Nango Mallers



Marketing program overview

PAGE 12

Planting systems trial prepares for 7th harvest knowledge

PAGE 20

Pre-season roadshows

PAGE 28







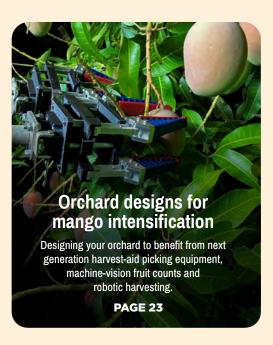
The new generation MGX Series range delivers class leading power and reliability while reducing environmental impact. With one of the largest cabs in its class, the premium MGX range offers unmatched operator comfort and visibility. Built for maximum power and torque output with intelligent technology, the MGX series is equipped to efficiently handle the most demanding jobs in the field or farm.



Airpower Sales

880 Stuart Highway Pinelands | 8939 0250 info@airpower.com.au | airpower.com.au





Want to contribute?

If you would like to submit pictures and story ideas to AMIA, or provide feedback, please contact the AMIA team via the details listed on this page.

Australian Mango Industry Association (AMIA) Contact Details

Office Address: Unit 2, The Fresh Centre, Brisbane Markets Postal Address: PO Box 376, Brisbane Markets QLD 4106

Phone: 07 3278 3755 Fax: 07 3278 4761 Email: com@mangoes.net.au

Australian Mangoes: www.mangoes.net.au AMIA: www.industry.mangoes.net.au

Mango Matters has been funded by Hort Innovation, using the mango research and development levy and contributions from the Australian Government. Hort Innovation is the growerowned, not-for-profit research and development corporation for Australian horticulture.

Disclaimer: This publication is produced upon the understanding that no responsibility is accepted by AMIA, its directors and officers and the editor for any opinions, claims or statements made and views expressed in any edition of *Mango Matters* and associated material (for example Conference Proceedings, Industry Reports). Readers should rely on their own enquiries when making decisions concerning their interests. All material in the magazine is copyright. Reproduction in whole or part is not permitted without the written permission of the editor.









Contents

- CEO's & Chairman's Reports
- 6 Directors' Reports

8 AMIA & Industry News

Mango Fund Annual Report | 8

Export visits | 8

Varroa mite update | 8

Strategic Agrichemical Review Process (SARP) updates | 8

New faces at Hort Innovation | 9

Chemical updates | 10

Success for Australian Mangoes in export market access applications | 11

12 PR & Marketing

Marketing program overview | 12

Supply Chain Engagement—Retail update | 13

16 Biosecurity, Research & Policy

A tool we now couldn't see our operation operate without | 16

AS18000 program accelerates new knowledge in intensification of mango orchards | 18

Planting systems trial prepares for 7th harvest | 20

Water efficiency project kicks off across NT&WA | 22

Orchard designs for mango intensification | 23

On-farm testing of plant water sensing in mangoes | 24

25 People & Events

Out and about: mango field day | 25

Japanese students living and working the North Queensland way 26

Pre-season roadshows | 28

R2E2 40th Anniversary | 31

Hort Connections 2023 | 31

CEO'S REPORT

Brett Kelly

Chief Executive Officer, AMIA E: ceo@mangoes.net.au M: 0437 435 363



At the time of writing this update the season is in full swing. Volumes are showing to be collectively up on last year and consumer demand is strong. Retailer feedback on quality overall has been positive. Labour has again been a challenge for our growers (and in all of the horticulture sector) throughout the season, though most growers I have spoken to have planned well ahead and are working well with each other.

The weather as always has played its part in harvest timing and quality outcomes in some regions. The mango marketing campaign and PR exposure for our industry this season has shown good penetration and uptake with consumers. I will update you on all statistics when they are finalised and available.

Remember concentrating on having the best quality fruit will always give you a competitive edge in the long run with the consumer and over your competitors. Supply, demand, negotiation, and timing of volumes with accurate forecasting again played a key role in determining returns this season.

All pre-season regional roadshows have now been completed. Thank you to all our growers and industry stakeholders for such great attendance and presentations which made the roadshows a great success. It is always so good to be able to catch up face to face for a chat with all stakeholders.

The industry SIP (Strategic Investment Plan) projects- Best Practice/Extension (MG21002), Communications (MG21001) and Supply Chain Engagement (MG22500) funded through the levies and as determined by your SIAP

"Supply, demand, negotiation, and timing of volumes with accurate forecasting again played a key role in determining returns this season."

- BRETT KELLY



Martina Matzner, Professor Kerry Walsh and Brett Kelly at the Rockhampton Roadshow, hosted at Groves Grown farm.

(Strategic Industry Advisory Panel) that are contracted to the AMIA are well on target, with all the required contractual KPI's (Key Performance Indicators) and milestones being met on time.

The AMIA team continues to focus on all key areas as per the project contracts through Hort Innovation for our industry. The AMIA website as well as the communications that go out regularly to industry are full of the latest updates, news and industry information across all aspects of the mango industry for your use. Please feel free to contact any of the AMIA team if you have any queries that we may be able to help you with.

The Internal Strategic AMIA Plan is also on target for all key focuses of our industry. We need to be proactive, not reactive to changing market conditions so that we can adapt and overcome each hurdle as it presents itself. Planning well ahead and setting up your strategy in terms of clarifying

your chosen channels to market you are supplying to, are key components

Please make use of the Cost of Production template that is available to AMIA members. This is the very first step in understanding your business overhead/running costs to help set your strategy and chosen channel to market. The AMIA site now has a member only section where you can access the Cost of Production template and soon there will be a Strategic Business Plan and Draft Contract template available to members. We are also continuing to work on potential opportunities and options for those grower members looking to explore forming collective groups such as co-operatives to achieve a better position in cost efficiencies and overall negotiation with channels to market.

I wish all our growers and industry stakeholders a great festive season. I look forward to catching up with you all on upcoming grower visits.

CHAIRMAN'S REPORT

Ben Martin

Chairman, AMIA E: ben@martosmangoes.com.au M: 0400 125 928



"It is imperative that markets continue to be developed to cope with production levels of both now and the future. Our industry needs both national and export markets to ensure sustainability for the present and the future."

- BEN MARTIN

The 2022 year produced good market results for some growing regions, however it also produced disappointment with low returns for others. The initial strong market returns soon came under pressure as production increased.

In speaking with growers across a number of regions it is disappointing to hear that in many cases, the market returns were below base production costs.

The export market remains weaker than the pre-COVID era, mainly due to transport logistics and costs.

Our mango industry continues to be in a growth phase with plantings and production volumes increasing across most regions.

It is imperative that markets continue to be developed to cope with production

levels of both now and the future. Our industry needs both national and export markets to ensure sustainability for the present and the future. I recognise that all growers are not involved directly with the export area, however all growers will benefit from a strong export industry as it will relieve the pressure on our national markets which will ultimately benefit all growers.

I have been relaying this position to the Federal Department of Agriculture as well as Hort Innovation and our industry needs to ramp up this dialogue to ensure the relevance and importance of broader and improved market access opportunities.

The issues with fruit quality resulting from both pre- and post- harvest diseases this season has highlighted the importance of continuing the research and development program for our industry. Weather and other factors

have resulted in an increase of disease pressures leading to a reduced shelf life of mangoes this year with all fruit losses impacting directly grower returns.

A celebration of the 40th anniversary of the R2E2 mango was held at the Bowen Research Station in December. A number of industry representatives attended, including lan Bally from the Mareeba Research Centre. Ian was instrumental in the breeding program of this variety in Bowen 40 years ago.

I remind growers to be astute across all aspects of our industry and work with The Australian Mango Industry Association to achieve improved business outcomes in the 2023 year.



DIRECTORS' REPORTS

"Let's not lose sight of the fact that mangoes are an amazing fruit which people love and there is still lots of room in strategic growth nationally and internationally."

