MangoMatters

JULY **2018** / VOLUME **THIRTY-TWO**

IT'S A WRAP!

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WINTER **ISSUE**

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Are you DataBar ready?

This coming season, major retailers including Woolworths, Coles and Metcash (IGA) are asking their Australian mango suppliers to collaborate on the implementation of a more defined PLU label incorporating DataBars.

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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.

CEO'S REPORT

Robert Gray
Chief Executive Officer, AMIA

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"Managing our biosecurity threats and the role we play in the national and international arenas will allow us to continue to access the markets we currently have access to and to gain access to markets we seek to supply in the future."

We have just seen a record season both in terms of the quantity of mangoes produced; greater than 10.7 million trays and the values received per unit. With the growth predicted to persist, we need continued focus on improving demand by giving consumers what they want in terms of a great quality product as well as giving retailers what they want in terms of accurate forecasting and crop flow information. Converting this demand to increased farm gate prices is essential if we are to deliver better profits to growers. In addition; we need to be relentless in our drive to make the industry more efficient through the better use of technology in production and targeted use of inputs such as farm chemicals and the ever increasing cost of labour.

Biosecurity continues to be a key industry responsibility. Outbreaks of Q fly in Tasmania and South Australia this past summer and the recent Citrus Canker detection in the Northern Territory highlight the importance of ongoing vigilance. Managing our biosecurity threats and the role we play in the national and international arenas will allow us to continue to access the markets we currently have access to and to gain access to markets we seek to supply in the future. The introduction of Industry Development Officers will mean more resources on the ground in our production regions where we will start playing a more active role in biosecurity surveillance and the development and implementation of our biosecurity plans. Coupled with this, we will continue to build on the work we have been doing in terms of crop forecasting, crop flow and decision to pick support carried out over the last four seasons.

An effective industry is one that engages with all stakeholders across the supply chain. Stakeholder engagement is an area of increased focus for AMIA over the next season and we expect an ever increasing coordination of activities between ourselves, as the national organisation and the regional industry organisations with plenty of opportunity to complement each other. Having our Industry Development officers based in the regions will help facilitate this engagement.
The continued focus by Treena in her overarching role of engaging the supply chain, particularly in keeping focus on the consumer, is building on a strong base and critical to achieving our primary aim of increasing profitability.

Our board will also play a significant role in Stakeholder engagement. It is exciting to see some new additions to the board, bringing with them an increased diversity of experience. David Morcombe, from Gingin in Western Australia, represents the very end or our production season and Ray Courtice, from Dimbulah, brings skills in managing large scale operations as well as experience with new genetic varieties. Ben Martin has stepped up from Deputy Chair to Chair following Greg McMahon's retirement.

I am looking forward to seeing you all at the upcoming preseason meetings.

We welcome two new additions to the AMIA board:
Ray Courtice (left) from Dimbulah and David Morcombe (right) from Gingin in Western Australia.

CHAIRMAN'S REPORT

"I wanted to write my last article for Mango Matters to encourage mango growers to become involved in the AMIA and learn more about what the AMIA can (and can't) do, and hopefully make a positive contribution to the industry."

Greg McMahon
Chairman (outgoing), AMIA

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Preparations for the 2018 Annual General Meeting are underway, and when you read this article the new Board of Directors for the AMIA will have been chosen by the voting members, and that Board will have elected a new chairperson.

Having sold my own business and worked through a transition period since the previous AGM, I am no longer eligible to stand as a director under the constitution of the AMIA. This membership body is, and always has been one for the growers. As such I wanted to write my last article for *Mango Matters* to encourage mango growers to become involved in the AMIA and learn more about what the AMIA can (and can't) do, and hopefully make a positive contribution to the industry.

By choosing to become involved, it doesn't mean you have to become a board member. Becoming involved, at the most basic level, means following what the AMIA is doing and why. This means simply reading the material that is published and attending grower forums and meetings. Like many grower organisations, the AMIA has limited resources but wants to make sure it allocates enough of those to communicating with the growers, and hopefully engaging with them on the issues that impact growers' businesses. If the AMIA is not doing that for you, or you think it can do it differently to be more effective, then please let the office know.

WHAT'S IN IT FOR GROWERS?

1. You will learn what the AMIA is working towards, and how your levy funds are being allocated through the process administered by HIAL.
2. There are opportunities to align what growers are doing in their business to what priorities the industry has determined are its priorities. You can gain leverage by tapping into these initiatives and make your own operation more efficient.
3. You will have the opportunity to influence the priorities by engaging with AMIA, HIAL, various departments of agriculture at State and Federal levels by regular participation in forums and strategic plan development.

Over the course of my time as a director of the AMIA I've been lucky enough to work with some very constructive and talented people who have been both my fellow directors, staff members at the AMIA, HIAL and government operatives. There are many committed and good people who want to see this industry thrive well into the future. Great strides have been made over the past several years in value creation on an industry-wide basis as a result of setting plans and sticking to them. I encourage you to especially support the AMIA directors who are all volunteers and give up a great deal of their time to take on a directorship for the benefit of the whole industry.

To help continue to shape the future of this great industry, I'd encourage all of the growers who read Mango Matters to help make a contribution to the future of the industry. A good start is to join as a member if you are not already. Then keep abreast of what the AMIA is doing, attend the forums and provide input when you can. If growers don't do this, or are reluctant to share their experiences or what they have learned, then it's hard to keep moving forward.

I will keep watching the industry with interest after I step down and really look forward to its continued development and growth well into the future.

DIRECTOR REPORTS

FAR NORTH QUEENSLAND & NORTH QUEENSLAND

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With the cooler weather over the last couple of weeks we should start to see a bit of movement of flowers. It is important to remember that tree nutrition and tree health is critical going into flowering and I encourage all growers to consider this during these critical pre-season months.

I have had the opportunity recently to discuss market access protocols with both the state and federal agriculture ministers. We currently have a great opportunity as an industry to lead the way with some new market access protocols into some key export markets. This won't happen overnight but we need to start somewhere and develop these for the future. If we don't, I feel that this will lead to massive oversupply issues. The rate of growth in the mango industry at the moment, as well as new access being granted to imports, is going to provide the increase in supply. This is an issue that we need at the front of the minds of all levels of government. I will continue to investigate these opportunities in my capacity as director and chair of AMIA.

Finally, I would like to thank Greg McMahon for his time on the board and his guidance. I wish him the best in all his future ventures.

John Nucifora
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The 2017-2018 season has ended and the majority of growers in this region want to put last season behind them. All growers are disappointed with the low prices received for the 2017-2018 season.

After a good wet season, we are now looking forward. The trees in our region are looking well settled for a huge flowering and with the cold weather setting in, we are confident of a strong flowering.

