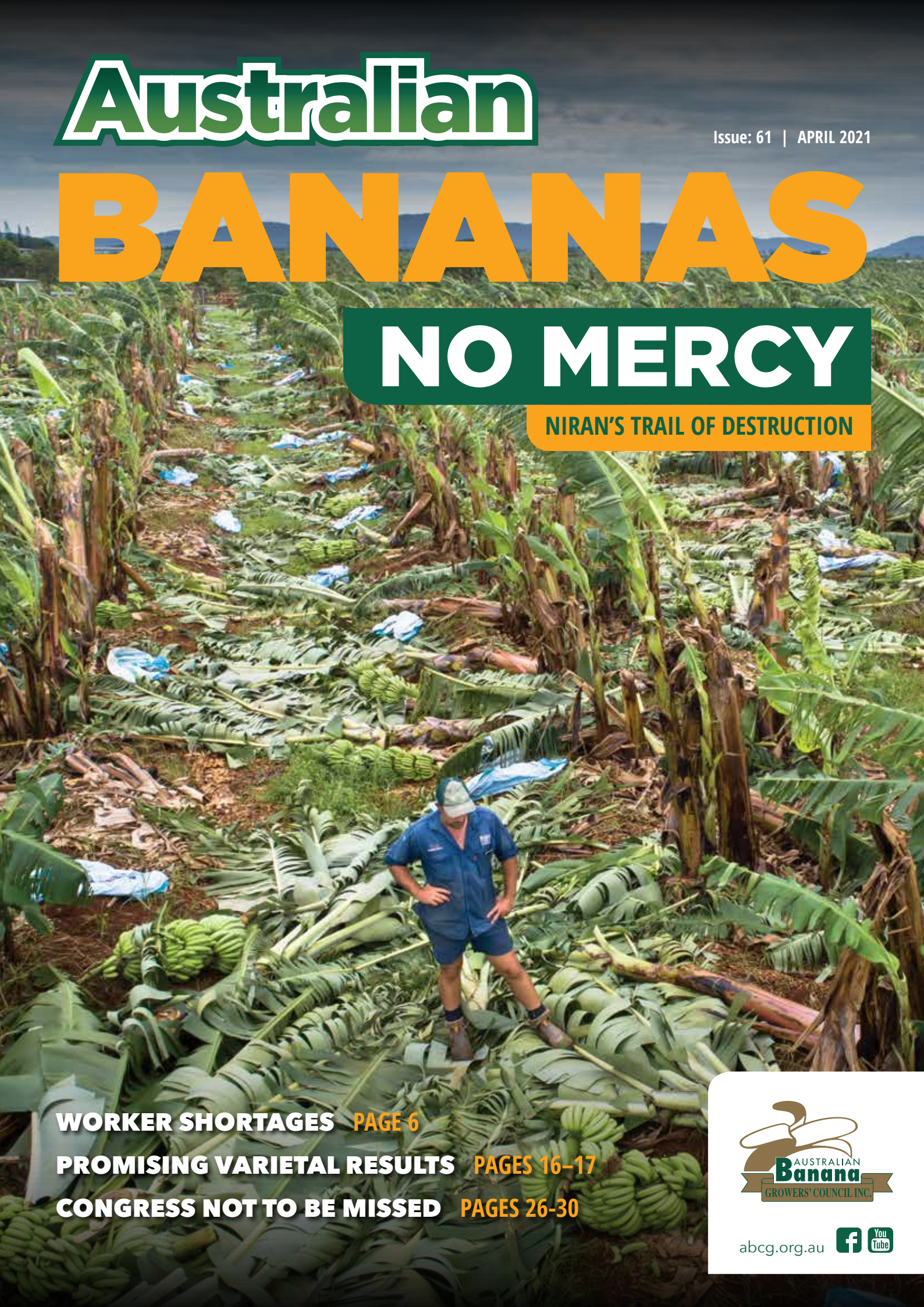
Australian BANANAS

Issue: 61 | APRIL 2021

NO MERCY

NIRAN'S TRAIL OF DESTRUCTION



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Front page: Charles Camulgia on his Innisfail banana property in Far North Queensland where he lost 100 per cent of his bunched fruit in Cyclone Niran in March.

EDITORIAL
Sonia Campbell
0428 038 330
sonia@abgc.org.au
Amy Spear
0439 005 946
amy.spear@abgc.org.au
ART DIRECTION & DESIGN
Impress Art Graphic Designs
0438 176280
impressart.com.au
PUBLISHER
Australian Banana Growers' Council Inc.
ABN: 60 381 740 734
CHIEF EXECUTIVE OFFICER
Jim Pekin
INDUSTRY STRATEGY MANAGER
Michelle McKinlay
R&D MANAGER
Dr Rosie Godwin
EXECUTIVE OFFICER
Leanne Erakovic
ADVERTISING
Hilary Opray
info@abgc.org.au
BOARD OF DIRECTORS
Chairman
Stephen Lowe
Deputy Chairman
Leon Collins
Treasurer
Ben Franklin
Directors
Stephen Spear
Paul Inderbitzin
Jade Buchanan
Doriana Mangilli
Andrew Serra
ALL MAIL TO
PO Box 309
BRISBANE MARKET
QLD 4106
AUSTRALIAN BANANAS
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CEO COLUMN

Jim Pekin, CEO

Cyclone and floods

At the time of writing this report, the ABGC was aware of severe flooding problems facing growers in northern New South Wales and were continuing to keep them updated on impacts we had been made aware of and resources available to them if they required assistance.

Similarly, we are continuing to lobby for government assistance for Far North Queensland growers severely affected by Cyclone Niran. While ABGC appreciates that both the Federal and State Agriculture Ministers responded to a request to see the devastation of TC Niran first-hand, by visiting the North in the days following the severe weather event, assistance offered by both governments, at the time this magazine had gone to print, fell short of expectations.

At a meeting organised by ABGC at South Johnstone on March 16, growers expressed the urgent need for some form of wage subsidy assistance to help in their overall recovery.

Worker shortages

Just over a year ago the World Health Organisation declared COVID-19 a pandemic. Since then, Australia's efforts to suppress the spread of COVID-19 have been described internationally as a success story.

However, the flipside is the banana industry is entering its second year of worker shortages. And just as vaccines roll out around the world, we are witnessing the escalation of COVID-19 on Australia's doorstep in PNG.

Also, cases at the Cairns Hospital at the time of writing are a reminder of the virus's threat to banana businesses.

Since March 2020, ABGC has been calling for reliable and safe pathways for growers to access staff.

The Queensland pilot Seasonal Worker Program and Pacific Labour Scheme (SWP/PLS) has enabled 948 workers (under these visas), so far, with around 25% of those workers recruited to work on banana farms in Far North Queensland. Another 144 workers were due to arrive before the end of March to work in other commodities (not in bananas, initially at least).

Acknowledging the ongoing worker shortage, on March 3 this year, Queensland Agriculture Minister Mark Furner announced on-farm and hotel quarantine would continue.

From the outset, the ABGC advised the State Government on-farm quarantine does not suit the majority of banana growers and hotel quarantine is very limited at cohorts of workers. We have asked the Government to safely increase the scale of the SWP/PLS model in an efficient manner to get thousandds of workers into Australia.

This includes Government providing quarantine options for the large numbers of workers needed to work on banana farms. We have also asked the Government to assist repatriations with an exchange of job-ready SWP workers.

At the time of this article, the Queensland Government was considering regional quarantine facilities as one alternative to meet the demand for thousands of SWP/PLS workers across horticulture. We have requested that this option be progressed as a matter of priority.

ABGC continues to advocate for the needs of banana growers during this difficult period. However, the Government's priority to keep Australians safe from COVID means that the Health authorities have more clout on which and how workers can enter the country than what industry prefers.

Please read our regular e-bulletins and visit abgc.org.au for all worker updates.

ABGC Chair Stephen Lowe (front) with Innisfail banana growers severely affected by Cyclone Niran (back L-R) Kuldip Singh, Varinder Singh and Balbir Singh.

TR4 Program Transition

Growers will have noted from previous news that the Queensland Government and ABGC have entered into a Cost Sharing Deed and a Memorandum of Agreement until June 2023 to co-fund and transition Biosecurity Queensland's TR4 Program to ABGC leadership.

ABGC appointed an Industry Transition Leader, Geoff Wilson to develop and then implement the transition of the Program to industry. Geoff started work on 15 March 2021 and is keen to hear growers' views on how the Program should look in a bit over two years' time. (See article on page 34)

What the TR4 Program looks like after June 2023 will be dependent on what industry wants and where the disease has spread to by that stage.

Geoff has acknowledged that various people and organisations have done a remarkable job in containing the disease so far. His job now is to work with and for industry for sustainable long-term solutions that have practical viability.

Banana levy reminder

The total compulsory levy remains at 2.19c/kg (as per table below).

The ABGC has heard reports that some growers are still paying the EPPR Levy for the Freckle Response.

This levy was taken from 0.75c/kg to zero from 1 July 2019. Please check this aligns with your payment slips.

CHAIR COLUMN

Stephen Lowe, ABGC Chair

At the end of 2020, I think most growers had high hopes that 2021 would somehow wave a magic wand and bring with it some positive prosperity, to counteract a year we'd all rather forget.

After a tumultuous 12 months that included a pandemic, changing consumer trends, worker shortages, continued poor prices and severe weather events, impacting growers nationally, many were left to ponder how much more we could continue to take.

But sadly, the new year has brought a whole new set of challenges.

In March, a considerable number of Far North Queensland growers – largely in the Innisfail region – sustained catastrophic damage from Cyclone Niran. With little prior warning, the system (which made landfall as a Tropical Low) tore a path through the area, causing similar damage for some farms to that from Cyclone Yasi back in 2011.

And, at the time of writing this column, growers in northern New South Wales were waiting anxiously to assess damage from a deepening flood crisis in the state. Initial reports to the ABGC indicated that no major damage to crops had been reported, however growers were indicating that they would need urgent assistance to repair infrastructure (roads/crossings) in order to get back onto their farms.

In the wake of both these events, the ABGC was doing all it could to keep growers informed of any government assistance that became available, as well as lobby governments for emergency relief and (in the case of Far Northern growers) the need for urgent wage assistance.

In the days following TC Niran in the Far North, I toured the area to speak with some of these affected growers. I can honestly say that I was left shocked and saddened by the extent of crop damage. Some growers were left with 100 per cent damage to bunched plants, while others sustained between 40-80 per cent.

With some now facing up to nine months without an income, it was clear that these growers would need some form of assistance in order to recover.

Initially, it was pleasing to see both the Federal and State Agriculture Ministers respond to calls from the ABGC to see the damage first-hand and hear from affected growers.

But our hopes were quickly dashed when these visits did not translate into the delivery of tangible relief options for growers.

Low interest loans were unlikely to be taken up by many. And the announcement of grants of up to $25,000 came with stringent criteria which meant many growers would be ineligible to claim this disaster funding.

The ABGC continues to lobby government to assist these impacted growers with wage assistance to help retain staff, which was the case following Cyclone Yasi.

Already battling ongoing low prices and worker shortages, and now facing months without an income stream, affected growers say wage assistance will at least go some way towards their long-term recovery and will ensure they have a workforce when back in production.

Congress 2021

For growers recovering from the forementioned natural disasters of late, our upcoming Congress is probably the last thing on your mind. However, for those who are in a position to attend our biggest national event, I would encourage you to do so.

After a hugely successful event on the Gold Coast in 2019, the Congress organising committee have produced another stellar program for 2021.

The event will be held in Cairns from May 12-14. I know personally, I am looking forward to enjoying a few days away from the farm to hear from some fantastic speakers and catch up with other growers in a relaxed social setting. It will also be an opportunity for growers to discuss changes needed to industry.

For more information on the exciting 2021 program go to the Congress website at www.bananacongress.org.au.

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

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: Jim Pekin, CEO, ABGC: Email - jim.pekin@abgc.org.au Phone – 07 3278 4786. More info on the levy rate: https://www.agriculture.gov.au/ag-farm-food/levies/rates/bananas

THE WAIT FOR WORKERS CONTINUES

For more than twelve months now, banana growers have been dealing with a new workforce reality involving significantly less employees and an uncertain future.

In fact, the arrival of COVID-19 put unprecedented pressure on almost all Australian agri-businesses, as regular labour options ceased with the closure of international borders.

For the banana industry, this comes on top of severe weather, a long period of poor prices and the day-to-day challenges of maintaining a farming business.

As noted in the CEO column (Page 4), the Australian Banana Growers' Council has been advocating on behalf of industry on worker issues since March 2020. The ABGC wants practical solutions that enable growers to access the workers they need in a timely and COVID safe manner.

But with an entire sector crying out for employees across the country, and a pandemic still evolving at our doorstep, the challenge is ongoing.

The ABGC has thrown its support behind attempts to get locals into jobs, but knows – like all growers do – that supply cannot match demand. These efforts, particularly targeting young people, are ongoing. The Banana Jobs Noticeboard is still active and can be added to by emailing info@abgc.org.au. The Queensland and Federal Governments have also released a raft of incentives hoping to entice people into agriculture, though the ABGC has yet to see evidence of their success.

The ABGC is in close contact with the Department of Agriculture and Fisheries, who acknowledge there are bottlenecks at Queensland Health that are causing a lag in approvals. They have taken on board feedback aimed at speeding up the process, with more resources being allocated. In addition, the state government is still watching the South Australian pilot of pre-departure quarantine and pursuing options for regional quarantine facilities.

Growers can access the latest news on worker shortages affecting the banana industry by visiting www.abgc.org.au.

In March 2021 it was confirmed that the PLS/SWP was no longer in a pilot phase in Queensland. While authorities are keeping a close eye on new, infectious strains in places like Papua New Guinea, this was some good news for industry.

At this stage, plans surrounding the Pacific Labour Scheme and Seasonal Workers Programme, as well as other workforce options, are continuing under the assumption that international borders won't open until 2022. It's unlikely Working Holiday Visa holder levels will reach the same levels as pre-COVID until 2023.

The ABGC continues to advocate and search for creative solutions to worker shortage issues.

Feedback is welcome on 07 3278 4786 or info@abgc.org.au.

Are you an Approved Employer (AE) for the PLS or SWP?

Then you'll need Queensland Government approval to quarantine workers when they arrive from overseas.

Key requirements of an On-Farm International Quarantine Plan include:

- Workers must be recruited from Pacific nations where the risk of COVID-19 is low.
- The quarantine accommodation must be isolated from populated areas.
- Between 30 and 80 workers must quarantine together as a group.
- AEs must arrange supervisors to quarantine with the workers. The supervisors must ensure there is no contact with other employees and the broader community.
- AEs are responsible for enforcing the International Quarantine Plan and meeting all associated costs including transport, accommodation, meals, COVID-19 tests and other worker needs.

If you think you can meet the above requirements, the next step is to read the on-farm quarantine guidelines and use the Queensland Government on-farm quarantine application form.

