Australian

Issue: 60 | DECEMBER 2020

RISING FROM THE ASHES

ONE YEAR ON IN FIRE RECOVERY

ADDRESSING WORKER SHORTAGES PAGE 4 GROWING FOR A GREATER GOOD PAGES 16-17 CONGRESS CROC-FEST! PAGE 28-29



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Front page: Clinton Welsh, who lost bananas, infrastructure, irrigation and equipment in the 2019 bushfires, pictured on his property 12 months on. Image: Lee Gentle Photography







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COMMENT

CEO COLUMN



Worker shortages

The current lack of farm workers for the banana industry involves a complex set of issues, with competing agendas

and where the situation changes often.

ABGC's current number one priority has been and remains to address the processes so that there are reliable pathways for Members to obtain access to staff.

ABGC has advised Federal and State officials that banana growers would prefer Australians to take up job vacancies and have been actively seeking more of them. In addition, ABGC promoted to growers the Harvest Trail avenue, and more recently we developed and implemented a Banana Jobs Noticeboard, so Australians can more easily contact growers, who are desperate for workers.

COVID has caused interstate and international borders to close, resulting in a scarcity of workers. E.g. From January to now the number of Working Holiday Makers in Australia went from 140,000 to 60,000.

ABGC was supportive of governments' restarting the Seasonal Worker Program (SWP). But at the time of writing (20 November), only one flight had arrived, which provided 152 workers to Queensland horticulture*. This compares to current demand of 7000 workers.

Jim Pekin, CEO

The Industry immediately needs a reliable pathway to SWP workers. We desperately need more flights. ABGC has called for Australian Government leadership of the SWP so that there are many more flights, e.g. via a travel bubble between COVID-free Pacific Island nations.

There is also a compassionate perspective required by government. Growers advise that repatriation of islanders who want to return should be enabled and the best way to do that is for inbound flights with new workers to happen and to use the return journey for repatriation.

We have pointed out that this is also in the best interests of our foreign policy. Most of the income of these nations, now comes from what some of their citizens earn on Australian farms under the SWP.

ABGC has asked the Queensland Government to allow the on (or near) farm quarantining of SWP workers in accommodation with groups of less than 30. This is because there are very few such sites that meet this new criteria.

We also asked that Government adopt the Tasmanian Government model where more flights are enabled because it doesn't count SWP workers in its cap on the number of international arrivals allowed to enter that State.

The situation with the SWP was likely to change again by the time this magazine was published. The situation with COVID outbreaks will as well, as we have seen with Adelaide's last week.

One thing unlikely to change is the Health



ABGC CEO Jim Pekin and ABGC Executive Officer Leanne Erakovic on one of many regular teleconferences discussing harvest workforce needs.

Authorities' appetite for risk. They do not have confidence that the COVID testing capacity of Pacific Island nations is as robust as Australia's. They also know that many other nations are in big trouble from COVID. On 15 November, there was 53.3 million infections and 1.31 million deaths recorded elsewhere in the world. Also, both figures were escalating at an increasing rate.

The worker situation is a structural one in that we need to also find solutions for the long term. ABGC recognised and wrote to the Government requesting assistance to attract and maintain workers including subsidised accommodation and transport, a marketing campaign and the construction of permanent worker accommodation.

For right now, it is suggested growers:

- utilize the ABGC's Banana Jobs Noticeboard
- talk to your SWP Approved Employer and
- read ABGC e-bulletins for updates.

Members could also contact Leanne Erakovic or I at ABGC: Phone 07 3278 4786.

.

* The Queensland Government, pre-caretaker mode authorised 4 SWP flights in the trial restart.

FAST FACTS ON SEASONAL WORKER FLIGHTS INTO QUEENSLAND SINCE COVID IMPACT

1st flight arrived from Tonga on 29 October to Brisbane for grapes. On farm quarantine.

2nd flight scheduled from Tonga 24 Nov to Brisbane for grapes and citrus. On farm quarantine.

3rd flight from Solomon Islands 25 Nov to Brisbane for meat industry. Brisbane hotel quarantine.

4th flight from Vanuatu to Cairns, for Approved Employers servicing the banana industry, was scheduled for 26 November, now 8 January. Vanuatu must record 28 days of no COVID cases before that flight can leave Vanuatu. On/near farm guarantine. COMMENT

CHAIR COLUMN



Year in Review

2020 certainly has brought its challenges, not only for growers trying to run their businesses, but for life in general.

The pandemic, changing consumer trends, worker shortages, severe weather events and poor prices have brought a roller coaster of ups and downs for banana farmers Australia-wide.

This time last year, our thoughts were with a number of our northern New South Wales and southern Queensland growers who had been devastated by severe bushfires.

It's been a hard and long road to recovery for these growers, but it's heartening to know that they are finally on the road to getting back into production. (See pages 12-14 for an update on these growers as we mark one year on). It's also good to see growers in Carnarvon are also bouncing back, after suffering widespread damage from ex-tropical cyclone Mangga back in May. (Read more about their recovery update on Page 11).

Like in most times of adversity, growers nationally

Stephen Lowe, ABGC Chair

have dealt with the challenges of the COVID pandemic with resilience and fortitude.

The pandemic has added another level of complexity to the daily running of our businesses, including the implementation of COVID Health Plans, accessing and retaining workforces, and supply chain challenges. All this, while constantly worrying about the health and welfare of our loved ones, as the global health crisis unfolded.

Currently, worker shortages are one of our greatest challenges. As our CEO Jim Pekin explains more broadly in his column, the Seasonal Worker Program (SWP) issue is complex, but it's one of the main priorities of the ABGC - to ensure growers have access to staff.

While restarting the SWP to allow immediate access to these workers is now critical, the ABGC has also established a Banana Jobs Noticeboard on its website to help attract local staff and has been promoting this extensively across social media channels.

On a somewhat brighter note, the past year has seen major inroads being made in the search for new varieties resistant to diseases such as Panama TR4, as part of the national plant protection project 'Improved Plant Protection for the Australian Banana Industry (BA16001)'. Now more than halfway completed, the 5-year project accessed five Cavendish selections and one Dwarf Ducasse selection from Taiwan earlier this year, all with reported resistance to TR4.

Growers were given an update on the program and progress with a total of 35 new varieties the project has accessed since 2017 at the DAF 'mini' Roadshow series held nationally last month.

TR4 surveillance changes

By now, growers in north Queensland would have received notification in the mail of new surveillance changes under the Panama TR4 Program.

The changes were approved by the Panama TR4 Program Management Board in August, after they were recommended by a working group made up of growers, the ABGC, Biosecurity Queensland and Agri-Science Queensland.

Essentially, the biggest change is that all commercial banana farms from Lakeland to Cardwell will receive surveillance over 12 months. This is to give industry greater peace of mind that TR4 has been contained to the Tully Valley.

For more information on the changes see Page 31.

Merry Christmas and a Happy New Year

Finally, I'd like to wish everyone a Merry Christmas and a happy, prosperous and healthy New Year.



Stephen Lowe addressed a meeting of growers and other industry stakeholders in Innisfail on October 19. The meeting was also attended by members of the Panama TR4 Program Management Board to discuss the future of the Panama TR4 Program. Also pictured, Management Board Chair and DAF Director-General and Chief Biosecurity Officer Malcolm Letts.

WORKFORCE SHORTAGES

Banana

As outlined more comprehensively in Jim Pekin's CEO column (Page 4), worker shortages on banana farms continues to be an issue of critical concern.

It is one of the ABGC's highest priorities (to help ensure growers have access to staff), but the complexities of the matter - particularly the Seasonal Worker Program (SWP) - coupled with government decisions and circumstances that change frequently, makes it an extremely difficult issue to navigate.

ABGC's CEO Jim Pekin and Executive Officer Leanne Erakovic continue to have a range of discussions on harvest workforce needs for the banana industry, with growers, Approved Employers and Government representatives.

Through these discussions and negotiations it is hoped to continue developing solutions to our workforce issues, both immediately and in the long term.

While access to workers through the SWP is the major focus and would enable immediate access to these workers, the ABGC recently established a dedicated Jobs Vacancies page for Banana Farms on the ABGC website to assist growers to attract local workers. Farm owners/operators can advertise Positions Vacant on their farms via https://abgc.org. au/bananajobs/.

The ABGC has been extensively promoting the page, particularly targeting school leavers and university students, largely through social media.



HOME COVID-19 ABOUT US NEWS OUR INDUSTRY MORE

Job Vacancies on Banana Farms

To post your job, please email info@abgc.org.au with subject line "Job Vacancies submission"

To assist growers to access local workers, ABGC established a dedicated Jobs Vacancies page for Banana Farms for farm owners/operators to advertise for workers. The page can be found at https://abgc.org.au/bananajobs/



Riley Messina and Jade Brownrigg show how banana work is done in an ABGC Facebook video taken at Sellars Banana farm, Mission Beach.



North Queensland directors attending the Lakeland Board meeting in September spent some time touring the area discussing the all important need for irrigation for local crops, with existing dams at good supply levels and others under construction. Pictured (L-R) ABGC deputy chair Leon Collins, Paul Inderbitzin, Andrew Serra and ABGC chair Stephen Lowe.



Peter Inderbitzin (Jnr) of Red Valley Farms Lakeland featured in one of several social media videos produced by ABGC with growers explaining the critical need for seasonal workers amid severe SWP shortages.

LEVEL UP WITH YOUR LEVY

Hort Innovation recently released the Banana Annual Report for 2019/20, detailing exactly how your levy was spent throughout the financial year.

Though 2020 has proven to be an unpredictable year, \$3.67million was invested in R&D (including 10 new projects) and some \$3.17m in marketing.

You can find the full report, as well as Hort Innovation's full company annual report, at www.horticulture.com.au/annual-reportportal.

ROADSHOW'S NEW MINI FORMAT A HIT WITH GROWERS

The latest banana roadshow series that ran throughout November has wrapped up for Queensland and New South Wales growers, with events held in Innisfail, Tully, Mareeba, Murwillumbah and Coffs Harbour.

This series focused on providing updates of industry's banana variety research and development activities, including the latest results from the Panama TR4 screening trial in the Northern Territory, South Johnstone's agronomic varietal evaluations and industry's pre-commercialisation trials.

In addition, growers were also given an overview of the activities included in the new National Banana Development and Extension Project as well as participating in a discussion on Rust Thrips management, which is frequently being reported by growers as an issue affecting fruit quality.

Taking the lead on running the events this year was the Department of Agriculture and Fisheries' Stewart Lindsay.

"It was great to have attendance at the events

during a difficult year," Mr Lindsay said.

"The roadshows offer a mutual benefit for growers, researchers and other industry stakeholders getting together in the same room, talking about the latest R&D and banana farming in general.

"These one-on-one and group discussions facilitated as part of the event are highly valued by all parties. It's certainly not just about information delivery, it's about collaborating together as an industry".

Like many activities and events, COVID-19 forced a rethink on how the series would be delivered this year. As a result, the extension team ran 'mini' roadshows with less people and a shorter format running over an afternoon, instead of the full day events that previously ran every two years. Many growers that attended said that they preferred the shorter format. DAF's extension team is now looking at holding more mini roadshows more frequently, themed on different research topics as new research and development emerges.

Interstate travel restrictions also meant that some researchers couldn't make it to all the events. so some presentations were pre-recorded, and researchers joined group discussions live online via the internet.

The extension team would like to thank all growers and industry stakeholders who attended, as well as banana researchers Sharl Mintoff (NT DPIR), Jeff Daniells, Katie Ferro and Richard Piper (DAF) for their contribution and Leanne Davis (NSW DPI) for her support with the NSW events. The team would also like to thank ABGC's communication team for promoting the events.



Robert Mayers (DAF) and Jeff Daniells (DAF) at the Tully Roadshow









A great turn out at the Innisfail Roadshow



William Darveniza, Dave Doolan and Richard Piper – Innisfail Roadshow

Future mini roadshow events are planned for 2021, so keep an eye out via ABGC communications.

The National Banana Roadshow series is delivered as part of the National Banana and Development Extension Program (BA19004) funded by Hort Innovation, using the banana research and development levy, coinvestment from the Department of Agriculture and Fisheries and New South Wales Department of Primary Industries and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian Horticulture.

The project works in close collaboration and is supported by the Australian Banana Growers' Association (ABGC).

FLYING AHEAD WITH FRUIT FLY MANAGEMENT

A blueprint for a more coordinated and sustainable fruit fly management system has been released in the 2020-25 National Fruit Fly Strategy.

The strategy details a way forward to manage Australia's existing pest fruit fly species, Queensland fruit fly and Mediterranean fruit fly, and prevent new, exotic species from establishing.

The National Fruit Fly Council (NFFC) will oversee the implementation of the strategy and develop annual plans to identify and monitor key activities.

Council Chair, Dr Lloyd Klumpp, said effective management of fruit flies relies on cooperation

at all levels of government, and between industry bodies, research institutions, regional groups, growers and community and home gardeners.

"To this end, I encourage you to consider using this strategic framework when planning and executing fruit fly management."

The strategy can be downloaded from www.prevent fruit fly.com.au/nffs



BGAS ELECT EXECUTIVES

NSW

Grower Jeff Eggins has stepped into the role of president at the Coffs Harbour BGA, taking over from Wally Gately who had served his full term.

Mr Gately will continue in the executive as First Vice President.

Second Vice President is Ron Gray, Phil Bicknell will continue as Secretary, Michelle Williams as Public Officer and Mr Eggins will also serve as Treasurer.

