributed and 240 fresh Hass avocados given away.

Conference delegate feedback

- Extremely positive feedback was received on the Australian Avocado nutrition digital hub dedicated to health professionals
- There was high interest in the published *systematic review and meta-analysis of avocado consumption and cardiometabolic health* in the Journal of the Academy of Nutrition and Dietetics and the consumer-friendly Avocado Nutrition and Health Report



Photos from the Lifestyle Medicine conference, September 2023.



avocados

You're Invited





Above, photos and images from the Avocado farm tour, August 2023.

- Attendees were very positive regarding the inclusion of half an avocado a day (75 grams) in their patients' healthy eating plans
- Most were keen to receive a free Hass avocado, which led to discussion about practical information such as how to store, ripen, delay ripening and test for ripeness in avocados
- Feedback was very positive around having Australian fresh whole plant produce promoted at the conference
- The third avocado '*farm to plate farm tour*' took place in the Northern Rivers of NSW with a group of influential nutrition professionals to demonstrate how avocados are grown, packed and delivered fresh to retailers and then consumers. The group learned how to enjoy half an avocado (75 grams) a day with creative and innovative serving ideas. Catch some inspiration and key insights captured from the day: (View a short video reel from the farm tour here: <u>https://bit.ly/3QczF1V</u>). Australian Avocados will run another farm tour with key health professionals in late September 2023.
- At the completion of the three-year health professional program the last of three benchmarking surveys will be conducted to measure the program's impact on awareness, knowledge, attitude and recommendation practices. The survey will be compared to earlier benchmark research conducted before the program commenced (November 2021) and a mid-program survey conducted in November 2022. A full report will be shared with the industry at the completion of the program.

Contact:

For more information on the program visit <u>https://</u> <u>australianavocados.com.au/health-professional</u> or contact Bite Communications Program Manager, Penny Eustace via <u>penny@bitecom.com.au</u>.

Acknowledgement:

This project has been funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.





Food service sector opportunity identified

By Emma Day, Marketing Manager, Hort Innovation

A significant opportunity to improve avocado performance in the food service sector has been identified through the recently completed levyfunded project 'Avocado Foodservice Research and Strategy' (AV22005).

This opportunity was outlined during an engaging webinar in August when results from the project were delivered to almost 50 avocado industry representatives.

The project brief had two main objectives:

- 1. To review and summarise all prior projects on avocados in reference to the food service channel
- 2. To improve the capability for the avocado industry to engage more effectively with food service providers, including growth plans.

Research included a review of food service trends and performance, a comprehensive sales review of the different sectors that make up the food service channel (cafes, clubs etc), an assessment of previous research, and indepth discussion with food service and avocado industry stakeholders.

The project reference group critiqued the knowledge base and collaborated on strategy development.

Key outputs of the project included a summary report of the knowledge base, a final strategy document and simplified strategy fact sheets, as well as the live webinar.

Access to the recorded webinar, as well as the project's final report and useful fact sheets, is via AAL's Best Practice Resource in the library under "R&D Reports" (<u>https://avocado.org.au/bestpractice-resource/library/</u>).

The project highlighted that there is significant opportunity to improve avocado performance in food service.



Food Service represents 24% of Avocado Fresh Supply volume, or 28,000 tonnes in 2022. Meeting forecasted supply growth will require at least 38,000 tonnes of fresh Avocado sales through Food Service channels by 2026. Achieving this growth, whilst maintaining profitable farm gate pricing, can be achieved by focus on prioritised sub channels, implementing key strategic initiatives that support supply chain operations and facilitate industry wide volume growth.

GOAL 1

Grow Avocado Category volume in the food service channel from 28,349 tonnes in 2022 to at least 37,923 tonnes in 2026, at profitable farm gate prices by 2026.

GOAL 2

Prioritise QSR, Cafés & Restaurants, Independent Takeaway, Pubs, Clubs & Function Centres. Focus on Providores as the gateway to these sub channels, to grow volume annually by 8-10% from 2022 to 2026.

PRIORITY 1.0 Supply & Demand Alignment



Invest in programs that seek to align supply into the food service channel, enabling a consistent approach to planning and ordering and buying relationships, improving consistency of supply, and enabling year-round reliability of avocado as a key ingredient.

PRIORITY 2.0 Inspiration & Operations



Inspire food service operators on how to leverage the versatility of Avocados to prepare this quality ingredient, to make quality meals that are in high demand and command premium value perception.

PRIORITY 3.0 Category Development



Focus on QSR and providores that represent key food service channels with the greatest potential impact. Engage in a manner that suits their operational context, build relationships and identify tactical opportunities for category growth.



Above and next page: The food service strategy fact sheets can be downloaded from the Best Practice Resource.

Food service represents 24 per cent of avocado fresh supply volume (including minimally processed domestic and imported product), but the compound annual growth rate for FY18-22 sits at 7 per cent, behind that of retail which grew by 10 per cent for the same period.

The food service sector differs from retail in its diversity. Volume of more than 28,000 tonnes and \$86.8 million in value is spread over 72,415 food service outlets, however, 84 per cent of this volume sits in the dining out and takeaway sub-channel, with the balance sitting in travel and events (nearly 10 per cent) and institutional (6 per cent). It is critical to understand the subchannels within these sectors so that efforts can be made in areas of greatest potential return.

The report then identified priority subchannels by reviewing their volume per outlet and growth rates.

Quick service restaurants (e.g. McDonalds, Guzman and Gomez) offer high volume and strong growth rates, while pubs, clubs and function venues are lower volume per outlet but offer similar growth rates.

Independent takeaway cafes and restaurants represent significantly less volume per outlet but a strong growth rate in a highly fragmented subchannel.

Prioritising sub-channels highlighted four key findings:

- 1. There is strong demand for avocados as a high-quality ingredient
- 2. Avocado versatility enables stretch to new food service occasions
- 3. Order aggregators (ie Uber Eats, MenuLog) offer potential for demand pull through
- 4. Avocado product inconsistency is a major headache for food service buyers.



The key findings fed into the setting of strategic goals. These goals are:

- To grow from 28,349 tonnes in 2022 to at least 37,923 tonnes in 2026, at profitable farm gate prices
- 2. To grow quick service retail (QSR) by 10 per cent compound annual growth rate (CAGR)
- 3. To grow cafes and restaurants, independent takeaways, pubs, clubs and function centres via a focus on providores.

To deliver to these goals, three strategic priorities were identified, with key initiatives highlighted under each:

- 1. Supply and Demand Alignment
- To ensure consistent understanding, sourcing and use of avocados, according to a standard industry approach to food service grading
- Use the current situation of full supply and quality assurance to smooth out the pressure point between ripening and providores

- Develop and implement an approach to year-long promotional planning with order aggregators, linked to an intricate understanding of forecasted supply by avocado grade.
- 2. Inspiration and Operations
- Create digital content that can be leveraged with chefs, cooks, providores, and other channel participants, inspired by best-in-class examples from around the world, but adapted to incorporate greater Australian food service operational focus
- Regular industry engagement via key business-to-business communication channels (hospitalitymagazine. com.au etc), leveraging food service content
- Support and inspire new and aspiring chefs and cooks; career seeding to make these influencers future avocado champions.
- 3. Category Development Manager
- A resource is likely to be required to implement this priority with a

diverse agenda spanning business development, relationship and service provider management

- Prepare an annual development plan with prioritised QSR accounts and providores as gatekeepers to all other dining out channels
- Leverage materials created via avocado food service strategy initiatives to inform, inspire and motivate prioritised accounts to incorporate avocados into their menus and promotional plans
- A trade benchmarking program for industry consideration and adoption of avocado category growth initiatives, developing measurable goals and continually evaluating the food service strategy and programs.

We look forward to rolling out the above initiatives and will keep industry updated as we progress.

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Retail Media Campaign Update

By Jessica Street, Hort Innovation



The avocado Hort Innovation marketing program includes investments in retail media to trigger purchase at the last point of the shopping journey. This is an important activity as consumer research conducted last year, highlighted that avocados are not on shopping lists – therefore we need to be active in reminding consumers to purchase. A comprehensive online media retail campaign with the two major retailers ran from March to June this year.

During the campaign period, 563,000 customers purchased avocados through one retailer's online shopping channel. Of those customers, 146, 380 (26%) were new customers to the avocado online category. In addition, weekly online sales were up 20 per cent versus the same time last year for this retailer.

With the other retailer, 99,500 new customers purchased avocados through the online shopping portal over the campaign period. 73% of customers who clicked on the tile advertisement added an avocado to their basket.

To manage investment into retailer marketing channels, Hort Innovation's media agency approves each online activation before going live. At the end of a campaign period, Hort innovation receives detailed results from each retailer post campaign, to evaluate the activity and share updates to industry.



New retail education program identifies knowledge gaps

By Jessica Street, Hort Innovation Customer Marketing Manager

A successful retail education pilot campaign has laid the foundations for a more concerted, tailored investment by Hort Innovation in educating fresh produce staff on best practice storage, handling, ripening and display of avocados.

The Avocado FY23 Retail Education program (AV22006), which ran from May 8 to July 31, was established to address the industry's key strategic imperative of improved store practices through retail education.

Industry and Hort Innovation together identified a knowledge gap among retail staff about correct handling, storage, ripening and display of avocados in stores.

