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Issue: 52 | APRIL 2018

SWEET TRIAL O'MINE



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AUSTRALIAN BANANAS Australian Bananas is published three times a year by the Australian Banana Growers' Council Inc. as manager of the Banana Industry Communications Project. This project is funded by Horticulture Innovation Australia (Hort Innovation) using the banana levy and funds from the Australian Government.

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COMMENT

HIGH RISK GROWER ENGAGEMENT



A recent focus of Biosecurity Queensland (BQ) has been visiting highest risk growers and offering advice and information on how they can be better prepared for an outbreak of TR4.

BQ officers from the Panama TR4 Program, with the support of ABGC, have been working with the owners of these properties to ensure they are aware of their biosecurity obligations if they were to have a detection of the disease.

BQ Compliance Manager Paul Garland has been meeting face-to-face with growers to work through the operational procedures and biosecurity protocols that would need to be addressed, if you were to be served a notice for TR4.

While most growers are aware of their general biosecurity obligations, it is hoped that these oneon-one meetings will be a good opportunity to raise questions about potential issues specific to their farm, in the event of an outbreak on their property.

If you are also a grower in this high-risk category and are yet to have a visit by BQ, I would encourage you to take advantage of this opportunity. Each and every farm is different and working out solutions and putting protocols in place well in advance could potentially save you a lot of time and money down the track.

FLOODING CONCERNS

A number of growers in the Cassowary Coast catchment are still counting the cost after recent widespread flooding in the region.

The level of damage was variable depending on where you were in the catchment, however it was estimated that about 5% of bunched plants were damaged or destroyed on inundated farms.

While some growers will have to cut down entire blocks, bunch sizes also are expected to be affected, reducing fruit volumes in the coming months.

Another big concern in the wake of the flooding is the containment of TR4. The recent rains are the biggest floods we have recorded since the initial TR4 outbreak in 2015 and there are obvious concerns over the considerable amount of silt washed onto farms.

Stephen Lowe, ABGC Chair

Plants with severe flood damage can display the same symptoms as TR4. Panama TR4 Program staff are on call to respond to any enquires about symptoms of the disease. Remember that early detection of the disease will slow down any further spread and increase your chances of getting back to production as soon as possible.

HORT REVIEW

ABGC recently submitted feedback into the Australian Government's independent review of the performance of Hort Innovation, being conducted by GHD.

Every four years Hort Innovation is subject to a Review of Performance under the terms of their Statutory Funding Agreement (SFA) with the Commonwealth Government.

The review looks at the company's compliance against the SFA, as well as how it has performed against its strategic objectives.

The latest review is particularly significant as it will look at how Hort Innovation has transitioned from its previous governance arrangements under Horticulture Australia Ltd (HAL), delivering benefits to Australian horticulture industries. It was important for ABGC to submit to the review as banana levies for R&D and marketing utilised by Hort Innovation are anticipated to total \$35 million over the next five years (not including the matched contribution for R&D from the Australian Government). In other words, the banana industry will continue to be the second largest industry contributor to Hort Innovation's income (after vegetables). The report is expected to be made public in September this year.

LEAD PROGRAM

Finally, I'd encourage growers who are passionate about the future of their own business and the industry more broadly to apply to be part of the LEAD program.

The program, which you can read more about in this edition of Australian Bananas, involves a combination of workshops and webinars to help you develop innovative practices and hone your strategic thinking.

At the recent ABGC board meeting, directors considered this initiative of such importance that successful applicants who are also ABGC members will receive an additional travel subsidy to help them attend.



Stephen Lowe, ABGC chair, with Paul Garland, Panama TR4 Program Compliance Manager.

COMMENT

MANAGING TR4 LONG-TERM



ABGC's priority is to continue to contain Panama Tropical Race 4 (TR4) as best we (and individual growers) can. That is to buy time until there are research solutions available, such as highly tolerant and

market acceptable varieties.

The Queensland Government's retention of the regulatory restrictions for TR4 is essential for containment. Without the regulations, TR4 would spread further within the Tully region and to other regions.

Similarly, Biosecurity Queensland (BQ) should continue to lead and deliver the surveillance strategy. Without BQ surveillance, TR4 won't always be detected, reported and contained, increasing the risk of its spores spreading the disease further.

ABGC has advised the Queensland Government that we applaud BQ in their delivering of the TR4 Program of regulatory compliance, surveillance and diagnostics. They are providing the banana industry a well-needed service.

BQ has advised that a consultancy firm (ACIL Allen) has been contracted to develop a long-term control and containment management plan for TR4 in Queensland. BQ also advised that ACIL Allen are required to address the following in their review report: the inevitability that further farms will be found to be TR4-infested over time; the speed of disease spread; need to use best research and development to slow the speed of spread; options for surveillance; and the role of industry in the TR4 Program going forward.

ABGC is consulting with researchers and members to seek any alternative long-term surveillance approaches. One area that could make the surveillance program more cost-effective is the use of drone technology. ABGC has asked BQ to fund research into this so that this technology can be applied as soon as possible.

ABGC and others are to be consulted by ACIL Allen in the development of the new management plan prior to their report to the Government.

ABGC will also be making a submission to ACIL Allen. A key element of that is the current lack of capacity of growers to fund the TR4 program. This will include the last three years of poor prices; that growers are

Jim Pekin, CEO

already paying \$11m per year in compulsory levies; and that the industry has contributed significantly to containment through both the purchase and management of the first infested farm and via individual growers' on-farm biosecurity. We will also provide socio-economic data showing that the banana industry is the largest contributor in terms of both jobs and dollars to both the Cassowary Coast Regional Council and the Mareeba Shire Council.



Flood inspection: Following widespread flooding across the Cassowary Coast, Emergency Services Minister Craig Crawford (pictured fourth from left) and Queensland Fire and Emergency Services (QFES) Commissioner Katarina Carroll met with ABGC Chair Stephen Lowe (middle), Tully grower Patrick Leahy (left) and ABGC CEO Jim Pekin (far right) to get an early assessment of damage to banana farms.

LEVY NEWS

The current compulsory levy rate totals 2.64c/kg.

This is made up of:

- 1.69 c/kg for R&D and marketing (for Hort Innovation);
- 0.75c/kg for the Emergency Plant Pest Response (EPPR) Levy for the Freckle eradication; and
- 0.50c/Kg for the Plant Health Australia Levy (including the 0.4897c/kg to repay the costs of buying and securing the first TR4 infected farm).

The Freckle Response commitment is \$12.37m (not including interest accruing) and the EPPR levy receipts to repay that debt as at 28 February 2018 were \$7.53m. ABGC expects this debt to be paid off by June 2021.

The PHA Levy receipts as at 28 February were \$1.49m. ABGC expects the debt for buying 1IP to be paid off by June 2020.

Further Information: Jim Pekin 07 32784786

BANANA BIOSECURITY AT ITS BEST

Two Australian banana farms have been recognised on a national stage for outstanding biosecurity practices, proving size is no barrier to best practice.

Mackay Farming Group (QLD), Australia's largest banana producer, and Rum Jungle Organics (NT), who farm 2.5 hectares of the fruit, have each received a Farm Biosecurity Producer of the Year award. Amy Spear reports.

MACKAY FARMING GROUP

HARD WORK PAYS OFF FOR MACKAY'S

The Mackay Farming Group is widely regarded as an industry leader in establishing world-class biosecurity practices.

Following the initial outbreak of Panama Tropical Race 4 (TR4) in Queensland in 2015, the company established a plan based on a colour-coded zonal system. This involved using different coloured gumboots in different areas and fitting each farm with footbaths, washdown facilities and chemical dips.

In July 2017, their Bolinda Estate tested positive for Panama TR4.

But, thanks to their exemplary commitment to biosecurity protocols, their packing shed stopped for just two hours after the initial quarantine notice was issued.

ABGC Chair, Stephen Lowe, said the Mackay's contribution to Australia's biosecurity effort went well beyond their own farm gates, consistently offering to share their knowledge to the wider banana industry.

"There is no question that the Mackay's input into banana industry biosecurity best practice has set benchmarks for our industry," he said.

"They have been open and generous in sharing their knowledge, particularly with those growers in the high-risk TR4 zone in the Tully Valley, and for this the ABGC and industry is extremely grateful."

Director Cameron Mackay noted that the level of preparation they had gone to certainly helped once the guarantine notice was issued at Bolinda Estate.

The Mackay's were grateful to be acknowledged for the efforts that they have put into their farms. Gavin Mackay (director) adding, "Seeing all the other industries at the Biosecurity Awards ceremony highlighted that biosecurity is an issue for all of Australia, not just for banana growers."

He returned to the farm determined to further



Pictured at the Australian Biosecurity Awards ceremony in Canberra on March 6 (from left) Gavin Mackay and Cameron Mackay (Mackay Farming Group), Alan Petersen (Rum Jungle Organics), Greg Fraser (Plant Health Australia CEO), Julie-Ann Murphy (Rum Jungle Organics) and Jim Pekin (ABGC CEO).

evolve and improve biosecurity systems, knowing TR4 wasn't the only threat to agriculture in Australia.

RUM JUNGLE ORGANICS

HIGH ACHIEVERS IN TOP END

Alan Petersen and Julie-Ann Murphy, of Rum Jungle Organics, thought their business might be too far out of the norm to take home a national award.

Based just over an hour south of Darwin, they only sell locally, farm organically and run a small operation.

Needless to say, they were delighted.

"We were very excited when we were told we won and then realised how prestigious it all really was," Ms Murphy said.

"We were very proud to represent organic farmers, the NT, banana farmers and the little guy."

Mr Petersen and Ms Murphy have farmed at Rum Jungle for 18 years. When Banana Freckle was detected on their property, and their crop had to be destroyed, they were in shock.

"We had chosen an isolated area, with good water, soil and highway frontage to set up our farm. We had strong healthy plants, soil with good biological activity, we were biosecurity aware—and yet we still had freckle."

The eradication process, now in its final phase, affected them both personally and financially. They drew on their superannuation and Ms Murphy took up another job.

"We thought a lot about giving up, selling the

property and changing crops, but these options didn't suit who we were or what we wanted to do with their lives."

They instead turned their attention to creating an even stronger biosecurity plan, one that reflected their organic, regenerative principles.

"Our plan is a living document and we constantly update based on new information," Ms Murphy said.

One of the main changes has been limiting and recording the movement of people onto their property. The growers have negotiated deals with Telstra, Power and Water and Main Roads, and have a designated farm vehicle. They also implemented a seeds and propagation materials register and isolation fenced their new plantings.

"Our plan reflects our belief that plant and soil health are essential tools of biosecurity practices," she said.

In collaboration with Animal Health Australia and Plant Health Australia, through the Farm Biosecurity Program, the Farm Biosecurity Producer of the Year Award was a new category added to the Department of Agriculture and Water Resources Australian Biosecurity Awards 2018. The award recognises primary producers that have made an outstanding contribution to the integrity of Australia's biosecurity. Recipients must demonstrate exceptional on-farm biosecurity practices, including proactively advocating biosecurity best practice within industry.



INDUSTRY AWARDS

KRISTA TOPS QLD AWARDS

They say if you want something done, ask a busy person to do it.

It's a proverb that rings true for Tablelands local Krista Watkins of Natural Evolution Foods.

Krista and her husband Rob manufacture a range of food products and skincare from green bananas, that would be otherwise wasted. It's a business that has garnered international attention and developed a loyal following.

But there's no stopping this family. Krista has recently been announced as the recipient of the 2018 Queensland Rural Women's Award.

"This project supports rural Australia. I live in, grew up in and operate my business in rural Australia," she said. "It's incredibly important to me."

She plans to use the \$10,000 bursary to support a new food waste project—finding ways of using unsaleable sweet potatoes.

"It was a wonderful field of applicants and I feel

very fortunate that I can bring this home to North Queensland. I've got a lot of work to do with sweet potatoes," she added.

After an intensive interview process, Krista admits she was in disbelief when they called out her name.

"The finalists were amazing. I'm truly grateful to be able to represent Queensland and shine a spotlight on the Tablelands.

"Food waste is a global problem, so the benefits of working in this field are endless," she said.

Krista admits that when they first started work with green bananas, people thought they might be a 'little bananas' themselves.

However, she believes awareness about wastage is growing. In Sydney recently, she was delighted to see so many people with reusable coffee cups.

"Every little bit counts," she said.

Krista will represent Queensland at the national awards in September.



Rural Women's Award winner Krista Watkins with Queensland Minister for Agricultural Industry Development and Fisheries, Mark Furner.

FUTURE'S BRIGHT FOR NEWEST MORT JOHNSTON SCHOLAR

By Amy Spear

Nicola MacKay has always had a passion for the banana industry.

But it was when Panama Tropical Race 4 hit close to home that she knew she wanted to make a career out of it.

"I think that's where the turning point was, where I thought, yes, I really would like to work in this industry," she said.

The University of Queensland student is the 2018 recipient of the Mort Johnston Scholarship, created in honour of an industry great.

Mort Johnston was highly regarded as an innovator and advocate for growers, who gave up his time to serve on a number of committees and the Tully Co-Op. He passed away in 2006.

The scholarship provides work experience on a commercial banana farm and financial assistance of \$5000.

Ms MacKay, 20, comes from one of the largest and most-respected banana farming families in Australia.

