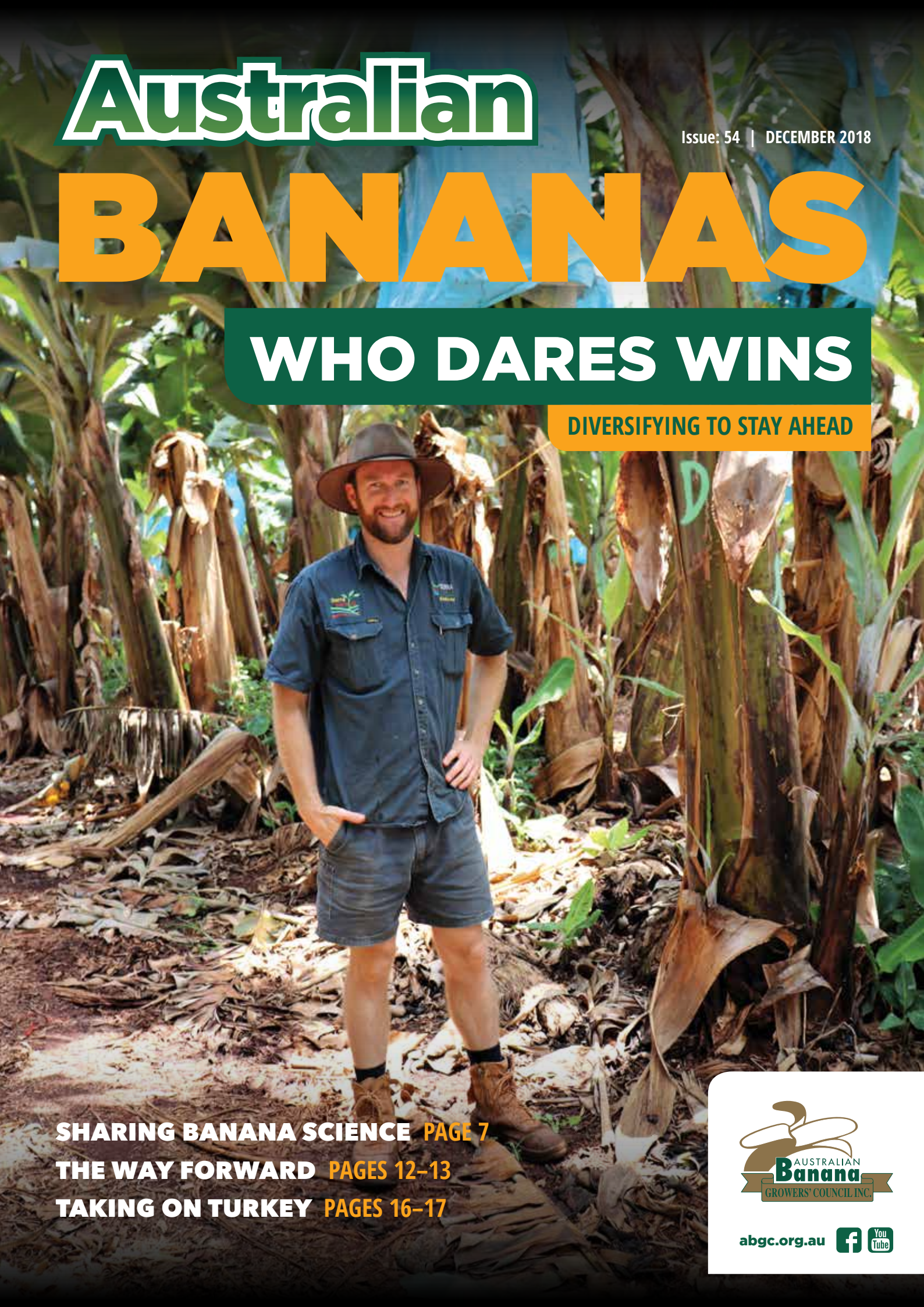
Issue: 54 | DECEMBER 2018

Australian BANANAS

WHO DARES WINS

DIVERSIFYING TO STAY AHEAD



AUSTRALIAN Banana GROWERS' COUNCIL INC.
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Pictured front page: Tablelands banana grower Andrew Serra

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AUSTRALIAN BANANAS
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2018 YEAR IN REVIEW

Jim Pekin, CEO

2018

The major issues handled by ABGC over the past year were Panama TR4 (which dominated strategy, advocacy and our main activities), research and development (R&D) projects and environment/profitability issues.

TR4 Recap

Three farms detected with TR4 in three years is both a reflection of good containment and perhaps a bit of good luck. While this is considered a success, compared to other places that have TR4, it's no comfort to the farm owners who have infected properties (IPs).

ABGC continues to manage the first IP, where we shut down all operations after purchasing that farm in October 2016. On 8 February 2018, a third farm returned a positive diagnosis for TR4, the property was in the same area as the other two IPs.

The attitude and commitment of these IP owners is to be congratulated and commended. A special mention must go to Gavin and Stephen Mackay, who have assisted industry greatly over the past year, by sharing their experiences and explaining to groups of growers, how they are managing operating with TR4.

ABGC has worked with Biosecurity Queensland (BQ) on all elements of the TR4 program. That joint approach is now developing into a formal partnership for future governance, strategy and delivery.

Feral Pigs

Separately, ABGC continues to lead and fund a very successful aerial shooting program to contain feral pig populations in the Tully Valley. This program has assisted greatly in reducing plague proportions of the pests, recognised as a vector of Panama Tropical Race 4.

Levies

ABGC has recently proposed to the Australian Government that it reduce the Emergency Plant Pest (EPP) Response levy from 0.75c/kg to zero, as at 1 July 2019. We estimate that at that date the industry would have paid back all but a small amount of this debt for the Banana Freckle Response. We certainly don't want a surplus in that levy account because it can only be used for any future formal EPP responses.

R&D

On the R&D front, the industry is fortunate to have such a large and diverse pool of scientists and research groups working on a range of projects, aimed at assisting growers with improved profitability, growth, sustainability and disease control. We are certainly the envy of other banana industries across the globe and we applaud the work that is being carried out in the R&D space.

Reef Water Quality

ABGC is also dealing with the challenges of reef water quality. Most banana growers are doing a great job keeping sediment and nutrients where they are best kept – on farm. It is of course not profitable to lose these to waterways that head out to the reef.

The Queensland Government is likely to table a reef-related regulation in Parliament in March 2019. Details of this will be contained in new codes under the regulation.

Congress

The 2019 Congress on 22-24 May on the Gold Coast is shaping up to be the best yet. Sonia Campbell and the Congress Committee have developed a very interesting program. Please put it in your diaries and don't forget to register soon to take advantage of the great early bird deals.

Lastly

Thanks to everyone for their support during the year.

CALLING ALL LEVY PAYERS

A PROPOSAL TO END THE EPPR (FRECKLE) LEVY

ABGC recently proposed to the Australian Government that it reduce the Emergency Plant Pest Response (EPPR) levy from 0.75c/kg to zero, as at 1 July 2019.

This would save growers 0.75c/kg or 11.25c per 15kg carton.

The banana industry's contribution to the National Banana Freckle Eradication Program is now estimated by the Australian Banana Growers' Council (ABGC) to be $12.2 million. The debt for this has been paid through the banana industry's EPPR levy, since July 1, 2015.

This debt is expected to be paid off by 1 July 2019, or shortly thereafter. The ABGC has recently written to the Federal Minister for Agriculture and Water Resources proposing that the EPPR levy be deactivated as at July 1, 2019. He was advised that any small debt remaining at that point is to be paid by the Plant Health Australia (PHA) levy. Both the Department of Agriculture and Water Resources and PHA have agreed to this approach.

The other option for the industry would be to continue the EPPR levy, which would mean a significant surplus by September 2019. However, the industry does not want a surplus in that levy account because it can only be used for any future formal Emergency Plant Pest responses.

ABGC is seeking feedback on this proposal, especially if there are any objections to it. The objection period is to finish on January 31, 2019.

For your input, objections or to ask any questions, please phone or email ABGC CEO Jim Pekin at jim.pekin@abgc.org.au or 07 3278 4786. You can also send objections to the Department of Agriculture and Water Resources via response.policy@agriculture.gov.au.

MAPPING FUTURE PLAN FOR TR4

Stephen Lowe, ABGC Chair

Five-year Future TR4 Plan

Many growers would be aware that the recently released ACIL Allen report - commissioned to review Biosecurity Queensland's Panama TR4 Program – highlighted the need for future funding of the program to be a shared responsibility between government and industry.

ABGC is fully supportive of the Program. In fact, there is little doubt that without it, TR4 would have spread a lot further and much more rapidly in the Tully Valley, since the first detection in 2015.

However, ABGC is also well aware that after three years of poor prices, the significant cost to upgrade each farm's biosecurity, not to mention two existing industry levies to pay, growers simply have very little capacity to contribute to any further funding needs at this stage.

The ABGC has advised government of this and subsequently has asked the Queensland Government as a matter of urgency to continue to fund the TR4 program until the end of the 2018/2019 financial year.

In the meantime, ABGC has devised a Business Case for a Five-Year TR4 Control and Containment Program, which is explained in greater detail on Page 12 of the magazine. By now, growers nationally should have also received notification of this Business Case and the way forward, via mail, sent out earlier this month.

ABGC believes that in order to continue to contain TR4, industry needs to establish a clear way forward, with any future management plan to continue to be a collaborative approach between industry and government.

The aim of the TR4 Program is to provide a cohesive response strategy, which will capitalise on the successful work of the past three years and provide a program with enhanced efficiencies through to June 2024.

The objectives of the Program are:

1. To limit the area infested by Panama disease tropical race 4; and
2. To slow the spread of TR4 by control and containment activities so as to buy time for the industry to incorporate new research outputs and for the industry and community to adjust to changes brought on by TR4.

There is also a need to ensure funding is available for the program for the next five years. ABGC has begun the process of consulting with growers nationally to seek feedback on the case for both industry and government investment in this program.

While ABGC will not be making any commitment to funding until this consultation process has been completed, it does believe that it is appropriate for industry to eventually provide partial funding to the program. One possible source of funding that has been identified is the existing PHA levy, however we believe it would only be appropriate if industry had an element of control over the allocation of this funding.

A shared funding and operational agreement for the governance of the program is also proposed. This is likely to take shape in a Memorandum of Understanding (MOU), which also will be guided by growers' views of this document and would underpin a solid 3-5 year plan for the TR4 Program going forward.

I would encourage all growers nationally to consider the value and benefits of the TR4 program and provide any feedback to ABGC by emailing or phoning Jim Pekin - jim.pekin@abgc.org.au or 07 3278 4786 .

Merry Christmas

On a final note, I'd like to take this opportunity on behalf of ABGC to wish everyone a Happy Christmas and a safe and prosperous New Year.

ABGC board (from left) Chair Stephen Lowe, Treasurer Stephen Spear, Deputy Chair Leon Collins, Ben Franklin, Paul Inderbitzin and Jade Buchanan. (Tom Day absent).

FIVE YEARS OF FRESH, HEALTHY VENDING

The team behind fresh 'better' vending marked their fifth birthday with a party any five-year-old would be proud of: delicious cake, snacks to take home and a resounding 'Happy Birthday'.

But while a traditional party might feature chips and chocolate, this one showcased their healthy, accessible products including, of course, bananas.

Even the cake, created by Brubecks Boutique Foods, was a tasty banana and carrot cake with coconut cream icing.

The fresh vending concept includes BananaBar, FruitBar, Neuvo Foods and the 'emporium' style City Pantry, which encompasses multiple vending options and a customer kitchen.

Created by the Mackays and initially launched in 2013, their first machine was a BananaBar in Brisbane city. They have now expanded to 35 machines across 14 sites.

"We started out doing the banana vending by itself, before moving onto other fruits," explained Vending Business Manager Daniel Mackay.

"Overall it's just become all about fresh food. It wasn't necessarily about vending as much as it was about healthy snacking and giving people better options. The vending side just made sense, in that we can do it 24 hours a day."

George Knezevic and Daniel Mackay, part of the fresh 'better' vending team.

Mr Mackay said there was a real push towards a better eating style, particularly fresh meals.

Of course, fresh fruit remains key to this project, including their Smart Bananas.

"We've spoken about bananas being a fast food, but they are very hard to purchase for that purpose. We counted all the places you could buy a banana in Brisbane city - there were only 20 where they were available as a fresh, fast food option."

The fresh vending team saw that as a challenge, and sought to make bananas and other 'better' products more accessible.

"In the past, as soon as the shops shut, you were back to confectionary food. Now, people have another option."

The birthday party was held on November 20 at Royal Brisbane Women's Hospital, the site of the first 'City Pantry'.

The City Pantry at the Royal Brisbane Women's Hospital.

What is a birthday party without a cake cutting?

YOUNG GROWERS LEADING THE WAY

The second round of the national Leadership Exploration and Development (LEAD) program was held in Canberra on November 11-12.

Participants in the second national LEAD program came from a range of horticulture industries including banana, melons, avocado, pineapple, lychee, passionfruit, strawberry and mango.

As with the first round of the program, the banana industry was well represented - with Far Northern growers Shayne Cini and Mick Horsford in attendance - along with Australian Banana Growers' Council Communications Manager Sonia Campbell who presented an insight into effective communication through media - titled 'Influencing through Communications'.

The LEAD program involves growers from a range of horticulture industries. Participants learn from and collaborate with a range of key stakeholders, designed to improve their business and make a positive difference to industry. Topics include effective lobbying, decision making, organisational governance and change; and workplace culture.