- MITCHAEL CURTIS

Northern Territory & Northern Western Australia





Mitchael Curtis
M: 0438 503 158
E: mitchael@me.com

Wow! The 2022 mango season in the Katherine region was difficult. Most growers had a good crop. This was welcomed by KP growers as the last 2 seasons for most were down.

The main crop was a bit later than the past few years - starting around the last week of October, and as we got into November the rain started. Normally in Katherine we will get 1 or 2 storms in the season, but this year there was regular rain causing problems with our quality and stopping harvesting faster than we would have liked, causing us to lose fruit.

Most growers I spoke to had the same difficulty and had fruit left in the orchard that they would normally have picked. Towards the end of our season, we were clashing with the Queensland growers which was putting a lot of supply into the markets driving down the price. Quality fruit that was nutritionally rich and did not have much shrinkage still got a reasonable price for most of the Katherine season. We packed fruit for other growers and the growers that did not have their nutrition right really got hurt, as the fruit broke down much faster with the difficulties of the rain this year. Quality is very important if we want to achieve the best outcome, and it is something we do have control over- unlike the weather, market and inflation.

It was sad to hear from growers that picked into December that they stopped harvesting because the price had dropped below the cost of harvest. It's a very disappointing outcome to have to make that sort of decision.

Now looking forward to 2023, most of the things that occurred in 2022 were outside of our control and do not necessarily happen each year: the clash of regions is not normal and statistically should not be a problem again in 2023, and it was unusual for our region to get so much rain as the Indian Ocean Dipole was not in our favour causing early rain. I am also hearing that there are signs of inflation slowing.

So, in true farmer talk, 2023 should be a better year! Let's not lose sight of the fact that mangoes are an amazing fruit which people love and there is still lots of room in strategic growth nationally and internationally. Even though this year was very hard for growers I did have some very excited consumers contact me because they were able to enjoy so many mangoes this season due to the price point. Sad for us at the low prices, but it does show Aussies love our product and hopefully the people who had never enjoyed a mango before and tried them this year have now become mango lovers.



Leo Skliros M: 0407 919 942 E: sklirosleo@gmail.com

Another challenging year for the industry. The Darwin region kicked off with great fruit & prices for a small number of early growers.

As more farms moved into harvest, the labour shortages became more and more evident, further delaying harvest volumes.

As we approached peak harvest, there was rain, rain and more rain, leaving farms scrambling to recover some of their highly increased expenses.

Hopefully other regions fair better. Wishing everyone a Merry Christmas and a Happy and Prosperous New Year ahead.



Geoff Warnock M: 0438 884 842 E: gullivers@wn.com.au

The initial flowering for the season started early June but was very patchy, with the bulk of the flowering occurring in August and it appeared that the region would be having a considerably better crop than the previous couple of years.

However, we all should understand by now that we can't control nature. Early September we had 3 nights of hot winds, and this destroyed a lot of the August flowering.

The fruit from the June/July flowerings resulted in good fruit well-formed and clean.

The later fruit was not in the same class as it was affected by the unseasonal weather conditions creating problems such as Stem End Rot etc.

Some growers had good production and favourable returns, but later growers had to deal with adverse weather conditions, labour shortages, transport availability, and lower market prices.

Growers have now completed picking and have started maintenance of their trees for next season.

I wish all Growers and Members of the AMIA an enjoyable Christmas. I hope next year's season brings better results.

Continued page 7

Southern Queensland & New South Wales





Karl Gygar M: 0481 591 470 E: kgygar@gmail.com

At the time of writing, we are experiencing a very difficult season. I strongly recommend growers work with their supply chain partners to ensure a strong sales plan is in place for all fruit before you harvest. Weather is volatile at the moment, and I hope for clear skies for all.

For those taking a break over the holiday period I wish you all the best and for those just starting the season – all the best.

The AMIA continues to work closely with our chain partners to deliver strong marketing campaigns however, without accurate forecasting it becomes very difficult. I therefore finish by asking everyone to update their forecasts.

Far North Queensland & North Queensland





John Nucifora M: 0418 193 885 E: flossndeb@bigpond.com

This year to date has been one of the most challenging years in my time. Due to the regions overlapping, along with high supply, the price was well below the cost of production. We as growers won't be able to sustain this again.

We are now half-way across our North Queensland mango harvest and hope prices will pick up.

Some growers in the Dimbulah, Mutchilba region are into pruning and fertilising for the upcoming season.

In my personal opinion the industry needs much more promotional work with the volumes that we are getting.

I hope all are getting through these tough years.



John Nardi M: 0408 334 266 E: johnn@favcoqld.com.au

At the time of writing, most growers in the Mareeba Region will be well into or just finishing their harvest of early varieties with the exception of few late growers. The season has been difficult to manage so far with the heat bringing fruit on quickly and the volumes heading into the markets resulting in poorer

pricing than we would like or hoped to achieve. The fact that most had big volume crops as well as the overlap between regions has not helped the situation.

Fruit quality from our region has been generally very good from what I have seen to date. While it is disappointing to see the pricing where it is it is difficult to change given the volumes in the markets. Market sales floors are also seeing big volumes of fruit with some struggling to cope with the volumes more than others.

I'm sure most growers also experienced difficulties in sourcing and maintaining staff and while not as difficult as the past two years it still presented challenges. Growers would also be planning for pruning and prepping trees for the next season.

While it is likely to be a disappointing season for most in relation to prices, let's hope we can keep moving forward and we see better results for our late season varieties. Hopefully, we can look forward to a more successful next season.

Southern Western Australia





David MorcombeM: 0414 240 709
E: dw.morcombe@gmail.com

The Carnarvon and Gingin roadshows were great with the AMIA team of Brett, Andrew and Celine having their first visit to the region now that the republic of WA has granted visas, so they are free to come and go. The information and vision for the future presented was well-received. It is good to see that in spite of some turnover of Department staff at the Gascoyne research station they have a new enthusiastic mango researcher, Melanie Ford, who also travelled with the team for farm visits and to the Gingin roadshow.

In Carnarvon the crop is later than normal with the Kensington Prides looking like having a light year.

The southwest has a reasonable fruit set in spite of the cool conditions through spring. Although the bureau has predicted a summer like last year, there is no sign of the damaging heatwaves we had last season.

I think that the AMIA team we have is operating very well. Brett's vision for the development of the industry and ideas to help growers be profitable is invaluable. The team seems productive and professional and will achieve a lot for growers.

In terms of the funding available for the level of organisational capability we currently enjoy it is a little disappointing. As an industry we have a low level of membership which is a problem because levy funding only goes so far, and its distribution is not controlled by AMIA. I strongly urge growers who are not members or those who have lapsed memberships to join or renew. This will help to maintain the services and support we currently receive so we have a better chance of being successful as growers.

AMIA & INDUSTRY NEWS

Mango Fund Annual Report

The Mango Fund Annual Report has now been released. It includes key project information from the year, including grower case studies that dive deeper into levy investments that have made an impact on the ground. Head to https://www.horticulture.com.au/hort-innovation/funding-consultation-and-investing/investment-documents/fund-annual-reports/ to view the document



Export visits

November saw the arrival of representatives from both Japan and South Korea to inspect Vapour Heat Treatment (VHT) facilities in preparation for export. The presence of fruit flies is a major concern to the Japanese and South Korean authorities and all Australian mangoes for export to Japan and South Korea must undergo VHT to mitigate the risk of fruit flies.

The Japanese MAFF (Ministry of Agriculture, Forestry and Fisheries) officer arrived in Australia on November 8 to undertake the pre-clearance inspection of mangoes destined for export into Japan.

As part of our current negotiation with Japan we are looking at having the pre-clearance inspection removed, which would allow more flexibility for VHT facilities and exporters.

Ms Mi Jang from the South Korean Animal and Plant Quarantine Agency (APQA) arrived in Darwin on November 22 and began her inspection at the Caladonia VHT facility in Darwin.