For more information – and for options if you're not an AE– visit www.abgc.org.au

Find out more:

- **Visit www.abgc.org.au**
- **Follow the Australian Banana Growers' Council on Facebook**
- **Sign up to e-bulletins by emailing amy@abgc.org.au**

INCREASING SPREAD OF TR4

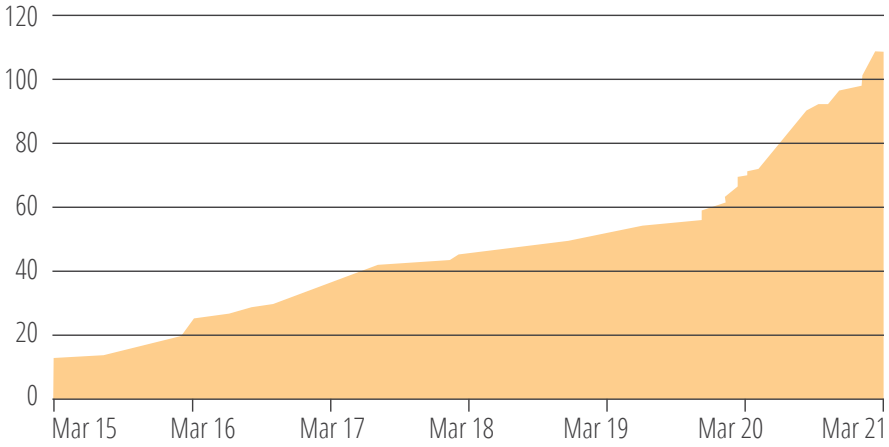
While there have been just five commercial banana farms confirmed with Panama disease tropical race 4 (TR4) since March 2015, the disease continues to spread in the Tully Valley.

The number of plants confirmed with TR4, and the number of sites where these plants have been destroyed on infested farms (destruction sites), continues to increase and escalation of the disease remains a constant threat.

As of 15 March, 2021, 109 plants had been confirmed with the disease and destroyed across all five infested farms detected since 2015.

The sustained effort by industry, growers and government over the past five years has helped stem the rapid increase of the disease, however the threat of further spread always remains present and growers are reminded the best way to protect their livelihoods is by keeping their farms free of TR4.

THE INCREASE IN THE NUMBER OF TR4 INFESTED PLANTS FOR MAR 15 TO MAR 21



For those growers who haven't already done so, now is the time to install on-farm biosecurity measures or review the procedures already in place to make sure they are still effective.

For further advice please ring ABCG or one of the industry extension officers:
QLD - Shanara Vievers (07 4220 4149), Ingrid Jenkins (07 4220 4108) or Stewart Lindsay (07 4220 4120)

NEW BANANA STATS

The new Horticulture Statistics Handbook valued banana production at more than $596 million in the year ending June 2020.

Released earlier this year, the Handbook confirmed that bananas continue to be a firm favourite, purchased by 95 per cent of Australian households, with people buying an average of 831g per shopping trip.

Production sat at 381,676 tonnes, up 3% on the previous year.

Australian fruit production as a whole was valued at $5,695m.

The Horticulture Statistics Handbook is available online via www.horticulture.com.au.

MULTI-MILLION DOLLAR PARTNERSHIP FOR DALE'S QUT TEAM

US-based Fresh Del Monte has thrown its support behind a Queensland University of Technology (QUT) team to develop TR4-resistant bananas through CRISPR.

Led by Distinguished Professor James Dale, the multi-million-dollar partnership will enable his team to build on their work using gene-editing CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) technology to create a non-genetically modified variety of Cavendish, resistant to TR4.

"While our success in developing a disease-resistant genetically modified line of Cavendish is a world-first achievement, this funding will enable us to develop the next generation of TR4 resistant Cavendish bananas," Professor Dale said.

Professor Dale's research is conducted in Brisbane at QUT's Centre for Agriculture and the Bioeconomy, with field-trials conducted through a La Manna Premier Group joint venture farm outside Darwin. LPG and Australian Banana Research Pty Ltd co-funded the breakthrough TR4 resistance research and continues to support QUT's work.

Professor Dale said the field trials showed that high expression of the gene RGA2 derived from a wild banana provides resistance to TR4 disease. RGA2 is present in Cavendish but not expressed. The research team's strategy is to activate the expression of the RGA2 gene.

The Fresh Del Monte and QUT research collaboration will encompass multiple phases over the next five years, aiming to result in novel commercial resistant banana variety releases.

Distinguished Professor James Dale and his team have secured a partnership with Fresh Del Monte.
Image: Queensland University of Technology

WA BANANA BONANZA

In February this year, Western Australia's Sweeter Banana Co-Operative put out a simple call to action: buy all the local bananas you can.

Perfect tropical conditions and a COVID-19 lockdown in Perth (coming right at the end of the summer school holidays) had led to an oversupply of the fruit. Though prices were low, growers were adamant no bananas would go to waste.

The Co-Operative's business manager, and ABGC board director, Doriana Mangili explained that they needed to double their regular customer base.

"We needed to increase the number of Western Australians families purchasing our fruit from 45,000 to 90,000 – resulting in one in five people eating a Sweeter banana," she said.

The Co-Operative appeared on television and radio, and spread the message through social media, calling on banana-lovers to get creative.

"We asked people who normally buy one bag to simply buy two – pop them in the freezer, use them for smoothies and get baking."

Not only was there more fruit, but the growing conditions had made them bigger and brighter than usual too.

The response was phenomenal, with Ms Mangili delighted that they were able to shift their produce.

"Our wonderful customers threw their support behind us – there were certainly plenty of banana lovers enjoying some extra snacks in the weeks that followed!"

Media, including Channel 10, helped boost awareness of the abundance of local bananas.

Sweeter ambassador Jordan Bruno shared his love of the fruit during the campaign. Image supplied by Anton Blume.

PACKING COMP RETURNS

The Australian Banana Packing Championships will return to the Innisfail Show this year.

Forced into a year hiatus – due to COVID restrictions – the popular packing contest will be held over two days on July 8-9. The event will have a slight change of format, with the traditional backpacker contest not included this year due to COVID.

BANANA BIG ISSUES EXPLORED

Growers and industry stakeholders interested in tackling the major challenges facing banana production can now access Volume 2 of 'Achieving sustainable cultivation of bananas'.

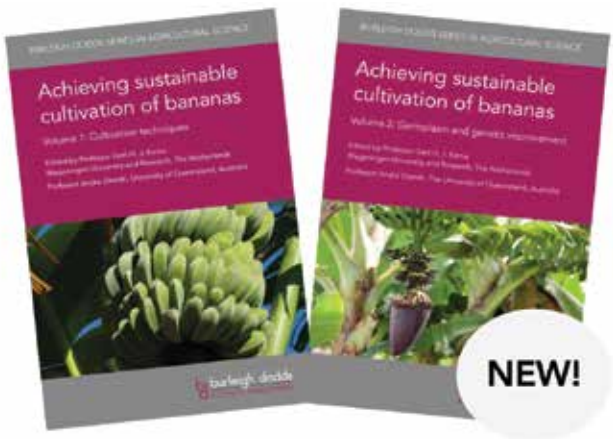
Together, *Volume 1: Cultivation Techniques and Volume 2: Germplasm and genetic improvement* offer a comprehensive collection of research edited by industry leaders Professor Gert Kema (Wageningen University and Research) and Professor Andre Drenth (The University of Queensland).

Topics covered include:

- How each stage of banana production can be made more efficient
- A review of the methods available to improve the sustainability of banana cultivation
- Methods that can be used to improve fertility and resistance traits in Cavendish
- Assessment of conventional and molecular breeding techniques currently available for breeding new varieties

Both volumes feature chapters by various well-known Australian researchers, as well as a range of authors from across the globe.

Print copies, e-books and e-chapters can be ordered via www.bdspublishing.com.



CARNARVON FRUIT PROCESSING HUB

The Sweeter Banana Co-Operative has been allocated almost $300,000 in funding to run a commercial-scale fruit processing hub in Carnarvon.

The funding was part of a $10.2 million State Government investment towards projects to boost food and beverage manufacturing and value-adding.

The Co-Operative hopes the facility will cut waste and reduce transport costs, while filling a demand for locally grown frozen produce.

Western Australia's Agriculture Minister, Alannah Mactiernan, said the state's agribusiness sector remained largely concentrated on the production of raw commodities.

"Although small, our food and beverage manufacturing industry is growing and is job intensive with strong benefits for the broader WA economy," she said.

Carnarvon's fruit processing facility is expected to be up-and-running in 2022.

PODCAST DIGS INTO FARMING

Far North Queensland growers are a hardy bunch - surviving environmental, economic, and social challenges, while supplying food for the nation.

The 'Digging In' podcast series produced by the Wet Tropics Major Integrated Project (MIP), unearths five stories from the cane, banana and tropical fruit industries, exploring the history of change in Tully agriculture and how growers are innovating and adapting.

Among those featured is banana grower Stephen Mackay (episode two). Stephen reflects on the journey the family business, Mackays Bananas, has taken over seventy-five years. He candidly shares how the family has worked hard at getting things right, both in the paddock and in business.

"There's always adversity there – but it's just how you respond when it happens."

The Mackays have been actively involved in the MIP. Stephen believes that being ahead of the game is the best place to be and being in a leadership role is one they choose for their family business.

Banana grower Stephen Mackay features in episode two of the new Digging In podcast.

Others featured in the podcast are Tully Sugar Limited's Greg Shannon, innovative Tully canefarmers Chris O'Kane and Ray Zamora and exotic fruit farmer Peter Sallares.

Tune in to episodes from the Terrain website (terrain.org.au/digging-in-podcast-wtmip), Spotify, or YouTube.

The Wet Tropics Major Integrated Project is a water quality project for productive communities and a healthy Reef. It is funded through the Queensland Government's Reef Water Quality Program, and coordinated by Terrain NRM in partnership with Canegrowers, Australian Banana Growers' Council, local government, community groups, traditional owners, consultants, investors and researchers.

NEW INDUSTRY LEAD IN FUTURE MANAGEMENT OF TR4

A new Industry Transition Leader has commenced building a framework for the future management of Panama TR4.

Geoff Wilson was recently appointed to forge a pathway for industry to continue the control and containment of Panama TR4 beyond 2023. He joins the Australian Banana Growers' Council team with a wealth of experience, including his most recent role, successfully transitioning an Australian public health program abroad and negotiating its ongoing management by international governments.

As Program Manager of Monash University's 'Eliminate Dengue' program, Geoff and his team virtually eliminated the virus from Far North Queensland.

In 2018 he expanded the program's global reach when it was renamed the 'World Mosquito Program', establishing it in Fiji, Vanuatu and Kiribati. Under Geoff's supervision the program was transitioned to respective governments where they continue to deliver results to this day.

ABGC Chief Executive, Jim Pekin said Geoff's unique experience in managing the Oceania/Pacific part of World Mosquito Program would be an asset in developing the Panama TR4 Program's future.

"The Queensland Government and ABGC have entered into a Cost Sharing Deed until June 2023 and after that the TR4 Program is to be led by ABGC. So, Geoff's role is to develop and then implement the transition of the Program to industry," Mr Pekin said.

"What the TR4 Program will look like after June 2023 will be dependent on what industry wants and where the disease has spread to by that stage."

Mr Wilson said he was enjoying the challenges of his new role so far.

"I'm looking forward to the getting to know more about the industry and am already becoming aquainted with understanding what industry needs in managing Panama TR4," he said.

"I can see that everyone has done a remarkable job in containing the disease so far, so I'll be looking at sustainable long-term solutions which will continue the Panama TR4 Program's legacy with practical viability."

Prior to leading the Dengue program, Geoff worked in regulatory services with the Cassowary Coast Regional Council, as well as environmental management in state government. Coupled with his upbringing on a central Queensland cattle station, Geoff brings a unique skillset that he hopes will be beneficial in bridging the two worlds of industry and government.

Geoff welcomes anyone who wishes to discuss the future management of Panama TR4 to contact him on 0418 644 068 or email geoff@abgc.org.au.

ABGC THANKS JADE BUCHANAN FOR SERVICE

Jade Buchanan, pictured second from right, with the ABGC Board of Directors.

The Australian Banana Growers' Council has farewelled Director Jade Buchanan, who has stepped down after more than three years of service to the Board.

During that time, Ms Buchanan has been a valued member of the board, representing the interests of growers and contributing additional time to events like Banana Congress and issues including feral pig management.

Ms Buchanan, who farms at Wangan, said it had been wonderful to have the chance to contribute in this way.

"I'm now focussing on my family and farming business," she said. "But I look forward to continuing to be an active ABGC member into the future."

Chair Stephen Lowe paid tribute to Ms Buchanan and wished her well for the future.

"Jade's passion for our industry is second to none. Her insights and contribution to our Board discussions and decisions will certainly be missed."

CYCLONIC STORM DECIMATES BANANAS IN THE CASSOWARY COAST

Boogan Grower Charles Camuglia surveys damage to his farm. Charles lost 100% of his crop.

Growers in the Cassowary Coast are facing a long road to recovery after suffering catastrophic damage from a recent cyclonic storm.

It could take some up to 12 months to return to full production and is another blow after battling ongoing worker shortages due to COVID and consecutive years of low prices.

It approached the coast as a tropical low, but the severe weather system which tore a path of destruction through the Cassowary Coast in Queensland's Far North on March 1, left some growers with crop damage equivalent to that of Cyclone Yasi.

Wind gusts of up to 100km/hr were felt in some areas, wiping out $180-$200 million in banana crops, with worst affected growers losing up to 100 per cent of their bunched fruit.

In all, 150 farms recorded some form of damage from the cyclonic system, the majority located in the Cassowary Coast – from Fishery Falls to Mission Beach - with some also impacted inland on the Atherton Tablelands.

Australian Banana Growers' Council Chair Stephen Lowe visited some of the worst affected growers in the days following the severe weather event and was shocked by the extent of crop losses.

"Of course, as growers we understand that we are at the mercy of mother nature. But I saw devastation that I really didn't expect to see," Mr Lowe said.

"Certainly, around Boogan, Mourilyan and Wangan, where some have 100 per cent of their bunches on the ground, it was pretty heartbreaking.

"There are definitely some farms that will have zero income for eight to nine months and those growers still have to put money into those crops to grow them again.

"Obviously we feel for those farmers affected. It's come on the back of consistent years of low prices and more recently critical worker shortages due to COVID. So yes, it's an incredibly challenging time for industry. To suffer a succession of knocks, it's hard for some to bounce back from that."

Boogan grower Charles Camuglia, who was one of those who suffered 100 per cent crop loss, said in addition to the clean-up and financial recovery challenges, he held real concerns for his workers.

"The hardest part at the moment is probably the staff. You know we were battling, because of COVID along with the rest of the industry, with major problems holding onto staff. And we just got to the point where we had a half secure workforce. To have to knock them off yesterday (days after the storm) after packing our last boxes of bananas and telling them that we won't see them for a good seven to nine months, that was hard," Mr Camuglia said.

ABGC ADVOCACY ONGOING

The ABGC has continued to advocate for severely impacted growers to be considered for wage subsidy assistance and disaster funding that meets industry expectations.

We try to keep growers updated with any new developments via phone calls, e-bulletins and SMS. However, if anyone has any questions or concerns please don't hesitate to call ABGC CEO Jim Pekin on 0447 799 667.

ABGC chair Stephen Lowe speaks to Tony Alcock, who lost 50 per cent of his hanging fruit in the cyclonic weather event.

It's a sentiment echoed by Innisfail grower Tony Alcock who suffered 50 per cent loss of his hanging fruit. The second generation banana farmer said he would most likely have to put off 80 per cent of his workforce.

"For us to recover it will probably take us two months of intensive clean up, but then we can't really keep workers on once the fruit's been cleaned up and the paddocks have been cleaned up, we just have to let everything sit and grow," Mr Alcock said.

"But to get workers back is our biggest worry. We have Vanuatuans working for us at the moment, seasonal workers, and if they get sent home, we can't get them back. We really need help somewhere along the line to help subsidise these workers or some form of assistance to keep these workers here."

Mr Camuglia agreed. "I'd like to see government put something towards helping us growers keep staff through times like this. This is different from coming out of a cyclone 10 years ago. We've come off the back of a good 12-24 months of pretty average prices, so the money just isn't in the kitty to be splashed around."

For Gurjeet and Kuldip Singh, government assistance will be the difference between them leaving the industry or rebuilding again.