We are also hoping that the 2018-2019 season will see better prices than the past year.

The proposed changes to the horticulture award may further impact growers financially as many continue to recover from the low prices received last season. I encourage all growers to continue to lobby for changes.

At the recent AMIA AGM, we farewelled Greg McMahon and welcomed David Morcombe. I wish to send my personal thanks to Greg for his years of service to the industry and I look forward to working with David in his new role as director.

Matt Fealy
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I hope everyone has managed to find some well deserved time off to recharge ready for the next season. The weather has come in cooler than expected and earlier than expected so fingers crossed that translates into a good flowering.

Most growers I speak with are fully pruned, post-harvest ready and cautiously watching out for borer and sucking pests.

I believe that to give ourselves the best chance possible for a good season, we need to start with accurate forecasting. Take the time now to have a think about how best to contribute to the forecasting, before it gets too busy.

I would like to bid farewell to Greg McMahon as he steps down from the board and welcome David Morcombe.

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NORTHERN WESTERN AUSTRALIA & NORTHERN TERRITORY

Han Shiong Siah
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It has been a quiet few months since my last report, although interesting to note was the quick onset of the dry season in mid May. Some of the mango farmers around Darwin have flower buds as this report is written and I expect others may follow suit soon.

Many in the industry are concerned about new changes to the horticulture awards with the introduction of overtime for causal workers as well as night shift penalty rates. A number of farmers in the Northern Territory are currently employing workers under these conditions.

It was encouraging to see a strong turn out of growers in the Darwin and Katherine regions for the Northern Territory Department of Primary Industries, Research and Development field days. Special mention to growers, Geoff Warnock and Quentin Parker for driving the 5 hours from Kununurra in Western Australia to visit the Katherine field day. The DPI gave a brief update on the trials they are conducting in the Northern Territory and abroad. Discussions were held around the establishment of a reference group made up of growers, scientists and extension officers to lead the way for the next generation of research conducted in the Northern Territory.

In closing, I would like to thank Greg McMahon for leading the Australian Mango Industry for the last few years. I wish him all the best for his new endeavours, and no doubt we will cross paths in the future. I would also like to congratulate Geoff Warnock and John Nucifora for being re-elected on to the board and welcome, a new face to the team, David Morcombe.

Gavin Scurr
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There isn't a lot of activity in the Katherine region at the moment. We had a good wet season that finished in mid-March. By late May, some trees in the area were beginning to flower suggesting we are on track for a typical season with the majority of flowering to take place in late June.

Like many growers, I am concerned with the proposed changes to the horticulture award particularly in regards to the overtime penalties. As we know, during harvest it isn't unusual for workers to be undertaking 70 hour weeks under the current award. With the introduction of the new penalty rates, we will need to employ more workers doing less hours to remain financially viable. This adds pressure to accommodation which is already in short supply. The other area that will affect us at Pinata is the night time penalties as we harvest all our fruit between 10.00pm and 8.00am. It is a concern when our policy makers are so out of touch with commercial reality. If they would only come and see first-hand what mango harvest is all about we might get some better results.

As I'm sure you are aware Greg McMahon stood down as chairman of AMIA at the AGM on May 31. During his time on the board Greg lead not only the board but the entire industry in a very positive and professional way. His commercial awareness of the issues we face and his ability to come up with practical solutions has put our industry in the best place it can be moving forward. I would like to personally thank Greg for a job well done and wish him well in his future endeavours. He will be missed by our industry.

Geoff Warnock
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KUNUNURRA: Flowers in this region are just starting to emerge, timing is good as numerous cool nights have occurred which could help to create a good solid flowering. The past few years the fluctuating temperatures have caused a number of flowerings which seemed to be disruptive to production in the region. Although the rainfall was down on the average most trees are looking good.

CARNARVON: Growers from here are optimistic for the coming season. Mainly because of the run of the river which is indicative that the water supply has been replenished.

Pruning has been completed and the trees are looking in good shape. Growers are now just waiting for flowering and the outcomes.

SOUTHERN REGION: A reasonable season was enjoyed by most growers, a very mild summer helped the situation, no major disease issues occurred. Most growers had better returns for their fruit this year, mainly due to the decision to arrange their own marketing.

GENERAL: As a result of the AGM elections I take this opportunity to congratulate David Morcombe on his appointment, John Nucifora on his re-appointment and also say thanks to the growers who supported my re-appointment. It was unfortunate that Greg McMahon was required to step down, his experience and considerable knowledge will be missed by all.

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DIRECTOR REPORTS (cont'd)

SOUTHERN QUEENSLAND & NEW SOUTH WALES

Karl Gygar
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The winter weather is now fast approaching in the region with many areas already experiencing cool nights. When combined with dry weather, in most parts, the lower temperatures should be a good catalyst for flowering.

At the AGM, current chairman Greg McMahon stepped down. I would like to take this opportunity to thank Greg for his tireless efforts in building the mango industry. Greg's experience and wisdom will be missed and I wish him luck in his next challenge.

Although it may seem a long way off for some, for other growers, preseason planning is well underway for the next mango season. Please keep a look out for dates of the roadshows in your area. These are a great opportunity for you to hear about the work the AMIA is doing as well as providing an opportunity to network with others from the industry.

I would also like to draw growers' attention to the proposed changes to the Horticultural Award. I strongly recommend that members review the proposed changes and think about the impact the changes could have on your business. The AMIA is lobbying for the proposed changes to be reconsidered and more of industry consultation to take place. I strongly encourage all members to contact their local federal member or Growcom directly to lobby for support for this issue.

AMIA AND INDUSTRY NEWS

Australian Mangoes board update

We would like to welcome to the board a number of new directors and to congratulate our new Chairman on his appointment.

At the recent AGM our past Chair, Greg McMahon stepped down following the recent sale of his Mango interests. We would like to thank Greg for his leadership over the 2 years and wish him the best in all his future endeavours. David Morcombe from the Gingin region in Southern Western Australia was elected to the board; representing the Southern mango regions. Ben Martin who has been the previous Deputy Chair for the last 3 years was elected as the new Chair and we all congratulate him on this appointment.

Matt Fealy stood down from the board following the AGM. As a result a casual vacancy was created. Ray Courtice from Dimbulah was approached by the board to fill the vacancy through until the next AGM. Ray graciously accepted. We thank Ray and welcome him to the board.

The new board with its diverse background and extensive skill set places us in a strong position to lead our industry forward in the years to come.

Details of the new board are listed to the right.