The AMIA worked with the Department of Agriculture, Fisheries and Forestry to coordinate these visits, with AMIA Financial Manager, Linda Bachmann organising the travel arrangements.

Varroa mite update

The Australian Mango Industry Association has continued to play an active role in the national response to Varroa mite as part of the Consultative Committee on Emergency Plant Pests (CCEEP), supporting the NSW Government Emergency Response. The December 9 update showed that there were 106 infected premises in NSW with all confirmed cases either having links to existing cases or being geographically related. There remains a general standstill on all bee and hive movement in NSW. The emergency order specifies the limited conditions under which, if any, movements may occur in each Zone. Registered recreational and commercial beekeepers are permitted to move their hives within low-risk areas of the State, using the Hive Movement Declaration. More information on the situation can be found at: https://www.dpi.nsw.gov. au/emergencies/biosecurity/current-situation/varroa-miteemergency-response

Strategic Agrichemical Review Process (SARP) updates

The Hort Innovation SARP was completed in September. The review process:

- Assesses the importance of the diseases, insects and weeds (plant pests) that can affect a horticultural industry;
- Evaluates the availability and effectiveness of fungicides, insecticides and herbicides (pesticides) to control the plant pests;
- · Determines any gaps in the pest control strategy and
- Identifies suitable new or alternatives pesticides to address the gaps.

Visit https://www.horticulture.com.au/growers/help-your-business-grow/research-reports-publications-fact-sheets-and-more/mt21005/ to view the report.



New faces at Hort Innovation

Sharon Watt - Hort Innovation Industry Communications Project Manager

Sharon was appointed to the role of Industry Communications Project Manager with Hort Innovation in August 2022.

From her base in Adelaide, she collaborates with industry communications project leaders across the nation, including Australian Mango Industry Association Communication Manager, Gabby Taylor.

Each industry communications project plays an important role in communicating the outcomes of Hort Innovation-invested research and development and marketing activities to help build knowledge and inform and influence positive practice change for the benefit of growers, industry and consumers.

Sharon also assists the Hort Innovation communications team and the broader organisation in their efforts to promote and grow the horticultural sector.

Having grown up on a mixed farming property in the Western District of Victoria, her career has been largely in rural-regional journalism and public relations/communications.

She has specialised in providing communication services to a broad range of agribusiness and agricultural organisations.

In her role with Hort Innovation, Sharon is looking forward to meeting and getting to know the many passionate, dedicated and enthusiastic people who work in horticulture across Australia – all committed to producing superior quality products and advancing this incredibly vibrant and innovative sector.

Contact details:

P: 0427 156 285

E: sharon.watt@horticulture.com.au



Sharon Watt.

New board members elected at AGM

The Hort Innovation Annual General Meeting was held in Sydney on November 25, with Jan Vydra re-elected to the board and two new members elected: Elke Cleverdon and Stephen McCutcheon.

Jan Vydra was first appointed to the Board in 2019. He is a passionate agribusiness leader and as a first-generation farmer, co-founded Australian Fresh Leaf Herbs in 2008.

Elke Cleverdon is an experienced nonexecutive director in the agribusiness and customer-owned banking sector. She was recently selected to the National Farmers' Federation Diversity in Ag Leadership Program, one of 12 women nationally.

Stephen McCutcheon has had more than 40 years' experience working with the agriculture and food sectors in private and public sector settings. During his career, he has held a number of Board positions on Australian Government entities including the Australian Pesticides and Veterinary Medicines Authority, FSANZ and he is current Chair of Plant Health Australia.



Stephen McCutcheon. Elke Cleverdon and Jan Vydra take their place on the Hort Innovation Board.

YOUR LEVY AT WORK





Chemical updates

For the latest Chemical Update from Hort Innovation head to: https://www.horticulture.com.au/growers/help-your-businessgrow/research-reports-publications-fact-sheets-and-more/mt20007/.

The following permits have been issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA):

Permit ID	Description	Date Issued	Expiry Date	Permit holder
PER83998 Version 4	Maldison / Mango / Queensland Fruit Fly & Mediterranean Fruit Fly	15-Aug-17	31-Oct-24	Hort Innovation

Permit expiry extended to 31/10/2024. A restraint and re-entry statement has been added. Protection of wildlife, fish, crustaceans and environment statement added. Export of treated produce statement and Other Matters updated to current standard.

Permit issued as Version 4.

Restraint:

DO NOT apply 320 g/L maldison products via air blast spraying equipment.

All other formulations listed on the permit do not have the above restraint, only the 320g/L FYFANON PREMIUM INSECTICIDE (APVMA No. 69529)

All efforts have been made to provide the most current, complete, and accurate information on these permits, however we recommend that you confirm the details of these permits at the following APVMA website: https:// portal.apvma.gov.au/permits.

A Non-Performance Reporting Form for Horticultural Pesticides* should be completed when an adverse experience occurs as a result of using the permit.

Please return the Non-Performance Reporting Form for Horticultural Pesticides to: jodie.pedrana@ horticulture.com.au.

If you require any 'non-performance' information to be provided to the APVMA, please complete their On-Line Adverse Experience Report Form. This can be found at: http://apvma.gov.au/ node/311 or https://portal.apvma.gov.

Users are advised that while the pesticide can be applied legally under the APVMA minor use permit, there can be a significant delay until the MRL gazetted by the APVMA is adopted in the Australia New Zealand Food Standards Code.

Until this occurs the MRL may not be recognised, and a zero tolerance may be imposed for residues of the pesticide resulting from its use according to the APVMA permit. Please be aware that in the absence of an MRL in the Food Standards Code, the use of the pesticide according to the permit may result in the suspension of the produce in the marketplace. Please check the FSANZ website or the Australian Government ComLaw website: https:// www.legislation.gov.au/Series/ F2015L00468 to confirm if there are MRL established by the Australia New Zealand Food Standards Code.

These Chemical Updates are part of 'Mango industry minor use program MG16004'.

*A 'non-performance' is an unintended or unexpected effect on plants, plant products. animals, human beings, or the environment, including injury, sensitivity reactions or lack of efficacy associated with the use of an agricultural chemical product(s) when used according to label (or permit) directions.



AUSTRALIAN® MANGOES

Success for Australian Mangoes in export market access applications

The Australian Mango Industry Association (AMIA) is pleased to announce that the International Market Access Assessment Panel (IMAAP) has supported its market improvement and access applications for mango exports to the USA and India using irradiation pathways. Both applications will now enter the country-specific pool and await the Department of Agriculture, Fisheries and Forestry's potential prioritisation for international trade negotiation.

The Australian mango industry is at a stage of significant growth potential. Despite disruption over the past two years caused by the global COVID-19 pandemic and poor seasonal conditions, the industry has shown consistent year-on-year export growth over the past decade. Australian mango export is valued at AU\$30 million a year with more than 7,000 tonnes being exported before the pandemic. As global economies slowly recover from the pandemic, the Australian mango industry finds itself in a unique position to recover recent export declines and maintain growth by capitalising on global demand for healthy, quality products such as mangoes.

The Australian mango industry has the opportunity to pursue new and rapidly growing export markets as well as expand presence in markets where strong demand for Australian mangoes already exists. The ability to gain access to new markets and maintain and improve access conditions to existing markets is crucial for the ongoing viability and growth of the Australian Mango industry.

Through work with Hort Innovation, India and the USA have been identified as key priority export markets in the new Mango Export Strategy (2022-2026).

On October 24th 2022, the AMIA's market access application to India using the irradiation pathway and the market improvement application seeking to improve the current irradiation pilot program with the USA were supported by the International Market Access Assessment Panel (IMAAP). The IMAAP is the independent panel which acts on behalf of the horticultural sector to provide transparent, unbiased and consistent market access advice to the Australian Government. More information on the IMAAP process can be found here.