"We need financial support to get us back on our feet," Gurjeet said. "No income and trying to rebuild? It's not possible."

CALLS CONTINUE FOR WAGE SUBSIDY ASSISTANCE

At a specially convened grower meeting at South Johnstone on March 16, growers raised their dissatisfaction over the lack of government response to industry's calls for urgent disaster assistance - including wage subsidies - and concerns existing disaster relief options did not offer any tangible support.

MINISTERIAL VISITS

Queensland Agriculture Minister Mark Furner (centre) with Australian Banana Growers' Council chair Stephen Lowe (left) and grower Stephen Wells (right).

Both the State and Federal Agriculture Ministers responded to a request from the ABGC to see first-hand damage suffered to crops in the days following the cyclonic event and hear from growers about the need for disaster recovery assistance.

While at the time, growers and the ABGC had been grateful to both ministers for their quick responses, (at the time of going to print) neither the State or Federal Government had announced assistance packages that met growers' expectations.

Federal Ag Minister David Littleproud flew to the Far North and met with more than 50 growers in an early morning meeting in Innisfail where he heard growers' concerns, including the need for wage subsidies – to retain staff - and urgent recovery grants.

Queensland Agriculture Minister Mark Furner also visited farms in Innisfail and talked with badly affected growers. ABGC Chair Stephen Lowe and then ABGC director Jade Buchanan, also met with the Minister to advocate for wage subsidies and tangible disaster relief.

Both Ministers were made aware that damage incurred by some growers would affect their production and viability for the next eight to 12 months and without some form of disaster funding or staff retention assistance some of these growers would not be in a position to fully recover or rebuild.

ASSISTANCE FALLS SHORT OF INDUSTRY EXPECTATIONS

At the time of going to print, the State and Federal Governments had announced Special Disaster Assistance Recovery Grants of up to $25,000 for cyclone clean-ups and low-interest loans up to $250,000.

However, strict criteria for the recovery grants meant that most growers would not have been eligible for this funding and ABGC had requested that both governments re-evaluate the criteria for this disaster relief.

The ABGC also had asked both the Commonwealth and Queensland Governments to consider wage subsidy assistance to assist growers to retain workers.

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NSW COPS DRENCHING

At the time of going to print, residents, business owners and producers across New South Wales were still taking in the impact of a 'one-in-100-year' flood.

As average monthly rainfall totals were smashed, floodwaters swept through claiming property, infrastructure and, in the worst case, life.

Banana growers on the Mid North Coast and in the Northern Rivers, in some cases, were only just starting to get back on-farm to assess damage.

While any crop loss is devastating, growers were also expecting roads, crossings and access points to be potential immediate problems. On top of that, growing country in subtropical regions can be prone to land slips and erosion.

The Australian Banana Growers' Council was expecting to hear more from growers in the days after Australian Bananas magazine was published and encouraged any affected to reach out by contacting info@abgc.org.au or 07 3278 4786. Any information received can help the ABGC inform relevant authorities about the extent of damage and assistance required.

Where to get help

- If you were affected by the severe weather, please fill out a natural disaster damage survey (via www.dpi.nsw.gov.au or search Primary Industries Natural Disaster Survey). This helps DPI determine the scale severity of the impact. You can also speak to NSW Department of Primary Industries Industry Development Officer, Tom Flanagan, who can assist this process: 0437 654 633 or tom.flanagan@dpi.nsw.gov.au
- Primary producers recovering from the impacts of floods could be eligible for Special Disaster Grants of up to $75,000. Details of eligibility and how to apply were not available at time of print, but will be shared via ABGC communications.
- View declared natural disasters and assistance available here: https://www.raa.nsw.gov.au/disaster-assistance/declared-natural-disasters
- Find more information about the flooding here: https://www.horticulture.com.au/growers/flood-information/
- For more information on financial assistance, phone Disaster Customer Care Service at Service NSW on 13 77 88 or online via www.service.nsw.gov.au

All images supplied by Stephen Spear.

Bureau of Meteorology rainfall data shows a clear picture of just how extreme March rainfall was. Anecdotally, totals were much higher. In Taylors Arm, for example, one grower topped 34 inches in their rain gauge (more than 863mm).

Rainfall totals across NSW for the week ending March 25. Source: Bureau of Meteorology

- Nambucca Heads – 1174mm (monthly average 162)
- Coffs Harbour – 574 (monthly average 235)
- Taylors Arm – 512mm (monthly average 167)
- Tweed Heads – 760mm (monthly average 242)
- Murwillumbah – 499mm (monthly 214)

Incredible views of the mighty Gascoyne during February this year. Images courtesy of Sweeter Banana Co-operative

Crossings were no match for the floodwaters on the Mid North Coast.

Farm roads under water.

Fire damaged props leftover from the December 2019 bushfires, and mini landslips caused by recent heavy rain.

GROWERS ESCAPE MAJOR DAMAGE IN CARNARVON

Flood mitigation levies installed after the 2010/11 floods in Carnarvon spared most growers from significant damage earlier this year.

The Gascoyne River peaked at approximately 7.1m on February 6, but roads heading south remained open and power was restored to most properties within two datys. The same process took more than a week in 2010.

The Sweeter Banana Co-Operative packing shed was not affected and growers were able to get back to harvesting soon after the river began to recede.

The flood and river flows have guaranteed a fantastic fresh water supply for the next two years.

All images supplied by Michelle Kearney.

CROP TIMING AFTER A DISASTER

Banana producers in the Innisfail region severely affected by the cyclonic weather on 1 March will need to manage their crop cycling over the next few months to avoid a concentration of harvest when production returns.

Experience with severe cyclone impacts from TC Winifred, TC Larry and TC Yasi has shown that an industry-wide synchronisation of the cropping cycle happens when harvest resumes, if practices to spread the cropping are not implemented. The synchronising effect of these cyclones resulted in a year's worth of harvest being concentrated into a 3-4 month period, meaning that affected farms generally cannot bell inject, bag or harvest all the fruit when it is mature. Following this the farms experienced a subsequent period with very low levels of fruit supply before the cycles start to smooth again. The effect is the same as if you have planted the entire area of the farm on a single day.

The main options for staggering the return to cropping involve the use of replanting and nurse-suckering and growers need to make a plan for their particular property.

Step 1 – Assessing the damage to your blocks

The first step is to develop a clear idea of the damage to blocks on the farm.

- Identify blocks that have the greatest proportion of bunched plants still standing, or plants close to bunching, that will provide the earliest harvest.
- In blocks where the majority of bunched plants were blown over, assess the degree of height uniformity in following suckers. Each 30-40 cm difference in height is equivalent to about 1 month's difference in growth, so if most of your following suckers in a block are between 2-3 metres high (i.e. all within 1 metre height of each other), then the probable spread of age for the plants is 3-4 months.
- Identify blocks you may wish to replant rather than restore – older blocks already ear-marked for replacement or those with a high percentage of plants that have rolled out of the ground, or snapped close to ground level (more than 10%), that will leave "orphaned" suckers that will grow and yield poorly.

Step 2 – Deciding what practices should go on which blocks

Ultimately, deciding what interventions to make and how much to do is all about proportions – how much of your farm has plants of a similar height? The greater the degree of uniformity in plant height across the farm, the more important it is to intervene in the crop cycle to prevent a glut at harvest.

Blocks with bunched plants and a high proportion of plants close to bunching could be retained for the fastest return to harvest. Blocks that have a high proportion of the following suckers at a similar height should be identified, and if these are a significant proportion of the total farm, then some blocks will need to be nurse-suckered or replanted to spread the harvest.

Step 3 – Implementing and timing crop staggering practices

Basically, there are 3 main options – do nothing, nurse-suckering or replanting.

Nurse-suckering is a technique to manage uniformity and crop timing. It involves allowing a selected following sucker (the "nurse" sucker) to grow until it is at least 2 metres tall before killing its growing point. This forces the next generation of suckers to grow, from which a new following sucker is selected, and as a result the crop cycle is delayed by at least 3 months. This technique offers the most flexible, cost-effective option for shifting the harvest cycles in the blocks being retained.

There are a number of methods to achieve the death of the growing point, with the use of ethephon pseudostem injections being the easiest and most labour efficient. Ethephon injection into the pseudostem is covered by an APVMA minor use permit – PER14966 Ethephon bananas.

In our cyclone recovery trial conducted after TC Yasi we divided the trial area into quarters and aimed to have 25% of the production area return without any intervention, and the 3 remaining quarters were nurse-suckered at 3 different dates in 2011, aiming for overlapping harvests to spread and smooth supply. Growers may not wish to go to 4 separate production timings but a minimum of 3 is probably needed – the "cyclone crop cycle" and then 2 subsequent scheduled crops.

The timing of your replanting or nurse-suckering will depend on the timing of the return to harvest, the seasonal conditions and the size of the plants. If most of the following suckers remaining in blocks range from 2-2.5 metres in March, then the probable date range for bunch emergence from these plants is mid-July to mid-December and will result in a heavy concentration of harvest in spring and summer, including the Christmas-New Year period. Most growers will want to avoid having too much fruit harvesting at this time of the year. However, scheduling harvest to the early months of 2022 puts production back into the highest cyclone risk period for bunched plants, emphasising the importance of having at least 3 scheduled cropping times to manage the market and climate risks.

The table below summarises cropping data for different nurse-suckering times applied at the South Johnstone Research Facility in past trials.

For assistance with your post-cyclone management plan, contact the Department of Agriculture and Fisheries' banana extension team on (07) 4220 4177 or betterbananas@daf.qld.gov.au

Month of nurse-suckering	Bunch emergence*	Bunch harvest*	Months (nurse-suckering to harvest)
January	September	December	11-12
February	November	February	12
May	January	April	11
June	January	April	10
August	February	May	9
October	May	September	11
December	August	November	11-12

** Average month is shown – actual spread is 2-4 months*

BIOSECURITY KEY FOR SLOWING SPREAD OF RACE 1

Information in this article is courtesy of Tom Flanagan / NSW Department of Primary Industries

In the Australian banana industry, the word Panama is often used to describe one thing: the devastating Tropical race 4 (TR4).

While Far North Queensland, home to 94% of Australian production, guards itself against the spread of this disease, some growers in subtropical regions have been battling Panama subtropical race 4 and Panama race 1 for many years.

Race 1 came under the spotlight earlier this year, with Coffs Harbour media reports highlighting the ongoing need for biosecurity management required by Ducasse and Lady Finger growers which are susceptible to this particular strain.

In response, NSW Department of Primary Industries Development Officer Tom Flanagan, hosted workshops in Coffs Harbour and Macksville detailing the various races, with a focus on race 1.

The first confirmed case of race 1 in Coffs Harbour was detected in 1977, with the next 20 years later. Since 1997, an average of one new farm tests positive for Race 1 every two years. There are now 17 confirmed cases.

Both race 1 and subtropical race 4 are considered established in NSW. They are therefore not regulated, but instead managed under the General Biosecurity Duty found in the NSW Biosecurity Act 2015. Race 1 spreads in the same way as TR4 – that is, easily and quickly. A single speck of infected soil on a boot or wheel is all it takes.

"Biosecurity is key," said Mr Flanagan. "It's the tried and tested message of 'Come Clean, Leave Clean', with the aim of limiting the movement of plant material, soil and water on and off your farm."

NSW banana growers can contact Mr Flanagan for one-on-one support in managing Panama disease and other biosecurity issues on their farms.

A variety of resources are available from the Queensland Department of Agriculture and Fisheries, the NSW Department of Primary Industries and the Australian Banana Growers' Council.

New South Wales growers can also access farm biosecurity signs for their farms by contacting their Local Land Services office.

Panama at a glance

Race 1 - infects Lady Finger, Ducasse and Sugar banana varieties but not Cavendish

Race 2 - infects cooking banana varieties such as Blue Java and Bluggoe

Race 3 - infects Heliconia plants and not bananas

Race 4 - (subtropical and tropical) infects most banana varieties including Cavendish bananas and it also causes disease in groups of cultivars susceptible to races 1 and 2, such as Gros Michel, Silk, Pome and Bluggoe
Source: NSW DPI / QLD DAF

Image: Tom Flanagan / NSW DPI

Base splitting. Image: M. Weinert

Base splitting. Image: M. Weinert

FIRST RATOON VARIETY RESULTS AT SOUTH JOHNSTONE

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

The first ratoon crop is now completed in the variety trial at South Johnstone, and the results are encouraging with:

- The TBRI Cavendish selection Asia Pacific #3 showing comparable yields and fruit length to Williams over the two crop cycles, combined with Panama disease TR4 resistance much better than Formosana in the NT trials.
- Continued good performance of the four Cavendish selections from Rahan Meristem with yields and finger length equivalent to Williams, with at least two of the selections being significantly shorter in stature.
- The Dwarf Cavendish selection Brier, from the Canary Islands, having yields and fruit length equivalent to Williams, while being significantly shorter in stature.

Ratoon 1 observations

Most of these selections originate from international breeding programs (Taiwan, Israel, and Guadeloupe) and are being grown for the first time in Australia after clearing quarantine. Some have so far demonstrated promise, whilst the agronomic characteristics of others have been less desirable. A notable spread of cycle time between varieties was already observed in the plant crop. This meant that some of the early second ratoon bunches of the quicker cycling varieties had already begun to be harvested before all the first ratoon bunches had been completed for the much slower cycling ones. As a result of this, some varieties were experiencing quite different seasonal conditions during the period of bunch development compared to others. The preliminary results from this investigation are a useful first look, but pre-commercialisation trials for any of the better varieties will tell more accurately how these results reflect their broader performance. The data discussed next is displayed in Table 1.

Taiwanese Cavendish selections

The nine TR4 resistant selections from Taiwan took between 19.6 and 23.7 months to reach ratoon one harvest from planting, which was considerably slower than the 17 months taken by the industry standard Williams. The slower cycle times and lower bunch weights resulted in cumulative yields (plant + ratoon 1) 63- 82% of that of Williams. The only exception was Asia Pacific #3, which had a comparable yield to Williams. The high cumulative yield of AP #3 combined with TR4 resistance, which was much better than Formosana in the NT trials, is very encouraging. This makes it a contender for inclusion in future pre-commercialisation trials.

The varieties GCTCV 119, 215, 217 and 247, along with AP #3, were all significantly taller than Williams. However, rather than breaking over from wind damage, losses were typified by snapping at the point of connection of the prop to the pseudostem. It was a particular issue for AP #3, where just over half the datum plants snapped at the prop or the bunch fell out at the throat. The same fate occurred to 38 and 31% of the GCTCV 217 and 119 plants, respectively. GCTCV 247 and 215 had very few bunches affected in this way. Perhaps if the varieties were grown in double rows supported by twine then losses would have been lessened (for the current single-row configuration, propping is done using metal wire affixed to wooden stakes inserted towards the top of the pseudostem).

Israeli Cavendish selections

As was the case in the plant crop, the four Rahan Meristem Cavendish selections (Jaffa, Gal, Adi 9001 and Adi 9168) have continued to perform well in all respects compared to Williams in the first ratoon. It is noteworthy that Adi 9001 (2.7 m) and Adi 9168 (2.3 m) were both significantly shorter than Williams (3.1 m) but there were no issues with choking. Several commercial farms have begun growing these varieties on a small-scale due to their promising agronomic qualities.

Guadeloupe CIRAD hybrids

It took around five months longer than the other three hybrids for CIRAD 04 to reach first ratoon harvest. The cumulative yields of the CIRAD hybrids were slightly better than for the plant crop but were still only 57 – 66% of that of Williams. Plants remained significantly taller (11 – 31%) than Williams. Their brittle pseudostems were prone to snapping, and their long, narrow leaf stalks readily bent over leading to much reduced leaf area. Like some of the Taiwanese selections, these too were prone to snapping at the prop.