Far northern banana farmers Shayne Cini (left) and Mick Horsford.

Australian Banana Growers' Council Communications Manager Sonia Campbell.

SHARING THE SCIENCE OF BANANAS

Researchers and scientific minds from across the country convened in Cairns on November 27-28 to discuss the latest in industry research and development.

The Banana Scientific Symposium was a chance for presenters and other participants to share ideas, network and deliver up-to-date information on current projects and research activities, as well as future R&D trials.

Organized by the Department of Agriculture and Fisheries (DAF), the program included updates on a range of topics including Panama TR4, soil characteristics, banana varieties and diagnostics.

"There were three things we wanted to achieve out of the symposium. It was about improving networks and linkages between researchers; fostering improved collaboration on current and future research; and essentially to provide a forum for an exchange of ideas in research and development," DAF Team Leader, Banana Production Systems, Stewart Lindsay said.

"We've had people presenting their science, we've had networking activities, and hypothetical scenarios to make people think about how they would collaborate and respond, if a new situation in the banana industry arose. It's about building a more cohesive R&D team that supports the industry."

More than 50 delegates attended including Australian Banana Growers' Council Research and Development Manager Rosie Godwin. Other researchers and scientists came from Queensland DAF, NSW DPI, NT DPI&R, the University of Queensland, other universities and industry. Almost 30 speakers presented over two days.

"We've got people here, who in the normal course of their work don't actually meet, but who all work in bananas. So they have really enjoyed the opportunity to be brought into the same room to share their ideas."

END OF AN ERA AS DAVID PEASLEY RETIRES

One of the industry's strongest advocates, David Peasley, will retire at the end of 2018.

Mr Peasley spent almost 50 years working tirelessly for the banana industry, including on preventing imports, trialing new varieties and fighting Bunchy Top.

In 2015, the Australian Banana Growers' Council (ABGC) presented him with the 'Award of Honour – for outstanding service to the industry.'

The ABGC extends its deepest appreciation to Mr Peasley on behalf of the Board and growers.

Look out for an in-depth feature on David Peasley's career in the next edition of Australian Bananas.

BENCHMARKING REPORT PUBLISHED

A unique insight into the Australian banana industry is now available through the benchmarking program's final report.

Published by Howard Hall, of Pinnacle Agribusiness, the Hort Innovation funded project involved data collection throughout 2015/16 and 2016/17.

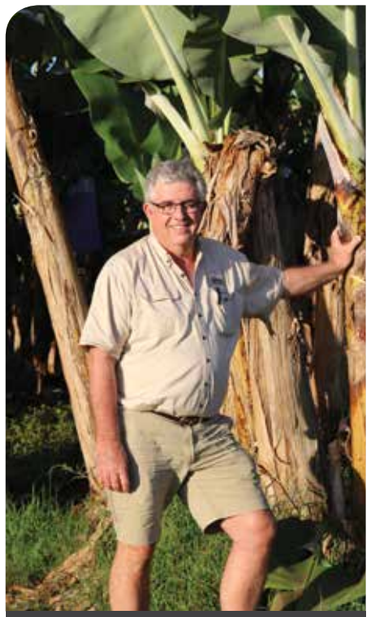
For the first time, a breakdown of environmental management and farm biosecurity is also included.

The participant group represented more than 30% of the total Australian production of bananas, and over 300 participants have received personalised, confidential reports to help their businesses.

The report – Banana Enterprise Comparison 2016/17 – is available through Hort Innovation's website: https://horticulture.com.au/resources/final-report-order-form/

BMP BACK FOR ROUND TWO

Funding has been secured for a further four years of Best Management Practice delivery through the Queensland Department of Environment and Science.



ABGC Reef Extension Officer Rob Mayers.

The second phase of the project will focus on delivering extension to growers to help them improve their farming practices and profitability.

Reef Extension Officer Rob Mayers will be making contact with growers who haven't yet completed the self assessment checklist to deliver BMP training. He will also encourage them to revisit and update their BMP action plan if necessary.

On top of that, Rob can provide training in the use of BetterBunch – a great record keeping app designed specifically for the banana industry.

"Investing an hour or so with Rob will put growers on the front foot for the water quality regulations that are likely to start in the next couple of years," Australian Banana Growers' Council Strategy Manager Michelle McKinlay said.

"Growers will find out if they need to improve elements of their farming practices – and exactly how to go about that."

A NATURAL EVOLUTION TO AWARD WINNING BUSINESS

Walkamin growers, Rob and Krista Watkins (Natural Evolution), were awarded the prestigious Peter Kenny Medal in November.

The Medal, which includes a prize of $3000, is awarded annually to an individual or organisation who has made an outstanding contribution to Queensland's agriculture, fisheries and/or forestry sector in terms of innovation leading to profitability and sustainability.

Minister for Agricultural Industry Development and Fisheries, Mark Furner, paid tribute to both the Watkins and Emerging Leader Award winner Jesse Moody.

"I congratulate Rob and Krista Watkins and Jesse Moody who beat a strong field of nominees to claim these awards which identify and support leaders and innovators in the agriculture sector," he said.

Natural Evolution produces a range of products including green banana flour and gold sweet potato flour.

Rob and Krista Watkins won the 2018 Peter Kenny Medal. Image: Department of Agriculture and Fisheries

COFFEE BEAN WEEVIL NO LONGER PEST IN WA

Coffee Bean Weevil *Araecerus fasciculatus* has been removed from the list of quarantine pests for WA.

The beetle is now considered a permitted organism and all previous regulations have been revoked after the pest was found in multiple locations in the Perth area.

This means that although banana loads entering WA will still undergo an import verification inspection, WA authorities will no longer be looking for coffee bean weevil and even if they are found, bananas will not be subject to fumigation and can no longer be rejected.

Any questions can be directed to Dr Rosie Godwin, ABGC R&D Manager, via rosie.godwin@abgc.org.au.

GET THE FACTS ON CHLORPYRIFOS DUST

Organophosphate insecticides are commonly used to control insect pests in bananas, including thrips, caterpillars and borers.

Chlorpyrifos dust is a common option, but it can poison humans as well as insects if absorbed through the skin, inhaled or swallowed. Under state laws, businesses are therefore required to ensure the health and safety of their workers and others while at work.

The permit for use (PER14240) is held by the Australian Banana Growers' Council and is current until 30 SEP 2020. It includes all registered products containing 500 g/kg Chlorpyrifos as their only active constituent.

The Australian Banana Growers' Council has recently updated its fact sheet online, to include the latest information on this insecticide. It is very important the product is used according to the label, Safety Sheet and permit instructions, including the use of personal protective equipment.

Find the fact sheet at www.abgc.org.au in the Bunch Pests section.

CARL LANDS AT ABGC WITH A HOP, SWIM AND JUMP

New ABGC Plant Health Officer Carl Rickson is excited to be joining the team.

Carl Rickson has certainly taken the road less travelled on his way to becoming a Plant Health Officer.

The newest face in the Australian Banana Growers' Council office has played NRL, skippered boats, worked on a ski mountain in Japan and even in rail.

But it's clear he brings a passion for bananas to his new role.

His first job in the banana industry was as a team leader for the Panama TR4 biosecurity program, which he took up after moving back to the 'Good Country' following two years in England.

"I've visited nearly all growers in North Queensland a few times, or ten! I've built up a good rapport with them over the years, which I am thankful for as it's made my transition to ABGC so much easier."

He's now looking forward to building on those relationships and helping growers with their pest and disease issues.

"I am learning on the run and will gain valuable experience from growers and the ABGC team," he said.

"Many people have told me I have big shoes to fill, and that I have.

"Louis Lardi is a size 12, and I'm a size 10, so they're going to take some filling. But I'm going to give it a good crack and look forward to the challenge."

When Carl isn't roaming banana farms, you'll find him with his kids and close family.

"My three children all live in Cairns, so I spend every opportunity with them at all their sporting activities. We are all members of the Cairns Surf Life Saving Club, so we spend most winter weekends at the beach."

And if you didn't guess from his time spent playing professionally, he's just a little into footy.

"I'm a mad Broncos supporter and an even bigger Queensland Maroons fan. Live for it!"

WHO DARES WINS

INVESTING IN MORE THAN BANANAS

It's a much touted old saying: don't put all your eggs in one basket.

And it seems banana growers have taken heed, filling their baskets not only with bananas, but with avocados, sugarcane, cattle and more.

For a variety reasons including risk and disease management, many growers around Australia have diversified.

***Amy Spear* spoke to three of them, to find out a little more.**

Leon Collins
Bananas, Avocados, Sugarcane, Cattle

Leon Collins runs one of the largest banana operations in the country, so it comes as no surprise that he knows how to read his crops.

Overseeing roughly 1150 acres of bananas, 90,000 tonnes of sugar, 200 head of cattle and 10,000 avocado trees would certainly keep anyone busy – and he's got another 12,000 avocado trees going in next year.

For Mr Collins, also the Australian Banana Growers' Council's Deputy Chair, it's about risk management – be it storms and cyclones, or the threat of plant disease.

"Most of our properties are duel cropping," Mr Collins explained. "It's about looking at what land's available and making the right decisions."

"It's also really important to take advice from the right people and have good people on the ground. They're your real asset – particularly those who are long-term and build that background."

When it comes to avocados, Mr Collins travelled as far afield as South Africa to seek knowledge, and spoke to a range of experts and nurseries closer to home.

He believes Lakeland - where he'll plant the additional 12,000 avocado trees next year - is likely to be a successful new growing area.

The challenges of juggling various operations come in different forms – his properties are spread across the Wet and Dry Tropics and the remoteness can make things more difficult.

Mr Collins is always looking for his next opportunity – "You never stop looking," he said.

"But you need to know the crop – and know what you can and can't get away with, especially in a new growing region."

Andrew Serra
Bananas, Avocados

Tablelands grower Andrew Serra has 85 hectares each of bananas and avocados.

"Where we go to from here will depend on how the bananas perform over the next few years," he said.

"It's been a tough few years for bananas and we're keeping an eye on the spread of TR4."

Mr Serra started packing bananas in 2012, and avocados followed in 2013. The bananas were designed to be an income stream while avocados got off the ground, as the latter take up to five years to go into production.

He's now well established – and well regarded - in bananas, but will be keeping a close eye on the industry over the next 2-3 years to plan the next move.

"We're currently at a level we're comfortable with. We're just focusing on profit per hectare – maximum production at minimum cost – the things we can have an influence over."

When it comes down to it, transitioning from one crop to another is not an easy thing to do.

"It's costly. And for avocados it could be 7-10 years before you see a return on your investment."

For now Mr Serra's strategy – like many others – is about diversifying and spreading the risk.

"For some growers, it may be planting bananas in another region, or it may be looking to plant avocados or another crop instead," he said.

Bananas, Avocados farmer Andrew Serra

Dennis Howe
Bananas, Avocados, Sugarcane, Coffee, Blueberries

"Pick a crop you can grow, and grow well."

This simple advice – which can actually require a great deal of experience and skill – is at the heart of Walkamin-based grower Dennis Howe's business.

The respected, long-time grower is currently farming bananas, accounting for roughly 70 per cent of the business, with another 20 per cent to avocados and the rest divided between cane, coffee and blueberries.

Over the years he's also grown other crops including peanuts and potato, but planted his first bananas in 1995 – and things took off from there.

"They're an interesting crop," he said. "You never stop learning."

The bananas have also contributed to his decisions when it comes to diversifying. While he's certainly not afraid of an experiment, generally whatever else he's gone into has had to be "sizeable enough to maintain the banana business."

"Profits are good when prices are good in bananas, but you don't want to spread yourself too thin."

While bananas get a little quieter in winter, it's certainly a year round job. Avocados, on the other hand, run from February to May, while blueberries run from May to September – they work in well together.

In making decisions about the business, he's conscious of the threat of Panama TR4 – "we're hoping for something miraculous" - and natural disasters. But it isn't something he dwells on.

Instead, his reasons for trialing different crops are more about the produce itself – finding things that suit the Far North Queensland growing conditions.

"We're trying papaya at the moment," he adds. "They're beautiful eating, but we need to get them looking better."

THE WAY FORWARD...
DEVELOPING A FUTURE TR4 PLAN

All growers nationally are being asked to have their say on a proposed Five-Year TR4 Control and Containment Strategy, to guide industry's future response and decide how it will be funded.

Sonia Campbell reports

It is well recognised that Queensland's banana industry has had unprecedented success in containing Panama Tropical race 4, to the extent that is has, since initial detection of the disease in the state's far north, in March 2015.

It's an achievement attributed to the extensive biosecurity controls implemented by individual growers, as well as the broad containment strategy executed by the Department of Agriculture and Fisheries (DAF), led by Biosecurity Queensland (BQ) - and supported by the Australian Banana Growers' Council (ABGC) and Agri-Science Queensland, in collaboration with industry.

To date, the Queensland Government has injected almost $30 million into the TR4 Program, to which growers and the ABGC have applauded. However, industry is also aware that future departmental funding of the program is not guaranteed.

"The TR4 Program has been extremely important, in fact it has been vital to our industry, and for that we are extremely grateful," ABGC Chair Stephen Lowe explains.

"Without BQ surveillance and its regulatory compliance work for TR4, the disease would spread much quicker. However, there is an urgent need for the Program to continue. There is also a need to ensure funding is made available for the next five years of the Program."

"Consequently, ABGC has requested the Queensland Government, as a matter of urgency, continue to fund the TR4 Program for the remainder of 2018/19, as it has for the first two quarters of the financial year."