"Growing up I've always loved working on the banana farm, I've always loved coming home during the holidays," the Bachelor of Business Management and Science student said. She was 'really excited' when she found out she had been awarded the scholarship—and her father, Barrie, was delighted too.

"He always tells me I can do whatever I want, but I think he is secretly happy that I do want to work in the banana industry."

Majoring in Plant Science and Economics, she balances her studies with work as a casual research assistant under Professor Elizabeth Aitken.

Head of The University of Queensland's School of Agriculture and Food Sciences, Professor Neal Menzies, congratulated Nicola and thanked the Australian Banana Growers' Council for supporting potential future industry leaders through this scholarship.

"Nicola is a deserving, hard-working and highachieving student, and we hope this opportunity will allow her to contribute to the Australian banana industry," Professor Menzies said.

Paul Johnston, son of the scholarship's namesake, said that while the MacKay name was synonymous with bananas in North Queensland, he had no doubt Nicola would do the industry proud in her own right.

"Her family's background, her degree and dedication—as well as the experience the Mort Johnson scholarship will provide—should set her up for an exciting future in horticulture," he said. "My father was passionate about the banana industry. It is a passion I inherited, and I know just how valuable a chance like this can be for someone starting out.

"If we can help people like Nicola to begin their careers, and keep building their love of the industry, we can be confident the future is in safe hands."

The scholarship was established in 2016 and is maintained by an annual donation from the ABGC.



The Mackay's are one of the biggest names in Australian banana farming—and you're going to want to keep an eye out for the next generation too. Meet Nicola, this year's Mort Johnston Scholarship recipient.

MARKETING

The latest Nielsen research shows Aussies are still bananas for their favourite fruit. Associate director of Analytics at Nielsen, Chanel Day reports.

Bananas are nature's non-stop energy snack, and despite higher prices shoppers are still enjoying their sweetness.

Since January last year, prices across many fruits have increased, driving dollar sales for the category up 3.9%. Bananas are a key fruit driving this rise, with a healthy 4.6% increase in dollar sales.

This is way ahead of total grocery sales growth of just 1.9% over the same period. Higher average retail prices for bananas have helped increase dollar sales despite lower sales volume (kg), with prices up a substantial 17% on average versus the year prior.

Despite these price rises, the majority of Australian households are still buying bananas and they continue to be ranked first in the fruit category in terms of total volumes sold.

Over nine in ten Aussie households purchased bananas over the course of the year, however this is down slightly and households bought bananas slightly less frequently on average with some shoppers showing sensitivity to these higher prices.



PERCENTAGE OF BUYING Households of Bananas VS The Previous year



Constraint & State The Michael Company



OLDER AUSSIES LOVING THEIR LADY FINGERS

When we look at the different types of bananas, it is no surprise that Cavendish is the clear winner. In the second half of 2017, Cavendish bananas accounted for 89% of retail dollar sales while other banana types such as Lady Finger and Red Tipped accounted for just 11%.

What is slightly more surprising, is that although Aussies primarily buy Cavendish, there are a significant number of shoppers who are not buying them exclusively. In fact, over the second half of 2017, 38% of Aussie households purchased two or more banana types. The group most likely to buy multiple types are senior couples and 45% of this group purchased two or more banana types over the same period, much more than the national average. In contrast, households under 35 years with no children not only reduced their spend on the category over the past year, but they are less likely to buy multiple types with just 28% of this group purchasing more than one banana type over the past six months.

FAMILIES AND SENIOR COUPLES IN PARTICULAR ARE BANANA DEVOTEES AND ARE THE GROUPS MOST LIKELY TO BUY ACROSS BOTH CAVENDISH AND OTHER TYPES.

MAJOR SUPERMARKETS DRIVING MAJOR GROWTH

The major supermarkets account for 74.4% of dollar share for bananas and are driving growth with dollar sales up 9.3% over the year. In contrast, independents and greengrocers are struggling to capture growth, with banana sales lower in both channels over the same period.

Looking at the majors further, we see that pre-pack bananas hold a relatively small share of sales at just 4.7% of banana sales and pre-packs growing at about the same rate as loose bananas.

Despite rising prices, bananas continue to be a well-loved fruit that is a staple for most households. Families and senior couples in particular are banana devotees and are the groups most likely to buy across both Cavendish and other types. But in fact, almost all Aussies love bananas, and they buy more of them than any other fruit. Now that's bananas!

FAMILIES LOVE THEIR NANAS

There are slight variances in how different shopper groups adapted their purchasing habits as prices rose over the past year. Young families are continuing to buy bananas, buying a little bit less frequently, but spending a lot more overall. In contrast shoppers under 35 without children have reduced shopping trips, and spent a lot less on bananas. Perhaps the young monkeys in the family simply must have their "nanas", whatever the cost!



DO YOU HAVE WHAT IT TAKES TO LEAD?

If you're keen to take your business to the next level and see an exciting future in the banana industry, the LEAD program could be right up your alley.

Designed to promote Leadership, Exploration and Development (LEAD) in horticulture, the project is backed by a Federal Government grant and involves a range of tropical fruits.

LEAD will be delivered over three years to 40 growers and includes a combination of workshops and webinars to encourage industry dialogue, innovative practices and improved strategic thinking.

Australian Banana Growers' Council executive officer, Leanne Erakovic, said it's an exciting opportunity for growers who want to make a difference in their own business and in the banana industry.

"You should consider applying if you're keen to upskill, to ensure your business is at its best, to learn from and meet other growers in horticulture, to be a voice for your industry—there are so many reasons," she said.

The two workshops, in Canberra and Brisbane, focus on positioning your business externally (networking, lobbying, alliances, communications) and creating the organisation you want (team dynamics, conflict resolution, decision making).

Webinars will cover topics such as international trade, crisis management and biosecurity.

"I completely understand that 'spare time' is a rare luxury for most banana growers," said Ms Erakovic. "But I can assure you that we have structured the course to minimise time out of your business, the course itself is free, and some travel costs will be reimbursed to help you attend the two workshops."

She added that you'll be learning skills that will improve your efficiency and management style, while also finding out how you can influence change more broadly. "Courses like this can often take much longer but, because it's designed BY people in horticulture FOR people in horticulture, we've streamlined the timeframe and ensured all content is extremely relevant and targeted."

There are nine places specifically available to Australian Banana Growers' Council members, with the first round of training kicking off in July.

The workshops and accommodation are free, but growers will be responsible for the payment of travel, breakfast, one dinner, taxi fares and beverage costs.

To register your interest or simply to find out more, contact <u>leanne@abgc.org.au</u>.

* The LEAD program has been made possible through the Leadership in Agricultural Industries Fund, administered by the Department of Agriculture and Water Resources to support Australian agricultural industry.

ONE-STOP R&D SITE

The latest advances in banana research will soon be available at the click of a button

via the Australian Banana Growers Council

features easy to navigate menus and also a

comprehensive search function which was

considered a 'must' amongst growers.

website. The dedicated electronic R&D resource

The website has been developed by the Department

funded by Hort Innovation with co-investment from

The website is due to be launched later this month

and will be easily accessible via the ABGC website

or directly by typing www.betterbananas.org.au in

* 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 Queensland Department of Agriculture and Fisheries and

the banana research and development levy, co-investment from

contributions from the Australian Government. Hort Innovation is the

grower-owned, not-for-profit research and development corporation

the Department of Agriculture and Fisheries and

contributions from the Australian Government.

of Agriculture and Fisheries in collaboration with

ABGC. It is an initiative of the National Banana

Development and Extension Project which is

ROADSHOWS-SAVE THE DATE

The six-stop National Banana Roadshow series is again coming to a location near you in July/August 2018. Make sure you save the date for one of these important industry events.

These fast paced day-long events will showcase the latest banana research and development results on:

- Panama disease Tropical Race 4 research;
- Farm production and environmental practices; and
- Aspects of supply chain management.

The roadshows will again feature the short, sharp 10 minute presentations from researchers, but this year may also include a 'speed meeting' session with the researchers and also interactive presentation displays. These are your levies at work! Come along to see how the results from the latest research applies to your business.

DATES & LOCATIONS

- Murwillumbah: Tuesday 24th July, Murwillumbah Services Club
- **Coffs Harbour:** Thursday 26th July, Coffs Harbour Showgrounds

- Tully: Thursday 9th August, Tully Senior Citizens Hall
- Innisfail: Friday 10th August, Innisfail Showgrounds
- Mareeba: Friday 17th August, Department of Natural Resources, Mines and Energy John Charles room
- Carnarvon: Thursday 30th August, Carnarvon Yacht Club

Keep an eye out over the coming months for updates via e-bulletins, e-mails, letters and text messages, for information on how to make sure your spot is reserved at these events.

* 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-forprofit research and development corporation for Australian horticulture.



Queensland Government Strategic levy investment



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ICE ICE BABY: MACKAY'S CRACKING FROZEN MARKET

Consumer demand for convenient, healthy and easy to prepare foods continues to propel the frozen fruit and vegetable market across the world.

For one of the country's leading agricultural producers—which has spent almost a decade researching and developing their own frozen fruit line—hard work and persistence is paying off.

By Sonia Campbell

There's no evidence of a crystal ball in the offices of the Mackay Farming Group.

But the company must have known something eight years ago, when they decided to start trialling the commercial production of frozen banana products, as a viable marketing option.

Almost a decade later, the country's largest banana producer is now set to take on the fast-growing, retail-ready frozen fruit market, with plans to have their own frozen banana packs on supermarket shelves within 12 months.

Company director Cameron Mackay explains how a simple pursuit to value add, has evolved into a new and exciting venture.

"It started off in trial phase, looking into processing frozen bananas for the food manufacturing industries," Cameron said.

"Initially our product was going into juice bars, bakeries, restaurants and a few different other lines. But most of our product was going into bakery (products), Australia-wide.

"We just saw it as an opportunity to value add and offer something that is attractive to a customer."

Their instincts were spot on.

The frozen fruits and vegetable market has grown considerably in recent years, driven by a consumer thirst for convenience and a global trend towards cleaner, healthier eating.

A 2017 study by international market analyses company Market Research Future projected that the frozen fruits and vegetable market would grow at an annual rate of 5.34 per cent worldwide—reaching 751 million tonnes by 2027.

For the Mackay's—an innovative, family-run company managed by brothers Cameron, Stephen and Daniel and their cousins Gavin and Barrie—it's

a global trend that is presenting opportunities across their broad farming network.

"The retail ready market is an emerging and popular market now," Cameron said.

"In the next 12 months we will have a retail ready pack for frozen bananas. Once we have the system down pat for bananas, then we will look at other tropicals. We're already doing trials with papaya, blueberries and we might look at mangoes next year as well."

But, their success has not come without a lot of effort and perseverance.

Cameron says the process of manufacturing frozen fruits for retail sale is labour intensive and has involved a great deal of trial, error and financial investment from the company to finally produce a product that will soon be ready for retail shelves.

He says a major driver of increased retail demand for their product has been new Australian labelling laws, which commenced in July 2016. Under these laws, all packaged food must identify the products' country of origin, including where the food was made, produced or grown; manufactured or packaged. "As those labelling laws have come online, we are now identifying that the product is Australian and that has benefited the business as well.

"Whether the consumers are concerned or not (that the product is Australian), the retailers are very much aware of it. So a percentage of consumers must be questioning the food manufacturing industry and asking 'where is this food from?'."

And the Mackay's are not the only ones reaping the rewards from their newest venture.

The company is sourcing fruit from other local growers to meet their processing demands.

With almost all of the bananas used for the frozen line classed as seconds produce, it's also helping the Mackay's—and others in the industry—make the most of the fruit grown across the Far North.

"CURRENTLY OUTSIDE OF OUR FARM WE HAVE BROUGHT IN FOUR OTHER GROWERS FROM OUR MARKETING GROUP AND WE ARE TAKING FRUIT OFF THEM AS WELL. SO HOPEFULLY WE CAN CONTINUE TO GROW THIS LINE OF BUSINESS AND BRING OTHER GROWERS IN LINE AS WELL."



Cameron Mackay with some of the Mackay frozen banana produce.

NT FRECKLE FREEDOM IN SIGHT



Australia is very close to declaring itself rid of Banana Freckle. Amy Spear reports.

Locally grown Cavendish bananas are starting to arrive back on Northern Territory supermarket shelves.

The Top End industry was brought to a standstill in 2013 following the detection of Banana Freckle, a disease caused by the fungus *Phyllosticta cavendishii*.

The \$26 million National Banana Freckle Eradication Program began the following year.

The program is now in its final phase—the fourth, to be exact.

In a statement, Department of Primary Industry and Resources Chief Plant Health Officer Sarah Corcoran said the program was on track to prove the Territory was freckle free.

"To ensure that banana freckle has been completely eradicated, phase four required inspections to be undertaken on more than 300 properties that were previously infected with banana freckle, or were in close proximity to infected areas," she said.

"Those properties were required to be re-visited, adding additional confidence over an extended period that banana freckle has been eradicated from the NT for the national proof of freedom submission."

On completion of the phase 4 monitoring, , a

proof of freedom submission will be prepared by the Northern Territory and will be given to the Consultative Committee on Emergency Plant Pests.

As of March 2018, twelve operators were growing bananas commercially, including the more well-known Darwin Fruit Farm and Rum Jungle Organics.

Alan Peterson and Julie-Ann Murphy, from Rum Jungle Organics, recently won a Farm Biosecurity of the Year award.

