Australian BANANAS

Issue: 66 | DECEMBER 2022

RAISE A GLASS

TO THOSE WHO FARM SO OTHERS CAN FEAST

MERRY *christmas*

SUPPLY CHAIN ENGAGEMENT PAGE 9
BMP SUCCESS PAGES 12-14
YEAR IN REVIEW PAGES 44-45

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Front page: Banana growers from left Stephen Spear, Doriana Mangili, Bernie Devaney, Naomi Abbott, Blaise Cini and Dean Sinton, celebrate Christmas.


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CEO COLUMN

Leanne Erakovic, CEO

What a privilege it is to be writing this column as the new CEO of the ABGC.

As some of you may know, I joined the ABGC in 2015 as Business Manager. From day one, I've had enormous admiration for the grit and determination of banana growers. It's an honour to be your representative and to lead the ABGC, alongside our Board of Directors. This is an industry with a strong history but, as you know all too well, it is not without its challenges.

The ABGC recently held its Annual General Meeting and while there have been many highlights throughout the year with the delivery of projects and grants to support growers, there's no doubt times are tough. After the AGM I took the opportunity to speak one-on-one with grower members. And while I didn't get to speak with each and every grower on the night, it is clear to me that the number one issue on all growers' minds is how to keep farming with the rising costs of production.

In coming months, I'll be getting out on farms and taking the time to better understand the challenges and opportunities facing your farming businesses. In my years with the ABGC, I've learnt that growers are incredibly generous with their time and knowledge – despite rarely having a moment to spare. For that, I am very grateful. It's an honour to be in a position to put your knowledge to good use, to guide the ABGC and to ensure our industry has a sustainable and profitable future.

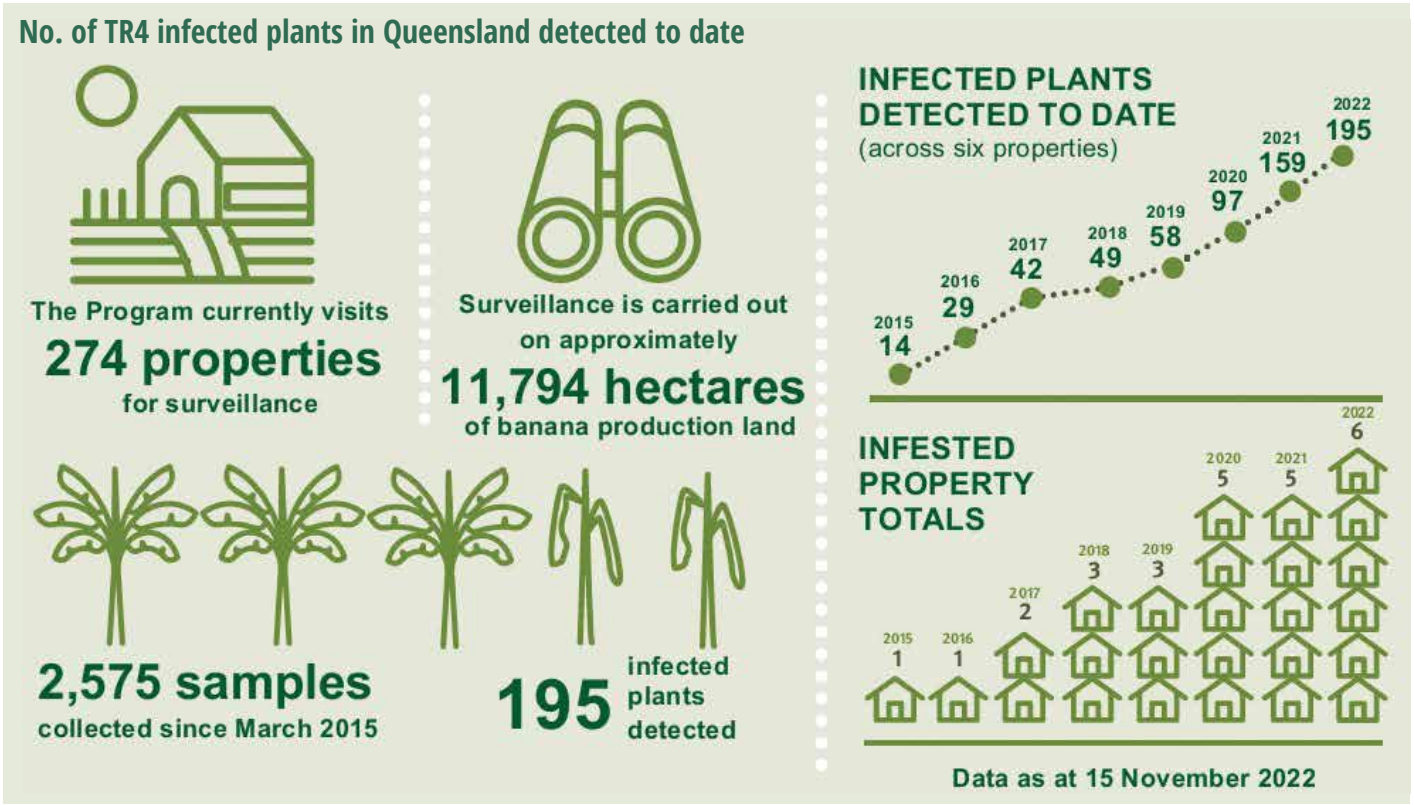
As you may be aware, to help address demand and consumption, the ABGC has recently appointed Andrew Burns as the banana Supply Chain Engagement Manager. Andrew has started work across a range of activities including working with retailers on banana merchandising and handling best practice. He will also improve communication of information both ways across the supply chain for the benefit of growers, ensuring retailers and wholesalers know about supply issues and events, especially severe weather events affecting fruit. Andrew is working closely with Hort Innovation to ensure your levy-funded banana marketing activities and projects achieve maximum results.

I'd also like to take this opportunity to pay tribute to outgoing the ABGC CEO, Jim Pekin. Throughout his time with the industry, he positioned the ABGC as a strong national advocate for banana growers. For more than a decade, Jim has fought for industry on a range of issues, including natural disaster, changes in consumer demand and biosecurity threats, most recently through the management of Panama TR4 in Queensland. I would like to thank him personally for his tireless work, often behind-the-scenes, and his service to the industry. He is leaving the ABGC in a strong position and I wish him all the best in retirement.

For now, let's get stuck into this edition of Australian Bananas. There's a wealth of information packed into these pages. One stand-out project from this year warrants a massive acknowledgement. As we close out the year I'd like to congratulate our BMP team and the growers who have worked with them – their success so far and what comes next are detailed on Pages 12-14. Finally, looking forward to next year, I'd also encourage you to pop Congress 2023 in your diary and to hold the date 17-19 May, if you haven't already (Page 34-35).

I look forward to working with you in the new year.

Get in touch: 07 3278 4786
ceo@abgc.org.au



CHAIR COLUMN

Stephen Lowe, ABGC Chair

As we edge closer to ushering in another New Year, it's natural to reflect on the year that's been. Unfortunately for most growers, 2022 has been a pretty grim period, delivering very few positive outcomes to our bottom line.

If we thought 2021 was tough, this year has arguably been even tougher. While we continued to recover from the effects of a global pandemic, the past 12 months has seen banana growers – large and small – in all growing regions of Australia heavily impacted by escalating farm input costs, poor returns, ongoing labour shortages, extreme weather events, and supply consistently outstripping demand.

As growers – many of us third and fourth generation – we continue to tend to our crops each day, collectively hoping for a turn-around in fortune. I, like everyone else, hold faith that prosperity will prevail in 2024. If it doesn't, it will be difficult for some growers to continue to remain viable into the future.

I've said it before in this column. We as an organisation continue to listen to industry concerns, however we are currently enduring a unique set of challenges to our livelihoods and there are no quick fixes. And unfortunately, part of this equation includes supply and demand.

Positive pushing forward

There are some definite positive activities in play, moving forward into the New Year. One of those is the recent appointment of Andrew Burns as the new Supply Chain Engagement Manager. In September, he hit the ground running and has already started to make inroads in connecting with key supply chain stakeholders, as you can read more on, on Page 9.

It is promising to hear that from initial conversations Andrew has had with major retail networks, that these retailers are keen to work with the ABGC and Hort Innovation to grow penetration and consumption of bananas with all consumers across the board.

We continue to keep the lines of communication open with Hort's banana marketing team and the Banana Marketing Strategic Investment Advisory Panel (SIAP).

January will see a brand new, targetted 'Back to School' campaign launched, which will encourage children nationally to pack a banana in their lunch boxes and builds on the marketing program's heavy focus on increasing the rate of banana consumption.

I would encourage any grower that has feedback or suggestions on future marketing activities to contact the ABGC so this can be communicated to Hort via the marketing SIAP or our communications team.

New CEO

I'd like to take this opportunity to again officially welcome new Chief Executive Officer Leanne Erakovic to her new role, following the retirement of Jim Pekin last month (Nov).

Leanne's appointment followed a lengthy and thorough selection process, and her wealth of experience makes her an outstanding choice for this role.

Additionally, I'd like to acknowledge Jim Pekin for his tireless efforts and dedication to the industry over the past 11 years. He was appointed in the role in the wake of Cyclone Yasi in 2011 and I've seen first-hand the amount of time, passion and effort he put into this industry to support growers over the past decade.

You can read more on Jim's time with the ABGC and Leanne's appointment on Pages 10 & 11.

Industry exit

On pages 16/17 you will read about Tully banana grower Paul Johnston who recently exited the banana industry - his family has been growing bananas in Far North Queensland for more than 40 years.

It is sad to see the Johnston name departing the industry. Paul has always been an industry-minded player. He dedicated many years to the ABGC Board and has always attended industry events.

His father Mort was always looking for ways to improve the industry, especially on the marketing side of things. He was also instrumental in the original formation of the North Queensland Banana Growers Co-operative.

It would not have been an easy decision for Paul to walk away from bananas, and I wish he and his family all the very best into the future.

Merry Christmas and Happy New Year

Finally, I'd like to wish one and all a very Merry Christmas and a healthy and prosperous New Year. I look forward to seeing familiar faces in 2023.

ANNUAL BANANA VOLUMES

The national banana levy collected by the Federal Department of Agriculture is compulsory for commercial banana growers. It is 2.19 cents per kilogram of bananas sold.

The dollars collected show an estimate of production for the previous financial year. Right is a table of the levy-based banana volumes. For non-industry participants, please note this is an approximation of production, but not all bananas grown are sold, i.e. some don't make the retailer-required specifications.

Also, there is a lag factor, in that levies paid on June sales (at least) are paid in the following financial year. Exemptions from paying the levy and other details are to be found at agriculture.gov.au/ag-farm-food/levies/rates/bananas

Years ending 30th June (in '000 tonnes):	
2013	341
2014	371
2015	371
2016	393
2017	414
2018	388
2019	372
2020	382
2021	403
2022	375

BANANA LEVY RATE

The make-up and purpose of the various components of the Banana Industry Levy are as follows.

Levy Amount	Purpose
0.50c /kg	Plant Health Australia (PHA) levy: The Department sends the funds to PHA, for the ongoing containment and management of Panama Tropical Race 4 disease, and to conduct activities that aim to improve biosecurity within the banana industry.
1.69c /kg	Hort Innovation (HIA) levy. The Department sends the funds to HIA for R&D and Marketing: 0.54 c/Kg is for Banana R&D, which is matched dollar for dollar by the Department and 1.15 c/kg for Banana Marketing
	Total = 2.19c /kg* (32.85c per 15kg carton).

The Banana PHA levy currently funds the containment of the first TR4 infested farm that the industry purchased and the industry's part of the cost-sharing deed with the Queensland Department of Agriculture and Fisheries for TR4 containment.
It also funds the pre-existing commitments – Torres Straight Exotic Fruit Flies Eradication Response, PHA membership/meetings and Government levy collection.

Further information: Leanne Erakovic, leanne@abgc.org.au
Phone – 07 3278 4786. More info on the levy rate:
https://www.agriculture.gov.au/ag-farm-food/levies/rates/bananas

NSW BGA AGM OUTCOMES

Banana Growers' Associations based on the Mid North Coast of NSW held their AGMs – and regular meetings – in early November.

The leadership teams for both Coffs Harbour and Nambucca Heads will continue in their roles, with Vicki McCudden as President in Nambucca and Walley Gately as President in Coffs Harbour.

The meetings, held on November 1 (Nambucca) and November 2 (Coffs Harbour) were well attended, with key topics including unseasonal weather and biosecurity.

In particular, biosecurity was discussed at length during the Coffs Harbour meeting, with local MP Gurmesh Singh in attendance to hear grower concerns.

Representatives from the National Banana Bunchy Top project also gave a presentation at the Coffs Harbour meeting (read more on page 28).

Tony Styles and Vicki McCudden, Nambucca Banana Growers' Association.

Jeff Eggins and Wally Gately, Coffs Harbour Banana Growers' Association.

ABGC INPUT INTO JOBS SUMMIT

The ABGC provided input into the Federal Government's Jobs and Skills Summit held in September.

The summit brought together unions, employers, civil society and governments to address the economic challenges surrounding the attraction and retention of skilled labour.

In its submission, the ABGC sought help to remove barriers that currently impede growers to meet harvest needs and secure the industry's future as a major employer and economic contributor in the region, specifically:

- Implement policies to support sustainable workforce growth: to attract, retain and upskill a range of horticulture workers at all skill levels (inexperienced, low skilled and skilled workers) to keep workers in regional areas and sustain communities.
- Adopt visa frameworks and pathways to incentivise workers to fill gaps in harvesting and packing roles in regional Australia and increase caps on seasonal workers.
- Recognise the PALM scheme is essential to supplement the local workforce and is not the sole solution for all agri-businesses. Smaller-size banana farms use a higher proportion of Working Holiday Maker visa holders (backpackers) instead of PALM workers because they have irregular work and cannot guarantee hours.

DIESEL THIEVES TARGETING TULLY

Tully growers are encouraged to take preventative measures to deter would-be diesel thieves, including installing cameras in key areas.

The Queensland Police Service (QPS) has advised the ABGC that there has been an increase in reported fuel thefts from farms within the Tully area.

While some growers are no doubt already aware of the issue, QPS said the economic climate and record high diesel prices, combined with the fact that it is difficult to trace, have made it a target.

The remote nature of some properties has meant thieves have been able to access large quantities of fuel with minimal risk of detention. In fact, QPS advised they are targeting infrastructure that has no CCTV installed.

Growers are encouraged to install cameras around their machinery and fuel storage facilities. The QPS suggests that surveillance can be obtained at minimal cost, including through the use of trail cameras.

If you have any information that could assist police with their fuel theft allegations, please do so via:

- https://forms.police.qld.gov.au/launch/SuspiciousActivity
- Crimestoppers: 1800 333 000 or https://www.crimestoppersqld.com.au/make-a-report/

BANANAS HELP LITTLE ATHLETES

Bananas sold during Coles inaugural Little Athletics Banana A-Peel campaign helped provide new sports and safety equipment.

The campaign was run earlier this year and resulted in more than $250,000 in sports equipment grants being distributed to 73 local centres across Australia for the summer athletics season.

Ten cents of every kilogram of Cavendish bananas sold in Coles supermarkets was donated to the cause. The latest round of grants from the Coles Little Athletics Community Fund takes Coles' donation to grassroots Little Athletics centres to more than $2.2 million in four years.

ABBOTTS TAKE HOME REEF AWARD

Innovative practices and a willingness to share experience saw banana growers Ben and Matt Abbott recognised with a 2022 Reef Champion Award.

The Awards are an initiative of the Reef Alliance, of which the Australian Banana Growers' Council is part, with support from the Australian and Queensland governments.

Brothers Ben and Matt received the 2022 Reef Pesticide Stewardship Champion Award, recognising the exemplary efforts of an individual or farming business to improve their practices and reduce run-off.

The Abbotts, based at Mena Creek in Far North Queensland, use no synthetic chemicals and maintain organic certification for their banana and papaya produce.

On behalf of industry, the ABGC congratulates Ben, Matt and their teams for this well-deserved acknowledgement of their work.

Ben and Matt Abbott farm in the Johnstone Catchment of the Wet Tropics region.

Matt and Naomi Abbott at the Reef Champion Awards dinner in Cairns.

QLD RECOGNISES JIM'S LEADERSHIP

Retiring CEO Jim Pekin was recognised for his industry leadership at the 2022 Queensland Agriculture Awards.

The honour was bestowed on Mr Pekin, who stepped down as CEO of the ABGC after 11 years, by Queensland Minister for Agricultural Development and Fisheries.

In addition to his time with the ABGC, Mr Pekin held senior roles with the Queensland Department of Primary Industries, Victorian Farmers Federation and the Rice Growers' Association of Australia.

Read more about Mr Pekin's contribution on page 10.

ABGC BOARD

The ABGC Board held its final board meeting for the year at Mission Beach on November 9-10, during which all Directors retained their positions, and an eighth director was formally welcomed to the Board.