In the meantime, ABGC is seeking input from growers on a way forward post 2018/2019, including future joint government/industry investment in the TR4 fight.

The ABGC recently sent all growers a letter with a link to its business case for a proposed 5-Year TR4 Control and Containment Program. The business model discusses the rationale for both industry and the State Government to continue to invest in the TR4 Program to ensure a healthy and viable future.

It includes discussion on the ACIL Allen Review of the existing TR4 Program, which is now on the Government website: www.bit.ly/ACILAllenReview as well as a clear mandate moving forward, to ensure industry has a solid jointly-led TR4 Containment Strategy.

"Over the next five years, this disease is expected to spread, but hopefully this will be minimised through continued containment efforts," Mr Lowe said.

"It is important to note that the objective of containment is to buy time until there are research and development options for TR4-infested farms. A main part of that containment strategy is maintaining existing biosecurity protocols."

COST SHARING

It is clear – particularly following the ACIL Allen report – that the banana industry is expected to increase its financial contributions to the TR4 Program over the next five years.

"ABGC has advised government that growers are already contributing significantly to the TR4 response. Growers are also paying off two debts, via two different levies, for the Banana Freckle cost-shared response (EPPR Levy) and the PHA Levy for the purchase of the first-infested farm at Tully Valley," Mr Lowe said.

"We also advised that as a result of these debts, combined with the cost of individual farm biosecurity expenditure and poor prices over the last three financial years, growers have very little capacity to contribute further, at this stage," he said.

"Nonetheless, ABGC believes that it is appropriate for industry to eventually fund part of the Program. A possible source of funding could be via the existing PHA levy. The use of levy funds would only be appropriate after grower consultation and the development of an agreement whereby industry has an element of control over the allocation of its funds."

ABGC and BQ co-agreement

The ABGC is currently working with the Queensland Government to develop a Memorandum Of Understanding to deliver a co-led and co-funded TR4 Program into the future.

It is hoped the MOU will be signed off on by March 2019 and active from July 1, 2019.

The MOU will set out funding contribution expectations for each party and a way forward together, to deliver the TR4 program.

Feedback sought

ABGC is keen to hear feedback from growers nationally on the business case for the 5-Year TR4 Control and Containment Program and the future funding of this program. For your input, or to ask any questions, please phone or email ABGC CEO Jim Pekin at jim.pekin@abgc.org.au or 07 3278 4786. A full version of the business case can be found on the ABGC website at https://abgc.org.au/panama-tr4-business-case/

PANAMA TR4 R&D PROJECT SUCCESS

In August 2018 the three-year funded BA14012 'Coordination of the Banana Industry R&D Panama TR4)' project was completed. The purpose of this project was to coordinate and build knowledge and capacity within the Australian banana industry to manage and contain Panama Tropical Race 4 (TR4) fungal disease and ensure tangible outcomes are delivered to banana growers.

WHAT'S NEXT FOR R&D PROJECT

The future of the Banana Industry R&D Coordination project is in safe hands, with Dr Rosie Godwin recently signing on to lead the initiative for another three years.

"There is no doubt there are some challenges facing the industry at the moment, but we've got world class researchers, scientists and innovative growers who are more than up to the task," Dr Godwin said.

The project (BA17002) was identified as imperative due to low banana prices over the last three financial years and the threat of Panama TR4. The project will also consider challenges including other areas of biosecurity, fruit quality and improving profitability.

Dr Godwin will act as the central point of contact for industry R&D, while working in collaboration with Hort Innovation and other relevant parties.

Among the project outcomes are increased awareness of banana R&D projects and enhanced extension and communication of any new developments.

"I'm looking forward to continuing to work with growers and industry representatives to get the best outcomes for our industry," Dr Godwin added.

The project was delivered by the Australian Banana Growers' Council and its Research and Development (R&D) Manager, Rosie Godwin.

Why was the project needed?

When TR4 was confirmed in the NQ production area in March 2015 - and the nature of the disease became apparent (that it cannot be eradicated and is easily spread) - it was vital to establish a containment management program and investigate ways to minimise its spread.

This made the role of R&D Manager critical to the industry. It was also important that the banana industry had technical and R&D adoption expertise to provide advice to the banana industry R&D program and to work closely with Hort Innovation.

This project (BA14012) was primarily targeted at the banana-growing region of North Queensland where TR4 had been confirmed. It also targeted the entire Australian banana industry in TR4 preparedness and through the provision of technical and R&D adoption expertise. One of the greatest advantages the Australian Banana Industry has over overseas counterparts, is a well-coordinated effort in the area of R&D. Fostering good collaborations, avoiding duplication of R&D effort and ensuring levy investments meet the needs of growers, are the main approaches employed by this project to achieve a well coordinated R&D Program.

Is the industry on track?

The containment management program in place for Panama TR4, has been successful in slowing the spread of TR4 in the banana industry. It is still contained to just three farms in close proximity in the Tully Valley. This has been unheard of in most other countries where TR4 has quickly reached epidemic proportions. The achievement of the containment program is a result of a coordinated response between multiple parties, effective extension of knowledge to industry and its stakeholders, adoption of new biosecurity practices, all of which are underpinned by relevant high-quality science.

What did the project achieve?

BA14012 achieved many things for the banana industry particularly in facilitating the establishment, coordination and development of the industry's major R&D investments. This included the Fusarium wilt TR4 Research projects, Improved Plant Protection Program, the National Industry Development and Extension Program, and the transition of 'QBAN' (the banana industry's clean planting material scheme), from Biosecurity Queensland (BQ) across to a third party accredited scheme in partnership with the Nursery and Garden Industry Australia (NGIA). The project was also key in the development of the new Banana Industry Strategic Investment plan 2017-2021, which represents the interests of the entire industry and is the blueprint for decision-making in levy investments.

Significant contributions were also made to the extension of R&D projects (particularly on TR4) to growers and other industry stakeholders. For example, the development of a series of On-Farm Biosecurity resources for TR4 infested farms which assist farmers in their TR4 preparedness and, the development and delivery of the R&D scientific program at 2017 Banana Industry Congress which included a new session of 'Science Speed Talks'.

The R&D Manager role provided input to the entire banana R&D program through membership of project reference groups and the Banana R&D Strategic Investment Advisory Panel (SIAP). Considerable technical advice was provided by the R&D Manager to the banana industry on key pest and disease issues e.g. TR4, clean planting material, Bunchy Top Virus, Banana Freckle, leaf spot, plus chemical usage, reviews and permits.

Does project success rely on strong collaboration?

The R&D Manager role would not have been successful without effective collaboration and working relationships with the diverse stakeholders associated the project. This included listening and talking with growers, federal and state government departments, researchers, service providers and industry groups. Gaining an understanding of the needs of each group and the problems they face was the first step in assisting each group to find solutions that met the needs of industry.

NEW VARIETY EVALUATION GOES IN AT SOUTH JOHNSTONE

Several new varieties shown to be resistant to TR4 overseas are being assessed for agronomic performance in a new trial commenced recently at South Johnstone Research Facility. Queensland DAF gives an overview of what's in store.

Jeff Daniells, Katie Ferro and Massimo Bianco - DAF Queensland

Trial Objectives

Theme 1 in the banana plant protection project is about importing varieties and evaluating for pest/disease tolerance and agronomic traits in a range of production environments, with particular emphasis on Fusarium wilt TR4. As part of this theme a variety trial was planted at South Johnstone on 26 September, where 32 varieties will be evaluated for agronomic performance over three crop cycles, plus a leaf spot screening in the fourth cycle. This is a first look at many of these varieties to see how they perform under north Queensland conditions. In addition some preliminary postharvest assessments will be carried out.

In conjunction with this agronomic evaluation many of these varieties will be screened against TR4 in the NT to determine or confirm resistance. The NT field planting will commence in December this year. The varieties are also being evaluated for Race 1 Panama disease and agronomic performance in the subtropics at Duranbah, NSW.

New variety trial established at South Johnstone in September

Four leaf disease resistant hybrids from the breeding program of CIRAD in the French West Indies are included in the trial.

Overview of varieties

- We have included the full suite of Taiwanese selections of Cavendish present in Australia. Also included are two selections made in Australia from the older introductions.
- The agro-biotechnology company Rahan Meristem imported into Australia four of their elite Cavendish selections – Gal, Jaffa and two selections of Adi. Their main features include reduced plant stature and large well-structured bunches. These selections are proving popular in various export production zones around the globe. However, these selections are not claimed to have any resistance to TR4. North Queensland producers that have seen them growing overseas have been keen to see them evaluated by DAF for some time. Rahan Meristem own these varieties and have agreed that results of our evaluations can be made publicly available.
- Four hybrids from the breeding program of CIRAD in the French West Indies. Overseas these have shown resistance to leaf disease and race 1 of Panama disease. We are all eager to see how they fare against TR4 in the NT trials.
- Two Cavendish selections from the Canary Islands. These selections of Dwarf Cavendish form the basis of their 400,000 t/yr export industry to mainland Europe.
- A new dwarf Lady Finger selection.

Stay tuned for the dates of planned field walks in 2019 and beyond to inspect progress in the trial.

The Improved Plant Protection for the Banana Industry project (BA16001) is funded by Hort innovation using the banana R&D levy and contributions from the Australian Government, with in-kind contributions from Queensland DAF. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Hort Innovation Strategic levy investment | BANANA FUND | Queensland Government

LESSONS FROM THE PHILIPPINES ON TR4 MANAGEMENT

By Tony Pattison

Filipino banana growers differ greatly in how effectively they manage Fusarium Wilt (Panama Disease) of banana.

In a nutshell, the farms that were most effective in managing the disease were typically those with more resources to allocate to the problem. These stark contrasts in disease severity between farms became apparent during a recent visit to Mindanao as part of an Australian Centre for International Agricultural Research (ACIAR) project focussing on integrated management of Panama Disease.

The Philippine banana industry is the second largest banana exporting nation and includes large multinational and national farms that supply around 70% of export bananas from approximately 80,000 ha, with small-holder banana growers or cooperatives, supplying the remaining 30%. The Philippines banana industry was first affected by Tropical Race 4 (TR4) in 2005, but since 2013, the disease has spread rapidly. An estimated 15,000 ha of land is now believed to be infested with TR4 on Mindanao, the country's main production area.

In response to TR4, Philippine growers are now starting to plant GCTCV218 (Formosana), which is a partially resistant cultivar from Taiwan. Critically, our visit revealed stark differences in the success of GCTCV218 on farms with and without effective biosecurity and inoculum management.

Things I learnt about TR4 while in the Philippines

Tony Pattison, Researcher, DAF
"Management of disease inoculum is essential to producing bananas in TR4 infected areas, but we still don't know how to do this effectively"

Stewart Lindsay, Researcher, DAF
"Seeing the different performance for the same resistant Cavendish variety on different farms has reinforced for me that any working solution for growers wanting to keep growing Cavendish is more than just changing the variety"

Paul Dennis, Researcher, University of Queensland
"Gowers need more information about how to reduce pathogen load and avoid it building up in the first place"

Jim Pekin, CEO ABGC
"It is essential to keep TR4 fungal levels low in order to profitably grow any currently available and market acceptable banana variety"

Leon Collins, Banana Grower, Tully
"If you are 1000 km away from this disease you are too close"

Irene Kernot, Research Program Manager ACIAR
"Farmers can't afford to follow advice not grounded in good science and that science must provide answers relevant to the whole banana farming system. In some ways the key thing the industry needs is hope that a solution is within reach"

TAKING ON TURKEY: PROMUSA 2018

Australia's subtropical banana experience was shared with experts from across the world at ProMusa 2018.

The conference, part of the 30th International Horticultural Congress, was held in Turkey and featured presentations from Matt Weinert, of the New South Wales Department of Primary Industries, and Doriana Mangili, from the Sweeter Banana Co-Operative in WA.

The theme of Promusa 2018 was 'growing and marketing bananas under subtropical conditions' – a perfect fit for both Western Australia and Northern New South Wales.

Mr Weinert presented a paper on a cold tolerance test that David Peasley (Peasley Horticulture) had begun to develop as part of the variety trials at Duranbah, NSW.

Mr Peasley had noticed that, when cutting plants during the middle of winter, Cavendish types had no sap flow. Others, such as Lady Finger and FLF, had quite good flow.

"David started counting the number of drops as an indicator of that, so I presented some preliminary data and talked about the need to find a way to quantify this information," Mr Weinert said. "Since the congress I've been discussing the work with Brazilian researchers to further develop this simple technique to test for cold tolerance in banana cultivars."

Mr Weinert also presented a keynote address, on behalf of Mr Peasley, looking at banana diversity in the subtropics.

Growers and researchers expressed interest in a couple of varieties from Australia including FLF and Little Gem.

"On top of that, there are several varietal evaluation programs around the world, so we've started to talk with researchers doing similar work to ensure we've got international consistency for this work," he said.

"International researchers in particular were impressed with the varietal evaluation process at Duranbah, from importing new varieties to disease and agronomic testing right through to ripening, handling and consumer acceptance testing."

Ms Mangili's presentation focused on the marketing success of the Sweeter Banana Co-Operative, and sparked a range of questions from participants.

"It was a great experience meeting with researchers from many nations as diverse as Uganda, Ghana, Israel, Pakistan, Lebanon, India and Brazil and finding that many had the same challenges in getting markets for their product and grower collaboration."

ProMusa 2018 also included a field trip to a banana growing region of Alanya on the Mediterranean coast.