The trial program was designed to audit current in-store practices and knowledge levels, as well as to educate fresh produce staff on best-in-class behaviours for both Hass and Shepard varieties. Increased staff knowledge would lead to better quality fruit on display and better handling of fruit throughout the retail supply chain.

Educating staff to improve their behaviour ultimately will lead to a better consumer shopping and eating experience, help overcome purchase barriers, and drive an increase in sales frequency and average weight of purchase.

The FY23 campaign involved visits to 800 Woolworths and Coles stores across New South Wales, Victoria, Queensland, Western Australia and the Australian Capital Territory.

Each store was visited on average six times, and a small percentage of stores received up to four additional visits based on their specific needs.

Collateral provided to staff during the campaign included back of house informational posters, and an eLearning training module which included videos and educational material.

An electronic dashboard was created to aggregate results from the campaign to allow for a drill-down into specific data sets.

In terms of fruit displays during the campaign, 56.89% of Hass displays were rated as good presentation quality, 30.99% were rated as fair presentation quality and 12.12% were rated as poor presentation quality. For Shepard displays, 65.61% were rated as good presentation quality, 29.59% were rated as fair presentation and the remaining 4.8% of Shepard displays were rated as poor quality. Results indicated an over index in ambient storage of Hass avocados in some cases, and in other instances fruit was not always in the cool room as directed.

Staff were quizzed on their varietal knowledge – more than 35 per cent were able to correctly identify all characteristics of a Hass avocado, while 41.3 per cent correctly identified all characteristics of the Shepard variety.

Repeated knowledge checks over the course of the campaign showed that staff knowledge on how to correctly identify all characteristics of each variety increased significantly over time.

The results point to an opportunity to increase staff knowledge on the differences between the two varieties, leading to a better understanding of how to handle each variety in season.

Correct care and handling knowledge also improved over time – from 57.3 per cent at the first visit, to 96.4 per cent by the last of six visits.

Almost 43 per cent of training participants were produce managers, while more than 48 per cent were produce staff.

Almost 20 per cent of staff had never previously received avocados training, and more than 66 per cent of staff could not provide examples of avocados-specific training material to onboard new staff.

Information on current in-store practices – in areas such as storage, temperatures, filling and handling – was gathered during the trial campaign and will contribute to the development of a more targeted training program in FY24.

– General News —



Above: Good quality display of Hass avocados in Coles store. Image: Strikeforce



Above: Good quality display of Hass avocados in Woolworths store. Image: Strikeforce

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Toowoomba Wellcamp Airport celebrates 8-year anniversary of Cathay Cargo Service

By Anna Petrou, Avocados Australia Communications Manager



Cathay Cargo Service celebrates 8 years of operation.

This November marks the 8-year anniversary of the Cathay Cargo Service that has been operating out of the Toowoomba Wellcamp Airport. The Toowoomba Wellcamp Airport is located at 1511 Toowoomba-Cecil Plains Road in Wellcamp Queensland. Cathay Cargo operates a weekly scheduled 747-800F aircraft there capable of carrying up to 120 tonnes of cargo, flying to Hong Kong and beyond, over 80+ destinations and over 40+ destinations on the freighter network after it leaves Wellcamp.

The Toowoomba Wellcamp Airport has been in operation now for 9 years. Construction began at Wellcamp in early 2013 and by late 2014 the airport was ready to receive commercial flights. Qantas started sending its Q400 Dash 8 planes to Wellcamp in November 2014.

Today Wellcamp International Airport is a true air cargo hub that has established itself as a valuable airfreight partner for many exporters. Talking Avocados recently had a chance to speak with Jonny Arkins, Business Development Manager, at Toowoomba Wellcamp Airport about the role they play in the export supply chain.

What were the main motivations for establishing the Toowoomba Wellcamp Airport?

Wellcamp Airport is really about the freight and servicing this region with access to mainline domestic ports. The airport is located in one of Australia's richest food bowls, the Darling Downs. Brothers John, Denis, Neill, and Joe Wagner who own and operate Wagner Corporation built the facility in 19 months. Weekly passenger flights operate into Sydney, Melbourne, Townsville, Brisbane and Western Queensland allowing for both business and leisure travel.

What cargo carrying aircraft are stationed at the airport?

Cathay Cargo operates a weekly scheduled 747-800F aircraft.

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Toowoomba Wellcamp Airport cargo destinations.

What types of cargo are carried by aircraft at the airport and what destination do they travel to?

Main items of cargo include fresh horticulture produce grown in the region, mining equipment/parts, helicopters, aircraft spares, pharmaceutical items, agriculture items-Parts, perishable items such as beef/pork/eggs/milk, disaster aid medical supplies and Vaccines. Cargo is carried to 80+ destinations spread over Southeast Asia, Asia, Middle East, Americas, Mexico, Europe, Oceania (Australia, New Zealand).

What are the comparative advantages in using Wellcamp Airport services?

There is triple road truck access to the airport and Regional Trade distribution Centre, onsite packing ready for air freight, Cargo Terminal Operator onsite, X-RAY screening facilities, no curfews, and 365-day operation. 1200sqm of chilled storage area, Bonded Cargo Terminal trucking companies with refrigerated vans are based onsite and the hub is located close to growing regions, minimising transit times from Farm gate to Airport gate.

Has the airport helped to transport avocados to overseas markets as yet?

Seventy-one tonnes of avocados were exported through Wellcamp during FY22-23.

What travel routes are currently serviced by the airport?

Sydney-Qantas, Melbourne-Bonza, Townsville-Bonza, Western Queensland and Brisbane-Rex, and a few aircraft chartering companies servicing the FIFO Mining industry.

Are there any new destinations Wellcamp is looking to expand to?

Wellcamp is actively looking at expanding to include routes into South Pacific, Trans-Tasman, Southeast Asia, Middle East, Japan, and Korea.

Is airfreighting avocados better then sea freighting?

Yes, items have a longer shelf life in the market due to less time in transit.

To find out more email *info@wellcampairport.com.au* or call 07 4614 3200. Find them online at *www.wellcamp.com.au*.

Safe Work Australia - insightful figures in latest report

By Safe Work Australia

Each year, Safe Work Australia produces national work health and safety statistics, providing important evidence on the state of work health and safety in Australia.

In September they released the Key Work Health and Safety Statistics Australia 2023 report, which provides the latest figures on work-related fatalities, injuries and disease in Australia.

The report is a high-level overview of national WHS statistics which can help increase understanding of the causes of, and industries most affected by, workrelated fatalities, injuries and disease.

Work-related fatalities 2022

Tragically, in 2022, 195 people were fatally injured at work in Australia.

- The traumatic injury fatality rate for workers in Australia has decreased by 30% since 2012.
- 93% of worker fatalities were male.

- 42% of all worker fatalities involve a vehicle.
- Machinery operators and drivers had the highest number of fatalities by occupation (74 fatalities).
- The agriculture, forestry and fishing industry had the highest worker fatality rate (14.7 per 100,000).

Workers' compensation claims 2021-22

- There were 127,800 serious workers' compensation claims in Australia.
- Body stressing was the leading cause of serious workers' compensation claims (32.6%).
- Mental health conditions accounted for 9.2% or 11,700 claims in 2021-22p. This figure is substantially higher than 10 years ago, rising from 6.5% of all serious claims in 2011-12 to 9.2% in 2021-22.
- Accepted serious workers' compensation claims for COVID-19 increased substantially from the previous year, from 400 in 2020-21 to

9,500 in 2021-22p.

• The age group with the lowest frequency rate continued to be workers aged 35-44 years, at 5.4 serious claims per million hours worked.

You can download the full report by using the QR code provided or by entering this URL in your browser: <u>https://data.safeworkaustralia.gov.au/</u> insights/key-whs-stats-2023.

The dashboards on their interactive data website have all been updated with the new data.





Fleming's Nurseries Qld 71-83 Blackall Range Rd, Nambour, QLD Contact: Liz Darmody | Ph: 07 5442 1611

Turkinje Nursery 100 Henry Hannam Drive, Walkamin, QLD Contact: Peter and Pam Lavers | Ph: 0419 781 723

Victorian Citrus Farms Pty Ltd 393 Woomera Avenue, Red Cliffs, VIC Contact: Sean Arkinstall | Ph: 0419 391 558

Chislett Farms Pty Ltd 833 Kenley Rd, Kenley, VIC Contact: Jonathan Chislett | Ph: 03 5038 8238

Avonova Farms 203 Old Vasse Rd, Yeagerup, WA Contact: Dudley Mitchell | **Ph:** 0439 802 293



www.avocado.org.au/our-programs/anvas/

The **Avocado Nursery Voluntary Accreditation Scheme** provides a contemporary approach to high health avocado nursery production, providing greater confidence for growers about the health status of plants sourced from accredited nurseries.

Taking steps to support prevention of biosecurity impacts on avocado growers

By Grant Telford, Avocados Australia Biosecurity Project Manager

The Hort Innovation Avocado industry biosecurity strategy 2022-2026 (AV21002) project, led by Avocados Australia, aims to improve avocado industry biosecurity resilience through:

- the development and delivery of foundational exotic pest preparedness documents supported by exotic pest incursion and response exercises;
- better understanding the risk posed to the avocado industry from exotic pests by identifying current gaps in pest risk assessments, pathway analyses and diagnostic capability; and
- increasing the uptake of appropriate on-farm biosecurity practices by identifying and addressing barriers to adoption.

