

# PAPAYA PRESS

ISSUE 9 - JUNE 2022

## COWLEY WORKSHOP A BLAST FOR GROWERS



**A** papaya spray workshop was held on Thursday, 28 April as part of the three-year 'Papaya industry extension and communications program' (PP20000).

Organised by the Queensland Department of Agriculture and Fisheries (DAF) and hosted by Michael Oldano of RMC Farming in Cowley, Queensland, the workshop revisited key concepts behind air blast spraying in papaya, and provided practical demonstrations of newer technologies in air blast spraying such as air induction nozzles.

The workshop was run by Allan Blair, a former papaya farmer and previous DAF employee, who is an expert in spray technology and calibrations and author of the spraying section in the Agrilink Papaw Information Kit from 2000.

DAF project coordinator, Emily Pattison, said a key part of the workshop was discussing African Spider Mite as one of the new challenges facing papaya growers within their spraying practice.

"This mite is found on the upper surface of the leaf, in contrast to the more familiar Two Spotted Mite which is found on the underside. This presents a particular challenge for growers to achieve adequate spray coverage to control the mite, particularly in tall trees," Emily said.

In the workshop, two sprayers were compared; one that was fitted with a standard hollow cone nozzle with very fine spray quality, and the second with standard hollow cones but with two air induction nozzles.

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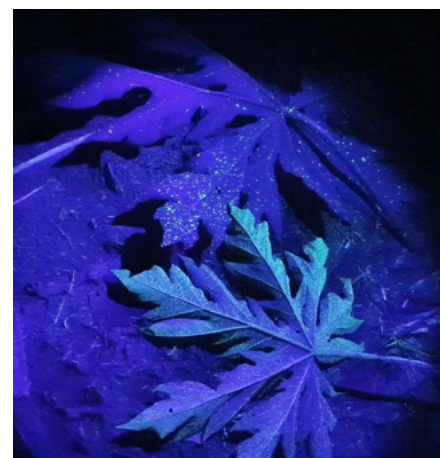


Figure 1: A comparison of the coverage on the underside of the leaf between a standard hollow cone sprayer set-up (bottom leaf) and a set-up including 2 air induction nozzles. Coverage on the underside of the air induction nozzle is considered inadequate for a large portion of the leaf area. Further investigation is required to overcome this issue.

With the standard set-up, two different volume outputs were trialled – 250L/ha and 450L/ha – and the difference in coverage between all the different set-ups was visualised at night using fluorescent dye and ultraviolet torches.

Air induction nozzles are designed to produce air bubbles within a spray droplet, which makes the droplet larger without increasing its volume, and to reduce drift. But when considering pests

*Continued on page 3*



This edition has been developed by Cox Inall and the Department of Agriculture & Fisheries (Queensland).

This magazine is funded by Hort Innovation using the papaya R&D levy and contributions from the Australian Government.

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

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**Hort  
Innovation**  
Strategic levy investment

**PAPAYA  
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## See your levy at work!

Get an update on all new, current and recently completed levy funded activity on the Hort Innovation Papaya Fund page at [www.horticulture.com.au/papaya](http://www.horticulture.com.au/papaya).

You can access easy-to-read project updates, a snapshot of the Papaya Fund, research reports and resources, key industry contacts and more. Don't miss the Hort Innovation 'Growers' section to keep informed on your levy investments, upcoming events, scholarship opportunities and other handy info!

Stay in the loop with your levy by becoming a member of Hort Innovation, the grower-owned, not-for-profit research and development corporation for Australian horticulture. Paying a levy doesn't automatically make you a member but signing up is free at [www.horticulture.com.au/membership](http://www.horticulture.com.au/membership).

# From the Chair

GERARD KATH

**A** quick hello to all in papaya world.



Papaya Australia is leading the new levy funded project, 'Papaya market supply data capture and analysis' (PP20003), which is tasked with collecting, collating, and publishing weekly industry production figures. Put simply, it is the total number of pellets sent weekly by the four main transport companies. It will show the production numbers of yellow and red, and the split between the main growing areas of North Queensland. This information will start flowing shortly, so keep an eye out. See the article below for more on this project.

Since our last issue, production has been fairly high, and thereby, prices have been moderately low. This has been challenging for most growers who continue to face the ever-increasing cost of production in freight, energy, fertiliser, chemicals, and labour. I note that fruit seems to be on the

other end of the profitability scale compared to veggies. Our industry is facing challenging times ahead, but it's important to note that we're not as bad off as some industries like avocados and bananas.