Mr Weinert described the topography as similar to Coffs Harbour – slopes leading down to the ocean – but with a climate closer to Carnarvon.

"As well as outdoor cultivation, they also grow bananas in greenhouses which have quite high yields of 60-80 tonnes per hectare. That's about double North Queensland and probably 3-4 times what we achieve in Northern NSW.

"It's an expensive way to grow bananas, but in Turkey there's quite high import duties so it's economically viable."

(L-R) Matt Weinert, Hadi Leghari, of Pakistan, and Doriana Mangili.

The slopes leading down to the ocean resembled Coffs Harbour, with a Carnarvon climate.

Those involved in ProMusa had the opportunity to check out local produce and packing processes.

ProMusa delegates take a tour of a banana growing region in Turkey.

Australian banana industry representatives Doriana Mangili (right) and Matt Weinert (middle) were among those taking in the banana sights.

Ms Mangili added that it was interesting to look at the whole supply chain by visiting farms, packing sheds and wholesale markets, and learning about the local market.

"With very little grading and limited cool chain, the visual quality was similar to the Carnarvon industry 20 years ago," she said.

"Government subsidies for greenhouses and import duties support the industry, helping growers to be profitable. The taste of the local product was very good - good texture with a sweet taste, very similar to our Carnarvon bananas."

She noted that the welcome from local government, industry representatives and researchers was 'incredible.'

Congress attendees also took part in a workshop on Panama TR4, where biosecurity protocols and trials implemented by Biosecurity Queensland, QDAF and ABGC were held up as the gold standard for managing TR4 and varietal evaluation.

Both Mr Weinert and Ms Mangili felt there were some valuable lessons to bring back home too.

"The sub-tropical industry is small in Australia so much of our research is directed to tropical growing areas where the majority of our bananas are produced," Ms Mangili said.

"It was very exciting to hear all of the incredible research and development that is undertaken in other nations focusing on sub-tropical varieties and sub-tropical conditions.

"Meeting so many passionate scientists working on sub-tropical bananas has certainly broadened my horizons and I look forward to our Australian researchers working with their international counterparts to trial some of the varieties and techniques developed overseas, in sub-tropical areas in Australia."

Mr Weinert noted there were some great presenters looking at the stresses bananas undergo, particularly in Pakistan where they grow in deserts with 50 degree summers and freezing winters.

"They still manage to get good yields through crop manipulation, and the thermal netting being trialed in Israel produced amazing results too, significantly reducing cold and frost damage."

ProMusa was held from August 12-16. Matt traveled to ProMusa 2018 with support from Better plant protection for the banana industry (BA16001), part of Hort Innovation banana fund and industry funds and ProMusa.

Bananas growing in a greenhouse.

THE BANANA NITROGEN DILEMMA: BALANCING PRODUCTION AND SOIL HEALTH?

By Hazel Gaza and Tony Pattison Department of Agriculture and Fisheries, South Johnstone.

Nitrogen application is an important component to profitable banana production.

The nitrogen applied to soil is taken up by the roots and used to produce chlorophyll in the leaves, giving them their green colour. The more chlorophyll in the leaves, the greater the plants ability to photosynthesise, that is, to use the sun's energy to produce sugars and starches. The sugars and starches are used in plant growth, with a response that sees increasing nitrogen application increasing plant growth.

Nitrogen is also used in the soil by organisms to break down organic matter to release the carbon that is present. The carbon is used in the growth of the soil organisms. Banana soils tend to be relatively rich in organic matter, as the crop residue like leaves and pseudostems are returned to the soil, but require nitrogen to decompose it. The more nitrogen available in the soil the faster the decomposition rate of soil organic matter, which leads to changes in the microbial composition in the soil.

What happens to soil organisms and banana production when nitrogen applications are manipulated was investigated in a research experiment at the Department of Agriculture and Fisheries, South Johnstone Research Station. Three nitrogen management systems based on urea were tested on non-Cavendish bananas; 350 kg N/ha/yr (High N), 220 kg N/ha/yr (Low N) and 220 kg N/ha/yr applied as Entec®, a nitrification inhibiting product to keep the nitrogen in the ammonium form (Low N+E).

After three years and three crop cycles the results showed that high N resulted in a decrease in soil pH making it acidic, dropping pH 5.6 to 4.9 under the high N, but remaining constant in the low N treatments. Acidic soils alter the solubility of nutrients, such as aluminium, which increases in availability. The available aluminium doubled under the high N. Excessive aluminium in the soil can retard root growth and restrict plant's access to water and other nutrients like phosphate and calcium. Calcium was, reduced by a third following three years of high N compared to low N. Calcium is important for proper cell wall formation, which protects the plants from pathogen penetration.

Nematodes are good indicators of changes in soil environments due to their abundance and diversity.

Under three years of high N, the nematode community decreased in diversity. In addition, the high N treatment caused an increase in the proportion of root-feeding nematodes, a decrease in microbe-feeding and predatory nematodes. Root damage caused by root-feeding nematodes can reduce banana production, but also increase the plant's susceptibility to soil-borne pathogen like Fusarium wilt.

Investigating the soil microbial dynamics further, the high N decreased the soil microbial functional diversity. When soil microbes were provided with different carbon sources, such as simple sugars, carboxylic acid and amino acid, the microbes in the soil that had three years of high N application were not as efficient at degrading those food sources compared to the soil organism with three years of low N+E. A similar result occurred when soil microbial enzyme activity was compared. It was observed that the soils with three years of high N always had lower enzyme activity compared to low N and low N+E. It could be viewed that three years of high N had made the soil microbes "lazy", as they no longer had to scavenge for nitrogen to access carbon in soil organic matter.

Having a diverse soil microbial community can increase the likelihood that there will be more microorganisms that are antagonistic to Fusarium spp., resulting in a decrease in Panama disease severity. This was tested using a bioassay to grow Race 1 susceptible Ducasse banana plants in the experimental field soils. The results from the bioassay revealed that plants grown in soils that had a history of high nitrogen had a higher disease rating compared to plants grown in low nitrogen.

However, the effect of three years of low N, resulted in a 10% decrease in banana production compared with the high N. Bananas require the N for plant growth and good production. This means more efficient fertiliser practices, such as application frequency, forms, and the continual monitoring of leaf nitrogen are required if a balance between production and a disease suppressive soil microbial community is to be developed.

A comprehensive monitoring of the soil environment under different nitrogen management was mapped (Fig 1), which demonstrates that high nitrogen application has a flow on effect to the soil biological community. It exemplifies that in the long run, managing nitrogen inputs may be beneficial for the environment, but for banana growers, it can increase the plants resilience and the soil's disease suppressive characteristics.

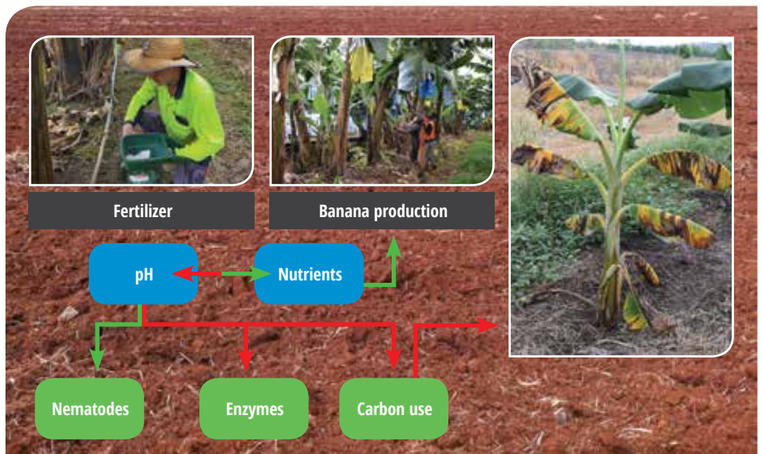


Fig 1. Impact pathways from the application of nitrogen fertiliser to banana production and disease suppression through the soil environmental ecosystem.

This project was funded by Hort Innovation, using the Hort Innovation banana research and development levy, co-investment from Queensland Government and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

UNRAVELLING THE MYSTERY OF THE BANANA MICROBIOME

Tony Pattison, Hazel Gaza, Paul Dennis and Henry Birt

The microbes in our bodies, and the discoveries of how important these are for our wellbeing, provide us with new insights for agriculture and banana research.

Our bodies host an incredible 30 trillion microbial cells that help to keep us strong and healthy! To put this in perspective, 30 trillion seconds is equivalent to 960 thousand years, the time before modern humans, lower sea levels and when Australia was connected to Papua New Guinea!

Like us, banana plants also host trillions of microbial cells that contribute to their well-being. Occasionally, disease-causing microbes can infiltrate these communities with devastating consequences for the plant. One such intruder is Fusarium oxysporum f. sp. cubense Tropical Race 4 (TR4), which is the fungus that causes Panama Disease in Cavendish bananas.

In humans, various diseases have been linked with imbalances in the microbial communities on and within our bodies. For bananas though, research is in its infancy. Initial results indicate that soil type and farm management practices have big impacts on the organisms present within the plants. It is also evident that different microbial species live in different plant tissues (e.g. roots, shoots, and leaves).

Importantly, in North Queensland we have found that non-disease causing populations of Fusarium oxysporum dominate all tissue types of Cavendish and other banana varieties, irrespective of the soil in which the plants are grown. The extent to which TR4 can compete with locally established Fusarium oxysporum strains for space within the plants and cause disease remains to be determined. It is likely though, that this will be strongly influenced by the biological health of our soils as this affects the resistance and resilience of banana production systems to TR4 and other stresses.

By understanding what makes up the banana microbiome in the various banana tissue, including the soil, it is possible to find groups of organisms that occupy the same space as Fusarium and thereby target competitors through better soil management and strategic addition of the organisms into environments where we know they will survive.

The unravelling of the banana microbiome has a long way to go to catch up with human health services, but we can use the advances made in human health to quickly advance the knowledge and management tactics used to improve the health of banana plants. Early results indicate that there are more opportunities to understand the banana microbiome and manipulate it to suppress Panama disease.

Tissue cultured banana plants are planted directly into banana field soils to determine the differences soils make to the banana microbiome.

Dr Paul Dennis (the University of Queensland) and Paul DeBrincat (LMB Nerada) sample soils and banana plants to determine their microbiomes

*Article compiled by Tony Pattison and Hazel Gaza, from the Department of Agriculture and Fisheries *South Johnstone; and Paul Dennis and Henry Birt, from the School of Earth and Environmental Science, University of Queensland. This project was funded by Hort Innovation, using the Hort Innovation banana research and development levy, co-investment from Queensland Government and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.*

Tully Banana Grower Embraces New Chemistry to Tackle Disease

Big future predicted for group 7 banana fungicide

When the first fungicide containing Group 7 chemistry was released in 2015, Cameron Flegler started using it on his Tully banana farms without hesitation.

The reason is Mr Flegler, who has 320 hectares of bananas in conjunction with his brother, knew from past experience how important it is to keep on top of disease in the banana business.

"When you grow bananas in Tully there are a few diseases that really have an impact on production if they're not in check, such as yellow Sigatoka, which is a banana leaf fungal disease and it is a constant problem, it never sleeps," he says.

"We do a lot of physical man hours de-leafing when yellow Sigatoka is bad, but you've got to do it regularly, which really costs a lot, so chemicals that stop the disease really give you an advantage – the chemical can be expensive but not as expensive as the labour.

"If you put on a really good chemical that can hold it at bay for longer, you do save a lot of labour and you can lift production because you simply have more leaves and bigger bananas, so that's why I embrace new chemicals for leaf diseases."

After the introduction of Luna® Privilege fungicide from Bayer Crop Science in 2015, Mr Flegler says the decision to use the new chemistry on all his bananas was an easy one.

"I use Luna Privilege regularly in my fungicide aerial spraying program and it's certainly been one of the major factors why my bananas have had very little leaf disease for the last two years," he says.

"I've had really good production - plenty of leaf cover, good bunches and I haven't been getting much sunburn, so investing in Luna Privilege to control disease, which results in healthier plants, makes financial sense.

"The last couple of banana seasons have been pretty tough, with low prices and not a great deal of demand for the fruit – while there have been some big quantities of fruit, generally people just aren't paying a lot for bananas.

"However, even though it's an expensive initial application, Luna Privilege is a lot cheaper than the labour it takes to chop out leaf diseases by hand - in a tough year, you try to reduce costs and I've really found that Luna Privilege has lowered my biggest bill, which by far is manual labour."

Mr Flegler says a good relationship with his aerial spray contractor, Jason Rodda from Airborne Group Australia, means application of Luna Privilege is a smooth operation.

"We only apply Luna Privilege by air, as it's registered for aerial application, so in conjunction with Jason and the leaf disease independent monitorer, we work out when's the best time in the Luna Privilege application window to spray and we apply it accordingly," Mr Flegler explains.

"In the future, Luna Privilege is definitely going to be included in our aerial spray program, I think it has been value for money.

"As long as the strong adherence to the application window is kept up, Luna Privilege is going to have longevity in the banana industry, it makes good financial sense, which is the bedrock of farming really."

To read about other experiences, visit **lunaprivilege.com.au** or talk to your local supplier to find out more.

lunaprivilege.com.au

BUNCHY TOP TEAM TACKLING VIRUS

The inspectors on a farm in Northern NSW.

Project leader Barry Sullivan in the field.

It's not just Bunchy Top inspectors need to keep an eye out for.

A plant infected with Bunchy Top.