Other varieties

The two dwarf selections of Cavendish, Brier and Dwarf Cavendish, had comparable cycle times and bunch weights to Williams. And as was the case in the plant crop, Dwarf Cavendish had shorter fruit than both Brier and Williams (indicated by the percentage of fruit in the 22 – 26 cm size category).

What's next?

Harvest of second ratoon bunches has already begun for many of the faster cycling varieties, however around 10% of the data plants were damaged in early March due to the strong winds brought on by the tropical low (which later developed into Cyclone Niran). Due to the development stage of the Taiwanese Cavendish varieties, these suffered the highest losses. Towards the end of this year, when harvest of all varieties in ratoon two is completed, the block will be nurse suckered to synchronize development for leaf spot resistance assessment in the 2022 wet season. In addition, a new trial was planted at South Johnstone in October 2020. We are evaluating some new varieties which have cleared quarantine since the present trial was established in 2018, along with some improved selections which have been identified in Australia.

For more information about the trial including plant crop results see Australian Bananas Vol 58 (April 2020) pp. 20-21 and the Better Bananas website: https://betterbananas.com.au/2019/07/19/agronomic-evaluation-of-new-varieties-south-johnstone/

Table 1: Selected yield and plant characteristics of most of the varieties in the plant crop

Variety	Months planting to ratoon 1 harvest	Bunch Wt (kg)*	Fruit 22 – 26 cm (wt %)	Fruit 20 – 22 cm (wt%)	Cumulative yields* (P+R1) kg/plant/yr	Pseudostem Ht (m)
Williams	17.0	35.2	46.9	33.2	41.1	3.1
Grande Naine	17.5	39.3	53.4	27.2	41.8	2.9
Asia Pacific #3	20.0 >	31.1	46.3	31.1	37.8	3.4 >
Formosana	22.8 >	28.2 <	47.3	24.7	31.0 <	3.0
Formosana Sel	22.6 >	30.0 <	42.9	29.8	33.4 <	3.1
GCTCV 105	19.9 >	26.0 <	28.2 <	34.3	31.9 <	3.2
GCTCV 119	23.7 >	22.4 <	32.0	38.1	25.7 <	3.7 >
GCTCV 215	21.2 >	25.9 <	35.4	26.1	28.6 <	3.4 >
GCTCV 217	21.3 >	28.1 <	46.8	24.9	33.5 <	3.4 >
GCTCV 247	21.0 >	23.8 <	35.5	33.1	26.7 <	3.3 >
CJ19	19.6 >	25.9 <	36.6	28.3	28.8 <	2.4 <
Dwarf Cav	17.4	37.3	24.4 <	39.3	42.4	2.2 <
Brier	18.1	34.4	55.3	32.4	40.6	2.4 <
Short Fruit Will.	20.7 >	26.4 <	34.8	36.3	26.7 <	3.0
Jaffa	18.2	38.0	60.8	21.6	44.6	3.0
Gal	17.6	36.3	62.5	28.8	43.0	2.9
Adi 9001	18.1	37.0	62.7	21.8	42.1	2.7 <
Adi 9168	18.5	33.7	59.8	27.6	38.4	2.3 <
CIRAD 03	16.9	22.2 <	n.a.	n.a.	25.6 <	3.7 >
CIRAD 04	21.8 >	19.8 <	n.a.	n.a.	23.6 <	4.5 >
CIRAD 05	16.7	23.1 <	n.a.	n.a.	27.1 <	3.5 >
CIRAD 06	16.5	21.2 <	n.a	n.a.	27.1 <	3.6 >

< = significantly less than Williams (95% confidence level) and > = significantly more than.

n.a. = not applicable as these four CIRAD hybrids are not Cavendish type bananas and most of their fruit is shorter than the two preferred Cavendish size classes.

	Taiwan derived Cavendish selections
	Rahan Meristem Cavendish selections
	Less desirable

* excludes bunch stalk weight

Snapping at the prop appeared to be a particular issue for AP #3, GCTCV 217 and 119, and the CIRAD hybrids.

The CIRAD hybrids, including CIRAD 04 pictured, performed poorly. The plants are much taller than Williams and leaves break readily.

A first ratoon bunch of Asia Pacific #3. This variety demonstrated good TR4 resistance in NT trials and its cumulative yield (plant + R1) was comparable to Williams.

In the first ratoon Adi 9168 plants were again significantly shorter than Williams and cumulative yield has been comparable.

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

MICROBES MATTER: WHY BOTHER WITH SMALL THINGS?

By Tony Pattison, Department of Agriculture and Fisheries

Soils are teaming with life, with up to five tonnes of soil organisms per hectare (e.g. bacteria, fungi, protozoa, nematodes, and many others).

While some species are damaging to plants, causing diseases, many more are beneficial (See Fig 1). They suppress diseases and enhance nutrient availability, making significant contributions to agricultural production, at no cost to growers.

The big question is how do we manage farms to maximise these benefits to ensure they continue to support plant production?

Until recently, it was extremely difficult to study soil microbes and their communities. This is because many soil microbes look alike, are invisible to the naked eye, and tend to be difficult to grow in the laboratory. Advances in DNA-technology, however, make it possible to identify microorganisms, and their interactions, abundances, and functions.

These approaches use the fact that each organism has a unique genetic code.

The genetic code of bananas is made up of around 36,000 genes that act as blueprints to make banana plants what they are.

However, bananas are not alone, they associate with tens of thousands of microbial species ('the banana microbiome') that all have additional genes to contribute. In fact, these microbial genes collectively exceed those of the plant by 10 times, meaning that bananas are associated with a much wider range of genetic functions than just their own genomes.

This is like accessing information from the internet, compared with just getting information from the local library. Consequently, it is important to better understand the banana microbiome, as they can have greater potential in maintaining plant health than manipulating plant genes alone.

To make the most of the banana microbiome we need to understand what the different organisms do, how they interact with plants and each other.

Generalisation of functions of the microbiome (Fig 2) include.

- Organic matter turnover
- Nutrient transfer
- Soil structure improvement
- Disease transmission and suppression
- Chemical pollutant degradation and
- Greenhouse gas production

It is when these organisms are no longer present and no longer functioning that we can really appreciate their value. For example, we have found that the fungus that causes Panama Disease was 2500-fold more successful in colonising sterilised (dead) soils, when compared with non-sterilised samples of the same soils (Fig 3).

Soil sterilisation is an extreme example, comparing living and dead soil, but there are farm practices that can impair the microbiome, decrease its function, and reduce plant fitness. These practices can increase the impact by root pathogens like fungi, bacteria and nematodes. Furthermore, the loss of the microbiomes can make plants more susceptible to environmental stress, heat, cold and moisture.

To better utilise the banana microbiome, we need to better understand the organisms that make up the microbiome, find out what they do, and how to control them. We also need to understand how growing bananas has changed the microbial makeup, then how to manipulate the organisms and make use of their genetic potential to maintain plant fitness (Fig 4).

These issues have been investigated or are under investigation from the partnership between the University of Queensland team being led by Dr Paul Dennis and the Department of Agriculture and Fisheries team being led by myself (Dr Tony Pattison), with financial support from the Australian Centre for International Agricultural Research (ACIAR). In the next issue we will show how growing bananas has altered soil organisms.

Fig 1. Soils are teaming with different types of organisms.

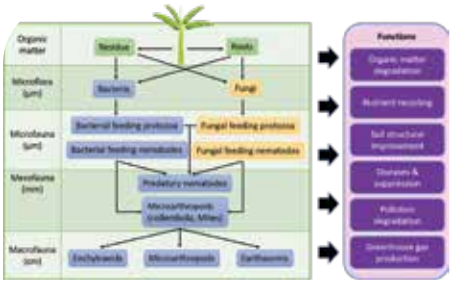

Fig 2. The microbiome and soil food web drive banana soil functions.

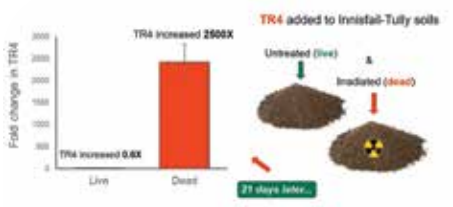

Fig 3. Change in quantity of Tropical Race 4, after 21-days, following introduction into a living soil (with its microbiome) or a dead soil (sterilised to remove microbiome) (Paul Dennis, University of Queensland).

Fig 4. Bananas have their own unique microbiome.

Hort Innovation Strategic levy investment | BANANA FUND

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ROTATION CROPS FOR BANANA GROWERS TO REDUCE NEMATODES

By Tony Pattison, Department of Agriculture and Fisheries

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 (Fig 1) and can slow plant growth, reduce bunch weights and in worst case scenarios cause plants to fallout (Fig 2).

This makes plant-parasitic nematodes a constant headache for banana growers.

In the past, nematodes were managed by the application of chemical nematicides. However, 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. While the rotation crops allowed a reduction on the reliance on chemical nematicides and helped to improve soil health, they didn't work as well as desired on all farms.

Changes have occurred in rotation crops available to banana growers, with the loss of some varieties and new varieties becoming available. Recent research by the DAF Nematology Team, as part of a Hort Innovation project has screened more than 30 potential crop rotation varieties for resistance to burrowing nematode. (Table 1)

For a variety to be deemed as having good resistance it must reduce the burrowing nematode population by more than 95%, compared with bananas in glasshouse experiments. Resistant ground covers suitable for banana plantations are also listed in Table 1.

During the cooler "winter" months in north Queensland, members of the Brassica family are a good rotation crop option (Fig 3). These tend to be short lived crops of 2-3 months and are ideal for a 9-12-month fallow period.

For fallows in warmer parts of the year, sunn hemp is proving to be a good fit with good resistance and high biomass production. For longer fallows greater than 12 months, Rhodes grass or signal grasses can be good options.

Crops grown for long term rotation with bananas tend to take more time to become established, but can improve soil structure and prevent erosion.

Banana growers have also been experimenting with blends, by purchasing seed mixes. However, many of the commercially prepared blends tend to contain plants that can be nematode hosts.

Having a nematode host plant can undo the crop rotation and fallow period, allowing nematodes to survive until the next banana crop. This can lead to nematode problems occurring early in the plantation cycles. Growers can make their own blends of compatible species provided that only resistant crops are used (Fig 4).

A well-managed crop rotation phase in the plantation cycle can mean that plant-parasitic nematodes are no longer the constant problem experienced on other farms. Rotation crops can also have other soil health benefits by increasing soil organic matter and creating greater biological diversity.

More information and a tool to help select nematode resistant crops can be found at Nematode resistant crop rotations - Lucid Web Player (lucidcentral.org)

Table 1. Rotation crops suitable for use with bananas

Winter crops (<6 months)	
Black Jack	*Raphanus sativus*
Caliente	*Brassica juncea*
Cappucchino	*Brassica carinata*
Must Clean	*Brassica juncea*
Nemat	*Eruca sativa*
Nemclear	*Brassica napus*
Nemcon	*Brassica napus*
Terranova	*Raphanus sativus*
Tillage Radish	*Raphanus sativus*
Raphanus Doublet	*Raphanus sativus oliformus*
Summer crops (<6 months)	
Sunn hemp	*Crotolaria juncea*
Burgundy bean	*Macroptilium bracteatum*
Sweet Jumbo Sorghum	*Sorghum spp.*
Summer long fallow >12 months	
Katambora Rhodes grass	*Chloris gayana*
Callide	*Chloris gayana*
Jarra grass	*Digitaria milanjiana*
Signal grass	*Urochloa decumbens*
Humidicola	*Urochloa humidicola*
Vegetated ground covers	
Sweet smoother grass	*Dactyloctenium australe*
Bahia grass	*Paspalum notatum*
Bermuda grass	*Cynodon dactylon*
Broadleaf carpet grass	*Axonopus compressus*
Cavalcade Centro	*Centrosema pascuorum*
Narrowleaf carpet	*Axonopus fissifolius*
Pinto peanuts	*Arachis pintoi*

Fig 1. Burrowing nematodes can cause extensive damage to banana roots.

Fig 2. High numbers of burrowing nematode can weaken the root systems of bananas causing them to fall out.

Fig 3. Resistant Brassica varieties are a good rotation crop option during winter months for short fallow periods.

Fig 4. Banana growers have been experimenting with mixes of crop rotation varieties such as this forage sorghum and sunn hemp mix.

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

THE RIGHT LABELLING KEEPS YOUR BRANDING A-PEELING

Easy to see, engaging labelling that incorporates branding, has been proven to entice the consumer with purchasing decisions.

Long established brands understand the power of brand recognition so well, that months upon months of consumer and marketability research goes into any rebranding exercise. But rebranding doesn't need to be the only option available. Read on. Trust us.

Quality labelling also makes a huge difference to how well your product will perform in the consumer market. For example, a label made from cheap material is unlikely to survive the rigorous demands of the supply chain to the end consumer. Damaged labels give the consumer an immediate negative impression, and lowers the value of your product, based on presentation. While those labels might be cheap, what are they really costing you in the long run?

Adapting your labelling through the consumer end process can also ensure your product stays saleable. For example, your label quality has remained stellar (you must have been using a Label Press Qld label, heeeeeyy?? Well done you!) but your fruit has gone a bit too ripe. Never fear! This is where you can introduce a new label in addition to your existing label, to change the marketing focus. Eg. Ripe bananas are a key ingredient for banana bread, so switch the labelling up to market to the baking community and inspire mums to bake for kids' lunchboxes, and leverage off the power of the mums' grapevine. (See image 1)

As an Australian owned and operated label manufacturer that specialises in the agribusiness industry, the Label Press team are passionate about great label design and the difference high quality custom labels make to our customers and their branding outcomes.

As experts in Databar labelling, Label Press has helped many growers across Australia transition into Databar labelling, so the process is smooth and effortless, and has minimal impact upon starting the season. With the requirements many large retail corporations place on databar labels for the convenience of the end user's shopping experience, it is important to ensure growers position themselves sooner rather than later, so they do not unintentionally shrink their market.

The Label Press team can give you all your options, including carton and tray labels, and all post-harvest requirements for the season, so you do not get caught short. We can supply consecutive numbered, self-adhesive carton labels and tags to fit to your packing requirements. We also do custom labels for your presentation and marketing at retail level. Label Press proudly brings innovative products and great design together to consistently deliver outstanding solutions to the banana industry and we can recommend the best label stock that will ensure your branding gets into the hands of the consumer as intended.

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Tony Pattison, Principal Nematologist, Queensland Department of Agriculture and Fisheries.

BANANAS WITHOUT BORDERS: HOW AUSTRALIA TAPS INTO GLOBAL RESEARCH

Dr Rosie Godwin, ABGC R&D Manager

While we know Australian bananas are among the world's best, the reality is our relatively small production and geographic isolation has meant – in the past, at least – that exposure to new ideas has been difficult. People across the supply chain are quick to say that international collaboration in research and development is key to the future of this industry. And it's true - Australia simply doesn't have the capacity to solve all banana problems when there are much bigger players in the world. But what you might not know is just how great the extent of collaboration already in place.

Here, Dr Rosie Godwin outlines just some of the significant collaborations happening right now.

International Breeding Programs

Among the industry's most well-known collaborations are those with the international breeding programs in Central and South America, French West Indies, Taiwan and China. These allow us to access and evaluate improved banana germplasm and are facilitated by Stewart Lindsay and Jeff Daniels from Queensland's Department of Agriculture and Fisheries (DAF), with support from Sharon Hamill (also from QDAF). In return, we provide feedback (e.g. on TR4 field resistance) to our collaborators which strengthens these relationships and paves the way for better germplasm in the future. Without these collaborations and in the absence of a costly breeding program of our own, the opportunity for industry to access improved disease resistant varieties would be extremely limited.