"As we don't export and only sell locally, the declaration does not mean much to our operations. But as farmers we feel a little more secure and optimistic," Ms Murphy said.

"We hope our award and the media attention brings some closure to NT residents who are still upset about Banana Freckle and the eradication.

"Bringing more awareness and generating discussion about the reasons for biosecurity including regional, state and national security of our food would be beneficial."

The organic growers, who are keen to start conversations about regenerative farming, carbon sequestration and food quality, added that they hoped other farmers would look at their plan and realise that good biosecurity need not cost the earth.

Under strict import conditions—and only from QBAN facilities in Queensland—eight nurseries

have also begun selling banana plants to the public.

Regina Downes, manager of Online Plants NT, said they were selling at a steady rate.

Ms Downes said they were delivering plants across the Territory.

"Once permits were no longer required to grow banana plants, we received a big rush of orders lasting a few weeks," she added.

"Banana plants are so easy to grow here in the Territory, so they sell on a regular basis. The rush has certainly died down for now, but the demand is always there.

"With so many varieties now, the public are spoiled for choice!"

It's not the first time the Northern Territory's banana industry has had to bounce back from the brink—Panama TR4 devastated local growers two decades ago.

Before the Banana Freckle eradication process began, commercial Territory growers represented around 1 per cent of national production.

The Banana Freckle hotline is still active and can be reached on 1800 771 163.

More information: <u>www.nt.gov.au/industry/</u> agriculture/food-crops-plants-and-quarantine **TR4 RESEARCH**

PATH TO MOST RESISTANCE



Pictured L–R: Chris Kelly (Horticulturist), Sharl Mintoff (Plant Pathologist) and Lucy Tran-Nguyen (Research leader) from the Northern Territory Coastal Plains research team.

In research labs and trial sites around the world, the search for a commercially viable banana variety resistant to Panama TR4 edges closer every day.

As a variety screening trial for TR4 resistance in the Northern Territory draws to a close, the latest results from the program have been promising, including four Cavendish varieties with good resistance to the disease, during the plant crop phase.

By Sharl Mintoff, Vu Tuan Nguyen, Sam Cullen, Chris Kelly and Lucy Tran-Nguyen

A varietal screening trial at Coastal Plains Research Farm in the Northern Territory, originally part of a previous research project, Banana Plant Protection Program (BA10020) is nearing conclusion.

This trial consists of various banana varieties ranging from several Cavendish, FHIA hybrids and parental lines to a wild species native to Australia. The aim of the trial is to screen and assess these varieties for their resistance to Fusarium wilt Tropical Race 4 (TR4) by assessing the appearance of Fusarium wilt symptoms and survival of the plants.

Typical symptoms of TR4 Fusarium wilt of banana are yellowing of the oldest leaves, followed by the wilting and collapse of these leaves. In some cases

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splitting of the outer most leaf sheath can occur at the base of the pseudostem. Internally, symptoms can be seen as a reddish-brown discolouration of the xylem inside the pseudostem.

Since the last update, the plant crop and most of the first ratoon disease assessment data has been collected with the trial set to end in April this year.

A new varietal screening trial, as part of the new research project Improved Plant Protection for the Banana Industry (BA16001), will commence mid-2018. This article gives an update on the performance of the plant crop of these varieties and their resistance to TR4.

METHODS

All plants were artificially inoculated with TR4 colonised millet at planting in June 2016 and assessed fortnightly for the appearance of external disease symptoms and internal symptoms at plant death or harvest.

In a previous issue of *Australian Bananas*, information was presented on the Fusarium Wilt Race 1 variety trial (Issue 51, page 26) where varieties were placed into three categories addressing how susceptible or resistant a particular banana variety was to Race 1, here we use this same system with an additional category. **Resistant (R):** No disease symptoms were observed.

Intermediate (I): Majority of plants harvested with minimal plants showing symptoms or minor symptoms noted. With the appropriate crop management or environment to lower the inoculum levels these should be commercially viable.

Susceptible (S): Majority of plants harvested with most plants showing disease symptoms.

Very Susceptible (VS): Plants showing severe symptoms and >50% killed due to TR4 infection.

Four varieties served as references to compare the levels of disease severity and resistance, these were FHIA-25 (Highly Resistant—designated as 'Highly Resistant' in a previous trial) and Goldfinger (R), Formosana (I) and Williams (VS).

RESULTS

Resistant

Thirteen varieties did not show any visible external or internal symptoms to the TR4 during the plant crop cycle, several FHIA hybrids (such as Goldfinger and FHIA-25 R references), Pisang Gajih Merah and Cavendish varieties CJ19 and GCTCV 215.

The SH-3362 Auto-tetraploid showed strong resistance to the TR4 with no symptoms observed in any plant, however it should be noted that this variety showed the poorest agronomic qualities with no bunch emergence at 12 months after planting and a generally droopy appearance.

Intermediate

Plants in this category generally performed well with the majority of plants appearing healthy and producing a harvestable bunch, few plants exhibited symptoms. Varieties that fell into this category included Formosana (I reference), FHIA-03, SH-3436 and the Cavendish varieties Dwarf Nathan and GCTCV 217.

Susceptible

Dwarf Ducasse is the only variety in this group as bunches from most plants were harvested with the majority showing disease symptoms.

Very Susceptible Varieties

The most susceptible varieties to TR4 included Williams (VS reference), DPM25, Dwarf Parfitt Off type, GCTCV 105, FHIA-26, Senorita and SH-3656. Most plants showed severe disease symptoms and very few survived to harvest.

TR4 RESEARCH



Typical symptoms of TR4—Infected Williams with leaf yellowing and death.



Typical symptoms of TR4—Internal symptoms caused by TR4.

Table—Resistance ranking of trial plants

VARIETY	DESCRIPTION	REACTION TO TR4
FHIA-25 (HR REFERENCE)	COOKING TYPE	R
GOLDFINGER (R REFERENCE)	LADY FINGER HYBRID	R
GCTCV 215	CAVENDISH	R
CJ19	CAVENDISH	R
FHIA-18	LADY FINGER HYBRID	R
FHIA-02	DESSERT TYPE	R
SH-3641	LADY FINGER HYBRID	R
PISANG GAJIH MERAH	SABA COOKING TYPE	R
SH-3748	COOKING TYPE	R
SH-3142	♂ ELITE DIPLOID PARENT	R
SH-3217	♂ ELITE DIPLOID PARENT	R
SH-3362	♂ ELITE DIPLOID PARENT	R
SH-3362 AUTO-TETRAPLOID	PLOIDY MODIFIED	R*
DWARF NATHAN	CAVENDISH	I
GCTCV 217	CAVENDISH	I
FORMOSANA (I REFERENCE)	CAVENDISH	I
FHIA-03	DESSERT/COOKING TYPE	I
SH-3436	HIGHGATE HYBRID	I
DWARF DUCASSE	DESSERT/COOKING TYPE	S
FHIA-26	DUCASSE HYBRID	VS
SH-3656	LADY FINGER HYBRID	VS
SENORITA	SUCRIER/PISANG MAS	VS
GCTCV 105	CAVENDISH	VS
WILLIAMS (VS REFERENCE)	CAVENDISH	VS
DPM25	CAVENDISH	VS
DWARF PARFITT OFF TYPE	CAVENDISH	VS
M. ACUMINATA SSP. BANKSII	AUSTRALIAN NATIVE	NA **

VS = Very Susceptible, S = Susceptible, I= Intermediate, R = Resistant.

* No disease observed, no signs of bunching at 12 months.

** NA = Not applicable—Plants stressed due to other factors, unable to provide an accurate assessment.



L-R: CJ 19, GCTCV 215, GCTCV 217 and Dwarf Nathan. Cavendish lines that appear to be much more resistant to TR4 when compared to the Williams, with lines CJ19 and GCTCV 215 showing no signs of TR4 symptoms in the plant crop and the GCTCV 217 and Dwarf Nathan showing some minor symptoms. Photos provides by Jeff Daniells.

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

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CONCLUSION

More than half the varieties screened in the plant crop stage fell into the Resistant or Intermediate categories. It should also be noted these rankings only apply to their plant crop stage and not the final assessments for these varieties.

Encouragingly, four Cavendish varieties CJ19, GCTCV 215, GCTCV 217 and Dwarf Nathan have shown good resistance (intermediate to resistant) to TR4 during the plant crop. They have been identified as candidate varieties for mutagenesis as part of the Fusarium Wilt Tropical Race 4 Research Program (BA14014) in an attempt to improve their agronomic qualities to a more commercially acceptable standard.

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

* This article was contributed by Sharl Mintoff (Plant Pathologist), Vu Tuan Nguyen (Technical Officer), Samantha Cullen (Technical Officer), Chris Kelly (Horticulturist) and Lucy Tran-Nguyen (Research leader) of the NT Department Primary Industry and Resources.

RESEARCH

ON TRIAL: WORK CONTINUES AT DURANBAH

Nestled among rolling green hills, ocean views and million dollar homes is a patch of bananas that could hold the future of the Australian subtropical industry.

The NSW Department of Primary Industries (DPI) Duranbah trial site in northern New South Wales is one of a number around the country currently trialling different varieties of bananas for their resistance to a range of common diseases.

The project is a component of the Hort Innovation banana funded project BA16001, Improved Plant Protection for the Banana Industry, and follows on from the Banana Plant Protection Program project, reported in the previous edition of the Australian Bananas magazine.

The productive collaboration between Industry Development Officer Matt Weinert and David Peasley from Peasley Horticultural Services has continued at the picturesque site.

In a plot with a high level of Race 1 Fusarium referred to as the 'killing fields'—16 new varieties from around the world have been planted so researchers can observe how they perform. It's a multiple step process. Screening for Race 1 resistance is the first test at this site.

If the varieties are resistant, they are grown further to check other agronomic characteristics, like bunch weight, fruit size, cycling time and other pest and disease resistance or susceptibility. If they perform well here they move into the semi-commercial or 'best bet' plantings.

Three varieties that have already been through this process and were selected in the Banana Plant Protection program have now progressed to that 'best bet' stage.

"We've established a double row, two metre offset planting and a single row, 2.5 metre spacing," explained NSW DPI Banana Industry Development Officer Matt Weinert. "The aim is to look at the effect these different densities have on plant growth and bunch and fruit size."

"We want to see how they perform in these different plantings."

The varieties being observed in this trial are:

 PKZ—produces a Cavendish-like fruit with very good leaf spot resistance, on a tall and robust plant. The fruit is shorter than Williams and the bunch is cylindrical, with all the fruit of similar

- size, so it should make it easier when it comes to packing;
- FLF—is Race 1 Fusarium resistant with good leaf spot resistance as well. It has large bunches and tastes like a Lady Finger; and
- FHIA17—a dual purpose plant with fruit that can be cooked when green or eaten as a dessert banana.

"We'll grow these out and see how they perform, especially what bunch sizes are like under these different planting densities," explained Mr. Weinert. "We'll also be looking at handling and ripening requirements to determine if these varieties need different conditions than are currently used for Cavendish and Lady Finger.

"Then we will undertake consumer acceptance testing to compare how the fruit tastes against Cavendish and Lady Finger bananas.

"It might be a fantastic plant to grow, with no diseases and good yields, but if consumers do not want to eat it, then, for this component of the work, there's little use pursuing it any further!"



Industry Development Officer Matt Weinert inspects plantings at the Duranbah trial site.



Rows of bananas are tested for disease resistance, as well as bunch weight, fruit size and cycling time.

RESEARCH

PANAMA RESEARCH PROJECT UPDATE

By Tony Pattison

The Fusarium wilt Tropical Race 4 Research Program (BA14014) is investigating mid and long term strategies to manage Fusarium wilt (Panama disease) through improved banana cultivars, development of resilient production systems and developing better tools for on-farm biosecurity.

The development of banana cultivars with improved resistance to TR4 is progressing, with the first of the new lines developed by mutation breeding initiating bunches. After nine months, none of the mutated GCTCV119 lines have shown any symptoms of TR4, while the susceptible controls all have disease symptoms.

Goldfinger, a highly TR4 resistant banana cultivar but with poor consumer fruit acceptance, has also undergone mutation breeding, and the first bunches are now appearing. Improved fruit eating quality of Goldfinger is a priority, before screening for TR4 resistance. The next six months will allow superior cultivars to be selected for further evaluation and other mutated cultivars to be tested.

The studies to determine the genetic markers for resistance to TR4, which will allow banana breeders to select resistant lines, have shown a number of anomalies, including multiple disease resistance mechanisms and differences in susceptibility to different strains of Panama disease.

The development of more resilient banana production systems is a key part of enhancing the suppression of TR4 for banana growers without the disease and should the TR4 become widespread protecting partially resistant cultivars from exposure to continually high inoculum.

How Fusarium moves through the banana plant and survives between crops has been a large component of reducing disease inoculum. Identification of the alternative hosts, such as weeds and their removal could reduce survival of the fungus. The results from studies on weed hosts is currently being developed into a grower manual.

Additionally, some crops or pasture could reduce the survival of the Fusarium, which is currently being investigated in controlled glasshouse and field experiments. A key part of developing a TR4 resilient banana production system is knowing how the soil supports soil microorganism to compete with Fusarium.

The physical and chemical soil properties set the framework for soil organisms to exist. The banana soils of north Queensland have been characterised

for 81 different physical and chemical properties and are being ranked on their ability to suppress Panama disease. The microorganisms that live in the soil, roots and within the plant are undergoing characterisation to determine the core banana microbiome.