On the Executive Committee, Stephen Lowe (QLD) will continue on as ABGC Chair, with Leon Collins (QLD) retaining the Deputy Chair position and Ben Franklin (NSW) staying on as Treasurer. The Board also welcomed Tayla Mackay (QLD) of, Mackays Bananas, as a new Director.

Pictured from left: Stephen Spear (NSW), Paul Inderbitzin (QLD), Andrew Serra (QLD), Leon Collins (deputy chair and QLD), Ben Franklin (treasurer and NSW), Stephen Lowe (chair, QLD), Doriana Mangili (WA) and Tayla Mackay (QLD).

INDUSTRY STEPS UP FIGHT AGAINST FOOD WASTE

A new plan has set its sights on food waste across the horticultural supply chain.

The banana industry will play a key role in the Horticulture Sector Action Plan, led by Stop Food Waste Australia. In addition to contributing to the overall plan, the Australian Banana Growers' Council is helping steer the development of a banana-specific action plan. The project will be funded though Hort Innovation's banana R&D fund which will be matched by the Queensland Department of Environment and Science, and matched again by the Fight Food Waste Cooperative Research Centre.

The project will involve industry collaboration to understand banana waste, allowing researchers to gather solid data on quantities and causes. Then, it's onto solutions across the supply chain and quantifying their requirements and benefits.

Previous research has demonstrated a potential 20 per cent increase in profits for growers through minimizing food surplus and waste (UK study into apple, strawberry, potato, carrot & egg farms, WRAP, 2021). The plan provides an opportunity to speak to Australian consumers and it's also hoped the project will increase collaboration between retailers and food rescue groups.

For more information, contact rosie.godwin@abgc.org.au or visit www.stopfoodwaste.com.au

SWEETER FEATURES AT PERTH ROYAL SHOW

Sweeter Banana attended the Perth Royal Show in September, celebrating the 20th anniversary of the co-operative's foundation.

A cornerstone of promoting bananas in Western Australia since 2008, Sweeter Banana uses the event, which attracts thousands of people across eight days, to promote bananas, provide free samples and encourage interaction between growers and customers.

The stand sold locally made artisan banana gelato made with real bananas to highlight uses for seconds – putting the spotlight on "waste" bananas.

Sweeter Banana Co-operative business manager Doriana Mangili said the co-operative gained incredible exposure for bananas by hosting a site at the show.

"It's a great opportunity for Sweeter Banana to fly the flag for bananas and the exposure that comes with that is invaluable," Ms Mangili said.

"Consumers love engaging with farmers and finding out how bananas are grown.

"The 'message a farmer wall' gained hundreds of lovely messages from visitors expressing their appreciation for the farmers that grow bananas every day."

Governor General of Australia His Excellency David Hurley and Mrs Hurley, and Western Australian Minister for Agriculture and Food Alannah MacTiernan called by the stall, which was also featured across television and radio interviews.

The show attracted around 450,000 people and the stall gave away 800 official Australian Bananas banana savers and water bottles, along with banana pencil cases, stickers, magnets and Buy West Eat Best branded promotional material.

WA Minister for Agriculture and Food Alannah MacTiernan with Sophia, Thomas and Niamh Alston.

- 8 days
- 400 man hours
- 30,000 free banana samples
- 500 + kilograms of banana gelato sold
- 2500 free gelato tasters

For more photos, see page 43

DATE CHANGE FOR NATIONAL BANANA DAY 2023

To align with fewer public holidays, school returning and commencement of the retail week on a Wednesday, the date of National Banana Day in 2023 will be moved to October 18.

Hort Innovation Marketing made the change following industry feedback regarding the opportunity to improve the timing of the day of national celebration.

The change will be implemented going forward. The date will change slightly each year to reflect mid-October, on a Wednesday. Look out for further updates on National Banana Day in the next issue.

Meantime the 2023 Back to School 'Champion Banana' campaign will be live from January 16, 2023 and will feature a strong retail presence.

The campaign will showcase bananas as a convenient lunchbox essential that provide long-lasting energy to make the bodies of little and big champions sing.

TC NIRAN LOAN DEADLINES APPROACHING

Applications for disaster assistance loans for expenses related to Tropical Cyclone Niran close at the end of this month (31 December).

Disaster Assistance (Essential Working Capital) Loans, up to $100,000, and Disaster Assistance Loans, up to $250,000, were made available following the event, which affected around 100 banana farms.

Details about the loans, and how to apply, can be accessed via the Queensland Rural and Industry Development Authority website: www.qrida.qld.gov.au

REEF REGS UPDATE

As most growers are aware, new reef regulations came into place in Queensland's Wet Tropics more than two years ago (1 December 2020).

As of 1 December this year, any banana growers in the Burdekin, Mackay Whitsunday, Fitzroy and Burnett Mary regions of the state must also be operating under the regulations.

What are the key requirements?

- Have in place erosion and sediment control measures including ground cover on fallow blocks and inter-rows.
- Base fertiliser application rates on a nutrient management plan or the listed annual rates in the minimum practice agricultural standards.
- Keep records such as fertiliser rates and relevant primary documents such as receipts.
- Obtain a permit to start commercial cropping on land without a cropping history.

If you've got any questions, or want to find out more, there is detailed information available online via www.qld.gov.au/ReefRegulations. You can also reach out to ESReef@des.qld.gov.au or to the ABGC's Best Practice Team for guidance.

An information kit containing a range of support tools and programs including Freshcare Environmental is also available. Freshcare is an accredited program under the Reef protection regulations and growers involved are a lower priority for Queensland Government compliance activities.

You can also check out ABGC's information on this topic here: https://abgc.org.au/water-quality-regulations-information-for-banana-growers/

ANDREW BRIDGES THE GAP

ABGC's new Supply Chain Engagement Manager Andrew Burns has hit the ground running since formally taking up the position in late September.

Funded by the Hort Innovation Marketing Fund, the Supply Chain Engagement project (BA22504) aims to develop and organise activities involving key supply chain stakeholders to build interest, excitement, and an understanding of the Australian Banana industry, ultimately increasing demand.

ABGC CEO Leanne Erakovic, Shane Cini, Edari Bananas, Wangan, and Supply Chain Engagement Manager Andrew Burns.

Andrew took the time to share his early insights.

You've been in the position since late September, what has been your priority?

Since arriving, I have and will continue to delve into the banana world, understanding and getting a grip of the intricacies of the industry, how consumers engage with our products, the usage occasions and frequencies of purchase throughout the annual calendar cycle. I have also met with all the major retailers and held initial discovery sessions to get an understanding from their side, the importance of bananas to their category performance and importance of bananas and their availability to their customer (our consumer). We have openly discussed the challenges and opportunities that we can look at to continue to grow penetration and consumption. There is definite interest and desire from all retailers to continue to grow banana sales. This role is a conduit between the ABGC, the retailer and Hort Innovation, working in conjunction with Hort Innovation's Customer and Consumer Marketing teams. It's going to be important, if not critical, to ensure all parties have an open line of communication and that all parties are aligned and assisting in the amplification of the banana message.

Since starting, you've had an opportunity to interact with growers in Far North Queensland. What have you learnt from these growers?

Jim Pekin (former CEO) and Leanne Erakovic (CEO) were very keen for me to spend time in the field meeting with growers, wholesalers and the ABGC chair Stephen Lowe and deputy chair Leon Collins. Over three intense, however highly beneficial and educational days, in the Cassowary Coast region, I learnt a considerable amount of information regarding banana growing and the everyday management process that happens on farm. Having never been on a banana farm before I was impressed with the level of detail, planning and quality processes that are undertaken to ensure the customer/consumer gets the best eating experience, all year round. It's a "hands on" business. There were a number of passionate growers and groups whom I had the pleasure of meeting during my three days in the field. I appreciated their openness and willingness to discuss the challenges and their views of the banana industry. I look forward to assisting.

Growers are experiencing enormous challenges at present, with rising costs of production, low returns and labour shortages creating a perfect storm. How will your position help growers and the industry?

This role will enable the ABGC to have a direct relationship with the retailers, combining our approach with those generated and supported by Hort Innovation. The position entails working closely with Hort Innovation and the retailers, with the desire to assist, point, and recommend growth opportunities and strategies (possibly some joint) with our retail partners with the aim of growing further penetration and sales. Through the collaborative industry marketing workshop process, we understand that yearly household penetration sits at an impressive 92%, however on a monthly basis its 66%. That alone provides the picture that on a monthly basis, 34% of Australian households did not purchase a banana and that alone is an opportunity worth exploring.

What is the focus for the position moving forward?

Continue to understand the industry and the markets we play in. Look for the low hanging fruit, and present both short and long term strategies/ opportunities to/with Hort Innovation, to our retail partners and ensuring the ABGC members and associated parties are kept in the communication loop. We will continue to communicate marketing activity with the retailers and industry to and, where possible, amplify the message further and remain consistent. Open communication will assist in spreading the good news. As we enter the busy Christmas period, our retail partners will be focused on ensuring instore availability. As we travel through January, we will start to implement the "back to school" campaign that will see millions of champions encouraged to pack a banana or two in their lunch boxes. The retailers are all keen to understand the industry better, and to drive and support innovation via their category planning sessions. We will ensure that we provide them with as much detail as possible to assist with those all-important growth initiatives.

CHANGE AT HELM OF ABGC

JIM PEKIN RETIRES AFTER 11 YEARS IN ROLE

Jim Pekin, who was CEO of ABGC for 11 years, with industry favourite Benny Banana at Banana Congress 2023.

By Amy Spear

In the wake of Cyclone Yasi and just days out from a board meeting, Jim Pekin began his tenure as CEO of the Australian Banana Growers' Council.

Those first few weeks set a cracking pace, one that rarely let up for the 11 years that followed.

"I threw myself into this role, but I've never been under any illusions as to who is on the frontline of this industry. There's a reason Australian banana growers are regarded as some of the best in the world, and it was a privilege to be at the helm of their peak industry body for so long," he said.

"I thank the many growers who've picked up the phone over the years – or approached me at a meeting - for being so generous with their time, knowledge and friendliness."

NSW grower Stephen Spear became an ABGC board member the year before Mr Pekin started and has worked with him since.

He praised Mr Pekin's strong financial skills and the strategic direction he provided to the organisation, but said one of his greatest achievements is in the team he leaves behind.

"Mr Pekin has a lot of talent and he's always been happy to share his knowledge and experience," Mr Spear said. "He made the ABGC and its staff better through his presence."

"He really had a great ability to pick the right person for the job and the current team is testament to that. It speaks volumes about Mr Pekin as a person."

Of course, as CEO of any organisation, making tough and sometimes unpopular decisions is part of the job. Just as much as any positive feedback, it's those challenging conversations that helped shape Mr Pekin's understanding of this industry and those who are passionate about it.

"In these circumstances, I was always guided by our Chair and the board. Their assistance and insights, as growers with decades of combined experience, proved invaluable on many occasions."

There have been some clear turning points for industry over the past decade, with Mr Pekin working alongside the ABGC directors to navigate the best outcome for all. Among those turning points are the detection of TR4 in Queensland and the banana freckle outbreak in the Northern Territory.

Both incursions have required the use of industry-funded resources and fundamentally changed the way bananas are grown in this country.

Current ABGC chair Stephen Lowe said Mr Pekin was responsible for assisting ABGC's Board in the purchase of the first TR4 infested property in Queensland, an unprecedented decision aimed at containing and managing the spread of the disease.

"He then assisted in the development and implementation of an effective government-funded TR4 biosecurity program, that has helped protect industry from rapid spread of the disease since it was first detected in the Tully Valley in 2015," Mr Lowe said.

"Jim has consistently advocated for better outcomes for growers and has helped us move towards a stronger, more sustainable future."

Between severe weather events, skyrocketing input costs and ongoing low prices it has been, without a doubt, a tough decade for those who grow the hugely popular fruit.

"I have the utmost respect for banana growers, and their constant willingness to improve and adapt, despite the obstacles in front of them," Mr Pekin said.

Just prior to his retirement, Mr Pekin was recognised for his industry leadership at the Queensland Agriculture Awards.

Perhaps unknowingly echoing Stephen Spear's comments, Mr Pekin was quick to mention the teams he's worked with throughout his career in agricultural industry development, including at the ABGC most recently.

Mr Pekin said that it had been a privilege to get to know, learn from and work with the ABGC directors, staff and banana growers.

"I will miss the banana industry, which I am very passionate about. It is such an incredibly vibrant industry," he said.

"I will also miss the great staff that ABGC has and others that I have chewed over banana issues with over the years."

Mr Pekin's career spanned more than 40 years in the private and government sectors. In addition to his time at the ABGC, Mr Pekin held senior roles with the Queensland Department of Primary Industries, Victorian Farmers Federation and the Rice Growers' Association of Australia.

Jim Pekin had a career in agricultural industry development spanning 40 years.

Jim Pekin, with the NT Government's Kevin Cooper, with an Australian Biosecurity Award for the National Banana Freckle Eradication Program.

Banana Freckle was detected in the Northern Territory in 2013. Jim Pekin was CEO throughout the response period.

The ABGC Board and Staff in 2012, early in Jim Pekin's time as CEO.

NEW CEO READY TO REPRESENT INDUSTRY

Leanne Erakovic officially took over the CEO role on November 7 this year.

Ms Erakovic was appointed after a lengthy and thorough selection process, managed by a specialist recruitment firm. As some growers may know, she has been with the ABGC for the past six years, in the role of Executive Officer.

She has supervised the management of the banana industry's first Panama TR4 infested property in Far North Queensland and helped coordinate the ABGC's successful feral pig control program. In addition, Ms Erakovic has advocated extensively for banana growers, most recently on worker access issues.

Ms Erakovic has begun meeting with growers and industry representatives in her new role, and thanked those who have shared their ideas, concerns and knowledge.

"I look forward to continuing these conversations, and speaking with many more growers in the new year," she said.

"I know I've taken on this position at a time when many are struggling. My goal is to work with you to find ways that ABGC can deliver outcomes that will improve the sustainability and profitability of the banana industry well into the future," Ms Erakovic added.

Ms Erakovic has over two decades of experience in management and business development, previously holding senior roles with strategic workplace consultancies. Her industry expertise spans stakeholder engagement, project management, and strategic planning.

Ms Erakovic has a Bachelor Degree in Science and she also owned and operated two small businesses early in her career.

Leanne Erakovic (second from right) at the Australian Banana Company in November.

BANANA GROWERS INVEST IN PRACTICE CHANGE

By Lea Coghlan

Banana growers passionate about the environment have been recognised for their investment in improved farm practices that ultimately benefit one of the seven wonders of the world, the Great Barrier Reef.

Banana growers in Far North Queensland's reef catchments have matched industry investment in better management practices to the tune of $1.6m over the past four years.

The investment was made under the BMP2 Project, funded under the Queensland Government's Queensland Reef Water Quality Program, which draws to a close in early 2023.

Delivered by the Australian Banana Growers' Council Best Practice Team, the project started in 2018 to support growers to self assess their own practices and, where possible, improve practices.

ABGC Industry Strategy Manager Michelle McKinlay congratulated growers on taking the opportunity to deliver practice change on-farm with wide-reaching benefits for the community and environment.

"More than 2500 hectares under bananas have undergone improvements in practices since BMP2 started," Mrs McKinlay said.

"This represents more than 25 per cent of the total area under bananas in reef catchments."

Ms McKinlay said the success of the program was the collaboration between the banana industry and government.

"Our growers have embraced farming practices that are critical for farming productively and profitability but also improving water quality," Ms McKinlay said.

"In doing so, they have recognised the importance in sustainable farming and their role as land stewards for the next generation.

"Feedback from growers has revealed a high industry reach while more than three quarters of growers have completed their BMP self-assessment in the past two years."

The work by growers and the BMP Team extends beyond on-farm practice change.

"Through the BMP Team, the industry has been able to provide critical technical input into various science and policy initiatives and to improve outcomes for growers," Ms McKinlay said.

"These include government regulations, CSIRO research, pesticide monitoring by the Department of Environment and Science, the MIP project and water quality targets being developed for agricultural sectors in reef catchments.

"This has also provided a vehicle for results of research and studies to be presented directly to growers.

"The ABGC has been able to coordinate best practice input to ensure the growers are given an opportunity to provide input at the policy-making table."

Ms McKinlay said the team was currently working with the Office of the Great Barrier Reef to develop a new program to be rolled out from January 2023.

BMP Extension Officers Kathryn Dryden and Molly Blake water sampling.

ABGC Industry Strategy Manager Michelle McKinlay in the field.

BMP Coordinator Amelia Foster, left, with growers.

Riverbank repair.

Automatic fertigation.

BIGGEST CHANGES

The project helped deliver a number of recommended best practice changes, with the greatest uptake by growers in three main areas:

Improve inter-rows

Ground cover is essential to keeping soil in place on inter-rows, particularly during the wet season. Best practice is to ensure a minimum of 60% of inter-rows have cover (living or dead). This is also a requirement of the Reef Regulations. Ground cover in trafficked areas is managed with a side-throw or mulching slasher. This throws the grass clippings onto the beds which increases organic matter and feeds the plants. Less fertiliser inputs are generally required as a result. Establishing and maintaining living ground cover has other benefits including improved water retention, soil health, and nematode management; and much less need for herbicide sprays.