Battling Bunchy Top is an ongoing challenge for Australia's banana industry and 2018 has been another interesting year for projects in South East QLD and Northern NSW.

Project leader Barry Sullivan has this update.

Northern New South Wales

Work has continued in Northern New South Wales, despite the project originally being slated to finish in December 2017.

A variation to the project has been approved to extend its life.

The inspection staff continue to visit as many farms as they can each month in an effort to keep the virus under control and assist farms in remaining viable.

During a routine visit, inspectors walk across the farms in lines, looking for the disease symptoms including stunted plant growth, shorter and narrower leaves, colour changes to the leaves and ultimately the telltale dot dash lines and stripes visible on infected plants (it is often not easy to see).

Infected plants (clumps) are then destroyed by an injection of herbicide, insecticide and over-sprayed with paraffin oil.

South East Queensland

The Queensland project is contracted until the end of the 2018 -2019 financial year.

All of the farms that have had infections over the past nine years of working on this project are still inspected monthly with any infections detected treated.

Backyards and private properties remain a threat and even though more than 8000 properties have been inspected over the years, Bunchy Top still persists in home gardens. Properties adjacent to commercial banana farms continue to be inspected when possible.

Bunchy Top data analysed by world's best

All infections that are detected and treated are recorded and mapped. In fact, the project now has historical data dating back to 2009 in the system.

Recently this data set was analysed by one of the world's leading epidemiologists, Professor Chris Gilligan from Cambridge University in the United Kingdom under the Hort Innovation project BA17001 led by Assoc. Prof. John Thomas.

Chris and his post-graduate student Hola Kwame Adarakey worked with the data and ran a number of models across the dataset. The outcomes of this process were presented at the recent project Banana Bunchy Top R & D workshop in Brisbane providing further insights into the current status of the disease, potential spread and the risk timeframe.

A further data analysis was carried out by a student from Queensland University of Technology. Mr Abhishek Varghese focussed on a particular farm in Northern NSW where there has been a lot of infection over the past four years. He is investigating how the infection moved around the paddock and the relationships between plants and the infection. This analysis continues as Mr Abhishek is now looking at the relationships with weather data in that region, which may reveal more about the virus.

The virology science team (Dr John Thomas and Dr Kathy Crew) has continued to support the projects by assisting with lab identifications and providing advice on chemical efficacy. Additionally, they had considerable involvement with the BA17001 epidemiology study. There has also been a lot of discussion regarding latency of the virus in banana plants and how this can be tested. If proven, this may pave the way for new treatment ideologies.

Looking ahead

The national project is likely to continue in its current form until June 2019, when a new project is expected to be contracted by Hort Innovation.

Keep an eye on ABGC communications for more details.

Information up-to-date at the time of going to print.
This project has been funded by Hort Innovation, using the banana research and development levy and funds from the Australian Government.

UNDER THE MICROSCOPE – BUNCHY TOP

Under the Microscope profiles the industry's emerging and exotic diseases. Sometimes you just need the facts, fast.

What is bunchy top?

Bunchy top is one of the most devastating viral diseases worldwide. It is known for causing a 'bunched' appearance of new leaves. Affected plants very rarely produce fruit and the disease can result in significant losses. In the Tweed Brunswick area of NSW, production fell by 90% in 1925 due to bunchy top. More recently, in Pakistan, production fell by the same amount in 1992 as a result of the virus.

What are the symptoms?

- Short, dark dot-dash lines along the veins of the youngest leaf, starting from the mid-rib
- Dark green stripes along the mid-rib
- New leaves become shorter, narrower and stand-up, creating a bunched appearance
- Leaves often have yellow, upturned edges
- Plant growth is stunted
- Bunches can be small and deformed

How does it spread?

- Banana aphid
- Movement of infected plant material

Where in the world is it found?

- Present in Australia, but contained to South East Queensland and Northern New South Wales
- Widespread in Southeast Asia and the South Pacific, present in parts of India and Africa

What are we doing to protect our industry?

- Industry makes a significant investment to contain bunchy top to South East Queensland and Northern New South Wales, for the benefit of the entire Australian banana industry.
- Strict regulation concerning import of plant material
- Increase awareness among industry stakeholders

What can I do to protect my farm?

- Use only disease-free planting material
- Check your farm frequently for symptoms and call authorities immediately if in doubt

A clean leaf with no Bunchy Top present.

An infected leaf.

Infected plants showing telltale stripes.

A typical backyard infection.

Who can I call? Barry Sullivan, Bunchy Top Project Leader: 0418 696 596

All images supplied by Barry Sullivan

REGISTRATIONS OPEN FOR CONGRESS ON THE COAST 2019!

Registrations are open for the 2019 Australian Banana Industry Congress to be held at Royal Pines Resort on the Gold Coast from May 22-24 – with big savings for those who book early!

Log on to the Congress website at www.bananacongress.org.au to take advantage of great 'early bird' rates, offering 13 per cent discounts for those who register before March 15.

Don't miss out on securing fantastic on-site accommodation at the award-winning Royal Pines, which will be transformed into 'Banana Central' for the industry's premier biennial event.

Program of events

Excitement is definitely building for Congress 2019, with a jam-packed program already taking shape and promising an event not to be missed!

Congress is always a great chance for growers and other industry representatives to network, socialise and get off farm to celebrate the industry and its future.

More than 12 months of planning has gone into developing a comprehensive two-day program that focusses on grower interaction and plenary sessions that are informative, motivational and will allow growers to take valuable learnings back home to their farms.

Congress Committee Chair Paul Inderbitzin said the program "covered all bases" catering to all growers, from singles and couples, to those bringing along the whole family.

"I'm really looking forward to a revised program. It's going to be a little bit shorter, there's no more Saturday, so everyone will enjoy a condensed version and still be able to have a little bit of a holiday at the same time," Mr Inderbitzen said.

An incredible line-up of speakers has been assembled to bring a diverse range of expertise, insight and inspiration.

A snapshot of the program is included to the right (Page 25) and will be constantly updated on our Congress website as planning is finalised over coming weeks.

Welcome Reception

Join us poolside at Royal Pines Resort to kick off Congress in style on Wednesday, May 22.

The welcome reception is the perfect chance to catch-up with friends, network with industry stakeholders, enjoy a beverage and relax before the dynamic 2019 event begins in earnest. Live music and canapés will add to the atmosphere – and bonus points if you come dressed in a banana theme!

Exhibition Evening

This is your chance to mingle with fellow growers and get some one-on-one time with the wide-range of industry stakeholders and exhibitors taking part in Congress.

You'll get a chance to explore banana research, the latest industry-relevant products and programs that can help you farm better. Drinks and canapés included.

Banana Ball

A highlight of every Congress, the 2019 Banana Ball will not disappoint.

Be part of the celebration, as we recognise some of our industry's best and enjoy live entertainment in a stunning setting. Special guest Georgina Lewis (Channel 10) will join us to present awards, alongside our MC for the night, ABGC director and Congress Committee Chair Paul Inderbitzin. A three-course meal and drinks will be included. And, as always, the dance floor will be ready and waiting.

Hear from four fellow banana growers trialing innovative farming practices during an Innovation Discussion Panel on Day 2 of the Congress program.

This innovation panel includes;

- **Peter Inderbitzin (Lakeland) bunch cableway system/composting**
- **Rob Zahra (Innisfail) High efficiency sediment basin**
- **Mark Nucifora (Innisfail) track bagging machine**
- **Matt Abbott (Innisfail) pivoting head slasher**

OFF SITE TOURS

Two optional off-site tours have been included on the Congress program, to be held on the morning on Wednesday, May 22, prior to the official Congress opening that evening.

The two tours will be restricted in numbers, so it will be first in best dressed! They can be booked while registering for Congress online.

The two options are;

Tour 1 - Duranbah Trial Site – Tropical Fruit World – Husk Gin Distillery

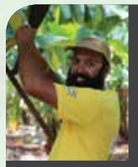
Tour 2 – Visy pack house, Riviera boat factory, Rocky Point Mulching.

More details on each of the tour sites is available on the Congress website.

WHAT ARE YOU LOOKING FORWARD TO THE MOST AT CONGRESS 2019?

Matt Abbott, QLD

"Listening to the speakers that are already listed on the program. It's a good chance to take time away from the farm to talk to other growers and network with other people."



Colin Singh, NSW

"Socialising with other growers. In Sydney, it was great to see everyone chatting with each other – it's a chance to talk and work together. There was some great information last time, and I'm keen to see more about subtropical growing and different varieties."

Zanelle Collins, QLD

"Just seeing everyone. We go every year. It's a fantastic time, we always have a ball. We learn a lot and always have great stories to tell afterwards."

Stephen Spear, NSW

"It's a chance to mix with growers from other regions – we don't get to do that very regularly. I hope it continues to increase the enthusiasm from Northern New South Wales growers, particularly the younger generation."

CONGRESS KEY SPEAKERS

Bernard Salt AM

Bernard Salt is widely regarded as one of Australia's leading social commentators by business, the media and the broader community.

Bernard heads The Demographics Group which provides specialist advice on demographic, consumer and social trends for business. Prior to that Bernard founded KPMG Demographics.

Bernard Salt is one of the most in-demand speakers on the Australian corporate speaking circuit and has been so for more than a decade.

He is perhaps best known to the wider community for his penchant for identifying and tagging new tribes and social behaviours such as the 'Seachange Shift', the 'Man Drought' and the 'Goats Cheese Curtain'. He was also responsible for popularising smashed avocados globally.

Rachel Robertson

Rachael led the Australian expedition to Davis Station, Antarctica - the second female to lead a team at the Station and the youngest ever leader.

She managed a team of 18 people through the long, dark, Antarctic winter and through trial and error built a resilient and highly successful team based on the foundation that 'respect trumps harmony'.

Since returning Rachael has completed her MBA, written a best-selling book, Leading on the Edge, and has presented at over 1200 events around the world.

Shane Webcke

Georgina Lewis - Channel Ten News Presenter
Banana Ball Awards presenter

PROGRAM AT A GLANCE

Wednesday, May 22

10am-3pm	Off-site tours – Optional Extra Tour 1 – Duranbah trial site, Tropical Fruit World, Husk Gin Distillery. Tour 2 – Visy pack house, Riviera boat building factory, Rocky Point Mulching.
3pm-6pm	Registrations
5pm-7pm	Welcome drinks
7pm onwards	Banana Bar

Thursday, May 23

7.30am-5.30pm	Registrations
8.30am-8.45am	Official opening ceremony Paul Inderbitzin
8.45am-9.15am	Opening keynote address Shane Webcke
9.15am-10.15am	Global Banana Trade Trends Marc Jackson, Special Project Manager, Fyffes Bananas International Wayne Prowse, Principal & Senior Analyst, Fresh Intelligence Consulting
10.15am-10.30am	Q&A – Mark Jackson and Wayne Prowse
10.30am-11am	Morning tea in the exhibition area
11am-11.30am	Banana Marketing: A-peeling to future consumers, Hort Innovation
11.30am-12pm	Bernard Salt AM – leading media commentator, demographer and global trends expert.
12pm-12.15pm	Q&A – Hort Innovation and Bernard Salt
12.30pm-1.30pm	Lunch in the exhibition area – Trade Show
1.30pm-2pm	Dr Bruce Campbell, former Chief Operating Officer, NZ Plant and Food Research
2pm-3pm	Science Speed Talks
3pm-3.30pm	Afternoon Tea
3.30pm-5pm	Future of bananas and R&D Dist. Professor James Dale - Centre for Tropical Crops and Biocommodities, Queensland University of Technology. Stewart Lindsay, DAF Team Leader, Banana Production Systems. Dr Paul Dennis - ecology, microbiology, plant and soil science - School of Agriculture and Food Sciences, University of Queensland.
5.30pm-7.30pm	Tradeshow Exhibition Evening

Friday, May 24

8.30am-9.00am	Exporting Success in Australian Horticulture
9.00am-9.20am	Value Adding
9.20am-10am	Growing your business and dealing with change
10am-10.30am	Morning Tea
10.30am-10.50am	Living and farming with TR4 - Mark Smith, Farm Manager, Darwin Fruit Farm.
10.50am-11.20am	Discussion panel – Living with TR4 Mark Smith, Farm Manager, Darwin Fruit Farm. Gavin and Stephen Mackay, Mackays, Tully
11.20am-12pm	Grower Innovation Panel – Learn from four banana growers trialling innovative farming practices followed by discussion - Peter Inderbitzin (Lakeland) Bunch cableway/composting - Rob Zahra (Innisfail) High efficiency sediment basin - Mark Nucifora (Innisfail) Track bagging machine - Matt Abbott (Innisfail) Slashing machine
12pm-12.30pm	Discussion Panel
12.30pm-2.15pm	Lunch and Trade Show – Exhibition area
2.15pm-2.45pm	Speaker – TBA
2.45pm-3.30pm	Closing speaker – Rachael Robertson
3.30-3.45pm	Q&A – Rachael Robinson
3.45-3.55pm	Closing ceremony
7pm-late	Banana Ball and Awards night MC Paul Inderbitzin Awards presenter Georgina Lewis, Channel Ten News Presenter Comedian – TBA *Stay tuned!*

BREAKING GROUND IN THE BOAR WAR

By Sonia Campbell

A concerted program to control feral pig numbers in the Tully Valley to reduce the risk of spreading TR4 is continuing to help win the war against the destructive pests.

Professional shooter Trevor Williamson.

Since July 1 2017, more than 3070 pigs have been culled in the target area, through a co-ordinated management effort, involving aerial shooting, as well ground shooting, baiting, trapping and exclusion fencing.