Once the core microbiome is established it will be possible to determine how soil type, cultivar and management changes the organism composition in relation to suppression of Panama disease.

Access to clean planting material and on-farm biosecurity is essential to keeping banana farms disease free. The QBAN scheme for clean banana planting material is undergoing transition to administration by Nursery and Garden Industry Australia (NGIA). Banana growers will be kept updated about changes in the QBAN scheme. Furthermore banana growers will have access to greater on-farm biosecurity tools with the development of a Biosecurity Best Management Practices app. To ensure project outcomes are benefiting banana growers an independent review of the Fusarium wilt research project has been conducted and will direct the final 18 months of the project.

* The BA14014 Fusarium wilt TR4 Research Program is led by the Queensland Department of Agriculture and Fisheries, with funding from Hort Innovation.



TR4

PROTECTING YOUR ASSETS

Since the initial detection of TR4 in the Tully Valley in 2015, Australian Banana Growers' Council (ABGC) and Biosecurity Queensland (BQ) have attempted to keep Queensland banana growers abreast of biosecurity best practices designed to offer the greatest protection against potential spread of the disease. However, with the number of confirmed TR4 cases growing to three in two years, some valuable learnings on farming with Panama have also been gained. Many of these have come from the growers themselves that have been directly affected by the disease.

By Sonia Campbell

With three properties in the Tully Valley now confirmed with Panama TR4, the aim of ABGC and Biosecurity Queensland is to continue to help most at-risk growers ready themselves for their own potential TR4 infection.

Offering valuable insight into this effort have been the owners of the two banana farming properties who continue to operate with the disease.

Their learnings are not only helping other growers to better prepare their businesses for a possible TR4 detection, but are offering greater potential protection to industry at large.

LESSONS LEARNT

In July 2017, the MacKay Farming Group's Bolinda Estate became the second Queensland property to record a positive detection to Panama Tropical Race 4 (TR4).

However, the stringent biosecurity protocols implemented by the company well before the incursion, meant the packing shed on the affected property stopped for just two hours after the initial guarantine notice was issued.

Gavin Mackay, who manages Bolinda Estate with cousin Stephen, said the brief production downtime was not only testament to how effective strict onfarm biosecurity practices can be, but having these measures in place well prior to a detection, was crucial to the farm's ability to continue to trade.

"There is no doubt having those measures in place and consulting with BQ makes the transition easier," Gavin said.

"If we didn't have the systems in place that we did then we would have been looking at a much greater downtime and we wouldn't have been able to continue to get back to farming as quickly as we did."

Stephen agreed: "It was definitely our saving grace, having a good system already in place made things so much easier, and meant our staff were ready to respond."

SIMPLE CHANGES CAN MAKE BIG DIFFERENCE

There is no question that the Mackay's have one of the most sophisticated on-farm biosecurity management plans known to industry. It includes a colour-coded zonal system—with different coloured gumboots for each farm zone—sanitation dips for vehicles, footpaths, wash down facilities, perimeter fencing and more.

However, Gavin and Stephen say growers should not be daunted by the task of improving their biosecurity management plans. They say even basic changes can make a real difference to protecting your asset and getting back to business, in the event of a detection of TR4.

"Even simple things like creating a biosecurity aware culture within your staff, whereby you communicate regularly through toolbox talks, to provide work instructions or deliver general biosecurity information," Gavin said.

"This way if you do become infected staff are accustomed to getting instructions delivered in a timely and systematic fashion. And it will be easier to make them aware of TR4 and the new procedures they will be required to carry out in order to satisfy the quarantine notice and continue to trade."



CHANGE OF THINKING

One of the biggest on-farm challenges a grower can face after a positive TR4 detection is changing their focus from keeping the disease out, to keeping it in.

"The main thing we had to do was change our thinking from the farm being 'clean' to now 'dirty'," Gavin explains.

"Almost immediately the infected area was fenced and all plants in the zone were treated as per BQ instruction.

"To reduce all movement of people and machinery we isolated a 40 acre area around the destruction zone, destroying all plants in the area, with the plan never to re-enter that area again as our best chance of containment."

CLEAN ACCESS ROADS

In order to return to production (and meet BQ requirements) the Mackay's installed clean access roads—using geofabric and gravel—to packing sheds and clean access points, in order to move bunches and stay in 'clean' zones.



LIVING WITH PANAMA TR4

Growers with multiple parcels of land, and/or packing sheds that are located separate to production areas, would also need to consider how they would move their fruit across non-contiguous zones.



Thick plastic was used by Mackay's to move decontaminated tractors across public roads.

SIGNAGE/ZONING

Well-placed signage, including painting instructions onto concrete walkways, can ensure visitors and staff know what zone they are in and what footwear they should be wearing at all times.



"Painting instructions on the ground can be a very effective method of getting key messages across to both staff and visitors, particularly when it comes to letting people know where they can and cannot walk," Stephen explains.

"Different parcels of land will need completely different boots and tools, so colour-coding these boots and tools—even with ear tags—will allow them to be easily identified and prevent mix ups," he said.

INVEST NOW-SAVE LATER

When it comes to preparing for a possible TR4 infection, both Gavin and Stephen have the same philosophy—"If you're going to do it, do it now".

"Once a farm has been issued a notice from BQ, any biosecurity upgrades or farm system changes are much harder and far more costly to carry out."

"Even getting a contractor in to put up fencing once you've been confirmed with TR4 will not only be far more challenging, it will also be considerably more costly." "LIKEWISE, MOVING FARM MACHINERY, VEHICLES AND OTHER FARM APPLIANCES, WILL REQUIRE A GREAT DEAL MORE HEARTACHE ONCE YOUR FARM IS LOCKED IN A QUARANTINE ZONE."

TESTIMONIAL

On January 23 2018, Warwick Flegler received the news that no banana grower wants to hear.

His farm, in the Tully Valley, had been issued a TR4 notice following the detection of a suspected case of Panama TR4.

The detection would become the third confirmed case in Queensland and, while he was understandably devastated, he was by no means unprepared.

Wanting to ensure his farm was in the best possible position to face any incursion, Mr Flegler had previously met with Biosecurity Queensland (BQ) to discuss his farm set up.

Though he already had some measures in place, their additional guidance meant he was in a position to go back into production just four days after the TR4 notice was issued.

This is his story:

"Before Mackay's (the second detection) I thought I

was low risk of contracting Panama (TR4) as I was over 2km upstream from the first infected property, so I only had basic biosecurity in place.

"All employees had town and farm boots for the clean and dirty zone. We restricted any machinery and vehicle movements unless they were thoroughly washed and sterilised—which takes time, money and extraordinary effort by both management and employees.

"After Mackay's detection I organised a meeting with a Biosecurity Queensland compliance officer to confirm how I intended to set up my shed that would meet their criteria to send fruit off farm.

"They explained that some aspects would need further development and others would not meet the criteria.

"For example, we had to move the clean zone boundary to include the on farm residence, otherwise anything in this house would need cleaning and sterilising to take to town.

"I would certainly recommend talking to BQ so you know exactly what will work for your particular situation as no two farms are the same," Warwick Flegler.

ACKNOWLEDGEMENT

The ABGC would like to thank the Mackay family—including Gavin, Stephen, Barrie, Cameron and Daniel Mackay—for their generosity and consistent willingness to share their knowledge with the wider banana industry, particularly fellow growers in the Tully Valley.

Their contribution to industry goes well beyond their own farm gates and has allowed the ABGC and BQ to provide valuable feedback to other growers in high-risk TR4 zones, on how to continue to operate a working business on an infested farm.

Special mention must also go to Naomi Abbott, of Mackay's Banana Marketing, who has also played an integral role in sharing her valuable knowledge on biosecurity best practice protocols, with ABGC and industry at large.

And thank-you also to Warwick Flegler for generously offering his feedback and learnings, which has also greatly assisted the ABGC and BQ

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MAINTAINING THE FIGHT AND

In this three-page feature, Biosecurity Queensland answers some frequently asked questions about Panama TR4, including long-term industry management and what to expect once issued a notice of affected land.

HOW DO BQ WORK WITH A SUSPECTED INFESTED FARM?

By Deanna Belbin, BQ

The following article should help to clear up any misconceptions about how Biosecurity Queensland works with growers who have a suspected or confirmed case of Panama disease Tropical Race 4 (TR4) on their property. Growers should remain assured that, at all times, Biosecurity Queensland is committed to getting their farm back in operation as soon as possible while ensuring any risks to the wider industry are minimalised.

Once there is a reasonable belief that a farm is suspected of having TR4, the business owner is given a 'Notice of Panama disease Tropical Race 4 affected land' (notice).

The notice details the biosecurity requirements that the owner must meet in order to continue trading and protect the wider industry from spread of the disease.

It is important to note that production down time can be minimised if the business has:

- a good understanding of biosecurity measures;
- an on-farm biosecurity management plan; and
- implemented a reasonable level of biosecurity measures that minimise the risk of disease spread from their property.

A small team of Biosecurity Queensland (BQ) staff will work closely with the business owner to provide practical advice and assistance on how they can best meet the requirements of the notice.

A notice may require a property owner to implement or improve biosecurity measures such as:

- farm and shed zoning protocols;
- fencing and signage;
- decontamination and wash-down facilities;
- the records to be kept by the business; and
- how Biosecurity Queensland will monitor the property.

BQ officers will ensure that vehicles, machinery, equipment and fruit coming off the property are

free of soil and plant material. This is to protect the wider industry and contain the disease as much as possible.

Surveillance teams will visit the suspect property to determine the possible extent of the disease. They may visit other properties linked through shared machinery and equipment or planting material. For more information on surveillance refer to 'Surveillance and testing for Panama disease Tropical Race 4' on the Biosecurity Queensland website at www.biosecurity.qld.gov.au.

Biosecurity Queensland investigates the potential spread of the disease by tracing possible pathways of disease movement. The business owner completes a tracing survey relating to the movement of any plant material purchased and planted, machinery movement and farm contractors. For more information refer to 'Frequently Asked Questions' in the Panama disease section on the BQ website.

If Panama TR4 is confirmed on a property, a destruction protocol for infected plants is carried

out. Destruction is carried out under the supervision of BQ officers and adheres to strict biosecurity measures to ensure the disease is not spread any further on the farm or is a threat to the wider industry.

BQ continue to work with the business owner to meet their ongoing biosecurity obligations and to offer advice and support whenever necessary.

In close collaboration with the Australian Banana Growers' Council (ABGC), Biosecurity Queensland ensures the industry is kept updated on any developments and that information delivered to growers is accurate and timely.

If a notice is given, those growers who are prepared for a detection of Panama TR4 on their properties, with on-farm biosecurity measures already in place, will be best placed during what will be a challenging time for their business to meet the biosecurity requirements and resume trading.

For more information on how you can be prepared refer to 'Information and Resources for Banana Growers' on the Biosecurity Queensland website.

WHAT CAN GROWERS DO TO MANAGE TR4?

By now growers should have a plan of attack to respond to a Panama TR4 detection on their farm. As the current two operating infested properties have shown us, a well-prepared property with established biosecurity measures will be trading again far more quickly than a farm that has limited or no biosecurity measures in place.

Preparing your farm for Panama TR4 may not be as daunting as you think. Many growers are problem solving their biosecurity issues and implementing innovative and cost-effective ways to protect their farms. It's okay to think outside the box. Ask a Panama TR4 Program biosecurity officer if you're unsure of the effectiveness of your methods—we're here to help. Contact the Panama TR4 Program by phone on 07 4091 8159 or via email <u>panamatr4@daf.qld.gov.au</u> As a baseline, there are some basic and relatively inexpensive ways to protect your farm and the wider industry.

Zone your farm into three zones: exclusion, separation/clean zone and farming/dirty zone Exclusion is a good starting point—keep unnecessary vehicles and machinery out of your banana paddocks.

Manage the footwear of people visiting you farm. Provide clean shoes for them to wear and/or a footbath to decontaminate shoes on farm entry and exit.

Don't share planting material with other farms. Use your own suckers or source your plants from an accredited QBAN tissue culture nursery.

Visit the ABGC website for more information on preparing for Panama TR4 (<u>https://abgc.org.au/2017/01/29/panama-tr4-kit/</u>)

TR4

READYING FOR TR4



WHAT IS THE LONG TERM PLAN FOR MANAGING TR4?

As part of the State Government's continued support to the banana industry in Far North Queensland, the Panama TR4 Program is undergoing a full program review to map out a long term control and containment plan for Panama TR4 in Queensland.

As also mentioned by Jim Pekin, ABGC CEO on page 5, DAF have commissioned ACIL Allen Consulting to undertake a cost-benefit analysis on the control and containment of Panama TR4 in Queensland, and provide recommendations on a sustainable model for managing Panama TR4 going forward.

This will include which elements, if any, of the current program could be reduced or ceased, and how any ongoing activities should be delivered and funded. ACIL Allen will be consulting with a range of stakeholders to scope these options in April 2018. They will report to Government in May 2018.

There will be further and wider consultation to

explain and develop the recommendations so the arrangements to continue the important collective industry and government response can be implemented in a timely manner in the future.