INDIA

Australia has not yet exported mangoes to India, however new bilateral trade arrangements are a positive sign for future exports. While Australian exports will not compete with domestic production due to alternative seasonality, quality and varieties, strong existing demand for mangoes in India is a positive indicator of future Australian exports. The Australian Mango Industry is well placed to capitalise on future market entry opportunities arising from progressing bilateral relations.

USA

Despite supply chain challenges due to COVID-19 in 2020, Australian mangoes saw a 167% increase in exported volume (196 tonnes exported to the US in 2021/22). Marine Empson, the AMIA Industry Development Manager said "The US is a key priority export market with strong growth potential and the proposed change would help the industry capitalise on this opportunity."

NEXT STEPS

Applications approved by the panel are passed to the Australian Government Department of Agriculture, Fisheries and Forestry for consideration and potential selection for future bilateral trade negotiations. This is a long-term endeavour and the AMIA will continue to work closely with Hort Innovation and the Department and provide support and advice when needed.

The Australian Mango Industry Association sees exports as a significant priority and will continue to work towards meeting the goals of the Mango Export Strategy and the needs of Australian mango farmers.

If you have any questions, please contact Industry Development Manager, Marine Empson:

E. marine@mangoes.net.au P. 0457 555 838

PR & MARKETING

Marketing program overview

The 2022-2023 mango marketing program includes a range of activities to help drive consumer demand for mangoes throughout the season.

ADVERTISING

Mangoes mass-reaching advertising features across 1200 outof-home panels in close proximity to supermarkets, YouTube video advertising, retail online and social media (Facebook). The activity continues until March 2023, ensuring mangoes remain top of mind for consumers throughout the season.

The social campaign across Facebook consists of two bursts. The first burst of activity runs for 12 weeks until December 31, while the second burst continues to drive reminders of the mango messaging for 13 weeks until April 1.

PLANTING MANGO TREES? Fleming's Nurseries QLD (formerly Birdwood Nursery) is a wholesale fruit tree nursery. Specialising in avocado, mango, citrus, and other tropical fruit trees. Supplying commercial growers and retail centres across Australia. ORDER GRAFTED • Specialist large order supplier Despatch to all mainland states Contact us today! 07 5442 1611 mail@flemingsqld.com.au flemings.com.au leming's **F**



Following on from Woolworths online retail advertising going live throughout October and November, Coles online advertising will commence in January 2023, providing consumers with inspiration and reminders whilst completing their online shop.

PUBLIC RELATIONS MEDIA OUTREACH

Public relations media launched the 2022-23 season with the first tray of mangoes auctioned for charity at Brisbane markets.

Media outreach has secured 165 pieces of coverage, resulting in a total reach of 16.4 million. Key coverage included featuring on Australia's number-one breakfast show, Sunrise, Channel 7 Queensland and The Daily Mail. More recently, mangoes featured in The Age and The Guardian, with both articles recommending mangoes as the perfect Christmas fruit.

Media coverage has encouraged Australians to try 'hedgehogging' a mango – an easy way to prepare a mango by slicing the mango into two cheeks beside the seed, dicing the flesh into a crisscross pattern and then turning outward to devour the delicious and juicy taste of Australian mangoes.

RETAILER ENGAGEMENT

Retailer incentive programs have been secured across Coles, Woolworths, IGA and Drakes to encourage incremental displays that aid impulse purchase.

Retailer uptake of point-of-sale materials communicating the 'slice, dice, devour' call to action has increased versus prior year, demonstrating strong engagement to inspire shoppers.

EXPORT MARKETING

Australian Mangoes social media advertising in New Zealand is live until end of January, while New Zealand out-of-home advertising continues until mid-January 2023

Export activity with Giumarra in the USA includes a store incentive program and point of sale to encourage impulse purchase.

For further information please contact:

Belinda Van Schaik, Hort Innovation Marketing Manager:

M: 0411 844 441

E: belinda.vanschaik@horticulture.com.au



Supply Chain Engagement— Retail update

EARLY SEASON

As highlighted in the marketing report on page 12, the 2022-23 season officially started on September 29 with the annual mango auction conducted by the Brisbane Produce Market. This charity fundraiser coincides with the arrival of the first significant quantities of mangoes entering the marketplace from the Northern Territory and builds early seasonal awareness.

Early forecasts indicated a big fruiting year, with significant flowering evident across the growing regions generating confidence.

Due to the relative short supply window, along with a larger crop compared with the previous year, it was important to alert consumers to new season mangoes entering the retail marketplace. The planned intent was to generate significant awareness via well-planned and executed public relations (PR) activities that would lead to increased potential for purchase, kick-starting the market with higher household penetration numbers and maintaining high demand throughout the season.

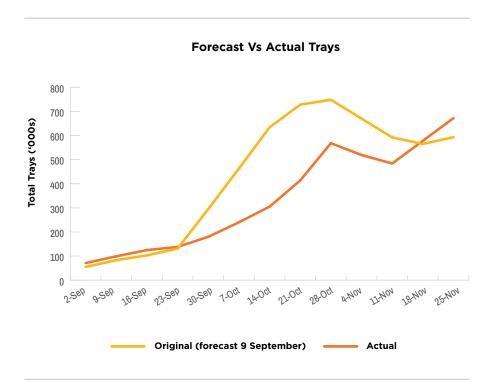
Through Hort Innovation's marketing, led by Belinda Van Schaik, as well as support from a PR agency and plentiful interviews with CEO Brett Kelly, the initiative generated significant media exposure. The "mangoes available message" was out there and retail partners were eagerly poised to receive and on-sell significant early quantities of Australian mangoes.

However, significant weather events severely impacted many regions and the early supply of fruit. Early shipments were much smaller than forecast.

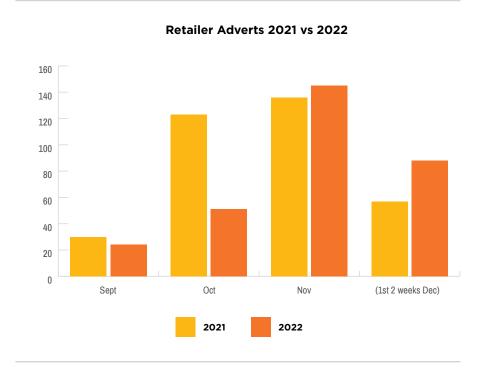
The selling season that was to due start late September didn't hit its straps until the end of October.

RETAILER ENGAGEMENT

Retailer activity was impacted by the delay in fruit availability, resulting in a change of promotional execution and its delivery timing. The chart (right) highlights the shift in promotional activity versus the same time last year. At the time of writing this article, there were 308 catalogue and similar awareness activities versus 346 from the same time last year.



Retailer activity was impacted by the delay in fruit availability, resulting in a change of promotional execution and its delivery timing.



Continued from page 13

The AMIA and Hort Innovation have arranged a number of retailer-based display and volume initiatives to help drive the awareness of mangoes...





Domestic retail displays.

The activity from our retailer partners, however, has been strong. Coles started the season with a national launch of the Kensington Pride variety which was linked to its launch of Christmas activity. All Coles stores nationally presented Kensington Prides in front-of-store positioning with their Christmas message supporting and complementing the Australian mango message.

Woolworths' Christmas campaign began by positioning mangoes as the 'hero' of a traditional family Christmas lunch via significant TV campaigns and associated linked in-store point of sale.

Aldi, with a smaller store count, was able to start the season as per previous years and promoted mango availability with TV and catalogue activity.

The independent supermarkets were initially forced to delay their activities with fruit availability causing some supply issues, however, with the season now in full swing, all retailers including the independents are now heavily engaged in delivering strong fruit sales with quality offerings now in abundance.

The AMIA and Hort Innovation have arranged a number of retailer-based display and volume initiatives to help drive the awareness of mangoes via substantial, colorful displays in high profile front of store displays. These activities began in early November and will continue through to the end of January 2023. Below are images of just a few of the displays created by retail partners.