"We are definitely putting a dent in numbers," said professional shooter and program co-ordintor Trevor Williamson. "Since the program started, in the top of the Tully Gorge we've controlled 3070 pigs (as at Nov 28), which is an absolutely massive number of pigs.

"We are talking to growers downstream from where we have been focussing on and they are definitely saying they are seeing a significant decline in numbers," he said.

Since the detection of Panama tropical race 4 in the Tully Valley, feral pigs have been widely recognised as a serious vector of the soil-borne fungal disease.

Last year, as concern grew over the threat to industry from increasing plague proportions of the animals, local growers enlisted the help of Mr Williamson and rural helicopter pilot Peter Liddle to start carrying out a targeted aerial shooting program. About 10 growers – both banana and cane - joined forces to personally-fund the campaign, some investing tens of thousands of dollars in a matter of months.

In September 2017, a F*eral Pig management Working Group* was established by the Australian Banana Growers' Council (ABGC), led by ABGC director and Tully producer Leon Collins, who has also played an integral role in both establishing and co-ordinating the aerial shooting campaign.

"Prior to this program, most people had no idea the level of pig pressure we were under, and it got to the point where we had to do something - the risk of spreading TR4 was just too great," Mr Collins said.

"In the first three months we took out almost 700 pigs and we are still getting fairly big numbers," he said.

"We had a lot of knockers at first because they said you couldn't target pigs from the air in banana plantations. It just goes to show you how resilient our growers are, because with their help it has become the most efficient control method we have, and with no biosecurity footprint on the ground."

ABGC committed significant funding towards the program, which continues to be used for aerial control measures.

On top of this, broader efforts have been made to control feral pig numbers across the wider Cassowary Coast catchment. This has involved multiple stakeholders, including State Government agencies, Cassowary Coast Regional Council, Tully Sugar, Innisfail Babinda Cane Productivity Services and community.

"The aerial shooting has allowed us to hit the critical number where we are actually starting to have an impact on the breeding numbers of feral pigs, whereas before, with just the trapping and the ground shooting, it wasn't an efficient enough form of control to actually get on top of and reduce the numbers," Mr Williamson said.

BAIT 1080 WARNING

1080 bait is commonly used in feral pig control, but Trevor Williamson says growers need to take every precaution when doing so.

He said a minimum of 3-days of surveillance, preferably with a motion camera, should be carried out to monitor for potential off-target species and to identify how many feral pigs are present, to ensure the right amount of bait is used.

"A high percentage of pigs that have ingested 1080 will vomit before they die of 1080 and that vomit can contain enough 1080 that it will kill any dog that licks it or consumes any of it. That's why all neighbours need to be notified, signage needs to be in place and right from the start, monitoring needs to be undertaken prior to baiting to identify any off-target species."

Mr Williamson said once a grower signed a deed poll to use the highly toxic bait they then became solely responsible for the use of it, indemnifying both state and local government of any claims or losses.

Utilising maps and keeping up to date records that document where growers are trapping, shooting and baiting animals is also helping improve the targeted campaign.

The use of thermal camera imaging has also bolstered efforts.

"We've got a thermal camera that picks up a heat signature and it comes back to a monitoring screen. We can use this in the helicopter to detect animals that are in long grass and cane. It can also be used for ground shooting at night, so it's certainly been a game changer as far as feral animal control goes."

Rural helicopter pilot Peter Liddle and licensed marksman Trevor Williamson in the R22 helicopter used in the Tully Valley aerial shooting program.

Pigs culled since targeted TR4 feral pig program began

	Aerial shooting	Trapping/Ground shooting	Total
July 1 2017 – Sept 21 2018	1341	1387	2728
October 2018	96	57	153
November 2018	183	6	189
Total			**3070**

GIVING A BUNCH TO PEOPLE IN NEED... with thanks to Foodbank

Foodbank Queensland CEO Michael Rose with some donated bananas.

26%
The number of food relief recipients in Australia under the age of 19.

710,000
The number of Australians Foodbank provides relief to every month.

227,300kg
The amount of bananas donated since January 2018.

It can be easy to take for granted access to tasty, nutritious food – particularly when you work in the banana industry.

But according to the *Foodbank Hunger Report* 2018– an annual snapshot into the hidden and increasing issue of food insecurity in Australia – more than four million Australians have experienced food insecurity in the last 12 months. This means they struggle or don't have the means to be able to put enough food on their table.

With more than 710,000 Australians now receiving food relief from Foodbank's charity partners each month, it is vital for Australia's largest hunger relief organisation to be innovative and work proactively with the Australian food and grocery industry.

Last year alone, Foodbank distributed more than 37 million kilos of food and groceries to their network of more than 2,600 front line charities and 1,750 school breakfast programs around the country, including 40% to regional and remote communities.

Already, many Australian banana growers support Foodbank's work, either donating directly or via their various wholesalers and retailers.

"We are incredibly appreciative of the industry support we receive from suppliers, ripening organisations and transport providers," said National Program Manager, Jacqui Payne.

Currently in QLD and NSW, Foodbank has active Banana sourcing programs.

"Bananas are a versatile and much-loved fruit, so we're really excited to be talking with the banana industry and supply chain about how we can ensure vulnerable people all over the country have access to a sustainable and regular supply of them."

To assist in every state, Foodbank is aiming to establish a National Banana Program to increase the availability, consistency and volumes for distributing to the frontline charities and school programs via state based warehouse operations.

"If it's too bent, too straight, too big or too small – it's perfect in our eyes," Ms Payne said.

Daniel Mackay, of Mackays Bananas, said it was a great way to donate to numerous charities at once.

"We're involved for a few reasons – firstly, we don't want to waste any food if possible. On top of that, being involved with something like supplying breakfast to kids is a great way to introduce bananas as one of their first staple fruits.

"At the end of the day, it's about helping people."

He added "Foodbank can work with whatever means of supplying you have – cardboard, plastic, cases or boxes, you name it!"

Foodbank is now seeking support and providers to help secure a regular, national supply of bananas to guarantee more families and communities can enjoy the nutritious snack.

"If you want to have a chat and understand more about how we can engage and support those in your supply area or state, we would love to hear from you," Ms Payne said.

- Jacqui Payne and Michael Davidson (General Manager, National Supply Chain) – will be travelling to FNQ in January 2019. If you're interested in catching up with them to find out how you could also get involved, they would love to hear from you.

Growers across the country – big or small – are encouraged to reach out and discuss the various ways they can be involved.

Jacqui Payne
M: 0401 420 713
E: jacqui@foodbank.org.au

Michael Davidson
M: 0400 724 613
E: michael@foodbank.org.au

BRANDING BANANAS TO BUILD THE INDUSTRY

Mena Creek grower Matt Abbott, pictured with his son William, has recently submitted his final Nuffield Scholarship report into branding.

Banana grower Matt Abbott summarises what many in the industry know all too well: "Banana growers are growing more, working harder and being paid less for their product."

It's a sentiment that sparked his extensive Nuffield Scholarship study, focusing on how to increase value through branding.

His final report has recently been released, and provides a series of recommendations to the industry behind Australia's most popular fruit.

"The need to make our banana business more profitable for the long-term future of our farm has driven this Nuffield Scholarship report," Mr Abbott wrote.

"I wanted to investigate how our business could get a greater return for the product we produce."

He added that his passion extended beyond his own business, to growing healthy, safe nutritious food with an environmentally sustainable focus – and to the Australian banana industry as a whole.

Branding was major a focus of his recommendations.

"The brand recognition might be related to the banana itself, or the way it is produced or packaged, or the story behind it," he told Nuffield Australia.

"Uncle Matt's Organics in the United States provides a clear example of the power of a strong brand to attract a price premium. Producing and selling fresh organic fruit juices, the brand has developed a narrative around sustainable and low-waste production systems that is attracting a price premium from consumers."

Mr Abbott also recommended using technology to utilise out-of-spec fruit, and potentially even turn it into a product more valuable than the fresh market. Among the examples listed were frozen bananas, banana crisps and dried banana.

Packaging was also key to his findings – namely, reducing it or finding biodegradable or alternative options, including laser printing.

His final recommendation was to investigate export opportunities, as "it is the only way the domestic industry can continue to grow the volume produced for the fresh category."

In acknowledging those who supported his experience, he recommended the Nuffield Scholarship to anyone involved in the agricultural sector.

"I thought I did not have the time to spend away from my business, but I now realise how personally significant the benefit of this scholarship has been and I am extremely glad I set aside the time to do it," he wrote.

"The Nuffield organisation is truly brilliant. The program and the people involved are so impressive. It's hard to explain the value of a Nuffield Scholarship. It has definitely changed my life and the way I make decisions now. By far one of the hardest things I have done but also the most rewarding. The people you meet and the experiences you have would not be possible any other way. If you think that you are too busy and it's too hard to do a Nuffield - that is the exact reason you should apply."

Mr Abbott's full report can be downloaded from http://www.nuffieldinternational.org/live/Reports.

Matt Abbott was supported by the Hort Innovation Banana Fund.

ONE YEAR INTO THE INNOVATION FIELD TRIAL

Early observations of an innovation field trial at South Johnstone indicates the weed matting has delayed bell emergence, and Pinto Peanut *(Arachis pintoi)* has shown to be the most promising living ground cover option.

As part of the industry's National Banana Development and Extension Program, 390 Williams Cavendish banana plants have been subjected to different out of the box practices in which growers may not be willing to, or have the time to try on their own farms. The Innovation trial was established in early November 2017, with tissue-cultured plants, planted in a double row configuration.

The first plants bunched in week 14, with the first week of harvest commencing in week 33. One year into the trial and the plant crop has reached 99.6% bunching and 92.5% harvest as of week 46. So far the Innovation trial consists of 5 different ground covers and two different de-suckering treatments.

Ground covers

The Pinto Peanut (Arachis pintoi) living ground cover is establishing well, with reduced crowding from other weed species, however, the mint (Mentha sp.) ground cover has more competition from weeds and isn't establishing as well. The weed matting is intact with significantly reduced growth of weeds. Unfortunately the chemical soil stabiliser (10% solution) is proving difficult to differentiate from the conventional bare soil treatment. Weed growth and competition are managed in the chemical soil stabiliser and conventional bare treatments by the application of herbicide (glufosinate-ammonium).

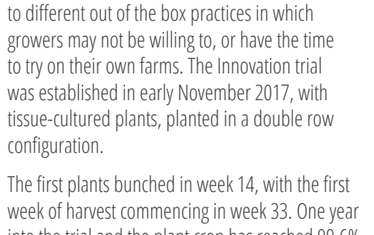
The production characteristics from the different ground cover treatments will be analysed once the plant crop harvest is complete, however, initial observations indicate that the weed matting treatment seems to have slowed down the growth of the plants (bell emergence appears to have been delayed by between 3 – 7 weeks compared to the other ground cover treatments). The delay in bell emergence may be a result of various factors including seasonal climatic conditions, increases in temperature due to the colour of the weed matting material and increased levels of mite damage.

Timing of de-suckering

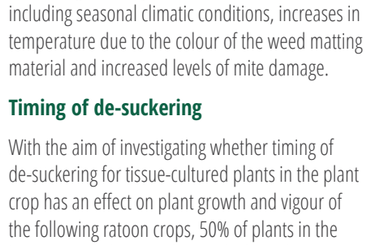
With the aim of investigating whether timing of de-suckering for tissue-cultured plants in the plant crop has an effect on plant growth and vigour of the following ratoon crops, 50% of plants in the Innovation trial received an early de-suckering treatment. For this treatment the first 'flush' of suckers were removed earlier than usual (approx. 3 months post planting), while the remaining 50% of plants received the first round of de-suckering closer to bell emergence. "Sacrificial" plants treated with these two de-suckering treatments were dug up at various time intervals to observe potential differences in sucker connection with the corm resulting from the 2 treatments. Initial observations appeared to show a stronger sucker connection to the mother plant with the early de-suckering treatment compared to later de-suckering.

What next?

45 erosion pegs have been placed throughout the different ground cover treatments in the trial. Measurements of these erosion pegs will soon be undertaken to investigate potential differences in sediment deposition and/or loss at different locations on the banana bed. If you have a small researchable idea you would like to see trialled please get in touch with the extension team (07 4220 4152).



Early de-suckering



Late de-suckering

Bare (control)

Pinto Peanut

Mint

Weed Mat

Soil stabiliser

The strategic levy investment project National Banana Development and Extension Program BA16007 is part of the Hort Innovation Banana Fund. The project is funded by Hort Innovation using the banana research and development levy, co-investment from the Queensland Department of Agriculture and Fisheries and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

ALL (TREATMENT) SYSTEMS GO!

For the past year, the Wet Tropics Major Integrated Project (MIP) has worked with local organisations and landholders to identify ways to improve the quality of water entering the Great Barrier Reef lagoon.

Basin Coordinator Sandra Henrich said the project responds to demand for relevant, local information about water quality, and solutions that are informed by landscape conditions and local knowledge.

"This project has been designed for locals by locals. Growers want to make informed decisions that help reduce risk of nitrogen, sediment and pesticide run-off, without compromising productivity or profitability," said Ms Henrich.

In a first for the Wet Tropics region, a High Efficiency Sediment (HES) basin was recently installed on a banana farm in the Innisfail area.

A HES basin is engineered to capture sediment, and associated nutrients and pesticides from agricultural water before it enters local waterways. Coagulant is added to the water to make fine sediment particles settle on the bottom.