TR4 Genetics

Less well known, but still very significant, are the collaborations established by Prof Elizabeth Aitken and her team at the University of Queensland (UQ) to help us understand the genetics of TR4 resistance and the development of molecular markers for breeding TR4 resistance. Funded through the International Institute of Tropical Agriculture's Accelerated Breeding of Better Bananas (ABBB) Project, in association with the Bill and Melinda Gates Foundation, this project has many international collaborators including French, South African, Swedish, Chinese, Malaysian, Indian and Czech institutes. As well as formal relationships that allow the screening of markers on a range of foreign germplasm, these international relationships often provide access to unpublished data or resources that allow the complex genetics of disease

Professor John Thomas who, with Dr Kathy Crew, has collaborated extensively on Bunchy Top.

Jeff Daniels, of QDAF, in the field.

resistance to be studied in wild bananas. The ultimate aim is to identify sources of resistance to Fusarium wilt which can then be used in breeding programs and will benefit the industry worldwide.

Biosecurity

Research in areas of biosecurity - such as the diagnostics of exotic diseases - relies heavily on international collaboration to determine the risk and potential impact of exotic pathogens, allow the development of diagnostics, and assist in identifying and closing potential pathways for their introduction. Almost all of the technology used to identify and characterise exotic pathogens was developed overseas. Professor Andre Drenth and his team at UQ work closely with collaborators in Asia and Latin America but have also developed very strong linkages with leading research laboratories in Europe and North America. Strong international collaboration is important to capitalise on new scientific knowledge and technologies, and to find out which pathogens and pests are where and how to diagnose them. For these types of exotic pathogens, focused international collaborative research is not a choice but a "way of life".

TR4 management

Other researchers in our industry are involved in Australian Centre for International Agricultural Research (ACIAR) projects such as the one led by Dr Tony Pattison and his team. The project is aimed at developing an integrated management strategy for Fusarium wilt of bananas in South-East Asia in collaboration with institutes in the Philippines, Laos, and Indonesia. These collaborations allow the team to validate strategies for TR4 management in countries which already have the disease. Even now, the knowledge is proving useful in developing strategies for containing TR4 in North Queensland. The work done overseas is a copy of the work being conducted in Australia, and therefore all results are directly transferable to the Australian production system. Dr Pattison also collaborates on other aspects of research into nematodes, agronomy and banana projection with institutes in Costa Rica, Ecuador, France and Latin America. This allows him to share information, access the latest trends in banana production and gain insights into new products and technologies before they reach Australia.

Bunchy Top

Banana virologists Assoc. Prof John Thomas (UQ) and Dr Kathy Crew (QDAF) collaborate extensively on banana bunchy top virus (BBTV) and other virus diseases with international researchers and institutes in Africa and Asia/Pacific and Europe. They are also part of another large Bill and Melinda Gates Foundation project. These collaborations benefit the Australian banana industry by:

- Assisting us to develop the best diagnostic assays to support federal and state biosecurity
- Identifying potential sources of BBTV resistance available in banana germplasm
- Increasing knowledge of BBTV epidemiology
- Computer modelling to support the current control program and potential future incursions into North Queensland
- Developing strategies for controlling BBTV at the local level should the current control program cease

Sharon Hamill, of QDAF, who works with Stewart Lindsay and Jeff Daniels.

Professor Andre Drenth and his team at UQ work closely with collaborators overseas.

Learning through travel

In more 'normal' times, many of our banana scientists travel internationally and gather information in a variety of ways though conferences, symposiums, project collaborations, farm visits, and serving on international committees.

Sharing knowledge has always been essential to the advances in science and collaboration is the key to building and maintaining our research and innovation capabilities in the Australian banana industry.

AUSTRALIAN BANANA INDUSTRY EMBRACES NOVEL BIOLOGICAL FUNGICIDE

Dave Doolan (left) with Brock Saunderson from Peak Avidation.

The introduction of a Serenade® Prime, the first biological fungicide from Bayer, has changed the game for Far North Queensland banana growers.

Serenade Prime has been extensively researched and adopted in global banana production as an alternative to fungicides like mancozeb and chlorothalonil. The recent registration in Australia, for control of yellow Sigatoka and suppression of common leaf speckle, plus the ACO organic allowed input certification, provides growers flexibility in both conventional and organic spray programs and delivers a major step forward in the development of sustainable production systems.

Serenade Prime contains numerous biological compounds produced by a patented strain (QST 713) of the bacteria Bacillus amyloliquefaciens. These compounds have contact activity when sprayed and prevent the development of yellow Sigatoka spores by physically rupturing the cell membrane. This makes it very difficult for disease to develop resistance. In addition to biological control of fungi, Serenade Prime also triggers the plant's natural defences against future disease infection.

Agronomist Dave Doolan, who works in Innisfail with GF Rural Supplies, believes Serenade Prime is going to provide a significant improvement for the banana industry in managing yellow Sigatoka.

"As a member of the Fungicide Group 44 protectant chemistry, I believe Serenade Prime has got a lot of advantages, especially as it is a biological product," he says.

"It's been a wet year, and so a lot of farmers have used Serenade Prime and we've been able to get a further insight into how it performs and a lot of them have been extremely happy. The product has worked very, very well."

"It's critical that growers still get their regular spray programmes on and use Serenade Prime when there's no pressure, it's not a systemic product."

The emphasis Dave Doolan puts on a well-balanced fungicide program to include both protectants and systemics has been played out in three large-scale demonstration sites by Bayer in the Far North Queensland growing areas of Tully and Innisfail.

At each site, one block was treated with Serenade Prime plus oil as a protectant, in a program with Luna® Experience Fungicide plus oil, the next generation systemic fungicide from Bayer. Luna Experience is a co-formulation of fluopyram and tebuconazole, replacing Luna Privilege for control of yellow Sigatoka, leaf speckle and cordana leaf spot.

The Bayer combination was tested as an overall program against a more traditional approach of mancozeb plus oil or a chlorothalonil program, and Dave Doolan says the results were positive.

"The Bayer program has worked, there's no difference when you walk from the mancozeb section through into the Serenade Prime and Luna Experience treated block, so it is certainly holding up," he says.

"We had the chemicals applied by fixed wing aircraft as well as by helicopter on various blocks, so both the main means of aerial application were done."

Ian Saunderson, Director and chief pilot of Peak Aviation Services in Innisfail, has applied both Luna Experience and Serenade Prime through his fixed wing aircraft over demonstration sites.

Director and Chief Pilot of Peak Aviation Services in Innisfail, Ian Saunderson, applied both Luna Experience and Serenade Prime through his fixed wing aircraft over the demonstration sites. Mr Saunderson says not only were the results of the Bayer program strong, but the products were also easy to handle.

"The registration of Serenade Prime on bananas, being novel chemistry as a protectant, and a biological one as well, is a major step forward for the banana industry I think, because it really goes towards sustainable agriculture," he says.

"It's the right direction to be going, I believe, if we are going to have an industry in 10 or 15 years. We haven't had a new protectant in the market for decades, so, it's really important work that Bayer is doing."


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COUNTDOWN ON FOR CONGRESS IN CAIRNS!

The 2021 Australian Banana Industry Congress is shaping up to be an event not to be missed!

The 14th biennial Congress will be hosted at the newly refurbished Cairns Convention Centre and the nearby Pullman Cairns International Hotel from May 12-14.

The dedicated Congress Planning Committee has put together an exceptional line-up of speakers and entertainers that will present over the two-and-a-half day program that is grower-focused, showcasing innovation, technology, future trends and opportunities that will shape the Australian banana industry well into the future.

The planned plenary program includes an exceptional range of expertise that is guaranteed to leave delegates motivated and with greater insight into current and emerging issues affecting industry.

Above all, Congress is a time for growers, industry decision makers, researchers and other industry stakeholders to catch-up, network, share ideas and celebrate our vibrant industry and everything that goes into producing Australia's most loved fruit.

And, after a tough year, Congress will offer a great chance for growers to enjoy a few days off farm to reconnect with other growers and have some well-earned time out.

BANANA WOMEN'S LUNCHEON

Back by popular demand, the Banana Women's Network luncheon will be held on Thursday, 13 May at Kingsford's Lounge at the Pullman Cairns International Hotel.

To ensure no-one misses out on plenary speaker sessions, the lunch will be held at the same time as the Congress lunch break. Special guest at the luncheon will be Mental Health advocate Mary O'Brien.

The cost is $60 and includes a two-course plated meal and welcome drink on arrival.

OFF-SITE TOUR

Delegates who want to get the Congress celebrations started early can book into our special off-site tour on the morning of Wednesday, 12 May, prior to our official Congress opening that evening.

The tour will be restricted in numbers, so book in fast!

The tour will take in Howe Farming's state-of-the-art, multi-purpose packing and processing facility at Walkamin, followed by The Mt Uncle Distillery where delegates will enjoy a light lunch and gin tasting. The tour will end in Cairns at the FNQ Food Incubator, a business that helps people with an idea for a new food product or business and develop their concepts into reality, including formulating a recipe, manufacturing the product, and designing logos and branding.

GROWER INNOVATION PANEL

Growers trialling innovative farming practices and marketing techniques will take centre stage during an Innovation Discussion Panel in the plenary program on Friday, 14 May.

OUR SHOUT!

Any grower that registers for Congress before May 1 – National Banana Day – will go into the draw to win a $250 bar tab, which will be drawn at the Welcome Drinks on Wednesday, 12 May.

Or, if you'd rather spend the cash on something else, there will be the option of spending your $250 voucher on a range of services at Pullman Cairns International, including food and the hotel day spa.

So, don't miss out! Register for Congress before May for your chance to win!

ONE OF AUSTRALIA'S RUGBY LEAGUE GREATS AND A WORLD-RENOWNED CROC WRANGLER WILL HEADLINE BANANA CONGRESS 2021

Billy Slater and Matt Wright will both make an appearance at the much-anticipated event, with Billy scheduled to appear on Thursday and Matt Wright joining the Banana Ball celebrations.

Billy is a long-time supporter of the industry and has been a proud ambassador for Australian Bananas for more than 15 years.

The Melbourne Storm and Queensland Origin legend, who grew up in Innisfail, retired in 2018 but continues to be a regular fixture in the media. With his wife Nicole, he is also at the helm of Slater Thoroughbreds and the Move with Billy app. Always happy to support growers, he recently shared a video capturing the loss experienced during TC Niran on his personal social media channels, helping to raise awareness and resulting in almost 8000 views.

The Banana Ball and Awards Night is always a highlight of Congress and this year will be no exception, with Australia's Outback Wrangler Matt Wright confirmed as the night's special guest.

The accomplished helicopter pilot and wildlife re-locator has, in recent years, projected his skills to a global audience of more than 85 countries as the star of National Geographic's acclaimed television series Outback Wrangler.

As a child, Matt was raised in Papua New Guinea and the Australian outback. By the time he turned 10, he had a collection of some of Australia's most lethal animals: including three deadly King Brown snakes (that lived in his bedroom) and was frequently in trouble at home and at school for eagerly sharing his 'pets' with his classmates and family.

As an adult, his career path has seen him tackle a range of jobs that require both nerves of steel and a practical 'can do' attitude. Spending time as an outback horse wrangler, oil rig worker, soldier in the Australian Army, crocodile egg collector and, more recently, a professional chopper pilot and instructo

We are very excited to have Matt and Billy join us to celebrate our vibrant industry.

GUEST SPEAKER PROFILES

MATT CHURCH
Focus: Chemistry of success
When: Thursday, 14 May

Kicking off the Congress plenary program with the keynote address will be one of Australia's most notable motivational speakers, Matt Church, founder of Thought Leaders Global. His presentation will explore the chemistry of success, how to create positive change and a healthy balanced life.

Matt Church is a dynamic speaker who was recently named one of the Top Ten Motivational Speakers globally. In the Speaker magazine, Matt was named one of the 21 most influential people in the global speaking industry.

MARY O'BRIEN
Focus: Mental Health
When: Friday, 14 May

Mary O'Brien founded the 'Are you bogged mate?' program in 2018 and travels the country breaking the stigma of mental health and depression, especially among rural men, while also connecting them with vital resources and support.

An article she wrote in 2018 titled 'Are you bogged mate?' gained international attention and highlighted the mental health challenges country men face on a daily basis and the disconnect between the way depression is communicated to men across rural and remote Australia.

ADAM FERRIER
Focus: Consumer insights, marketing trends and brand strategy
When: Thursday, 13 May

Adam Ferrier is one of Australia's leading creative strategists, and a consumer psychologist.

He is the founder of THINKERBELL, an agency that creates 'measured magic' (and Australia's current Adnews 2019 Creative Agency of the Year). Adam is a brand strategist and an authority on Behavioural Economics. He's also the author of "The Advertising Effect" and part of The Australian Creatives' 'Power 20'; A weekly guest on national breakfast tv show Sunrise, as well as regular on the Gruen Transfer, The Project, and ABC.

GUEST SPEAKER PROFILES

SHANE TEMPLETON

Focus: Overcoming disease challenges/biosecurity lessons

When: Thursday, 14 May

Shane is a third-generation farmer who helps run his family's farming business, Templeton Farming Enterprises, based at Eumundi in Queensland with farming operations expanding from Gympie to Maryborough.

Shane has served as a company director for Buderim Ginger Limited and is the President of the Australian Ginger Industry Association (AGIA). In recent years this role has included navigating major production battles like Pythium outbreaks in ginger, which decimated the industry. Shane was also involved with Biosecurity Australia's Import Risk Assessment for fresh ginger imports, leading to significant biosecurity measures implemented industry wide.

TIM HUNT

Focus: Global trends

When: Thursday, 13 May

Tim Hunt is Rabobank's General Manager of the RaboResearch Food & Agribusiness division across Australia and New Zealand.

Rabobank's local research division is comprised of 11 analysts, who are charged with analysing developments in food and agricultural markets and industries and advising the bank and its clients on strategic implications for their businesses.

In addition to managing the RaboResearch team, Tim advises corporate and rural clients across a multitude of sectors on issues ranging from the rise of substitute foods, why supply chain must change and winning consumer trust.

Prior to his current role, Tim was the global strategist and team leader of Rabobank's Dairy research team – based in New York. Tim is a regular and highly sought after speaker at local and international conferences. He is a professional economist with 25 years' experience, gained through working with leading financial institutions and strategic consultancies in Australia, England and the United States.

RIDLEY BELL

Focus: Blueberry success story

When: Friday, 14 May

Ridley is the founder/owner of Mountain Blue Farms Pty Ltd in NSW. He has been actively involved in the blueberry industry in Australia since 1975, when he commenced assessing Northern Highbush seedlings at the Horticultural Research Institute in Knoxfield. He released the variety Brigitta from that program.

In 1981 he moved to Northern NSW to grow low chilling varieties that would ripen in the window between the end of the Northern Hemisphere season and the start of the season in a number of Southern hemisphere countries.

Since that time, he has released a number of new blueberry varieties for warm climate areas around the world, assessing approximately 5000 seedlings from up to 120 crosses each year. To date, Mountain Blue Orchard varieties have been licenced in 23 countries around the world under exclusive contracts, and sought after because of the emphasis on flavour, crunch and yields.

JACK MILBANK

Focus: Ag Tech and cross-industry innovation

When: Friday, 14 May

Jack Milbank and his family own property in Bundaberg and in 2020 established Hartwood Smart Farm as Australia's only pure bred Tuli cattle stud.

In 2013 he founded the microbial biotechnology company – Biofilm Crop Protection Pty Ltd and in 2014 founded the Bargara Brewing Company, producing Craft Beer, Cider & Seltzer.