The Nambucca BGA executive of Vicki McCudden, Tony Styles and Joyce Ward will take on another term, as will the Murwillumbah BGA executive of Colin Singh, Ethan McKeever and Zac McKeever.

QLD

The Cassowary Coast BGA also elected its executive committee at its recent AGM. President Dean Sinton and Secretary Naomi Brownrigg will continue in their roles, while Luke Gilbert stepped down as Treasurer. The position is looking to be filled.

FERAL PIG UPDATE

Feral pig numbers in the Tully Valley are continuing to decline thanks to an industry-led eradication program designed to control the destructive pests and limit the spread of Panama tropical race 4 (TR4).

As at November 12, 5620 feral pigs had been culled from the target area (2601 from aerial shooting) since the program began on July 1, 2017. Other control measures used under the program include ground shooting, baiting and trapping.

The ABGC and growers themselves have committed significant funding towards the collective management program, which has involved multiple stakeholders, including the Cassowary Coast Regional Council, Australian Defence Force, Queensland Parks and Wildlife Service and the community.

Across the entire program, 9273 pigs have been controlled (since July 2017) within the Cassowary Coast.

Since the detection of Panama Tropical race 4 in the Tully Valley, feral pigs have been recognised as a serious vector of the soil-borne fungal disease. Growers have reported a significant decline in pig numbers since the 2017 program began.

ELECTRICAL SAFETY



With nearly half of recent electrical fatalities involving contact with overhead powerlines, now is the time to ensure on-farm risks are managed as securely as possible.

The recently revised *Electrical Safety Code* of *Practice – Working near overhead and underground electric lines* has important information particularly for rural producers working near powerlines and workers using elevated working platforms near powerlines.

Some steps to minimise risk are;

- Make sure there are no crops or trees planted under powerlines or around poles and their supporting stay wires.
- Clearly mark power poles and their supporting stay wires on your property to avoid accidental damage. Contact your electricity provider for advice.
- Ensure private power poles on your property are maintained in good condition.
- Don't store or move irrigation pipes under powerlines.
- Don't operate or park vehicles or equipment under powerlines.
- GPS geofencing solutions may help keep machinery away from overhead powerline exclusion zones. Electrical detection and alarm systems may also help.

For further advice and to locate the Powerline Safety Planning tool visit the Ergon website at www.ergon.com.au

NEW BIOSECURITY MESSAGE

Keep an eye out for some familiar faces from the North Queensland growing region who will feature in a series of new biosecurity videos currently under production.

The videos are being produced as part of the joint Industry-Government led Panama TR4 Program and promote the message of 'Come Clean', 'Leave Clean' and the importance of following farm rules when it comes to biosecurity.

Growers explain why biosecurity is so vital to the future of the banana industry and what they are doing to protect their own farms.

SEVERE WEATHER APP FOR TREE CROPS

A free, web-based app to help the horticulture tree crop industry respond to extreme weather events has been released by the University of New England.

The weather app is built upon the national map of commercial tree crops – including banana, citrus and mango – and is overlayed with Bureau of Meteorology data.

"The last day before a cyclone crosses the coast is when this app will be most useful," Dr Rosie Godwin from the Australian Banana Growers' Council said.

"But in the days after a cyclone it will also help to quantify the area of banana production impacted."

The app can be found at www.une.edu.au/ webapps. It was developed by the Applied Agricultural Remote Sensing Centre (at UNE) with funding from the Federal Government's Rural Research and Development for Profit scheme, Hort Innovation and a number of collaborative industry, research and commercial entities.



Innisfail growers Shayne and Blaise Cini (right) with presenter and Sunshine Coast radio personality Todd Widdicombe who will feature in the new biosecurity videos.



Dean Sinton, Innisfail grower (left), will also feature in the new videos.

ALL IN AT ALSTONVILLE

It's a homecoming of sorts – rather than a new home – when it comes to banana research in New South Wales.

After the closure of the Duranbah trial site earlier this year, work will continue at the NSW DPI Centre for Tropical Horticulture at Alstonville. Though it's been a number of years since bananas were grown on site, Alstonville has a strong history of conducting banana research.

Planting will get underway within the next couple of weeks. Initially Williams Cavendish and Ducasse will be planted as sentinels to determine whether there is Panama disease present and to identify which VCGs of the disease are on site. Once this is complete, the aim is to plant out a range of varieties during the last quarter of 2021 and kick off the Panama Race 1 variety screening trials in earnest. "I am very much looking forward to continuing the great research that was being undertaken at Duranbah at the NSW DPI Centre for Tropical Horticulture," said Industry Development Officer Tom Flanagan.

"The new site is more centrally located between growers from the Tweed and those from the Coffs Harbour region, meaning that our southern growers will have a shorter journey to come and check out the work we are doing and the varieties we are investigating.

"Once the trial is up and running I look forward to having growers and other industry stakeholders out to the site to see it for themselves."



SMART FARMING

The Australian Banana Growers Council (ABGC), under a Hort Innovation facilitated project, has joined with a range of different industry groups and Hitachi in a Smart Farming Partnerships project funded under the Australian **Government's National Landcare Program and Hort Innovation.**

For further information, please contact ABGC's Best Practice Team via bmp@abgc.org.au.

EXTENSION TEAM WELCOMES NEW FACE



ABGC would like to introduce and welcome Kathryn Dryden to the **BMP Extension Team, based in South** Johnstone.

A local to the Innisfail area, Kathryn has a great deal of experience working in communications and engagement roles, including working for Terrain NRM on a range of projects that benefitted agricultural communities.

BMP

Is there a change you'd like made on your property to improve productivity, make your land more valuable and look after the environment around you?

Wanting to become more energy or water efficient?

Perhaps you're a young, next generation grower or have kids with big ideas on how to innovate their growing methods?

Grants and funding are more accessible than ever... if you know where to look.

ABGC has recently developed a new webpage

Kathryn is excited to work with banana growers, acknowledging the importance of maintaining a viable industry, balanced with best management practices, for the wider community's economic and environmental success.

In addition to her varied work experience, she has a Bachelor of Applied Science in environmental management from the University of Queensland.

Kathryn is looking forward to visiting farms, learning from growers and helping them to assess their on-farm practices and productivity. This exchange of knowledge will identify possible improvements to growers' practices, and she will be able to provide assistance in making grant applications as funding opportunities arise.

You can reach out to Kathryn on 0447 000 203.

where banana growers can find information about grants and funding that is available from a range of sources.

Funding can help with a wide range of projects, research, and visions. The opportunity to get financial support for your next project could be just a matter of searching, reading what grants are available, and putting an application in.

It is often a lot simpler than you think! Just visit www.abgc.org.au/grants/ to see what's available.

BEST PRACTICE GRANTS

The Australian Banana Growers' Council (ABGC) best management practice support grants have proved a great success within the industry. Funded by the Queensland Government Reef Water Quality Program, growers can seek part funding for a range of projects.

To date, 16 projects have been approved in the Wet Tropics to assist growers reduce sediment and nutrient run off from their farms. Projects have included a silt trap, automated fertigation, drainage upgrades, and a riverbank stabilisation.

It is estimated that between the projects approximately 1150 tonnes of sediment will be kept on farm rather than in waterways.

With those projects directly targeting nutrient application it has been estimated that growers will be able to reduce their applied Nitrogen by a collective 16 tonnes/year.

If you'd like to talk through a project you've got in mind get in contact via bmp@abgc.org.au



Carnarvon banana growers are still recovering after ex Tropical Cyclone Mangga severely damaged their crop, resulting in a 30 per cent loss of production.

The Sweeter Banana Co-Operative had been able to use the five years prior — relatively quiet when it came to severe weather - to ramp up production and were hoping for the highest volumes in a decade. Sadly, the wild weather meant 2020's bumper crop did not eventuate, but things are looking up again in the new year.

"Damage to the stalks during the May storm resulted in poor bunch quality, bunches not emerging, or simply dropping out once they emerged in many trees," the Co-Operative's Manager, Doriana Mangili, explained. Not all was lost. In the wake of the ex Tropical Cyclone, consumers were encouraged to consider slightly blemished – but still delicious – Sweeter bananas.

"We have been able to get more marked fruit into stores, as the bunches that were hanging did suffer some damage," Ms Mangili said.

"Our Smoothies (seconds) line has had double the usual volume. It's still selling well, albeit at a lower price."

While a high volume of fruit is forecast from January, Ms Mangili said the Co-Operative is facing the same challenges around workforce as the rest of the industry.

"We implemented a bonus system for worker retention in July 2020 which continues until March 2021, so we may look at extending this program as it has been successful in both retaining and attracting workers."

Years ending 30th June (in '000 tonnes):

341

371

371

393

414

388

372

382

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

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.

2013

2014

2015

2016

2017

2018

2019

2020

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



RISING FROM THE RUBBLE

Twelve months ago, Australia was burning.

Much of the country was blanketed in smoke, a horrific bushfire season not-yet-over, claiming lives, homes and property.

Four growers in New South Wales, and a fifth in Queensland, were left reeling after a blaze destroyed their bananas, infrastructure and equipment. The roar of the fire, the blackened plantations and, for some, days spent waiting to see if their nearby homes would also be affected took a toll.

Amy Spear spoke to three of the growers affected to find out how they are coping, one year on.

SLOW ROAD TO RECOVERY

Stephen and Michael Spear, Taylors Arm, NSW

It's remarkable how fast land can recover from a catastrophic fire.

Within days, banana growers Stephen and Michael Spear were able to spot green shoots coming through their fire ravaged plantations. Little frogs appeared again quickly and, after a few weeks, signs of white cockatoos.

There are other things, though, that take much longer. Even now, there are no snakes in the plantation – usually a common sight. Ants are only just emerging in reasonable numbers.

And of course, there's the time needed to build a new shed, source countless new props and bags, and produce marketable fruit.

Stephen has cut a few bunches from the Yarranbella property in the last quarter of 2020, with things expected to pick up in mid-January. Michael is expecting that he will be busy come mid-December.

"I thought we'd all be back in production by 12 months, but it just hasn't happened," Stephen said. "It's a lot to do with the weather – the rain didn't come until two months after the fire. If it had come straight after, we would have been right in a year. Even now, everything looks beautiful but it's still extremely dry."

The bananas do look healthy. In fact, Stephen thinks his might look as good as they have in 30 years. A

year without anything to bag or cut has had a silver lining of sorts.

"In some ways it's been an easier year because we're not spending half our time harvesting fruit," Michael explained.

That's not to detract from just how hard a road it's been. On November 8, exactly 12 months on from the blaze that destroyed the Spear brothers' plantation, locals gathered to mark the 'opening' of their new shed.

"I was fortunate to have a couple of the old sheds insured and that meant we could get this one. We've only got one between us now, rather than the three old ones," Michael said. "They were old, but they were functional. Now we'll have to offload out of the one shed. But that's just the way it is and we're lucky to have that."

Michael and Stephen have also been able to source new props, bags and chemicals. For the first time in their almost four decades in the industry, they had to look as far as Brisbane for some of the products. Along with increased costs, it's certainly a sign that things have changed, but the brothers' desire to keep going – for now – remains.

"It's a lifestyle. I think we both love working the bananas," Stephen said.

"I'd rather be up there [in the plantation] than

anywhere else really. I was up there until 7.30 last night. No one around. It's beautiful and cool – the same if you get up early in the morning."

The longer term future is unclear. Age catches up to everyone and there's concern about lasting damage to the land from the fire. In addition, the plantation is surrounded by public property. In the December 2019 issue of Australian Bananas, both Stephen and Michael expressed concern about fire management in these areas. They don't feel that anything has changed.

"It's pretty scary in the bush now," Michael said. "Especially on a windy day, you look up and there's dead timber above your head everywhere. It's a dangerous place to be."

While authorities have graded some of the roads on public land, there's been no sign of better communication with landholders. In addition, and despite a Royal Commission, the brothers have not heard any serious discussion about backburning or fire management methods used by Traditional Owners to keep fuel in check.

"We're in a vulnerable position there and we both knew that one day it might catch up with us – and it did," Micheal said.

"Overall, though, it's one year out of forty with a fire. We've probably been lucky there hasn't been more lightning strikes behind us that could've wiped us out."

"My passion for bananas is still there, for sure. I wouldn't be working like I'm working if it wasn't."



Clinton Welsh, Talarm, NSW

Not far from the Spear brothers' farms, Clinton Welsh has similar concerns about the future of his Ducasse plantation at Talarm.

"It's building again," he noted, of the bush surrounding his property.

"I just can't work out what it would take for governments to fix the state and national forests. How many more people or properties do we have to lose?"

Like the Spears, he read through the Royal Commission findings, but was disappointed to see no mention of hazard reduction burning, learning from Indigenous Australians or even ensuring farmers are responsible for maintaining their land.

"One of the biggest problems with the fire was that once it got into a lot of unclean farms, it just had a new life. It does frustrate you a bit. But we are such a small voice. And while ever it's something that's not going to push an agenda or a vote, for any party, it's not going to be an issue."

The days and weeks following the fire that destroyed Mr Welsh's bananas are a bit of a blur.

A third generation banana grower, he had thrown everything he had into planting his first crop in

February 2019. To lose so much to a fire just months later was a lot to process – something he believes he's only managed to do in the past few months.

The weather has not been kind. Despite talk of La Niña, Mr Welsh has had only average rain and is concerned about the months to come.

"But we could have had the wettest years leading up to the event – and just 12 months of dry weather would still have resulted in that fire," he said.

"The forests have been mismanaged. While that is happening – and by the sounds of it, it won't be fixed – we are going to have this event again."

Farming is a funny thing though – even knowing this, as all farmers do, Mr Welsh is expecting to be back in full swing by Easter 2021.