Grassed inter-rows minimise soil and nutrient loss.

Improved fertiliser usage

Directional spreaders were a popular item funded by the growers with help from the grants. Broadcast fertilisers are no longer permitted under the Reef Regulations. Best practice is where granular fertilisers are banded on the beds to deliver nutrients to the tree roots, rather than being dispersed across inter-rows and wasted. Growers are also encouraged to put less out more often so to ensure the plants take up as much of the nutrients as possible. Nutrients are less likely to be lost via runoff and leaching as a result.

Soil conservation

When growers are working up a paddock in readiness for planting or to set up a new farm, many have been sourcing advice from ABGC's Best Practice team about farm planning. Growers have had advice and financial assistance, to come up with workable and effective paddock designs. They have implemented laser levelling, contouring, and drainage, to ensure longevity of their paddocks during wet months. This helps them to avoid the regular and costly jobs relating to inter-row, drainage and roadway repairs. They add value to their farms by thinking about long-term practical design, along with increased soil health and retention.

To achieve practice change, growers have received grants to invest in equipment or adopt practices that improve farming processes while improving water quality.

Grants have been approved for farm planning, riverbank repair, fertigation, slashers, directional spreaders, drainage and roads and sediment works.

The investment has extended to both large and small-scale growers across the Wet Tropics.

CONNECTING WITH GROWERS

To support the extension activities delivered under the project, the BMP Team delivered 20 workshops. Designed to be hands-on and targeting small groups of growers, the workshops were well received.

They included:

- 5 sediment workshops
- 14 nutrient workshops
- 1 soil health workshop
- 1 soil conservation workshop (for earthworking contractors and growers expert in this area)

GRANTS

- **69 grants**
- **7 funding grounds**
- **$1.18m Queensland Government investment**
- **$1.61m banana grower investment**
- **2558 hectares underwent practice improvements (25% of total area under bananas in reef catchments)**

Farm planning allows for contoured rows on sloping ground which reduces runoff.

Automatic fertigation.

GROWER TESTIMONIALS

Learn how some growers have used grant money made available under BMP 2 to improve their on-farm practices.

Grower: Iqbal Singh
(Sandhu Bajwa Bananas)

Project:
Directional spreader and automatic fertigation
Nutrient Management
IMPROVE > BEST

Before
- Inadequate fertiliser tank size and location
- Manual fertigation in place
- Broadcast spreader (not up to Reef Regulation specification)

After
- Automated fertigation - to ensure each block receives the right amount of fertiliser via programming to agronomic advice
- Less movement of machinery through blocks, reducing compaction and erosion
- Improved tank size and location to accommodate required quantity and eliminate spillage/waste into waterway
- Targeted application of granular fertiliser during wet periods reducing wastage and meeting Reef Regulation specification

Outcomes
- Reduced fertiliser wastage along with associated runoff into waterways
- Reduced and more targeted fertiliser application
- Improved paddock condition

I am working hard to do the right thing. My farm is following Reef Regulations. I have grass on my inter-rows and do not use sprays to control weeds. I have a slasher to manage the grass. I also have gravel on my roadways and headlands to stop the soil from running off my farm.

Grower: Tony and Danny Alcock

Project:
Widening of inter-rows and fertigation
Sediment & Nutrient Management
IMPROVE > BEST

Before
- Rows planted at 5.5m centres
- Insufficient drainage on flat paddock with increased risk of bogs and ruts in inter-rows and roadways
- More fertiliser being used than necessary

After
- Paddock redesigned with wider row plantings to improve grass cover due to more sunlight
- Improved drainage with changed row direction
- Well established ground cover better filters the water leaving the block
- Fertigation allows correct quantity of fertiliser to be applied directly to root zone
- Less wastage of fertiliser due to runoff and other means
- Accurate application of products in small, targeted amounts
- Annual Nitrogen target reduced to Reef Regulation specifications

Outcomes
- With the combined project, a reduction of nutrient and sediment leaves the farm.
- The grower saves with less fertiliser application.

The overall outcome is that we get a better yield per acre as we can monitor our fertiliser output to a higher degree by pulse fertigation/ irrigation. This saves us money in the long run as our cost per acre has dropped (that's if the fertiliser prices stayed the same, that is). The banana rows have less ruts with the extra ground cover. By having extra width, the time saved by not having to attend the paddock to change irrigation runs is a big one for us.

Grower: Mark Gallagher
(Wadda Plantation)

Project:
Road and headland improvement
Sediment Management
OKAY > BEST

Before
- Ongoing regular road repair required due to large undulating farm landscape with some steep sections
- Sediment loss from inadequate road and drainage design in some areas
- Longer-term solutions needed for some of the main traffic areas

After
- Over 770m of eroded/damaged access roads repaired and stabilised
- Improved road profiling, associated drainage, sediment trap repair

Outcomes
- Further improved sediment retention on the farm and less loss to waterways
- Better control of runoff water, allowing the farm to make better use of proposed/ expanded sediment traps and wetlands.

This grower already has measures in place to reduce soil loss from his farm including sediment traps, contoured planting, and grassed inter-rows and headlands.

Our property is surrounded by pristine waterway, and with improvements such as this, we strive to keep it that way.

THE BENEFITS OF ROTATIONAL CROPPING

Eubenangee banana grower Binu Varughese may be a relative newcomer to the banana industry but that hasn't stopped him implementing farm practices that help him get the best out of his rich red volcanic soil.

Binu is a strong advocate of rotational cropping, a practice he first introduced at his 121 hectare farm at Eubenangee, near Innisfail four years ago.

"There were some issues with nematodes in the soil and we wanted to look at ways to reduce the risk of them increasing in numbers," Binu explained.

"An agronomist advised that there were no more chemicals available on the market to help manage nematodes, and fallow crops were suggested as an alternative management technique."

Binu used a seed mix including radish, millard and mustard, on an initial 2.8 ha, followed by another 8.09 ha.

He hopes to fallow another 8.09 ha before the end of the year, once the rains arrive.

Department of Agriculture and Fisheries Senior-Principal Nematologist Tony Pattinson said losses and damage caused by plant-parasitic nematodes, like burrowing nematode, are reoccurring problems on many banana farms.

"The nematodes feed on the roots of the plants and can slow plant growth, reduce bunch weights and in worst case scenarios cause plants to fallout," Mr Pattinson said.

"This makes plant-parasitic nematodes a constant headache for banana growers. In the past, nematodes were managed by the application of chemical nematicides."

Resistant rotation crops are another method for reducing nematode numbers. Resistant crops are those that do not support nematode feeding and/or breeding.

This reduces the numbers in the soil, greatly increasing productivity in the following banana crop.

Previous research identified different resistant rotation crops and varieties, giving banana growers options for their banana cropping systems.

Binu said rotational cropping had been successful.

"The results take some time to show but I'm confident that we are working to control nematodes, improve the quality of the soil and create a healthier root system."

Binu Varughese has adopted rotational cropping on his banana farm.

PIONEERING BANANA FAMILY FAREWELLS INDUSTRY, BUT LEAVES BEHIND LIFELONG LEGACY

By Sonia Campbell

For more than 40 years, the Johnston family has been part of the fabric of the North Queensland banana industry.

A legacy born from industry pioneer Mort Johnston, his wife Jill, and carried on by his middle son Paul, the family is highly regarded as innovators, authentically industry minded, and with a genuine love of the land and community.

On October 6 of this year, Paul Johnston packed his last cartons of bananas on his Davidson Road property in the Tully Valley, signaling an end of an era, as he and his family farewelled an industry he had worked in since he was 10 years old.

"Leaving the industry was not a decision we made lightly," Paul explained.

"It not only affects my family, but also our employees' families as well. And that was the hardest part. It took a long time and many sleepless nights. But I am now comfortable we've made the right decision."

There was a time when Paul could not have imagined a life not farming bananas. But ultimately, the decision to exit the industry came down to viability and other compounding factors.

In February 2020, Paul's 118ha banana property in the Tully Valley was confirmed with having Panama tropical race 4 (TR4), the fourth farm to be detected with the devastating disease since it was first discovered in the region in 2015.

Paul continued to work the farm, however – in his words – it was a "game changer" and prompted his decision to gradually take out bananas on a number of 'clean' satellite blocks, to mitigate the risk of disease spread.

But it wasn't just TR4 which ultimately led to his decision to leave the banana industry. Cost of production pressures that have affected industry at large, particularly in the past two years, took their toll on Paul's operations as well.

"The cost of production was higher than ever. And, growing with TR4 adds to that. But it's a combination of factors," he said.

"My farming area was slowly reducing due to having TR4 and eventually I felt the farm would have become unviable, so as a business decision it made sense.

The Johnston family (L-R) Stephen, Melanie, mother Jill, Anthony and Paul.

Paul Johnston pictured on his Tully Valley farm in 2020.

"While it's a huge change to my life, I am looking forward to the future growing cane and cattle. I will definitely miss being involved in the banana industry, as I have been part of it most of my life. I have made many lifelong friends and relationships which I hope to keep in contact with."

"When you stop going about your business, you realise how much you miss that contact, that day-to-day interaction with agents, wholesalers, other growers and so on. It's the people I will miss for sure."

Where it all began

Mort Johnston – a well-known and respected banana industry pioneer – was born in Tully in 1938 and started the family's farming dynasty in the early 1950s, working farms locally and travelling to Shepparton, Victoria, cutting cane and picking fruit in the off-season. He worked on his first banana farm in Tully in the early 60s, before purchasing a sugar cane farm in the area in 1964. Over the years, Mort farmed cane, cattle, watermelons and pumpkins.

In 1981, he turned his focus to farming his own bananas, purchasing the first of three partnership farms in the Tully Valley.

Paul and his brothers Stephen and Anthony worked on the farms from a young age, mainly on weekends and school holidays. Their mother Jill also worked in the family business. Their sister Melanie currently lives and works in Sydney.

"Banana farming has been a major part of my life since I was 10 years old. After attending boarding school, my two brothers and myself all returned to work on the farm and after working on all areas of the farm, Mort gave us specific areas to concentrate on. My elder brother Anthony was given cane, younger brother Stephen, cattle, and myself, bananas. I have been on the farm since 1992."

Rebuilding

While the family has always farmed more cane than bananas, Paul said bananas were always "where the action was". The work was harder, but he loved the industry.

While Paul and his brothers managed their own farms individually over the years, he said his father

"shouldered all the responsibility and called the shots".

Tragically, their worlds would be turned upside down when Mort passed away in March 2006, four days after Cyclone Larry had struck the region, decimating more than 90 per cent of the region's banana crop.

"Cyclone Larry was a very difficult time. At the time we had 200 hectares of bananas that I worked, and a 200ha partnership farm, which were all flattened by Larry," he recalled.

"Then Mort passed away and it was a pretty difficult time. All the workers were looking for directions, wanting to know what we were going to do, particularly after the cyclone. There was support from other growers (after Mort passed), heaps of support from industry and from neighbours, but you've still got to do things on your own. No one can fix it for you."

"Over the years, we've also been lucky to have dedicated staff, which have been invaluable to our businesses, through many difficult times along the way."

Carving his own legacy

After Cyclone Larry and the loss of Mort, the Johnston brothers rallied and rebuilt.

In 2008, Paul was asked to join the Board of the Australian Banana Growers' Council (ABGC), an offer he accepted.

Over the next eight years, he served as a Director, Treasurer and Vice-president, before stepping down from the Board in 2016.

"Although sometimes it was difficult, particularly through Cyclone Yasi (2011) and the first detection of TR4 (2015), I enjoyed my time on the Board. I learnt a lot and worked with some great people both on the Board and ABGC staff."

"When I started (on the Board) the (compulsory) levy was just coming in, and the ABGC went from being a pretty small operation - comprising just a CEO and another staff member at the time - to a lot more work, with a lot more organised projects, in a short amount of time."

"It was a bit of a whirlwind to start off with, for me anyway at the time."

For much of Paul's tenure on the Board, Doug Phillips served as ABGC Chair (2011-2016).

He paid tribute to Paul's generous contributions to industry over the years, particularly during his time with the ABGC.

"The Johnston family have a huge reputation in the industry. I cannot speak highly enough of Paul, and I wish him all the best," Doug said. "He'll certainly be missed by industry. His contributions over the years were excellent and he was always there when needed."

"The family were always industry minded. It wasn't all about them. They always contributed back, and never put themselves ahead of the industry."

Future of the industry

Paul said he'd witnessed a lot of change in the industry over the past 30 odd years and was certain the future would bring more.

"The industry has changed greatly over the decades, some for better, some for worse.

"Packaging and cartons are forever changing, with the aim of transporting fruit better. But I think the 15kg carton has brought little benefit to the grower as price is not reflective and growers are paid for 132 cartons less on a full load compared to a 13kg carton.

"Looking forward, I think somehow growers have got to get more of a return for their product, just to cover the costs these days of production. It's just not sustainable."

For now, Paul is happy to watch the industry from the sidelines, pondering what Mort would have thought about the decision to close the curtain on 40 years of banana growing in the north.

"I don't know if he would have ever done it. We probably would have had twice the bananas in the ground if he was still here," he says in jest with laughter and a smile.

Paul Johnston with the ABGC board in 2014.

MOLDING THE PIONEER

Mort Johnston was regarded by his peers as a visionary and a strong advocate for growers working together to better the banana industry.

He gave up his time to serve on a number of committees, including the North Queensland Banana Co-op.

Paul said his father had great foresight and was always looking at the "big picture".

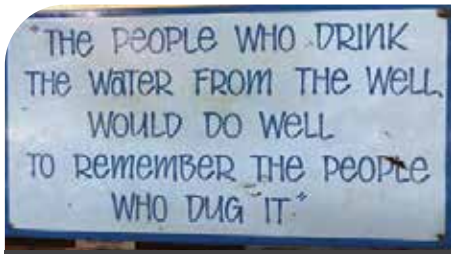
"He was a very industry minded person, no matter what the industry. He was always trying to get growers to unite and pull in the same direction.

"He was instrumental in helping set up the North QLD Banana Co-Op and was the Chairman for the first 4 years. He served on the board of the Tully Sugar Mill for 10 years and was a driving force in rail line extensions over to Murray Upper and upper Tully Valley, giving the mill access to land and resources to get the job done."

Mort was awarded the Paul Harris Fellow Award from the Tully Rotary Club for his contribution to the community. And in 2003, received an Award of Honour from the ABGC for his contribution to the banana industry.

"He loved farming. He was a great boss, always giving employees time and help when needed," Paul said.

"He was one of the first to introduce agronomy onto his farm. And he was generous with sharing his knowledge. He didn't keep any secrets."



Mort Johnston was known as a man of "many quotes", which he had painted onto signs and hung up in the family's farm sheds. These signs still hang today.

MORT SCHOLARSHIP

In honour of Mort Johnston, the Australian Banana Growers' Council established the Mort Johnston Professional Development Scholarship in 2007.

The purpose of the scholarship is to provide financial assistance to individuals seeking to further their professional development in ways that will ultimately benefit the Australian banana industry.

The bursary offers eligible students $5000 in their third year of study of agricultural or related science degree program at the University of Queensland, and also provides those recipients with vacation employment at one or more banana businesses.

For further information go to: https://abgc.org.au/projects-resources/scholarships/

NEW WATER QUALITY PROJECT

Tailored nutrient management plans are being developed for banana growers in the Tully and Johnstone basins as part of a new Great Barrier Reef water quality project.

The Cassowary Coast Reef Smart Farming initiative has received $6 million in funding through a partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

Managed by CANEGROWERS Innisfail, the program has a focus on both the sugar cane and banana industries on the Cassowary Coast, which have been identified by the Reef 2050 Water Quality Improvement Plan as a high priority for the reduction of end-of-catchment anthropogenic loads of dissolved inorganic nitrogen (DIN).

The Australian Banana Growers' Council (ABGC) is a major partner, tasked with assisting 30 of its growers to develop nutrient plans that optimise their use of fertilisers.

"We are focused on improving productivity and profitability by refining nutrient management and farm practices to get the best out of our crops," project leader Debra Telford said.

"A flow on affect will be that we will then keep nitrogen on the land and decrease the amount of DIN in our catchments."

Ms Telford said each banana farm nutrient plan was being developed using independent agronomists, in close consultation with individual growers, and no two would be the same.

"This is an extension project tailored to meet the needs of each participating grower," she said.

"Past water quality initiatives have relied on a prescriptive course of action, often overlooking key differences between farms and the people that manage them."

"This project is working very closely with growers to evaluate their physical, economic and socio-cultural drivers and tailor a plan that works for them while delivering the best possible environmental outcomes."

Working with banana growers is ABGC extension officer Molly Blake, who is bringing the latest horticultural crop science to the role.

"We know that with increasing fertiliser prices, our growers want to ensure they are getting the best from their spend," Ms Blake said.

"The banana industry has identified a clear need for formalised, holistic nutrient management plans that employ reflective practice to evaluate the impacts of application rates on productivity.

"This project has the ability to further refine existing nutrient planning based on regular professional advice.