TOP PACK

TOP PACK

STATE

STREET

SPECIALS

CHIMINGOES

CHIMINGOE

All Coles stores nationally presented Kensington Prides in front-of-store positioning with their Christmas message supporting and complementing the Australian mango message.

Continued page 15

Continued from page 14



New Zealand Countdown display.

Mango Mango Mango Mangos Always in Season in Season



Mango displays in US retails stores.

EXPORT UPDATE

As mentioned in the marketing update, for this season the export focus in terms of marketing investment has been on New Zealand and the USA. New Zealand is Australia's largest export market and the closest in geographical proximity. The New Zealand population is roughly the same as that of South Australia, Northern Territory and Western Australia combined – so a considerable number over a much smaller landmass. The Australian campaign approach was replicated for New Zealand. This includes a large number of outdoor media placements in close proximity to supermarkets and social media advertising. Similar to the Australian campaign, there were also store incentives to encourage creative, colourful and plentiful displays.

The USA approach is supporting the customer with marketing activities such as point of sale, in-store sampling and in-store messaging.

At the time of writing, the season is well and truly in full swing and many families will be enjoying multitudes of mangoes over the festive period.

For further information please contact:

Andrew Burns, AMIA Supply Chain Engagement Manager:

M: 0428 662 726

E: andrew@mangoes.net.au



Biosecurity, Research & Policy

A tool we now couldn't see our operation operate without

A program to develop, trial and extend technology-based crop mapping and monitoring tools for growers.

The investment <u>Multi-scale monitoring</u> tools for managing Australian tree crops is a collaborative piece of work funded through the Australian Government's Rural R&D for Profit initiative.

The overarching program is continuing the development, trial and extension of technology-based crop mapping and monitoring tools to help growers in predicting fruit quality and yield, and monitoring tree health – including in the early detection of pest and disease outbreaks.

This multi-scale monitoring tools project involves some nine sub-projects sitting under an overarching project, with a variety of teams all being led by Hort Innovation.

Meet Raymond, mango grower from Dimbulah, North Queensland

Raymond Courtice is a secondgeneration mango grower from Dimbulah, north Queensland who works at his family business, Ontario Group, with his father David.

Ontario Group is a family-run business, revolving around the production of Calypso® mangoes as well as citrus to diversify and utilise their staff and equipment throughout the year. David was one of the first commercial growers on Calypso® mangoes in the late 1990s and they've stuck with the variety ever since. The Ontario mango orchards are spread across two locations of 400ha.

Why did you participate in this program?

When Kerry Walsh from Central Queensland University told me he was working on creating a unit that would count your crop load and give you an accurate result of every location within your farm, my ears pricked. Standard practice is manual fruit counts



Raymond Courtice, mango grower in Dimbulah.

averaging across the block to give you your expected crop load for the season.

During the 2019/20 season, we had experienced frost with temperatures dipping to minus five degrees, damaging 70 per cent of our crop. At this point we had frost protection fans installed within the orchard which usually gave 100 per cent protection for short stints between zero to minus three degrees, but at minus five degrees this wasn't the case.

So, when the opportunity was presented to trial crop forecasting using the machine vision rig on my orchard, I was 100 per cent in for using technology to give me accurate data on how much damage the frost had done to my crop load. Accurate crop forecasting data is invaluable for planning for harvest and marketing.

How does the technology work?

The machine vision rig, which is linked to GPS, is mounted on a vehicle and the whole orchard can be 'photographed'. We've found that every three rows is the intensity vs accuracy "sweet spot". Data is calibrated with manual fruit counts - a similar requirement to previous yield forecasting, and then the location and imagery data is processed to generate a 'heat map' of yield across the orchard.

What did you learn?

What this technology offers over other yield estimation tools and forecasting strategies, is a picture of spatial variability in yield across the orchard. We could clearly see where our frost protection couldn't reach or protect

Continued page 17

- RAYMOND COURTICE

Continued from page 16

and there was no fruit, ranging to close to the frost fans where the loss was only about 25 per cent. While my initial interest in trialling the equipment was to understand the scale of the frost damage, the experience showed me that the technology could provide useful data that was impossible to get with manual forecasting practices. For example, you can make the wrong calls on fruit profile - and then your water and nutrition management can result in fruit ballooning. The production forecast maps generated using this equipment, give information not otherwise available to manage the orchard to optimise production.

What this now allowed me to see and understand was instead of treating whole zones in the orchard, I was able to tailor nutrition and irrigation to target

certain blocks for domestic and export markets as I had a full understanding of predicted yield, size, profile and entire orchard expected fruit count.

What has been the benefit?

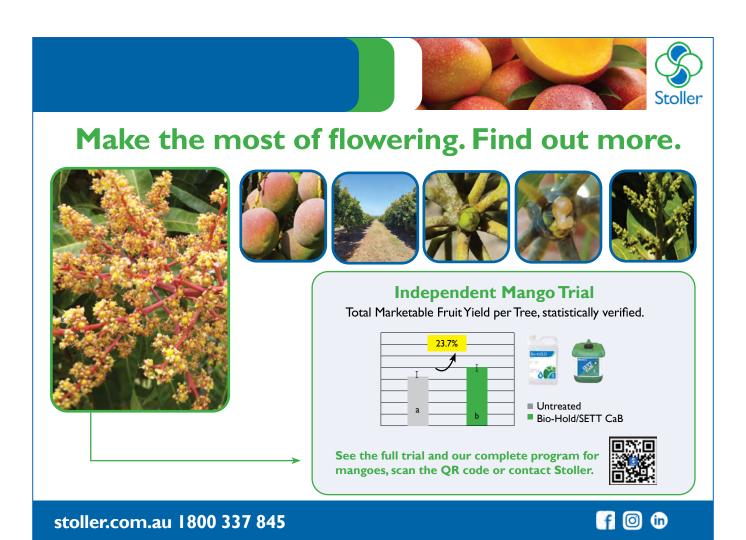
The immediate benefit of using this technology is that we can now tailor our management practices to ensure we've "got it right" for the fruit that survived the frost and minimise further losses due to fruit quality. It also gave us information that enabled us to increase the number of frost protection fans we needed to have to five full coverage of the orchard.

Using the imaging rig is now an operation that I have adopted post-fruit drop and pre-harvest to monitor and manage crop load, nutrition and water, and pre-

forecast for our marketers, exporter, freight, carton and labour companies. It gives me assurance that what I believe we are looking at harvesting is actually on the farm. Being able to have this sort of tool becomes an advantage in this era of farming. Participating in this project has given us a tool we now couldn't see our operation operate without.

This project was funded by Hort Innovation with support from the Australian Government Department of Agriculture, Fisheries and Forestry as part of its Rural R&D for Profit program with UNE, Australian Mangoes, NT DITT, QDAF, and Central Queensland University.

Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.



AS18000 program accelerates new knowledge in intensification of mango orchards

Whilst Australia's production of tree crop fruits and nuts is relatively small when compared to international offerings, the variety and quality supplied to both domestic and world markets is unique and presents an opportunity for collaborative research where common issues and aims can be addressed more efficiently and effectively for all sectors.

According to the Coordinator for the National Tree Crop Intensification in Horticulture Program (AS18000 Program), Marguerite White, the industries of Almond, Avocado, Citrus, Macadamia and Mango are benefiting from unprecedented cooperation between fifty plus research personnel into new horizon research aimed at improving orchard production efficiency and management systems from more intensified, sustainable and profitable orchard systems of the future.

"AS18000 has brought together cutting-edge growers with research and extension scientists across a range of scientific disciplines, such as tree physiologists, agronomists, breeders, geneticists, molecular biologists, modelers and statisticians operating research and demonstration sites in all states of Australia, except Tasmania, and partnerships in New Zealand. The program is extensive but the aims are high, "she says.