Finally, I'd like to draw everyone's attention to the upcoming R&D Field Day being held in Mareeba, Queensland on Friday, 29 July. The main peak industry bodies will be in attendance, along with several key staffers from Hort Innovation. There will be a number of forums held in the form of a Q&A session that discuss both current conditions and predicted outlook for the various production industries, as well as a series of emerging opportunities showcased such as carbon trading and value-adding. We're confident that there will be a large turnout at the event and that it will be farmer beneficial and friendly. Though, I must take this opportunity to declare my conflict of interest in promoting an event I'm helping organise! Hope to see you there.

Best Regards,  
**Gerard Kath**

## NEW PROJECT: Papaya market supply data capture and analysis

**L**ed by Papaya Australia, a new levy investment is tasked with collecting production figures for the main growing areas of North Queensland.

Production figures will be tallied to give a production overview on the tablelands and coastal areas. The focus of the reports will estimate the weekly production volume in pallets by asking transport companies to report total pallets sent to the main eastern seaboard markets, with the assumption that pallet weight represents approximately 800 kilograms of fruit.

In 2020, the papaya industry was valued at \$27.5 million, with the industry producing an average of 15,000 tonnes per year. It estimated that close to 94% of Australian papayas are produced in the wet tropics of far north

and central Queensland, with a further 5% in north-western Australia and 1–2% in the Northern Territory.

As this data is no longer recent it is important for industry to know current production figures from the largest producing area.

Reporting will be circulated on a weekly basis to all stakeholders, as well as the Papaya Press and a summary given to transport companies who will be involved in providing the information.

*The 'Papaya market supply data capture and analysis' (PP20003) project is funded by Hort Innovation using papaya industry levies and funds from the Australian Government.*





## COWLEY WORKSHOP A BLAST FOR GROWERS *(continued)*

on the upper surface of leaves, the larger droplet size has a better chance of coming up and then dropping back down in comparison to the traditional hollow cone design. The theory was successful!

The air induction nozzles achieved excellent coverage, based on 16 droplets/cm<sup>2</sup> on the upper side of approximately 2.5-3 metre trees on single rows.

One issue was that the coverage on the upper side of the leaf was

superior to the coverage on the underside. It was suggested that in this scenario, potentially only one air induction nozzle may be required but further trialling will need to be undertaken to refine the set-up.

In terms of output volumes, the 450L/ha achieved the best coverage, but the 250L/ha still achieved adequate coverage over 16 droplets/cm<sup>2</sup> with potentially much less wastage.



“An important consideration from the workshop is that a successful spray set-up on one farm may not be transferrable to another, particularly when comparing double row and single row and different row and plant spacing,” Emily said.

“Grower response to the workshop was excellent with 100% of growers saying they learnt something new, and they felt confident applying it at their own properties.

“I would like to thank everyone for coming along, and particularly to growers Michael, Adam and Josh Oldano, presenter Allan Blair, and agronomist Dave Doolan (GF Rural) for all their help in making the workshop a success.”

For more information, please contact:  
**Emily.pattison@daf.qld.gov.au.**



*The ‘Papaya industry extension and communications program’ (PP20000) project is funded by Hort Innovation using papaya industry levies and funds from the Australian Government.*

**Hort  
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This project has been funded by Hort Innovation using the papaya research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit [horticulture.com.au](http://horticulture.com.au)



# LEVY FUNDED PROJECT UPDATES

## NATIONAL PAPAYA BREEDING AND EVALUATION PROGRAM

New papaya genetic lines have been developed through the 'National Papaya Breeding and Evaluation Program' (PP18000) that are agronomically superior with improved flavour, shape, size and eating quality through research from Griffith University's Centre for Planetary Health and Food Security.

Funded through Hort Innovation, developing genetically stable red- and yellow papaya varieties is the culmination of eight years of selective breeding that has been directly informed by growers, marketers, and consumers. The program is expected to be completed by mid-2024.

Papaya breeder and PP18000 project leader, Dr Fawad Ali, Research Fellow from Griffith University, said significant progress has been made against the breeding program goals, developing new varieties that suit the industry requirements and consumer preferences for both the Tableland and coastal climates in Tropical North Queensland, where 85% of papayas are produced.

"The new F6 advanced breeding lines grow fruit much closer to the ground than current varieties, reducing costs associated with mechanical picking. They also have a superior flavour, sweetness, and shape, with smaller cavities than the current commercial varieties," he said.