If you require further information or have insights and information that will assist this scoping study please contact Amelia Foster at BQ on <u>amelia.</u> <u>foster@daf.qld.gov.au</u>, Jim Pekin at ABGC Jim.Pekin@abgc.org.au or Jan Paul van Moort at ACIL Allen on jp.vanmoort@acilallen.com.au

SURVEILLANCE & EARLY DETECTION

In December 2017, the Panama TR4 Program implemented a revised tracing and surveillance strategy to address risks and identify the best allocation of resources. The strategy review was undertaken in consultation with the Australian Banana Growers' Council (ABGC), and the Department of Agriculture and Fisheries' Agri-Science Queensland team.

Surveillance frequencies and the approximate number of properties in each category are:

- 2 operating Infested properties surveillance every six weeks;
- 21 Highest risk properties surveillance every three months;
- 105 Medium risk properties surveillance every six months; and
- 160 Lowest risk properties—no surveillance by Biosecurity Queensland.

All growers in the region were sent a letter in the post advising of their property category and surveillance frequency. If you did not receive your letter or you have a question about your property category or surveillance frequency, please phone Amanda Palmer at the Panama TR4 Program on 4091 8146 or contact via email <u>amanda.palmer@daf.qld.gov.au</u>.

Growers are encouraged to identify and report suspect plants to Biosecurity Queensland immediately on 13 25 23.

TELL US WHAT YOU NEED

Biosecurity Queensland understands that preparing your farm for Panama TR4 requires adequate resources. As part of our communications and publications review, BQ would like to know what areas of Panama TR4 you need to know more about and what additional resources we can provide so you can meet your biosecurity responsibilities. For example, do you need more information on farm and shed zoning, disinfectants, your general biosecurity obligation or educational support for farm workers? Send your comments to Sarah Flenley, Communications and Engagement Manager via email to <u>panamatr4@daf.qld.gov.au</u> or phone 0400 867 264 or 4091 8159.

CONTINUED GOVT INVESTMENT

By Deanna Belbin, BQ

Following confirmation of Panama TR4 on a third commercial banana farm in the Tully Valley in February, there were some concerns from industry as to whether the Palaszczuk Government would continue its investment in the current control and containment program.

With financial investment of more than \$27 million over the last three years, the State Government has continued to provide resourcing for the benefit of the banana industry and the regional communities that depend on it.

The funding reaches across a diverse range of programs including:

- on-ground surveillance activity;
- management and containment operations;
- education and awareness; and
- longer term solutions in research and development initiatives.

In December last year, Minister for Agricultural

Industry Development and Fisheries, Mark Furner, announced a further \$3.5 million towards increased surveillance, research on chemical effectiveness in managing Panama TR4 and a three year feral pig control program, bringing the total state government investment in Panama TR4 to over \$27 million to date.

The government acknowledges that the banana industry in Far North Queensland is one of the region's main economic contributors and biggest employer. We want farmers to keep selling bananas. Longer term planning is currently underway to determine the best way to deliver the response to Panama TR4 in Queensland into the future.

The presence of TR4 has meant rapid change for industry in a relatively short period of time. Even though there is still much that remains unknown about the disease, through government commitment and the hard work of industry, Queensland has had greater success in controlling and containing the disease than anywhere else in the world.



PREPARING FARM FOR TR4: Q&A WITH PAUL GARLAND, PANAMA TR4 PROGRAM COMPLIANCE MANAGER



Through working with infested farms, Paul understands first-hand the challenges that growers face in working under a notice of Panama TR4. He also works closely with the growers at highest risk of disease incursion, visiting their farms and giving them an opportunity to talk through some of the individual challenges they face in preparing a farm for Panama TR4.

Q. WHAT ARE THE KEY THINGS GROWERS CAN DO TO PREPARE THEIR FARMS FOR A PANAMA TR4 DETECTION SO THEY CAN RESUME TRADE AS SOON AS POSSIBLE?

A. The key to being ready for Panama TR4 is zoning your farm. This will be a different process for every grower, however zoning the property into different areas such as an exclusion zone, and separating clean zones from dirty zones is the first priority.

A clean access road is important as it allows suppliers and transport vehicles to enter the property so that a farm can continue to trade as soon as possible after a detection. For a dirt access road to be 'clean' it must have a layer of material such as heavy grade rock or be sealed with bitumen. The added layer minimises possible contamination from the pre-existing dirt road.

Once the clean access road is in place and approved by Biosecurity Queensland as meeting the requirements of a notice, it becomes an extension of the public road—so fruit transport trucks may enter and exit without restriction. However, any items that trucks remove from the property may need to meet additional requirements to ensure that they are free from soil and plant material. Also, water run-off and water drainage should be managed wherever possible to prevent crosscontamination between clean and dirty zones. Growers should contain water run-off to their farms by installing bund walls and/or heavy grade rock. Avoid putting in drains that direct water into neighbouring properties, roadways or waterways.

For more information on farm zones and water drainage, refer to the 'Banana best management practice for on-farm biosecurity' at <u>https://</u><u>horticulture.com.au/wp-content/uploads/2017/06/</u><u>On-farm-Biosecurity-Manual.pdf</u>.

Q. WHAT REQUIREMENTS APPLY TO PACKING SHEDS UNDER A NOTICE?

A. Zoning in the packing shed will help a grower meet their requirements under a notice. How the zones are established will be different for every grower, and they know their farm better than anyone about the best way they can meet the requirements. Bottom line is you need to separate dirty areas from clean areas. The zoning system must ensure that the clean zone remains free from all soil and plant material at all times. Fruit must progress from the dirty zone, where it is initially cleaned and graded, to the clean zone, where it is packed and ready to leave the property.

Q. BASED ON YOUR EXPERIENCE WITH HIGHEST RISK GROWERS AND THE THREE INFESTED FARMS, WHAT ADVICE CAN YOU GIVE THE REST OF THE INDUSTRY?

A. In general, the growers feel that the personalised information they received from Biosecurity Queensland gave them a better understanding of what they needed to consider when making operational changes to meet the conditions of a notice. After we visited their farms and provided practical advice tailored to their farm, they were then able to plan what biosecurity measures they would implement so they'd be back in business as soon as possible if they were subject to a detection.

Q. WHAT DO YOU THINK ARE THE MOST COST EFFECTIVE WAYS OF PREPARING A FARM FOR PANAMA TR4 AND PROTECTING THE BROADER INDUSTRY?

A. Whatever growers do to protect their farms and the industry, big or small, is beneficial to themselves, everyone else and is part of our shared responsibility to manage the disease. Farm biosecurity measures can be gradually built up as resources become available, but something is always better than nothing. Some good starting points are:

- implementing cleaning and disinfection processes that prevent soil and plant material from moving off a farm or between farm zones.
 Pump spray bottles filled with disinfectant so that people moving between zones can clean and disinfect their vehicles and boots where clean and dirty areas abut is effective. Vehicles, machinery and equipment must be cleaned to appropriate biosecurity standards. This means no traces of soil or plant material are present after washing, cleaning and disinfection.
 Remember, it takes just one fungal spore to infect a farm.
- educating farm workers and field staff about
 Panama TR4. In most circumstances, it will be
 field staff who will notice symptomatic plants.
 Therefore, it is essential that your staff are trained
 to identify potentially diseased plants and that
 they understand the importance of reporting
 suspect plants to farm management immediately.
 Ensure all farm workers and contractors follow
 on-farm biosecurity procedures.
- excluding visitors or trespassers from paddocks by using perimeter fencing and biosecurity farm gate signs. Fencing or barriers and signage within a farm can also direct movement within zones.

MOVING FORWARD

Most growers have focused on keeping the disease off their farms by implementing very small changes such as footwear baths and excluding unnecessary vehicles from their farms. That line of defence should now be directed both ways, keeping the disease out while also keeping it in. This could include measures such as making sure fruit leaving the property is free from soil and plant material and installing footwear exchanges where dirty boots stay on the property. Remember to 'come clean, leave clean' as a rule.

TAIWANESE RESEARCH VISIT

By Rosie Godwin & Stewart Lindsay

In early February this year, Dr Chih-Ping Chao (Director) and Dr Gus Molina (consultant) from the Taiwanese Banana Research Institute (TBRI) met with a delegation from the Australian banana industry in north Queensland.

The aim of the visit was to discuss opportunities for research collaboration, Australian access to Cavendish germplasm developed by TBRI, the terms and conditions for on-farm, pre-commercial grower trials and future possibility to commercialize selected varieties.

Access to improved germplasm from overseas banana breeding programs is vital for the Australian industry to help combat diseases like Fusarium wilt TR4 since we do not have a breeding program of our own.

The Banana Varieties subcommittee has the responsibility to oversee access and the development of new varieties under the industry's largest Hort Innovation levy-funded project, BA16001, Improved Plant Protection for the Banana Industry. The Varieties subcommittee has developed a strategic import plan focused on dessert style bananas, particularly types familiar to consumers (AAA/AAB/ABB genomes), with resistance to Fusarium wilt Race 1 and TR4.

The subcommittee has also evaluated the potential of all global banana-breeding programs to collaborate with the Australian industry and TBRI was identified as one of the key partners for closer engagement and collaboration.

TBRI is of interest to the Australian industry because their selection program is focused solely on resistance to Fusarium wilt TR4 in Cavendish varieties.

The first report of Fusarium wilt of banana in Taiwan was in 1968 in the variety Pei Chao (their standard Cavendish variety), and spread rapidly to epidemic proportions by the mid-1970's as limited biosecurity practices failed to contain the disease.

The development of commercial production of tissuecultured plants for clean planting material in the early 1980s also provided the opportunity to select for off-type plants with desirable characters such as Fusarium wilt resistance (somaclonal selection) in high inoculum screening trials. Initial resistant selections showed very poor agronomic traits.

Over time, Cavendish selections with varying levels of resistance have been made, with a number of commercial selections released to the banana industry. Each of these has some limitations in terms of production cycle or fruit quality.



Pictured; Dr Chih-Ping Chao (second from left) and Dr Gus Molina (second from right) met with Australian banana industry delegates during a recent visit of North Queensland including Andrew Serra (left), Patrick Leahy (centre) and ABGC Chair Stephen Lowe.

New varieties being evaluated in Taiwan which are of interest to the Australian industry include an improved selection of Formosana—GCTCV 218-2. It is around one month faster cycling, 30–40 cm shorter than standard Formosana, but with similar Fusarium wilt TR4 resistance and bunch size. It also has less problem with maturity bronzing, thrips damage (Corky scab) and de-greening time during ripening. TBRI has also started selecting for resistant selections of Williams rather than Pei Chao with some early selections getting to bunching stage in the field without developing disease symptoms.

Dr Chao and Dr Molina spent a day and a half in talks with the Australian delegation which included senior staff from DAF, Hort Innovation, ABGC representatives and banana growers. Dr Chao and Dr Molina also had the opportunity to meet project scientists, visit Mission Beach Tissue Culture and chat informally with a group of Australian growers over dinner.

As a result of their visit, a Memorandum of Understanding between the Queensland

Government and the Taiwanese government is currently being negotiated. This will cement relationships between the two countries. A Material Transfer Agreement is also being negotiated between the Queensland Government and TBRI to outline the terms and conditions for accessing germplasms as well as how it can be used for research and in limited scale grower trials. Collaborative R&D activities involving variety selection and screening where the Australian banana industry is actively partnering with TBRI are also being developed.

We hope to obtain access to TR4 tolerant/resistant Cavendish varieties including the Improved Formosana and others yet to be determined.



TAIWANESE BANANA INDUSTRY

- Taiwan produces around 14000 ha of bananas and was once a significant exporter to the Japanese market. Now it supplies less than 1% of that market due to competition from the Philippines. This was caused by the loss of export arrangements and the impact of Fusarium wilt TR4.
- Production systems in Taiwan are mainly based on single cropping cycle due to the impacts of typhoons and TR4. Arable land is at a premium in Taiwan and most banana production occurs on one hectare plots.
- Eleven percent of the tissue cultured plantlets produced by the TBRI between 2011 and 2017 were Formosana, 33% were other improved TR4 tolerant varieties, and 46% were Pei-Chao (their Williams equivalent).

NATIONAL PLANT PROTECTION PROGRAM MOVING AHEAD

By Stewart Lindsay

The banana industry's new national plant protection program is progressing well with field trials, farm surveys and IPM priority setting workshops underway or completed. The plant protection program is the largest research and development investment made by the Australian banana industry and coordinates a project team of over 25 RD&E staff across the four banana producing states and territory.

The new program has a major emphasis on variety importation and screening. More trials screening new varieties against Fusarium wilt Race 1 have been planted in northern NSW at Duranbah, along with trials to investigate the production performance and consumer acceptability of three resistant varieties identified from the previous program.

Field screening of new and existing varieties for resistance to Fusarium wilt TR4 continues in the Northern Territory with a new trial planting planned for in July/August 2018. Many of the same varieties will also be planted in a field trial assessing production performance and yellow Sigatoka resistance at the South Johnstone Research Station in north Queensland in August 2018. Each of these trials will be assessing a range of Cavendish and non-Cavendish varieties.

The project team has also recently hosted a visit to north Queensland by representatives from the Taiwan Banana Research Institute (TBRI). The activity was arranged to develop closer ties with the TBRI and their novel Cavendish banana breeding program looking for resistance to Fusarium wilt TR4.

This action was a recommendation from the program's Banana Variety Subcommittee, a group of banana growers, ABGC staff, researchers and Hort Innovation staff that guiding the development of a strategic approach to variety importation and development for the Australian industry.