"The program is providing a collaborative platform for new horizon research into increasing knowledge of tree physiology and the possible changes in orchard design and orchard management needed to intensify orchard systems, including the likely longer-term resource allocation, economic and sustainability outcomes for growers and industry."

The five tree crop projects involve many of Australia's leading research teams from the Queensland Government's Department of Agriculture and Fisheries, Queensland Alliance for Agriculture and Food Innovation (QAAFI), The University of Queensland, NSW Department of Primary Industries (NSW DPI), Plant & Food Research Australia, South Australian Research and Development Institution (SARDI), and Western Australia's Department of Industries and Regional Development (DPIRD).

As part of the program, researchers come together at least bi-monthly to challenge one another's thinking across tree crops and research organisations and learn from national and international speakers using webinars.

"At this point in the program we are half-way and the research is some way down the track in providing new insight into how genetic components and physiology of the tree respond to varying environmental factors, orchard designs, including different tree densities, architecture, rootstocks and scion varieties, and vigour management practices and technologies. These are being closely researched over five years, including consideration of effects on orchard light and microclimates, and subsequent production outcomes."

Whilst there are shorter-term results to which growers are being exposed and having input into via regular meetings of the five Crop Reference Groups (CRGs) and orchard walks, Marguerite says as with any tree crop research, the ultimate goal of specific recommendations for intensifying whole farm blocks is long term.

"Really the teams are tasked with some of the harder problems and unknowns that have remained gaps in knowledge until now but likely have a significant influence on future recommendations. The context of how tree growing systems will interact with technical developments in growth regulators and viroids, automation and covered cropping is also highly critical, as is the realities of future adoption and how best to facilitate transition into 'smart orchard designs' that will deliver greater profit and sustainability."

As part of the program, researchers come together at least bi-monthly to challenge one another's thinking across tree crops and research organisations and learn from national and international speakers using webinars.

"These webinars attract not only team members, but researchers and extension specialists from other horticultural commodities and industry groups. The range of topics we cover and breadth of input we have helps us to confirm we are considering aligned past and recent research across horticulture but are moving forward."

Whilst research of the AS1800 Program is being conducted in the major growing regions of Australia for each tree crop, Marguerite acknowledges that the research findings and outcomes may not be necessarily applicable to all growers at the same time.

"Each industry will benefit longterm from the new horizon thinking embedded into AS18000 Program research, but in the immediate-term there are bi-products of the research activities that are relatable and transferable to current orchard design and management practices. We know growers vary in their transition journey. Uptake can depend upon knowledge capability. resource allocation. climatic economics and forces experienced by individual growers in the previous two to ten years," she says.

Continued page 19



The five tree crop research teams of the AS18000 Program met face to face for three days in July 2022 to exchange and collaborate on research outcomes to date, including DAF's mango research team (Source: Marguerite White (Taken at Select Harvest Almond Orchard, Robinvale, Victoria)). In April 2023 the forum will be held in Bundaberg, Oueensland.

Continued from page 18

By providing insight into research progress, the AS18000 Program is striving to take growers along with them on the longer-term journey and improve awareness of the developing scientific knowledge and its application. This process also provides researchers the opportunity to hear and discuss the opinions of growers and industry on the findings and future direction of research.

"Together growers and researchers can develop, adapt and design future orchards and their management. Understanding challenges and developments early will better prepare growers for future recommendations and build capability to respond accordingly. This is AS18000 in a nutshell."

"Together growers and researchers can develop, adapt and design future orchards and their management.























The National Tree Crop Intensification in Horticulture Program is funded by the Hort Frontiers Advanced Production Systems Fund, part of the Hort Frontiers strategic partnership initiative developed by Hort Innovation, with co-investment from Queensland's Department of Agriculture and Fisheries, Plant & Food Research, NSW Department of Primary Industries, Queensland Alliance for Agriculture and Food Innovation- The University of Queensland, Western Australian Department of Primary Industries and Regional Development, South Australian Research and Development Institute, Hort Innovation using the Almond research and development levy, and contributions form the Australian Government.

Planting systems trial prepares for 7th harvest

Long-term trials are a rarity in tree crop research, primarily due to funding availability, but bucking the trend is the Queensland Government Department of Agriculture and Fisheries (QDAF) research team at Mareeba, now entering into a seventh harvest of its planting density systems trial.

Integrated, and extended, as part of the National Tree Crop Intensification in Horticulture Program (AS18000) since mid-2020, the trial is analysing production and quality variations between three mango varieties (Calypso, Keitt and NMBP-1243) planted at 3 different densities – low (208 trees/ha) medium (416 trees/ha) and high (1250 trees/ha), and two different training systems within the high and medium density trees.

Ryan Orr (pictured, Figure 1.), Senior Horticulturalist, is the crop leader for the mango research project of the AS18000 Program and coordinates the project Crop Reference Group (CRG), with team member Emily Pattison, to seek ongoing input and feedback into the research from growers across regions.

Ryan says that the long-term trial is providing significant insight into

the way the different varieties have responded to the treatments, but there are also commonalities.

"Due to some high early yields, the cumulative yields of the high-density treatments are well ahead of the low and medium density," he says.

"Last year for the first time the medium density treatment had greater yields per hectare than high density in the NMBP-1243 and Keitt varieties, and both treatments produced much higher yields than the low density. This year we will see if the trend continues or whether last year's results were an anomaly. We haven't harvested yet, but the high density is looking good so far."

The yield results to date are shown in Figure 2.

According to Ryan, fruit quality results are also likely to be positive, with

a few factors revealed for further consideration.

"There is a small proportion of sunburnt fruit from the most recent heatwave, but we've had excellent scale control, low pressure from other pests, and the trees have had excellent health".

Ryan says that this year the team has allocated additional resources to assess the effects of light on fruit quality.

"We know that the high-density plantings have greater light interception and several growers of the CRG have questioned if that changes the amount of fruit blush or sunburn, so we are going to take a more in-depth look at this in the coming harvest."

Harvest is set to start for the NMBP-1243 in the new year and will finish with the Keitt in early February.

Continued page 21



Figure 1. Ryan Orr inspecting the crop load on the high-density trees at the Planting Systems Trials (PST).

Continued from page 20

"We are looking forward to getting the fruit off the trees, data collected, and the measurements analysed to further our understanding of the physiological, environmental and management factors influencing the long-term performance of intensive mango orchards.

Each harvest of this trial, and those of growers involved in the project through the CRG, reveals new insights that will be integral to the development of guidelines for the industry by AS18000 Program end in mid-2025."

The AS18000 Program research team for mangoes also includes Ian Bally, Gerhard Rossouw, Zac Scobell and Abbey Lamperd.

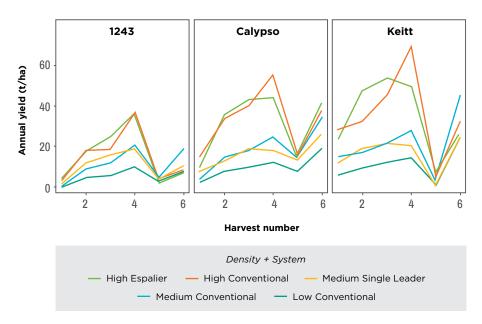


Figure 2. The annual yields from the trial site over the last 6 years. Last year was the first year that medium density treatments had higher yields than the high-density plantings in 1243 and Keitt.















This is a project of the National *Tree Crop Intensification in Horticulture Program*, funded by the Hort Frontiers Advanced Production Systems Fund, part of the Hort Frontiers strategic partnership initiative developed by Hort Innovation, with co-investment from Queensland's Department of Agriculture and Fisheries, Queensland Alliance for Agriculture and Food Innovation- The University of Queensland, Plant & Food Research and the Western Australian Department of Primary Industries and Regional Development, and contributions from the Australian Government.



Water efficiency project kicks off across NT&WA

A project designed to improve drought resilience in irrigated horticulture by focusing on soil moisture monitoring kicked off across the NT and WA in November.

