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Tiger Mereider with a newly-automated irrigation system at his East Palmerston farm

Photographer: Rhyll Cronin
In a year with the usual highs and lows there remains one event sticking in my mind that I continue to struggle with - I can’t believe Queensland lost the Origin series.

That was, of course, a memorable event from beyond the farm gate. There was also another set of highs and lows for a range of industry events during 2014. Tropical Cyclone (TC) Ita in April was a low, in every sense of the word, for the Hope Vale Banana Farm and some other banana farms in its path.

Fortunately, the cyclone inflicted far less damage on the wider North Queensland industry than it could have. Another major interruption to supply so soon after TC Yasi and TC Larry would surely have tested the patience of even the most stoic banana consumer, as well as the resilience of many banana farmers.

Much time and effort has also been invested in the Banana Freckle response noted this year. While the eradication plan that was approved in October has some obvious significant and drastic impacts on growers within the Northern Territory, I have no doubt these steps are necessary to protect the national industry from the impacts of this particular pathogen. It will also assist the longer-term future of NT banana growing.

We have also seen Horticulture Australia Limited (HAL), the organisation that manages our levy investment, undergo a significant review (see story, Page 7). The review was in response to the ACIL Allen report and the concerns about the undue influence some industry bodies had over the company and the investment process. The result of this review was the creation of a new entity, Horticulture Innovation Australia Limited (HIA), from November 2014. HIA will have the growers as the direct owners, as opposed to the various industry bodies.

We also experienced record production for the 2013/2014 financial year with levy data indicating 28.6 million cartons of bananas were produced and sold. At time of writing, supply for the current financial year, while strong, has not kept pace with the previous year. However, the returns to growers have been firm.

While many factors impact on the wholesale price it has been evident that demand for bananas has been strong and this is in no small part due to the work of the Australian Bananas marketing team. We certainly look forward to continuing success in this area. As we move toward the end of the year it is also appropriate to look forward to what we can expect next year.

The freckle response will obviously continue to demand our attention as we progress through the eradication plan. We will also work toward the introduction of a positive Emergency Plant Pest (EPP) plan to avert or delay industry’s share of the response costs. Information about this process appears on Page 10. More detail will be provided in 2015.

As further details of HIA’s operations come to light we will need to work with, and adapt to, the new processes to ensure maximum benefit continues to be achieved through the investment process. A new three-year marketing strategy will be developed for banana marketing activities. This work recently commenced with a review of the current strategy and activities. The remainder of the strategy’s development will occur in the first few months of 2015 and it is intended to be rolled out in July. This represents a golden opportunity to continue to build on the fantastic work that has already been achieved.

2015 will also be the year of the industry’s biennial Congress. For the first time we are taking the event to a capital city – Melbourne. For those of you who have attended a Congress before, you are fully aware of the benefits, both social and professional, of participation. For those yet to attend, I cannot stress enough how important this event is. It is much more than just listening to presentations and walking through the exhibition – you will learn things that will benefit you and your business – so I encourage all to attend.

Of course one additional benefit of attending will be the opportunity to see a State Of Origin match played at the MCG on the first night of the Congress, June 17. And, given my struggle with this year’s outcome, one of the things I’m looking forward to for 2015 is seeing Queensland regain control of the Origin! Merry Christmas to all and a happy and safe New Year.

Doug Phillips
ABGC Chairman

Banana Freckle eradication in the NT will continue in 2015.

A look at ABGC’s report card

At the start of 2014, the Australian Banana Growers’ Council (ABGC) reconsidered its strategic direction and clarified its roles to:

• ensure the viability of the Australian banana industry for growers
• manage and act on industry issues, including policy-related ones
• communicate information to growers and other stakeholders
• ensure effective and efficient outcomes for marketing and R&D initiatives.

The main ABGC priorities for 2014 were then determined to be:

• Banana Freckle eradication management
• member communication and engagement
• HAL review and Import Risk Analysis
• Queensland Biosecurity Regulations
• Quality Banana Approved Nursery (QBAN) scheme.

The following “report card” is my assessment of our performance.

Banana Freckle
Senior ABGC staff have dedicated most of our time this year to the various government processes and issues relating to a response plan for freckle. Following the completion of the revamping of QBAN is not advanced as she would like. However, she worked on the Panama Tropical Race 4 risk management plan and assisted in an ACIAR project on Panama.

She has written a submission on the IRA process and has provided advice on the implications of ginger imports.