The program also continues to provide the quarantine facilities and procedures for importing new varieties into Australia in a way that safeguards our freedom from a range of exotic pests and diseases. Quarantine procedures and accreditation required by the Australian Department of Agriculture and Water Resources (DAFWR) has been maintained by project staff and access to new banana varieties from Taiwan, France and Brazil is currently being negotiated for research purposes. Project team members are also actively involved in conducting virus diagnostic screening as part of the importation process and for the QBAN clean planting material system. They are also conducting research into detecting newly discovered viruses found in banana varieties imported from SE Asia.

The program also has a significant investment in research for new and improved IPM practices for bunch pests, spider mites, yellow Sigatoka and nematodes. These priority work areas were confirmed by a series of workshops to prioritise the main activities. Bunch pests, particularly banana rust thrips, are a high priority for research activities and field trials are underway to investigate a range of new chemical and biological products for control of bunch pests. There are also field trials to investigate non-chemical controls like the influence of bunch cover colour on banana rust thrips activity. The use of predatory mites to control spider mites is also being investigated with the assistance of cooperating growers, with early results showing significant reductions in pest mite numbers after the introduction of specific predatory mites.

For yellow Sigatoka there are a range of research activities looking at newer chemical and biological products for control as well as investigations to determine the pre- and post-infection activity of our current chemical products. In the nematode R&D activities farm surveys have already been conducted to identify which plant parasitic nematodes are present in bananas in different production regions. Samples from NSW, SE Queensland, north Queensland and Western Australia (Carnarvon) have shown that a range of nematode species such as Spiral nematode, Lesion nematode and Root-knot nematode are much more common in areas outside north Queensland. More research will now be conducted on these other species to determine how damaging they are and what cover crops or fallow crops are non-hosts for them and can be used in a rotation system. There will also be screening of novel new chemical and biological products for nematode control.

For more information about the program activities, contact Stewart Lindsay from Queensland DAF on 0742204120.

* The project Improved Plant Protection Program for the Banana Industry (BA16001) has been funded by Hort Innovation, using the banana research and development levy, contributions from the Australian Government and co-investment from the Queensland Department of Agriculture and Fisheries, Northern Territory DPIR and NSW DPI. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.



The National Plant Protection project team recently hosted a visit by representatives from the Taiwan Banana Research Institute (TBRI). Pictured L–R; ABGC CEO Jim Pekin, Dr Gus Molina and Dr Chih-Ping Chao (TBRI) and Steve Lavis from the Mission Beach Tissue Culture Nursery.

REJECTS AND REACHING-OUT



Industry Development Officer Matt Weinert with New South Wales grower and Tweed BGA chair Colin Singh.

Industry Development Officer Matt Weinert explains how his new extension project will benefit subtropical banana growers.

Matt Weinert wants to rifle through your reject bin.

Yes literally!

Banana Industry Development Officer with the NSW Department of Primary Industries (DPI), Mr Weinert is keen to get a better understanding of why growers are throwing out bananas as part of a new extension project, funded by the Hort Innovation banana fund—BA16007 Subtropical.

Through a reject and downgrade analysis of fruit, Mr Weinert aims to help growers reduce waste and improve the packout of premium fruit.

He said growers don't always see what's causing their fruit to be rejected, so he plans to look at bananas in reject bins and qualify the damage.

"Growers make the most money on premium fruit and improving premium packouts is one of the best ways to improve profitability. We will also look at fruit that have been ripened by regional wholesalers to find out if there is anything that is causing that fruit to be out of spec for the retailers," he said.

This research is just one component of the new project covering the area from Bundaberg in Queensland to Macksville in New South Wales, as well as Carnarvon in Western Australia. Valerie Shrubb from the Department of Primary Industries and Regional Development in WA and Annie von Blumenstein from the Sweeter Banana Co-Operative will undertake the project work in Carnarvon.

Mr Weinert said, "It's great to have Valerie and Annie involved in the work in Carnarvon, as it means we can cover off the whole Australian subtropical industry."

"We also want to work with growers in south-east Queensland and Bundaberg as well.

"The second part of the project involves a young growers group similar to the NextGen group in North Queensland, but with subtropical growers. Ultimately we want to link the subtropical and tropical groups as well.

"The idea is just to get growers in the different subtropical producing regions talking to each other and sharing their issues and ideas. A bit like crowdsourcing, often growers are able to solve their own problems when they get together!"

Young growers are already connecting through social media in both the Tweed and Coffs Harbour areas, so Mr Weinert hopes to expand on those existing relationships.

"One thing I really enjoy doing in my job is connecting people and focusing enthusiasm," he said.

"We want growers to drive it, but the idea would be to get the growers to meet each other, maybe visit packing sheds, even visit other industries. Once the group is operating we want the growers to drive the agenda."

The project's final component is a series of workshops, including one on nutrition.

"This would build on the previous workshops on this topic. We're interested in rolling out some of the project work from the nutrition workshops to be run in North QLD under Reef Trust III funding as well," said Mr Weinert.

"The idea would be to ask growers to bring leaf and soil analyses along to the workshop so we can work through the results to help them understand the role of the different fertilisers and hopefully help them determine how much to apply and when."

A workshop focusing on nematodes is also proposed.

"Nematodes are a big issue in the subtropics. As part of the Improved Plant Protection for the Banana Industry project, we recently undertook some nematode soil analyses, with the QDAF nematologists in Brisbane and would like to share the findings at the workshops."

Email <u>matt.weinert@dpi.gov.au</u> for more information on BA16007 Subtropical.

HARPS: WHO, WHERE & WHY

The HARPS project team is currently running a series of information sessions designed to answer questions about the new retailer produce scheme.



NSW grower Peter Molenaar speaks to project manager Tristan Kitchener at one of two information sessions at the Brisbane Markets.

The initial purpose of a Harmonised Australian Retailer Produce Scheme (HARPS) was to provide a single food safety certification to replace multiple requirements for growers supplying more than one supermarket chain. However, this could not be explicitly achieved.

What growers are now required to have is a base scheme—like Freshcare—as well as HARPS.

HARPS is a retailer-led scheme designed to assist with compliance to food safety, legal and trade requirements for suppliers to the major grocery retailers in Australia. HARPS aims to eliminate the need for multiple audits by 'harmonising' the additional requirements of the major grocery retailers, allowing a single audit (for both the base scheme and HARPS).

HARPS launched in October 2016, and approximately 900 growers, suppliers and ancillary suppliers are now HARPS approved.

At the core of the scheme, according to the HARPS Project Team, are consumers' expectations for safe food and retailers' commitment to deliver on these demands.

Consumer safety is, of course, of utmost importance to banana growers and their counterparts in other industries.

The Australian Banana Growers' Council and other peak bodies have received numerous inquiries from concerned growers about what the scheme means for their business—from cost and practicality, through to the audit process itself.

In response, the HARPS Project Team scheduled a number of information sessions across Australia, with a strong focus on growing regions in Queensland.

About 80 people attended the two sessions at the Brisbane Markets on March 21, including 14 growers.

Financial and resourcing requirements of implementing HARPS were raised by a number of people at these sessions.

As it stands, HARPS itself costs \$245 plus GST—a fee that is collected through a certifying body. On top of that, the grower will pay for the annual auditing process. For example, the Freshcare FSQ Audit cost from 1 July will be \$878.

The audit costs associated with HARPS approval will be specific to each individual business and depend on their scope of operations and the number of major retailers they supply. The project team acknowledged that smaller growers will encounter an increased cost to implement HARPS if they currently only have an approved base scheme in place and only supply one retailer.

On the other hand, larger organisations who supply multiple retailers may find that the costs surrounding this process go down as it becomes more streamlined.

HARPS project team presenter Tristan Kitchener said the learning from the recent outbreak in the melon industry highlighted the need for producers to be more proactive in managing food safety—otherwise it could lead to regulators imposing additional food safety regulations should a food safety incident occur.

NSW banana grower Peter Molenaar was one of the attendees in Brisbane and said that HARPS would impose an extra cost, which would impact more on smaller growers who may not be able to absorb it.

"We also grow a fruit with non-edible skin, but are still required to have our water tested, which is another additional fee," he said.

In response to this question, the HARPS project team offered to take this topic up with the HARPS Technical Advisory Group; this is a group made up of suppliers, growers, auditors, scheme owners and has been created to enable growers to engage with the retailers and table any concerns.

"It is important for HARPS to be practical and realistic and we welcome all feedback to refine and improve HARPS," Mr Kitchener said.

At the time of going to print, banana growers were being encouraged to attend information sessions in North Queensland including ones in Mareeba and South Johnstone.

Eligible growers have until 1 January 2019 to achieve HARPS.

More information:

- Frequently Asked Questions at www.harpsonline.com.au
- Call 1300 852 219 or email harps@harpsonline.com.au

UNDER THE MICROSCOPE: **BANANA BLOOD DISEASE**

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

WHAT IS BLOOD DISEASE?

Banana Blood Disease is caused by a bacterium called Ralstonia syzygii subsp. celebesenis which belongs to a group of pathogens that cause bacterial wilts in banana. It is related to Moko disease.

WHAT ARE THE SYMPTOMS?

- Young leaves turn bright yellow, then necrotic.
- Older leaves turn yellow, collapse and die.
- Shrivelling of the male flower bud and lower hands on the bunch (Fig 1).
- Fruit tissue shows internal reddish discolouration, when cut (Fig 2).
- Vascular tissue of the peduncle show reddish brown discolouration when cut (Fig 3).
- Internal discolouration of the pseudostem (Fig 4).

HOW DOES IT SPREAD?

The Blood disease bacterium can be spread in infected plant material, fruit, soil, water, insects, and pollinators. The pathogen can survive in the soil for more than a year.

WHERE IN THE WORLD IS IT FOUND?

Blood disease is currently found parts of Indonesia and in peninsular Malaysia. Australia is free of the banana blood disease.

WHAT ARE WE DOING TO PROTECT OUR **INDUSTRY?**

- Strict regulation concerning import of plant material.
- Development of diagnostics and surveillance.
- Increase awareness among industry stakeholders.

WHAT CAN I DO TO PROTECT MY FARM?

- Use only disease-free planting material.
- Check your farm frequently for new pests and unusual symptoms.
- Maintain good biosecurity practices.

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

















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THE FUTURE IS NOW FOR

There's a group of young energetic banana growers in Northern New South Wales who are determined to put their fruit front and centre.



Matt and Daniel Thomson are fourth generation banana growers.

By Amy Spear

With high-rise visible above the banana leaves and longhorn cattle grazing nearby, Colin Singh admits he's got banana sap in his veins.

The unusual, almost suburban patch of bananas is one of two he currently manages in far northern New South Wales.

A fourth generation grower, Colin is the president of the Tweed Brunswick Banana Growers Association and one of a number of young growers setting out to make their mark on the industry.

"It's a hard game, a lot of people say you're mad for doing it," he said.

"When I was younger, Dad wouldn't let me into the bananas. Now that I'm old enough I can see why—he was probably hoping I'd become a doctor or something.

"It is tough, but while the bills are getting paid, you keep on doing it. There might not be brand new cars anytime soon, but you do enjoy it."

Colin predominately grows lady fingers and some plantains, but is open to trying just about anything.

And, like others in the region, he knows they've got some work to do to stake their claim in a Queensland-dominated industry.

"I think there are people chasing NSW fruit but, talking to agents further south, we need to look at things like changing our boxes to a sturdier design. To get our name back in the market, we've really got to do what the buyer and the customer want."

It's a thought that's echoed at the BGA meeting later that evening where, despite tough market conditions, growers are keen to make a name for their region.

After all, increasing reputation and boosting demand can only have a positive impact on the bottom line.

"Everyone wants an extra dollar if they can get it," said Colin.

"The only way that happens is by working together. If we make changes, everyone has to be on board.

"We need to get together and listen to what the agents want rather than say 'well, that's how our fathers did it, so that's how we should do it.""

At the meeting, growers flag the idea of creating a joint brand and setting standards for packing.



Biosecurity cattle? The longhorn cattle look fierce and keep unwanted guests off the property—but the reality is they're just after a feed.

TWEED BANANA INDUSTRY

At a time when it's hard to get people to join committees for just about anything, the level of enthusiasm at the Murwillumbah Golf Club is exciting.

In nearby Chillingham, brothers Matt and Daniel Thomson farm 20 acres of lady fingers, alongside sweet potatoes.

Like Colin, they're fourth generation growers who have been growing for about three years.

"We got back into it because of the spuds," said Daniel.

"You can't pick a spud when it's wet, so we had to have two crops going."

They acknowledge that there's a lot of younger growers getting into the game.

"Years ago, back when our old man was growing, bananas used to be bigger than cane in the Tweed. Now, you just have to look at how much cane is around. But the next generation is trying to get bananas growing again."

Their location presents its own challenges namely, the cold.

"We've got to nurse sucker and make sure all our fruit is cut before June, otherwise it turns grey," explained Daniel.

"You've only got your fruit for four or five months of the year, but it works alright with the spuds, because we can do them in winter."

But there are other factors—aside from weather and the hard, physical work—that make it tough for the younger growers starting out.

"One of the biggest problems in this area is finding land," said Matt.

"Land is so dear around here—there's a lot of good properties around but landowners don't want to lease it. It's hard to get a start."

On top of searching for clean, panama-free ground, the brothers estimate you're looking at \$1 million or more for good land with reliable water.