The project team is comprised of representatives from seven agencies including Avocados Australia (AAL), Plant Health Australia (PHA), Department of Agriculture and Fisheries Queensland (QDAF), Department of Primary Industries and Regional Development (DPIRD), Sunshine Coast University (scU) the Centre of Excellence for Biosecurity Risk Analysis (CEBRA) and Biosecurity Solutions Australia (BSA) allowing the project to draw on the scientific and broader biosecurity management expertise available from the seven agencies involved.

To support work completed during year 1 of the project and further project objectives a three day "Adoption of on-farm biosecurity practices" workshop was held at the Ecosciences Precinct (at Dutton Park in Brisbane) from 22 to 24 August 2023. Avocado growers and staff from AAL, PHA, DPIRD, QDAF, CEBRA and BSA and other invited participants and speakers attended the event.

QDAF represented by Bridie Carr, and DPIRD represented by Helen Spafford, facilitated the workshop and have been leading the charge in assessing what all stakeholders might



consider as the reasonable and practical steps that should be taken on-farm to address pest risks faced by growers.

"During the first year of the project, the team has identified and investigated several high-priority pests and diseases that pose a potential threat to the Australian avocado industry. It was crucial for growers to lead the conversation around what on-farm biosecurity practices are practical for the Australian avocado industry, with the technical support of the project team," Bridie Carr said.

Participants worked collaboratively on developing on-farm biosecurity practices aimed at reducing the risk of entry of high-priority pests on to a farm, through provision of growerappropriate resources and tools, extension methods, and adoption strategies. Throughout the event, the project team and guest speakers offered valuable insights and shared their experiences to facilitate discussions with growers regarding the adoption of on-farm biosecurity practices.

The project team extends its gratitude to the growers who generously dedicated their time away from their farms and made significant contributions to the workshop's valuable outcomes including Bernadette Backhouse – Western Australia grower, Jess Randall – Central Queensland grower, Joel Winfield – Western Australia grower, Rohan Collins – North Queensland grower and Sandra Fishwick – New South Wales grower. Appreciation is also extended to the guest presenters – Guy Davidson (Onside), Melinee Leather (Leather Cattle Co), Matt Dyck (Kiwifruit Vine Health), Shanara Veivers (QDAF), and Sam Moore (Evidn).

Moving forward from the workshop, understanding regional perspectives and what may be barriers to adoption for onfarm biosecurity practices will be explored in 2024. These discussions will occur in various regions through upcoming regional focus groups, including Western Australia, Tristate, New South Wales, South Queensland, Central Queensland, and North Queensland.

Representing AAL at the workshop were John Tyas (Project Leader), Grant Telford (Project Manager), Anna Petrou (Communications Manager) and Mary Burton (R&D Coordinator).

Acknowledgement

This project has been funded by Hort Innovation using the avocado research and development levy and funds from the Australian Government. Hort Innovation is the growerowned, not-for-profit research and development corporation for Australian horticulture.





Group photo of attendees and invited speakers present during day three of the workshop - Image supplied courtesy of QDAF.





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MARKETING UPDATE

Campaign aims to connect, educate and inspire

By Victoria Zourkas, Brand Manager, Hort Innovation

The domestic marketing plan's media strategy for July-December 2023 is now in full flight, with a suite of activities driving connection, education and inspiration among Australian consumers.

A mix of media platforms is being utilised to build awareness and consideration of Australian avocados through emotional connection, to increase confidence in how to choose, handle, store and ripen the fruit, and to remind and inspire shoppers about the meal occasion merit of avocados. YouTube is featuring the successful Our Green Gold visual elements, while radio advertising is also positioning Australian avocados as 'green and gold as our nation itself'.

Social media posts feature enticing imagery, as well as educational content on the wellbeing benefits of avocados and how to pick the perfect avocado every time for every occasion, and inspirational content featuring recipes.

Digital 'out of home' promotional panels, in close proximity to

supermarkets, feature messaging and imagery to keep avocados top of mind on the final path to purchase.

Online shopping is another channel being used to encourage the purchase of avocados, with the 'Slice. Smash. Spread' messaging being prevalent across Woolworths and Coles online shopping platforms.

The six-month campaign has a forecast reach of almost 22 million people across the five channels (outdoor, radio, YouTube, shopper and social).



Above: The 'Slice. Smash. Spread' messaging is prevalent in the current campaign.

Take home our Green Gold

Hass avocados in season now



Above: The successful Our Green Gold visual elements appear in the current domestic campaign.



Above: Festive imagery appears in out of home and shopper promotions.

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	Australian Avocados		q

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Social media campaign up and away

As part of the Australian avocados domestic marketing plan activity for July-December this year, social media activity is continuing across Instagram, Facebook and TikTok to educate and inspire consumers to add Australian avocados to their everyday meals.

Educational content has been created for social media channels, providing consumers with tips on how to store and ripen avocados, as well as simple and delicious recipe content to inspire use of the fruit in breakfast, lunch and dinner.

To celebrate National Avocado Day on July 31, Hort Innovation partnered with social influencers to create bespoke recipes showing Australians how they can enjoy avocados at different mealtimes.

The influencers and their recipes were:

 Michael Finch (2.4 million followers)

 avocado pesto pasta (<u>https://www.</u> tiktok.com/@michaelfinch/video/7261 725574899535106?lang=en)

- Simple Home Edit (1 million followers) - avocado chicken nachos (<u>https://www.instagram.com/p/CvO2-KYMQKX/?hl=en</u>)
- Eliya Eats (573,000 followers) baked avocado breakfast boats (<u>https://www.instagram.com/p/</u> <u>CvW3PjOMUie/?hl=en</u>)
- Mamaghanouj Kitchen (280,000)

 avocado chicken brioche rolls
 (<u>https://www.instagram.com/p/CvJV7-</u> ztdBC/?hl=en)

More inspirational recipe content was delivered via posts such as:

- Cook Republic (155,000 followers)

 avocado and grilled chicken sandwich (<u>https://www.instagram.</u> <u>com/p/CuSv16Vhn1g/?hl=en</u>)
- Cook Republic (155,000 followers) – avocado falafel bowl (<u>https://www.instagram.com/p/</u> <u>CuWoBdFgJLg/?hl=en</u>)

Since July, the always-on social content across Facebook, Instagram and TikTok has reached 6.7 million Australians and achieved 831,000 post engagements. Want to take your sandwich game to the next level? Add an avo! @cookrepublic's grilled chicken and avocado sandwich is the sandwich to beat all sandwiches. And, if you don't believe us, try it out for yourself. Recipe here: https:// australianavocados.com.au/recipes/grilled-chicken-avocadoeandwich!

#AustralianAvocados #OurGreenGold #HassAvocados



Educational content has been created for social media channels, providing consumers with tips on how to store and ripen avocados, as well as simple and delicious recipe content.



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Connection and collaboration alive and well at AFL

By Troy Agosti, International Marketing Manager, Hort Innovation

The Asia Fruit Logistica (AFL) 2023 event in Hong Kong created waves in the fresh produce industry, drawing a recordbreaking crowd of industry professionals from around the globe.

With a 30 per cent increase in attendance compared to the previous edition in Hong Kong, the show floor was abuzz with excitement.

Exhibitors were delighted to be back in the vibrant city, which is considered the epicentre of Asia's fresh produce trade.

AFL 2023 drew fresh produce industry professionals from all corners of the world, underlining its reputation as a global hub for the industry. The feedback from attendees and exhibitors was overwhelmingly positive.

Avocados a smash hit

Asia Fruit Logistica proved to be an unforgettable experience for Australian Avocados, which brought an innovative twist to their booth.

Amidst the bustling trade show, attendees were treated to a delightful surprise in the form of a claw machine stocked with adorable fluffy avocado toys.

The ingenious idea not only captured the attention of visitors from far and wide but also created a buzz that reverberated throughout the event.

At one point, a line of eager participants formed outside the Australian Avocados stand, eagerly vying for their chance to snatch one of these coveted avocado companions.

This playful and engaging marketing strategy turned out to be a smashing success, reinforcing Australian Avocados' brand presence and leaving a lasting impression at Asia Fruit Logistica.

Back-to-back meetings and networking opportunities

Exhibitors at AFL reported a flurry of back-to-back meetings and invaluable personal exchanges.

This robust networking environment allowed participants to forge new connections and strengthen existing ones.

The event served as a platform for industry leaders to engage in meaningful discussions, explore collaborations, and gain insights into the latest trends and innovations in the fresh produce sector.

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Above: The novel claw machine was a smash hit at AFL 2023



Above: AFL provided an invaluable opportunity to network and meet.

Australian horticulture shines

One of the standout features of AFL 2023 was the significant presence of Australian horticulture on the global stage.

More than 40 Australian exhibitors showcased their produce at this prestigious event. For these exhibitors, AFL provided a golden opportunity to promote their businesses, establish toplevel trade contacts, and gather essential market intelligence pertaining to the fresh produce trade in Asia.

Grown in Good Nature: a showcase of excellence

Hort Innovation took the lead in showcasing Australian horticulture's diversity and excellence at the event.

Growers and supply chain representatives from various sectors, including avocado, citrus, table grape and summerfruit industries, were prominently featured under the 'Grown in Good Nature' banner.

This collaborative effort emphasised the commitment of Australian horticulture to sustainable and high-quality produce.

Conclusion

AFL 2023 was a monumental success, marking a significant milestone for the global fresh produce industry.