"I'm taking soil and leaf testing into consideration, with ongoing adjustments for weather, time of year, crop stage and productivity."

If you would like to be part of the project, contact Molly Blake via email: molly@abgc.org.au

BRIAN EMBRACES PRACTICE CHANGE

By Lea Coghlan

Brian Franks is a fourth-generation banana grower.

His family's connection with the industry extends across two states and dates back more than 80 years.

His grandparents started growing bananas in the Tweed Valley decades ago – while great grandfather Clarion (Clarrie) Franks worked as a bunchy top detector in the 1930s.

Brian's uncle Peter Franks and family moved in 1990 to continue the family's legacy in banana farming at Mena Creek, while his parents, Michael and Cheryl, joined them in the late 1990s.

Despite being armed with a lifetime of experience growing bananas, Brian has embraced an opportunity to participate in a new nutrient management project which aims to reduce the amount of nitrogen leaving farms.

The $6 million Cassowary Coast Reef Smart Farming initiative, funded by the Australian Government's ReefTrust and the Great Barrier Reef Foundation, is being managed by Canegrowers Innisfail with the Australian Banana Growers' Council a major partner.

"It doesn't matter who you are or how big you are farming at the moment is about improving the article you put out and doing it as cost effectively as possible," Brian explained.

"In the last two years, costs have gone through the roof dramatically, but we are still getting prices that we got 30 years ago.

"Everyone is looking at their business as a whole to see where they can cut back to keep moving forward."

On the Franks 72-hectare property, about 14 ha is under bananas (Brian only recently knocked out 1.6 ha from the original plantation).

Brian hopes participating in the project will arm him with the tools to reduce fertiliser input – the cost of which is becoming increasingly unsustainable for growers – all the while maintaining or increasing production.

"The fertilisers that we used in the past are now $2000/tonne whereas two years ago they were $650/tonne for the same product," Brian said.

The project will provide Brian with a customised whole-of-farm nutrient management plan, based on independent agronomist advice, and the results of soil and leaf tests.

Growers participating in the project receive one-on-one support from the ABGC's Best Practice Team and an agronomist. Growers are encouraged to be actively involved in each step of the process.

"As farmers, you know what works in the past but using an agronomist removes the 'trial and error' approach," Brian said.

"We can't farm how they use to in the 1980s and 90s. We need to minimise waste as much as possible."

Growers wanting to be part of the project can contact ABGC Extension Officer Molly Blake at molly@abgc.org.au

Mena Creek banana grower Brian Franks is participating in a new water quality project.

EXTENSION PROJECT FOCUSED ON BUNCH PEST MANAGEMENT

By Tegan Cavallaro (Kukulies), National Banana Development & Extension Project

Bunch pests, particularly banana rust thrips, have been flagged by FNQ growers as one of the main issues impacting quality.

The current APVMA review on the use of chlorpyrifos may also have implications for bunch pest management. The review could result in the deregistration of this widely used insecticide, including its use as a dust application. The National Banana Development and Extension team have been visiting growers to gain a better understanding of how they manage bunch pests and to explore opportunities for improvement. To support industry, the extension team has been focusing efforts on bunch pest management.

With the potential removal of products and concerns about the efficacy of remaining chemistries and practices, field trials undertaken as part of the National Banana Development & Extension Program is improving knowledge and understanding about practices for effective bunch pest management.

Early bagging reduces animal damage and rust thrip damage

Many growers are bagging bunches early to minimise bird and bat damage. The question was raised – does this also help manage bunch pests?

To investigate this, pest damage on bunches bagged when the first bract began to lift (early bagging) were compared to bunches bagged once all hands were exposed, and bracts had fallen (late bagging) (See images). The bells were injected with acephate (40mL) and the bunches were sprayed with spinetoram (60mL) approximately two weeks after bell injection.

Shanara Veivers who undertook the trial said there was significantly less scratches and damage caused by bats and birds scratches on the fruit which had been bagged early.

"Early bagging also reduced the number of fingers which had rust thrip damage showing, that in addition to significantly reducing animal damage, early bagging helps minimise impact of rust thrip," Ms Veivers said.

"We also looked at the level of damage caused by flower thrips and there was no difference between fruit on bunches which were bagged early or late."

She also noted that good control of scab moth was achieved in the bunches which were injected with acephate (40mL) and sprayed with spinetoram (60mL) irrespective of whether they were bagged early or late.

It's all about the timing for scab moth control

How important is volume of bell injection and bunch spraying as well as timing of bell injection for bunch pest control?

To help answer this a trial was conducted where bells were injected with combinations of either 40mL (full volume) or 20mL (half label volume) of acephate (Orthene Xtra®) and bunch sprayed with 60mL (full volume) or 30mL (half label rate) of spinetoram (Success Neo®). Some bunches were injected once the bell was in the horizontal position, a timing considered later than optimal (see images).

The trial was conducted by DAF's Ingrid Jenkins, who carried out the trial, said bunches which were injected late, when the bells were in the horizontal position, had the most scab moth damage – demonstrating the importance of injecting bells in the upright position at full volume for scab moth control.

"Overall, flower thrip damage was present in all bunches and good control was not achieved with the trialled combinations of chemical and volumes. A higher volume may provide better control," said Ms Jenkins.

"All chemical volume and timing combinations for bell injection and bunch spraying provided a reasonably good level of control of rust thrips. However, the rust thrips pressure was lower than expected which is likely to have contributed to the good level of control in this trial."

Improving spray techniques

The extension team is also investigating alternative bunch spray systems that deliver good coverage and protection whilst potentially making significant time-savings. The trial will compare a shortlist of options based on suggestions from participants in the 2022 FNQ banana roadshow series and other growers' experiences. Preliminary assessment of spray systems using fluorescent dyes has helped narrow down the 'best bet' hydraulic and air assisted spray systems to be included in the trial.

Shifting from bunch dusting to bunch spraying

Growers interested in trialling bunch spraying rather than dusting, may find it helpful to hear what Sellars Bananas have learnt since they transitioned 20 years ago from dusting to spraying bunches. Read more about Naomi Brownrigg different bag tying technique on page 38.

Timing of bell injection is important for scab moth control. In the field trial bells which were injected late, in the horizontal position (pictured left) had the most scab moth damage. Good control of scab moth was achieved when bells were injected in the upright position at label volume (as pictured on right).

Bunches which were bagged at this stage (early bagging) in the trial had less animal damage and fewer fingers with rust thrip damage.

The National Banana Development and Extension Program (BA19004) is funded by Hort Innovation, using the banana research and development levy, co-investment from the Department of Agriculture and Fisheries and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

PLANT CROP RESULTS FROM DAF'S MOST RECENT VARIETY EVALUATION

By Katie Robertson, Jeff Daniells and Ashley Balsom, Queensland DAF

Two TR4 resistant selections are among the new varieties being assessed for agronomic performance at the South Johnstone Research Facility. Those who attended the September 2021 field walk saw the varieties as they were approaching harvest in the plant crop (available to watch online https://www.youtube.com/watch?v=4u347LUZsKg). The results of that first crop are presented here.

The agronomic characteristics of the new varieties are being compared with industry standards over a plant crop and first ratoon. Three Cavendish selections, four CIRAD hybrids, and six Lady Finger selections were included in the evaluation. The trial was established in October 2020 and bunch harvest was spread from July to November 2021 for the different varieties.

Within the Cavendish varieties, Williams and the GCTCV 106 Selection had the fastest cycle times (planting to bunch harvest) of 8.9 and 9.0 months, resulting in yields of 31.5 and 28.9 kg/year, respectively. In contrast, Asia Pacific #1, a TR4 resistant selection from Taiwan, took 1.5 months longer to reach bunch harvest than Williams, resulting in a 21 per cent yield reduction (24.9 kg/year). This longer cycle time has been a common feature of other TR4 resistant Cavendish varieties previously evaluated. Asia Pacific #1 was 24% shorter in stature than the other Cavendish varieties, standing at 2.2 metres. Fruit length was also shorter. Only 26% of its fruit was in the 22 – 26 cm finger size category compared to 64% for Williams.

The dwarf selections of Lady Finger (Dwarf Rossi, Dwarf Lady Finger, and Santa Catarina Prata) were 25 – 28% shorter in stature than standard Lady Finger at bunching. Pendulous Lady Finger (PLF) and Tall Rossi were also shorter than regular Lady Finger by 7 and 13%, respectively. Additionally, PLF had an 18% yield increase per year and displayed much better bunch conformation than Lady Finger's typical sub-horizontal bunch angle.

The French CIRAD hybrids were developed to have resistance to Sigatoka leaf diseases. One of them, CIRAD X17, has also demonstrated to be highly resistant to TR4 in the Northern Territory screening trials (*Australian Bananas* Issue 65: p18 -19). Like other CIRAD hybrids we have evaluated previously (*Australian Bananas* Issue 61: p16 – 17), these four selections had long, narrow leaf petioles which are brittle and prone to breaking. Although the height of CIRAD 918 was comparable to Williams (average height of 2.9 m), its pseudostem snapped before harvest for 40% of the plants. There were no notable losses from snapping or rolling out in the other three hybrids. These varieties were bred and selected in a tropical region, and they do not seem to handle the relatively cooler winters and some other environmental stressors of north Queensland particularly well. There were also inconsistencies with the rate and capacity of fruit filling. The CIRAD hybrids took 14 – 21% longer to reach harvest maturity and had bunches that yielded 41 – 70% less than Williams per year.

Harvest of the first ratoon crop is nearing completion and will be presented in a future *Australian Bananas* article.

The Lady Finger selection, Dwarf Rossi, was 25% shorter in stature than the standard Lady Finger.

The bunch conformation of Pendulous Lady Finger (top) compared to standard Lady Finger (bottom)

The TR4 resistant Cavendish selection, Asia Pacific #1, was 24% shorter in stature than Williams but was 21% lower yielding in the plant crop and had much less fruit in the premium size grades.

Selected yield and plant characteristics of the varieties in the plant crop

Description	Variety	Months planting to harvest	Bunch Wt* (kg)	Bunch Wt*/12 months	Fruit 22 - 26 cm (wt%)	Fruit 20 - 22 cm (wt%)	Pseudostem Ht (m)
Cavendish	**Williams**	**8.9**	**23.3**	**31.5**	**64**	**18**	**2.9**
	GCTCV 106 Selection	9.0	21.5	28.9	68	14	2.9
	Asia Pacific #1	10.4 >	21.5	24.9 <	26 <	39	2.2 <
CIRAD hybrid	CIRAD 925	10.4 >	14.9 <	17.1 <	n.a.	n.a.	3.2 >
	CIRAD 918	11.2 >	12.3 <	13.3 <	n.a.	n.a.	2.9
	CIRAD L9	10.6 >	8.3 <	9.3 <	n.a.	n.a.	3.3 >
	CIRAD X17	10.8 >	16.7 <	18.7 <	n.a.	n.a.	3.8 >
Lady Finger	**Lady Finger**	**10.3**	**12.2**	**14.2**	**n.a.**	**n.a.**	**3.6**
	Dwarf Lady Finger	10.5	13.2	15.2	n.a.	n.a.	2.6 <
	Pendulous LF	12.3>	17.7 >	17.4 >	n.a.	n.a.	3.3 <
	Dwarf Rossi	10.8	12.7	14.2	n.a.	n.a.	2.7 <
	Santa Catarina Prata	11.4>	14.1	14.9	n.a.	n.a.	2.7 <
	Tall Rossi	12.2>	16.3 >	16.1	n.a.	n.a.	3.1 <

*Excludes bunch stalk weight

< = significantly less than Williams or Lady Finger in the respective sections of the table (95% confidence level) and > = significantly more than.

n.a. = not applicable for that variety.

Less desirable

More desirable

Hort Innovation Strategic levy investment | BANANA FUND

This project has been funded by Hort Innovation using the banana research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

SOIL BORNE DISEASE ISSUES UNDER THE SPOTLIGHT

By Tony Pattinson, Senior-Principal Nematologist, Soil Health Team Leader, QLD DAF

The 11th Australasian Soilborne Disease Symposium (ASDS2022) was held in Cairns from 1-5 August.

This brought together 70 delegates from six countries, with a strong focus on soil borne disease issues in bananas.

The aim of symposium was to improve collaboration between researchers and people working directly with growers to reduce the impact of soil diseases.

A key message from the symposium was the importance of engagement and inclusiveness when designing research activities and keeping growers needs in mind.

ASDS2022 showcased how soil borne diseases were being addressed in the Australian banana industry, highlighting the benefits from the investment in research and extension for management of Panama disease and nematodes, together with the role the soil microbiome has in protecting banana plants from diseases.

Novel management techniques to increase the presence of beneficial organisms for bananas were presented along with the important beneficial soil organisms and how they interact with banana plants to suppress soil diseases.

However, new challenges associated with climate change were highlighted at the symposium, which could impact banana production.

Soil borne diseases are likely to increase in the future with additional disease complexes associated with climatic extremes of hotter, drier periods and prolonged soil saturation.

Events like ASDS2022 increase the understanding of the challenges facing banana growers, allowing management options to be developed before they cause reductions in banana production.

The intricacies of nematodes and their identification under the spotlight at the (Photo Emily Pattison, QDAF).

Howe Farming hosted delegates from the 11th Australasian Soilborne Disease Symposium to demonstrate the importance of on-farm biosecurity (Photo Emily Pattinson, QDAF)

SCREENING VARIETIES FOR YELLOW SIGATOKA RESISTANCE

By Katie Robertson, Jeff Daniells, Carole Wright and David East, Queensland DAF

Four CIRAD hybrids demonstrated good resistance to yellow Sigatoka, but they did not measure up on their other agronomic characteristics. Seventeen Cavendish lines were assessed for resistance, but none were any better than Williams. All were rated as very susceptible to yellow Sigatoka.

Yellow Sigatoka, also known as Sigatoka leaf spot, is the major leaf disease affecting the north Queensland banana industry and is caused by the fungus *Pseudocercospora musae*. Most of the bananas grown are of the Cavendish type (mainly Williams), as well as a small amount of Lady Finger, both of which are very susceptible to the disease. The annual cost of controlling leaf disease in the north Queensland banana industry is estimated to be in excess of $25 million. The disease is particularly difficult to control under hot, wet conditions and an integrated disease management program involving both cultural and chemical measures is required for effective control. Fungicides are usually aerially applied to the leaf canopy at regular intervals throughout the year and represent the major 'pesticide' applied in the production of bananas in north Queensland.

It would be a great advantage to the industry if a commercially viable variety possessed disease resistance. The cost of production could be significantly reduced, as well as the industry's overall pesticide input and any associated environmental impacts – perceived or otherwise.

As part of the project 'Improved plant protection for the banana industry' (BA16001), 24 varieties were screened for resistance Sigatoka leaf spot at South Johnstone Research Facility during the 2022 wet season. The same block of bananas where the plant and ratoon crop agronomic evaluations reported previously (*Australian Bananas* Volume 58: p20-21 & Volume 61: p16-17), was used for the disease screening trial. After the final ratoon crop, fungicide applications for leaf disease control ceased. The block was then nurse-suckered to synchronise development so that leaf spot could be rated on plants prior to bunching during the wet season in 2022. Counting from the first fully unfolded leaf down, the youngest leaf with 10 or more mature lesions (youngest leaf spotted - YLS) was recorded and the youngest leaf with 33 per cent necrosis of the lamina (YL33). The total number of functional leaves (TFL) was recorded if no leaf spot symptoms were present. Ratings were done on three separate occasions in the last week of March, April and May 2022, respectively. For simplicity, just the YLS or TFL results averaged over the three rating occasions are presented here.

The new varieties have been given an overall disease reaction rating relative to three reference varieties that have had their susceptibility/resistance categorised in previous studies. All the Cavendish varieties were very susceptible and their YLS values were not significantly different to Williams, except for two of the TR4 resistant selections from Taiwan (GCTCV 105 and GCTCV 119) which had slightly lower YLS values. Our intermediate reference variety, Inarnibal, had on average two more leaves present with less than 10 mature lesions compared to the Cavendish varieties.

The CIRAD hybrids exhibited no leaf spot symptoms but only had 8 – 9 upright leaves on average. Nevertheless, they were considered highly resistant along with Dwarf Ducasse – the highly resistant reference variety.

The CIRAD hybrids certainly have leaves with good resistance to yellow Sigatoka, but those same leaves are relatively brittle and are prone to snapping, thus reducing the functional leaf area. Additionally, their cumulative yields in the preceding crops were 28-36% lower than that of Williams while also being 15-30% taller. CIRAD 924 and 938 had an acceptable taste and have also shown to be resistant to TR4 in the NT (along with CIRAD 931) but when all their characteristics are weighed up, there seems to be little commercial prospect for these varieties despite their good Sigatoka leaf spot resistance.