"My passion for bananas is still there, for sure. I wouldn't be working like I'm working if it wasn't," he said.

The recovery began with deleafing and a couple of hundred kilos of blood and bone to the acre. Add to that 16 hours of watering a day, and the bananas started to bounce back. "They're looking really good at the moment. You can still tell that the fire went over some of them and they're not looking as good as the others, but I've pushed them in the last six months and they're really responding."

In addition to working his own patch for two and a half days a week, Mr Welsh works full time at McCuddens Bananas. His wife, who also has a full time job, helps to cut, pack and bag the fruit.

"We talked about how we were going to juggle it and she decided to be part of it. That way we can spend time together too. I do try to get a day off a fortnight where I'm not cutting on a Sunday.

"All banana growers know that it's not a Monday to Friday job. It's a seven day thing, like milking cows."

Mr Welsh notes that there are a lot of variables in the industry (weather aside) and he does wonder what the next 10 years will bring, identifying freight as a key challenge.

"There's just something about growing bananas that keeps the fire in your belly. Years of watching dad do it – it's just something I've wanted to do since I was a kid."

GRATEFUL FOR ASSISTANCE

Michael and Stephen Spear, and Clinton Welsh, wished to acknowledge everyone who generously donated to the Go Fund Me page set up in the wake of the bushfires.

"If it wasn't for that money, I wouldn't have been able to bag my fruit," Mr Welsh said.

While other assistance took time to flow through, the immediate response from the fundraiser meant more than just financial assistance.

"It gave the impression that someone was worried about us," Stephen said. "We got some funds from other places months later, but that Go Fund Me was the first. For me, mentally, that was really beneficial. If anything like this happens in the future, ABGC should get onto it again. It's really important."



2020 photos taken by Lee Gentle Photography.

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FOR A GREATER GOOD

Panama Tropical race 4 (TR4) is every banana farmer's worst nightmare. And, for those who end up with the disease, it carries with it a weight that goes well beyond the farm gate.

Apart from dealing with the new reality of farming with TR4, there's the underlying awareness for these growers of keeping the disease from spreading to others and ultimately protecting the broader national industry.

TR4 affected growers in the Tully Valley have made - and continue to make - significant contributions to industry to contain the disease and stop its further spread. Measures that can often come with considerable emotional and financial sacrifices.

By Sonia Campbell

As we fast approach the New Year, 2021 will mark six years since the first detection of Panama TR4 in the Tully Valley in Queensland's far north.

With just five farms infested in the region so far, it's a major milestone and in many ways somewhat bittersweet.

However, for the growers with infested properties who continue to trade with TR4, there's little silver lining in what is, quite simply, a horrendous disease.

It's an indiscriminate, incurable fungal pathogen that every banana farmer dreads. And, living with the disease, often takes a significant emotional and financial toll on the grower involved.

"It's stressful for sure, very stressful," recalls Paul Johnston whose 118ha banana property became the fourth farm to be confirmed with TR4 in the Tully Valley in February of this year.

"My head was spinning. I didn't sleep real good at all for about four weeks. It was just the uncertainly of everything, just not knowing what was going to happen next."

With his farm in close proximity to existing TR4 infested properties, Mr Johnston had known it wasn't a matter of 'if' he would also be infested, but 'when'.

Even so, nothing would fully prepare him - and his family - for the day a suspect plant was found amongst his banana rows during a routine Biosecurity Queensland (BQ) inspection, and weeks of uncertainty before final conclusive testing confirmed a positive detection.

"It was a shock, yes. I thought I was more prepared than what I was. I thought I was maybe 75 per cent prepared, but I was probably only 50 per cent. I had good biosecurity in place, but I wasn't ready to pack under the requirements of the Notice (of the Presence of TR4)."

"Definitely the first four weeks it was just head down. I think I worked four weeks straight without a



Paul Johnston on his Tully Valley property.

break. I lost a few kilos that I didn't need to lose. It feels like that first month or two, or even four, it just chewed up all of my time."

"Nine months on, and we are still coming to terms with it."

Cousins Gavin and Stephen MacKay, who manage MacKay's Bolinda Estate (first detected with TR4 in July 2017) can attest to facing similar challenges.

"Gav and I made a pact to each other right from the start," Stephen explained. "I'll keep running the day-to-day business and he dealt with that (TR4). That is how important it was to our business," Stephen said.

"We consciously decided to share the workload, because trying to cope with both, and have a foot in each camp, was not going to work. You couldn't think straight about your normal business if you were dealing with TR4 and vice-versa.

"Gavin was in there boots and all and that's all he was thinking of. All of the burden was on him. To be honest, if he didn't have sleepless nights, then he definitely aged five years over a two-year period. That's how much energy it took. It's never ending."

Large weight to bare

While Mr Johnston and the MacKays say they had received a great deal of support from industry and BQ/DAF when confronted with TR4, they confessed that having the disease does add a significant weight to a grower's shoulders.

"Initially, especially straight up, you feel like you're under the spotlight," Mr Johnston said.

"But it probably is more of a pressure that you put



(L-R) Barrie, Stephen, Daniel, Cameron and Gavin MacKay outside the MacKay Farming Group's Bolinda Estate which became the second farm in the Tully Valley to be confirmed with TR4 in July 2017.

on yourself. There were lots of growers, marketers, wholesalers, friends and everyone within the industry, there was a lot of support there for sure.

"There were a lot of text messages saying if there is anything they can do to help. They can't do much for you. They can't really fix your problem. But it's just good to know people are thinking of you."

Gavin said being involved in a larger organisation – MacKays are Australia's biggest banana producers, managed also by Cameron, Barrie and Daniel MacKay – helped Gavin and Stephen significantly with the pressures of dealing with TR4. However, they would always feel an onus towards protecting industry.

"No-one has put that pressure on you, it's a perceived pressure, but you still feel it yourself," Gavin said.

"It's probably a bit different for us, because there were a few of us and we all pitched in. But there is definitely a weight on your shoulders. There is definitely a greater sense of responsibility there." Stephen agreed that he too was guilty of feeling a sense of "self-imposed" scrutiny since their 2017 detection, however it was difficult not to, when having TR4 brought with it a certain stigma.

"I think the majority of industry wouldn't understand that that's what you are doing to yourselves. Putting that pressure on yourself," Stephen said.

"But there is a stigma attached to having it on your

farm, that you have to carry around all the time. "Because it's not just your farm, you individually are challenged occasionally, even if you're not personally confronted, but you are challenged by people's behaviour. Like being asked, 'Have you been on your farm?", "What are you doing?", "Why?", "How?" he said.

For the greater good

Measures that have to be taken by a grower to retain TR4 on an infested property, not only initially slow production, they can cost money, time and effort, and a whole new train of thought.

While first and foremost these changes to on-farm practices, infrastructure and machinery are made to prevent further spread on and away from the infested farm, ultimately these measures also offer a safeguard to the greater industry.

"I think you start out with the intention of protecting your own farm and your own asset, it's very instinctive," Stephen explained. "But then you come to the realisation that all those measures you have put in place to defend your farm, are actually providing an equal amount of protection for the rest of the industry."

Lessons learnt

Paul, Gavin and Stephen all agree that the biggest piece of advice they can give to other growers who do not have TR4 is Be Prepared.

Gavin said despite having implemented some of the most stringent biosecurity measures on all of

IMPROVING BIOSECURITY

Both the ABGC and BQ/DAF have staff dedicated to supporting growers who would like assistance to improve their on-farm biosecurity or to meet Notice requirements once TR4 is detected on their farm.

For assistance contact;

- Panama TR4 Program Engagement Officer Rebecca Breaden on 07 40918140
- National Banana Development and Extension Program Team Leader Tegan Kukulies on 07 4220 4152 or email Tegan.kukulies@daf.qld.gov.au
- ABGC Research and Development Manager Rosie Godwin on 0407 746 469 or email rosie@abgc. org.au
- ABGC Communications Manager Sonia Campbell on 0428 038 330 or email sonia@abgc.org.au

MacKay's banana properties, prior to getting TR4, it still didn't prepare them fully for an incursion.

"Being as prepared as you can be probably only covers you for about a half of what you can expect.

"Obviously there is only a certain amount of infrastructure you'll do beforehand. You're not really going to build something that won't directly benefit your operation currently. But absolutely, have control over all vehicles and machinery that enter and leave your property, train your staff and do all those basic things that are the most important and easiest to do now.

"Because I think if you haven't done all that work beforehand, you've got no idea what you'll be up against."

Mr Johnston said prior to his detection he had contacted BQ to come to his farm, assess his property and develop a Readiness Report for TR4. He said the report allowed him to implement a number of measures on-farm which meant he was substantially more prepared when given a TR4 Notice.

"Ultimately you will never be prepared enough, but get prepared as best as you can," he said.

"Some of the stuff you have to do after being issued a Notice (of the Presence of TR4) that slows production down, you're not going to actually do that until you have to. I'm not going to stop and wash my tractors going in between blocks unless I have to. But if you at least have a plan on what you think you may do if you get Panama, you're much better off."

"If you have multiple properties probably separate them totally. One other key thing is if you get a Notice for Panama, lean on your key staff. Because, I was either talking to BQ and trying to get plans in place or meeting with someone else, I was just not on the farm basically. So, I was lucky I have reliable farm and shed managers, they were really good.

"I suppose I was also lucky in the sense that I wasn't the first farm to get TR4. So, I learnt a lot from others, like talking with Gavin (MacKay).

"Family support too has been so important. I would have hated to have been doing it just on my own." Most importantly, Mr Johnston added; "First and foremost keep it off your property. Because once you get it, it's not fun."

Note from the Editor

Australian Bananas would like to thank Paul, Gavin and Stephen for participating in this article, offering personal accounts of the effects of living with TR4 and allowing us to provide a greater insight into life with this incurable disease.

COVID-19

COVID-19 EFFECTS ON

Richard Clayton and Melinda Buskens from MacKays Marketing provide an update on COVID-19 consumer insights that featured in our last edition of Australian Bananas – August 2020.

With the initial pandemic learning curve over, some permanent changes in customer trends have emerged to give us food for thought and an idea of potential challenges for 2021.

With state borders shut, Australians have been living different realities in our three biggest cities: Sydney, Melbourne and Brisbane. For the first time in living memory, how we eat has been greatly impacted by where we live.

For example, Sydney experienced a shutdown, but has been reopened for a few months with some restaurants trading, though with limited seating to allow for spacing. Brisbane has been open for business the longest, whereas Melbourne did not have any sit-down food service for many months, however at the time of writing this article, these restrictions were easing.

Depending on circumstances, many restaurants have evolved to have a takeaway focus, which has combined with a dine-in offer to try and stay open. To contain costs, some are making a set amount of servings, with minimum staff and close when they've sold out. This has meant a continued shift in consumer habits.

RESTAURANTS BACKWARDS...

Food service and eating out is emerging slowly but not without its long-term challenges. Reduced seating takes tables out of restaurants, so if diners want to go out, they must be organised and book ahead. Everything involves a QR code check-in and not all businesses have the money left to open their doors again.

The urban view:

Sydney: You can go to restaurants, however they are easily booked out so you have to plan a long way ahead. Data suggests the trend of more organised. list-based shopping has continued.

Brisbane: Has been open and trading for longest, with the least amount of restrictions (social distancing and COVID safe plans the mair restrictions).

Melbourne: Have not been able to be more than 5kms from home until recently, leading to a

massive increase in business to independents and supermarkets and a significant decrease in food service. All but essential workers are working from home, with schools having been shut for many months.

...SUPERMARKETS FORWARD

Recent fantastic results of major retailers, Woolworths, and Coles, show us that consumers have again relied heavily on supermarkets and spent more money there. They love their home delivery offers and, in most places (excluding Vic), have returned to visiting the supermarket more than once a week. For independents, there is a downside in our return to the bigger stores, though they continue to do well because consumers are still at home and cooking more than ever.

SPENDERS AND SAVERS

COVID has created a new demographic shift that is not state based, but more financially driven. On one end of the spectrum there are those who are still working, with wallets open, keen to support local businesses, who eat out and shop. On the other side is the more cautious group, already affected negatively and holding their wallets tightly, preparing for the recession and further job losses.

WORKING BEYOND THE CITY

Working from home is evolving, with no hard and fast rules. Some companies are still away and some are having a staged comeback, while others are not coming back to an office at all. The flexibility continues for many workers, with large buildings only opening a few levels, while actively encouraging a flexible workforce. This definitely impacts those cafes and convenience offers who are situated in the big end of town. And statistics are putting fear into the hearts of CBD property owners as growing numbers make the most of flexible working and move to buy homes in regional areas as technology and circumstance allow them to work remotely. While we're on the doom and gloom, a McKinsey survey in September found pessimism around economic recovery has increased since the last survey in July and remains relatively high compared to at the onset of COVID-19. As the economy opened up, Australian households felt better financially and increased their spending. However, the spending intent is still negative except for the grocery category.

ONLINE DRIVING UP

The shift to online shopping continues and is likely to stay post-crisis, with more consumers shopping online, enjoying more delivery windows and increased range. In fact, we're adopting many digital replacements for everyday activities. Netflix versus Hoyts would be the perfect example. And where we need a physical item from a store, the parcels just keep coming. Just ask Australia Post!

Unlike a new pair of sneakers, are bananas suited to bouncing around in a delivery truck, along with multiple other goods in the home delivery supply chain? And does this mean less impulse purchases of bananas, particularly when we are on promotion?

If online food delivery stays for a good portion of people, do we have a good online offering? For us, are people happy for someone else to pick the colour and size banana they like and ensure they arrive without too many markings? Do we need to reconsider pack sizes to provide 'online-ready' products?