Then, of course, the biggest hurdle: poor prices for fruit.

"At the end of the day, you might have 2 or 3 years when you don't make any money. You've got to be in it to win it."

At least, in the Tweed area, there's a sense young growers aren't in it alone.

Even as some maintain second jobs until their

bananas take off, it's clear there's a feeling of community within the local industry.

"Though everyone is spread out, people still know each other and are happy to help out," said Colin Singh. "Hopefully we can work together, even with the growers further south in Coffs Harbour... we're always swapping ideas and asking each other questions."

While Colin has his own contacts, he attributes many of the valuable connections he has made to Industry Development Officer Matt Weinert.

They're connections that are likely to grow as part of Mr Wienert's new project (page 23), which includes establishing a NextGen style group for mid to north New South Wales.

"Give us time," said Colin.

"In another couple of years I reckon we'll get our name back in the market, and our quality back up there."



Colin Singh with Industry Development Officer Matt Weinert.



Members of the Tweed Banana Growers Association meet at the Murwillumbah Golf Club.



Colin Singh, pictured with his father, is a fourth generation banana grower.

NEW FIELD TRIALS AT SOUTH JOHNSTONE

By Tegan Kukulies

The NextGen banana growers group have kicked off 2018 with a field walk through two field trials which were planted in late 2017 at the South Johnstone DAF research station.

Members of the group were able to see first-hand the 600 Goldfinger plants which have been mutated in an attempt to improve fruit quality characteristics while retaining resistance to Panama disease Tropical Race 4.

Although the plants have not yet bunched, Jeff Daniells from the Department of Agriculture and Fisheries was able to show the group some obvious differences in plant stature, leaf arrangement, and pigments in the plants. He discussed what strategies are being considered and trialled to assess the fruit quality and also what the future plans are to then screen promising candidates for Panama disease Tropical Race 4. The group was keen to see how the trial progresses and interested in how the promising candidates would perform in subsequent ratoon crops.

The second trial the group looked at was what is termed the innovation trial which is initially looking at 'out of the box' ground cover management options including pinto peanut, a weed mat, a chemical stabiliser product and mint. The trial is overlayed with two de-suckering treatments: one where the first flush of suckers was removed three months after planting and another where sucker selection will occur at a later date. During the field walk the group got to see two plants which had been dug up, washed and their roots removed to demonstrate the connection of suckers to tissue culture plants following the two different desuckering treatments. (See photo). The idea is that over the next few months, four more plants (2 of each different desuckering treatments) will be subsequently dug up to assess what is happening under the ground. The group was impressed with the performance of the plants in the block to date, and are interested in seeing if and how the ground cover treatments affect the agronomics of the plants.

The group is looking towards the end of the year and considering what opportunities there are for a larger activity similar to the trips which were organised to Darwin in 2017 and Bowen in 2016. If you have any ideas of what you would be interested in participating in or would like to get involved in the NextGen group contact Tegan Kukulies from DAF on 07 4220 4152.



Sucker demonstration (not removed).

* 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.



Sucker demonstration (removed after 3 months).



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Time to start planning your trip to the Gold Coast in 2019! Image and pointer supplied by Destination Gold Coast.

The Gold Coast sure knows how to host a premier event.

This year, the Commonwealth Games. Next year? The Australian Banana Industry Congress!

Royal Pines Resort has been selected as the venue to host our next biennial Congress, from May 22 to 24, 2019.

The site will effectively become 'Banana Central' as it provides excellent conference facilities, as well as superb accommodation and space for the Banana Bar, Banana Ball and general exhibitions. It's also the perfect place to bring the entire family for some well-earned R&R.

Planning is in full swing to deliver a wonderful Congress 2019 experience, including an exciting program of events.

Keep an eye out for the new Congress website and branding, which is due to be launched very soon.

See you to talk bananas, beachside, in 2019.









ADVERTORIAL

ORGANIBOR-EASY, SAFE, CONTINUOUS BORON ALL YEAR ROUND

Boron, critical for fruit set, fruit quality, plant strength and fertility, is easily leached from the root zone and extremely mobile in the soil. As a result, boron deficiency is widespread in Australian soils, and is one of the more common deficiencies seen under irrigation.

Most boron products are very soluble, giving them only a very short span of activity. According to Omnia's Agronomic Specialist David Sides, OrganiBOR is the only product that persists in the soil and is proven to raise plant and soil boron levels for two years from one application. It is a slow release, organically certified granular boron product that will provide a safe, continuous supply throughout the crop's growing period.

"OrganiBOR will provide a continuous supply of boron to crops via moisture and microbial activity for up to three seasons depending on conditions, and it will match a crop's need for boron throughout the entire crop cycle through its natural, continuous release mechanism," David said.

Boron has long been known to have an important role in the plant's reproductive cycle, flowering and pollen production. But recent work has shown the importance of boron for the whole plant—for cell wall integrity, structural strength and root health. Calcium movement in the plant is also facilitated by boron, which will help it move in the vascular system taking it to the extremities (i.e. new growth, fruit) where it is needed for shelf life and resistance to diseases.

OrganiBOR has proven to be the most effective boron treatment on the market. Talk to your local distributor or Omnia Agronomist about how you can use it in your plantation.

Information. Go to website www.omnia.com.au.



Certified for Organics | Continuous Release Boron Fertiliser

Most of Australia has naturally low levels of Boron in its soil.

Compared to traditional boron treatments, OrganiBOR provides available boron on a continual basis. OrganiBOR will solve your boron deficiency problems on a long term basis by creating boron rich soils. Ideal for banana plantations.

Only ONE application of OrganiBOR is required every one to three years!







Tel: 03 5133 9118 Available from Omnia and selected rural merchants

For more information visit www.omnia.com.au

REEF NEWS

SEDIMENT MANAGEMENT WORKSHOP

The Australian Banana Growers' Council has rolled out the first of a series of sediment management workshops aimed at helping north Queensland banana growers improve their on-farm sediment practices.

The first was held at the South Johnstone Research Station on March 16 and attracted an enthusiastic group of growers.

The ABGC is one of a number of organisations working as part of the Reef Alliance Partnership to improve water quality to the Great Barrier Reef.

Sediment management workshops are part of a suite of programs being extended to banana growers by the ABGC throughout 2018.

The workshops are interactive half-day sessions which aim to strengthen growers' knowledge and skills in how to best manage their on-farm soil resources, to ensure greater productivity, profitability and sustainability.

Local soil conservation expert Darryl Evans has played an integral role in the development and delivery of the workshops, offering his wealth of knowledge at each session.

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Mr Evans has been working with the banana industry and imparting his vast knowledge with growers for over 30 years.

"At the end of the workshop we hope that growers leave feeling more confident about what and how they can improve sediment control on their farms," said Sarah Simpson, ABGC's team leader for Reef.

Growers who attend the workshop and need some extra assistance on-farm after the workshop will have the opportunity to gain free one-on-one advice from Mr Evans.

There is also the opportunity for growers who attend to apply for incentive grant funding to implement aspects of their sediment management plan if there are any improvements to be made. Funding has been made available under the Reef Alliance 'Growing a Great Barrier Reef' project funded through the Australian Government's Reef Trust

This workshop is the first of its kind being offered to banana growers in north Queensland, so if you're located in the north and are interested in attending a workshop please get in touch with Sarah on (07) 4015 2797 or sarah@abgc.org.au.

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SEDIMENT MANAGEMENT PLANNING WORKSHOP

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N D

If you're in need of help in developing a sediment management plan for your farm, this workshop is the one for you. Learn about:

- Soil basics and sediment control structures
- Developing your own sediment conservation plan for your farm

Attending entitles you to:

- A FREE one-on-one site visit with a soil conservation expert
- Apply for grant funding to help you put your plan into action

Valued at \$320 but FREE to growers. Only 5 places available per workshop, so get in quick!









Workshops to be held in **April, May & June 2018**



For further information and to register call Sarah at ABGC on (07) 4015 2797 or email sarah@abgc.org.au

The Reef Alliance Program is a partnership between agricultural industry, regional NRM bodies and facilitated by the Queensland Farmers Federation (QFF), with a common goal of securing the future health of the Great Barrier Reef. The Reef Alliance Program is funded by the Australian Government and delivered through the Reef Trust.



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REEF NEWS

WALKING THE LANDSCAPE

By Monica Haynes, Terrain

The Wet Tropics isn't called the Wet Topics for nothing, but heavy rain didn't stop more than 100 people 'walking' local landscapes recently to better understand how water catchment systems work.

The Wet Tropics Major Integrated Project (MIP) has organised a number of 'Walking the Landscape' workshops, which have so far been held in the Banyan, Syndicate, Boar, Brick and Michael, and Euramo areas in the Tully catchment, and Moresby and East Palmerston in the Johnstone catchment.

The workshops bring together growers, industry and community members in priority subcatchments, as part of the MIPs investment in catchment repair and treatment systems.

Local landscape knowledge is integrated with interactive maps to look at the topography, groundwater, geology and soil types, and how these affect water flow and land use.

Over the next three years the MIP will trial and monitor repair and treatment technologies that can potentially reduce the load of nitrogen, pesticides and sediment entering the Reef lagoon.

The technologies include bioreactors, constructed wetlands, sediment basins and riparian buffer zones—some of which have never been trialled before in the Wet Tropics.

Each technology needs different landscape conditions to work properly. With landholder input, 'Walking the Landscape' helps work out what might work best, and where.

Sandra Henrich, the Basin Coordinator for the Johnstone catchment, said the MIP is a water quality project with a difference. "We've known right from the start that the people who live and work here are the best people to decide what happens in the catchment."

"You can't learn this stuff from books. This sort of highly detailed local knowledge is incredibly valuable. When we properly understand how water flow affects farming practices, the project team and landholders can work out the best interventions. There is an immense amount of knowledge hundreds of years' worth, in the room each day."

Banana growers in attendance said they were keen to see what they could learn.

"Water quality is an issue in this area, and the more you learn about it, well, the more you know," said a Moresby grower. Another said the workshops were useful for getting a whole-of-catchment perspective. Workshops will continue throughout April. Echo Creek/Davidsons Creek (April 20), and Central Johnstone/Mena Creek (May 3) will be of particular interest to banana growers. If you know someone who has already "walked" the landscape, chat to them and find out more about the workshops. For more information visit <u>www.terrain.org.au/mip</u> or call your Basin Coordinator.

Sandra Henrich (Johnstone)—0439 916 749 Fiona George (Tully)—0488 702 203

THE WET TROPICS MAJOR INTEGRATED PROJECT—WHAT IS IT AGAIN?

- Grass roots: a reef water quality program funded by the Queensland Government but designed by the community.
- Understanding the issues: working with farmers to understand the issues and find solutions.
- Johnstone and Tully: concentrates on catchments where intensive agriculture poses a high risk to water quality.
- Farms and beyond: the project is working with all parts of the community, because it recognises that water quality is everyone's responsibility.
- A mix of actions: things like farm services, catchment repair technologies, local scale monitoring and ecosystem service payments.



Follow up to a 'Walking The Landscape' session includes investigating sites more closely with landholders.



A Walking the Landscape session in the Johnstone region.

FOR THE LOVE OF THE REEF



Gavin Eilers on the grassed inter-rows of his Wangan farm.

Many Australian banana growers work hard to protect the environment year in, year out—after all, it's their home as well as their livelihood.

But with 2018 declared the International Year of the Reef, what better chance to recognise the Far North Queensland banana growers striving to preserve the natural icon on their doorstep: the Great Barrier Reef.

In this edition of Australian Bananas, meet the man described as a walking, talking billboard for reef protection. Amy Spear reports.

Gavin Eilers grew up on the rivers and reefs of Far North Queensland.

The banana grower of 20 years has seen plenty of change throughout his life, but his message is simple.

If you think it's too late to save the Great Barrier Reef, you're joking.

"It's never too late. We just need some people to change and it's undeniably beneficial," he said.

Gavin has operated his Wangan farm, in the Wet Tropics catchment, for more than 10 years.

Part of the LMB Farming Group, he has about 160 hectares under banana production.

"I'm in quite a sensitive spot," he explained.

"The property is bordered by the South Johnstone

river, so I feel obligated to do the right thing to begin with.

"But more than that, I just think that once best practice is set up, it pays for itself. Doing the right thing is no more costly than the wrong thing. And it's more beneficial in the long run."

Gavin points to native trees planted to help stabilize his riverbanks to illustrate this.

"In years to come, they'll make a big wind break for the farm. We'll get the money back from trees and labour in no time by packing more fruit."

Gavin's appreciation for environmental protection—including nutrient, sediment and pesticide management—was developed during his time as manager of organic banana operations at Grima and Co.

In his current role, he's been able to hone that dedication, pursing innovative farming practices and sharing his knowledge within LMB and further afield.

"I try to spread the message and you've got to practice what you preach," he said.

"If you're going to tell people to do something a certain way to achieve a certain benefit—at least I can show that. It's not on a piece of paper, it actually works."

Over the past eight years, Gavin has been awarded two reef grants to automate his fertigation system and put in a sediment pond.

He now sits on the technical advisory panel for the ABGC's Reef Grants committee and has spent countless hours and thousands of dollars of his own money to deliver improved water quality outcomes.

Gavin has worked to stabilise headlands, laser-level plantations to a minimum grade of 0.4 per cent and install flat spoon drains.

He's a big believer in grassed inter-rows to limit soil erosion, run-off and weed growth.