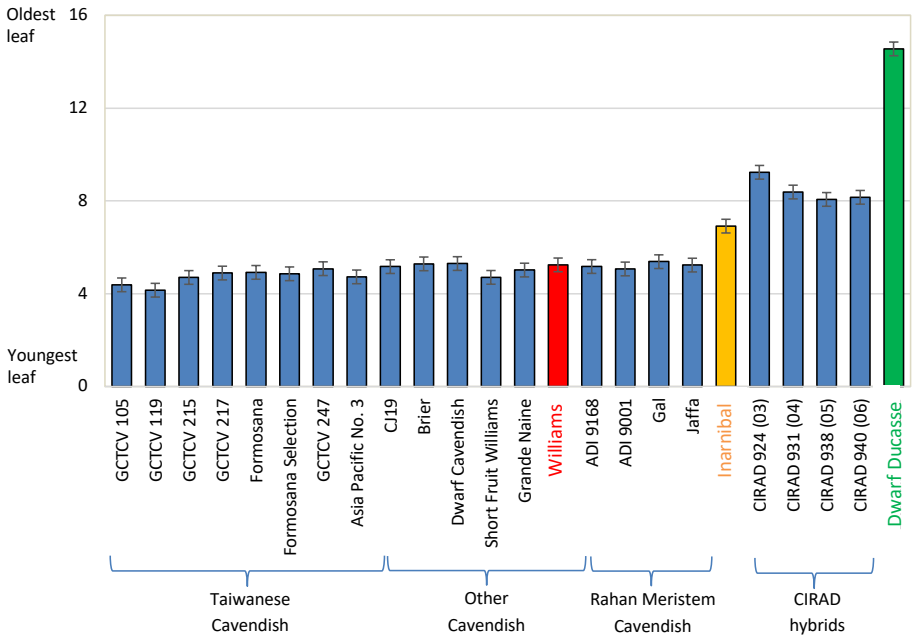


Figure 1. Youngest leaf with 10 or more necrotic lesions (YLS) for 24 varieties at South Johnstone (average of 3 rating occasions; error bars represent average 95% LSD). If the YLS stage was not reached for a variety (i.e. the CIRAD hybrids and Dwarf Ducasse) the leaf number represents the total number of functional leaves present. Williams (very susceptible), Inarnibal (intermediate) and Dwarf Ducasse (highly resistant) were used as references to assess the disease reaction of the new varieties.

Yellow Sigatoka leaf spot symptoms – the larger oval-shaped spots show Cordana leaf spot which has invaded via the yellow Sigatoka lesions.

The four CIRAD hybrids all demonstrated resistance to yellow Sigatoka (CIRAD 938 pictured).

Hort Innovation BANANA FUND

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TRANSITION TO INDUSTRY

Growers can expect to see surveillance officers employed by the Australian Banana Growers' Council in the field prior to transition to industry management of the Panama TR4 by mid-2023.

The officers will work alongside the current Biosecurity Queensland (BQ) surveillance team under a hybrid workforce for a period of time.

The pilot arrangement will allow operational issues to be identified and resolved to ensure a smooth transition of surveillance activities to industry management on 30 June 2023.

ABGC Industry Transition Leader Geoff Wilson said the transition of disease management from government to industry management was on track.

"Dual workforce plans are being established, and we have identified various roles and personnel that could be recruited for the pilot trial," Mr Wilson said.

"For now, the BQ surveillance schedule will continue as normal."

The ABGC-led surveillance will initially continue with the same frequency of farm visits as that established under the current Panama TR4 Program.

Sampling on the infested property.

CODE PROGRESSES FOR LEGISLATIVE APPROVAL

The Panama TR4 Program Management Board (the Management Board) has supported a mandatory *'Code of Practice for the management and control of Panama TR4 on an infested property in Queensland.'*

The Code has been developed to form part of the framework for the management of Panama TR4 disease post 30 June 2023, when management of the disease will be led by industry.

At a meeting on the 5 November, the Australian Banana Growers' Council Board (the Board) unanimously agreed to support the progression of the mandatory Code for Infested Properties into legislation.

The Panama TR4 Program Management Board met on 21 November and endorsed the ABGC decision to support the mandatory Code. It will now progress to the Director General of the Queensland Department of Agriculture and Fisheries with a recommendation for the Code to be adopted prior to 30 June 2023.

This means the Code of Practice will have regulatory 'teeth' in that it will be enforceable and have consequences for failure to comply – similar to the current Notice (Notice of presence of Panama disease tropical race 4) requirements. Grower feedback from the TR4 Discussion Paper in early 2022 strongly supported this measure.

A consultation process supported the development of the Code.

It included a Project Reference Group, comprising a representative from the ABGC, a representative from both Queensland and New South Wales government biosecurity agencies, an infested property grower, a grower in close proximity to an infested property and a grower not in close proximity to an infested property.

A draft Code was then released for public comment.

The Code was featured on the ABGC website during the public consultation period and received 377 page views, with the ABGC keeping growers informed through e-bulletins and text messages.

The Code is designed to continue the success of the current biosecurity measures placed on properties where disease presence has been confirmed. Requirements under the mandatory Code are similar to what is currently in place under Biosecurity Queensland's Notice and the Biosecurity Manual's instructions for the destruction of infested plants.

The Code would become effective when a grower receives notification that diagnostic testing of a plant sample confirms presence of the disease.

QBAN SCHEME FACILITIES

Mission Beach Tissue Culture Nursery	07 4068 8553 0418 299 900	sdlavis4@bigpond.com	Lindsay Road (PO Box 326), Mission Beach QLD 4852
P.G. Berry-Porter - Trading as Kool Bananas	07 4068 9382	shazza141@bigpond.com	18 Casuarina Cres (PO Box 191), Mission Beach QLD 4852
Lowes Tc Pty Ltd - LABORATORY & NURSERY (NSW)	02 4389 8750	Greg@lowestc.com.au Patricia@lowestc.com.au Natasha@lowestc.com.au	202 Tumbi Road, Tumbi Umbi NSW 2261
Sival Farming Tissue Culture Nursery	07 4068 8559 0418 299 900	sdlavis4@bigpond.com	Dati Road, Walkamin QLD 4872
Yuruga Laboratory and Nursery	07 4093 3826 0427 933 791	admin@howefarms.com.au	5970 Kennedy Highway, Walkamin QLD 4872
Wide Bay Seedlings Pty Ltd	07 4129 6684 0427 371 353	office@wbseedlings.com.au	1971 Mungar Road, Pioneers Rest QLD 4650
Ausplant Nursery	07 4662 4934 0427 371 566	brady@ausplantnursery.com.au	Winton Street (PO Box 766), Dalby QLD 4405

NEW BREEDING TECHNOLOGIES AND BANANAS: OPPORTUNITIES NOW AND INTO THE FUTURE

By James Dale, Centre for Agriculture and the Bioeconomy, Queensland University of Technology

The vast majority of bananas grown around the world today are selections of naturally occurring hybrids.

Their breeding was a fortuitous accident of nature which has been taken advantage of by many early farmers in the wet tropics and sub-tropics. Two such naturally occurring hybrids are Cavendish and East African Highland bananas which together account for more than 60 per cent of the bananas grown worldwide. Of course, there are many others with estimates of more than 1000 different cultivars and landraces in existence. These include Lady finger, Ducasse, and Gros Michel to name a few. There are very few banana cultivars that are the result of conventional breeding programs with Goldfinger (FHIA-01) perhaps the best-known example.

This situation is not uncommon. Many of the best fruit cultivars are selections of naturally occurring hybrids or mutations: Washington Navel and Valencia oranges, Granny Smith apples, Hass avocados and virtually all the best wine grape cultivars. The challenge we have is how do we ensure the future of these wonderful cultivars that haven't been genetically improved in an environment where the climate is changing rapidly, human population growth and movement is leading to greater spread of pests and diseases and consumers are becoming more concerned for sustainability and the environment.

Bananas in Australia and worldwide are under threat particularly from diseases and especially Panama Disease tropical race 4 (TR4) and the "sigatokas", yellow in Australia and black almost everywhere else. To these, we can add bunchy top, nematodes and freckle. And dependence on a single cultivar, Cavendish, in Australia and for the world export market, is an increasing concern. However, there are very good reasons why Cavendish is so popular. It is resistant to Panama Disease race 1, it is relatively high yielding, it produces well in both the wet tropics and sub-tropics, it has very good transportability and it has a very acceptable taste and texture. But it is highly susceptible to TR4 and the sigatokas. Clearly for the future we need genetically improved bananas including Cavendish or a replacement for Cavendish.

So, what are the options? One is conventional breeding. There are now quite a few very active banana breeding programs around the world but none in Australia. These include the programs of CIRAD (France), FHIA (Honduras), EMBRAPA (Brazil) and IITA (Nigeria). Particularly CIRAD and FHIA are focussed on developing a disease resistant dessert banana to replace Cavendish. Importantly, whatever new cultivars come out of these programs, they will be different to Cavendish.

The other major option is to use New Breeding Technologies or NBTs. The most common of these are genetic modification (GM) and genome or gene editing. These two technologies have particular application for bananas as they allow the genetic improvement of already accepted cultivars such as Cavendish, East African Highland bananas and Lady Finger. Essentially, GM involves the addition of "new" DNA to a plant's genome whereas gene editing involves modifications of the plant's own DNA. Unlike conventional banana breeding, Australia is very active in the development of GM and gene edited bananas through QUT's Banana Biotechnology Program. The most advanced project is the development of a TR4 resistant Cavendish where one line, QCAV-4, has been identified as near immune through nearly seven years of field trialling in the Northern Territory. This resistance is based on a single banana gene transferred from a wild banana. We have also field trialled GM Cavendish in north Queensland which have elevated levels of pro-vitamin A, also based on a transferred banana gene. This technology has been transferred to Uganda. And we have also field trialled GM Cavendish for bunchy top resistance in Malawi.

We have now turned our attention to developing gene edited bananas, initially again Cavendish. The primary reason for this is that, in Australia, GM is highly regulated through the Office of the Gene Technology Regulator (OGTR) right through from the lab to field trials and ultimately commercial release. This is an expensive and very time consuming process. In Australia and a number of other countries, certain types of gene editing will not be regulated which dramatically reduces the costs and timescales to develop edited crops. We have already developed a platform for generating non-GM, gene edited Cavendish and are currently editing genes in Cavendish for the purpose of generating TR4 resistance and these will progress to our field site next year. Importantly, gene editing applications are not limited to disease resistance or to Cavendish. There are opportunities to improve fruit quality, plant architecture as well as resistance to diseases other than TR4 and the opportunity to apply these traits to many other cultivars.

Genetic modification and gene editing are exciting technologies that are poised to play an important role in ensuring the sustainability of our major banana cultivars and bring greater diversity to the marketplace.

Field trials in the Northern Territory.

TR4 resistant Cavendish line, QCAV-4, has been identified as near immune through nearly seven years of field trialling in the Northern Territory.

NEW IDM PROGRAM STARTS

By Kathy Grice, David East, Richard Piper, Daniel Farrell and Stewart Lindsay, Queensland DAF

Finding new methods of pest and disease control in bananas which are safer for farmers and the environment has been identified by the banana industry as a priority area for research.

This has resulted in Hort Innovation approving a new five-year project led by the Department of Agriculture and Fisheries (DAF).

The project (BA21004 - Banana Integrated Pest and Disease Management Program) consists of five components: bunch, and foliar pest management, control options for yellow Sigatoka and fruit speckle and diagnostics.

Research on bunch pests (flower thrips, rust thrips and scab moth), and foliar pests (mites) aims to assess the use of novel insecticides containing microbial pathogens (e.g., *Bacillus thuringiensis, Beauveria bassiana* and *Metarhizium* species), insect predators (pirate bug) and mite predators (*Neoseiulus californicus* and *Stethorus* species), together with cultural practices (early or late bagging, coloured bunch covers). Biological control options offer a safer alternative, however, we need to better understand how they can fit into current practices for maximum benefit.

Leaf diseases such as yellow Sigatoka will focus on demonstrating the importance of integrating cultural practices (deleafing to reduce inoculum levels) with the timing of fungicide applications, as well as determining spray programmes based on the current list of products registered in bananas. Another aspect will include the application of bunch trimming when disease pressure is high to determine if a specific ratio of leaf number to hands at bunch emergence is required.

Control options for fruit speckle is also on the agenda, as management choices are limited. The research aims to investigate novel approaches which will include the use of products that contain microbial mixtures (e.g., *Trichoderma* species, *Bacillus* species and *Pseudomonas* species). In addition, fungal or bacterial organisms recovered from the banana microbiome (plant and soil environment), that could be antagonistic toward the fruit speckle-causing pathogens will be examined.

Throughout the project, a diagnostic service will be available to growers, agribusiness consultants, chemical companies and supply chain personnel through South Johnstone and Mareeba DAF offices.

The research team is aware that returns at times are low due to oversupply and growers are currently bearing the brunt of price hikes in all facets of their business, including the cost of pest and disease management. The pest and disease management strategies being investigated in the new project aim to incorporate labour efficiency, cost effectiveness and environmental implications into the research assessments.

The removal of diseased leaves is a practice essential to managing yellow Sigatoka.

Predatory pirate bug and nymph, a biological control option for thrips (Image by Bugs for Bugs).

The National Banana Development and Extension Program (BA19004) is funded by Hort Innovation, using the banana research and development levy, co-investment from the Department of Agriculture and Fisheries and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

BANANA FRECKLE

By Prof André Drenth, University of Queensland as part of Hort Innovation Project BA21001: Banana industry diagnostic capacity and capability building

With a recent new incursion in the NT an update on the facts around Freckle is timely.

Why is Freckle important

Freckle affects the leaves and the fruit of bananas. Infection of the fruit makes it unacceptable for markets. Infection of the leaves causes premature death resulting in yield loss. In areas where the disease occurs such as Taiwan and the Philippines it is second in importance after black Sigatoka.

Control on the leaves is done through de-leafing and application of fungicides, similar to Sigatoka control. However, control of the disease on the fruit is more difficult and costly to achieve. Infections on the fruit can be reduced through very early bagging which adds to labour costs as the developing bunch will require removal of bracts and the male bell in follow up operations. Tightening of the bunch bag to prevent Freckle spores to run along the bunch stalk infecting the fruit may also help while the application of fungicides to the bagged fruit is difficult as infections are often in the top part of the bunch.

What is Banana Freckle Disease?

Freckle is caused by a fungus called *Phyllosticta cavendishii* which affects a wide range of bananas including Cavendish. Other species of Freckle exist, such as *Phyllosticta maculata* which is present in Southeast Asia and the Pacific, including Australia, and affects only bananas in the AAB and ABB subgroups, while *Phyllosticta musarum* has been reported from India and China.

What are the symptoms?

Leaf symptoms

- Small reddish brown to black spots usually on the upper leave surface (Fig 1)
- The spots protrude from the leaf surface giving it a sandpaper like feeling to the touch (Fig 2)
- Spots sometimes cluster in lines and appear as streaks running across the leaf (Fig 3)
- Large numbers of spots lead to death of the leaves (Fig 4)
- Yellowing and early death of leaves due to freckle infections beginning at the leaf margins (Fig 4)

Fruit symptoms

- Small reddish-brown flecks surrounded by a halo of dark green water-soaked tissue on green fruit (Fig 5)
- Dense clustering of the spots can lead to large black spots on the fruit and the peduncle (Fig 5)
- Severity of disease increases as the fruit matures
- Freckle can cause severe blemishes on the fruit affecting market acceptability, but the eating quality of the fruit is not affected

How does it spread?

Spores of the fungus are spread by wind and rain. One type of spores, called conidia, can be spread by raindrops and watersplash from leaves to fruit under wet conditions. The other type of spores, called ascospores, also play a role in transmission of Freckle. Under cool dry conditions followed by wetting these ascospores are forcibly ejected from the leaves and can be spread by wind over somewhat larger distances. Long distance dispersal occurs though the movement of planting material, infected leaves, and fruit.

Where in the world is it found?

Phyllosticta cavendishii is found to be widespread in Southeast Asia and the Pacific. It was discovered in the Northern Territory in 2013 but an intensive campaign involving government and the Australian banana industry has managed to successfully eradicate it from Australia and area freedom was re-established in 2019. Eradication was achieved through destroying all banana plants in certain areas and intensive monitoring. Unfortunately, a new outbreak was detected in May 2022 in the NT requiring a new eradication campaign.

What are we doing to protect the industry?

- Strict regulation concerning import of fruit and plant material
- Regular surveillance for leaf diseases in North Queensland and Northern Territory
- Use of molecular diagnostics to distinguish between the different fungi causing freckle
- Increase awareness among industry stakeholders

What can I do to protect my farm?

- Use only disease-free planting material
- Check your farm frequently for unusual leaf spot symptoms and/or symptoms on the fruit
- Do not move symptomatic fruit or leaves as they may sporulate during transport and lead to further spread of the disease. Cut the leaves off and place them upside down on the ground to prevent spread.

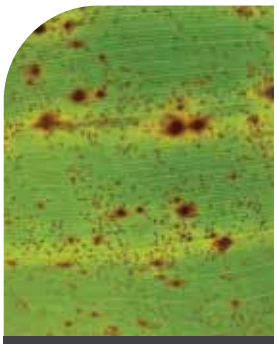


Fig 1. Initial Freckle symptoms showing numerous reddish-brown spots on the leaf surface (Photo courtesy of Department of Agriculture, Sarawak.