And with less shopping trips certainly we are losing the impulse purchase of being in the supermarket and picking up some fresh bananas, especially when they look great! Are they choosing something in plastic that's easier to store in the fridge for a week? We need to find answers as both big retailers are developing greater home delivery capabilities to make packing and delivering even more efficient.

INDUSTRY VISION FOR 2021

STRENGTH: Bananas are well positioned because we have a healthy product, that is always available and definitely affordable.

WEAKNESS: Supply chain issues such as availability of staff and decreasing export opportunities. Supply and demand. Are our workers safe and healthy? **OPPORTUNITY:** Improve our online offers for the retailers to encourage banana consumption.

THREAT: Any future lockdowns will mean a return to more long life foods and less fresh fruit and vege.

Overall less fresh produce appears to be going to overseas markets.

COVID-19

BANANA CONSUMPTION - PART 2

KEY STATS

In the 4 weeks of September:

- Total grocery sales (\$) decreased from the previous month however are still 10.6% **higher** than the same time year ago.
- Higher prices continue to be seen across most categories. Increases of 3.0% for veg and **13.9% for fruit** (off the back of a shortage of avocados) compared to same time last year.
- Overall produce volume growth was up **2.9%**. Victoria contributed the most to volume growth during September (due to lockdown).
- Total fruit growth is weaker, with volumes down 4.4% in September compared to the previous year. Fruit volumes are lifted by **bananas**, strawberries and pears while melons, grapes and avocados are in decline.
- The pattern of an overall larger basket size per shop continues, while customers are returning to more frequent visits.
- The shop local preferences of customers remain. Major shopping centres and CBDs are being impacted with preference for freestanding and neighbourhood stores (working from home being the major factor).
- The trend towards purchasing pre-packed fruit and vegetables in major supermarkets continues. Is the swing back to plastic because of portion size, food waste or food security concerns?
- The trend towards shopping **more online for fresh** items continued with fresh produce online sales doubling this month vs year ago.

RETREAT FROM MAJOR CITIES

While the move to regional areas could be a new gold rush for major regional towns and cities, it could be the opposite for the capitals – particularly the CBDs.

Data from researchers Roy Morgan and transport technology firm Uber has shown no capital city CBD has returned to pre-COVID levels of movement.

- **Adelaide** is closest with 78 per cent of people roaming around the CBD compared to before coronavirus, with Perth close behind.
- **Melbourne'**s CBD, unsurprisingly, was practically a ghost town with just 15 per cent of pre-pandemic movement while the second wave lockdown was in place.
- But even **Sydney**, which exited lockdown five months ago, still has less than half its average daily visitor numbers.

*All information in this article referring to various COVID-19 restrictions (including border closures) were correct at the time of writing this report. Some may have changed since this publication was printed.

AUGUST

2020

imeline COVID

Stage 4 restrictions introduced for Melbourne and Stage 3 for Regional Victoria. Other State's restrictions are easing, however domestic borders remain closed. Due to Victoria's lockdown and a concern NSW may follow, pantry-stocking increases to levels not seen since Feb/ March. Average grocery spend per occasion spikes to 11% growth from the same time last year. Bananas experience the highest level of purchased volume per occasion in over 24 months of 0.9kg (growth of 8.5% from same period last year).

SEPTEMBER

Victoria remains in hard lockdown. Most other States settle into a pattern of containing sporadic infection outbreaks and find a new Covid-Normal routine. Restrictions are relatively normal, except for restricted numbers at restaurants, bars and sporting events. Nationally, online grocery sales double from same period last year.

OCTOBER

Victoria slowly begins the process of reopening. Further restrictions are eased in other States and domestic borders begin to open.

NOVEMBER

Melbourne resetting itself with 25km restriction removed. Infection numbers remain low, creating opportunities for retailers to drive Christmas spending. Most States working towards domestic borders re-opening before Christmas.

DECEMBER

In November, Westpac surveyed people's spending intentions ahead of Christmas after the last interest rate cut. It found 11.5% of those surveyed expected to spend more this year than in previous years, whereas 32.3% expected to spend less, which was within the range of responses seen over the past five years. "Given the high degree of uncertainty this Christmas, ...it is a very encouraging sign that Australians are planning for a normal Christmas".

RESEARCH

INTEGRATED PEST AND DISEASE MANAGEMENT A KEY FOCUS FOR NATIONAL PLANT PROTECTION PROJECT

By Stewart Lindsay,

Department of Agriculture and Fisheries, South Johnstone, Queensland

With one year left to run in the national banana plant protection project, research and development activities working on integrated pest and disease management (IPDM) are working towards a range of improved management practises for banana growers.

This five-year project, 'Improved Plant Protection for the Australian Banana Industry' (BA16001), is funded by Horticulture Innovation via the banana industry research and development levy with co-investment from Queensland DAF, Northern Territory DITT and NSW DPI and contributions from the Australian Government.

The project combines a full range of activities from identifying, importing and screening new banana varieties to undertaking research activities into the highest priority pest and disease issues. Some of the key activities and outcomes from the IPDM program so far are outlined below.

Focusing on the key priorities

There are many pests and diseases that can affect commercial banana crops, so focusing on the highest priorities has been very important. Using the outcomes of the Strategic Agrichemical Review Process as a starting point, and holding a series of industry focus group meetings in north Queensland in 2017/18, we confirmed that the highest priority pests for industry were bunch pests (particularly thrips), pest mites, leaf spot disease and nematodes. These priorities formed the basis of research work plans to guide the IPDM research and development activities in each of these areas. A common priority for all these issues was the potential loss of current effective pesticides, and the desire to identify biological or new chemistry alternatives that would support an IPDM approach.

Insect and mite pests

Bunch pest management

For bunch pests, the key focus has been to identify improved cultural and chemical control options to support an integrated pest management approach. So far, the project has conducted two screening trials for biological, botanical and new chemistry insecticides for bell injection, as well as investigating alternative control options like the influence of different colour bunch covers on banana rust thrips.

Results from the screening trials have been promising with products identified that are as effective as the current industry standard chemicals. This information has been passed on to the chemical companies in their consideration of potential registration.

The investigation of different bunch cover colours has identified that some colours are much more attractive to banana rust thrips, such as red, yellow and particularly orange, and should be avoided.

The project has also investigated whether genetics is playing a role in unusual banana scab moth behaviour in Lady Finger bananas on the Atherton Tablelands. For a small number of farms, banana scab moth caterpillars are feeding on the developing cigar leaf, causing significant loss of leaf area.



The glasshouse pot trial on predatory mites at the South Johnstone Research Station.



Scab moth caterpillars eating a banana leaf on the Atherton Tablelands (NQ).

The results of DNA fingerprinting showed that there is limited genetic diversity in banana scab moth and it did not explain the unusual feeding behaviour.

Management of pest mites in bananas

The use of predatory mites to control pest mites is used widely in other crops and has been developing in bananas in recent years. The project is investigating aspects of the use of the predatory mite Neosiulus californicus for control of banana spider mites. While this practise is already standard on some farms, there is little information about the best application rates or timing, and very little information about the predator/pest interaction.

Preliminary assessments of the effectiveness of these predatory mites from commercial farms confirmed the effectiveness of these predatory mites. To investigate further, a glasshouse trial is now underway investigating two different application rates and the nature of the predator/ pest interactions.

The results from this trial will provide producers with better information about how to get the greatest benefit from applying predatory mites.

Biological control of Banana Weevil Borer (BWB)

Project staff are working with staff of the National Development and Extension Project to investigate the potential for using entomopathogenic nematodes to control BWB. These nematodes attack insects and may offer an effective non-chemical control method. While the use of these nematodes is not new, this R&D is investigating applying the nematodes to partially decaying banana stems from previous crop cycles. Results from this trial should be available in the first half of 2021.



A banana scab moth.

RESEARCH



DAF entomologist Richard Piper is screening new bell injection products in research trials.

Leaf Disease Control

The main research activity for yellow Sigatoka leaf spot control has been the screening of new products, including registered and unregistered fungicides, plant defence activators, paraffinic and plant derived oil formulations, used alone, in combinations and in spray programmes.

The aim of these trials is to identify alternative products to replace currently registered fungicides that may be lost or deregistered, and to find products with new modes of action that will assist with resistance management. The project has completed two screening trials, with a third planned for the 2020-2021 wet season.

Nematode management

Surveying the plant parasitic nematodes in all Australian production regions

To identify the full range of plant parasitic nematodes affecting bananas in Australia, a survey of around 100 banana farms in north Queensland, south-east QLD, NSW and WA was conducted. While the most widely distributed nematodes in banana production regions are root knot nematodes, they are not necessarily the most damaging in all regions, and a range of different nematodes exist in each region.

Screening fallow crop options to find non-hosts

Based on the survey results, a range of pot experiments have been conducted to identify potential non-host fallow crops for the main nematode species. Because of the difficulty of



Banana Weevil Borer aggregating within decaying stems, and treatment plots in "iso" are used to test entomopathogenic nematodes for control of banana weevil borer.

producing colonies of lesion, spiral and reniform nematodes, plans are underway to find suitable field sites to conduct screening trials.

So far experiments have screened 27 different plant species or varieties for their resistance to the burrowing nematode with 23 identified as resistant or highly resistant, including five legumes, eight different brassica varieties and a range of grass and cereal species.

For root knot nematodes 36 different plant species or varieties have been screened for their resistance. Having three different species of root knot nematode makes it harder to identify non-host crops as many plants can host at least one root knot nematode species. So far two forage sorghum varieties, signal grass (*Brachiaria decumbens*) and the legume Sunnhemp (*Crotolaria juncea*) have been identified as resistant or highly resistant to the two most common root knot nematode species (*Meloidogyne incognita and M. javanica*).

Virology research activities

Identification and screening of new viruses

Virus-like particles identified from imported banana variety lines were identified and described as a Picorna-like virus. The genome of the Banana Picorna-like virus has been sequenced and a diagnostic assay developed, and with the new assay in place in the last six months, this new virus was detected in 10 commercial banana germplasm lines grown in the post entry quarantine glass house. A range of research activities is being undertaken to investigate further.

Banana Bunchy Top Virus (BBTV) infecting non-banana hosts in French Polynesia

Reports of BBTV infecting Alpinia sp. in French Polynesia have been investigated because until recently BBTV was not known to infect non-banana hosts in the field. Analysis of the genetics of the new form of the virus is ongoing and research scientists in French Polynesia are conducting transmission experiments to infect Cavendish bananas and other related plant species to investigate their status as alternative hosts.

The future

The important research work on priority pests and diseases identified by the Australian banana industry will continue for another year, with the current project finishing in December 2021. The research results so far and from the remainder of the project term will be promoted and communicated to the industry through key extension events such as the Banana Industry Mini Roadshows, the 2021 Australian Banana Industry Congress and field days and farm walks.

The research results are also being captured and made accessible in fact sheets and videos on the Better Bananas website (betterbananas.com.au) and through articles in the Australian Bananas magazine. And while this particular project ends in December 2021, the need for improved pest and disease management will remain as important as ever, and any future investment in IPDM R&D will be considered by Horticulture innovation and the banana industry.

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



ADVERTORIAL

GET YOUR BANANAS BACK ON TRACK AFTER STRESS EVENTS!

Extreme temperatures impact Banana crops and lately the weather has been all over the place!

It can be difficult for plants to recover after damaging weather conditions such as excessive hot and cold temperatures, strong winds or flood. Applying correct nutrition sets up the plant to achieve its maximum genetic potential. Applying the right nutrient at the right time improves quality, bunch weight and bunch size. This all leads to an increase of marketable fruit per hectare. However, abiotic stress events such as heat stress can have negative impacts such as increased water loss. On the other extreme, cooler temperatures through winter decrease sap movement leading to under peel chill and poor marketable fruit. As bananas have a shallow root system, Stoller's stress program can assist in maintaining a healthy plant and root system, and therefore making stronger and more productive trees during these times.

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Research has shown that zinc can help crops tolerate environmental stress and is critical for the production of auxin the plant hormone essential for growth and development of plants. Use Stoller's Bio-Forge in combination with Stoller's WL Zinc Chelate – a highly-efficient and readily-absorbed form of zinc – helping speed recovery from stress events and promote healthy growth. This Phenolic Chelate is made using a specific process that is unique to the Stoller range and is designed for peak performance in both soil or foliar applications.

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PRE-COMMERCIALISATION TRIALS TESTING NEW VARIETIES FROM PADDOCK TO PLATE

By Amy Spear

The importance of finding banana varieties resistant to Panama Tropical Race 4 — and other diseases – is not lost on anyone involved in industry.

But while the process is under way, it will take significant time and testing before any new fruit hits grocery shelves.

As part of this, two Cavendish cultivars screened for TR4 resistance in the Northern Territory were selected for the Department of Agriculture and Fisheries (DAF) pre-commercialisation trials. The trials come under the National Plant Protection Program, which is funded by banana levies through Hort Innovation.

At the recent National Banana Roadshow Series, DAF Research Horticulturalist Katelyn Ferro told growers that the cultivars - Giant Cavendish Tissue Culture Variant (GCTCV) 215 and GCTCV 247 - were being trialed on four banana farms across Far North Queensland. An additional, final planting has also occurred in the NT and there are plans for trial sites in New South Wales.

GCTCV215 has TR4 resistance comparable to Goldfinger and GCTCV247 has performed as well as or better than Formosana. The banana businesses involved in the trials, in Innisfail, Tully and on the Tablelands, are assessing the agronomic performance of the varieties under their normal farm management practices and comparing to Williams Cavendish.