The record-breaking attendance, enthusiastic feedback, and the spotlight on Australian horticulture all contributed to making this event memorable.

As the world looks towards Asia as a major player in fresh produce trade, AFL remains the premier platform for industry professionals to connect, collaborate and stay abreast of the latest developments.

With Australian horticulture making its mark on the international stage, the future of the industry looks promising and sustainable.

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Above: Australian horticulture shone on the global stage at AFL.

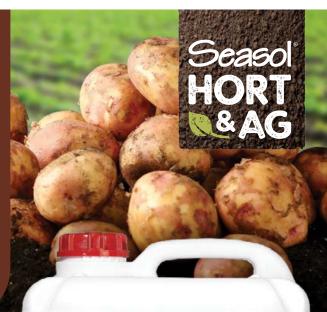


Above: Hort Innovation chief executive officer Brett Fifield with a happy attendee at AFL.



Above: The feedback from attendees and exhibitors was overwhelmingly positive at AFL23.

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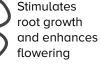


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RESEARCH AND DEVELOPMENT

Alternative pollinators for avocados

By Renata Grunennvaldt¹, Bridie Carr¹ and David Cook² (¹ Department of Agriculture and Fisheries, Queensland Government, ² Department of Primary Industries and Regional Development)

Why look for alternative pollinators to bees?

The recent Varroa mite (*Varroa destructor*) incursion in NSW has highlighted the need for alternative pollinators in avocado production, rather than relying solely on honey bees. Currently, honey bees are viewed as the primary pollinator insect for avocados in both Australia and other avocado-producing countries. Given the risks associated with dependence upon one insect species for pollination, it is advisable to explore other species that could be managed to provide pollination services for avocado crops.

Fruit-set percentages in avocados are typically less than 0.3%. However, handpollination can often achieve around 5% fruit set. This suggests that fruit set is likely limited by insufficient pollination and even minor improvements in pollination could boost fruit set and yield. When insects are excluded from avocado trees the trees produce almost no fruit, reinforcing the important role that pollinating insects play in ensuring the transfer of pollen from a male flower to a female flower.

Who visits avocado flowers?

Insect pollinators facilitate avocado pollination and there is evidence of opportunities to improve yield through improved pollination services.

Researchers from Plant & Food Research and the University of New England conducted a study on insects visiting avocado, macadamia, and mango crops in Australia. They examined pollen transfer between flowers and considered landscape factors influencing pollinator populations. They identified three primary pollinator groups for all three crops: honey bees, a native stingless bee (*Tetragonula carbonaria*), and nose or rhinid flies (*Stomorhina discolor*). Hover flies and blow flies were also seen as pollinators as they were found to move pollen between flowers.

A global study highlighted the substantial variation in the abundance of wild insect pollinators, ranging from 90% to as low as 8%, in different locations. This underscores the necessity for growers to closely monitor which insects fulfill the role of primary pollinators in their orchards. The diversity of insects visiting avocado flowers is pivotal for ensuring successful pollination.

In Chile, a study found that wild insects were more effective than honey bees in pollinating avocado trees, especially during dry years, and it emphasised the critical role of wild pollinators, in addition to honeybees, in enhancing crop production.

In Israel, a recent study demonstrated that adding bumblebee (*Bombus terrestris*) hives to 'Hass' avocado orchards, at a rate of approximately 10 hives per hectare, resulted in 0.5–1.0 bumblebee visits per tree per minute, leading to increased pollination and, consequently, higher yields. Bumblebees are however not permitted on mainland Australia, although they are present in Tasmania following a 1992 incursion.

Observations on avocado orchards in south-western WA showed that most non-bee flower visits were by hover flies (*Melangyna viridiceps* and *Sphaerophoria macrogaster*) and blow flies (*Calliphora vicina* and *C. albifrontalis*) (Figure 1). Hover flies mostly foraged on flowers in the morning while blow flies were generally more active in the afternoons.

Opportunity to increase production by exploring the potential of wild pollinators

Flies: Flies can be better in crosspollinating avocados compared to honey bees because they move randomly through orchards, visiting both male and female flowers. The effectiveness of flies as pollinators varies among species, but orchards often host more than 20 fly species. This means it is likely that some good pollinators will be present, and that pollination can occur whenever the female flowers are open. Unlikely honey bees, flies are active throughout the year and can operate effectively at temperatures well below that of bees (5-12°C). In 2020, there was a huge influx of hover flies across south-western WA resulting in a 30% improvement compared to pollination using honey bees alone. This was verified using large, multitree enclosures (see Figure 2) that contained a 'nuc' hive (nucleous hive) of bees within 26 avocado trees.

Blowflies: Adults of *Calliphora dubia* have been shown to feed on avocado



Figure 1. An adult western golden-haired blowfly (*Calliphora albifrontalis*) (Left Hand Side) and adult European blue bottle blow fly (*Calliphora vicina*) feeding on avocado flowers in south-western WA.



Figure 2. Paired-tree enclosures (Hass and a Type B tree) and multi-tree enclosures employed to determine the pollination ability of several fly species in south-western WA.

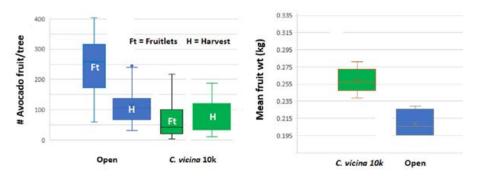


Figure 3. Avocado fruitlet counts and final fruit harvest of Hass avocados (LHS) either under netted enclosures (26 trees) with the blow fly *Calliphora vicina* at double the density of bees (green), compared with trees not enclosed and in the open orchard (blue) where pollination is from honey bees and other insects present. The mean weight of harvested fruit is indicated on the RHS. This trial was conducted at Capel, 200km south of Perth, Western Australia.



Figure 4. Three hover fly species (i.e., syrphids) commonly found feeding on avocado flowers in south-western WA. (Melangyna viridiceps (Left), Simosyrphus grandicornis (Centre) and Sphaerophoria macrogaster) (Right).



Figure 5. Honey bees (*Apis mellifera*) (Left), the snout-nosed, rhinid fly (*Stomorhina discolor*) (Centre) and stingless native bee (*Tetragonula carbonaria*) (Right - Photo from Aussie Bee ©).

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flowers 3-4 times more frequently than Calliphora albifrontalis; this translated into higher avocado yield in paired-tree enclosures in southwestern WA. In terms of fly numbers relative to bee numbers, if we consider 3.5 hives/ha in an avocado orchard, this translates to approx. 158,000 bees/ ha. Only around 40% of bees are out foraging at any given time, which is 63,000 bees/ha. Considering an avocado tree density of 320 trees/ha, this equates to approximately 200 bees/ tree. Releasing a similar number of flies could be beneficial and improve final yields. Trials in WA using double this density (i.e., 400 flies/tree in multitree enclosures (Figure 2) have shown an increase in fruit yield through improved pollination (Figure 3).

The yield of Hass avocados at the final harvest was similar between the trees enclosed with *C. vicina* blow flies and trees in the open area that were pollinated by honey bees brought onto the avocado farm during flowering (Figure 3 Left Hand Side). Fruit drop from first fruitlet count to final harvest typically occurred in trees in the open orchard and the size of fruit pollinated by *C. vicina* blow flies was higher compared with fruit pollinated in the open orchard (Figure 3 Right Hand Side).

Hover flies: Hover flies were also frequent visitors to avocado flowers and proved effective at depositing pollen onto female stigmas. Some hover flies also act as natural predators of aphids on grass and other plants, providing a dual benefit of pest control alongside pollination. While the full extent of their importance as pollinators has not been quantified, some parts of Australia witness significant numbers of hover flies visiting avocado flowers (Figure 4).

Stingless bees: Stingless bees, which live in large colonies similar to honey bees, pollinate a wide variety of plants and can be managed in hives. The number of stingless beekeepers is growing, and these bees are already being utilised in macadamia farms, where they outperform honey bees. In Australia, researchers investigated the floral phenology and attractiveness of male and female flowers to insect visitors of Shepard and Hass avocado (Project PH16000). It was observed that stingless bees (*Tetragonula carbonaria*) predominantly foraged on avocados when no other crops were flowering nearby (Figure 5). However, when given the choice between avocado and macadamia, they showed a strong preference for macadamia. Native bees have a limited flight range of only about 500 meters (one-tenth of the range of honey bees) from their hive. Therefore, stocking rates would need to be higher when compared to honey bees.

Other pollinators: Beetles, moths, and various small insects can also contribute significantly to pollination in avocado orchards. Similar to the advantages of diverse fly species, the presence of a variety of other insects in your orchard can enhance both pollination and crop yields.

Other ways to increase pollination rates

• Do not spray when the pollinators are active: pesticide applications can reduce the abundance of native

pollinators, consequently leading to decreased avocado yields.

- Minimise orchard intervention such as mowing the inter-row excessively: reduction in intensive orchard management practices has been shown to increase pollinator biodiversity.
- When establishing new orchards, interplanting Type A cultivars (e.g., Hass) and Type B cultivars (e.g., Shepard) enhances the likelihood of successful avocado flower pollination
- Understand the pollination process in avocado: ensuring healthy flowers through proper carbohydrate management and irrigation is essential to increase the chances of pollination.
- Observe the presence and distance from the orchard of more attractive plant species that flower at the same time (avocado flowers unfortunately are not a favourite of honeybees).
- Encourage non-bee pollinating species including blow flies and hover flies by maintaining native vegetation around the orchard as well as either

inter-row planting of a mixture of native and introduced flowering plants, or anywhere that vacant patches of land are near your orchard trees to provide the pollinators with a habitat and food source.