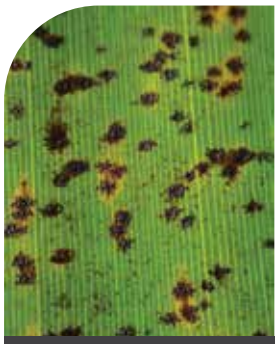


Fig 2. Freckle showing protruding fruiting bodies on banana leaf in Indonesia (Photo Andre Drenth).

Fig 3. Freckle on Cavendish in Indonesia. Note the streak of Freckle fruiting bodies evidence of spore-laden water droplets running down the leaf. (Photo Andre Drenth).

Fig 4. Cavendish leaf severely affected by Freckle in Indonesia (Photo Andre Drenth).

Fig 5. Reddish-brown to black spots with associated water-soaked lesions on fruit surfaces. (Photo courtesy Department of Agriculture, Sarawak).

FERTILISER CHOICE CAN HELP TO REDUCE ON-FARM CARBON EMISSIONS

Australian farmers can help to reduce their greenhouse gas emissions simply by electing to use quality nitrate fertilisers that have a known carbon footprint.

Globally, it is estimated that agriculture accounts for 10.2% of emissions, while changing land-use patterns account for another 9.2%.

The use of mineral fertilisers accounts for 1.3% of global emissions, while fertiliser production accounts for 1.1% of global emissions.

Yara Crop Nutrition Country Manager Australia, Tim Erbacher, says there is mounting pressure on all industry, including agriculture, to reduce emissions to stem climate warming.

"As one of the world's leading nitrogen fertiliser manufacturers, Yara takes its obligations seriously," Tim says.

"We have reduced our CO2 emissions by 45% since 2005 and we intend to reduce this by another 30% by 2030 and become carbon neutral by 2050."

Yara has implemented numerous initiatives to reduce emissions associated with ammonia and nitric acid production and energy consumption throughout its manufacturing and distribution processes.

They include the development and adoption of abatement catalyst technology, which has reduced NO2 emissions from its fertiliser production plants by more than 90%.

Yara has since shared this technology with other manufacturers.

Future reductions will stem from 'green ammonia' produced from renewable energy sources, such as solar, wind or hydro, and carbon capture and storage processes.

Yara is constructing one of the world's first industrial-scale green ammonia plants in the Pilbara region of WA.

The plant is expected to be commissioned next year.

Yara is actively engaged with some of the world's largest food companies to help document the carbon footprint of their food products.

"Today's consumers are demanding greater transparency and traceability about where their food comes from and are willing to pay a premium for food that is sustainably produced," Tim says.

"We are helping major food companies to meet their sustainability targets by documenting the contribution of our fertilisers to their carbon footprint and how we are taking steps to further reduce them."

Yara was a founding partner of Cool Farm Alliance (CFA), a global organisation that empowers farmers to make more informed decisions about reducing their environmental impact.

"CFA has developed the Cool Farm Tool, a free calculator that determines the carbon footprint of crop and livestock products," Tim says.

"Our sales agronomists frequently use this tool when they're explaining the benefits of our fertilisers and crop nutrition programs to customers and their advisors."

Yara Crop Nutrition Country Manager Australia, Tim Erbacher.

Farmers also have an important role in helping to reduce the carbon emissions of the food chain by optimising nitrogen use efficiency.

"Agreeably, on-farm emissions associated with fertilisers is small but it is a significant part of agriculture's contribution and needs to be addressed," Tim says.

"This can be as easy as selecting a quality nitrate fertiliser that has a known carbon footprint and then applying it in accordance with best practice.

"We call it the four Rs: applying the right amount of the right product at the right time and the right place.

"Nitrate fertilisers are more efficient than urea because of their lower volatisation and improved plant availability.

"The adoption of whole-of-crop nutrition solutions, objective decision-support tools and carbon-smart farming practices can further help to reduce emissions associated with fertiliser use.

Yara's ammonia plant in Pilbara.

PEST AND DISEASE PROJECT PROTECTS INDUSTRY

A new project will draw on decades of combined expertise in banana pest and disease management, to support containment and control of endemic banana pests across banana growing regions at risk in New South Wales and Queensland.

The project will retain existing measures used to monitor and contain endemic diseases but will also put growers in a better position to monitor their farms themselves and take action through the education, training and advice provided by project staff.

The project 'Multi-pest surveillance and grower education to manage pests and diseases' (BA21003) incorporates the Banana Bunchy Top project (NSW and South East Queensland) and the Plant Health Officer role supporting control of leaf spot disease in Far North Queensland.

The new project, funded by Hort Innovation and delivered by the Australian Banana Growers' Council, has entered into its first quarter of full activity and the benefits are already being noticed.

FNQ based Plant Health Officer Carl Rickson visited the Bunchy Top team to kick start the collaborative efforts, joining them in Northern NSW to inspect a plantation.

"It was fantastic to see information flowing between all those involved," Project Leader Dr Rosie Godwin said.

"Between Carl, the BBTV inspectors and the management team, there's a wealth of experience here. There was plenty to discuss relating to on-farm biosecurity employed across both States and techniques for improving our grower engagement processes."

Activities undertaken as part of the new project are aimed at improving the efficiency and effectiveness of previous work, maximising value for money on this levy-funded investment. They also aim to build industry capability to deal with Banana Bunchy Top Virus (BBTV) infection, spread and control, as well as protect the FNQ industry from other significant banana diseases and their related production constraints.

Project Manager Grant Telford shared Dr Godwin's enthusiasm for the exchange of knowledge and experience already under way.

"In addition to those key benefits, the new project's management team will be able to continue to support BBTV operations while assisting Carl behind-the-scenes, handling more of the admin, reporting and data-management – and allowing him to focus on getting out on-farm," he said.

Growers will be kept up-to-date with news from the project through the regular ABGC communication channels, including e-bulletins and Australian Bananas magazine.

You can also continue to follow the National Bunchy Top Project on Facebook.

The Banana Bunchy Top team recently spent time with NSW DPI Subtropical Horticulture Industry Development Officer, Steven Norman, both to improve his knowledge of the disease and to share opportunities to work together.

Steven joined the team on a farm in Northern NSW, giving him a chance to see first-hand the impact of Bunchy Top, what's involved in their efforts, from educating growers to detecting and destroying Bunchy Top.

Providing training to growers and other industry stakeholders is essential in the fight to keep the disease within its current containment lines.

The team looks forward to working closely with Steven and the NSW DPI as strong advocates for Bunchy Top control into the future.

Carena Rose and Wayne Shoobridge, from the Banana Bunchy Top team, gave a presentation to the Coffs Harbour BGA meeting in early November.

While there are no known detections of Bunchy Top in the region, it's just a few hours' drive from the current containment zone. Growers were encouraged to remain vigilant and implement biosecurity where possible. Infected leaves (sealed in plastic) helped illustrate the symptoms, and a video took growers into the field to see the inspectors in action.

Carena and Wayne were also able to share a variety of resources, including shed posters and magnifying glasses. The video played on the night can be viewed at www.abgc.org.au/banana-bunchy-top, along with a range of other tools.

Banana Bunchy Top Hotline: 1800 068 371

BANANA GROWERS HAVE GOT RECORDS IN SPADES

It seems the regulation burden on Australian banana growers is increasing, with more and more records needing to be kept to demonstrate that their activities are compliant with government and market requirements.

Spades founder Jennifer McKee is driven to help farmers better manage their compliance requirements and has developed a single platform that assists growers to do just that.

Initially called Grower Support, the Spades platform has gone from strength to strength and this year was awarded an Advance Queensland Ignite Ideas grant of $94,000 to commercialise the software and employ regional staff.

The project was recognised for its innovation for streamlining the compliance and auditing process for growers and producers through digitalisation.

Now fully launched and with its third version due to be rolled out before the end of 2022, Spades has more than 60 regulations, standards and schemes with customers from a wide variety of commodities, including bananas.

Ms McKee said the banana industry was great at adopting new technology and innovation and it's been no surprise to see them moving towards digitalisation.

"We've helped a number of growers sign up, and using a combination of custom forms and checklists, as well as the 200 or more already included, they have found many benefits to managing their records digitally in saved time and organisation," Ms McKee said.

Banana growers are using Spades for Freshcare (Food Safety & Quality, Environment, and Supply Chain), HARPS, Interstate Certification Assurance, Workplace Health & Safety, Ethical Employment and more.

Spades has also included the record keeping requirements of a Notice of presence of Panama disease tropical race 4 and will be sure to include any new code of practice requirements under the Biosecurity Act.

"Every farm manages their records differently," Ms McKee said.

"The best way to decide whether Spades is right for your farm is to book a demonstration to get a full understanding of the features and flexibility of the platform and how it can adapt to your farm, and then make the most of the free 14 day trial to bring your farm onboard.

"I'm happy to help as much or as little as you need."

Ms McKee can be contacted on 0422 051 233 or jennifer@growersupport.com.au

LATEST CLIMATE AND SEASONAL FORECASTING INFORMATION

By Shanara Veivers, National Banana Development & Extension Project

Weather data and information is an absolute necessity for any farmer to consider in making critical on-farm decisions.

Those decisions can include when to plant, spray, irrigate and fertilise your crop. Even successful transportation of your crop can be dependent upon the cooperation of the weather. Having the advantage of knowing climate and seasonal conditions for your location in advance can be a significant benefit in protecting your crop and property.

Organised as part of the National Banana Development and Extension Project, a climate and weather workshop was held for the NextGen banana growers' group and interested industry stakeholders at the Department of Agriculture and Fisheries (DAF) South Johnstone Research Station.

A series of interactive presentations, incorporating videos about important climate drivers and the new Bureau of Meteorology (BOM) forecasting tools and outlooks were presented by Dr Neil Cliffe (Manager for the DAF Drought and Climate Adaptation Program). Dr Cliffe spoke about important climate drivers that influence Australia's highly variable climate.

The BOM has developed new forecasting tools to assist farmers and agribusiness plan for extreme weather events and build stronger climate resilience into farming systems. These tools provide forecasts for two weeks to three-month timeframes, filling a forecast gap not previously covered in the existing shorter and longer-term forecast products. Five new features on the BOM website include:

1. Maps showing the likelihood of having extreme rainfall, maximum and minimum temperature for the weeks, months, and seasons ahead.
2. Location specific data indicating shifts in rainfall and temperature probabilities compared to usual across the deciles/quintiles.
3. Climate summary – Forecast timeline showing what has happened over the last few months, and what may happen in the next few months for rainfall and temperature.
4. Probability of exceedance (rainfall only) shows the forecast chance of any rainfall total for any location.
5. Three-day-burst forecast shows the chance over a 3-day period of getting a burst (15, 25, 50 or 75mm) of rainfall in total over those 3-days.

To access the new mapping tools, visit http://bom.gov.au/climate/outlooks

Check out some of the weather observation and forecasting tools on the BOM website to help plan ahead.

Climate Outlooks	Climate outlooks look further ahead than day-to-day forecasts and give information on the odds of something occurring in the future.	Climate Outlooks: Stacking the odds in your favour - YouTube http://bom.gov.au/climate/outlooks
MetEye	Allows you to visualise current local weather observations and forecasts for any location. Once location is selected a seven-day temperature, rainfall and wind forecast appears. Detailed 3-hourly forecasts give a three-hourly breakdown for temperature, rainfall, wind, humidity and significant weather events for seven days ahead.	MetEye - your eye on the environment - YouTube

Stewart Lindsay, (DAF Banana Team Leader) talked about weather impacts on, and climate implications for bananas, looking at the wind, water and temperature thresholds and the impacts each have on bananas.

Summary of extreme temperature, water, and wind impacts on bananas.

Bananas and temperature

High temps	>35°C– leaf scorching, root growth stops & under peel discolouration occurs. Other high temperature impacts – sunburn to stalk, fruit, and cigar leaf (most susceptible), impacts on bunch formation and differentiation.
Low temps	<14°C – field chilling causing under-peel chilling & root growth stops. Other low temperature impacts – water-soaked necks on fingers, frost damage, 'winter yellows' on leaves, and 'November dumps' on bunches.

47°C - thermal danger point, leaves die
38°C - growth stops
34°C - physiological heat stress starts
27°C - optimum mean temp for productivity
14°C - min mean temp for growth
6°C - leaf chlorophyll destruction
0°C - frost damage, leaves die

Bananas and water

Waterlogging	>24 hours kills root tips; >4 hours reduced nutrient loading to 36%. Other impacts - encourages production of aerenchyma tissue production in roots which improves gas exchange and potentially easier for Fusarium wilt fungi to infect roots.
Water deficit	Controlled deficits experiments have shown reduced productivity by 30-50%. Other impacts - plant stress; increased pest mites e.g., banana spider mite.

Bananas and wind

Highly susceptible to wind damage and don't need cyclonic winds to produce damage.

>50km/h can blow down large, bunched plants.

>70km/h can cause 50-100% blow down.

Future topics and ideas suggested by participants to be covered in future activities included business management, leadership, banana agronomy and chemical impacts on bananas. These will be considered for future NextGen and wider industry activities.

The National Banana Development and Extension Program (BA19004) is funded by Hort Innovation, using the banana research and development levy, co-investment from the Department of Agriculture and Fisheries and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

INSTANT CROP N ANALYSIS TO BOOST FERTILISER EFFICIENCY

Growers can now gain the nitrogen (N) nutrition status of a range of crops instantly following the launch of a unique smartphone app that aims to assist the most efficient application of fertilisers in order to maximise returns and protect the environment.

Croptune uses smartphone cameras to take leaf photos, upon which it measures chlorophyll and provides both a plant N uptake and percentage range reading for annual crops, as well as a percentage range measurement for perennial crops.

Where the N percentage lands on an indicator bar that transitions from green to red for the selected annual crop suggests whether applications can be reduced or are required to achieve optimum nutrition and production, while the recommendation also includes a calculation of phosphorus (P) and potassium (K) requirements.

In perennial crops, the percentage measurement allows growers to track the N nutrition status in real-time and, if necessary, adjust applications immediately, rather than be delayed waiting for laboratory plant analysis results.

So far, the Croptune app has been calibrated for 18 crops including banana, with sugarcane expected to be added from the start of 2023.

Croptune Product and Agronomy Manager Eldad Sokolowski, who travelled to Australia from Israel to launch the app with Haifa Group, which partnered its development, said calibration required a full season and hundreds of samples for each crop.

The app aligns laboratory N analysis with leaf greenness measurements. It continually improves accuracy through artificial intelligence.

Eldad said currently there were about 40 greenness layers used for nitrogen measurement of each crop, with the aim to achieve more than 100 layers to further improve its accuracy.

"Currently the accuracy is 85-90% with the laboratory results, which also are not perfectly accurate. We estimate labs have 90% accuracy and indicate a single figure rather than a range, so the correlation is very close," Eldad said.

Growers also can target specific areas within whole paddocks or blocks with the app to help further fine-tune their nutrition management and, together with their agronomist or adviser, they can access a developing databank of the areas. In future, it can contribute to aerial N maps for paddocks or blocks.

Eldad said for the N application recommendation as well as P and K calculation in annual crops, growers entered several details into the app including the planting date and plant density.

"From the age of the crop and the plants per area, the app knows what the N level should be at that time."

He said one of the key aims was to allow growers to apply the minimum base fertiliser required upfront and then to use the app to understand the crop nutrition status and make applications accordingly.

Haifa Australia Managing Director Trevor Dennis said the primary target of the app was to improve fertiliser application efficiency for growers, benefitting the environment and broader community.

The Croptune app is available to growers and advisers via app stores.

Users can take advantage of a free trial with the app before incurring a fee of around $20 per month.

Haifa Australia Northern Sales Agronomist Peter Anderson (right) takes North Queensland growers David Rolfe, Mena Creek, and Michael Russo (second from right), Boogan, as well as Mac Keenan, Frank Lowe and Sons Innisfail, through the workings of the new Croptune app.

OVER 80 YEARS OF INNOVATION AND SUCCESS

In 2020 Colin Campbell (Chemicals) [CCC] celebrated its 80th anniversary. A wholly-owned and run Australian company, CCC is a leading supplier of innovative, reliable, high-quality and 'niche' crop protection products for the pre and post-harvest agricultural sector. It specialises in horticulture and recreational turf.

CCC was founded in 1940 by Colin Campbell Snr after he recognised a market opportunity for manufacturing chemicals. He established the company in Alexandria, Sydney, and two decades later passed the company down to his sons, Colin and Neil. In the 1960s the brothers began increasing their presence in agricultural and turf chemicals.

CCC's growth and product range has been made possible by long term supplier relationships, and active and ongoing research and development. The result is the supply of innovative, speciality products which fulfil various needs in agriculture, including pre and post-harvest horticulture and turf as well as the introduction of novel products such as Chlorothalanil Apple Wax and Microencapsulation formulations.

Well known for their reliability and flexibility, CCC can handle anything, big or small. It has an office and warehouse in Sydney, and stock locations in Brisbane and in regional sites across Australia.