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AUSTRALIAN MANGOES

The fruit fly threat from the north: how industry and government work together to protect Australia from exotic fruit flies

While many Australian producers are familiar with the challenges posed by Queensland fruit fly or Mediterranean fruit fly, there are other exotic fruit fly species that pose a similar threat to horticultural production, and they're already on our doorstep.

Darryl Barbour, Manager of the National Fruit Fly Council, who works at Plant Health Australia (PHA), explains the threat and how it is tackled in the Torres Strait by an arrangement agreed between governments and industry bodies.

The Australian mainland is separated from Papua New Guinea, and various exotic species of fruit flies, by only a 150km stretch of ocean—the Torres Strait—which is dotted with over 200 islands that provide stepping stones.

Every year, strong seasonal winds bring exotic fruit flies from the north onto some of these islands. If left unmanaged, fruit flies could establish on one island before making their way progressively further south to eventually reach the Australian mainland. Here they would wreak havoc through Australian horticulture, posing a huge problem for producers.

THE EXOTIC FRUIT FLY THREATS

Three species present in Papua New Guinea pose a particular risk: Melon fly (*Zeugodacus cucurbitae*), New Guinea fruit fly (*Bactrocera trivialis*), and the highly destructive Oriental fruit fly (*Bactrocera dorsalis*).

Risk analysis of the Oriental fruit fly alone, is that it is likely to have a wider host and climatic range than our Queensland fruit fly. Should it establish in Australia, it would threaten over $4 billion in horticultural production.

MONITORING ON TORRES STRAIT ISLANDS

To monitor the presence of these flies in Torres Strait, the Australian Government funds an exotic fruit fly trapping program across many of the islands. Traps operate permanently and are managed more frequently during the wet season. The detection of any of the target species triggers response activities, in a similar way to responses staged when fruit flies are detected in a pest free area.

Aided by wind, small numbers of exotic fruit flies arrive on the northernmost islands in Torres Strait, Boigu, Dauan, and Saibai. Being located less than 10 kilometres from the coast of Papua New Guinea, Australia has in place proactive control measures on these islands from November to May.

Islands towards the centre of Torres Strait, such as Badu Island, Moa Island and Yam Island see occasional detections. These islands are located some 50 kilometres from the Australian mainland and response activities are directed on an as needs basis.

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Three species present in Papua New Guinea pose a particular risk:

Melon Fly *(Zeugodacus cucurbitae)*
Source: https://www.daf.qld.gov.au/business-priorities/plants/health-pests-diseases/a-z-significant/melon-fly

New Guinea fruit fly *(Bactrocera trivialis)*
Source: http://entnemdept.ufl.edu/creatures/fruit/tropical/melon_fly.htm

Oriental fruit fly *(Bactrocera dorsalis)*
Source: https://www.daf.qld.gov.au/business-priorities/plants/health-pests-diseases/a-z-significant/oriental-fruit-fly

When response activities are required it is the Queensland Government that swings into action, coordinating additional traps, protein bait sprays, and male annihilation technique to eradicate any incursion.

An Oriental fruit fly incursion has happened before, giving us an indication of the cost of an exotic fruit fly incursion

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It is very uncommon to detect exotic fruit flies on the islands closest to the Australian mainland, including Thursday Island and Horn Island. However, given the proximity to the mainland, the detection of even a single exotic fruit fly prompts response activities on all islands in the area and additional monitoring on the Australian mainland.

It makes sense to stop the flies while they're only on the islands. Should exotic fruit flies make their way to the Australian mainland, their first port of call would likely be in Cape York Peninsula. Given how remote and inaccessible this area is, a large-scale eradication response would be extremely difficult.

AUSTRALIA'S RESPONSE

To protect against these exotic pest threats, an arrangement for an ongoing eradication response was set up in 2015, funded by a national cost-sharing agreement between governments and industry.

Since most of the islands in Torres Strait are Australian territories, eradication efforts in the Torres Strait are dealt with under the provisions of the Emergency Plant Pest Response Deed (EPPRD). A three-year rolling response plan under the EPPRD has been agreed between Parties, including the Australian Government, the Queensland Government and horticultural industries.

When response activities are required it is the Queensland Government that swings into action, coordinating additional traps, protein bait sprays, and male annihilation technique to eradicate any incursion.

These activities are funded under the provisions of the ERPPD. There is a pre-approved budget of $400,000 per financial year, paid for by Parties to the agreement. Horticultural industries contribute 20 per cent of this response budget, the rest being cost-shared between governments.

A GOOD INVESTMENT

An Oriental fruit fly incursion has happened before, giving us an indication of the cost of an exotic fruit fly incursion. In 1995 the species was found in Cairns – at that time it was called Asian papaya fruit fly. The subsequent eradication program lasted five years and cost governments and industries $36 million. Affected industries also incurred losses of $100 million in lost trade and additional quarantine treatments.

A review by ABARES also demonstrated the overwhelming cost-benefit of the ongoing eradication program. In 2013 ABARES estimated that the investment delivered a benefit-cost return between 169:1 and 1063:1, depending on the likelihood that eradication could be achieved.

Producers can be assured that their contribution to the eradication effort is a worthwhile investment.

Plant Health Australia is the not-for-profit coordinator of the government and industry partnership for biosecurity in Australia. More at planthealthaustralia.com.au

The National Fruit Fly Council brings together government, researcher funding groups and growers to develop a national approach to managing fruit flies in Australia. More at preventfruitfly.com.au/national-coordination/national-fruit-fly-council/

GS1 DataBar PLU Labels for Mangoes

Implementation of Mango PLU labels to incorporate GS1 DataBar for loose product traceability and scannability.

This coming season, in line with other loose produce categories, major retailers including Woolworths, Coles and Metcash (IGA) are asking their Australian mango suppliers to collaborate on the implementation of a more defined PLU label incorporating DataBars.

Retailers appreciate that it may not be possible to move to the new DataBar PLU Labels at the start of the season due to current stock on hand and are asking for suppliers to collaborate when purchasing new labels.

GS1 DataBar is a barcode which enables loose fresh produce to be identified, and quickly and accurately scanned at the Point-Of-Sale (POS) in a retail environment.

DataBar has benefits for both suppliers and retailers. The main benefit for all stakeholders is fast and accurate traceability of product back to the Packhouse. This means that issues can be contained as fast as possible and non-implicated Packhouses can continue their business with minimal interruption.

For retailers, faster checkout means shorter queues and happier and more productive customers and staff. Improved accuracy means less mis-identification and hence more reliable data. That data improves category management, inventory management and quality management.

An Australian and New Zealand Industry agreement resulted in the barcode number (GTIN or Global Trade Item Number) to be allocated and maintained by the Packhouse. Each mango Packhouse will need to register their own GTIN for each variety. Once each GTIN is registered, the appropriate GS1 verification report should be forwarded to your trading partners.