Facing a drying and more variable climate, the horticulture sector is looking at how it can improve its water usage to become more water efficient, resilient to drought, and improve yields.

Di Renfree, Steph Coombes (both NT Farmers) and James de Barro (Alpha Group) hit the road to install soil moisture monitoring probes and weather stations at 6 sites across the greater Darwin, Katherine, and Kununurra regions. These sites included several mango farms across the regions.

"It was great to see so many farms interested in soil moisture technology. The data collected from the probes will help take the guess work out of irrigation scheduling", said Di Renfree, Water Irrigation Development Officer for NT Farmers.

The project will provide growers with the training and confidence to utilise the remote monitoring capability of soil moisture probes and the associated software to allow for rapid decision making and risk management. Most importantly, the growers will be supported and coached by the project team through regular meetings to interpret the data and decide how to use it.

"The number one barrier to bestpractice adoption that we keep coming across is a lack of confidence and/ or ability among growers to interpret data effectively and then apply these insights to their irrigation management practices", said Steph Coombes, Extension Officer for NT Farmers. "Growers hold an enormous skill set across a wide range of areas from plant production, marketing, HR etc, so



Steph Coombes and Di Renfree with weather station

sometimes it can be difficult to keep up to date with the latest tech advances".

A number of field days and workshops are scheduled for 2023, to share grower experiences and learnings from the project with other growers who may be interested in adopting the technology.

Additional properties in southern WA and Victoria are also involved in the project, which is a cross-sector collaborative approach involving farmers, researchers, service providers from the Northern, Southwest WA and Victorian Hubs, supported by the Future Drought Fund.

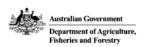




Di Renfree and James De Barro check connectivity on a soil probe.



Moisture probe under mango orchard KNX 2.









Orchard designs for mango intensification

Commercial mango tree canopies are becoming shorter and narrower with new orchards planted as closer tree rows and higher tree density/ha. These efficient systems optimise site light, nutrient and water resources, minimise input and labour costs per kg of fruit produced, and have greater yields and improved fruit quality.

Shorter and narrower trees are also more suited to the adoption of new mango intensification technologies such as next generation harvest-aid picking equipment, machine-vision fruit counts and robotic harvesting.

Improved 'fruit visibility' is a key requirement for the development and adoption of these new technologies. It is important to remember that the 'visible fruit' in any system is primarily the premium grade fruit with best colour, blush and reduced abrasion and skin defects.

Work undertaken over the past 5 years within two Hort Innovation projects ST19000 and AS18000 (see acknowledgments) has assessed a range of grower orchards and DAF research planting designs for their suitability for mango intensification technologies.

Traditional designs with tall (>4m) and wide (>5m) canopies have dense foliage that hide fruit, reduce spray efficiency and generally have poorer fruit quality. The poor fruit visibility in these systems (often only 70% of fruit is visible from outside) also reduces the accuracy of current manual forecasting methods and limits the adoption of new machinevision fruit detection technologies.

A range of commercial orchard designs of varying canopy widths were assessed by DAF and Central Queensland University (CQU) researchers at the DAF Walkamin Research Facility for their 'fruit visibility' using CQU Machine-Vision technology. This data was then compared with actual harvested fruit numbers

As expected, fruit visibility in the trial was better in the orchard designs with narrower canopies. Slim hedge designs (1.6m wide) had the highest visibility with only 33% error, whereas conventional designs with wider canopies (3 to 3.5m wide) had poorer visibility with 38% error. However an issue was experienced when using machine vision technology on the narrowest canopy widths within the trellis design (1.2m wide). This system was so narrow, that individual fruit was sometimes counted twice (from vision capture taken from either side

MACHINE VISION TECHNOLOGY

- Camera and logger mounted to farm vehicle and driven through orchard
- Night imaging with LED lights provides best accuracy
- In-built YOLO algorithms detect, count and GPS locate mango flowers or fruits
- Multi-view (video) fruit tracking method used for fruits, dual-image method for flowers
- Results uploaded to a web App
- Results presented as paddock maps and counts

of the tree row) giving an exaggerated machine-vision fruit counts of +25% error (Anderson et al. 2021. Agronomy 11, 1711, 20pp.).

Summary of benefits of increased 'fruit visibility' within narrower canopy systems are:

- Greater yield forecasting accuracy using either manual or machinevision systems
- Increased harvesting efficiency using next generation, harvest-aid picking equipment
- Greater suitability for robotic harvesting using machine-vision systems

Acknowledgements

This activity was conducted within project 'ST19000 - Multiscale monitoring tools for managing Australian tree crops - Phase II", delivered by Hort Innovation - with support from the Australian Government Department of Agriculture (Rural R&D for Profit Program) and University of New England, CQU, DAF, AMIA and NTDITT. Thanks also to the project partners within 'AS18000 - National Tree Crop Intensification in Horticulture Program' funded by the Hort Frontiers Advanced Production Systems Fund, for providing access to the Walkamin trial for data collection





Robotic harvesters.

Article provided by Geoff Dickinson (Geoff. dickinson@daf.qld.gov.au) and Dale Bennett, DAF and Kerry Walsh (k.walsh@cqu.edu.au) and Nic Anderson, CQU.

On-farm testing of plant water sensing in mangoes

Accurate monitoring of crop water use is necessary to maximise mango production and minimise irrigation costs. In research it can help us to understand rootstock effects, tree productivity and response to stress.

Unfortunately, determining plant water status is notoriously difficult. The common method of irrigation monitoring by soil sensors may be affected by soil type and environmental conditions and not show how the tree is using water. The Tropical North Queensland (TNQ) Drought Hub, Queensland Department of Agriculture and Fisheries (DAF) partially supported by Hort Innovation, and the University of Tasmania have joined forces to test the suitability of a new tool to monitor plant water in the challenging conditions common on mango farms.

Australian mango production is mostly in drought prone, irrigated regions in the Northern Territory, Western Australia, and Queensland. Testing of the optical dendrometers at the Walkamin Research Centre will provide evidence of the device's suitability for tropical, commercial conditions.

"Dr Chris Lucani and I have been developing a new kind of optical-based sensor that provides a new approach for capturing the shrinkage and swelling associated with water uptake and loss," says Professor Tim Brodribb from the School of Natural Sciences, University of Tasmania. The optical dendrometer is attached to a slowly growing tissue such as the leaf or fruit stem. This allows for the swelling and shrinking associated with water use to be separated from tissue changes associated with growth.

"Monitoring water use in the crop itself represents a significant improvement in irrigation management over traditional techniques that monitor water in the soil, in the environment, or only on the growing parts of the plant."

"The TNQ Hub is supporting on-farm innovations that have the potential to improve resilience, and to be better prepared for the risks of drought in the future. Finding tools that allow farmers to monitor water use in tree crops can lead to improved management, including during drought," says Dr David Phelps, Director of TNQ Drought Hub.



Nicole Lucas (TNQ Drought Hub), Dr. Chris Lucani and Professor Tim Brodribb (University of Tasmania) and Ryan Orr (Queensland Department of Agriculture) with mango trees and newly installed optical dendrometers on the Walkamin Research Facility.





















The National Tree Crop Intensification in Horticulture Program is funded by the Hort Frontiers Advanced Production Systems Fund, part of the Hort Frontiers strategic partnership initiative developed by Hort Innovation, with co-investment from Queensland's Department of Agriculture and Fisheries, Plant & Food Research, NSW Department of Primary Industries, Queensland Alliance for Agriculture and Food Innovation- The University of Queensland, Western Australian Department of Primary Industries and Regional Development and the South Australian Research and Development Institute and contributions form the Australian Government

PEOPLE & EVENTS

Out and about: mango field day

In Far North Queensland, twenty-eight growers, researchers and agronomists attended a "Mango Field Walk" at the Department of Agriculture and Fisheries Walkamin Research Facility on October 20. Attendees were pleased to get an update from Ian Bally of the of the mango Planting Systems Trial which showed cumulative yields per hectare were up to four times greater in high planting densities than lower planting densities.