In conclusion, promoting diverse insect populations during the flowering season in avocado orchards offers a significant advantage. Each species of insect possesses distinct behaviours, increasing the likelihood that at least one of them will be active when viable male pollen is transferred to an open female flower. A single flower visit rarely results in successful pollination, hence a combination of honey bee and other insects visitors (especially flies) are needed to transfer at least 10-12 pollen grains onto the female stigma to stimulate pollen tube growth and effectively pollinate the flower. This diversity in insect activity optimises the overall effectiveness of pollination efforts, ultimately contributing to higher crop yields and the success of avocado production.

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Other Resources

Use the URL links or the relevant QR codes provided to access these additional resources:

More information about managing stingless bees and hiring bee hives can be found online at *https://sugarbag.net/*.



Information about pollination can be found on the Best Practice Resource online at (BPR users log in then go to the growing section and click on "Pollination"): <u>https://avocado.org.au/</u> <u>best-practice-resource/</u>.



An AvoGrow webinar also has useful content, access it online here (BPR users need to login to access you will then be automatically directed to the page): https://avocado.org.au/bpr-articles/ avogrow-12082021/



To access a research paper about understanding the pollination process in avocados go online to: <u>http://avocado.</u> <u>org.au/wp-content/uploads/2023/10/202</u> <u>0Understandingpollinationprocessesina</u> <u>vocado.pdf</u>



Remember that fruit set in avocados relies on certain fundamental conditions:

- Healthy Flowers: Flowers must have viable pollen and pistils.
- Overlap of Male and Female Flower Stages: The synchronisation of these stages is critical.
- Insect Pollinator Activity: Insects are necessary for transferring pollen.
- Warm Temperatures: Avocado trees require three consecutive days of temperatures over 10°C for Hass and over 13°C for Shepard to facilitate successful 'pollination events.'
- Absence of Environmental Stresses: Environmental conditions, such as extreme heat, excessive dryness, excessive moisture, or low humidity, need to be managed, if possible, as they are detrimental to the pollination process.

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Avocado supply chain quality insights: tackling bruising, spotting bug damage and immature fruit

By Adam Goldwater, Applied Horticultural Research

The project team for AV22011 kicked off retail quality monitoring in late July 2023, with 115 samples (1150 fruit) collected and assessed across Sydney, Brisbane, Perth and Melbourne prior to mid-September. Quality was generally very good, with 91% acceptable fruit samples during this period.

This is an improvement on previous years, where acceptable quality was 84% over the months of August and September during 2020-2022.

Bruising the key issue

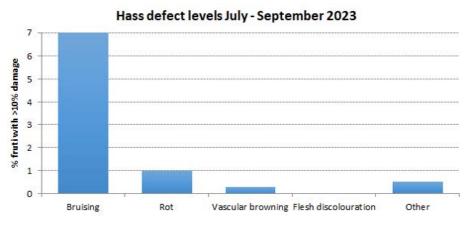
Bruising was by far the main cause of unacceptable fruit. At 7% of fruit sampled (Figure 1), bruising levels remain similar to that reported during 2020-22 (AV19003), where 6.4% of Australian Hass were unacceptable due to bruising. Bruising is a widespread issue, with similar levels of bruising identified across different major and independent retailers.

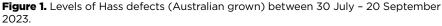
Results from retail monitoring in 2020-22 showed that displaying ripe fruit in trays, rather than loose on display can help reduce bruising. Ensuring uniform fruit firmness across the tray and supplying consistently ripe fruit can also reduce levels of bruising.

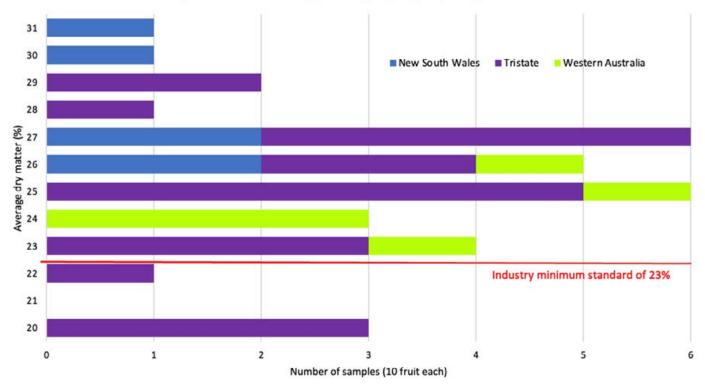
Rots were well below levels previously reported in Australian Hass, with only 1% of fruit affected in July – September 2023, compared to 3.5% during 2020-22. Flesh discolouration and vascular browning, which often manifest when fruit is stored for too long, were both at minimal levels (Figure 1). This likely reflects the fast movement of fruit from packhouse to retail, with an average of 12 days between packing and sale on retail shelf during July to September.



A badly bruised sample of avocados purchased at retail.







Hass dry matter content by growing region, July - September 2023

Figure 2. Average Hass dry matter content by growing region from 33 samples collected at wholesale during July to September 2023.

Major retailers well engaged

Initial meetings were held with the major retailers to ensure project outputs deliver what is needed to help drive quality improvement in their stores. Quarterly meetings are held with each of the three major retailers, where their quality results are presented, and issues in particular stores or cities are identified.

The retailers were particularly interested in how the project results can be used to compare quality between:

- Stores supplied by different distribution centres within a city;
- Merchandising systems such as tray versus loose displays; and
- Avocados purchased in-store versus online

Dry matter monitoring identifies immature fruit from Tristate

To maintain acceptable eating quality, the AV22011 project is closely monitoring fruit maturity, particularly

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at the start of supply for each growing region. In July to September, a total of four out of 33 samples collected at wholesale were immature. All immature fruit identified were grown in the Tristate region, while fruit from NSW and WA all passed (Figure 2).

Where samples failed to meet the minimum maturity standard, a follow up sample was collected until the supplier's fruit was mature. Ensuring avocados meet the industry maturity standards encourages consumer satisfaction and repeat purchases.

Insect damage an issue for all growing regions

Insect damage in avocados has been a significant concern, with high levels of 'stones in the flesh' reported in samples purchased in retail stores. Since July 2023, 7% of all fruit had insect damage, caused by insects with piercing mouthparts.

Fruit with insect damage, or 'stones in the flesh' was identified from all

key avocado growing regions during July to September 2023. That includes fruit grown in Tristate and Western Australia, where insect damage is rarely found. However most affected fruit was due to spotting bug and grown in Central and South Queensland, and NSW, where warmer than average winter temperatures may have contributed to increased pest populations.

Spotting bugs are serious pests of avocados and are difficult to manage. And while the damage does not affect a large volume of flesh, it is unappealing to consumers, particularly when severe.

More information

For up-to-date retail quality data, and more in-depth analysis, visit the Avocados Australia Best Practice Resource (BPR) at <u>avocado.org.au/bestpractice-resource/</u>, go to the 'Retail' tab, and select 'Retail Quality'. Maturity monitoring results are also available on the Best Practice Resource under the 'Packhouse' tab, followed by 'Maturity'. To go to the BPR from your mobile phone use the QR code provided.



For further details, please contact Adam Goldwater at Applied Horticultural Research (AHR) <u>adam.goldwater@ahr.com.au</u> or Anne Larard at Avocados Australia (AAL) <u>idm@avocado.org.au</u>.

Acknowledgements

ASCHIER

The project *Monitoring Avocado Supply Chain Quality* (AV22011) has been funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government.

Hort AVOCADO Innovation FUND



Stones in the flesh caused by spotting bugs.



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LISMORE ENGINEERING

Tracebacks are the answer to improving fruit quality

By John Agnew, Queensland Department of Agriculture and Fisheries

The new *Monitoring avocado supply chain quality project* (AV22011) aims to achieve a 10% increase in the proportion of retail fruit meeting the industry standard of at least 90% with less than 10% internal defects. To meet this goal the project is firstly measuring and communicating to industry the fruit quality on retail shelves and intercepted in the supply chain at ripener distribution centres. Applied Horticultural Research (AHR) will collect a minimum of 600 samples per year from retail displays in Sydney, Melbourne, Brisbane and Perth. The Queensland Department of Agriculture and Fisheries (QDAF) will monitor approximately 75 supply chains per year from North Queensland, Central Queensland, South East Queensland, Central NSW, the Tristate region and Western Australia.

Where fruit quality falls below the industry standard, QDAF is following-up with packers and growers to investigate the root causes. These investigations or "tracebacks" were used in the recently completed AV18000 project to reveal the top three causes of poor quality as being:

- ineffectiveness of in-field disease control programs (missed sprays & poor coverage)
- poor health of trees (Phytophthora)
- · impacts from unfavourable weather

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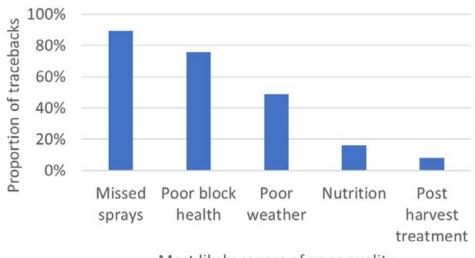
Nutritional imbalances in fruit (e.g., nitrogen/calcium) and lack of or ineffective post harvest fungicide treatments were also identified.