"HES basins as a treatment option can be of particular interest to growers concerned with fine sediments erosion. HES basins are often used in the mining and building industries, but they are in the trial stage in agricultural environments in Queensland. In this instance the dosing system was retrofitted to an existing irrigation dam," said Ms Henrich.

"HES basins are just one of a series of treatment initiatives being trialled by Wet Tropics farmers to reduce nutrient, sediment and pesticide loads flowing to the Reef. We know that even with the very best farming practices, there will still be an amount leaving the paddock. Soil types, rainfall, and farm practices all affect how much."

"Monitoring data from the HES basin will help build a more comprehensive story about the effectiveness of different treatment systems in far North Queensland," said Ms Henrich.

Rob Zahra said it will be interesting to see the results.

"All of my farm run-off goes into this irrigation dam which then gets recycled. If I can reduce the sediment in my water it's definitely going to improve the efficiency of my irrigation system. If I've got better water quality in my dam I've also got better water to put on my bananas.

"I also think if this project delivers the results that we think it may, it could be quite a good exercise for other growers to adapt into their farming procedures to help improve the quality of water headed for the Great Barrier Reef."

The Wet Tropics Major Integrated Project is funded by the Queensland Government through the Reef Water Quality Program.

Banana grower Rob Zahra helps install the High Efficiency Sediment basin.

QUALITY BANANA APPROVED NURSERY (QBAN) SCHEME FACILITIES

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)
Arakai Pty Ltd - contact James Howe LABORATORY & NURSERY	Mob- 0407 933 791 Landline - 07 4093 3826	jhowe@howefarms.com	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

TISSUE CULTURE SPOTLIGHT

Over the next few issues of Australian Bananas magazine, you'll get a chance to find out more about Australia's tissue culture nurseries.

Lowes TC

What varieties do you offer?

Williams Cavendish, DPM 25, Tall Cavendish, Dwarf Nathan, Lady Finger, Lady Finger Improved, Lady Finger Dwarf Rossi, Gold Finger, Pisang Ceylan, Pacific Plantain, Dwarf Ducasse, Blue Java. Lowes TC can contract propagate any variety if we can source suckers.

Where do you sell to?

We can currently send TC to any part of Queensland or WA under permit and high health hardened plugs ready to plant to any part of NSW. We would love to be able to supply our certified high health hardened TC plants into Queensland if rules changed in future to ensure growers received stock with no possible exposure to TR4.

How much notice do you need for orders?

Usually 9-12 months' notice is needed for commercial quantity supply but small quantities are available on shorter notice depending on other orders being processed.

What does Lowes Tissue Culture pride itself on?

Lowes TC are the largest plant tissue culture lab in Australia and specialize in contract propagation to many horticultural industries. We are a registered QBAN company and can supply TC and hardened plants ready for planting. With our 65 staff including four plant scientists we supply uniform, high quality and high quantity orders when they are needed by our customers. We have worked with our customers for over 25 years to achieve the commercial outcomes they require. Lowes TC only grow to order and usually do not have stock available for spec sales.

Mission Beach Tissue Culture

What varieties do you offer?

Williams is the predominate variety grown in Australia, but we can do any commercial quantity required.

Grand Nain, Lady Finger, Formosana, Pisang Ceylon are just a few of the varieties that we have propagated.

Where do you sell to?

We sell to the commercial banana growers of Australia with whom we have strong and long relationships with.

We also proudly supply Qld. Department of Agriculture, universities and researchers across our country.

How much notice do you need for orders?

Basically it takes 18 months from initiation of suckers, till delivery of plants ready for the field.

Existing customers order their plants 12 months in advance, therefore ensuring on time delivery.

What does Mission Beach Tissue Culture pride itself on?

Customer satisfaction and industry experience.

With three generations and 45 years of experience in the Australian Banana Industry we pride ourselves in being a strong contributor to our industry.

Our experience in trials with alternative varieties, especially Panama TR4 (have worked with this disease in the NT since 1997)is seen as vitally important.

Arakai Pty Ltd (trading as Yuruga Nursery)

What varieties do you offer?

Yuruga Nursery's world-class tissue-culture laboratory has the capability to tissue-culture clone any variety or cultivar of banana; and has an extensive range of commercially-proven varieties of Cavendish, Ladyfinger, and exotics. Yuruga Nursery can also mass-produce specifically selected, elite-plants from an existing grower's paddock.

Where do you sell to and how much notice do you need for orders?

12 months is required to produce fully-developed banana plants which can be delivered all over Queensland. For interstate customers, banana plantlets, fresh out of the laboratory, can be sent to any nursery in Australia for deflasking and planting up. For those interested in diversifying, Yuruga Nursery produces a range of species for commercial farms, such as papaya, coffee, pineapples and grafted tree crops.

What does Arakai Pty Ltd pride itself on?

Arakai Pty Ltd trading as Yuruga Nursery is a subsidiary of Howe Farming Enterprises Pty Ltd, one of Australia's largest banana growers. As a family farm owned entity, Yuruga Nursery prides itself on delivering a quality of plants that a farmer should expect - because we grow for ourselves.

EXPERTISE IN PANAMA TR4 DIAGNOSIS ABOUNDS

By Deanna Belbin, Biosecurity Queensland

You may have already met Biosecurity Queensland surveillance officers, Chris Collier and Jess Portch, when they visit farms to check plants for signs of Panama TR4.

Earlier this year, they visited the Department of Agriculture and Fisheries (DAF) Plant Biosecurity Laboratory in Brisbane to meet the Panama TR4 diagnostic team and to see first-hand what happens to samples when they are tested for Panama TR4.

This was a great opportunity for the officers to take their knowledge from the paddock to the (agar) plate and pick the brains of some of the best in the business.

The Panama TR4 diagnostic team have a wealth of experience in their chosen fields. Plant Biosecurity Laboratory manager Juliane Henderson, who leads the diagnostic team, spent 17 years with the Australian banana industry as a banana molecular pathologist for fungal, bacterial and phytoplasma diseases. Together with Wayne O'Neill, she diagnosed the first infested Panama TR4 property in Tully in 2015.

Paul Melloy's extensive background in Fusarium in wheat and cotton was a natural fit for him to work as a technician on the TR4 team. His role was to assess plant samples arriving at the laboratory and undertake laboratory and molecular tests to assist in the diagnosis of TR4.

Paul also helped to write the protocols that led to the Plant Biosecurity Laboratory gaining national accreditation. Paul is now a postdoctoral researcher at the University of Southern Queensland working on a national disease modelling project for the grain industry.

Senior Scientist Elizabeth Czslowski is the newest member of the Panama diagnostics team and takes over the reins from senior scientist Wayne O'Neill who has returned to Agri-Science Queensland.

Liz was involved in designing the PCR molecular test which is now used to test for TR4. She went on to undertake a PhD in molecular plant pathology, focussing on identifying and understanding the genes of the fungus that cause Panama disease, including TR4.

This research helps us to understand how the fungus that causes Panama disease has evolved and why TR4 is so aggressive. Liz hopes that an increased understanding of the pathogen will help the scientific community better combat TR4 through improved diagnostics and the identification of banana cultivars that are resistant to Panama disease.

Chris does a DNA extraction

Jess does a VCG

Liz showing diagnostic process

The diagnostic testing process for Panama TR4 includes:

- A visual assessment: plant tissue sample is cut open and examined for internal symptoms consistent with Panama TR4.
- Isolating fungi and culture: small pieces of the discoloured plant tissue are dissected from the sample and placed on agar gel plates for incubation over a number of days. Any plates which have growth of Fusarium fungi undergo further examination.
- Microscopic examination: Fusarium cultures are examined under a microscope to see if they are the species *Fusarium oxysporum*, which includes the Panama TR4 pathogen. If it is present, further tests are undertaken to see if it is the form that causes the disease.
- DNA based molecular tests: *Fusarium oxysporum* isolated from a sample is put through several DNA-based tests. These include PCR (polymerase chain reaction) tests and DNA sequencing. The PCR tests confirm that the isolate is a *Fusarium oxysporum* species and whether or not it is the TR4 strain of Panama disease. DNA sequencing is also performed on genes that have markers specific to the tropical race 4 strain of Panama disease.
- VCG test: for final confirmation, *Fusarium oxysporum* cultured from the plant sample is grown along with a tester culture derived from a known Panama TR4 fungus. It is then assessed using a VCG (vegetative compatibility group) test which will show if it is the same strain based on whether or not it reacts with the TR4 tester culture.

You can find more information on diagnosing plants with Panama TR4 on the Biosecurity Queensland website biosecurity.qld.gov.au and in the online grower kit fact sheet 'Diagnosing plants for Panama TR4'.

KEEP YOUR EYES PEELED IN THE FIELD

Biosecurity Queensland is offering farm visits to problem-solve any issues when preparing for Panama TR4.

Contributed by Biosecurity Queensland

Do you know how to check your plants for signs of Panama TR4?

Early detection of Panama TR4 through regular surveillance can extend your farm's viability and, if the farm has a good biosecurity plan in place, disruption to trade can be minimised.

Because Panama TR4 is an unpredictable disease and we don't know where it will turn up next, all growers could benefit from integrating a surveillance routine into their farming activities if they aren't doing so already.

Surveillance can be undertaken by anyone who regularly accesses your paddocks. This could include deleafers, stringers, baggers, bell injectors to name a few. If a sick plant is spotted, record its location, tell workers to avoid the area and call Biosecurity Queensland on 13 25 23.

So why is it important to control the disease early? When Panama TR4 infects a plant, it releases fungal spores that blocks the plant's vascular system, causing the plant to wilt and die. Once the fungus senses the host plant is dying it releases a lot more spores which can be spread to other plants through a variety of methods including movement by people and machinery. The key is to contain an infected plant early to reduce the risk of spread of the disease.

We've developed some handy resources help you identify Panama TR4 on farms. For more information about surveillance on your farm, read the 'Check your plants for Panama TR4' fact sheet in your grower kit or download it here https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/banana-industry/panama-disease.

Visit our Youtube channel to watch videos about the disease and how to identify and report sick plants https://www.youtube.com/user/BiosecurityQld

Call us on 07 4091 8140 for a copy of the Panama TR4 disease identification guide.

Farm visits still available

There's been some great feedback from growers who have invited us to visit their properties to discuss how they can protect their farms from pests and disease.

Surveillance can be undertaken by anyone who regularly accesses your paddocks.

We know that protecting your farm is a big priority, but it can be hard to know where or how to start. At a farm visit, our biosecurity experts trouble-shoot issues with your farm experts to come up with creative solutions you may not have considered.

Panama TR4 is unpredictable, easily spread and is here to stay, so it's best to be protect your farm now before it's too late.

If you'd like us to come to your property to help you protect your farm from Panama TR4, contact us by phone on 07 4091 8140 or email panamatr4@daf.qld.gov.au.

PEELING GOOD, AND THE DATA PROVES IT

The results for the first half of Australian Bananas' 'Peel Good, Feel Good' campaign are in – and they've exceeded the benchmark in all areas.

If you've caught Nine News or The Project, streamed some morning tunes on Spotify or watched the latest blockbuster at the cinema – chances are you might have spotted the latest Australian Bananas campaign.

Funded by the marketing levy, through Hort Innovation, the Peel Good, Feel Good initiative has spanned television, digital, movie theatres and out of home (think busses and gyms) over a number of months.

Television

Australian Bananas appeared in all of the Top 10 metro television programs from August to September, targeting all grocery buyers.

Using 30 second and 15 second advertisements, in both metro and regional areas, the Peel Good material appeared during programs like The Block, The Bachelor and Survivor, as well as news and entertainment programs like The Project and A Current Affair.

The Block on its own consistently averaged one million viewers, delivering the banana message to a huge number of people.

Across all major cities and in regional areas, the reach of these advertisements either met or exceeded expectation.

Digital

The Australian Bananas digital campaign has now finished (12/8 - 31/10), with some incredible results across a range of mediums including catch-up television and Youtube pre-rolls (those 15 second ads that play before your clip).

Catch-up television includes popular shows on 7, 9, SBS and Foxtel, while YouTube targets the chosen demographic, with a female skew across lifestyle and food content.

In this period, YouTube delivered 174% over the impression target, reaching more than 4 million people. Catch-up television was not far behind, delivering 135% over the target. The completion rate for watching these ads was at 81%, well over the bench mark of 70.

The Peel Good material also appeared on entertainment and lifestyle websites (Mamamia, NewsCorp, Fairfax and Nine), as well as Spotify and apps like MyFitnesspal and Surf Report.

Australian Bananas also ran FlyBuys within this period targeting active, lapsed, lapsing and new buyers of bananas in supermarkets. This activity is ongoing and results will be available at a later date.

Cinema and Out of Home

If you caught a movie from September 6 to October 11, you might have been one of more than 2.25 million people in the target audience who viewed the Peel Good, Feel Good advertisements.

Aussie bananas have been equally hard to miss out and about, with material appearing on bus panels, in retail spaces and in gyms.

Bus and gym signage appeared nationally, while advertisements in retail spaces were rolled out in five capital cities.

Tribe, Social Media and the Australian Bananas website

Australian Bananas have begun using Tribe, an online marketplace that connects brands with influencers. Essentially, this is a way to deliver content through platforms like Instagram and Facebook, using popular social media personalities. Think delicious post-workout recipes shared by fitness enthusiasts, or breakfast inspiration from a lifestyle blogger.