S Lowe and Sons, based in Tully, has the most advanced planting, with data already collected on time-to-bunch emergence, plant size, bunch size, and rough pack-out rates.

The trial was planted in October 2019 and approximately 80 per cent of the crop had been harvested by October this year.

"[The plants] performed above my expectations. I've been very surprised at the varieties and the bunches we're getting off them," owner Stephen Lowe said.

"The only problem has been the time to get a bunch. It seems to be that when you have a tolerant variety, they are slower."

The two variants are also slightly taller than Williams with thinner pseudostems, potentially making them more prone to snapping in extreme wind events.

"If you were to put it down on paper and be an economist or an accountant...the fact that they are

slower will definitely make you less money," Mr Lowe said.

"But it does depend on how you farm. There are opportunities to phase your crop. I think it's something you could work with, but it's just not ideal if everyone else doesn't have to do it."

Fruit has also been sent through to market, thanks to MacKay's Marketing. Feedback from agents and consumers has been generally positive, a sentiment echoed by growers attending the Roadshow Series who were able to sample some fruit.

The data so far suggests that ripening conditions, shelf-life and taste are comparable to Williams.

The DAF team will continue to monitor the plants into the first few ratoon cycles for greater clarity on their performance.

"It's quite important to have trials on commercial farms instead of just in the research centre so that they get exactly the same treatment as what your crop is going to get when they come onto the farm," Mr Lowe added.

"That way the farmer knows exactly what they can expect from the variety."



BANANA FUND

Variety - GCTCV 215

lort

nnovation



Variety - GCTCV 247

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

TR4

BANANAS FOR THE 21ST CENTURY

By Distinguished Prof James Dale, Qld University of Technology

There is no doubt that the banana industry both in Australia and worldwide is in desperate need of improved bananas. Leading the charge of course is resistance to Panama disease (Fusarium wilt) tropical race 4 (TR4).

There are, however, numerous other diseases for which resistance would have a very significant benefit for production including, but not limited to, Banana Bunchy Top, black and yellow Sigatoka, the various bacterial wilts and nematodes.

These are all "producer traits", that is, traits that benefit the producer with little obvious benefit for the consumer. There is no reason why "consumer traits" should not be part of the push for improved bananas.

This could include greater nutritional benefits or greater diversity in fruit taste and texture. Importantly, the technologies to create the next generation of bananas are developing rapidly.

There are technologies such as somaclonal variation and mutagenesis already available, but these essentially provide short term solutions. In the mid to long term, the next generation of bananas are being created through either conventional breeding technologies or new breeding technologies.

The most common of the new breeding technologies are genetic modification and the emerging genome or gene editing. Apart from the obvious differences in methods for generating new bananas, the key difference between conventional breeding and genetic modification / gene editing is that conventional breeding creates new cultivars, whereas genetic modification / gene editing improves currently acceptable cultivars.

For instance, a number of the international conventional banana breeding programs are developing new dessert bananas which are resistant to TR4. These new bananas are and will be different to Cavendish. In contrast, we at QUT have developed a Cavendish banana which is resistant to TR4; it is identical to Cavendish other than its TR4 resistance.

There are also essential differences between genetic modification and gene editing. From a technical



Figure 2 – BBTV field trial at Malawi

perspective, genetic modification involves the addition of new genetic material or DNA into the banana.

This DNA may come from another banana or somewhere else. However, the genetically modified banana will contain some "foreign" or non-banana DNA. This can be as little as 0.000001% but it still counts as "foreign" DNA.

In contrast, gene editing involves very small changes in the banana DNA itself. If these bananas do not contain any foreign DNA then they can be considered as non-GM because the changes made can occur naturally.

This has huge advantages. In Australia and many other countries, simple types of gene editing without foreign DNA are regarded as non-GM; this means new gene edited plants such as bananas will be treated exactly the same way as a new banana developed by conventional breeding. They will not be regulated and will not be labelled.

So, what does all this mean for the Australian banana industry?

New breeding technologies as well as conventional breeding technologies are in full swing in different parts of the world to develop the next generation of bananas, bananas for the 21st Century.

QUT has the only banana program in Australia using new breeding technologies to develop new bananas. Its Banana Biotechnology program is quite advanced.

Our most advanced project has been to develop the cooking bananas of East Africa with elevated levels

of pro-vitamin A (α - and β - carotene) to contribute to the alleviation of vitamin A deficiency particularly in Uganda where cooking bananas are their staple food. Pro-vitamin A, which is orange, is converted in the human liver into vitamin A.

The project, which is funded by the Bill & Melinda Gates Foundation, has involved moving a gene involved in pro-vitamin A production from a banana with high pro-vitamin A firstly into Cavendish (Figure 1) and subsequently into the Ugandan cooking bananas. These bananas which we call our Golden Bananas are now in final stage field trials in Uganda with proposed release to farmers in 2022. This is obviously a very important "consumer" trait for East Africa.

Our second African project, also funded by the Gates Foundation, is to develop Cavendish bananas with resistance to Banana Bunchy Top virus (BBTV). While BBTV has been well controlled in bananas in south-east Queensland and northern NSW and excluded from north Queensland, in many countries in Africa it is devastating and moving.

For instance, in Malawi, Cavendish is virtually impossible to grow because of BBTV. We have developed Cavendish plants which are essentially vaccinated against BBTV and these bananas are in field trial in Malawi (Figure 2).

Closer to home, in Australia we have been developing Cavendish for resistance to TR4. This project started back in 2004, so well before the disease threatened our major production areas.



Funded through various groups including the Australian Research Council, LaManna Premier Group and now through the Australian Banana Research company and the Cooperative Research Centre-Projects (CRC-P) program, this project has involved moving a disease resistance gene from a wild diploid banana into Cavendish by genetic modification.

In 2012, we took seven GM Cavendish lines to the Northern Territory for a small scale three year field trial. Four of the lines showed very high levels of resistance with one line exceptional.

We planted a much larger field trial on the same plot early in 2018 (Figure 3). After 2.5 years, one line is again exceptional with no infected plants compared with more than 50% in the control plants and no apparent effect on yield. The trial continues.

We are now turning our resources to developing a



gene edited version of our Golden Bananas and our TR4 resistant Cavendish and both of these targets look very achievable. And we are expanding our trait portfolio to include other disease resistances and consumer traits.

However, the technology to create a banana that is edited, but not GM, is quite challenging. We are using an editing technology called CRISPR/Cas9. This year's Nobel Prize for Chemistry was awarded to two of the CRISPR inventors.

We have a license to this technology and have already edited bananas with it, but those early plants were GM. We are now developing "protoplast technology". Protoplasts are plant cells without cell walls and importantly occur as single isolated cells.

This gives us the opportunity to edit these

cells without introducing any foreign DNA into the banana cell genome. The next stage is to "regenerate" whole plants from this one cell. We have already achieved this. We have also completely sequenced the Cavendish genome and the genomes of other key bananas to identify the banana genes to be edited.

So, we now have a platform to develop non-GM gene edited bananas. The early target is of course a gene edited non-GM Cavendish with TR4 resistance. This will almost certainly take a few more years. In parallel, we are developing edited consumer traits including an edited version of our Golden Bananas. Our stretch timelines are to have non-GM edited bananas in the field in 12 to 18 months.

The technologies we are developing for gene editing are not limited to Cavendish; they can be applied to any banana cultivar. Maybe a Panama Disease race 1 resistant Gros Michel.

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AUSTRALIAN BANANA INDUSTRY EMBRACES NOVEL BIOLOGICAL FUNGICIDE

Australian Banana Industry embraces novel biological fungicide.

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."

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



ronomist Dave Doolan and Brock Saunderson, Peak Aviation, inspect Serenade.

Nick Matthews and Dave Doolan discuss the benefits of Serenade Prime.



Agronomist Dave Doolan and Brock Saunderson, Peak Aviation, inspect Serenade.

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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Control yellow Sigatoka, leaf speckle and cordana leaf spot with Luna[®] Experience fungicide.

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- The only Group 7 fungicide available in bananas
- Non-treated surface protection through translaminar movement
- One-day withholding period

Speak to your advisor or visit crop.bayer.com.au to find out more.

CONGRESS 2021

GET SET FOR A 'CROC-FEST' AT CONGRESS IN CAIRNS!

Australia's very own Outback Wrangler Matt Wright will headline a stellar line-up of presenters at the next Australian Banana Industry Congress, to be held in Cairns from May 12-14, 2021.

Registrations for the event will open on January 19, with big savings for those taking advantage of 'early bird' rates.

After the huge success of the 'Win Your Way to Congress' in 2019, the Congress Management Committee has decided to hold the same competition in 2021. This means all growers who register for Congress during the 'early bird' phase will go into the draw to win back the cost of their registration, their accommodation and up to \$500 towards travel expenses – a prize valued at up to \$2000. Next year's event will be held at the Cairns Convention Centre, with the nearby Cairns Pullman International Hotel selected to accommodate delegates and host a number of the much-anticipated social events, including the Welcome Reception, Banana Bar and



Outback Wrangler Matt Wright will be the special guest at the Congress Banana Ball and Awards Ceremony

Idyllic location

Excitement is already building for the Tropical Far North Queensland event, with an exciting program of events promising a Congress that you won't want to miss!

Congress Committee Chair Paul Inderbitzin said he was excited at the line-up of presenters and speakers assembled for the 2021 program, which he believed offered a diverse range of inspiration, innovation and expertise.

"Any grower attending Congress is looking for a program that is informative, motivational and gives you something to take back and apply on farm," Mr Inderbitzin said.

"The program that has been formulated for 2021 ticks every one of these boxes. The calibre of speakers is second to none," he said.

Topping the presenters list is Matt Wright. The accomplished chopper pilot, best-selling author,

Great Northern ambassador and star of the globally acclaimed National Geographic Series, Outback Wrangler, will be the Guest of Honour at the Banana Ball.

Matt's passions and unique skill set have turned into a career as a wildlife re-locator; tracking down, capturing and transporting a diverse range of dangerous animals including crocodiles, wild buffalo and even Polar Bears.

Honouring industry's best

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

The Banana Ball is always the perfect grand finale to Congress, with live entertainment and time to unwind, dress up and socialise with peers.

The program

As always, the Congress plenary program is jam-

packed full of inspirational guest speakers and presenters covering a range of topics including latest R&D, domestic and global marketing, global trends, growing your business, succession planning, robotics and improving efficiencies on farm.

The program will again include a grower innovation panel, where delegates will hear from banana growers who have developed, researched or are using innovative farming practices.

Taking time out

Particularly after a tough year, Congress always offers a great chance for growers to enjoy a few days off farm to reconnect with other growers, network, have some fun and share ideas.

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

To register and find out all information regarding the event – including sponsorship opportunities – go to the Congress website www.bananacongress.org.au.

For sponsorship and exhibition opportunities please email danny.perry@mci-group.com or phone Danny Perry on 02 9213 4015 For general information on Congress please call Sonia Campbell on 0428 038 330.

CONGRESS 2021 GUEST SPEAKERS



Matt Church

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

Passionate agriculture advocate Mary O'Brien founded the 'Are you bogged mate?' program in 2018, 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

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.

CONGRESS FEATURES

- Off site tours
- Grower Innovation Panel
- Banana Bar
- Banana Women's Network Lunch
- Welcome Reception
- Tradeshow Exhibition Evening
- Banana Ball and Awards Ceremony

OUR SHOUT!

As well as the 'Win your way to Congress' competition, another popular new addition to return in 2021 is the \$250 bar tab on offer for all growers who register for Congress before National Banana Day on May 1.

The winner will be drawn at the Welcome Drinks at Congress on May 12. If you are the winner and you'd rather spend the cash on something else, there will be the option of spending your \$250 voucher at the Pullman Hotel on a range of services include food and the hotel spa.

PROGRAM AT A GLANCE

Wednesday, Mag	y 12	3.45pm-5.15
10am-3pm	Optional off-site tour	
3pm-6pm	Registrations	t
5pm-7pm	Welcome reception at Pullman	
	International	
7pm onwards	Banana Bar - Pullman International	
Thursday, May 1	2	5.15pm-5.30pm
7.30am-5.30pm	Registration	5.30pm-7.30pm
8.30am-8.45am	Official opening ceremony	5.50pm 7.50pm
0.500111 0.450111	Paul Inderbitzin	Friday, May 24
8.45am-10am	Opening keynote address	8.30am-9.10am
o. Iballi Toalli	Matt Church	0.500111 5.100111
10am-10.30am	Consumer insights, marketing trends	
	and brand strategy	:
	Adam Ferrier	9.10am-9.20am
10.15am-10.30am	Q&A – Adam Ferrier	9.20am-9.50am
10.30am-11am	Norning tea	
11am-11.30am	Banana Marketing	9.50am-10am
	Tate Connolly, Marketing Manager Hort	10am-10.30am
	Innovation	10.30am-11am
11.30am-12pm	Tim Hunt, Rabobank General Manager,	
	RaboResearch Food & Agribusiness,	11am-11.30am
	Australia & New Zealand.	1
12pm-12.15pm	Q&A – Tate Connolly and Tim Hunt	11.30am-12pm
12pm-1.30pm	Banana Women's Luncheon	1
12.30pm-1.30pm	Lunch in the exhibition area	1
1.30pm-2pm	Overcoming disease challenges/	12pm-12.30pm
	biosecurity lessons	12.30pm-2.10pm
2	Shane Templeton, Templeton Ginger	2.10pm-3.10pm
2pm-3pm	Science Speed Talks	2 10 mm 2 20 mm
3pm-3.45pm	Afternoon Tea and Science Poster session	3.10pm-3.20pm
	26221011	3.20pm-3.50pm
		3.50-4pm 7pm-late
		/piii-iate

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 Panel discussion Tradeshow Exhibition Evening Value adding and ag technology/ biologics Jack Milbank, Bargara Brewing Trent De Paoli, Austchilli Group 0&A Blueberry success story Ridley Bell - Mountain Blue Blueberries 0&A Morning Tea Succession Planning Tony Catt – Catapult Wealth Robotics and automation Andrew Bate - Swarm Farms Grower Innovation Panel – Learn from four banana growers trialling innovative farming practices Grower Innovation – Discussion Panel Lunch and Trade Show – Exhibition area Mental Health Mary O'Brien Mary O'Brien Q&A Final speaker - TBA Closing ceremony Banana Industry Ball and Awards

of Honour

Special guest Matt Wright

PANAMA TR4

FUTURE MANAGEMENT OF PANAMA TR4

By Richard Dinnen, Biosecurity Queensland

It's just under three years until the banana industry takes the lead in managing Panama disease tropical race 4 (Panama TR4), the hard to detect soil-borne fungus for which there is no viable eradication treatment.