The AV22011 project team have been formulating new ideas to improve the process for undertaking tracebacks. To conduct the investigation in a logical and repeatable way, traceback information will be recorded on a custom spreadsheet. A confidential report will be generated and provided to the packer/grower, summarising the root causes identified, investigative steps taken, and suggested recommendations.

Approximately 50 tracebacks per year are expected to be undertaken with collaborating Australian packers.

Currently, tracebacks are triggered by:

- Supply chain assessment results where a packer has at least half of all their monitoring samples with results below the industry standard (90% of fruit with less than 10% internal quality defects, excluding bruising).
- Retail quality monitoring when the packer has a minimum of 2 samples below the quality standard.



Most likely causes of poor quality

Figure 1. The root causes of poor fruit quality identified through 46 traceback investigations within AV18000 project.

Triggers will be reviewed at stages throughout the project to ensure we are not missing any opportunities for discovery and improvement.

Once the most likely root cause/s of poor quality are identified, some actions to remedy the situation may be possible. The main issue identified through the AV18000 tracebacks was missed sprays and while the amount and duration of unpredicted rain is beyond control, some actions for growers to take include:

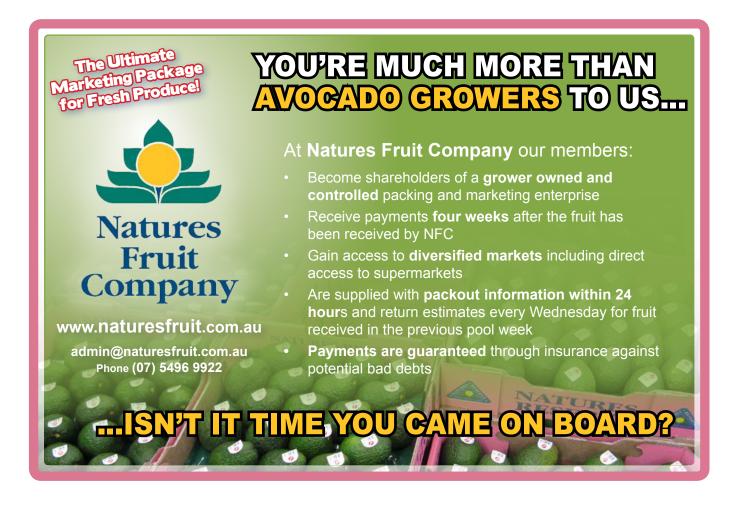
- Plan when you are likely to apply your sprays each year,
- Monitor rainfall forecasts to time those sprays,
- Ensure that sufficient labour is available to spray when needed,
- Ensure spray machinery can cover the required orchard in a timely manner, and
- Undertake annual sprayer coverage and calibration checks.

For further information on supply chain quality monitoring email Anne Larard from Avocados Australia at *idm@avocado.org.au* or John Agnew from the Queensland Department of Agriculture and Fisheries at *john.agnew@daf.qld.gov.au*.

Acknowledgements

The new project *Monitoring avocado supply chain quality* (AV22011) managed by Avocados Australia, has been funded by Hort Innovation, using the avocado research and development levy, and co-investment from Avocados Australia, Applied Horticultural Research, the Queensland Department of Agriculture and Fisheries, the Western Australia Department of Primary Industries and Regional Development, and contributions from the Australian Government. Rudge Produce Systems is a key project collaborator.





Quality avocado plants for the orchard industry

By Jess Fleming, Fleming's Nurseries Queensland

Over recent years there has been significant improvements in the availability of avocado trees for commercial plantings. The days of having to wait several years for nurseries to be able to fulfill orders are hopefully forever behind us. Improved availability also affords growers the benefit of increased choice of production method, allowing more consideration of what is right for each specific situation.

The following outlines and compares production methods with the aim of improving grower awareness when considering what to order.

Seedling rootstocks

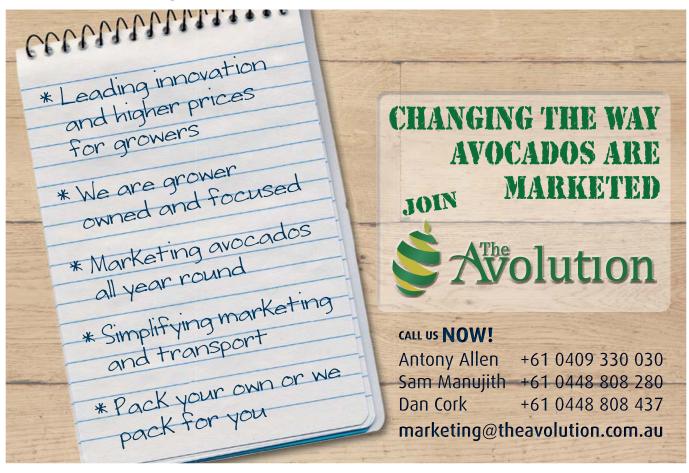
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This is the traditional and most basic propagation method for nurseries to produce trees. Avocado seeds are germinated, and the preferred variety is grafted directly to the seedlings.

The advantages of this method of production are largely price driven. This method is the cheapest and easiest for nurseries,



New generation trees - 'Hass' grafted on BW2 tissue cultured rootstock in Pioneer pots ready for delivery to orchard.



which is generally reflected in the sale price of the tree.

The disadvantage of this method is the lack of uniformity in the orchard. Each rootstock is genetically different, which will impact the performance of the tree in the orchard. Typical variation includes vigour, size, disease resistance and tolerance of environmental conditions.

Clonal rootstocks

This refers to rootstocks that are all genetically the same and have known characteristics. Production of these rootstocks is a complex process for nurseries. "Nurse" seeds are germinated and then grafted with the desired rootstock. Once this graft has taken the plants are moved to a warm, dark room for a period to encourage the graft to grow and be preconditioned for rooting. The graft is then treated, and potting media placed around the treated area to enable root development. Once roots are formed the seedling part of the plant is removed. The remaining and new plant is now the clonal rootstock and can be grafted with the desired variety.

Clonal rootstocks offer several benefits for growers, the most



Traditional avocado production - 'Hass' grafted on seedling grown 'Zutano' in 5L bags.

significant being uniformity. When using clonal rootstocks growers should expect consistent performance of trees across the field. Trees should exhibit similar size, shape, and growth rate.

The second important benefit is that the tolerances of clonal rootstocks are generally known, so rootstocks can be selected to address the needs of the specific orchard. These characteristics might include tolerances to factors such as pH, salinity, pests, and diseases. Tree size and yield efficiency can also be influenced by rootstock, further adding to the advantage of clonal rootstocks.

For nurseries this method of production is more labour intensive, takes additional resources and requires a longer time frame. For these reasons trees grafted onto clonal rootstocks are typically more expensive to purchase than the same variety grafted onto a seedling rootstock.

New generation clonal rootstock production

The most recent development in avocado tree propagation is the ability to produce clonal rootstocks from tissue culture. Tiny tissue cultured plantlets of the rootstock are produced under sterile conditions in a laboratory. Once they resemble miniature avocado trees they are removed from the laboratory and gradually acclimatised to the external environment, until they are large enough to be grafted with the specified variety.

Australian growers are fortunate to be amongst the first in the world able to access clonal rootstocks produced from tissue culture.

In addition to the previously discussed advantages of clonal rootstocks this method has the further benefit of reducing the likelihood of disease. Given the sterile laboratory environment and soil-less media Phytophthora, fungal and bacterial pathogens are not present in tissue culture laboratories.

From a cost perspective, the infrastructure and the research investment in this process is significant. Each clone requires a unique tissue protocol to be developed and tested. Tissue



Grafting avocado.



Newly grafted avocado.



Traditional clonal avocado rootstock production using nurse seed.

Culture Lab Manager and Head Researcher at Fleming's Nurseries Qld, Dr Ramezan (Reza) Rezazadeh has developed protocols for a range of avocado rootstocks. Reza says, "Time is the critical element in establishing commercial tissue culture protocols for avocado rootstocks. Each step of the process takes time to get right and to consistently produce well-formed, quality plants. This is more true for avocado than many other plants."

While tissue cultured avocado rootstocks should be considered a superior product and as such demand a premium price, it seems that nurseries, at least for the moment, are retaining a competitive pricing strategy for this new methodology.

In discussions about tissue culture the topic of root systems is often raised, typically with an element of concern that tissue culture generates plants that lack tap roots. Avocado production nurseries are quick to point out that no clonal rootstocks have tap roots and that this should not be a concern. Those who handle tissue cultured plants are firmly of the belief that well planted, and well managed tissue cultured rootstocks will develop a superior root system that will help the orchard cope with periods of stress, including wind.

Pioneer Pots

Another factor for growers to consider is the type of container they choose to purchase their trees in. Historically the default has been to use plastic bags that could then be re-purposed as protective guards around the tree. While these seem to be cost effective and at least for a short time can provide some additional value, there are increasing questions about the structure of the root systems that are produced in plastic bags.

Once a tree is planted in the orchard it is critical for new roots to be produced in the site soil. These roots serve to anchor the tree in the ground and should radiate from the tree out into the soil. More often than not, roots produced in plastic bags circle around the internal perimeter of the bag and without intervention at planting will never be able to establish fully into the orchard soil. As these circling roots increase in diameter, they gradually strangle the tree and can cause tree blow-over, stunting, or premature tree failure.