For all information on DataBars please contact Melanie Wishart at GS1 on melanie.wishart@gs1au.org.

The items that retailers are asking to have incorporated into the new labels are as follows: -

- Product description (not abbreviated e.g. Kensington Pride).
- Packhouse specific GTIN DataBar.
- Name of Packhouse (not abbreviated).
- Industry Standard PLU number (for wider market application).
- Country of Origin e.g. AUS (if possible) and not required if you are using the Australian Mangoes Logo.

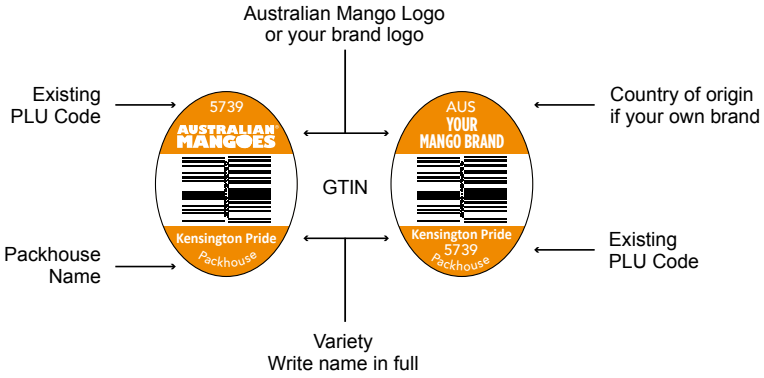
In addition, retailers are asking their suppliers to transition to industry colour coded PLU labels. See below example of label layout and specific PMS colours for each variety.

The Australian Mangoes artwork is available if you choose to use it, please contact Treena Welch for more details, marketing@mangoes.net.au or phone +61 417 001 253.

The use of the mango industry logo is not mandatory and you may continue to use your existing Packhouse branding on the label artwork.

EXAMPLE LABEL

Dimension Indicative only



INDUSTRY COLOURS

Recommended by suppliers

Kensington Pride PMS 144

R2E2 PMS 485

Keitt PMS 213

All other varieties PMS 3965

Controlling Fruit Spotting Bug

Fruit Spotting Bug (FSB) are a key pest in mango crops. They cause damage which can result in significant yield loss. The New South Wales Department of Primary Industries estimates the losses caused by FSB to the Australian fruit and nut industries could well exceed ten million dollars.

FSB are native pests to Australia and are distributed between Northern NSW and Northern QLD, preferring crops that thrive in sub-tropical conditions. Their development from egg to adult takes approximately 45 days and their appetite is insatiable from the get-go. Both adult and developing nymph feed from the sap of young shoots and fruits, causing widespread damage in relatively low numbers. The FSB is a member of the Hemiptera (sucking mouthparts) insect family and it is this method of feeding that causes crop devastation.

The damage caused by FSBs may appear similar to that of the Tea Mosquito Bug. If stung, young pink shoots will wilt and die; whereas, green shoots and young fruit will show black sting marks where the FSB has fed. Mature fruits can manifest symptoms that appear to look like stem-end cavity disorder; however, on closer inspection FSB damage will have a clear boundary where the damaged tissue meets the healthy tissue. Mature fruits may also show scarring from feeding that occurred earlier in the season.

Hort Innovation Australia recently applied and succeeded in acquiring a permit with the Australian Pesticides and Veterinary Medicines Authority. The permit allows growers to use Transform on mango crops for the control of FSB. Permit number: PER85397.

Over the years, Fruit-Spotting Bugs have been controlled by using broad spectrum chemicals which can cause significant disruption to beneficial insects. More recently, growers have realised that maintaining the natural balance of ecosystems is imperative. The overuse of insecticides and the blanket application of chemicals that can disrupt beneficial insects has been discouraged. The FSB has plenty of natural predators and it is important to opt for softer chemicals – such as Transform™ – which aim to keep beneficial insect populations thriving. In a way, Transform™ gives growers two modes of action for the price of one: kill the FSB and keep FSB predators alive.

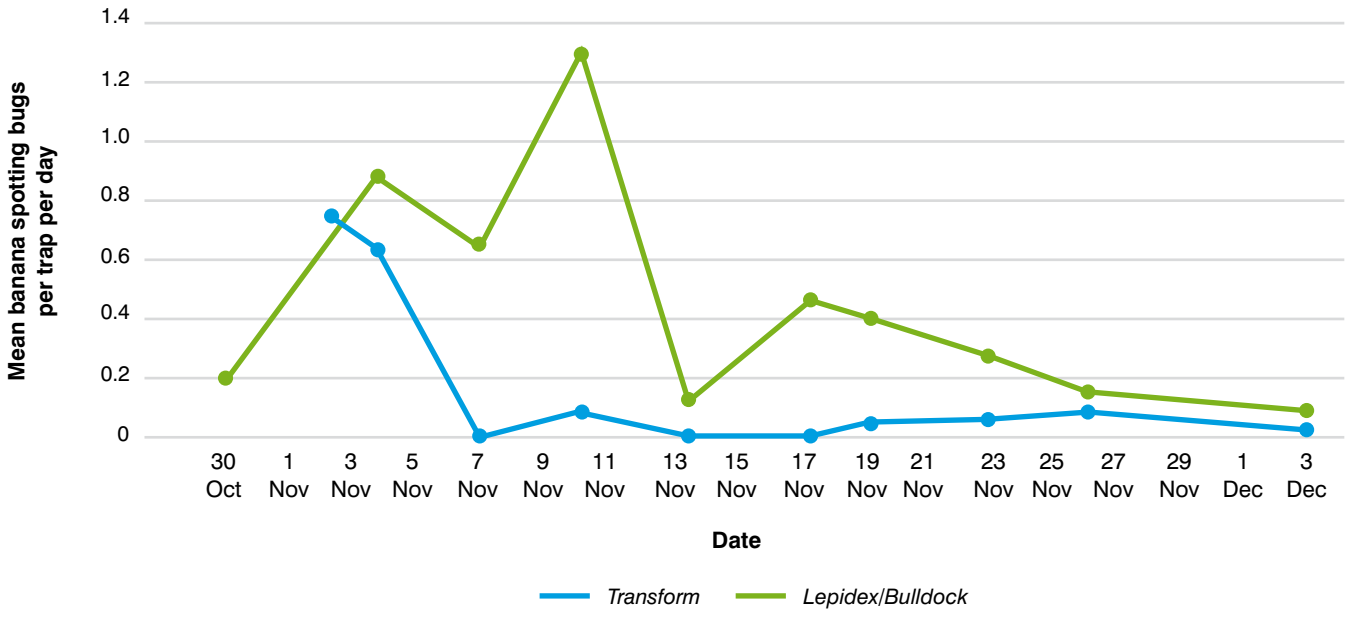
Knowing that growers needed an Integrated Pest Management (IPM) friendly product to help control FSB infestations, Dow AgroSciences invested in an extensive research program which accumulated in the registration of Transform™ for use against FSB in tropical and subtropical tree crops. The results demonstrated that Transform™ was an effective, fast-acting solution for Spotting Bug infestations.