Through the Panama TR4 Program, growers, industry and government have worked together to contain the disease to just five properties since it was first detected in Far North Queensland in 2015.

The Program will be jointly funded and delivered by government and industry until June 2023, with industry leadership of the Program taking effect after this time.

During October, growers, stakeholders and government representatives met in Innisfail to consider options for an industry-led model, and to hear updates on current Program operations and latest research.

The meeting gave growers the opportunity to share their views with Program staff and members of the Panama TR4 Program Management Board.

Board Chair and Department of Agriculture and Fisheries Deputy Director-General and Chief Biosecurity Officer, Malcolm Letts, said industry input was vital to creating a viable future strategy.

"With the importance of the banana industry to Queensland and Australia, the State Government has stayed actively involved, and will continue to for some time, particularly in relation to research and development," Mr Letts said.

"Government is committed to working together to design and develop a transition plan from a primarily government led to an industry led response in the future."

"We're really keen to hear from industry on how you see an industry model best working to suit your needs.

Mr Letts said industry and government cooperation had helped contain the disease to just five properties, and both parties would work closely together to develop an effective new model.

The Panama TR4 Program Management Board has since approved measures to help prepare industry for the change. These measures include the formation of a working group to develop a transition and implementation plan, and the creation of a new role to develop options for the industry led model.

Effective and efficient

At the industry meeting growers said they wanted future management of Panama TR4 to be efficient, cost-effective, and easy to comply with.

The meeting broke into smaller groups, giving growers the opportunity to raise concerns and ask questions directly with members of the Program Management Board and Program staff.

Panama TR4 Program Leader Rhiannon Evans said Queensland's world-leading response to Panama TR4 was built on research, biosecurity regulation, and a strong and cohesive banana industry.

"Having looked at the broader international experience, I believe that without these three pillars, we would not have been as successful," Ms Evans said.

"It's really key for us to continue to find efficiencies in the Program delivery, while managing Panama TR4 as effectively as we have in the past.

"It had been hoped that aerial drones could be used for Panama TR4 surveillance, that we could find some efficiencies by using technology to help us look for the disease.

"At this point in time, the research says it's not proving as effective as we'd initially hoped. We'll continue to explore this possibility."

Ms Evans said the Program's operational plans set out its main priorities for controlling and containing the disease.

"We are detecting the disease early, containing it on infested properties, keeping growers and stakeholders updated, and promoting the message that biosecurity is everyone's responsibility.

"It's also important to make sure the legislation we use to manage the disease is working for both government and industry, and that it can be effective where there is an escalation in detections."

Resistance still a way off

Development of banana varieties resistant to Panama TR4 may be several years away, so containment of the disease remains critical.

Stewart Lindsay, Team Leader Banana Production Systems, told a meeting in Innisfail to discuss the future management of TR4 about the latest research on soil management and new varieties.

"There's many bananas that are highly resistant to the disease," Mr Lindsay said. "But they're generally not readily acceptable in the Australian market, like cooking bananas and non-Cavendish types.

"There are market acceptable varieties such as the Taiwanese Cavendish selections, but they're generally not as productive as the currently preferred Williams Cavendish, and most have partial rather than high resistancew.

"There are some promising Goldfinger types from mutagenesis. They're more a Lady Finger style of banana, rather than a Cavendish style.

"But if they retain some of the other resistances that Goldfinger has, that'll be really interesting, because Goldfinger is Sigatoka tolerant, nematode and weevil resistant, cold tolerant, as well as Panama resistant."

Mr Lindsay said new varieties might not need to be completely immune to Panama TR4, as new soil management techniques could help suppress the disease.

"A very diverse soil microbial community actually suppresses the fungus and the inoculum development, while crop nutrition, things like very high nitrogen rates, actually promotes Panama dramatically.

"We're not sure where that threshold is in terms of suppression and promotion, but there's a lot of work going on.

"The idea being that we hope we get a resistant variety. The variety doesn't have to be immune if inoculum levels can be managed and other farm practices can suppress inoculum development over time", Mr Lindsay said.

PANAMA TR4 PROGRAM BEGINS NEW SURVEILLANCE SCHEDULE

By Richard Dinnen, Biosecurity Queensland

The Panama TR4 Program's new surveillance schedule has begun, with all commercial banana properties from Lakeland to Cardwell to receive surveillance at least once before August 2021.

The changes follow a major review of surveillance earlier this year by a working group of banana growers, the Australian Banana Growers' Council (ABGC), Biosecurity Queensland (BQ), and Agri-Science Queensland.

The group reviewed the surveillance program, including risk ratings and surveillance frequency. The working group recommended modifications and these were approved by the Panama TR4 Program Management Board in August.

Growers were advised by mail of the changes for surveillance on their properties, and local radio announcements advised growers to check their mail for information regarding the upcoming changes.

New risk rating	Surveillance
Panama TR4 infested properly	Every eight weeks
Tully Valley	Every three months
Lakeland to Cardwell	Once in 12 months

Old risk rating	Surveillance		
Panama TR4 infested properly	Every six weeks		
High risk	Every three months		
Medium risk Low risk	Every six months No surveillance		

The changes mean that some growers will receive surveillance for the first time in three years, and for newer farm owners, or farming operations, this may be their first surveillance event.

Panama TR4 Program Leader Rhiannon Evans said checking all Far North Queensland commercial banana properties would confirm whether the disease had so far been contained in the Tully Valley.

"Increased surveillance in the Tully Valley will detect any localised spread of the disease and allow us to contain it early. When the disease is not contained, it can spread rapidly, as it has done overseas," Ms Evans said.

"We have had a thorough surveillance regime that

For more information, refer to the 'Surveillance for Panama TR4' fact sheet in your Panama TR4 Grower Kit, or visit www.biosecurity.qld.gov.au

looked at risk based upon linkages to infested properties. It's time to throw the net more broadly to ensure we know where the disease is within the region".

"Active surveillance is the best way to find the disease, and early detection helps contain it and protect the banana industry".

"The surveillance program is a major investment from the Queensland Government in a very important horticultural industry. I believe the review outcomes will ensure we have the best chance of finding and controlling Panama TR4 early.

"We aim to continue to deliver cost-effective surveillance to protect properties and the banana industry from Panama TR4."

Growers are also encouraged to check their banana plants regularly, and report any suspect plants to BQ on 13 25 23."

Surveillance – what growers should expect

Biosecurity Queensland will contact growers to book surveillance at a mutually convenient time. Surveillance teams will ask about any reasonable biosecurity measures growers would like the surveillance officers to follow.

On the day of surveillance, the team leader will ask the grower for consent to enter, explain the process of surveillance, and discuss on-farm biosecurity measures. Where a plant is to be sampled, the surveillance officers will notify the owner or occupier of the property before proceeding to sample.



PANAMA TR4 PROGRAM WINS NATIONAL BIOSECURITY AWARD

The Panama TR4 Program has been recognised for its work protecting the banana industry, with a win at the 2020 Australian Biosecurity Awards.

The Program won one of three awards in the community category at round two of this year's awards, announced recently at the annual National Biosecurity Forum.

The Forum is held annually by the Department of Agriculture, Water and the Environment.

The award recognises delivery of significant biosecurity outcomes, raising awareness of biosecurity in the community and an outstanding contribution to protecting plant health.

Panama TR4 Program leader Rhiannon Evans said the award recognised the hard work of growers, industry stakeholders and Program staff to contain a serious biosecurity threat.

"This disease has had a significant impact on commercial banana production overseas and in the Northern Territory. Here in Queensland, we've contained it to just five properties in five years," Ms Evans said.

"It's a great achievement, brought about by a lot of hard work. The success of our Program is due to a strong, cohesive banana industry, solid research and effective biosecurity regulation.

"The Panama TR4 Program has taken the concept of shared responsibility and really amplified it, making sure industry is with us in our decision-making every step of the way.

"This collaboration and strong positive relationship has led to one of the most successful control and containment efforts for this disease anywhere in the world. My team and I are incredibly proud of what we have achieved."

BANANA DISEASES

UNDER THE MICROSCOPE: **BLACK CROSS**

Under the Microscope will profile the industrys, emerging and exotic diseases. This month we profile black cross disease.

What is Black Cross Disease?

Black cross disease is caused by the fungus Phyllachora musicola which produces characteristic black crosses on affected leaves. Black cross is mostly found on varieties in the AAB (Ladyfinger) and ABB genomic groups (Fig 1). Cavendish has a high level of resistance to this disease.

What are the symptoms?

- Black four pointed stars are clearly visible at the • underside of leaves (Fig 2)
- The long arms are parallel to the veins on the leave and are 3-6 cm long 9 (Fig 3)
- The shorter arms form at right angles to the vein of the leave and are up to 2 cm long
- Crosses on the leaves can occur in large numbers (Fig 1)

- Ascospores are formed in fruiting bodies at the upper leaf surface (Fig 4)
- Lesion of black cross can act as entry points for Cordana leaf spot

How does it spread?

The black crosses form small fruiting bodies called perithecia on the upper leaf surface. These fruiting bodies produce ascospores which are easily moved by wind and rain to new leaves to cause disease. Long distance spread may occur through the use of infected banana leaves as packing or wrapping material.

Where in the world is it found?

Black cross disease is widespread in Oceania, PNG, Indonesia, Philippines, and parts of Africa. The disease has been found in Cape York Peninsula and the Torres strait islands. Many cooking bananas are susceptible as is Lady Finger. Cavendish varieties are in general quite resistant to this disease.

What are we doing to protect our industry?

- In general this is a minor disease to which Cavendish has good resistance and active control is not needed.
- The introduction of new TR4 resistant varieties from breeding programs may introduce susceptibility to this disease.
- Development of diagnostics and surveillance
- Increase awareness among industry stakeholders

What can I do to protect my farm?

- Check your farm frequently for unusual symptoms especially if growing a variety other than Cavendish
- Maintain good biosecurity practices









Figure 3

Photos and text provided by Prof André Drenth, University of Queensland as part of project BA16005 Stengthening the banana industry diagnostic capacity.



ADVERTORIAL

NEW MODE OF ACTION TO TACKLE SERIOUS BANANA PEST

Banana growers now have a new tool to manage the damaging banana weevil borer, following the registration of Vayego® Forte, an insecticide from Bayer.

Registered in August 2020, Vayego Forte introduces a new insecticide mode of action to the industry, containing 480 g/L of the Group 28 insecticide tetraniliprole in a suspension concentrate formulation.

The product brings other significant benefits to the market, including not flaring mites, low application rates and reduced stem splitting.

Specifically targeting banana weevil borer in Cavendish and Lady Finger bananas, Market Development Agronomist with Bayer in North Queensland, Nick Matthews, says Vayego Forte is an important addition to the market.

"Banana weevil borer is a very significant pest if not controlled. Its movement is generally limited but it can move from block to block if conditions are attractive elsewhere or when it's encouraged to move, for example when a block is knocked out," Nick says.

"The biggest issue is the adult lays eggs at the base, called the corm, of semi-mature banana plants, and then the larvae burrow in and can cause quite serious tunnelling damage, often causing secondary pest and disease incursions in the corm. This reduces plant growth and structural integrity, which can then cause the plant to fall over, also called roll out.

"Obviously that plant and the bunch is then lost, leaving gaps in the plantation, which reduces overall productivity."

Nick says the fact that Vayego Forte introduces a new chemical group into the banana market for the control of banana weevil borer is significant.

"This new product provides growers with an alternative to current registered insecticides, including the mainstay imidacloprid, which has been heavily relied on," he says.

"This new mode of action will have positive implications for resistance management by utilising an insecticide group that the banana weevil borer has yet to be exposed to."

A key benefit is that Vayego Forte doesn't cause mite flare, meaning growers don't have to worry about coming back to control that pest, which can be the result when using some other products.



Coming in a three-litre pack size, the application rate for Vayego Forte is very low, at 0.8 mL/stool, which can be injected undiluted, or diluted with water in a total application volume of 2 mL/stool.

"This very low use rate allows applicators to treat more plants per pack compared to other products. This means it's a very efficient operation in terms of down-time, where the person doing the work doesn't have to come back and refill as often," he says.

"For manually operated injection kits, applying a smaller volume per plant may also make the application operation physically easier for applicators. However, such low rates mean applicators have to be particularly careful and make sure their equipment is correctly calibrated."