A new system of pots is addressing this issue in an impressive manner. Called Pioneer[™] pots or FPS, these pots offer an air-pruning system that virtually eliminates circling roots. As roots reach the edge of the container they are exposed to air, which "prunes" the growing tip and encourages further branching inside the pot. When the trees are planted from these pots, there are hundreds of root tips ready to grow into the site soil, providing a more vigorous and faster establishing tree. Pioneer[™] pots are suitable for seedling and clonal production methods but are recommended whenever tissue cultured rootstocks are used. It appears the only downside of these pots is that freight will likely be more expensive as fewer pots fit on a pallet, compared to conventional bags.

Conclusion

Growers today have an unprecedented access to quality avocado trees. In recent years, propagation methods have taken a quantum leap forward, allowing increased availability of clonally produced rootstocks. Nurseries now also have access to state-of-the-art production systems and containers that further improves tree quality through better root systems.

For the first time, Australian growers can truly specify plants that best suit their individual orchard requirements.





Tissue culture rootstock production in sterile laboratory environment.



Grafted tissue cultured avocado rootstock.



Top: Avocado root system from 5L bag. Above: Avocado root system from Pioneer pot.

Snapshots – International Avocado Research Update

This series of research snapshots is compiled from abstracts of published scientific papers accessed through CAB Direct as well as Google Scholar searches. Dates provided reflect the date research was published.

Air temperature as a key indicator of avocado (cvs. Fuerte, Zutano, Hass) maturation time in Mediterranean climate areas: the case of Western Crete in Greece. Greece (2023):

Tzatzani, T. T.; Morianou, G.; Tül, S.; Kourgialas, N. N.

The growth and maturation of avocados are influenced by various environmental and climatic factors. Temperature is one of the most critical factors, as it plays a significant role in various physiological processes of this fruit. This study aimed to investigate the effect of air temperature on avocado development and assess the harvest maturity period (determined by the dry matter content) of Fuerte, Zutano, and Hass, the most common avocado varieties, grown in Western Crete, Greece. The results of this study revealed that dry matter concentration can be affected by both very high summer temperatures and low temperatures during the ripening period. Specifically, high temperatures during the summer months can have a significant impact on avocado development and result in a reduced dry matter concentration. Low temperatures during the maturation stage can slow down enzymatic activity and metabolic processes, resulting in delayed ripening and a prolonged time to reach optimal maturity. This delay in maturation and reduced dry matter concentration can significantly affect the harvest timing, as growers may need to wait for the avocados to develop the desired characteristics before they can be harvested. Our findings are the first data on avocado maturation (dry matter concentration) in relation to temperature and provide valuable insights into harvest maturity period of avocado cultivation in Crete and other regions with similar Mediterranean climatic conditions.

Read the paper here: https://bit.ly/46bWoRe

Automated detection of internal fruit rot in Hass avocado via deep learning-based semantic segmentation of X-ray images. Japan (2023):

Matsui, T.; Sugimori, H.; Koseki, S.; Koyama, K.

Internal rot of avocado fruit, *Persea americana*, attributable to fungal infection, occurs at the end of the ripening process and causes only minor changes in the appearance and texture of the fruit surface. Manual inspection of rot by sight and touch commonly conducted in countries importing avocado

fruit is time-consuming, labor-intensive, and subjective. In this context, X-ray line scanning has been proven as an advantageous method of fruit rot detection because of its speed of data acquisition and the indication of internal rot by bright regions in associated images. However, some fruit internal disorders exhibit only poor changes in contrast, resulting in low detectability by traditional image processing. This study aimed to test the effectiveness of a detection model using deep learning-based semantic segmentation in identifying two types of fruit rot, stem-end and body rot, in Hass avocados. Each X-ray image was binarily classified based on either the presence or absence of internal fruit rots, achieving an accuracy of 0.98. Furthermore, the percentage of infected area was quantified with a root mean squared error (RMSE) of 3.15%. Lastly, the proposed model detected both stem-end and body rot as well as rot along low-contrast fruit edges. The results of this study indicate that the proposed automatic inspection system using deep learning-based X-ray image analysis can effectively detect internal rot in Hass avocado fruit. This non-destructive, objective detection model can therefore increase efficiency and reduce misclassification in post-harvest avocado inspection. Furthermore, deep learning-based X-ray imaging has potential for applications in fruit inspection for internal cavities attributable to diseases or wounds.

Read the paper here: https://bit.ly/3ZsXbuw

Predicting the ripening time of 'Hass' and 'Shepard' avocado fruit by hyperspectral imaging China (2023):

Han YiFei; Bai, S. H.; Trueman, S. J.; Khoshelham, K.; Kämper, W.

Predicting the ripening time of avocado fruit accurately could improve fruit storage and decrease food waste. No reasonable method exists for predicting the postharvest ripening time of avocado fruit during transport, storage or retail display. Here, a range of hyperspectral imaging was applied to 316 'Hass' and 160 'Shepard' mature, unripe avocado fruit to predict how many days it took for individual fruit to become ripe. Three models were developed using partial least squares regression (PLSR), deep convolutional neural network (DCNN) regression and DCNN classification. The prediction accuracies and RMSEs from DCNN classification models, respectively, were 67.28% and 1.52 days for 'Hass' and 64.06% and 1.03 days for 'Shepard'. Our study demonstrates that the spectral reflectance of the skin of mature, unripe 'Hass' and 'Shepard' fruit provides adequate information to predict ripening time and, thus, has the potential to improve postharvest processing and reduce postharvest losses of avocado fruit.

Read the paper here: <u>https://bit.ly/3ZsgiVH</u>

Hyperspectral imaging of adaxial and abaxial leaf surfaces for rapid assessment of foliar nutrient concentrations in hass avocado Australia (2023)

Hapuarachchi, N. S.; Trueman, S. J.; Kämper, W.; Farrar, M. B.; Wallace, H. M.; Nichols, J.; Bai, S. H.

Rapid assessment tools are required for monitoring crop nutrient status and managing fertiliser applications in real time. Hyperspectral imaging has emerged as a promising assessment tool to manage crop nutrition. This study aimed to determine the potential of hyperspectral imaging for predicting foliar nutrient concentrations in avocado trees and establish whether imaging different sides of the leaves affects prediction accuracy. Hyperspectral images (400-1000 nm) were taken of both surfaces of leaves collected from Hass avocado trees 0, 6, 10 and 28 weeks after peak anthesis. Partial least squares regression (PLSR) models were developed to predict mineral nutrient concentrations using images from (a) abaxial surfaces, (b) adaxial surfaces and (c) combined images of both leaf surfaces. Modelling successfully predicted foliar nitrogen, phosphorus, aluminium, boron, calcium, copper, iron, magnesium, manganese and zinc concentrations from either the abaxial or adaxial surface. Foliar potassium concentrations were predicted successfully only from the adaxial surface. Foliar sodium concentrations were predicted successfully only from the combined images of both surfaces.

In conclusion, hyperspectral imaging showed great potential as a rapid assessment tool for monitoring the crop nutrition status of avocado trees, with adaxial surfaces being the most useful for predicting foliar nutrient concentrations.

Read the paper here: https://bit.ly/3Pppu8U

Testing chemical priming with sodium hydrosulfide in commercial avocado (*Persea americana* Mill. 'Hass') orchards for improving the response to chilling conditions Israel (2023)

Tiwari, V.; Kamara, I.; Yadav, D.; Irihimovitch, V.; Charuvi, D

The ongoing climate changes are bringing on more frequent and more extreme weather conditions, among which are frost events. Radiation frosts are characterized by sub-zero temperatures at night/dawn followed by high light during the following clear-sky day. The sequential combination of frost and high radiation conditions can result in substantial damage to sub/tropical plant species. The avocado cultivar 'Hass', which is the most popular and sought-after in the world, is cold-sensitive. There are several means for dealing with frost in orchards, e.g., overhead sprinklers or large fans, but not all are practical at every site. Chemical priming, which can improve plants' coping with various biotic or abiotic stresses, may provide an alternative way for dealing with chilling and frost conditions. Earlier, we found that

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priming young potted 'Hass' trees with sodium hydrosulfide (NaHS) prior to their exposure to simulated frost conditions improved their response to frost. The primed trees exhibited reduced inhibition of CO assimilation, less photoinhibition, a better non-photochemical quenching capacity, and a lower accumulation of hydrogen peroxide in their leaves, compared to untreated trees. In this paper, we describe our trials of priming 'Hass' avocado trees with NaHS in commercial orchards. We found that following natural chilling temperatures (1-2°C) in the orchard, primed mature trees had reduced inhibition of photosynthetic assimilation and stomatal conductance, which may last for several days after the treatment. These results are promising, yet the effect of priming still needs to be tested at natural frost conditions.

Find paper access information at: https://bit.ly/46bWyIk

Induced defense in avocado fruits mediated by secondary metabolites produced by *Bacillus atrophaeus* **B5.** Mexico (2023)

Bañuelos-González, M. del C.; Cuéllar-Torres, E. A.; López-García, U. M.; Montalvo-González, E.; Ortiz-Basurto, R. I.; Aguilera-Aguirre, S.; Chacón-López, A.