Industry development
It’s also worthwhile mentioning some of the other work conducted by the ABGC. Space does not allow me to list all the 2014 outcomes from ABGC staff, so the following is a cross section:

• participated in and provided secretariat for the Banana Industry Advisory Committee (IAC), its scientific and marketing subcommittees
• developed relationships with politicians and senior departmental people. Also hosted two (then) Senators-elect on a NZ banana farm tour, Senators Matt Canavan and Barry O’Sullivan
• developed submissions on agricultural chemical issues and on the Senate inquiry into live exports
• developed with Jenny Margetts, the industry’s new Strategic Investment Plan
• led and reported on the banana capacity building project

• assisted with the design of the extension materials for the National Banana Development and Extension Program that resulted in the July and August roadshows
• supported the NSW Banana Industry Development Officer Project. Matt Weinert began in the role in October
• developed a project with the Department of Environment and Heritage to assist best management practice in Queensland
• planning for an exciting Banana Industry Congress in Melbourne next year

Robert Mayers, who is now one year into his yellow Sigatoka project, as well as helped the NT Banana Freckle operations staff with destruction techniques.

Sam Stringer and Barry Sullivan are gradually eradicating Bunchy Top from south east Queensland.

Jimmie Pekin
ABGC Chief Executive Officer

Summer 2014-2015
Australian Bananas Magazine
HIA happenings

2001
Horticulture Australia Ltd (HAL) is established as the Research & Development Corporation (RDC) for horticulture.

July 2013
An independent review of Horticulture Australia Ltd (HAL) announced by the HAL Board. It is HAL’s third periodic review since 2001. HAL has 43 owner-members, mainly Peak Industry Bodies (PIBs), and invests about $100m annually in R&D and marketing.

Joyce, ACIL Allen, one of Australia’s largest management consultancies, is commissioned to conduct the review.

October
The first stage of ACIL Allen’s three-stage review begins a review of HAL’s past performance, the industry model and levy structure.

December
Stakeholder consultation begins, including national briefings about 50 written submissions are received.

May 2014
ACIL Allen delivers its report making nine recommendations including that HAL be transitioned to a new entity and no longer be owned by grower groups but directly owned by growers. The HAL Board meets with HAL members to discuss the report.

June
A HAL members’ extraordinary general meeting (EGM) supports the transition to a grower-owned entity with 95% of members’ votes in favour.

October
Federal Agriculture Minister Barnaby Joyce announces the formation of a new horticulture RDC called Horticulture Innovation Australia Ltd (HIA). A nine-member HIA Board is appointed comprising five of HAL’s eight directors and four new directors.

November
HIA replaces HAL. There is a temporary freeze on levy-funded project payments when a Statutory Funding Agreement expires on November 3. A new agreement and HIA’s constitution are finalised and announced on November 25.

Growers asked to sign-on with HIA

Banana growers are among the thousands of farmers being asked to sign-on as direct owners of horticulture’s new R&D funding company, Horticulture Innovation Australia Ltd (HIA).

HIA replaces the former body, Horticulture Australia Ltd (HAL), after a review decided to scrap the industry-owned HAL and replace it with a group directly owned by growers.

Federal Agriculture Minister Barnaby Joyce and HIA Chairman Selwyn Snell both made announcements on November 25, the day a Statutory Funding Agreement was finalised. The agreement will allow the Commonwealth Government to contribute government funds towards levy-funded R&D projects.

Minister Joyce said it was “a new era for horticulture”.

“I am confident that this new model – recommended by an independent review by ACIL Allen – will deliver even greater transparency and accountability to levy payers and give them a real say in how their levy funds are invested as well as the outcomes they want to achieve for their industries,” Minister Joyce said.

Mr Snell said it was an exciting time for growers and that he was looking forward to working with them.

“I am delighted that HIA’s Statutory Funding Agreement and Constitution have been finalised and Parliament has made the official declaration of HIA as the industry services body,” Mr Snell said. “This declaration represents the first major step forward for the new company. HIA will work in partnership with Australia’s horticulture industries to invest more than $100 million in research, development and marketing programs that provide benefit to industry and the wider community.”

HIA Chief Executive Officer John Lloyd said a key priority was establishing a grower registry so HIA could communicate directly with its members.

“There are many benefits in becoming a member, including the opportunity for growers to have a say in the leadership and future direction of Australia’s new horticulture RDC,” he said.

“Members will also be invited to attend information forums, field days and workshops held around the country,” Minister Joyce has also encouraged all levy payers to become members of HIA.

Hopes for quick resolution in HIA transition

Many growers have what is happening at Horticulture Australia Ltd (HAL) with its transition to Horticulture Innovation Australia (HIA).

The situation at time of writing (November 17) is not pretty, but we hope most of the issues will soon be resolved in favour of growers.

On November 4, HAL replaced HIA. HIA is a public company that will be owned by individual grower share holders.

The Government appointed four of its nine directors. The other five are from the HAL Board. HIA does not yet have a constitution, any members, or a statutory funding agreement (SFA) with the Department of Agriculture.