It's also significant that less volume is applied into the plant as it will help reduce the risk of stem splitting, which can reduce the structural integrity of the plant. Nick will be leading Vayego Forte demonstration trials on a couple of commercial banana farms in key North Queensland banana growing regions this season. Using commercial application equipment and large-scale plots, the work will compare Vayego Forte against some other products currently in the market.

"We expect the trials to show Vayego Forte will perform equivalently in terms of pest control to the current industry products, while also delivering the additional benefit of no mite flare and less stem splitting," Nick comments.

Advisors and growers wanting to find out more should speak to their local consultant or reseller, or their local Bayer representative. For any further information, head to vayegoforte.com.au.

Vayego® is a Registered Trademark of the Bayer Group

PUTTING PROFESSIONALISM INTO YOUR PLANTING MATERIAL

By Rosie Godwin

2021 hails the start of a new era in banana planting material with the launch of the new QBAN scheme and the publication of the Biosecurity Code of Practice for banana planting material.

Planting material is the foundation stone upon which to successfully build your business so these two initiatives serve to provide growers with access to high health planting material and provide guidance on how to minimize biosecurity risks associated with it.

The new QBAN has been a long time in the making but after 10 years, the scheme has successfully transitioned from Biosecurity Queensland to be administered and resourced jointly by Greenlife Industries Australia (GIA) and ABGC. This will now be a scheme run by industry for industry.

Growers can look forward to receiving quality planting material produced under QBAN which sets the standards and the protocols expected by industry and will be correctly labelled, vigorous, uniform and disease-free and successfully distributed to growers.

Quality- assured planting material can therefore make a real contribution to industry productivity and sustainability. The Biosecurity Code of Practice (published in August this year) not only provides guidance on how to minimize biosecurity risks but provides a clear reference for what the General Biosecurity Obligation (GBO) could mean for Queensland growers and, the General Biosecurity Duty (GBD) for those in NSW. The Code therefore provides a mechanism to decide if growers are meeting industry expectations in the way they use planting material. All people including growers have an obligation to be aware of pests, diseases and weeds and take action to prevent their introduction and spread – e.g. Panama disease TR4, Race 1 and Bunchy top virus.

The Code is about ensuring your farm business is not put at risk by any ill-considered actions of other growers and it has particular application within Biosecurity zones where high risk pests occur but has application nationally.

The majority of existing QBAN businesses have spent 2020 gaining accreditation under the new scheme and a listing of these businesses is available directly from ABGC and will be published in each issue of Australia bananas magazine. QBAN specifies the requirements for businesses to gain accreditation in one or more of the following:

- i. the sourcing or collecting of material for tissue culture initiation.
- ii. tissue culture production.
- iii. banana nursery production.

The new scheme will be reviewed annually, updated according to the latest research and evaluated in its ability to meet the needs of growers.

Planting material of inferior quality undermines the potential yield and performance of plantations thereby compromising profit margins. This is particularly relevant in the context of other modern production constraints including increased regulatory burden, climate unpredictability, biosecurity, and waste management etc. It is why the need to have high-quality, disease-free planting material has been recognized across all the major horticultural industries.

Access to clean planting material remains a priority for the Australian banana industry and together, QBAN and the Biosecurity Code of Practice support the productivity and sustainability of the banana industry.

QUALITY BANANA APPROVED NURSERY (QBAN) SCHEME FACILITIES

QBAN is the Australian Banana Industry's high health, clean planting material scheme.

Note: Laboratory is where plants are produced using tissue culture, Nursery is where the tissue culture plantlets are grown in pots for the grower

Kool Bananas Tissue Culture Laboratory contact Phil Berry-Porter LABORATORY	0407 126 113	shazza141@bigpond.com	Mission Beach, Qld	Tissue culture plants only
Blue Sky Tissue Culture - contact Craig & Sue Althaus NURSERY	07 4068 2208	admin@blueskytc.com.au	Tully, Qld	Potted plants for commercial sales
Lowes Tc Pty Ltd - contact Natasha Marocik LABORATORY & NURSERY (NSW)	02 4389 8750	Natasha@lowestc.com.au	Tumbi Umbi NSW	Tissue cultured plants and plugs (where authorised)
Yuruga Laboratory and Nursery LABORATORY & NURSERY	07 4093 3826	nursery@yuruga.com.au	Walkamin, Atherton Tablelands 4872, Qld	Tissue culture plants, potted plants or both
Mission Beach Tissue Culture - contact Stephen Lavis LABORATORY & NURSERY	0418 299 900	sdlavis4@bigpond.com	Mission Beach and Walkamin, Q	Tissue culture plants, potted plants or both
Wide Bay Seedlings - contact Adrian Ross NURSERY	07 4129 6684	office@wbseedlings.com.au	Pioneers Rest, Qld	Potted plants
Ausplant Nursery - contact Brady Cumming NURSERY	07 4662 4934	brady@ausplantnursery.com.au	Dalby , Qld	Potted plants
Ramm Botanicals Pty Ltd. Laboratory	02 4351 2099	Ramm@ramm.com.au	Kangy Angy NSW 2258	Tissue cultured plants

IT PAYS TO BE STRATEGIC ABOUT OUR FUTURE

The banana industry's strategic industry development project – BA16008 – was designed to advocate for growers, and shape policy decisions across issues of biosecurity, environmental stewardship and sustainability.

The project was led by the Australian Banana Growers' Council Industry Strategy Manager Michelle McKinlay. Ms McKinlay is on the frontline of policy affecting growers – she provides direct and factual feedback to a range of authorities to help them make smart decisions about the future of bananas. While she'd much rather spend her days chatting to growers, you'll often find her wading through paperwork and attending meetings so the rest of us don't have to. For Ms McKinlay, it's a privilege – working for, and with, an industry she's passionate about.

As BA16008 ends, she chats with Australian Bananas magazine about what it has achieved over the past three years (before she dives head first into the new strategy project).

Can you describe BA16008 in one sentence?

At its core, it was about shaping the future of the banana industry – embracing biosecurity, environmental issues and sustainability in a way that not only works for growers, but also strengthens their businesses.

Why was it important?

Issues around biosecurity and the environment have been identified as major challenges in Banana Industry Strategic Investment plans since 2014.

To get on the 'front foot' and manage threats, the banana industry prioritised funding for this strategic industry development project. The investment has allowed industry to build on previous projects and strengthen its long-term profitability by developing networks and negotiating solutions in very complex areas.

Importantly, the project allows me to be a point of contact for growers and other stakeholders.

For growers, it's about ensuring we're across any emerging issues likely to impact farming over the next decade. It's a proactive approach. It means growers can anticipate, plan and adopt new practices where necessary, essentially providing greater control over their farming future. Growers need to think about their business in the long term and protecting their 'social license' to farm in one



ABGC Industry Strategy Manager Michelle McKinlay (right) with Shanara Veivers (QLD DAF).

of the most beautiful places on the planet. Issues tackled in the past three years – with an eye on years to come - include the spread of Panama disease Tropical Race 4 and the introduction of environmental regulations for North Queensland growers.

For non-grower stakeholders, like government departments and funding bodies, I aim to provide accurate, current information to assist them in making robust decisions about banana farming.

The project has also attracted \$3.5million of nonlevy funding to the industry to increase adoption of environmental best practice.

What sort of legacy does the BA16008 leave behind?

The work is definitely ongoing – hence the new project! But some of the key outcomes so far include:

- Environmental regulations that align closely to best practice, with flexibility that will allow growers to apply the nutrient levels required by their plants. The regulations were inevitable – but this way, they should not reduce yield and profitability of growers in North Queensland. We know growers are keen to look after their land and its surrounds, but without the influence of this project, the regulated rates would have been inflexible and significantly lower.
- We're in control of the future of the TR4 Program as it transitions to industry-led management.

- Industry has a reputation of being a willing participant in the quest to improve the water quality to the Great Barrier Reef and a worthy recipient of government funding. Growers should be proud of the positive environmental change that's been made – at least 2500 hectares of banana production has undergone permanent practice change leading to improved farming profitability and water quality outcomes.
- We've created an established and expanding network of people and projects that link many biosecurity and environmental issues and to provide better outcomes for growers.

The final word.

I always enjoy meeting and learning from banana growers, hearing their stories, looking at their farms. The banana industry is full of remarkable, humble people prepared to share their wisdom. They are generous and open, assisting me greatly even when it comes to difficult issues like the environmental regulations. It's a privilege to do this work and it certainly doesn't stop here.

For more info; Call Michelle McKinlay on 07 3278 4786.

Keep an eye out for the next edition of Australian Bananas magazine for more on the new project.



BANANA GROWERS DIG INTO SOIL HEALTH

Over twenty-five banana growers gathered in South Johnstone recently to learn more about one of their most important assets – soil.

The Australian Banana Growers' Council workshop gave growers a taster into the five principles of soil health, the qualities and benefits of healthy soils and steps to healthy soil success.

Wet Tropics Major Integrated Project (WTMIP) Tully Basin Coordinator, Fiona George, presented at the workshop and works closely with growers to help improve their soil health.

"Getting the fundamentals right in farming is crucial for optimal productivity."

"Managing factors that limit fertility and plant production requires not just the use of fertilisers and soil amendments, but more importantly the use of good management practices in the right sequence."

"A significant benefit of improved soil health is more efficient nutrient use and increased pest and disease suppression which can also lead to reducing fertiliser and other chemicals running into waterways – this is something that the WTMIP is working closely with growers and industry to help improve," Ms George said.

Australian Banana Growers' Council's Industry Strategy Manager, Michelle McKinlay, said it's the first time the organisation has run a soil health workshop for growers in the area in some time.

"We're happy to run more soil health related workshops for banana growers as it's a topic of interest for most growers," Ms McKinlay said.

Terrain is running a six-day program of soil health training, called Digging Deeper between November and April 2021. Banana growers with an interest in soil health on their own farm are strongly encouraged to consider applying to be a part of this course.

To find out about soil health on your farm, or to request a copy of resources provided at the workshop contact the Best Practice Team at bmp@abgc.org.au.



1: ARE YOU UNDER THE FERT. CAP FOR NITROGEN & PHOSPHORUS?

WHAT YOU NEED TO KNOW:

"REEF REG READY

2. IF NOT, DO YOU HAVE A VERIFIED NUTRIENT MANAGEMENT PLAN?

- 3: KEEPING RECORDS OF FERTILISERS & PESTICIDES *RECORDS KEPT FROM DEC, 2019
 - 4: 60% COVERED GROUND IN INTER-ROWS

ABGC wants you to be as informed as possible. Want to know more? Contact us:

📈 amelia@abgc.org.au or...

"Banana Reef Regs QLD"

Stay tuned for further updates.



ADVERTORIAL

NEW FLEXIBLE NUTRITION SOLUTION FOR BANANAS

GLOBAL crop nutrition leader, Yara, has released a flexible banana crop nutrition solution for all application methods. This new range, YaraRega is a water-soluble NPK compound fertiliser that can be either fertigated or broadcast under the leaf canopy, giving the grower flexibility and confidence that YaraRega 13-2-21 can apply important nutrient on time in all weather conditions.

Featuring a special coating that protects granules during storage and handling, YaraRega fertilisers dissolve readily in water for easy and efficient application using macro, micro and overhead sprinkler irrigation systems.

Alternatively, they can be broadcast as a soil application before anticipated rainfall or irrigation.

Yara Crop Nutrition Sales Agronomist – North Queensland, Tony Dyne, says the fertiliser is ideal for tropical horticultural crops, such as bananas.

"YaraRega is a great concept," he says.

"You can either fertigate it in the dry season or spread it during the wet season, which means you only need one fertiliser for most of the year.

"We have received great feedback from customers who have already used it."

YaraRega 13-2-21 contains a balance of nitrogen (13%), phosphorus (1.75%) and potassium (20.8%), as well as the secondary nutrients, sulphur (9%), magnesium (0.42%) and micronutrients, boron (0.08%) and zinc (0.08%).

"This balance is ideal for crops that require high amounts of nitrogen and potassium but have low phosphorus requirements, such as tree crops and bananas," Tony says.

"All the nitrogen is present as ammonium nitrate, meaning it is available for immediate plant uptake and reducing nitrogen losses caused by volatilisation.

"This can improve fertiliser use efficiency and reduce environmental impacts.

"Another advantage of the low phosphorus content is that it helps to protect water quality in reef catchments."

A second formulation, YaraRega 9-0-30(14), will become available later this year.

All YaraRega formulations contain less than one percent insolubles when dissolved in a 10% stock solution.

"By comparison, standard granular fertilisers can contain up to 20 percent 'fillers', coarse and insoluble particles that can block filters and drips," Tony says.

"Others have special coatings that help to improve their handling or spreading as dry granules but once dissolved in water, these waxes and oils are released into the solution and can create blockages.

"Once added to water, YaraRega dissolves quickly meaning water flow rates are not affected during fertigation.

"Nevertheless, it is not recommended for use in hydroponic irrigation systems."

YaraRega complements the rest of the Yara range, including YaraTera water-soluble NPK crystalline



Tony Dyne

fertilisers for use in hydroponic systems, YaraVita foliar micronutrient fertilisers, YaraLiva calcium nitrate fertilisers, YaraMila NPK compound fertilisers and Yara Liquids fertilisers.

Yara fertilisers are supported by range of innovative decision-making tools to provide a complete crop nutrition solution for all production systems.

"Our objective is to help growers get the very best results from their investment in quality crop nutrition solutions," Tony says.

Tony, who has a Diploma of Agriculture and graduate certificates in business management and sales, provides sales and technical support to Yara customers and their advisors throughout Northern Queensland.