Transform™ has a soft IPM profile and demonstrates effectiveness on a broad range of sap-feeding insect pests, including: aphids, plant bugs, scales, mealy bugs, and is now approved for use on FSBs too.

Transform™ puts the power back into the grower's hands. It gives farmers an effective, fast-acting, and safe option to control these damaging pests.

For more information on the APVMA approved permit please visit: https://apvma.gov.au/ and search permit number PER85397. And for safe application of Transform™ please follow label instructions or visit: http://www.dowagro.com/en-au/australia/product_finder/insecticides/transform

Transform™ efficacy compared to other commercially available products:



PR & MARKETING

It's a wrap!

The 2017-2018 season has ended with the largest production in the history of the Australian Mangoes Industry. 10.7 Million trays (7kg equivalent) were sent to market representing a 25% increase in volume over the previous season. Retail prices decreased, but only by 10% leading to a 22% YOY growth in retail value. An excellent result for the industry.

Over the past four years our united efforts to meet and exceed consumer expectations under the guidance of our marketing plan, the "wheel of velocity and momentum" has really gained traction.

LOOK HOW FAR WE'VE COME FROM 2013 TO 2017

- Export volume grew by 50% and value grew by 48%
- Domestic volume grew by 60.6%
- Domestic average price grew by 6.4%
- Growth in the domestic volume and price resulted in a value growth of 71% versus the total fruit category growth of 28% over the same period of time
- We've seen incredible growth in loyal customers with 'wedded' buyers accounting for 22% of all mango buying households in 2017 versus 11% in 2013
- Wedded buyers purchased 58% of all the mangoes sold in the 2017 season; purchased on average 11.3 times; and paid a higher average price for the mangoes they purchased than any other segment
- We've attracted an additional 1.2 Million new households to the mango category
- Of these new households 737,637 have become 'wedded' buyers
- The segment of 'wedded' buyers achieved the highest increase in buyers from 2013 to 2017 with an increase of 152%
- Mango catalogue and newspaper advertisements went from a total of 73 during the 2013 season to an extraordinary 282 in the 2017 season – an increase of 286%

The foundation for these outstanding results has been our collective ability to engage in the "wheel of velocity and momentum", providing a weekly forecast that enables capacity planning and good decision making, along with widespread adoption of the Australian Mango Industry Quality Standards for visual and maturity standards by growers and retailers in both domestic and export markets.

Congratulations to each of you - the committed individuals, amazing teams, and great businesses of our industry-collectively; you have contributed greatly to the success of the past four years. Harvest of the 2018 crop is fast approaching and we look forward to engaging with each of you as we work together to create an exciting and successful season for all.

For more information contact Treena Welch at AMIA: marketing@mangoes.net.au, or 0417 001 253.

Continued page 15

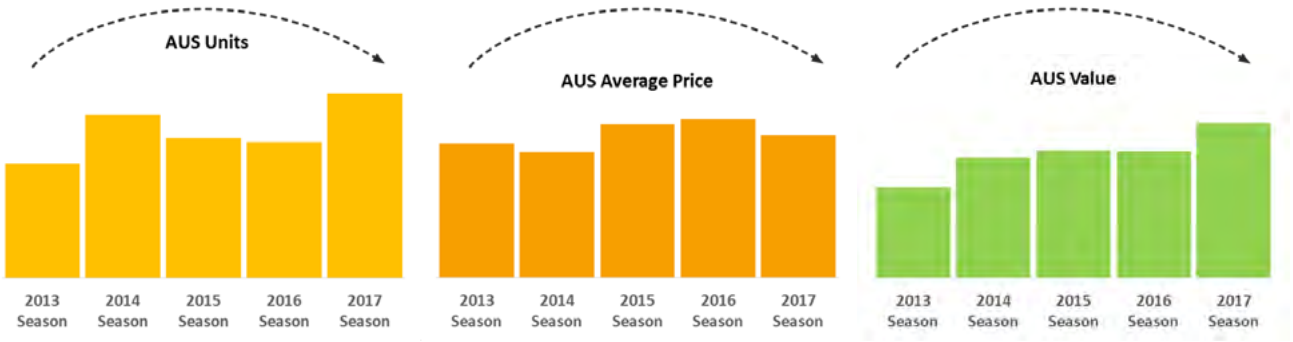
BENCHMARK (TOTAL FRUIT)

Continued from page 14

2013 TO 2017

Over the past four years our united efforts to meet and exceed consumer expectations under the guidance of our marketing plan, the "wheel of velocity and momentum" has really gained traction.

GROWTH TRENDS

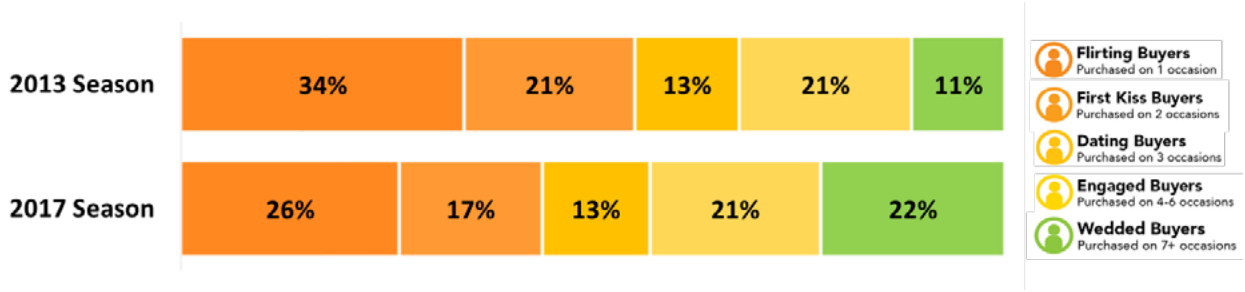


UNIT GROWTH **60.6%** All Aus.

PRICE GROWTH **6.4%** All Aus.

VALUE GROWTH **70.9%** All Aus.