"A range of sizes for each line have been developed to suit different marketplaces, from consumer-preferred mango size to larger sizes that suit packing and transportation requirements.

"The percentage of heritability and genetic gain from the strategic breeding for the agronomic and fruit quality trait selection are currently being monitored and calculated.

"This is achieved through breeding successive generations and multiple trial sites to ensure trait stability and within the distinct agri-geographical climates of the two major growing regions.

"So far, many of the traits have been found to be highly heritable, meaning that they will be stable in the new varieties once released.

"Plant Breeders' Rights (PBR) stage I are also being applied to the advanced breeding lines that will become



Dr Fawad Ali, Research Fellow-Papaya Breeding and Genetics  
Centre for Planetary and Food Security

the new varieties. This involves further field trials and the 'Qualified Person' collating and submitting the agronomic and fruit trait data for registration purposes.

"Once finalised, these will be the first papaya varieties with PBR status and commercialisation partners will be invited."

For more information on the 'National Papaya Breeding and Evaluation Program' (PP18000) please contact Dr Fawad Ali at [fawad.ali@griffith.edu.au](mailto:fawad.ali@griffith.edu.au).



*The 'National Papaya Breeding and Evaluation Program' (PP18000) project is funded by Hort Innovation using papaya industry levies and funds from the Australian Government.*



In-field comparison between breeding lines F6 (left) and RB1

**Hort  
Innovation**  
Strategic levy investment

**PAPAYA  
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## CONTINUOUS CONSUMER USAGE & ATTITUDE & BRAND TRACKER (PILOT PROGRAM)

To complement the NielsenIQ Homescan ‘Consumer behavioural data program’ (MT21004) and upcoming ‘Consumer demand spaces for horticulture’ (MT21003) projects, Hort Innovation have partnered with FiftyFives over a five-year period to deliver a consistent approach to tracking consumer usage and attitudes.

This contract is the first of its kind for the research and development levy and consists of two types of modules, an:

- ‘Always on’ module: This includes a monthly usage and attitude survey that tracks all Fruit/Veg/Nut levies in order to understand key topics such as future purchase intent, type of meal occasion the industry is purchased for, how consumers are using the produce, who they are consuming it with, and more. By tracking industries over time, the Papaya industry will be able to understand how behaviours change throughout the year and therefore be able to unlock future growth opportunities and potential areas for further R&D research.
- ‘Ad-hoc’ module: These modules are incremental to the ‘always on’ module and allow for industry to further analyse a specific commodity to answer industry-related questions.

This investment will initially begin as a three-month pilot to test and measure core metrics with results being available to industry in the coming months.

For more information on this investment, please contact [george.margin@horticulture.com.au](mailto:george.margin@horticulture.com.au), Hort Innovation’s Consumer Insights Manager.

*The ‘Continuous Consumer Usage & Attitude & Brand Tracker (pilot program)’ (MT21201) project is funded by Hort Innovation using papaya industry levies and funds from the Australian Government.*

## NEW PAPAYA BIOSECURITY PLAN RELEASED

Plant Health Australia (PHA) completed the updated Papaya Biosecurity Plan late last year. Developed in conjunction with Papaya Australia, Hort Innovation, state and territory governments and leading scientific specialists, the new plan builds upon the previous Papaya Biosecurity Plan developed in 2011.

Biosecurity planning provides a mechanism for the papaya industry, government, and other stakeholders to assess current biosecurity practices and future biosecurity needs. The Papaya Biosecurity Plan outlines key biosecurity threats to the industry and highlights the risk mitigation activities the industry should adopt.

## THE PLAN FOCUSES ON FIVE KEY AREAS:

1. High priority exotic pests, and established pests of biosecurity significance
2. Threat identification and risk assessment
3. Risk mitigation and preparedness
4. Response management
5. Farm biosecurity

Trevor Dunmall, PHA’s Biosecurity Planning Manager, said as expected the suite of **exotic fruit fly** remains on the high priority pest list as these pests have the potential to impact both production and trade.

“Many growers will remember the incursion of Papaya fruit fly in the 1990’s and the impact this incursion had on them and their businesses,” Mr Dunmall said.

“Growers and their employees are at the forefront of managing pests and diseases and are often the first people to identify pests or disease symptoms they are unfamiliar with.

“Early detection and reporting of an exotic pest or pathogen provides the best opportunity for containment and eradication.”