They also learnt from Ryan Orr, how light levels in the canopy affect tree performance, and Geoff Dickinson demonstrated how to improve light in existing orchards by pruning canopies to slim hedges. Inigo Auzmendi and Dipendra Aryal from the Queensland Alliance for Agriculture and Food Innovation demonstrated the digitisation of canopy structure for tree modelling.

Growers and industry had plenty of time to walk through the trials and see benefits and drawbacks of different tree management strategies. The field day was well received with 88% of participants finding the day worthwhile and 74% indicating they had increased their knowledge and understanding of canopy management practices. The event was hosted as part of the Hort Innovation National Tree Crop Intensification Program (AS18000) and the Queensland Government's Transforming Orchard Futures project.



Industry and growers discuss the benefits of highdensity plantings with Dr. Ian Bally.



Dr. Ian Bally briefing field day attendees on the latest results from the Planting System Trial at Walkamin.



Attendees listening to modelling presentations from Queensland Alliance for Agriculture Food Innovation.



















The National Tree Crop Intensification in Horticulture Program is funded by the Hort Frontiers Advanced Production Systems Fund, part of the Hort Frontiers strategic partnership initiative developed by Hort Innovation, with co-investment from Queensland's Department of Agriculture and Fisheries, Plant & Food Research, NSW Department of Primary Industries, Queensland Alliance for Agriculture and Food Innovation- The University of Queensland, Western Australian Department of Primary Industries and Regional Development and the South Australian Research

Japanese students living and working the North Queensland way

Eleven Japanese trainees arrived in Australia in April last year as part of the Bowen Gumlu Growers Association's Japanese Agricultural Exchange Program and have been gaining valuable skills and knowledge while working on North Queensland fruit and vegetable farms.

Upon arriving in Bowen, the trainees familiarised themselves with the area and enjoyed an Aussie beach BGQ and tour of the region's tourist spots before commencing a four-week English and farm-ready course at TAFE. The students, who have been working at their farm placements for the past seven months, have also been making the most of their downtime and opportunities to attend social events and engage with the local agriculture industry.

In April, Bowen Gumlu Growers Association (BGGA) hosted a welcome event at the Larrikin Hotel in Bowen where the trainees were able to meet participating growers, and two trainees represented the program at BGGA's annual industry Gala Dinner. The students have also been enjoying the region's events and tourist spots, including the Whitsundays' iconic Whitehaven Beach, Billabong Sanctuary near Townsville and Airlie Beach Running Festival.

The group was invited to attend a networking evening with Japanese Consul-General, Masuo Ono, at the Grand View Hotel and take part in Mr Ono's farm tours during his visit to Bowen in October. The Japanese Consulate's trip provided a great opportunity for Mr Ono to see where the trainees have been living and working and for BGGA to initiate conversations about creating new agricultural export and trade opportunities for local growers with Japan.

Most of the trainees have now finished working on horticulture farms and are helping local mango growers with their harvest. Following this, the students will spend some time learning about the fresh produce export supply chain and how processes such as phytosanitary irradiation can be used to support the pathway for products such as Australian mangoes into Japan. BGGA will host a farewell event before the trainees return home to Japan in March 2023.











For more information about the program, contact BGGA on 07 4785 2860 or projects@bowengumlugrowers.com.au. Follow agriexchangebowen on Instagram to stay up to date with the program and trainees' experiences.

To post and search for jobs on North Queensland farms, visit www.pickparadise.com.au.

https://www.instagram.com/agriexchangebowen/ | https://www.bowengumlugrowers.com.au/bgga-projects/

About BGGA and the local horticulture industry

Bowen Gumlu Growers Association (BGGA) is a not-for-profit industry association that represents the interests of our members, horticultural growers, producers and associated agribusinesses in North Queensland. BGGA's key activities include member services, advocacy, industry development and the delivery of projects focused on improving on-farm practices, commercial outcomes for farming businesses and the prosperity of our regional community.

The region is the largest producer of winter vegetable crops in Australia generating farm gate production worth approximately \$650m per annum. Key commodities produced include tomato, capsicum, mangoes, cucurbits, beans and corn. Our growers employ approximately 1,500 workers throughout the year with an additional 2,000 during the harvest season. One in every five workers living in the region are supported by the sector. Our product feeds the nation and is exported to more than a dozen countries.









Pre-season roadshows

The Australian Mango Industry Association has continued with our series of roadshows, catching up with growers and industry in the Bundaberg and Rockhampton regions in South East Queensland (SEQ) and the Carnarvon and Gingin regions in Western Australia. These roadshows complemented the previous roadshows in the Kununurra, Darwin, Katherine, Mareeba and Bowen/Burdekin regions and were a good opportunity for face-to-face meetings.

The AMIA has continued to be impressed with the grower and industry turnout to the events. In this series of roadshows, presentations covered a wide range of topics including:

- Updates from the AMIA team on the extension and communication projects, marketing, new resources including the chemical posters and the MRL app, and the AMIA crop forecasting process
- Priorities for the mango extension strategy
- R&D updates on topics such as monitoring internal fruit temperature, pollination trials, pests and threats for mangoes
- Farm business resilience planning and the 2023 economic outlook for horticulture
- Processing opportunities presented by Aussie Frozen Fruit and new mango tray liners presented by the Carnarvon Growers Association.

The SEQ roadshows also included field walks at Groves Grown Tropical Fruit and Makhoma Farms with E.E Muir & Sons to discuss herbicide usage and introduce spray calibration, and a Grower-only Q&A session to discuss the challenges and opportunities moving forward.

The WA roadshows included a field walk through the Carnarvon Research Station and the Northern Valley Packers hosted the Gingin event.

The AMIA would like to thank all the presenters and all those who have attended the roadshows, especially those who travelled to make it. Thank you to all those who have provided feedback on the roadshows thus far. We look forward to more opportunities to engage with growers and industry in 2023.

Continued page 29











Continued from page 28





FEEDBACK FROM QLD EVENTS:

"The event went really well. The field component was excellent and Matt was such a great presenter! It was also good to see a 'grower only' section for the meeting."

"The interactive aspect was done well."







FEEDBACK FROM WA EVENT:

"Thank you for such a well organised and informative event. They are always informative."

















R2E2 40th Anniversary

2022 marks the 40th anniversary of the R2E2 mango. The Department of Agriculture and Fisheries (DAF) Bowen Research Facility, along with Marto's Mangoes, hosted the anniversary event on December 1, where attendees were able to visit the original R2E2 tree and witness the unveiling of a new plaque. Dr Ian Bally and AMIA chairman, Ben Martin also presented on the day.

The anniversary was also marked by the QLD Premier, Annastacia Palaszczuk taking a mango into parliament and highlighting the R2E2 anniversary as well as the importance of the mango industry, its growers and exporters.













Hort Connections 2023

Early bird registrations are now open!

The AMIA are excited to again be an Industry Partner of Hort Connections. Hort Connections 2023 in Adelaide will follow on from a successful 2022 event held in Brisbane. The horticulture industry will be recognised and celebrated at the conference, bringing together members from right across the vegetable, fruit and floral sectors. Hort Connections will highlight and display exciting new possibilities that will help to shape the industry – whether it be technological, financial and labour solutions or environmentally sustainable options that are now available on the

WHEN: 5-7 June 2023

WHERE: Adelaide Convention Centre

REGISTRATION AND FURTHER DETAILS: https://hortconnections.com.au/registration/

Make sure you select Australian Mangoes from the industry tab when you register.

The best post-harvest protection any mango can have is SCHOLAR.®



SCHOLAR prevents post-harvest fungal disease development, maintaining fruit quality in transport and storage to increase both profitability and marketability. For further information talk to your local Syngenta representative or visit syngenta.com.au