In 2020 Jack founded Lexi Tech (Singapore) as a Global Ag-Tech Data Management company with AgPro as the Cornerstone SaaS technology platform and data hub underpinning agronomics, product distribution and application. Data partners around the world service 400 crops grown by over 3000 farmers covering over 1 million ha in over 20 countries using AgPro.

He has had an active involvement in finding solutions to improve the efficiency and profitability of producers by facilitating the optimal use of crop production inputs through monitoring, testing, research, training and consulting services that represent worlds' best practices in crop management systems.

GUEST SPEAKER PROFILES

TATE CONNOLLY

Focus: What gets Aussies Peeling Good

When: Thursday, 13 May

Her favourite achievements include taking Australian Bananas into radio advertising and launching National Banana Day.

Tate started as the Hort Innovation Marketing Manager for the Australian Banana Industry in 2018. Prior to this role, she pent ten years in foodservice marketing including Nando's and Wagamama where she held roles in Brand Management, Strategy and Communications. Her favourite achievements include taking Australian Bananas into radio advertising and launching National Banana Day.

Tate's will present at Congress on the achievements of marketing Australia's number one energy snack and taking a look to the future of the marketing program.

TRENT DE PAOLI

Focus: Innovation and value adding after the farm gate.

When: Friday, 14 May

As an experienced entrepreneur for over two decades, at a young age Trent quickly found his passion for solving problems with innovation and creating long standing companies that create a better world for tomorrow.

During the last 24 years, he has taken revolutionary new products to market, built international supply and demand chains, brought new technologies to commercialisation, created unique consumer brands and built world class leadership teams. Trent and his family own several avocado orchards in the Bundaberg region and he is an investor in start-up companies and companies wishing to scale.

TONY CATT – CATAPULT WEALTH

Focus: Succession Planning

When: Friday, 14 May

Tony Catt is the director of Catapult Wealth and has nearly three decades of experience in the finance industry.

After marrying into a farming family over 20 years ago, Tony decided to provide more help to family businesses, including succession planning, retirement planning, education of the next generation and protection of wealth. Tony's presentation at Congress will focus on all of these topics.

ANDREW BATE

Focus: Robotics in agriculture

When: Friday, 14 May

Andrew is the creator and CEO of SwarmFarm Robotics. He is the chief visionary leveraging his experience as a successful grain farmer to lead the 2015 launch of SwarmFarm Robotics. He grew up on a cropping and cattle farm south of Emerald in Queensland and studied Agronomy at university. He spent his earlier life as an agronomist in the grain and cotton industries, before returning to grain and cattle farming, and then co-founding SwarmFarm Robotics. In 2018 he was awarded Agripreneur of the Year at the Australian Future Agro Challenge, and in 2019 he came third overall in the 2019 Global Agripreneur of the Year award.

OTHER POPULAR FUNCTIONS

- **Welcome drinks, Wednesday 12 May.**
- **Trade show evening, with special guest Billy Slater, 13 May.**
- **Banana Ball and Award Ceremony, with special guests Matt Wright & Billy Slater, 14 May.**

PROGRAM AT A GLANCE

Wednesday, May 12

10am-3pm	Optional off-site tour
3pm-6pm	Registrations
5pm-7pm	Welcome reception at Pullman International
7pm onwards	Banana Bar - Pullman International

Thursday, May 13

7.30am-5.30pm	Registration
8.30am-8.45am	Official opening ceremony Paul Inderbitzin
8.45am-10am	Opening keynote address Matt Church
10am-10.30am	Consumer insights, marketing trends and brand strategy Adam Ferrier
10.15am-10.30am	Q&A – Adam Ferrier
10.30am-11am	Morning tea
11am-11.30am	What gets Aussies Peeling Good Tate Connolly, Marketing Manager Hort Innovation
11.30am-12pm	Tim Hunt, Rabobank General Manager, RaboResearch Food & Agribusiness, Australia & New Zealand.
12pm-12.15pm	Q&A – Tate Connolly and Tim Hunt
12pm-1.30pm	Banana Women's Luncheon
12.30pm-1.30pm	Lunch in the exhibition area
1.30pm-2pm	Overcoming disease challenges/ biosecurity lessons Shane Templeton, Templeton Ginger
2pm-3pm	Science Speed Talks
3pm-3.45pm	Afternoon Tea and Science Poster session
3.45pm-5.15	Future of Bananas and R&D Session will cover; Exotic disease threats and diagnostics; Global banana research advances; Developments in varieties with disease resistance; Pre-commercial trials – Grower Panel; Commercialisation of New Varieties
5.15pm-5.30pm	Panel discussion
5.30pm-7.30pm	Tradeshow Exhibition Evening

Friday, May 14

8.30am-9.10am	Value adding and ag technology/ biologics Jack Milbank – Ag Tech and Cross Industry Innovation
	Trent De Paoli – Innovation and value adding after the farm gate
9.10am-9.20am	Q&A
9.20am-9.50am	Blueberry success story Ridley Bell – Mountain Blue Blueberries
9.50am-10am	Q&A
10am-10.30am	Morning Tea
10.30am-11am	Succession Planning Tony Catt – Catapult Wealth
11am-11.30am	Robotics and automation Andrew Bate – Swarm Farms
11.30am-12pm	Grower Innovation Panel – Learn from four banana growers trialling innovative farming practices
12pm-12.30pm	Grower Innovation – Discussion Panel
12.30pm-2.10pm	Lunch and Trade Show – Exhibition area
2.10pm-3.10pm	Mental Health Mary O'Brien
3.10pm-3.20pm	Mary O'Brien Q&A
3.20pm-3.50pm	Final speaker – TBA
3.50-4pm	Closing ceremony
7pm-late	Banana Industry Ball and Awards of Honour Special guest Matt Wright

The Australian Banana Growers' Council would like to thank our major sponsors. Without their support Congress 2021 would not be possible.

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ROOTS OF ISRAEL JOURNEY NOW GROWING IN TULLY

AN industry tour to Israel in 2015 is starting to come full circle for Tully banana grower Steve Lowe, with his family undertaking some of the first commercial plantings in Australia of tissue cultured varieties from the country.

Tully banana grower Steve Lowe with plantings of the Gal banana variety on the family's property. Steve says Gal and other tissue cultured varieties from Israel produce outstanding bunches.

Together with several other growers, Steve was hosted by global fertiliser supplier, Haifa, in Israel, and visited the plant propagation, selection and breeding company, Rahan Meristem, located near Israel's north-west border with Lebanon. The company is the world's leading exporter of tissue cultured banana and plantain.

After an extended period before becoming commercially available in Australia, the Lowes are planting the dwarf variety Adi, as well as Jaffa and Gal, on their 165-hectare property.

Steve, who is Chair of the Australian Banana Growers' Council and continues to be supported on the farm by his 80-year-old father, Barry, said he also viewed some of the varieties in South America prior to Israel and they produced outstanding bunches.

"Haifa instigated the tour and it has led to these varieties coming into Australia," Steve said.

Adi is a second generation after Grand Nain that can withstand storms and strong winds. It is short with strong stems and, importantly, produces big bunches.

Rahan Meristem Scientific Director, Dr Eli Khayat, said Adi was quick-cycling and over a period of three years, growers would get an extra cycle of fruit.

The Lowes turned to controlled release nutrition with plantings on their river loam soils several years ago after traditionally spreading high volumes of granular fertilisers every month, and Steve said they would not be turning back anytime soon.

The six-month controlled release fertiliser, Multicote Banana Plant from Haifa, is used at plantings and Multicote also has been used at other key crop stages. The family also uses Haifa's specialist, fully water-soluble banana fertiliser blend, Banana One-Shot, through a fertigation system set up over one-third of their property, as well as a three-month controlled release urea fertiliser.

Multicote Banana Plant, which contains 11 per cent N, 8.3pc P and 8.3pc K plus micro-elements, uses Haifa's polymer coating technology, allowing nutrients to be released in a gradual manner according to a plants' requirements and soil temperature. The latter is important in ensuring the nutrients being supplied are not lost during periods of high rainfall or over-watering.

Available exclusively through Lindsay Rural, Banana One-Shot is based on Haifa's high quality Poly-Feed fertiliser and comprises pure plant nutrients and generous quantities of essential micro-elements such as magnesium, boron and zinc. It contains 13pc N, just 0.17pc P, a high 24pc K, 8.7pc S and 2.1pc Mg.

Plantings with Multicote Banana Plant now account for close to half of the Lowe's plantation.

"We are applying about one tonne of Multicote to four acres and we are keen to increase the rate," Steve said.

"The big thing with these fertilisers is that we are using all of the nutrients, rather than risking run-off to the reef (Great Barrier Reef).

"We are now trialling the controlled-release urea and will look at how much potassium we are putting on.

"Regulations to protect the reef are now in place and include how much N is being applied to crops. With the controlled-release urea, we will use the full amount."

He said the controlled release fertilisers were particularly beneficial during the wet season.

"If it rains, plants will still be getting the nutrition. With the previous granular fertilisers we used, it would be all gone."

He said using the water-soluble Banana One-Shot at specific stages, like when bunches were forming, allowed them to vary applications with greater control through their fertigation system.

"It's also a cost saving because it is concentrated in the root zone and so you are using less."

Steve said the move to controlled release nutrition at planting and Banana One-Shot also had resulted in better throughput in the packing shed, with better grades and cleaner fruit.

UNDER THE MICROSCOPE: BANANA STREAK DISEASE

A regular feature in Australian Bananas magazine, Under the Microscope profiles the industry's emerging and exotic diseases. Sometimes you just need the facts, fast.

What is banana streak disease?

Banana streak is caused by a group of viruses called badnaviruses.

What are the symptoms?

- Yellow streaks, sometimes broader bands, running parallel to the leaf veins.
- As the leaf ages, the streaks blacken.
- Streaks usually only cover part of the leaf, and not every leaf may show the symptoms.
- Streaking is most severe in summer, and also about the time of bunch initiation.
- Leaves may emerge in a single vertical plane, like a traveller's palm.
- Developing bunch may burst through the pseudostem.

How does it spread?

Banana streak is transmitted by mealybugs, especially the young nymphs, and also through suckers. Sugarcane is an alternative host for the viruses.

Where in the world is it found?

Banana streak is found in every banana-growing country of the world.

What are we doing to protect our industry?

- Testing new cultivars as they enter the country.
- Surveillance, validating and continuing to improve our diagnostics.
- Increasing awareness among industry stakeholders.

What can I do to protect my farm?

- Use only disease-free planting material.
- Inspect plants for symptoms and destroy infected plants as they are found, so that no living tissue remains.
- Banana streak is more likely to be found in cooking bananas and plantains.

Mysore banana infected with banana streak MY virus.

Cavendish banana infected by banana streak CA virus.

New banana hybrid infected with banana streak IM virus.

Photos and text provided by Assoc. Professor Andrew Geering and Professor Andre Drenth, The University of Queensland, as part of Hort Innovation Project BA16005 Strengthening the banana industry diagnostic capacity.

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PANAMA TR4 PROGRAM UPDATE

Investigations commence in Tully Valley for Panama TR4 epidemiological review

A team of scientists have recently arrived in Tully to commence investigations into Queensland's experience of the spread of Panama TR4.

The epidemiological review will attempt to uncover any patterns of disease spread since an initial study was conducted in 2017. It will incorporate findings of the Panama TR4 outcome in the Northern Territory, international experiences, and scientific knowledge about Panama disease tropical race 1 and sub-tropical race 4.

Findings from the review, which are expected to be published in May 2021, will inform decisions regarding the future management of the disease.

TECHNICAL WORKING GROUP CONSIDERS CHANGES TO DESTRUCTION ZONE

A Technical Working Group (Group) was approved at the Board's last meeting (December 2020) to resolve scientific and technical issues of managing Panama TR4.

The Group held its first meeting on Thursday 4 February 2021 to review destruction zone guidelines on an infested property (this is the destruction of an infected plant and all those in its vicinity as prescribed in the Queensland Biosecurity Manual). The Group's review proposed changes which would better meet the practical needs of growers while continuing to control and contain the disease.

The Board's endorsement would see the proposed changes submitted to Biosecurity Queensland for amendments to the Biosecurity Manual. All infested properties will be informed of the outcome in due course.

PROGRAM COLLABORATES WITH CASSOWARY COAST LIBRARIES TO EDUCATE KIDS THROUGH PLAY

Biosecurity is everyone's responsibility, including kids, who recently embraced a playful approach to Panama TR4 education.

Panama TR4 Program's Engagement Officer, Rebecca Breaden collaborated with Cassowary Coast libraries to install displays for the summer school holidays curated with farm toys and dress-ups. The message reached over 7 000 visitors to the Libraries and had about 120 direct engagements.

The displays were so popular that that the libraries invited the Program back to present community information sessions in Innisfail, Tully and Cardwell.

Using toys to teach kids about biosecurity.

Rebecca Breaden with Natasha Lavell and Michaela O'Neil at Cardwell library.

Interpretive display at Innisfail library.

MILITARY INSTRUCTORS AT TULLY'S DEFENCE FORCE JUNGLE TRAINING WING JOIN THE FIGHT AGAINST BANANA DISEASE

Military instructors at the Australian Army Jungle Training Wing in Tully are helping in the fight against Panama TR4.

Instructors invited Program officers to the Training Wing to conduct an education session about the soil-borne fungus, as part of the Australian Army's commitment to biosecurity.

Since Panama TR4 was first detected in the Tully Valley in 2015, the Jungle Training Wing has embedded biosecurity within their operations, including dedicating footwear and clothing to use at the site and regular vehicle decontamination.

PANAMA TR4 TRAINING TO SUPPORT SEASONAL WORKER SUPERVISION

Supervisors of seasonal workers in Far North Queensland are helping to protect against Panama TR4 thanks to a recent training session delivered by the Program.

Department of Agriculture and Fisheries' officers who were monitoring the movement of seasonal workers under COVID restrictions received a refresher course about personnel decontamination to protect banana farms from the spread of the disease.

The training was delivered by Compliance Coordinator, Jess Portch with the assistance of Senior Field Officer, Chris Collier.

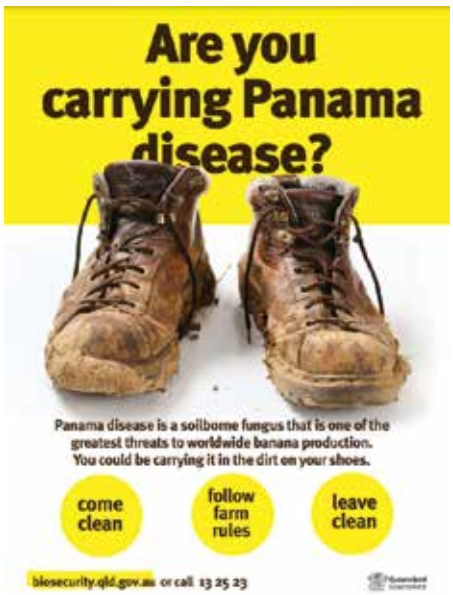
To enquire about training for your business, call Rebecca Breaden on 0476 850 221 or email panamatr4@daf.qld.gov.au.

Jess Portch with Graeme Broughall who attended the training.

FREE POSTERS UP FOR GRABS!

Come clean, follow farm rules, and leave clean are key messages for protecting against Panama TR4.

The Program is pleased to offer free posters which are designed for any community space, office, farm or packing shed, to remind people how easily the disease can be spread. **Simply place an order by sending an email to panamatr4@daf.qld.gov.au.**



THOUSANDS GET IN THE ZONE WITH STAR GROWERS IN NEW VIDEO

A new series of videos is inspiring the community to protect against Panama TR4 and it's all thanks to a league of extraordinary growers.