Growers are encouraged to report any suspicious symptoms to the Exotic Plant Pest Hotline on 1800 084 881. This will put you in touch with the relevant government department, wherever you are located.

For more information on papaya biosecurity, visit the PHA at: [www.planthealthaustralia.com.au/industries/papaya](http://www.planthealthaustralia.com.au/industries/papaya).

*The ‘Biosecurity plan for the lychee, papaya and passionfruit industries’ (MT18006) project is funded by Hort Innovation using lychee, papaya and passionfruit industry levies and funds from the Australian Government.*



# INDUSTRY NEWS

## Horticulture and Reef regulations

**M**any growers in the Great Barrier Reef Catchments would be familiar with Reef protection regulations for grazing, cane, and banana industries.

While there is an increased expectation for horticulture growers to reduce negative impacts to water quality coming off the farm, there is still some time before other horticulture industries will be regulated.

Here is what you need to know about the future of Reef regulations:

- Minimum practice agricultural standards for existing grains and horticulture production are proposed to start on 1 December 2024. Development of the standards has not commenced and will be done in consultation with industry.

- However, growers must apply for an environmental authority (permit) if starting new or expanding cropping or horticulture activities on five hectares or more of land that does not have a cropping history.

- Horticulture industries can demonstrate their stewardship through the Hort360 program implemented through Growcom.

Engaging with Growcom's Hort360 program not only ensures growers are recognised as good environmental managers, but can provide ideas about improved outcomes for farms as well as for water quality.

For more information, contact Tamaya Peressini on, [Tamaya.peressini@daf.qld.gov.au](mailto:Tamaya.peressini@daf.qld.gov.au) or 0476 528 302.



## Two-steps to achieve certification

### 1. Complete the Reef Certification module

### 2. Then, if you want to be Reef Certified, undergo a formal audit process

#### BENEFITS OF ACHIEVING REEF CERTIFICATION

Hort360 Reef Certification is entirely optional.

To reduce the administration burden for growers pursuing Reef Certification, the compliance criteria for Hort360 Reef Certification is aligned with Freshcare Food Safety & Quality and Freshcare Environmental. This allows growers to be audited for Hort360

Reef Certification at the same time as Freshcare.

Becoming Reef Certified is a quality, credible certification pathway for horticulture growers to demonstrate their environmental stewardship and industry best practice standards in Great Barrier Reef catchments.

#### TO FIND OUT MORE INFORMATION:

The Hort360 Reef Certification module can be completed as a self-assessment or with the support of a Growcom extension officer.

The program is entirely voluntary, and users say it helps identify

potential risks and opportunities for their business.

To find out more about the program, please contact your local Hort360GBR extension officer if you would like to discuss the program:

- Phil Laycock – Far North Queensland – [phillaycock@growcom.com.au](mailto:phillaycock@growcom.com.au)
- Luke Hargreaves – Bowen / Burdekin – [lhargreaves@growcom.com.au](mailto:lhargreaves@growcom.com.au)
- Michelle Haase – Burnett / Mary – [mhaase@growcom.com.au](mailto:mhaase@growcom.com.au)

To access Hort360, please login or register at: <https://www.hort360.com.au/>

# Hort360: The best management practice program for horticulture

**G**rowcom has developed a best management program for horticulture growers called Hort360, a computer-based risk assessment tool that gives a holistic view of farm business operations.

Covering key areas from business

management to irrigation, Hort360 also includes a Reef Certification module for growers in the Great Barrier Reef catchment, affording them an opportunity to demonstrate environmental stewardship in their industry.

The Reef Certification module focusses on four key management practice areas that have been recognised as affecting a farm's profitability and water quality outcomes: nutrient, sediment, pesticide, and water.

## Get connected: Meet Tam Peressini

**T**amaya, or Tam, grew up in Cairns and is passionate about the future of farming in Far North Queensland. Her great interest in agricultural science and biology saw Tam study a Bachelor of Plant Science at the University of Queensland.

Tam found her passion for tropical horticulture working across vegetables, cocoa and banana research in South-East Asia and the Pacific. What she found most interesting was the variety

of challenges that can affect farming businesses and how growers adapt.

Having previously worked for the Australian Banana Growers Council (ABGC), Tam enjoyed working with and learning from banana growers improving sediment and nutrient practices through the BMP program.