Spanning 1200 km from Rockhampton in the south to the Atherton Tablelands in the north, his sales region is major producer of winter vegetables, tropical tree crops, bananas, sugar cane and mangoes.

www.yara.com.au

BUNCHY TOP

BUNCHY TOP PROJECT SEEING RESULTS

The National Bunchy Top Project has seen an influx of interest in the last quarter of 2020, with media, community advocates and, of course, the Project team striving to increase awareness of the devastating disease.

Effective control and containment of Banana Bunchy Top Virus (BBTV) will only occur if industry, government and the community work together and the project aims to foster these collaborations to safeguard growers in the bunchy top zone as well as protect the national industry.

More about this can be found on the ABGC website here: www.abgc.org.au/banana-bunchy-top. Simply click on 'Objectives and Expectations' to read the latest circular.

South East QLD in the spotlight

The Bunchy Top Hotline has been inundated with calls from South-East Queensland, after community interest in the Project received a boost from a concerned local resident.

Don Knopke posted on a community gardening Facebook page after spotting symptoms in his own plants and receiving a valuable visit from the Bunchy Top inspectors.

The post, and subsequent story published by the ABC, has resulted in numerous calls to the team. The story can be found by searching for 'ABC Sunshine Coast Bunchy Top'.

"It's been fantastic to find so many people are keen to take action, once they're aware of the disease and its potential devastation," Project Manager David Peasley said. "The team and I have been working closely with residents like Mr Knopke to ensure we get to as many sites as possible, to verify and destroy infected plants where needed."

In addition, Mr Knopke and the Bunchy Top team will run a community information workshop later this month.

New brochure available to download

The Bunchy Top team has recently produced a new brochure, focussed on getting a clear message to residents and growers alike: Spot Report Verify Destroy.

The brochure details symptoms to look for and exactly what to do if you suspect your bananas might have the disease.

"This is one of our key materials for getting the Bunchy Top message out there – it's easy to understand, includes clear, informative pictures and ensures our inspectors are able to either assist someone in destroying their own plants, or make an appointment to help them," Mr Peasley said.

The brochure will be distributed by the Bunchy Top inspectors and is also available to download from www.abgc.org.au/banana-bunchy-top SPOT REPORT VERIFY DESTROY



PROJECT FAREWELLS MANAGER AND LONG-TIME ADVOCATE

David Peasley will formally conclude his extensive career in bananas this month, retiring from his position of National Bunchy Top Project Manager.

Mr Peasley has held numerous roles within the banana industry over the past 50 years and has fought tirelessly for growers on issues including the No Banana Imports campaign.

"While I'll be sad to leave this industry and the exciting work under way in our battle against Bunchy Top, the project is now back on track and the time has come for me to put family first.

"I'll still be helping out where I can, but I'm

looking forward to the next chapter and spending more time with loved ones."

You can read more about Mr Peasley's career in Issue 55 of Australian Bananas, available at www. abgc.org.au.

Grant Telford, who brings over 30 years experience in biosecurity, has recently been engaged by the project and will assist in ensuring a smooth transition after Mr Peasley's departure.



PREPARING BANANA PLANTATIONS FOR THE WET SEASON

By Darryl Evans

The Bureau of Meteorology is predicting a La Nina wet season so this could mean a very wet time ahead for the Far North.

Poor drainage can cause a major reduction in yield and quality of bananas. There are some things to check and correct now to minimise potential drainage issues ahead.

Any major earthworks should have been completed by now so there is time for vegetation establishment to provide some protection during the coming wet. Restrictions to surface drainage by either soil or vegetation can cause wet spots and bog holes to develop on either flat or sloping land.

Bog holes cause problems with access and can lead to fruit damage as well as perpetuating a poor drainage situation which may affect production.

There needs to be a clear path for runoff water leaving the banana plantation drainage lines and interrows. Farmers can undertake the following actions to prepare prior to the wet:

- Low sloping land can be very susceptible to poor drainage so prepare by ensuring that all drainage lines are free of obstructions to water flow.
- Check ends of rows to make sure any restrictions caused by soil or vegetation deposits have been removed.
- Pseudostems can obstruct water flow if incorrectly placed in the interrow area.
- The outlets need to be clear and the grassed waterway has to be lower than the interrow to ensure good drainage.

Improved farm management practices that improve drainage include:

- A balance between having enough vegetation to protect the soil from raindrop impact and restricting runoff flow needs to be achieved. Achieve this by slashing periodically to allow enough vegetation to provide good ground cover, but not so much that it slows the flow of water.
- The headland or drain should be lower than the interspace between the rows to ensure runoff can be disposed of efficiently.
- The same precautions need to be taken with sloping land with contour mounds.

If this doesn't happen on your farm, contact the Best Practice Team at bmp@abgc.org.au, or go to bmp.abgc.org.au/ for more information on drainage and how to achieve great results for your farm.





Welcome to the Australian Bananas 2020 end of calendar year 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

We are in our final year of the three-year 'Peel Good, Feel Good' campaign for Australian Bananas, and the campaign continues to go from strength to strength. Despite the bumpy ride experienced by everyone this year throughout the pandemic, Australian Bananas has continued to build momentum having landed some solid results.

Building on from the strength of the first two years of the campaign, Bananas are still Australia's favourite snack with over 92% of households now consuming them regularly, equating to an increase of 14,500 more households. And not only are more Aussies eating bananas, but they are also eating more, with 7% more bananas sold this year, bucking the category trend which has softened over the year (-4.4% vs last year). This propelled Bananas to be the fastest growing fruit over the last 12 months. However, with increased volumes we have seen the average price of bananas fall over the last year, especially during lock down. This has had a deflationary effect on dollar sales despite the strong growth in volume.

COVID-19

Over the last two and a half years Australian Bananas have emphasised the feel-good energy that Aussie Bananas deliver, and we continue to do so. Our enduring 'Peel Good Feel Good' campaign positioning has enabled us to remain relevant without the need to shift our overall strategy in uncertain times. As consumers understanding of energy has evolved over time, so have we. When Covid-19 impacted consumer behaviour, Australian Bananas secured the role bananas played in consumers' routines by rearticulating the health benefits of bananas through our communications. Research showed that consumer preference over the year remained strong for products that delivered health, immunity, and wellbeing. Australian Bananas hopped on the front foot to keep Bananas relevant in people's daily routines, by re-emphasising bananas as a fresh, convenient source of energy.

Campaign Performance

With the shift in consumer behaviour came changes in media consumption, where some media channels experienced drops – like transit outdoor media – others experienced spikes, such as On Demand Television. Therefore, we have focussed our investment in media channels with increased consumption.

The latest advertising burst commenced in September and is currently live until the end of November. We launched with an emphasis on building high impact awareness with investments in TV, Radio and retail OOH panels in early September, and sustained the impact with digital and more radio. With five weeks on air, TV played a critical role in ensuring that Aussies recognised our messages at scale, and our advertising placements on Radio and in Digital ensured that Australian Bananas remain top of mind. Furthermore, our Always On Social Media continues to engage our audiences with fun and topical content, with strong engagement rates on Facebook upwards of 20% as of October. And as a result, our advertising awareness has hit new heights. Our prompted advertising recall is now sitting at 53% - up 8% since our last report, and up from 40% at the start of the campaign. Furthermore, recognition of our 'Peel Good, Feel Good' tagline is at the highest level of the campaign to date. That means more than half of all Aussies now recognise our advertising.

Our long-term strategy has been 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 pandemic has disrupted short-term purchasing behaviour, which only recently appears to be returning to normal. As a result, bananas saw an uptake in purchasing during the pandemic, continuing with a spike in buying frequency post-lockdown, which has stabilised since. Furthermore, average spend increased post-lockdown but has fallen in the last three months versus the same period last year. This was mainly attributable to the average price per kilo declining with increased supply.



MARKETING



In taking a wider view to measure long-term behaviour we can see that both audiences increased their consumption over the latest 52 weeks. Young Families increased their consumption by 6.3% across the year, and Young Transitionals increased their consumption by 13.4%. Similarly, the percentage of buying households increased across the year with 79.4% of Young Transitionals (+1.8%), and 97.7% Young Families (+0.01%) now purchasing bananas, demonstrating that the behaviour of both audiences is trending positive.

The Year Ahead

Our long-term strategy has enabled us to navigate through the Covid-19 pandemic and resulting economic recession, and will continue to do so.

Our focus more than ever remains in getting Australian Young Transitionals and Families with Children under 12 habitually buying bananas as their mid-morning snack of choice by emphasising bananas as the fresh, nutritious, convenient source of energy.

In 2021, Australian Bananas will maintain our diverse mix of media types to ensure that our 'Peel Good, Feel Good' campaign reaches our key audiences. We know that TV is critical in maintaining the fame, and with foot and road traffic returning to normal, channels like Radio and Out of Home will enable us to reach consumers in various occasions. We will look at innovative ways to engage our audiences on Digital and Social Media, and importantly ensure that we are keeping Bananas top of mind.

There are green shoots for Australians coming into 2021. With most Australians now getting out and about and the health situation stabilizing in Victoria, only two in five Australians claim to be highly concerned about the pandemic (CCIM, 2020). With optimism returning, so too are consumers habits, and we will look to motivate more Aussies to buy Bananas more often in 2021.



BANANAS REACH MORE AUSTRALIANS IN TIME OF NEED

For the first time, vulnerable residents of Victoria, Western Australia and South Australia are receiving a regular supply of bananas through hunger relief charity Foodbank and its dedicated partners.

In 2020, a year marked by a global pandemic, Australian charities have reported that demand for food relief has become erratic and unpredictable, though it's most certainly on the rise. In fact, the organisation's Hunger Report showed it was up by an average of 47 per cent.

Given the backdrop of increasing need – from residents across the country, in cities and regional or remote areas – establishing a regular banana supply is no mean feat.

Jacqui Payne, Foodbank's National Program Manager for Agriculture, said cost of transport had been a significant barrier for moving fruit beyond QLD and NSW.

"With demand for food relief increasing, and bananas being fresh and available all year round, we had to think again and combine our supporter's expertise to make the program sustainable. It's been a team effort to help all of our states and territories gain access to this important fruit," Ms Payne said.

Behind the scenes, this includes the CHEP depots, on-farm teams, transport partners and ripening facilities, often driven by 'supply champions' at various banana companies. Costa are the supply partner for Victoria, with a weekly delivery kicking off in May this year.

La Manna Premier Group have taken the role for Western Australia, beginning in September, as well as South Australia, which started in October. The next cab off the rank is the Northern Territory – thanks to La Manna Premier's local supply.

"Foodbank provides a lifeline for Australians in need nationwide," a spokesperson for La Manna Premier Group said. "LPG are honoured to be part of such an impactful supply program, helping to provide nutritious bananas weekly to people who would otherwise be going without. Through our National Partnership with Foodbank, we are pleased we can contribute fresh produce to communities around Australia."

It's hoped Tasmania will be finalised in the new year.

It's also timely to recognise existing Foodbank partners, including Karden, S Lowe and Sons, Mackays Banana Marketing, Australian Banana Company, Nutrano, L&R Collins, Arcella Bananas, and Lindsay Transport.

Foodbank provides food and groceries to a

network of more than 2400 frontline charities and 2500 schools for breakfast programs.

By working with existing banana supply chains, they ensure the donation process is made as easy as possible. They receive the fruit at a midripened stage, perfect for distribution to their network for charities.

"Bananas are simply a household favourite. They are delicious, nutritious and versatile," Ms Payne said.

"We wanted to ensure all households could have access to them, regardless of their circumstances."

She acknowledged the incredible effort from all involved and welcomed any further inquiries.

"Over the years the banana industry's support of Foodbank in assisting our food relief efforts has been fantastic," she said.

"With the need for food relief increasing and, at times, imperfectly perfect fruit going to waste on farms, we can work together to redirect that produce to people who might otherwise miss out."

Contact Jacqui Payne: supplychain@foodbank.org.au **EVENTS**

ROADSHOWS IN NQ



Stewart Lindsay (DAF) presenting at the Tully Roadshow



Aaron Gallagher and Gavin Mackay – Tully Roadshow



Paul Johnston and Adrian Crema



Mihkel Tammiku and Scott Franklin – Innisfail Roadshow



Chris and Josephine Borsato and Dean Sinton - Innisfail Roadshow



Kris Horsford and Gavin Eilers - Innisfail Roadshow



DAF's Stewart Lindsay, Jeff Daniells, Shanara Veivers, Ingrid Jenkins and Robert Mayers - Mareeba Roadshow



Jeff Daniells (DAF) - Tully Roadshow

EVENTS

ROADSHOW ROLLS INTO NSW



DAF's Stewart Lindsay and NSW banana grower Zac McKeever



Banana growers from left Dan Molenaar, Matthew Thomson and Steven Edwards



Banana growers from left Paul McCabe, Michael Singh, Stephen Spear and David Tate



Stewart Lindsay presenting at Coffs Harbour roadshow



Banana growers Jeff Eggins and Joshua Tate with Tom Flanagan from NSW DPI

ABGC AGM

The ABGC held its Annual General Meeting in Tully on November 12, followed by a traditional end-of-year barbecue. As always it was a great chance for growers to catch up and hear the latest issues discussed by ABGC directors at their quarterly board meeting, held at Mission Beach on November 11-12.



(ABGC directors at AGM): ABGC directors (L-R) Leon Collins (Deputy Chair), Andrew Serra, Stephen Lowe (Chair), Jade Buchanan and Paul Inderbitzin



Barry Lowe, Patrick Leahy and Leon Collins



Elise Nucifora and Leanne Erakovic





Paul Johnston and Doug Philips



Matt Abbott, Paul Inderbitzin and Andrew Serra

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