Blaise and Shayne Cini, Gavin Eilers, Matt Abbott, Steve Wells and Dean Sinton are featured in the series of videos called 'Get in the Zone'. Discussing basic biosecurity advice for industry, workers and the community in general, the growers have been applauded across social media for their compelling appeal.

By February 2021 the message had reached 72 000 people on social media and were collectively viewed over 1 000 times on YouTube. Media coverage from television, newspapers and radio added potential exposure to the vicinity of 114 000* people.

When host Todd Widdicombe arrived in Far North Queensland with a camera crew to film the series he didn't expect to be so affected by the passion of the growers.

"I understood that Panama TR4 was a problem for banana growers but didn't quite grasp the scale of it, that it's actually a problem for entire regional communities who rely on that industry," said Todd, who believes the growers were key to telling this story.

Watch the videos at www.panamatr4protect.com.au or on the ABGC YouTube Channel and give your feedback to Jael Napper at the Panama TR4 Program on 0476 850 037, or email jael.napper@daf.qld.gov.au.

Biosecurity Queensland and ABGC would like to thank participating growers Shayne and Blaise Cini, Matt Abbott, Dean Sinton, Steve Wells and Gavin Eilers as well as consulting grower Gavin Devaney.

** Media coverage data from iSentia reporting*

BUNCHY TOP TEAM BREAKING THROUGH

The National Bunchy Top Project has stepped up its focus on engagement, aiming to provide growers and community with the tools they need to identify and help stop the spread of the devastating disease.

The renewed focus is being led by experienced Bunchy Top inspector, Samantha Stringer.

"Getting the Bunchy Top message out to a wide audience is key to this project's success," Ms Stringer said.

"We want both commercial growers and backyard banana growers to feel confident in knowing there are simple steps they can take if they suspect they've spotted this disease."

Key to this process is educating people on the early signs of Bunchy Top. Any suspicious plants can then be reported to the Bunchy Top Hotline for an inspector to confirm and assist in appropriate destruction .

Earlier this year, Ms Stringer worked with concerned resident Don Knopke to host a community information session on the Sunshine Coast. A Facebook post of Mr Knopke's about Bunchy Top sparked interest from backyard banana growers - and the media - and has resulted in new relationships with the local council and clubs.

"The plan is to start rolling out these workshops on a broader scale," Ms Stringer said.

"Even if people have some knowledge of Bunchy Top, there's always information they hadn't heard or even misinformation about relevant regulations.

"We don't want this disease getting out of the southern containment lines."

While holding that line is important, Ms Stringer will also be travelling further afield in coming months including to Bundaberg and Far North Queensland.

"We need growers in these areas to be aware of Bunchy Top symptoms too, so we can be vigilant about any future outbreaks."

Advanced symptoms of Banana Bunchy Top spotted in a backyard.

If growers or industry stakeholders in NSW or South East Queensland are interested in finding out more about Banana Bunchy Top, or even planning a workshop, they can contact Ms Stringer via the ABGC at info@abgc.org.au.

END OF AN ERA – DARRYL EVANS RETIRES

Over the years, soil conservationist Darryl Evans has helped more than 100 banana growers in Far North Queensland keep many tonnes of soil on their farms.

But after almost four decades working in the tropical north, he's heading to regional South East Queensland to retire and make time for his growing family.

"The most satisfying part has been helping a landholder mark out and establish a soil conservation layout and then being told that after a storm or rainfall event the water running off the paddock was clean," Mr Evans said. "That means the erosion has been controlled."

Since 1983, Mr Evans has worked in the Far North in a range of soil conservation and pest management related roles.

Most recently, he was influential in the Australian Banana Growers' Council's (ABGC) Best Practice Grants process, working as a consultant, and supporting farmers undertaking sediment management projects, to get the best out of their farm whilst contributing to improved water quality flowing to the Reef.

Some of the activities he guided and oversaw as part of the grants program included; farm planning (design, contouring, laser levelling, row direction, slope and drainage), sediment traps, wetlands, row spacing, inter-row profiles, roads and headlands; and farm management (renovations and maintenance, ground cover and traffic management).

Grower Craig Buchanan remembers working as a 15-year-old with Darryl when he was helping his family design their Palmerston farm, advising them on the planning of 1000 acres over the past 30 years.

"I can clearly see the benefits of his work," Mr Buchanan said.

He said over the years, Mr Evans had thought him an invaluable amount about soil conservation and water flows.

"The Industry needs people like Darryl in it. Once he's gone, there's going to be a big hole if he's not replaced," he said.

Mr Evans began his soil conservation career in 1967 as a cadet at the Department of Primary Industries on the Darling Downs. He worked in various locations throughout Queensland and moved to the Cassowary Coast in 1983 where, as a public servant, he assisted both cane and banana growers in improving their on-farm sediment management practices.

"Darryl will be sorely missed in our region," said ABGC's Best Practice Team Coordinator Amelia Foster.

Tools of the trade – Darryl using a Abney Level (Hand Level) to measure slop.

"We have relied heavily on his soil conservation expertise and he has contributed valuable advice to the industry's Best Management Practice Guidelines."

While Mr Evans leaves a 'hole' in ABGC's practical advisory network, other emerging specialists are available to support farmers and apply their knowledge and skills.

These include local Extension Officers with expertise in soil conservation, some who have been strongly mentored by Mr Evans.

Mr Evans provided technical input into the 'Soil Conservation Measures - Design Manual for Queensland', which will continue to be a valuable resource to the banana industry.

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LATEST REPORT CARD RESULTS SHOWS PROGRESS TOWARDS TARGETS

Queensland farmers are making encouraging progress in improving water quality on the Great Barrier Reef according to the recently released Reef Water Quality Report Card 2019, with the Wet Tropics singled out for showing some significant improvements.

The Reef Water Quality Report Card is part of a system of report cards that are tracking progress towards the Reef 2050 Water Quality Improvement Plan. The Reef Report Card includes information on the uptake of agricultural best management practice, catchment indicator load and water quality targets, as well as inshore marine and wetland condition objectives. It evaluates and reports on 'progress' towards targets.

One of the highlights from the report card that assessed water quality conditions in 2019 was the progress being made across the whole Great Barrier Reef in reducing the runoff of dissolved inorganic nitrogen (DIN) with an overall annual reduction of 4.3%.

Broken down by region, the Wet Tropics was one of the highest achievers with a 7.4% DIN reduction. The Wet Tropics is a hotspot for nutrient runoff due to its high rainfall, short sharp rivers and intensive agriculture along the coastal plain.

While DIN reduction was the highlight for the Wet Tropics this year, the grades for 2019 showed there has also been improvement in condition for other water quality targets:

DIN – A
Particulate N – C
Sediment - D
Pesticides – B
Particulate P – C

Australian Banana Growers' Council Industry Strategy Manager Michelle McKinlay said the banana industry scored well in the report card results, scoring a B for the management of nutrients leaving farms and a C rating for both the management of sediment and pesticides.

"This is an outstanding result for nutrient management and banana growers deserve big praise for the efforts they are making to reduce the amount of nutrient leaving their farms."

"The ABGC's Best Practice Team will continue to work with growers to increase their ground cover to improve future report card assessments. Our staff will also start working with growers and agronomists to look at the way pesticides are used in the industry to better understand the C rating for pesticide application."

A report card for 2020 water quality is expected sometime later this year.

For more information on the Reef Water Water Repord Card 2019, go to the interactive website at: reportcard.reefplan.qld.gov.au

NEW STRATEGIC PROJECT

On the back of the success of the Strategic Industry Development Project (BA16008) that concluded last year, the banana industry will fund a follow-up project that will continue to educate stakeholders about the industry.

The project will ensure that the banana industry can influence and shape the government's biosecurity, sustainability and environmental policy development so that it is relevant and makes sense to growers.

The new project will be delivered by the Australian Banana Growers' Council's Industry Strategy Manager Michelle McKinlay. It will run for three years and during this time, Michelle has a number of priorities to deliver on.

These include working with water quality researchers so that their findings and implications can be clearly communicated to growers; assist in the transition of the TR4 Program from government to industry leadership and work with growers and government for a smooth and fair implementation of the environmental regulations that became law at the end of 2020.

"I know that banana growers just want to get on with growing delicious and healthy fruit but there is so much going on that impacts their farming business that they need to be aware of," Michelle said.

"My goal is to keep their knowledge current on the important issues, help them to understand their obligations and save them some time," she said.

MEET MOLLY, ABGC'S GRADUATE EXTENSION OFFICER

The Australian Banana Growers' Council Best Practice Team has welcomed Molly Blake, a Graduate Extension Officer into their team at South Johnstone.

This position has been made available through the Agricultural Extension Work Placement Program managed by the Queensland Farmers' Federation. This program is funded by the Department of Environment and Science to continue building agricultural capacity in accredited extension advisors. This is the first year that ABGC has been involved.

Molly grew up in Brisbane and recently graduated from the University of Queensland with a Bachelor's degree in Environmental Management. While she is new to the area, Molly has previously lived in Cairns where she interned with the Wet Tropics Management Authority, working on several stakeholder engagement projects throughout the region. In addition, she has Horticultural training and has experience with on-farm practices and the agricultural industry.

Anita Davina, from Total Grower Services, is providing technical mentoring support to Molly to increase her knowledge in banana agronomy. Molly is eager to learn about the banana industry and develop vital skills in supporting farmers in achieving best management practice to ensure a viable and successful industry.

MORE GROWERS DOING THEIR 'BEST'

Sukhpal Singh Chahal and Baljit Kaur are proud of the ground cover they have established on their Mena Creek farm. Sukhpal is slashing rather than spraying, to maintain a healthy living grass cover which retains the soil during rain events.

Despite the knocks our industry has faced in recent times, our Australian Banana Growers' Council (ABGC) Best Practice Team have some good news to share, and it relates to an increasing number of growers improving their farm productivity and the health of the Great Barrier Reef.

Almost 530 ha of bananas under production across 23 farms are being managed better via the Best Practice Grants that are being administered by ABGC.

Best practice relates to the way growers choose to manage their farms to reduce nitrogen and phosphorus (fertiliser) inputs and improve soil retention, among other things. Both nutrient and sediment loads have been proven to be a threat to the health of the reef.

Local grower Sukhpal Chahal sees best practice as a good thing for his farm. He said, "I would prefer that the soil and nutrients stay on the farm so we can grow healthy bananas and look after our soil for the long-term."

One of the ways he is doing this is by maintaining healthy ground cover on his inter-rows to hold the soil in place during rain events.

Other ways in which banana growers like Sukhpal are reducing nitrogen and phosphorus inputs include upgrading from the broadcast of granular fertilisers to fertigation which is where smaller controlled amounts of liquid fertiliser is distributed to plants directly at regular intervals via the farm's irrigation system. This means the plants get more benefit, less nutrients are lost during rainfall events, and less fertiliser is used which also saves money.

Farm layout planning, increased ground cover, and sediment traps are some of the ways in which growers are retaining soil on their farms.

Gavin Devaney has set up a new farm block using advice from a soil conservation service. He has been able to plan the layout of the farm from the beginning which has meant the direction of his rows, the spacing of his trees, the location and design of drainage, and the establishment of grass on the headlands and inter-rows have contributed to a healthy and productive farm.

Gavin said, "The water moving through the farm has been slowed and directed carefully to minimise soil loss. The grassed inter-rows eliminate the need for chemical sprays to manage weeds, and the grass holds the soil in place."

Soil and nutrient retention is critical to the success of any farming operation. The ABGC's Best Practice Coordinator Amelia Foster said, "It is really great to see more growers building an understanding and appreciation of this, whether they are small or large producers."

ABGC has been distributing grants of up to $30,000 to help growers with the cost of improving their farm management practices. As part of the grant application process, growers complete a Best Management Practice self-assessment which helps them identify and prioritise areas in which they can choose to improve.

Both Gavin and Sukhpal agree that doing the self-assessment is worthwhile, particularly because it directly contributes to the farm management plan component of their Freshcare accreditation.

More grants up for grabs

An additional 20 growers have submitted applications for the next round of grants to implement a range of projects including the improvement of roads and headlands, drainage, farm layout, fertigation and fertiliser spreaders, innovative slashers, and waterway rehabilitation.

Best practice is fundamental to the industry's long-term prosperity, and helps growers achieve the production of better fruit, long-term financial benefits, and a healthier environment.

For more information or to find out about best practice on banana farms, visit abgc.org.au or call the ABGC's Best Practice Team on 0447 000 203.

CATCH THE TEAM AT CONGRESS!

The ABGC Best Practice Team, along with staff from the Wet Tropics Major Integrated Project, will have a stand at Congress for growers to come and chat about best practices on banana farms.

Topics will include farm and paddock design, groundcover and nutrient management planning.

We can help you understand the new Queensland government Reef regulations and also give you information on Freshcare Environmental accreditation.

We will have the ability to make farms maps of individual farms on the spot and email them to growers – so if you need a farm map come and see us.

CYCLONE YASI: 10 YEARS ON

If Australia is a land of drought and flooding rain, it's farmers who stand on the frontline.

In the last 18 months alone, banana growers across the country have battled bushfires, floods and cyclonic winds. Then there's the drenching rain and scorching heat that is part of day-to-day life.

The industry is resilient, no stranger to extremes, but the weather can take its toll. This issue of Australian Bananas magazine, as much as any other, highlights just how quickly years of hard work can be taken away as if on a whim.

It was certainly the case a decade ago. At this time, growers in Far North Queensland were still picking up the pieces after Tropical Cyclone Yasi.

The category 5 system made landfall in the early hours of February 3, 2011, destroying homes, property and crops.

95 per cent of banana production was affected in the Tully and Innisfail region, approximately 10 per cent in the Atherton Tablelands and all of the production in the Kennedy area south of Cardwell.

"I remember visiting the farm the next morning to find there were three banana trees left standing in a field completely flattened," Stephen Lowe, ABGC chair, told the North Queensland Register.

"It's a bit despairing, but I guess it comes with farming and that you're going to have some form of crop disaster at some stage, normally weather driven."

Arriving just five years after Cyclone Larry left its mark, Yasi took a huge social, financial and emotional toll on the region. It changed the industry, not only through the sheer effort it took to rebuild, but also through the diversification of farms over a wider geographical area.

"Bananas will continue to be Australia's number one fruit. We ask our consumers to please understand that the interruption of supply is caused by something completely outside growers' control." – Cameron Mackay, speaking in his role as ABGC Chair in 2011

"Today I've had the opportunity to talk to residents in Tully Heads to see some of the damage in Tully and then to be here talking to local banana growers about what it's going to take to recover from this devastating cyclone." – Julia Gillard, then Prime Minister, in Tully to announce a recovery assistance package on February 17, 2011

QBAN BEGINS NEXT CHAPTER

Greenlife Industry Australia and Australian Banana Growers' Council

It's been a decade in the making. But now, the Quality Approved Banana Nursery (QBAN) scheme has begun its new life under the management of Greenlife Industry Australia and the Australian Banana Growers' Council (ABGC).

QBAN, previously run by the Queensland Government, sends a clear message to all involved in the banana industry: certified businesses have got your back. They can, and should, be relied upon as sources of high quality, clean planting material.

This quality assurance is essential to supporting the Australian banana industry, with its unique range of pests and diseases. It provides certainty that plants meet strict biosecurity and high health standards.

Accreditation for QBAN cannot be attained until a producer first achieves NIASA Banana Nursery Stock Specification.

This process was recently completed by New South Wales tissue culture supplier, Lowes TC, founded by Greg and Margaret Lowe over 25 years ago. The business produces around 100,000 plants per week.