"I can't understand why you wouldn't do this," he said. "It makes a massive difference."

Trash-blanketing acts as a natural compost on farm and has allowed for a massive reduction in chemical application.

In 2012, Gavin made the decision to stop using bagging machines, opting instead to bag by hand to reduce soil movement and run off.

The majority of the run off that does come off the property is filtered through a large sediment pond/ silt trap.

Gavin also practices co-ordinated nurse suckering to ensure more even crops, reducing time spent in paddocks and instances of soil movement.

"You just can't debate the difference best practice makes," he said.

"When you notice how much cleaner the run off is, there is simply no comparison."

Named a Reef Guardian Farmer in 2016, Gavin said that paddock layout is the key for any grower looking to embark on a similar journey.

"Your paddock needs to be mapped properly your high points and low points—so you can have a plan on where you should put a drain or where there should be a headland built up.

"That's where it begins."

THE NOT-TOO-HARD BASKET

Gavin's simple tips to help with sediment run-off.

- Put rock or sand on top of your built-up headlands to help create a seal in the wet.
- Use low-impact vehicles to go to-and-from banana paddocks.
- If it's wet, keep heavy machinery away unless absolutely necessary.
- Rotate your picking rows each week.

HISTORY

RICK-ROARING RECOLLECTIONS OF YEARS GONE BY



The name Lachie Rick will be familiar to many in the banana industry, as a former grower, long-time director and ABGC chairman. He invited Amy Spear to his Mission Beach home to share some of his memories.

More than six decades ago, Lachie Rick's father told him it was about time he started paying rates on the family's banana farm.

"Better yet," a young Lachie replied, "why don't l buy it from you?"

Lachie ended up with a fourth, splitting the property equally with two other brothers and father to form S Rick & Sons.

Growing since he was just 15, Lachie would go on to play a vital role in the industry and serve on the Australian Banana Growers' Council in various roles for more than 15 years.

"I considered growing bananas a challenge," said Mr Rick, who still lives in Mission Beach.

"When you planted and got a good crop, it was a real pleasure."

The work, as any grower would tell you, was never easy.

On top of the tough physical requirements, growers in North Queensland contend with severe Tropical Cyclones—Lachie remembers Winifred (1986) and Joy (1990) as two of the worst while he was growing bananas—as well as ongoing price fluctuations.

In fact, in 1957, poor prices meant a number of

growers—including Lachie—went to work at the plymill during the week, while maintaining bananas on the weekend.

It was at the plymill that he met Lyn and, in 1963, they married and returned to bananas full-time, living on the farm.

Lachie started representing the industry as secretary of the Mission Beach—Bingal Bay Fruit Growers Association.

He was soon asked to stand for the Banana Sectional Group Committee and, though he was defeated the first time, he began working with them looking into imports.

Successful in his second attempt to join the board, Lachie's first official meeting was in 1973 and involved the National Banana Marketing Development Scheme.

"The idea was that growers paid a levy and any unwanted fruit—no matter the quality—we took off the market to avoid a big backlog.

"At that meeting the NSW growers wanted to up the minimum price and, when Queensland didn't agree, they all got up and walked out!"

Thankfully, the growers returned some 15 minutes later.

Now, Lachie believes that one of the greatest achievements during his time on the board was improving relationships with growers across Australia.

Lachie served on the Sectional Group for 16 years, while also representing Queensland on the national body. He was chairman of the ABGC for two terms—89/90 and 91/92.

For his efforts, he received an award of honour from the ABGC and, for broader services to the community, an Order of Australia Medal.

While there was plenty of hard work involved in representing the industry, there's no doubt the board knew how to have fun.

In among a few late nights and many trips away, Lachie recalled one Valentine's Day meeting, when a staff member carrying a single red rose entered the room.

He put his head in his hands, hoping it wasn't for him. But, of course, Lyn had found the perfect way to deliver a cheeky message in front of fellow board members.

Lachie Rick resigned from all committees in 1992 and acknowledged that the industry has changed a 'hell of a lot' since then—mostly for the better.

"When my father started growing, people were growing in among the stumps and logs. It was hard work.





Front Row (L–R): Keith Keillor, Lachie Rick, Deputy Chairman, Jim Dobson, Chairman, Neville Smith, General. Middle Row (L–R): Ross Boyle, Assistant Secretary, Bill Nelson, Bill Thisletwaithe. Back Row (L–R): Bob Seaman, Secretary, Geof Bush, Bob Brighton, Barry Kanowski.

"You'd fell a block, leave it for about three months, then put a fire through and do what we'd call a 'rough log up.' Then you would cut a track down the middle of a block and carry bunches out either side of the track out to the truck.

"Then the bulldozers came in and we were able to get rid of the stumps and logs."

Lachie's youngest brother, Charlie, designed the A-Frame trailer that would be taken up industry wide.

"It cut out one man. When you had the box trailers, you had to have someone in the trailer to take the bunch off you—this design ruled that out."

Although he never patented the design, within a couple of years it was being used across Queensland and in WA and NSW.

His other brother, Frank, who was managing a farm towards ElArish, grew a world record bunch weighing 236 pounds and four ounces (about 107 kilograms).

"That farm grew bunches from 150 pounds up to the record weight," Mr Rick recalled. "They had to put in an electric winch as the workers couldn't lift them.

"Of course, that record has been taken off us a few times since. And they don't really go for it anymore—there's still big bunches at shows, but nothing like what people used to produce."

Lachie admits that it is a tough time for those still working in the industry, particularly in light of Panama TR4.

Despite the challenges facing the industry, Lachie remained confident about the future.

"I DO THINK THE BANANA INDUSTRY IS ONE OF THE BEST FOR RESEARCHING AND KEEPING UP-TO-DATE."



MARKETING

AUSTRALIAN BANANAS KEEPS PERFORMING

By Elisa King, Hort Innovation Marketing Manager

After a strong start to the year, the Australian Bananas marketing campaign is set to go from strength to strength for the second half. Research results remain positive, with advertising recall increasing and bananas maintaining their position as the number one energy snack in Australia. Our current burst of advertising is aimed at continuing this positive momentum.



TELEVISION

Our latest campaign was launched in March across all major metro and regional markets including Foxtel.

With our 30 second TV commercial in its third year and well established in consumers' minds, this burst consists of 15 second commercials only. This approach allows us to more cost-efficiently reach a high proportion of our target audience of people aged 25–54.

For our metro TV campaign, we opted for a two network deal with Channel Nine and Ten, avoiding the premium costs associated with the Winter Olympics and Commonwealth Games on the Seven network. With this increased buying power, we were able to secure spots in popular programs including the final weeks of Married at First Sight, The Voice, I'm a Celebrity, and Bachelor in Paradise.

In regional markets, where media is much more affordable, we are taking advantage of the increased audience watching the Commonwealth Games on the Channel Seven affiliate, Prime. Australian Bananas will feature during key day and night-time events, as Aussies look to bring home gold!

Even with a reduced TV budget in the second half, we expect to hit 40% of our audience at least twice during this burst of activity.

OUT-OF-HOME

Our investment in out-of-home posters and billboards continues to grow.

The medium plays a pivotal role in delivering scale and frequency of message. It also allows us to reinforce the fun tone of voice that we have built for our brand over many years. This burst will see our ads feature on several unique mediums, including some for the very first time. Retail Digital Poster Panels, Portrait Bus Sides, a wrapped Maxi-Bus, large-format Digital Billboards, and Gym Screens will all feature bananas advertising from March to the beginning of June, across all markets.

Our Retail Digital Panels are the last point of contact for customers and directly influence their purchasing decisions. 70% of our panels

will be located outside grocery stores reminding consumers to add bananas to their weekly shop. The remaining 30% of panels will display our ads in high traffic areas, providing a constant and frequent reminder to top up.

This retail activity will be seen by over 5.8 million people during our campaign period.

Our Portrait Bus Side placements will reinforce our 'non-stop energy snack' message perfectly in an environment that creates mass awareness and frequency. For the first time, we'll have a fully wrapped maxi-bus roaming the streets of Sydney during the entire campaign period! The creative, which features a Harbour Bridge banana, is sure to turn heads.

Large format Digital Billboards have been expanded for the second half after our successful use of this medium in 2017 where we won the Outdoor Media Association's award for 'Best Traditional Use of OOH'. On the back of this success we have expanded our large format strategy with new sites booked in Melbourne, Geelong, Brisbane, and Perth.

Meanwhile, gym advertising will continue to play a key role in our out-of-home strategy. Our message will be seen in over 470 gyms, clubs and indoor sport centres nationally, in formats that include portrait digital screens, large format TV, standard landscape TV, plus treadmill and bike machine screens.

The inclusion of indoor sport centres is an exciting addition to our plans with the extended coverage ensuring we will reach up to 900,000 fitness fanatics weekly.

We will also continue our magazine presence with a two page 'High Performance' advertorial and a full page in the March/April issue of the popular Fitness First Mag. This will be followed by an outside back cover placement in the May/June issue.

CINEMA

Cinema rounds out our out-of-home activity with 11 weeks of screen time including a focused run during the key April school holiday period. Our 30 second commercial will appear before blockbusters including Solo: A Star Wars Story, Deadpool, Peter Rabbit and Oceans 8. This will give huge exposure to Australian Bananas beyond the traditional TV audience.

MARKETING



This screen presence will be coupled with our 15 second animated videos on cinema foyer digital screens. This will extend our reach even further with the cinema campaign reaching over 700 000 people aged 25–54.

ONLINE

Our online activity is underway and will continue until the beginning of June.

For this phase of digital activity, a three-prong attack has been developed.

Firstly, Catch-Up TV will extend the visibility of our 15 and 30 second TV commercials in popular online environments. 25–54 year olds will be targeted in formats such as Tenplay, 7Plus, 9Now, and SBS On Demand and provide us with premium content in popular free-to-air programs. Catch-Up TV also provides exceptionally high completion rates, and strong viewability scores.

Secondly, 6 sec YouTube bumper video ads will be used to convey our message in a short and punchy way. These ads are non-intrusive, and can be placed more frequently at a cheaper cost, ensuring we reach a larger number of online consumers than we have ever been able to before.

Thirdly, Quantium Woolworths and Westpac data will offer a combination of digital display and video served to different target audiences based on the shopping behaviours of new/active and lapsed/ lapsing banana buyers.

SOCIAL MEDIA

Meanwhile, our social media platforms continue to deliver a consistent brand presence.

In February alone, we delivered over 1,400,000

impressions to audiences across Facebook and Instagram with over 890,000 engagements featuring Australian Bananas content recorded—either a like, comment, share or view.

We will continue our focus on recipes and building partnerships that grow the brand even further. We'll also be putting the spotlight on Lady Fingers and returning to grower content that has previously performed so well for us.

MORE NON-STOP ACTIVITY

Underpinning all this activity, we will also be pursuing exciting opportunities in Public Relations, Sponsorship, and Community Events.

It's certainly a non-stop schedule for nature's nonstop energy snack, and one that should continue to drive brand awareness and banana sales.

CONSUMER A-PEEL

Amy Spear hit the streets of Brisbane to ask people what they look for when buying bananas.



INDUSTRY EVENTS

BANANA WOMEN'S NETWORK MEETING

Good food, great company and an inspirational speaker—all were on offer at the most recent gathering of the Banana Women's Network.

The dinner was held on February 23 at Castaways Resort Mission Beach and featured 2016 Rural Woman of the Year Emma Robinson.



Zanelle Collins, Angela Dunne, Judy Lowe and Sharon Collins.



Katie Ferro, guest speaker Emma Robinson, Katrina Cini.



Christine Mayers, Kate Rolfe and Josephine Borsato.



Cathy McNamara and Connie Barnes.



Alicia Johnston and Naomi Abbott.



Amanda Bastin and Kylie Worth.



Dale Bennett, Ellen Leahy and Tegan Kukulies.

AUSTR



Jenny Crema, Lyndal Mackay and Blaise Cini.

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AN DAMANAS MAGAZINE APRIL 2018

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FEAST **OF THE** SENSES

It's an annual highlight on the Cassowary Coast's calendar and a tropical fruit lovers' dream.

The 2018 Feast of the Senses did not disappoint, with the *Australian Bananas* sponsored Market Day in Innisfail proving a huge hit once again.

At the Australian Bananas marquee, run by the Cassowary Coast Banana Growers' Association, there was plenty of distinctive yellow merchandise on hand, as well as their legendary fresh banana smoothies. A 'guess the weight of the bunch' competition also kept punters entertained.



INDUSTRY EVENTS

















We've got a bunch of ways to support your business

Our Sustainability Loans provide Queensland banana growers with finance of up to \$1.3 million to invest in projects that assist you face the challenges of climate, biosecurity, production and the marketplace.

- Expand or diversify your existing operation
- Upgrade infrastructure, plant or machinery
- Invest in infrastructure to improve biosecurity
- Establish renewable energy systems

With no set up fees, no exit fees and no hidden costs, we have the loan to best suit your needs.

Regional service

We have offices servicing the tropical and sub-tropical growing areas, with Regional Area Managers in **Innisfail**, **Mackay**, **Bundaberg** and **South East Queensland** who are available to meet with you on farm.

To arrange a meeting with your local Regional Area Manager contact us on Freecall 1800 623 946.

Loans up to \$1.3 million | Low interest rates | Flexible repayment terms | Interest only options available

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