% OF MANGO BUYERS



WEDDED BUYERS PURCHASE 58% of the mangoes sold in 2017Season

WEDDED BUYERS purchased on average **11.3 TIMES** in 2017 season
2015 10.7, 2016 10.6

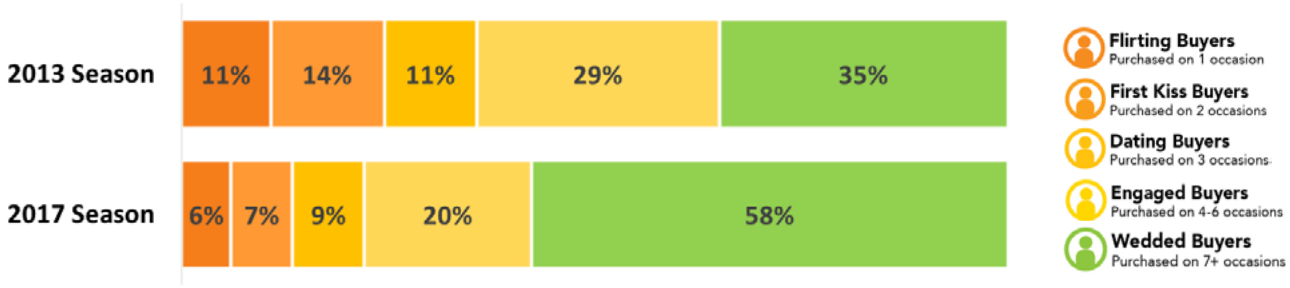
WEDDED BUYERS PAY MORE Per mango

Continued page 16

Continued from page 15

2013 TO 2017

% OF MANGOES SOLD



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2015 10.7, 2016 10.6

WEDDED BUYERS
PAY MORE
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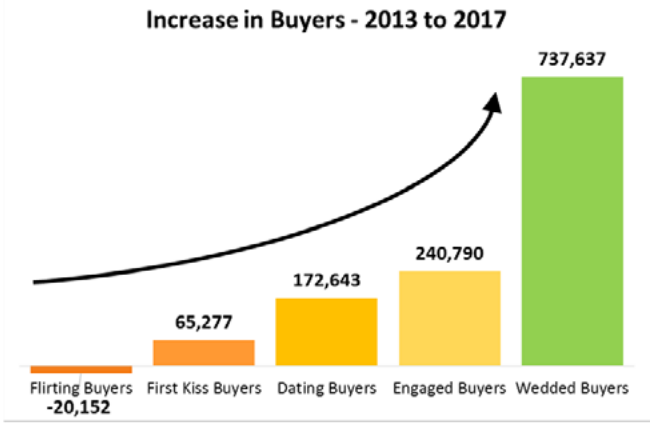
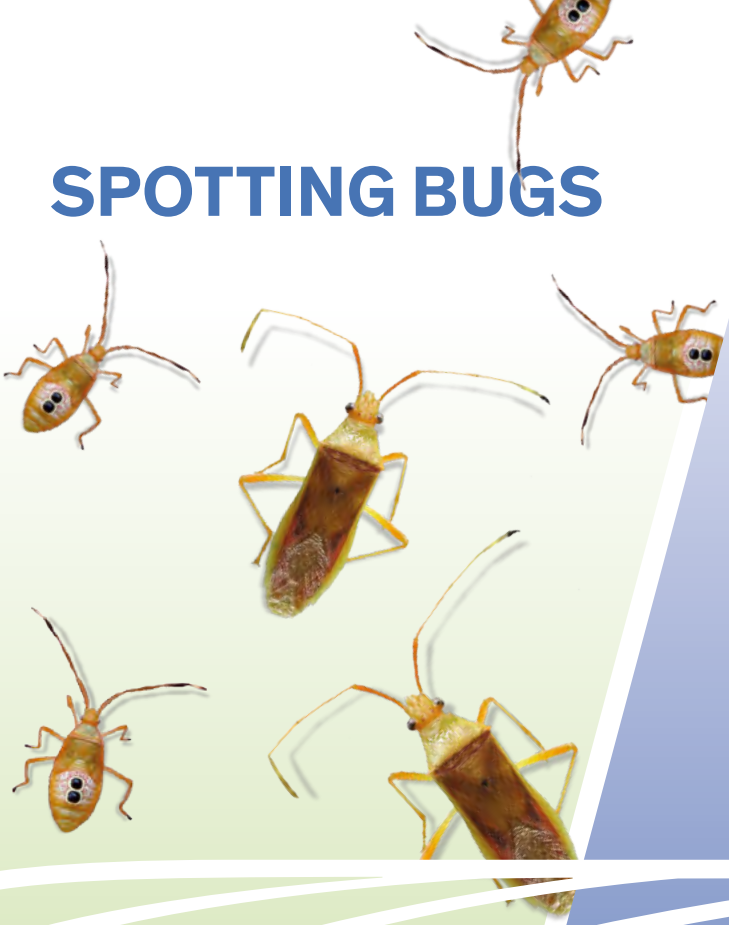
BUYER FREQUENCY



1.2M
MORE HH

WEDDED BUYERS
HIGHEST GROWTH
152% INC.

SPOTTING BUGS



STOPPING BUGS

TAKE BACK CONTROL

Fruit spotting bug and banana spotting bug are devastating pests of macadamia, avocado and mango crops, which until now have been extremely difficult to stop.

Now you can take back control of your orchard with **Transform**™.

- Excellent control of fruit spotting bug and banana spotting bug.
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Media Release

Faster, smarter, simpler: AustSafe's new digital claims service goes live Monday, 28 May, 2018

AustSafe Super members can now make insurance claims online, fast-tracking the claims process, with a user-friendly facility that guides members through the claim process and adjusts to claimants responses.

Powered by AustSafe Super's insurance partner, CommInsure, the dynamic online claims service allows members to lodge a claim online and track its progress as its being assessed.

AustSafe Super chief executive, Craig Stevens, said the new digital service will simplify the claims process for many members and will lead to faster claims turnaround times, ultimately improving outcomes for members with insurance claims.

"AustSafe Super's 100,000 members are spread throughout rural and regional Australia – including some remote parts of the country – so the ability for them to be able to fast-track an insurance claim online is something we're proud to be offering.

"Our members still have the option of lodging claims the traditional way... the new offering further supports our member services initiatives by providing greater flexibility and access for members wishing to make a claim," he said.

The digital claims service is a web-based app for Income Protection, Total and Permanent Disability and Terminal Illness claims, and will lead to claims being received by the insurer within minutes and removing the need for paper-based forms.

"CommInsure General Manager for Life Product and Distribution, Craig Harrison said: "AustSafe Super members will find lodging and managing an insurance claim so much easier with this industry-leading platform. We involved members extensively in design and testing to make this a user-friendly facility for members to lodge a claim and then show them exactly where they are in their claim journey."