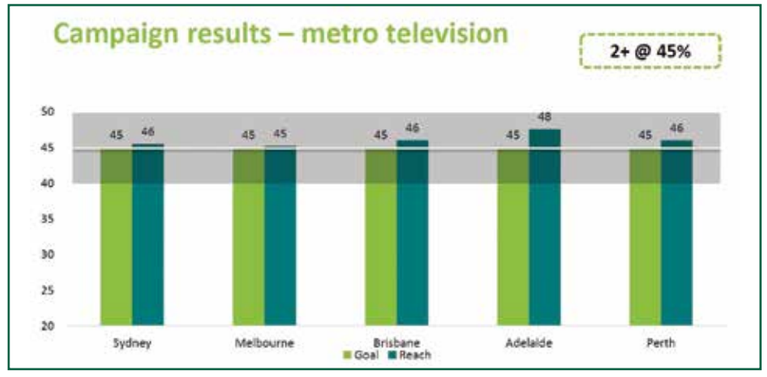
Initial results have been excellent, with a potential reach of 691,583.

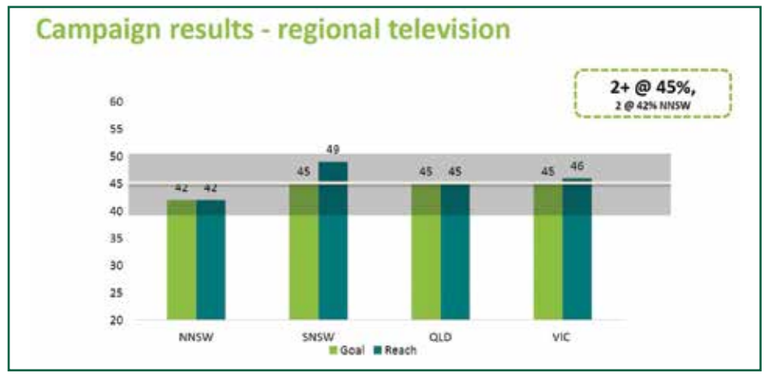
The Australian Bananas Facebook page continues to kick goals with its fans, reaching 1.56 million users in October alone. This marks the highest result for the year so far.

The standout post for October was 'The secret to a happy life', which achieved a high engagement rate of 37.56% and plenty of comments.

Instagram content was also strong, reaching over 555,000 users and delivering more than 123,000 engagements at $0.06 each.

The Australian Bananas website recorded an increase in visitors throughout October, with a range of 507-1355 visitors per day.





PR – Nosh Box and Susie Burrell

In October, Australian Bananas partnered with Dietitian Connection to provide bananas as part of their Nosh Box gifting program.

These boxes, filled with delicious treats, are delivered to influential dietitians across Australia.

More than just a gift, recipients were required to fill out a survey with banana-specific questions and many shared content with their online followers. All up, Australian Bananas secured 25 pieces of social coverage including through Nourish Naturally (159K followers) and The Fitness Dietitian (231K followers).

Bananas brand ambassador Susie Burrell continued to do a fantastic job in promoting the fruit, sharing 'The Best Breakfasts to Kick Start the Day', which included a number of references to bananas.

One of the cutest PR initiatives also continued in October, with Bounty Bags given to more than 17,000 new mums.

Looking ahead

As the year comes to an end and the weather heats up, media relations activity will increase as Australian Bananas promotes some delicious Christmas and summer themed recipes. These include a Bananamisu and Banana & Mango Frozen Yoghurt Pops.

Keep an eye out for these tasty treats and more Australian Bananas initiatives in 2019!

WE'RE BANANAS FOR BILLY

This year marked the end of an era for rugby league in Australia, with Melbourne Storm and Origin star Billy Slater announcing his retirement.

The Innisfail legend has also gone above and beyond for Australian Bananas, so we caught up with him as he enters the next stage of his career.

Teaching two cheeky bananas how to keep fit.

"Preseason fuel" - Billy Slater promoting bananas on Facebook.

"He completely typifies who we are as an industry" – grower Steve Lizzio, pictured with Billy.

Spreading the banana message back in 2005.

Billy Slater is one of Australia's most-loved athletes –so it's fitting the celebrated fullback is a long time ambassador for one of the country's most-loved fruits.

Australian Bananas, funded by Hort Innovation using grower marketing levies, has benefited from Billy's support for almost fifteen years. It's a partnership that's seen him trade the footy jersey for a bright yellow shirt to front numerous campaigns, events, photoshoots and catch-ups.

His genuine passion for bananas and the growers from his Far North Queensland home – where more than 90 per cent of production takes place – has been invaluable.

"He completely typifies who we are as an industry," said banana grower Steve Lizzio.

"His resilience, the ups and downs of his career – it's all true of farming too.

"You just get goose bumps to think about how far he's come and how fortunate we are to have him as an ambassador."

Billy Slater said he always had a connection with bananas, with his parents working in the industry throughout his childhood.

"The support I have received throughout my whole career has been tremendous, especially from Innisfail," Mr Slater said.

As well as giving up time to front numerous campaigns, he's also continuously shown support to growers through posting snaps on his popular social media channels.

"I am proud to be a part of the Australian Bananas family," the retiring NRL great said.

"For me, growing up with bananas has been a part of my life since I was a boy, running around up in Innisfail."

He added that bananas are great source of natural energy for both on and off the footy field, and that he appreciated the healthy eating messages associated with the fruit.

As for what's next, Billy recently announced he'll be working with AFL club St Kilda on their leadership and development programs.

On top of that, his retirement will also involve his new horse breeding business 'Slater Thoroughbreds'.

Leon Collins, Australian Banana Growers' Council deputy chair, said it's been wonderful to have someone who is an advocate for health and fitness so dedicated to the nation's banana industry.

"To have someone of his calibre emphasizing the very real health benefits of our popular produce makes this an ideal partnership," Mr Collins, who is also a member of the industry's marketing advisory panel, said.

"On top of that, he and his family know the reality of banana farming and its benefit to local communities.

"We can't thank him enough for his commitment over the years and congratulate him on a stellar footy career."

What is your favourite way to enjoy bananas?

Billy Slater: ***To be honest, I'm very simple when it comes to eating bananas. Peel and eat, that's it for me.***

What tests the fitness more, the footy field or the farm?

Billy Slater: ***I've seen how hard the boys and girls work picking bananas. Hands down they win. I'd like to send some of the boys up to work for a week or two.***

GROWER PROFILE: RAY NELSON, KIAMBA

Long-time grower Ray Nelson on his property at Kiamba in South East Queensland.

By Amy Spear

In 1978, Ray Nelson had a choice to make: continue his promising career as a cook in the Air Force, or return to the family banana farm.

The options couldn't be more different but, four decades later, he has no regrets about choosing the latter.

"It's a healthier lifestyle and it's away from the hustle and bustle," the second generation grower said.

Mr Nelson's property is in Kiamba, near Yandina, in South East Queensland.

It's a picturesque part of the world, a subtropical growing region a short drive from the famed Sunshine Coast.

His father Bill, a former Australian Banana Growers' Council director, bought the farm at the end of 1964 and planted the first patch of bananas there.

Though Ray had worked with him straight out of high school, he took on a greater role after leaving the Defence Force in the late 1970s and worked closely with his father until May 2000.

Bill Nelson was diagnosed with terminal lung cancer in January of that year, and Ray took over all operations when he sadly passed away in October.

"I've had the property ever since, but have gradually scaled back," he said.

It's a similar story in South East Queensland as a whole. While there are still dedicated growers throughout the region, the number has declined in recent years.

In the late 1970s, Ray explained, Yandina was known for its lady finger bananas.

"There used to be two semi-trailer loads go out of the town each week, now there's hardly a Lady Finger grown in the area.

"Panama disease [subtropical race 4] has killed them out."

The Nelsons moved to irrigated Cavendish to combat this, another chapter in their long-time love of trialing new varieties.

"We've done extensive trial work with a lot of different varieties for DAF," Ray explained, naming Goldfinger, TU8, TU12, Buccaneer and Santa Catarina Prata among types they've planted at different points.

"I've been a keen gardener since a young age," he said. "We had a mixed orchard, and we were always buying something new just to see how it would produce."

It's one of the things he's enjoyed most about being a banana grower.

On the other hand, simple economics have made certain times tough. "You can't put money into them if you're not making money out of them," Ray noted on their Cavendish varieties.

Their other big, unpredictable challenge is weather – an age-old tale for those who rely on the land.

In Ray's part of the world, it's wild, windy storms, huge hail, East Coast lows and even cyclones that do the damage.

"It takes up to 18 months before you're likely to get a bunch again."

Despite the harder aspects of growing, it's clear it's what Ray loves.

Though he's now just supplying to a local fruit store, where he also works casually, he's not planning on getting out of the game any time soon.

"I hope there's still a few more years," he laughed.

"I think it's what keeps me going. And I don't think I could retire and go and live in town, though I've reached that age!"

MURWILLUMBAH - NANAS FOR FRUIT

BGA President Colin Singh was also among the winners.

WINNERS

Best Commercial Bunch of Cavendish
Glen Colefax

Best Commercial Bunch of Lady Finger
Colin Singh

Heaviest Bunch of Cavendish
Savan Singh

Heaviest Bunch of Lady Finger
Will Everest

Best Hand Cavendish
E & Z McKever

Best Hand Lady Finger
Will Everest

Best Commercial Carton Cavendish
A&S Everest

Best Commercial Carton Lady Fingers
A&S Everest

Champion Bunch of Show
Glen Colefax

Champion Hand of Show
Will Everest

Champion Carton of Show
A&S Everest

Most Successful Exhibitor
A&S Everest

Any other variety (bunch)
Colin Singh

Zac and Ethan McKeever with their winning hand.

Ethan McKeever and Colin Singh, of the Tweed BGA, help to unload fruit.

Clean, quality fruit was the hallmark of the banana exhibit at the 2018 Murwillumbah Show.

The Tweed Brunswick Banana Growers' Association was behind the event, organising $5000 in prizes for growers, as well as plenty of merchandise and fruit for punters passing through.

"Bananas have been part of the area for generations," BGA President Colin Singh said.

"My great-grandfather grew bananas around here. There are guys who have banana patches around 100 years old."

Judging was completed before the gates opened, with David Peasley, Matt Weinert and Greg Bradshaw taking on the tough job.

"The quality of lady fingers in the bunches and hands was excellent, I think," Mr Peasley said. "All the bunches were also cleaner than usual, which was great to see."

Mr Weinert also noted the alternative varieties involved, including Pacific Plantains.

"There's a bit of a market for them and it's good to see growers looking at something different."

In fact, Mr Peasley believes there'll be more of this as time goes on.

"We've also got a display of new varieties here and I think this will be a big thing in the future. The industry is moving away from Cavendish, particularly in the subtropics."

Judging since 1976, Mr Peasley said it was great to see the event still going, paying tribute to the BGA for putting in the effort.

Greg Bradshaw said he hoped more local growers would get involved in years to come.

"It provides more of a sense of community," he said. "They have a good product and this is where you learn what other farmers around you are producing. This is how you can lift your standards higher."

Mr Singh, along with Zac and Ethan McKeever, spent the show days giving out donated fruit and merchandise to kids – but said the older generations really get on board.

"We had people come last year and tell us that their grandparents, or parents, used to grow bananas nearby. They were happy to see it represented at the show again. This town's not just sugarcane, it's bananas and cattle too."

As for next year? It's definitely worth having a crack.

"We've got prizes for first, second and third and you're only allowed to enter once per category. Everyone is in with a chance and more fruit ups the competition."

Fruit from the banana display is sold after the Show, with money donated to charity.

Judges Greg Bradshaw, David Peasley and Matt Weinert examine the fruit.

ABGC AGM

The ABGC held its Annual General Meeting in Tully on November 21, where Chair Stephen Lowe presented ABGC's Business Case for the Future of the TR4. The meeting was followed by a traditional barbecue, which proved a great chance for growers to catch up with ABGC Yellow Sigatoka Liaison Officer, Louis Lardi, who retires at the end of the year.

ABGC deputy chair Leon Collins, ABGC treasurer Stephen Spear and Barry Lowe.

(L-R) Dale Bennett, Sarah Simpson, Louis Lardi and Rosie Godwin.

Cameron Mackay and Ben Franklin

(L-R) Kate Wilson, Ruby Wilson, Sharon Collins and Evie Wilson.

IS IT A BIRD? IS IT A PLANE? NOPE, JUST BANANAS!

We often talk about the best way to grow and market bananas – but what about the best way to throw them?

A range of techniques were put to the test at the 2018 World Championship Banana Hurl, held as part the Macksville Gift Carnival on November 10.

"Although dark clouds encroached on the Banana Hurl, it added to the atmosphere of impending doom for some of our bananas," said organiser Helen Rushton.

Congratulations to all the school winners including India, Alfie, Charlotte and Simon. Tammy Woods took out the women's event with a throw of 27.61m, while Tim Eschehach took out the men's with a massive 58.32m hurl.

"The crowd 'oooooed' as the banana hit the ground and exploded into many pieces. The banana throw was split and Tim had taken out the prize. A gallant throw approved by all."

MP Melinda Pavey was among the participants, braving the wet weather on her way to the Kempsey Ball, to throw her fruit 20 metres.

"The Macksville Gift Committee would like to thank the banana growers for the supply of bananas and the prize money. We would also like to thank the participants who gave a gold coin donation," Helen Rushton said.

Bananas were donated by local grower and Australian Banana Growers' Council director Stephen Spear, and Australian Bananas contributed sponsorship.

All images courtesy of Helen Rushton

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