Biocontrol agents are an environmentally friendly alternative to chemical pesticides against phytopathogens. The effectiveness of metabolites produced by Bacillus atrophaeus B5 for controlling anthracnose produced by Colletotrichum gloeosporioides in harvested fruit and the possible action mechanisms have been studied. Avocado fruit treated with metabolites reduced 54% of anthracnose incidence and nearly 70% of the lesion than untreated fruit. The treatment enhanced the activities of peroxidase, polyphenol oxidase, and phenylalanine ammonia-lyase. Additionally, the transcription of PAL and EIN3-like genes related to defense were increased. These results suggest that metabolites produced by *B. atrophaeus* B5 enhance disease resistance against *C.* gloeosporioides in avocado fruit. In the fruit, the induced resistance is related to the defense responses. Metabolites in the cell-free supernatant could also be a potential biological preservative for avocado protection.

Read the paper here: https://bit.ly/44YxvY8

eDNA metabarcoding of avocado flowers: 'hass' it got potential to survey arthropods in food production systems? Australia (2023)

Kestel, J. H.; Bateman, P. W.; Field, D. L.; White, N. E.; Lines, R.; Nevill, P.

In the face of global biodiversity declines, surveys of beneficial and antagonistic arthropod diversity as well as the ecological services that they provide are increasingly important in both natural and agro-ecosystems. Conventional survey methods used to monitor these communities often require extensive taxonomic expertise and are time-intensive, potentially limiting their application in industries such as agriculture, where arthropods often play a critical role in productivity (e.g. pollinators, pests and predators). Environmental DNA (eDNA) metabarcoding of a novel substrate, crop flowers, may offer an accurate and high throughput alternative to aid in the detection of these managed and unmanaged taxa. Here, we compared the arthropod communities detected with eDNA metabarcoding of flowers, from an agricultural Persea americana' Hass' avocado), with two conventional survey techniques: digital video recording (DVR) devices and pan traps. In total, 80 eDNA flower samples, 96 h of DVRs and 48 pan trap samples were collected. Across the three methods, 49 arthropod families were identified, of which 12 were unique to the eDNA dataset. Environmental DNA metabarcoding from flowers revealed potential arthropod pollinators, as well as plant pests and parasites. Alpha diversity levels did not differ across the three survey methods although taxonomic composition varied significantly, with only 12% of arthropod families found to be common across all three methods. eDNA metabarcoding of flowers has the potential to revolutionize the way arthropod communities are monitored in natural and agro-ecosystems, potentially detecting the response of pollinators and pests to climate change, diseases, habitat loss and other disturbances.

Read the paper here: https://bit.ly/48lsbkm



INTERNATIONAL NEWS

Global Market Overview for avocados



According to a recent Fresh Plaza article published on 8 September 2023, avocados remain "ever popular", but they say consumers in some countries may have to pay extra for their fruit, according to their reports from some markets. Here is Fresh Plaza's "Global Market Overview for avocados":

In the Netherlands, El Niño's impact on Peruvian exports has resulted in lower volumes, making the transition to winter origins more challenging. France grapples with less dynamic consumption and high prices due to inflation and reduced production in Peru, while Italy follows European trends in avocado size and experiences a drop in prices. Spain faces a severe production decline of up to 60% in Malaga due to water shortages and drought, forcing increased imports.

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South Africa exports to China, and North America enjoys good avocado supplies with moderating prices. Finally, Brazil emerges as an emerging avocado export power, witnessing significant growth in exports and poised to make a significant mark in the global fruit market.

Netherlands: El Niño affects Peruvian export volumes

After a period of high volumes from Peru, the El Niño effect is now causing lower volumes from the country. As a result, the transition to the traditional winter origins is a little more difficult than last year. However, according to importers, consumer purchases are now increasing from the end of September, a good market with firm prices is therefore expected.

Germany: Good sales despite holidays

A wholesaler from southern Germany sources his avocados from an international company that specializes in this product segment and sources Hass avocados from Peru, Mexico and Israel, among others.

Despite the summer holidays, sales are at a stable level. In general, demand for and sales of avocados remained constant throughout the year. Price fluctuations were limited. Besides that, he notices a trend towards ready-to-eat products. Therefore, sales for unripened avocados have dropped.

France: Less dynamic consumption and high prices

Currently on the French market are Kenyan avocados and mainly Peruvian avocados, which are gradually coming to the end of their season. On the market side, consumption is not very dynamic this September, due to the back-to-school period, but also the high fruit and vegetable prices affected by inflation. These already high prices are compounded by a lack of production in Peru, making avocados even more expensive than usual. Spanish avocados will be back in October with Bacon and Fuerte. Hass will arrive in November.

Italy: Italian market follows European trends in avocado size

Significant quantities of avocados entering Europe were recorded in August. The predominant origin entering Italy from June to the end of September remains Peru, with the Hass variety. Sizes are concentrated on 10/12/14/16 [editors note: different pack size than Australia]. The price trend is around 25% lower than last year, due to quality problems and increased volumes. The average selling price is between €7 (size 10/12) and €8 (size 14/16/18). The Italian market, which has always been oriented towards the larger sizes (10/12), is now following European trends.

Volumes from Peru are currently down by 20% and an early end to the season is expected at the end of September. The El Niño phenomenon and severe flooding last February have severely damaged production. The Israel season is late, while Spain will not have large quantities in the fall, or rather late fall. Similarly, volumes are expected from Morocco and Portugal.

For green-skinned avocados, the available varieties are Pinkerton from South Africa (poor quality) and Kenya (better quality). There are also limited quantities of the Ryan variety from South Africa and Nabal from Peru, but they have little market in Italy. The first Ettinger avocados from Israel are expected soon.

Spain: Drop of up 60% production in Malaga

The avocado season is about to start in the South of Spain with the green varieties first. Due to the water shortage, avocado production is expected to fall dramatically by around 60% in Malaga, the main producing area in Spain. This drastic decrease in production will cause losses of millions this season. The situation of the subtropical crops on the coast of Granada is also catastrophic due to drought. Many irrigation wells have dried up and others have excessively high chloride and sodium level. Granada expects a 70% drop in the avocado production.

A large part of the avocado trees bear few leaves, which are yellowish and withered. The fruits fall to the ground or have stunted growth. Since there's a reduced harvest, the quality of avocado seems to be high. However, since the production is so low, Spanish companies will have to import more product this year. As a result of this situation and the drought, many producers are not making profits and could stop growing avocados.

South Africa: Enter Chinese market

This year South Africa is estimated to have exported 18 million 4kg cartons (72,000 tonnes), well up on last year as new plantings come to bear.

In August 2023 it was reported that fresh South African avocados were granted access to the Chinese market. The export agreement was signed by South Africa's Minister of Agriculture, Land Reform and Rural Development Thoko Didiza and the Chinese Minister of Foreign Affairs Wang Yi.

According to market analyst AMT, the current local market price average is R16.50/kg (0.8 euro/kg). At the Johannesburg fresh produce market the average price for a 4kg tray is R19.40 (0.9 euro).

For many years the industry felt itself stifled by its limited markets – Europe, UK and the Middle East to a lesser degree – where South African volumes are dwarfed by Peru's peak supplies. The news of China opening for South African avocados was a relief for the avocado industry.

New Zealand: Focus on Asian markets

The avocado season for New Zealand fruit has a challenging outlook this year, in view of the strong supply in Australia likely to deliver challenging prices in that market. The fruit quality looks excellent across Australia and New Zealand and the marketers have turned their attention to the Asian

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markets. These markets have recently experienced challenging quality from South American suppliers, delivering low returns and a lot of headaches. As a result, there has been a good increase in demand for quality fruit.

North America: Prices moderating on avocados

Supplies of avocados are good as regions are shifting in their levels of supply. "Mexico is harvesting daily and that's good," says one shipper. "Supply is improving daily and their seasonal curve is also improving to give a better mix of sizes."

He says that California production is tapering off with only a few more weeks left in the season. "Also, Peru shipments will go through September but they're starting to taper off as well." Into the fall, Colombia will also be shipping as their season gets underway in October-November.

Demand is currently good, with various holiday bumps in demand. Last

weekend's Labor Day saw good demand for example.

As for pricing, higher pricing has been seen through the summer months. "However prices on larger sizes are moderating and I think we'll have a really good mix of sizes and a lot of promotable sizes too," he says. "Pricing and supply will come into balance and give a steady flow of fruit. Everything looks good to have a well-supplied fall and winter."

Brazil: A still very unknown export power in avocado

At the end of August, the Brazilian country manager of the International Fresh Produce Association (IFPA), within the framework of The Brazil Conference, made clear the role that Brazil could acquire in the global fruit market.

"One of the country's objectives is to grow in exports; both in destinations, since there are many options for opening new markets, and in products. In fact, one of the products in which Brazil is an export powerhouse but which has not yet been developed is avocado. We are currently working on it." And the 2023 export figures corroborate this.

In the first half of the year, avocados have become the sixth most exported Brazilian fruit - only behind lemons and limes, melons, mangoes, canned fruit and grapes - with an interannual growth of 153%. of the value and 175% on the volume shipped. "These figures are important, and it is also important to note that the lowest period for exports has occurred in the period, since when they are strong it is from August to December," said the professional, foreseeing another significant increase in this second half of the year.

Source: Fresh Plaza

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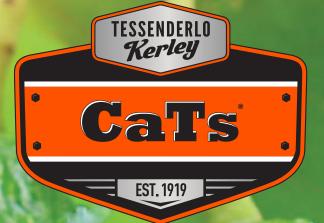
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