Customers trust the products work well and will be delivered quickly, along with the staff's expertise.

CCC sources the highest quality and most effective products due to their long-standing relationships (some stretching back almost 50 years) with reputable and trusted suppliers both locally and globally, including the USA, Europe, Israel, South Korea and Japan.

Contributing to the high product quality is CCC's progressive and rigorous R&D, either inhouse or via reputable organisations. Products are always stringently evaluated, with numerous local trials.

Innovation

In 1971 CCC was one of two companies given exclusive Australian rights to the new fungicide Chlorothalonil. CCC, marketed chlorothalanil under the trade name Daconil®, for use on turf and ornamentals. In 2003, the product name changed to Campbell Dacogreen® however the formulation has remained the same - it also continues to be sourced from its original supplier in Japan. Today this molecule is highly popular in Australia and CCC brands Dacogreen and Cheers are recognised as the highest-quality brands in the market.

Expanding the CCC brand

In 1971, Nabih Zreikat joined the company. He played a pivotal role in growing the CCC product range. He became a director and worked in the company until he passed away in 2018.

In 1976, Geoffrey Derrick, a current owner and director, was hired as a technical agronomist due to his knowledge of all aspects of the business technical side as well as of chemicals and formulations. Over the years Geoff has been instrumental in sourcing the company's product range including well-known brands such as Penncap-M®, Syllit®, Tops® and Tridim®.

Geoff and Nabih held a shared vision for CCC - extending it to an innovative product range. A pivotal moment was in 1978, when CCC was the first to develop and introduce apple and stone fruit waxes to Australia. These novel products became a standard in apple and stone fruit post-harvest treatment.

CCC is now a leader in post-harvest treatments, and is soon to release ecoFog, a patented application system to apply treatments for long term pome fruit storage with minimal worker exposure.

Bruno DiManno of Growers Supplies SA says:

"Dealing with CCC over the last 20 years has been very beneficial to our business. Their knowledge and support is first class and when you can deal directly with the business owners, you know they genuinely care about the relationship."

Moving towards sustainability

Geoff and Nabih recognised that, with technology changes there was an increasing demand from growers and consumers for more sustainable products with reduced toxicity.

One of the earliest examples of CCC's path to these products was the introduction of technology known as Microencapsulation.

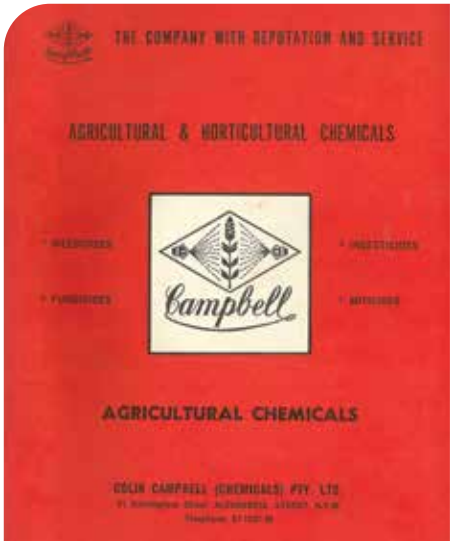
Microencapsulation, developed in the USA during the early 1980s, was first brought to Australia by CCC. Microencapsulation formulations reduce the toxicity of products by encasing them in a microscopic polymer coating and as a result, products that were classified as schedule 7 poisons were able to be classified to a lower poison schedule (due to the reduced user toxicity). The technology has also been successful in providing longer residual control.

In 1986, the ownership structure changed when Colin and Neil Campbell entrusted Geoff and Nabih to continue their father's legacy.

The legacy continues in CCC with Nabih's sons, Ramsay and Nadeem, joining the business in 1996 and 1999 respectively. Nabih (until his passing), Geoff, Ramsay and Nadeem have overseen significant growth in sales and product range over the last 20 years.

Mr Derrick and Mr Zreikat share the same vision: "CCC will continue to innovate and provide the service to Australian growers and turf managers for another 80 plus years."

Colin Campbell Chemicals display at the Australian Banana Industry Congress in 2021.



The cover of a 1960s Colin Campbell Chemicals catalogue.

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WE'RE BACK!

CONGRESS SET TO RETURN TO TROPICAL NQ

Australian Banana Industry Congress

The next Australian Banana Industry Congress is shaping up to be an event not to be missed, as we head back to Cairns in 2023 to celebrate our national banana industry and all those involved in producing the country's most-loved fruit.

Registrations for Congress will open soon and there will be big savings on offer for those who register during the 'early bird' period, especially for Australian Banana Growers' Council (ABGC) members.

After the overwhelming success of our 2021 event, Congress will again be held at the Cairns Convention Centre. The venue will host the two-day plenary program, exhibition area, Trade Show Evening and Banana Ball and Awards Night.

The nearby Pullman Cairns Reef Casino Hotel has been selected to accommodate delegates and host various social events, including the Welcome Reception and Banana Bar.

As always, Congress 2023 will offer a unique opportunity to be part of the largest gathering of banana growers, market leaders, industry decision makers, researchers and other important industry stakeholders.

Delegates will discover the latest in cutting-edge technology, innovative products and up-to-date information on essential research and developments impacting growers and the supply chain, along with an opportunity to network and share ideas.

The program

The Congress Planning Committee has worked hard to develop an exciting program of events, including an engaging line-up of speakers and panelists who will make up our two-day plenary program.

Headlining the program will be international comedy star Jimeoin, while popular Sunshine Coast radio personality Todd Widdicombe will return as MC.

Other highlights in a diverse speaker line up include, internationally renowned inventor and waste/recycling expert Professor Veena Sahajwalla, global robotics expert Professor Salah Sukkarieh and Australian mental health advocate John Harper.

The two-day program covers a range of topics including latest R&D, robotics and improving efficiences on farm, growing your business and motivating staff. It also includes retail and marketing panels and a grower innovation panel.

Honouring industry's best

A highlight at every Congress is the Banana Ball and Awards Ceremony. The event recognises some of the industry's finest with Awards of Honours presented to both growers and non-grower industry leaders.

The Banana Ball is always the perfect way to wrap up Congress, giving delegates the chance to dress up, socialise and unwind.

Taking time out

After another tough year, Congress will offer growers a chance to enjoy a few days off farm to reconnect with other growers and industry stakeholders, network and share ideas.

All the latest updates and information on Congress will be shared in ABGC e-bulletins, our Facebook page and the next edition of the Australian Bananas Magazine.

Sponsors

Congress would not be possible without the support of our amazing sponsors and the ABGC and ABIC Management Committee would like to thank those valued sponsors who have already committed to supporting our 2023 event.

Much gratitude goes to our major sponsors including; Foundation Partner Visy; Principal R&D Partner Hort Innovation; Associate Partners Costa, Arcella Bananas and Bayer; Supporting Partners, Soils First NQ and La Manna; and Primary Partners Loscam and Campbell Chemicals.

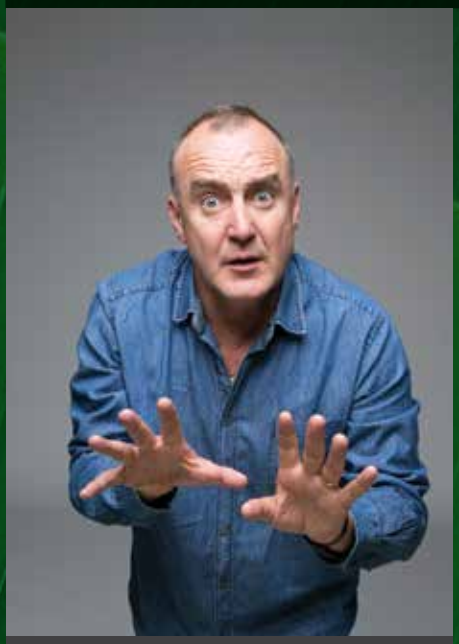
CONGRESS 2023 GUEST SPEAKERS

Jimeoin

Stand-up comedy master Jimeoin is set to kick off Congress with a bang on the first day of the plenary program on Thursday, 18 May.

Jimeoin's regular appearances at the Melbourne International Comedy Festival and his widely successful Australian tours attract sell-out advance bookings, often with extra shows added due to demand.

Internationally renowned, Jimeoin has toured the world to great acclaim from New York to New Zealand, Aspen to Amsterdam, the Middle East to the Far East. He has also performed around Europe and the UK and is a regular invitee to the Mecca of comedy, Montreal's Just For Laughs Festival.



Comedian Jimeoin will be among a stellar line up of speakers and presenters at next year's Congress in Cairns.

Professor Veena Sahajwalla

Prof Veena Sahajwalla is an internationally recognised materials scientist, engineer, and inventor revolutionising recycling science. She is the founding director of Centre for Sustainable Materials Research & Technology at the University of New South Wales. She works with industry, national and international research partners, and government across Australia, on the development of innovative environmental solutions for the world's biggest waste challenges. Professor Veena is known for her role as a judge on the ABC television show The New Inventors, more recently she featured in the ABC's Australian Story and was named the 2022 NSW Australian of the Year.

Salah Sukkarieh

Prof Salah Sukkarieh is the Professor of Robotics and Intelligent Systems at the University of Sydney. He is recognised as an international expert in the research, development and commercialisation of field robotic systems.

Prof Sukkarieh is a Fellow of the Australian Academy of Technological Sciences and Engineering (ATSE). He has over 500 academic and industry publications in robotics and intelligent systems. From 2019-2022 he was the CEO of Agtech startup company Agerris, where he led the manufacturing and commercialisation of on-farm robotic solutions to improve agricultural productivity and environmental sustainability. He was the Director Research and Innovation at the Australian Centre for Field Robotics from 2007-2018, where he led the strategic research and industry engagement program in the world's largest field robotics institute.

John Harper

John Harper is a wheat/sheep farmer and mental health advocate who talks about what he has learnt, reflected on, and observed since he struggled with mental wellbeing and depression. John uses visual props, audience participation and anecdotes from his life in his presentations. Humour, use of everyday language and a laidback, matter-of-fact delivery helps John to deliver an effective positive message. The knowledge shared allows those he speaks to, to identify and address the problems of well-being, mental illness and suicide prevention in themselves, their families and their mates.

BANANA WOMEN'S LUNCHEON

The popular Banana Women's Network lunch will return to Congress in 2023.

The luncheon will be held during the extended Congress tradeshow lunch break, on Thursday 18 May, ensuring no-one misses a thing on the first day of the plenary program.

Details of the luncheon, including location, will be advertised in ABGC e-bulletins and the Congress website – www.bananacongress.org.au - over coming months.

WIN YOUR WAY TO CONGRESS!

'Win Your Way to Congress' will return in 2023.

If you are a grower who registers for Congress during the 'early bird' phase you will go into the draw to win back the cost of your registration, accommodation and up to $500 towards travel expenses – a prize valued at up to $2170!

CONGRESS HIGHLIGHTS

- Marketing Panel
- Retail Panel
- Grower Innovation Panel
- Banana Bar
- Banana Women's Network Lunch
- Welcome Reception
- Tradeshow Exhibition Evening
- Banana Ball and Awards Ceremony
- Science Symposium

For sponsorship and exhibition opportunities please contact Thomas Howden at MCI Australia on 02 9213 4016 or email thomashowden@wearemci.com

For general information on Congress please call Sonia Campbell on 0428 038 330 or email sonia@abgc.org.au

Meanwhile you can keep up to date with all the latest news and information about Congress by logging onto www.bananacongress.org.au

DRIVING DEMAND FOR THE BANANA MARKETING PROGRAM 2022-2023

By Belinda Van Schaik, Marketing Manager, Hort Innovation

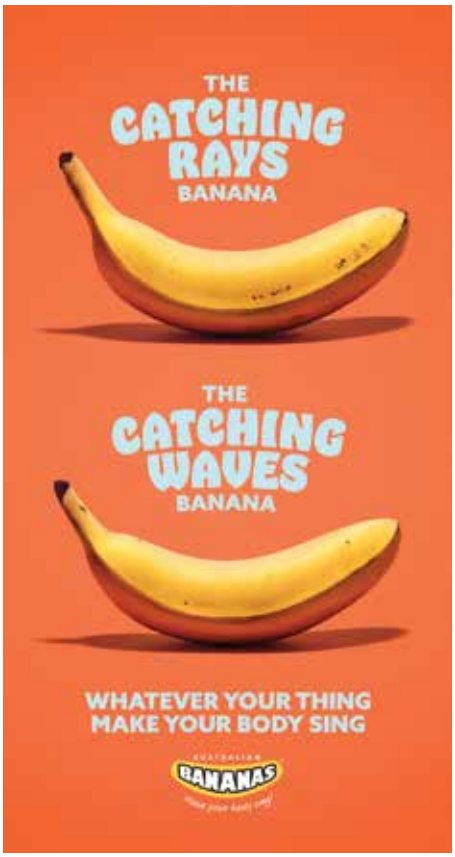
The banana marketing program is underway with a range of activities to help drive consumer demand for bananas.

The objective of the 2022-2023 Australian Bananas marketing plan is to drive demand for Australian Bananas. The plan reinforces the fruit's natural energy and communicates just how versatile bananas are at fuelling consumers passions, no matter the task.

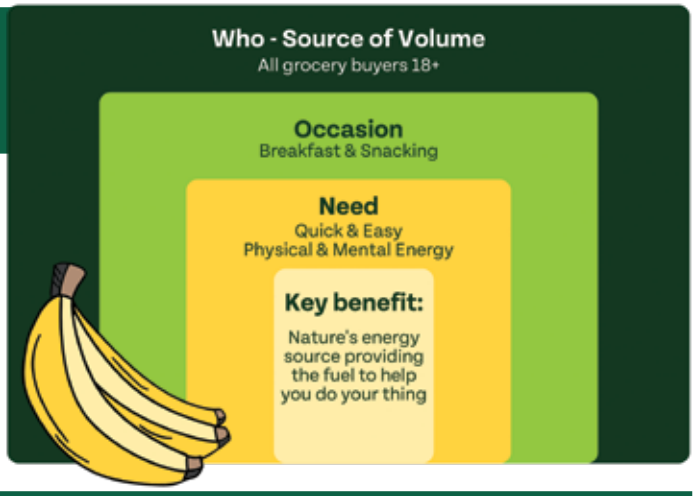
The marketing plan communicates broadly to grocery buyers, inclusive of light buyers, with the aim to increase past 4-week household penetration from 66% year on year.

The marketing program will focus on 3 key pillars;

1. Communicate natural energy broadly & frequently
2. Win with retailers and shoppers
3. Compete in the broader category of snacking



BANANA CONSUMER TARGET



STRATEGIC SHIFTS TO BE MADE IN 2023 – 2026 (FINANCIAL YEARS)

	FROM	TO
Broader snacking	When I think of snacks, I look in the cupboard & grab a pack of something.	When I think of snacks, I think of bananas.
Light buyer	I only buy bananas now and then. I just don't think of them.	I am constantly reminded of how great bananas are as a quick and easy energy boost. I now buy them regularly.
Retail presence	It is difficult to keep my shelves neat & tidy with the high rate of sale.	I have the education & resources I need to keep my shelves shopper ready.
Ripen too quickly	I buy 2-3 days worth of bananas as I don't have the confidence 6-7 days worth will last.	There's always stock of green & ripe bananas, so I can buy my whole week's supply with confidence, in store & online
Nutritious	Bananas are good, but blueberries are a superfood.	Bananas are the original superfood - they are packed full of nutrients for everyone.

CORE ACTIVITIES

Strategic Pillars	Pillar 1	Pillar 2	Pillar 3
	Communicate natural energy broadly & frequently	Win with Retailers and Shoppers	Compete in the broader category of snacking
Key activities	Make Your Body Sing advertising Public relations /social driving our energy credentials year round Kids education program via Life Education (Healthy Harold)	Third party merchandising Supply chain engagement manager and retail activation Online retail plan	Public relations / social media communication that cements banana as a snack beyond the fruit category

ORIGINAL SUPERFOOD

KEY ACTIVITIES BROUGHT TO LIFE

Pillar 1

Advertising – Whatever Your Thing, Make Your Body Sing campaign

The 'Whatever your thing, make your body sing' advertising campaign continues to drive broad awareness and reminders of bananas year round. Consumers will hear the iconic jingle integrated as part of the television advertising, as well as when they're catching up on their favourite shows online (broadcast video on demand). Australian Bananas will make the most of radio as people listen from their homes, transport and just about anywhere in between. Social media advertising continues on the popular Tik Tok, Facebook and Instagram accounts and reminder continue via Out-of-home panels placed in close proximity to supermarkets.

Public Relations and Social Media

Public relations involves pitching to media at timely moments throughout the year. These pitches – essentially content ideas targeted to a range of online, print and broadcast publications include key messages and content such as videos, images and quotes from ambassadors or grower spokespeople to connect consumers to Australian banana farmers. As with advertising, social media will play a key role when aligning with public relations activities.

Kids' Education Program

Healthy Harold is a giraffe with a big mission: to empower children to make safer and healthier choices. He's part of an organisation called Life Education, who have educated more than 7 million Australian children over the past four decades. In the 2022-23 financial year, Australian Bananas will continue its NSW partnership.