Since starting at the Department of Agriculture and Fisheries in March 2022, Tam has been learning the ropes in tree-crop agronomy. She is

interested in working with industry to understand and improve nutrient management practices.

With input costs increasing, and growing expectations to improve water quality in catchments, Tam is keen to help the future of horticulture in the tropics remain profitable and sustainable.

Connect with Tam at:

**[Tamaya.peressini@daf.qld.gov.au](mailto:Tamaya.peressini@daf.qld.gov.au)**  
or 0476 528 302.

# REGIONAL ROUND-UP

## What's happening in papaya production?

### CARNARVON, WESTERN AUSTRALIA – NIC CUTHBERT

Carnarvon has experienced heavy summer rains which has resulted in weed pressure for many producers who are still feeling the pinch of a reduced labour market.

Cooler, dryer weather is required to get the new plantings in on time and to better spread production throughout next year. The last few years have seen issues with acquiring labor (as seen in all agriculture sectors), however with the opening of borders and easing of restrictions we are more confident these issues will have less impact this coming year.

Wish everyone a great season!

### TULLY, QUEENSLAND – NICHOLAS MACKAY

The late wet season rain has been challenging for the papaya all round, affecting fruit quality and in field disease control.

Phytophthora continues to be the major disease issue affecting farm production on the coast. Some dieback has been noted in the recent weeks also.

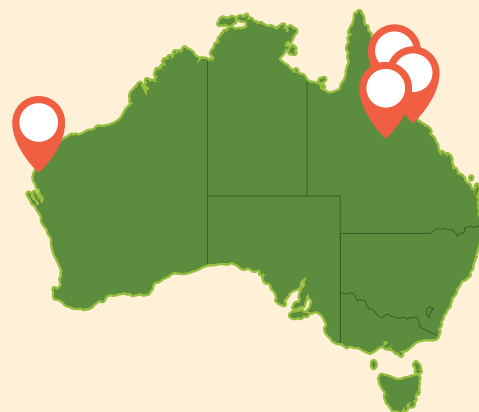
### TABLELANDS, QUEENSLAND – GERARD KATH

There have been no major changes in production in the last four months. With planting, there has been a minor increase by the major growers.

The wet season and winter so far have been very normal. No damage

has been done from the wet and no cold yet to speak of.

The outlook is for an average winter production for the next two to three months, then a standard upsurge from September to December.



# MARKETING AND SOCIAL MEDIA UPDATE

The Australian Papaya marketing program continues to drive awareness for Australian Papaya and engage consumers to start the weekend with a taste of the tropics via engaging content shared on social and digital media.

## MEDIA PARTNERSHIP

The second burst of the media partnership is now live and includes recipes page branded takeovers, social media amplification of **Taste.com.au** video recipes and a feature in the In Your Kitchen Essentials.

## SOCIAL MEDIA

The April social media activity resulted in 275,749 impressions and 3,558 engagements (excluding video views).

The highest reaching posts in April were both beautiful produce shots from the recent content shoot, accompanied by strong health messaging on the benefits of eating papaya.

The top engaged Facebook post this month was a colourful Mexican papaya bowl (926 engagements, including 33 shares and 31 link clicks), while the highest engaging Instagram post was an image of papaya tiramisu (759 engagements, with a strong ER of 24%).

Other highlights include:

- Highest reaching **Facebook** post: 30,422 people reached, 34,408 impressions.



- Top engaged **Facebook** post: 926 engagements, 8% engagement rate
- Highest reaching **Instagram** post: 26,948 people reached, 30,607 impressions

- Top engaged **Instagram** post: 759 engagements, 24% engagement rate

Sharing tips and helpful information in post captions continues to assist driving strong awareness for Aussie papaya and its unique benefits inspiring fans to eat more of the fruit.

Fans love unique recipe ideas with exciting new ways to enjoy Aussie papaya with a tropical twist, and those which focus on breakfast and brunch. 🍌



## CHECK OUT SOME OF THE NEW RECIPES ON SOCIAL:

Air Fryer French Toast

- Instagram: [https://www.instagram.com/tv/CcEyKaYl\\_vL/?igshid=YmMyMTA2M2Y=](https://www.instagram.com/tv/CcEyKaYl_vL/?igshid=YmMyMTA2M2Y=)
  - Pinterest: <https://www.pinterest.com.au/pin/230246599690800666/>
- 3-Ingredient Papaya Smoothie
- Tiktok: <https://www.tiktok.com/@taste.com.au/video/7088980698614271234>