Now in its 30th year of operation, AustSafe Super is the industry super fund for rural and regional Australia and looks after more than 100,000 members with $2.4 billion funds under management.

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RESEARCH & POLICY

ACIAR mango crop management in the Philippines and Australia impacts smallholder farmers

The successful ACIAR project 'R&D of integrated crop management for mango production in the southern Philippines and Australia (HORT/2012/019)' came to an end at the final project workshop held at the Waterfront Hotel in Davao, Philippines on the 24-25 May 2018. Collaborators from the Department of Agriculture and Fisheries Queensland (DAF), University of Southern Mindanao, University of the Philippines Los Baños, University of Southerneastern Philippines, Southern Philippines Agribusiness, Marine and Aquatic School of Technology and the Provincial Agriculturists Offices of Davao del Norte and Davao del Sur gathered together to review and compile the key results, impacts, conclusions and recommendations from this four-year project. The project's key goal was the development and improvement of practices for integrated pest and disease management, nutrition, pruning and canopy management to improve mango grower profitability.

Department of Agriculture and Fisheries (DAF) Project Extension Leader, Dr Geoff Dickinson said the communication of mango best practices to growers was achieved through the formation of numerous 'farmer clusters' in the Davao del Norte and Davo del Sur regions in the southern island of Mindanao.

"More than 185 mango growers attended these season-long training workshops, conducted three-four times throughout the mango season.

"Additional extension training was provided to 21 of these growers to act as 'cluster leaders', as well as 50 Provincial Agriculture Extension Officers (including from other Mindanao provinces) to help facilitate future mango BMP training to other growers.

"These workshops were organised and facilitated by Dr Ana Notarte and Ms Julia Sagolili from the Provincial Agriculturists Offices in both regions and have resulted in immediate practice improvements in mango crop management" he said.

A major change in grower understanding has been the recognition that significant canopy pruning is essential to maintain high productivity in younger orchards or can be used to reinvigorate old, unproductive orchards. Improvements in the understanding of pest biology, particularly for cecid fly and thrips, has led to major changes in pest management and pesticide application for Philippine growers. In this project cecid fly parasitoid wasps have been found and have been identified by the Museum of Natural History in London. These findings have implications for the Australian mango industry, as the same species of cecid fly has invaded the Torres Straight and Cape York and is of imminent threat to the main Queensland mango production areas, particularly Far North Queensland. These wasps may be of importance for future biocontrol strategies in Australia.

The project results have also proven that thrips are resistant to the conventional broad-spectrum insecticides that are currently registered and being used, and are exacerbating the pest problems.

Philippines mango thrips are also the same species that attack mango and other crops (e.g. bananas and vegetables) in Australia. The findings of this research in the Philippines has shown the importance of thrips management in weeds and alternative crops for controlling thrips in mangoes which could have implications for managing thrips here in Australia.

DAF Project Leader, Dr Ian Newton said that the project partnership between key mango RD&E organisations from the Philippines and Australia had faced many challenges over the past four years.

Davao team photo

"I believe we have now achieved key outcomes and recommendations that can significantly improve the livelihoods of the 6000 smallholder mango growers in the southern Philippines," he said.

Submitted by Geoff Dickinson Department of Agriculture and Fisheries.

Australian Government
Australian Centre for International Agricultural Research

Monitoring triggers practice change

Over the last two seasons, the Serviced Supply Chains project has worked with a significant mango exporter to monitor several mango export consignments to China and South Korea. The consignments included one sea and seven air shipments in 2016-17, and three sea and nine air shipments in 2017-18. New monitoring technologies such as RFID-based Xsense (BT9 Ltd) and SIM-based SmartTraxx (Emerson) temperature loggers were used.

Monitoring and comparing the temperature profiles during the 2016-17 season identified the following risks to product quality in air shipments:

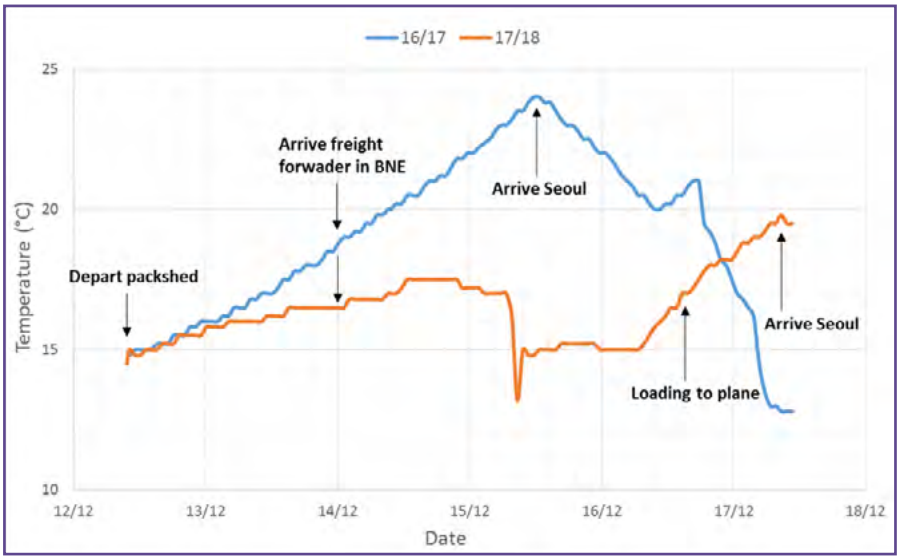
1. Temperatures typically increased through the supply chain. Contributing factors included:
   - fruit dispatched from the shed being too warm
   - temperature increases during the two-day surface freight from farm to Brisbane as port of departure, despite using refrigerated transport
   - fruit not adequately cooled at the freight forwarder
   - temperatures commonly increasing during the airfreight sector.
2. Often significant temperature differences between the outside of pallets and the inside and also within a pallet and across pallets based on the tray layer (vertical) and pallet position on the skid (horizontal). For example, in one air shipment to South Korea, temperature of trays in the middle of the pallet were 15°C warmer than trays in the top or bottom of the pallet.

Before the beginning of 2017-18 season, the exporter improved their temperature management strategies. Three critical control points at which temperature management could be improved were identified, i.e. at departure from the pack shed, at the freight forwarder and at the importer.

Table 1. Packhouse departure and importer arrival temperatures averaged over 7 airfreight consignments in each of the 2016/17 and 2017/18 mango seasons.

	AVERAGE DEPARTURE TEMPERATURE °C	AVERAGE ARRIVAL TEMPERATURE °C
2016-17	13.7	23.7
2017-18	14.3	20.8

Figure 1. Typical temperatures for mango air freight consignments from North Queensland to South Korea. The graph for the 2016-17 and the 2017-18 season are fairly typical of the average across the consignments within each season.