As a result, Life Education NSW has already implemented the following:

- Van decals such as Harold's hand holding a banana and promoted as Harold's favourite fruit
- Stickers received by 97,000 students in nutrition lessons each year
- Posters inside the vans
- Lesson content including bananas
- 2 partnership articles on website and logo inclusion on monthly e-newsletters
- 'Go Bananas' themed day at school

Pillar 2

Retail Merchandising

Australian Bananas will work with a third-party merchandising company, as well as retailers, to create a merchandising trial. The trial is aimed at improving in-store merchandising standards, fullness of display and therefore demand from consumers.

Store staff will also be educated on best practice handling and merchandising, to ensure displays are full and reinforce the 'eat now, eat later' layouts.

Supply Chain Engagement Manager, Andrew Burns, ABGC

Funded by the Hort Innovation Banana Fund and employed by ABGC, Andrew Burns will focus on retailer engagement, category promotion and communication. You can read more about his role and an update on his work on Page 9.

Andrew will work with retailers to educate staff on best practice handling and merchandising. He'll also work with retailers, as well as Hort Innovation, to integrate marketing campaigns at store level and look for additional growth opportunities throughout the supply chain.

Andrew is now a point of contact representing the ABGC to the retailers and will improve communication across the supply chain network.

Online Retail Presence

The Marketing Program will drive greater visibility for online shoppers via advertising, to prompt further 'add to basket' purchases.

Pillar 3

Public relations / social media communication cementing banana as a snack beyond the fruit category

Bananas had a not-so-spooky media moment to coincide with Halloween this year, launching 'The Boo-nana' as a nutritious alternative to traditional treats.

The public relations media campaign was backed by research insights that supported the need for healthier – but still fun – additions to the Halloween mix. The Boo-nana was pitched to media via a press release and supported by a recipe e-book, a social media video and resources for retailers.

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BAGGING TECHNIQUE IMPROVES FRUIT QUALITY FOR SELLARS BANANAS

By Ingrid Jenkins, Department of Agriculture and Fisheries

Who: Sellars Banana Farm, family owned and operated, Mission Beach, Qld

What: 65 acres, Cavendish, premium quality supplier

More detail: Video and info at www.betterbananas.com.au

Experienced premium Cavendish grower Naomi Brownrigg is confident that their bagging technique which leaves a 'flue', has improved fruit quality by reducing fungal and mould issues.

Naomi's business, Sellars Banana Farm, implemented the technique over 20 years ago and are still seeing benefits today.

"From that moment on (leaving a flue in the bag) we haven't really had an issue. It will only be if the flue closes up you might get a mouldy bunch, after that we were free of it," Naomi said.

"We've adopted that technique on our family farm for 20 years now and it's so easy to do."

Sharing lessons learnt for the benefit of industry

Naomi is passionate about helping other growers improve their fruit quality.

Sellars Bananas transitioned from bunch dusting with chlorpyrifos and talc to using a bunch spray with chlorpyrifos. This was to eliminate the risk of fruit being rejected at market due to talc residue. When they made the switch, Naomi said they experienced significant decline in fruit quality due to increased fungal and mould issues.

It was her husband Dave who first noticed the problem. "He said I can see all the fruit sweating and the mould starting," Naomi recalled.

Naomi said the type of bags they used at the time also contributed to the problem, as they didn't hold their shape and instead closed around the fruit.

With chlorpyrifos currently under review by the Australian Pesticides and Veterinary Medicines Authority (APVMA), the permit to apply chlorpyrifos mixed with talc may be cancelled or not renewed once the current permit expires. This will leave only spray application of registered insecticides to control banana bunch pests.

Some growers have reported increased incidence of mould and fungal issues using a bunch spray compared to dusting. It's suggested that bunch spraying increases the amount of moisture in the bag and, combined with high temperatures, may lead to increased humidity and fungal issues. Market agents have also confirmed fruit continues to be rejected due to talc residues. Naomi hopes that sharing their bagging technique will help growers who are currently experiencing fungal issues affecting fruit quality, and those who are looking at transitioning from dusting to bunch spraying in the future.

"Now is the time to be trialling these things," she said. "People are getting rejected at the supermarket level for talc at the moment and that pressure isn't going to go away."

Tianara Takai and Naomi Brownrigg from Sellars Bananas.

Flue bagging technique

The key points to the bagging technique used by Sellars Bananas are:

- A liner is applied first to emerged bells and tied tightly around the bunch stalk with no flue (Figure 1).
- At pruning, bags are tied with a knot tightly around the stalk, not wrapped. The excess bag is left open (Figure 2).
- The bag around the opening is folded down on itself to improve integrity and stop it from closing.
- All bracts are removed to further reduce moisture within the bag.

Sellars Bananas achieve control of rust thrips

When the banana extension team discussed this technique with growers, some raised concern the flue may provide an avenue for rust thrips to enter the bunch.

Naomi said this has not been their experience and believes that the bag being tied tightly around the stalk, acts as a barrier preventing rust thrips from moving down the stalk. In addition, the use of a liner, also tied tightly around the bunch stalk (without a flue) may help limit movement of rust thrips into the bunch.

Of course, it is never one single practice in isolation and other bunch protection practices are also important for control of rust thrips.

Every farm has different management practices and pest pressure and it's therefore recommended that growers trial this bagging technique to make their own assessment before implementing it as standard practice.

Figure 1: Bells are bagged early with a liner which is tied tightly around the stalk with no flue.

Figure 2: Bags are applied at pruning and are tied tightly around stalk leaving a flue to the side.

Figure 3: Sellars Bananas achieve good control of bunch pests and supply premium grade fruit.

This case study has been produced as part of project BA19004 the National Banana Development and Extension Program which is funded by Hort Innovation, using the banana industry research and development levies and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture. The Queensland Government has also co-funded the project through the Department of Agriculture and Fisheries.

GROWERS HELP CELEBRATE BANANA CHRISTMAS THEMED PHOTO SHOOT

The Australian Banana Growers' Council communication team brought together several growers for a Christmas-themed photo shoot. Timed to coincide with the annual general meeting at Mission Beach in November, an afternoon of fun and laughter was had, all in the spirit of Christmas. Thanks to the growers involved and DAF at South Johnstone for hosting the shoot.

Doriana Mangili, Sweeter Banana Co-operative (WA), and Bernie Devaney, Bartle Frere Bananas, South Johnstone.

Innisfail growers Blaise Cini, Edari Bananas, Wangan, and Naomi Abbott, Mena Creek.

Dean Sinton, Innisfail grower and chair of Cassowary Coast Banana Growers Group, and Stephen Spear, ABGC Director and Taylors Arm grower (NSW).

Banana decorations.

A banana inspired Christmas tree.

Banana decorations.

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A NEW ERA IN BANANA LEAF DISEASE CONTROL ARRIVES WITH ROUTINE®

A completely new concept in the control of banana leaf diseases is now available to growers with the introduction of Routine® 200 SC Fungicide from Bayer.

Routine is a new plant defence activator that is registered for the control of two key leaf diseases in bananas, yellow Sigatoka (or leaf spot) and common leaf speckle. Key to the concept behind Routine is that it acts by mimicking salicylic acid in the plant, so that the natural chemical pathways the plant uses to defend itself are activated.

As Nick Matthews, Bayer Market Development Agronomist in Far North Queensland, explains, this effect does not damage the plant; rather it establishes Systemic Acquired Resistance (SAR), which is not washed away by rainfall and is boosted with each Routine application.

"Changes in the plant means the response is more readily accessible for the next disease attack, so after treatment the plant is effectively in alert mode and at the next disease attack SAR is established much faster," Nick says.

"In addition, each subsequent application trains the plant, with the response being both faster and stronger."

The introduction of Routine is significant because it adds a new and novel fungicide control option into the Australian banana market that helps growers protect their crops against leaf spot and speckle.

As Innisfail agronomist James Dunn explains, being able to rely on a new approach to banana diseases is welcome news in far north Queensland.

"In our weather and our climate, where at times we can't get a fungicide on for 18 to 25 days, when we can get the plant actually responding and defending itself by using Routine, we're a long way ahead," he says.

"After looking at some of the early trial work, it was easy to see that Routine was performing, which is great."

Routine will help overcome resistant disease populations in banana plantations in two ways. Firstly, it introduces a completely new mode of action that the leaf diseases, and in this case the plants, haven't been exposed to before. Secondly, it doesn't directly act on the fungal pathogens, as Nick explains.

"Because Routine works by activating the plant's defences, it's unlikely that leaf diseases will develop resistance to the plant's defence response," he says.

"The other feature is that the effect of Routine in the plant is longer lasting compared to a standard fungicide spray. Combined with regular fungicide applications, it helps to protect new growth which then further disrupts the disease life cycle.

"This is because reducing the population that's exposed to a fungicide spray minimises the chance of resistant individuals escaping to contribute to the next generation."

The addition of Routine has a further benefit as it takes the pressure off subsequent fungicide product groups in the program, which helps extend their life span.

It's important to note that re-entry is possible once the spray has dried and a withholding period is not required when Routine is used as directed, meaning more certainty for market and worker access.

James Dunn believes Routine has the ability to make leaf spot a much less significant issue than it currently is for growers as part of a strong protective program of fungicides.

"I can see Routine strengthening leaf disease management programs through Systemic Acquired Resistance, giving banana plants a lot more longevity," he says.

"I think Routine will also be very significant in that it'll give a window of using a product where we had nothing else. When we have very high leaf spot pressure, we can apply Routine in conjunction with a broader Bayer fungicide program and basically make leaf spot non-significant.

"I know a lot of my growers are really looking forward to using Routine, and they're going to put it into their spray packages going forward."

It's a situation that's already played out for Pin Gin Hill banana grower Fred Cauchi, who has hosted a Routine trial on his north Queensland property.

"With the Routine trial, I'm just starting to notice where we had patches of leaf spot before, Routine has reduced it down to really nothing, and the plants are looking very healthy now as well," Fred says.

"By using Routine, we'll still have a regular de-leafing program, but it'll be not as bad because there's less leaf spot to cut down."

While the defence activation effect in the plant does wane, subsequent sprays every 8-10 weeks in a regular spray program keeps the plant actively primed to fight off leaf diseases. Repeat applications of Routine makes the response both faster and stronger.

Routine® is a Registered Trademark of the Bayer Group.

Nick Matthews, Bayer Market Development Agronomist in Far North Queensland, has been impressed with the performance of Routine in trial work in north Queensland.

Routine adds a new and novel fungicide control option into the Australian banana market to help protect against leaf spot and speckle.

SOILS FIRST NQ A CUT ABOVE THE REST

Soils First NQ was recently recognised for its performance and contribution to the agriculture industry at the recent Nutrien Ag Solutions and CRT Gala Dinner and Awards night.

It was awarded the 2022 CRT North East Business of the Year.

"We are proud to be able to support our farmers, as well as the broader community of Innisfail, who often face the consequences of the most extreme weather but continue to bounce back. We have an amazing team at Soils First and we want to thank them for all the hard work they have put in servicing our clients and to the team at CRT for their support," said store owners John Bletsas and Chris Bowden.

Soils First NQ began providing agronomic advice and farm inputs to banana growers in both Tully and the Tablelands in 2003. A warehouse facility in Innisfail was opened in 2011 and in 2016 to service the Tablelands with the opening of a new facility in Tolga.

Soils First key objective is to provide individualised solutions to banana growers to meet their fertiliser requirements. It is the only supplier in the industry to custom blend soluble fertilisers to an individual agronomic requirement.

This process reduces labour costs and is very cost effective compared to one shot blends.

Soils First long-standing relationships with key suppliers ensures reliable supply and quality fertilisers. As independent CRT members Soils First has access to the full range of farming inputs at competitive prices.

In 2015, Soils First began manufacturing granular fertiliser products based on Black Urea and produce blends that cover all the major/minor nutrient requirements of the banana plant.

With more than 4,000 sq metre warehouse, Soils First can accommodate any requirement from bunch covers, banana twine, agricultural chemicals and fertilisers.

Nutrien Ag Solutions General Manager Members, Franchises, Affiliates and Independents, Greg O'Neil, said Soils First was a valued member of the CRT network.

"John and Chris started Soils First in 2003 initially as a consultancy business to many of the banana growers around Innisfail. Since expanding into retail the business has grown enormously and continues to provide top quality service and a wide range of products to its customers. Congratulations to the whole team, they are very worthy recipients of this important recognition," said Mr O'Neil.

SWEETER AT ROYAL SHOW

Carnarvon kids Niam, Sophia and Thomas Alston.

Lily Baker, Isla Hunt and Ruby Hunt.

William Smith, Anya Godber and Lily Baker.

Stephanie Leca with the Big Banana.

Ka Hang Poon, Sweeter Banana Packing Shed manager.

Grower Daniel Smith chatting to Her Excellency Linda Hurley, with His Excellency Governor General David Hurley tasting some bananas (Isla Hunt watches on).

Donna Green, Global Express Carnarvon manager, and Sophia Alston.

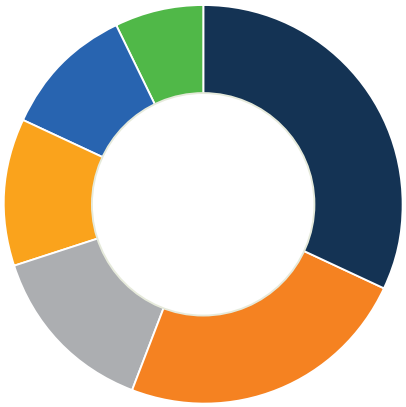
CHILDREN'S BOOK ABOUT PANAMA TR4 HAS BROAD AP-*PEEL*

The children's book about Panama disease tropical race 4 (Panama TR4), *Charlie goes bananas!* continues to spread the word about the disease to readers everywhere.

Charlie goes bananas! shares biosecurity messages with young readers including ways that children can help to minimise the risk of spreading Panama TR4.

The book was launched in June and has attracted considerable attention from a range of different audiences. Demand for copies and live readings has exceeded all expectations with requests coming from interested parties locally, nationally, and internationally.

The infographic shows where free copies of *Charlie goes bananas!* have already been distributed.



BOOK RECIPIENTS

Families	32%
Schools & Education	24%
Libraries & Visitor Information Centres	14%
Hospitals & Medical Centres	12%
Banana Industry Stakeholders	11%
Researchers	7%

Help spread the message not the disease, order your copy now at panamatr4protect.com.au

YEAR IN

Managing director of Australian Produce Partners Richard Clayton during filming of a new retail training videos produced by the ABGC.

Innisfail Show

Youngsters Angus and Otis supported ABGC's #nana4afarmer campaign.

Hort marketing executives and CEO Brett Fifield visited the farm of Innisfail growers Michael and Angelo Russo during a tour of NQ.

Peter and Dan Molenaar on their Mullumbimby farm where floodwater created havoc earlier this year.

The ABGC's Dr Rosie Godwin, left, with Wayne Austin, Australian Hydraulic Services, Innisfail, and Chris Lehnert, QUT Centre for Robotics.

Tully grower Naomi Brownrigg, Sellars Bananas, had another successful show season.

Wayne McCarthy, Tropicana Bananas, Mareeba, and agronomist David McDowell at the DAF National Roadshow in Mareeba.

Storm Boys, Innisfail, took put the banana packing competition at the Innisfail Show.

Innisfail growers celebrate all things bananas at the Feast of the Senses.

Isadora Nucifora, Brandon Borsato and Gabriella and Teodora Nucifora at the Feast of the Senses.

REVIEW

Students helped launch a new book, Charlie Goes bananas!, an initiative of the Panama TR4 Program to help children understand biosecurity.

Lakeland grower Paul Inderbitzin appeared on Channel Seven's Morning Show to promote bananas.

Mena Creek grower Sukhpal Singh hosted teams from the Office of the Great Barrier Reef and ABGC BMP Team.

Sweeter Co-operative founding members Bruce and Darrell Munro celebrate the group's 20th birthday.

Stephen Lowe on his Tully banana farm where TR4 was confirmed in June.

Innisfail banana grower Jo Borsato featured in the ABGC's #bananasonabudget campaign.

The ABGC ran a successful #nana4afarmer social media campaign this year.

Jess Howe, Rock Ridge Farming, donned the apron to whip up banana crepes, as part of the #bananasonabudget campaign.

Colin and Preston Singh were among NSW Northern River growers who met with the ABGC board.

Tully Show.

AGM SOCIALS

The ABGC AGM was held in Tully on 9 November. Growers took the opportunity to meet with the board and listen to a panel discussion on banana marketing led by ABGC Directors Doriana Mangili and Andrew Serra, along with Daniel Mackay of Mackay's Marketing.

BANANA INDUSTRY RACE DAY

Banana growers and industry supporters were among a large crowd that gathered to celebrate at the Banana Industry Race Day in August. Hundreds filed through the gates to celebrate in the banana heartland of Australia.

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FOR MORE INFORMATION visit crop.bayer.com.au or talk to your local Bayer Crop Science representative.

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