As a supplier of high-quality clonal stock, NIASA accreditation has kept Lowes TC on top of its game according to general manager Natasha Marocik.

"We've always been devoted to following best management practices, having implemented strict plant health procedures long before achieving NIASA accreditation in October 2020," she told Greenlife Industry Australia.

"Whether it be the strict disinfestation protocols for planting equipment, work areas and growing areas, or the identification of pests and pathogens, Lowes TC has always been a leader in implementing biosecurity practices. In fact, achieving certification was an incredibly simple process given we were already adhering to best management practices, with only some fine-tuning required.

"Ultimately, having an industry backed accreditation means that we have peace of mind that our best management practices are based on decades of mutual experiences and scientifically-driven outcomes."

High health plants, like those produced by Lowes TC and other NIASA and QBAN certified businesses, not only tick the biosecurity box. They are also clean, uniform and true-to-type plants that improve the bottom line for growers by reducing input costs, plant losses and labour costs.

Participation in QBAN is voluntary and any banana propagation business who can meet the QBAN requirements may apply for accreditation under the scheme. This includes businesses involved with one or more of the activities associated with banana nursery stock production those being:

a) sourcing or collection of propagative material for tissue culture initiation;

b) tissue culture propagation;

c) grow-out nurseries.

The scheme will be reviewed annually.

Natasha Marocik of Lowes TC said certification was a simple process as they were already adhering to Best Management Practice.

Want to know more about QBAN?

- Read the full Lowes TC case study at: https://www.greenlifeindustry.com.au/communications-centre/case-study-lowes-tc-leaps-into-qban-accreditiation (published February 2021)
- Visit www.abgc.org.au/qban for details on the scheme, accredited businesses and how to apply
- For information on the NIASA BMP guidelines, visit www.nurseryproductionfms.com.au
- Keep an eye on future editions of Australian Bananas magazine for profiles on other QBAN businesses

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
Tablelands 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

Hort Innovation Strategic levy investment | NURSERY FUND

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

PEEL SPLITS REDUCING SALES? BANANA PEELS THAT ARE SPLIT MEAN GROWERS HAVE LESS QUALITY FRUIT TO SELL!

The cause of peel splits

Splitting of banana peels is associated with low levels of plant tissue calcium. Calcium is an important part of the cell wall structure and acts as a glue that binds the cell walls together. Without adequate levels, the stability and integrity of plant cell walls is reduced and fruit is more prone to peel splitting, fruit curling, internal bruising and fruit breakdown.

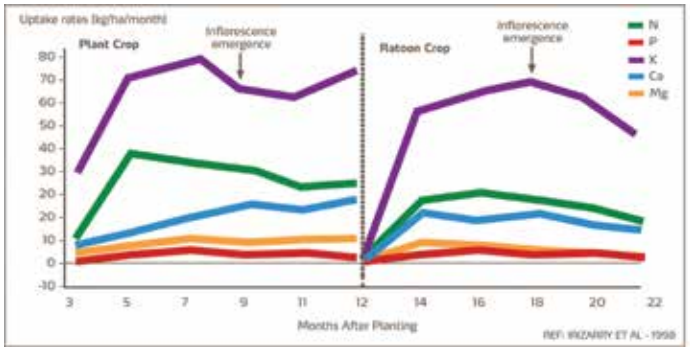
Adequate plant calcium uptake can be restricted during cold winters, rapid plant growth and competition from high rates of applied potassium.

The solution

Bananas need to take-up calcium throughout the whole crop growth cycle. Some stages are more critical than others. Most uptake occurs before flowering and it is important that soluble calcium is supplied early in the growth cycle of both plant and ratoon crops to satisfy plant and fruit needs (See figure 1).

Fertiliser programs that supply 100% water soluble calcium are most effective at providing plant available calcium. Plant uptake is maximised when applications are timed to coincide with new root growth. YaraLiva® NITRABOR®, YaraLiva® TROPICOTE® and YaraTera® CALCINIT® all contain 100% water soluble calcium. YaraLiva NITRABOR also contains boron, which plays an important role in maintaining good cell wall elasticity.

Figure 1: Major Nutrient Uptake - Plant and Ratoon Crops



	Total Nitrogen (N)	Nitrate Nitrogen (NO_3)	Ammonium Nitrogen (NH_4)	Calcium (Ca)	Boron (B)
YaraLiva NITRABOR	15.4	14.1	1.3	18.3	0.3
YaraLiva TROPICOTE	15.4	14.4	1.1	18.8	-
YaraTera CALCINIT	15.5	14.4	1.1	19.0	

Table 1: Yield component results for crop fertiliser program that YaraLiva NITRABOR has replaced nitrogen supplied by ammonium sulphate.

	Average fruit weight/bunch [kg/bunch]	Number of bunches [bunches/ treatment]	Total fruit yield [MT/treatment]	Total fruit yield [relative]
Standard program + Ammonium Sulphate	15.39	1935	29.61	100%
Standard program + YaraLivaTM Nitrabor	15.96	2209	35.25	119%

REF: C.B.I Banadex + Yara Colombia - 2001

The value of adding YaraLiva NITRABOR by replacing ammonium sulphate is highlighted in Table 1.
There are 4 key benefits from this change:

- Nitrate nitrogen is readily available for plant uptake. When application rates are matched and timed to plant requirements, nitrogen use efficiency will be optimised and loss minimized. Nitrate nitrogen is not subject to volatilisation losses.
- 100% water soluble calcium has been added, supporting stronger plant cell walls, better fruit quality.
- YaraLiva and YaraTera calcium nitrate fertilisers do not cause soil acidification.
- Additional boron can be important as this nutrient is highly mobile and regular applications "a little often" is a good strategy.

For more information, please contact your local Yara sales agronomist or visit us at the upcoming Banana Industry Congress in Cairns (12-14 May 2021).

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PEEL GOOD FEEL GOOD MARKETING UPDATE

Welcome to the Australian Bananas Marketing update. This activity is managed by Hort Innovation on behalf of the industry and is funded by the banana marketing levy.

By Tate Connolly, Hort Innovation Marketing

Overview

As Australian Bananas approach the end of delivery for the three year marketing strategy, in which we launched our 'Peel Good, Feel Good' industry campaign, there is opportunity to both reflect on what has been achieved and focus on the future.

Despite the bumpy ride experienced by everyone this year, Australian Bananas has continued to build momentum in consumer communications. Ad recall, a measure used in marketing to see if a campaign is effective in reaching and sticking in consumers' minds, has increased over the duration of the three-year campaign from 40% to 53%. This signals that our 'Peel Good, Feel Good' messaging is landing with consumers. More importantly, 67% of consumers state that are likely to take action as a result of seeing the advertising, most commonly stating 'eating bananas more often'.

With over 92% of households now consuming bananas regularly, they are still Australia's favourite snack. Aussies are also eating more bananas than in than they have in the last three years with volume up 8.6%, the highest since 2017. This is on contrast to the category trend which has softened over the year (-3.3% vs last year). Bananas continue to be the fastest growing volume fruit over the last 12 months.

However, with increasing volumes we have seen the average price of Bananas fall over the last year. Nielsen reports a 7.2% decrease in average price per kilo. This has had a flat effect on dollar sales despite the strong growth in volume and leading to a -0.9% decrease in dollar share of total fruit.

Current Activity

Our long-term strategy and key focus for the campaign investment remains to increase banana consumption in our two key audiences: Australian Families (with kids under 12) and Young Transitionals (Adults under 35 years old) in the mid-morning snack occasion.

The current burst of the Peel Good Feel Good advertising campaign commenced in January and is live until June across multiple channels.

Australian Bananas: FY21 H2 Block Plan

	Jan	Feb	Mar	Apr	May	Jun
SOCIAL						
TV						
OOH						
AUDIO						
DISPLAY						
VIDEO						
INFLUENCEER						
TOTAL						

The activity launched in line with back to school with investments in TV, Radio and Out of Home panels including retail. These have carried through over a number of weeks per the plan above.

Since COVID-19 lock downs, media have seen an increased uptake of digital video on demand (think smart tv apps and time shift viewing) hence this burst of advertising included a heavier investment into playing out our hero TV creative across these platforms ensuring at Aussies see our messages at scale.

Furthermore, our Always On Social Media continues to engage our audiences with fun and topical content, with strong engagement rates on Facebook and Instagram as well as a new launched brand TikTok channel.

Whilst the paid advertising draws to a close in April, campaign momentum continues through the promotion of National Banana Day on May 1st and across our always on channels or social media and PR.

Looking through the lens of long-term behaviour we can see that both audiences increased their consumption over the latest 52 weeks. Young Families increased their consumption by +7.5% across the year, and Young Transitionals increased their consumption by +8.2%. However, the percentage of buying households shows some difference in behaviour. 98.1% Young Families (+1.2%) are now purchasing bananas, demonstrating that the behaviour this audience is trending positive but a very slight decline in Young Transitionals (-0.7%) bring the number of buying households to 79.4%. This will continue to be monitored throughout the campaign.

SIP Renewal and New Three-Year Marketing Strategy

At time of writing, Hort Innovation is currently engaging with growers and industry stakeholders to develop a refreshed SIP for each levy-paying industry within the horticulture sector. Following this engagement period, the draft SIPs will be made available on this website page for broad industry feedback and validation.

Each refreshed industry-specific SIP will lay the foundation for decision making in levy investments, representing a balanced view of stakeholders from within the industry, helping Hort Innovation prioritise and implement relevant R&D, marketing and export needs over the next five years.

For consumers the world has changed radically in the last three years so to identify how this has and will continue to impact buying behaviour, alongside the SIP consultations, the industry have also investment into independent consumer research. This will ultimately identify the key opportunities for industry growth over the medium and long term.

The finalised SIPs will be available on the Hort Innovation website from July 2021 so please visit the www.horticulture.com.au for the latest information.

GET MOVING ON NATIONAL BANANA DAY

National Banana Day is right around the corner on Saturday May 1st!

National Banana Day, is our time to celebration of all things bananas, where we rally all Aussies behind our favourite snack by igniting a national conversation around bananas. It's also a dedicated day for the industry to support and get excited about. This year we will look to build upon the success of last years' viral bake-off challenge, by getting everyone out of the kitchen and refocussing on our messaging heartland of exercise and nutrition.

In what will be our third year, we are seeking to remind Aussies of the importance of eating to fuel your day, and showcase the benefits and versatility of bananas by encouraging Australians to ***Get Moving***. We will encourage people across Australia to get active in their own way. Whether this be getting outside to go for a walk or getting functional in your living room, there's something for everyone. The activity lets people have fun with their exercise, strengthens bananas link to health & wellbeing and provides direct reasons to encourage and remind people to eat bananas for positive health benefits.

The campaign will be supported through ***Social Media, PR and our team of ambassadors*** - encouraging Aussies to 'Peel Good. Feel Good'. To do this, Australian Bananas will feature inspiring content from our team of ambassadors, secure coverage with top tier media titles, engage retail partners and of course champion the people who fuel the industry – you!

This year comes with support from many retailers who have planned a range of activity from POS to charitable donations and even display competitions. It's shaping up to be a celebration the whole industry get behind.

To align with this years 'Get Moving' theme, you can easily get involved and featured by showing us how bananas get you moving. This could be showcasing fun activities on the farm, or that banana smoothie recipe that gets you out of bed. Whatever it is, if it gets you moving, we're into it. Some idea from us:

- Donate some bananas to a local kids sports team
- Host a banana powered work out for your team
- Run a smoothie breakfast for a local business

To be part of the action simply tag #NBD2021 on social media or send pictures and videos to tate.connolly@horticulture.com.au.

If you're not the sharing type, and just in it for the action, then stay tuned as Billy Slater will have you moving with a bespoke workout for the day. Keep watching Australian Banana Facebook for updates.

Now, lets get moving!

SIMPLIFYING SOIL ANALYSES

Digging further into soil and plant nutrition (from left): Dr John Armour, Peter Molenaar, Matt Thomson, NSW DPI's Tom Flanagan, Dan Molenaar and Zac McKeever.

Soil analyses are an essential tool in ensuring a farm is operating at its best, enabling growers to track their nutrition and pinpoint any issues before productivity is affected.

They can also be downright confusing and, in some cases, provide information that is surplus to needs.

Growers in New South Wales recently had the chance to tap into 40-years of experience in soil fertility and plant nutrition for a range of tropical and subtropical crops.

Dr John Armour, Principal Scientist with Rob Lait and Associates, is well known to the banana industry. Based in Far North Queensland, he is the scientist behind the industry's Nutrient Management Plan and has provided a wide range of advice over the years.

Dr Armour presented at two workshops, in the Northern Rivers and Coffs Harbour, organised by NSW Department of Primary Industries Development Officer, Tom Flanagan.

Mr Flanagan and Dr Armour delivered a two-page guide for optimum soil and plant concentrations for bananas, and designed the workshop to help growers better understand soil fertility.

There are 25 plus analyses on a typical soil report, so perhaps it's not surprising that one of the most common questions at the workshops was simply: which are actually important?

"There are five key soil tests to monitor," explained Dr Armour. "pH, phosphorous, potassium, calcium and magnesium.

Growers were given a range of sample reports, and many had the chance to discuss their own.

"Some recommendations for optimum concentrations of potassium and calcium in particular have ignored the CEC – or cation exchange capacity – of the soil. A 3.8 litre bucket cannot hold 10 litres of water!"

Both Dr Armour and Mr Flanagan recommend growers use an accredited laboratory for their analyses and question any fertiliser recommendations.

"Some local paddocks had extremely high phosphorus concentrations, so that crops could

Dr John Armour has a long term interest in the best use of fertilisers by growers and minimal loss to the environment.

be successfully grown for more than 5 years with nil fertiliser phosphorus," Dr Armour said. "The workshop covered the key soil tests (as above) and the important plant tests – nitrogen, phosphorus and potassium."

Growers who couldn't make it to the workshops can still access a copy of the new guide for optimum soil and plant concentrations.

Email Tom Flanagan for more information: tom.flanagan@nsw.dpi.gov.au.

The workshop was presented as part of the National Banana Development and Extension Program (BA19004).

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

TULLY SUSTAINABLE FARMING DAY

Banana and cane growers had the chance to talk all things sustainable farming at the Tully Sustainable Farming Day on March 17.

Twenty-five exhibitors took part in the free event, including industry extension, agribusiness, and farmer-led community groups. If you were there, you would have spotted the Australian Banana Growers' Council Reef Team among the range of participants.

Organiser Maria Ribbeck said the event was a great opportunity to celebrate the achievements of the Wet Tropics Major Integrated Project and the Cane to Creek Project.

"The success of these projects would not be possible without the co-operation and commitment from growers," she said.

The day finished up with a 'Where's my N?' workshop.

The event was organised by the Wet Tropics MIP, Sugar Research Australia, Tully Sugar Ltd and the Australian Banana Growers' Council.

The crowd at the Tully Sustainable Farming Day.

Will Darveniza, Wet Tropics MIP extension officer, with Kathryn Dryden, ABGC Reef extension officer.

The ABGC's exhibit showcasing the fantastic work undertaken by banana growers.

A tiny display with a big biosecurity impact.

Rebecca Breadon (Biosecurity Qld), Kath Dryden (Australian Banana Growers' Council) and Deng Keomoungkhoune.

A fitting welcome to the event at Tully Showgrounds.

SOIL CONSERVATION WORKSHOP

Far North Queensland Soil Conservationist, Darryl Evans has wrapped up his work with ABGC to retire to southern Queensland - but he didn't leave without sharing his knowledge!

ABGC's Best Practice Team hosted a soil conservation workshop for earthmoving operators in the region, to build awareness of the importance of managing and implementing earthworks on a banana farm to reduce soil loss.

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