These improvements resulted in lower average temperatures on importer arrival in 2017-18 (Table 1), mainly because of improved temperature management at the freight forwarder, including re-cooling before aircraft loading if required.

Figure 1 illustrates typical temperatures for a commercial air freight consignment to South Korea in the 2016-17 and 2017-18 seasons, which are close to the average conditions across the consignments monitored in each of the two seasons. In 2017-18, the arrival temperatures were lower largely because of cooling undertaken at the freight forwarder at the request of the exporter. Effective cooling at the packhouse and importer also helped manage these temperatures through the supply chain. The improved temperature management in the 2017-18 season also resulted in smaller temperature differences between the outside and inside of pallets.

The improved temperature management also led to a small, insignificant decrease in yellow skin colour and increase in firmness of the R2E2 fruit at importer arrival, which could improve shelf life.

For more information contact: Noel Ainsworth, Principal Supply Chain Horticulturist, at DAF; noel.ainsworth@daf.qld.gov.au or (07) 3708 8563.

Acknowledgements: The Serviced Supply Chains project is funded by the Hort Frontiers Asian Markets Fund, part of the Hort Frontiers strategic partnership initiative developed by Hort Innovation, with co-investment from the Department of Agriculture and Fisheries, Queensland (DAF), Department of Economic Development, Jobs, Transport & Resources (Victoria), Manbulloo (mangoes), Montague Fresh (summerfruit), Glen Grove (citrus), the Australian Government plus in-kind support from the University of Queensland and the Chinese Academy of Sciences.

Article submitted by Yiru Chen, Andrew Macnish and Noel Ainsworth from DAF.

PEOPLE & EVENTS

Save the date

AMIA Road Shows are coming to a town near you!

- All growers are strongly encouraged to attend their local Road Show
- Packers, wholesalers, importers, exporters and other industry stakeholders are all welcome
- Presentations from key retailers and industry representatives
- Social networking and BBQ to follow presentations
- Start time: 4:00pm

Northern Territory Road Shows

- Monday 6 August – Kununurra
- Wednesday 8 August – Katherine
- Thursday 9 August – Darwin
- Venues TBC

For details on how to register, venues and Road Shows in other regions, please keep an eye on *The Slice* and *My Mango* publications.

Baby News

AMIA Communications Manager, Jess Mitchell welcomed a baby boy, Dylan James on Monday 4th June. We wish Jess well and look forward to seeing her when she returns from Maternity leave in 2019.

Out and about at the 2017 Pre-season Roadshow

RENT FREE MANGO SHARE FARM OR FOR SALE Located in Nimbin NSW

- 1650 trees set on 110 acres mixed farm (Cattle, market gardens)
- High country warm plateau in Northern NSW (Nimbin)
- Trees in good order, mostly KP. Hedged, topped 2017
- Equipment available for use
- Due to incapacity of current owner this is an opportunity for another person to manage risk free - pay a small percentile of sales only
- Two bed contemporary house enjoying sensational 270 degree views of world heritage caldera / internal graveled roads
- Machine and basic pack sheds / irrigated market garden
- Cattle yards and fenced pastures with water in all paddocks / creek with waterholes / rainforest gullies
- Planning potential to build farm worker accomodation and a building entitlement remains to build a prestige home in prime view corridor close to existing dwelling.

For further information, please contact Peter Smailes:
P. 0411 339 083 E. peter.smailes@gmail.com

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Transform™

Transforming how we control fruit spotting bugs

INSECTICIDE

ISOCLAST™ ACTIVE

Fruit spotting bug (FSB) are devastating pests of avocadoes, macadamia nuts, citrus, as well as other tropical and subtropical tree crops. FSB are native pests to Australia and have widespread distribution from northern NSW right up to northern Queensland. Both adult and adolescent FSB can cause widespread crop damage in relatively low numbers. Their crop yield impact is devastating too, by feeding on fruit, flowers, and young shoots, FSB has been reported by growers to cause crop losses well over 50%. The FSB can be identified by its green-brown appearance, large wing pads, and spotted markings on their abdomen (more apparent on nymphs). The FSB takes on slightly different colourations as it progresses through its life cycle. It should be noted that FSB shares a near identical appearance to the banana spotting bug (BSB), also a significant pest that targets the same crops as the fruit spotting bug.

Figure 1. Fruit spotting bug with a body length of 15 mm.
Photo: brisbaneinsects.com

FRUIT SPOTTING BUG IN AVOCADO CROPS

In Australia, FSB is a major pest for avocado growers. Both the adult and nymph FSB can cause damage to the avocado fruit. In particular, smooth and thin-skinned varieties such as the Fuerte are the most vulnerable to FSB damage. Fruit smaller than that of a golf ball will prematurely drop if stung. Younger fruit can also show blind stings which manifest as dark sunken spots on the fallen fruit, whereas older fruit can remain on the tree after FSB damage.

What to look for:

- Lesions that show up as craters (*see figure 2*)
- Water-soaked areas that exude a sap which dries to a white powder
- Star-shaped cracks that form as the fruit expands around the dead tissue were FSB have fed
- Blind stings will tend to go unnoticed until the fruit is peeled; however, when peeled they appear as small spotted bruises
- Stings can also result in the formation of small, hard, woody lumps just under the skin (*see figure 3*)

Figure 2. Small, immature avocados usually fall from the tree after being stung by FSB
Photo: Department of Agriculture and Fisheries Queensland

SPOTTING BUGS IN MACADAMIA AND MANGO CROPS

Spotting bugs are also a significant pest in macadamia and mango crops. In fact, spotting bugs are estimated to cost the Australian macadamia industry $8.9m per annum. From reduced gate production, increased production costs (more crop protection), reduced recovery of kernel in processing, and increased processing costs have all been attributed to the damage caused by FSB. Immature macadamia nuts (between the months of September and February) and thin-shelled varieties – which can be attacked year-round – are the most susceptible to FSB infestation. Mangoes, being a thin-skinned fruit, are susceptible to spotting bug damage throughout all phases of growth.

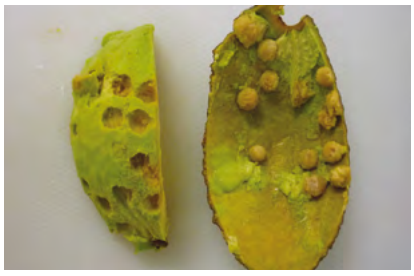

Figure 3. Woody lumps form under the skin at FSB sting sites
Photo: Department of Agriculture and Fisheries Queensland