Funding freeze
HAL’s assets were transferred to HIA on November 4 but HIA is currently not allowed to make payments on HAL-contracted milestone invoices or to enter into new contracts. This is because there is an SFA dispute between the Department and the HIA Board over the operation of HIA.

Consequently, there are no decisions being made on the replacement structures for the Industry Advisory Committees (IACs), which until October 31 advised HAL on the R&D and marketing investments.

Unclear future
There is also no news yet on whether all industry levy funds for R&D will be matched by the Government. And there is no decision on whether, or how much of, the levy funds will go to across-industry and cross-regional programs.

Banana growers have, in the main, trusted the ABGC to consult, communicate and represent banana growers as a member of HAL and they have also trusted the banana IAC to provide appropriate investment advice on banana R&D and marketing.

Right now it is not clear what role Prescribed Industry Bodies (PIBs) like ABGC will have in the future. It appears the Department does not trust some PIBs and IACs and this lies at the heart of the issues for the HAL review and the current dispute over the SFA.

ABGC requests
ABGC has requested the new arrangements include the concept that all R&D levy funds provided by banana growers be matched by the Government and dedicated to banana-related projects. This is what banana levy payers voted for in 2007 when the vast majority supported the national banana levy proposal.

ABGC has also submitted that we should continue to be able to enter into HAL contracts to deliver projects where that is appropriate, for example communication, consultation and industry development projects. ABGC’s Board of growers leaders and our staff are well connected to banana grower networks. We have the trust of industry because we are accountable to all growers. We also operate on a not-for-profit basis. Where ABGC is not the only potential service provider for a project, we are comfortable for that project to be put out to competitive tender.

ABGC does not want HIA to be pushed by the Department into being overly bureaucratic with any processes that are inefficient or unnecessary. HIA is not a statutory authority and operational matters should not be dictated by the Department.

Changes expected
A massive change in structure and operational processes is now expected and this will take time to sort through. It is hoped that banana growers and ABGC are consulted by HIA through this transition.

We trust that common sense prevails in the procurement of service providers for projects and with grower consultation mechanisms. If not, there will be regular direct meetings with growers of all crops in a dozen or so locations around the country, they would need to be planned well for growers to attend and be cost effective.

We are also keen to see the Banana IAC replace with something similar, that is, a structure where growers can be consulted directly and priorities and projects to be funded by their levies. A decision on that is required soon for both marketing and R&D.

Banana projects
In regard to marketing, which only growers fund (and that about $4 million per year), banana industry input is imperative. The next three-year marketing program starts in July 2015, and there are a lot of development work decision points before then.

It is also hoped that the new R&D investment decision process is put in place soon so that new projects can be applied for, assessed and contracted from 1 July 2015. The Bunchy Top project, DR Jay Anderson’s R&D Management project and the yellow Sigatoka project all finish at the end of this financial year. The industry needs all three to continue with some changes, but seamlessly, from July.

ABGC understands it will take a year to have a HIA share registry up and running. In the meantime, growers need not to only be informed but have the opportunity to provide advice on the use of their levies.

by Jim Pekin
ABGC Chief Executive Officer
Call to keep leaf-spot regulation

The Australian banana industry is awaiting the outcome of a Queensland Government review of biosecurity regulations amid concerns changes could diminish future enforcement of yellow Sigatoka outbreaks.

About 30 North Queensland growers attended an Infrascan briefing from Biosecurity Queensland (BQ) on proposed changes to the regulations. About six growers also attended a separate briefing held on the Tablelands, at Mareeba.

The November briefings were part of BQ consultation on a Regulatory Impact Statement (RIS) it released in October as part of changes being made prior to the introduction of the Biosecurity Act 2014. The new Act is to come into force no later than July 1, 2016.

The Australian Banana Growers’ Council (ABGC) and banana grower associations have made submissions on proposed changes.

All banana growers groups are concerned about an option to drop a regulation that states an infestation of yellow Sigatoka leaf spot occurs when a banana plant leaf has at least 5 per cent disease coverage.

BQ is considering changing this section of the regulation to a guideline supporting the Government’s new General Biosecurity Obligation (GBO) that obliges everyone to take reasonable steps to prevent or minimise a biosecurity risk.

The ABGC is viewing any removal of the 5 per cent infestation regulation as a fundamental shift in the Government’s approach to biosecurity and a major concern for the banana industry.

It is the ABGC’s view that such a change could redirect BQ resources away from yellow Sigatoka enforcement because it would not be considered as a “high” biosecurity risk. The banana industry currently funds a yellow Sigatoka liaison officer to inspect farms but it is BQ’s role to enforce any breaches. Other options being considered by BQ are:

- changes to existing biosecurity zones
- changing or removing restrictions on the number and variety of backyard banana plants that can be grown out-side the main banana growing region
- removing the need for commercial planting permits
- a decrease to the number of BQ fees but increased prices for those that remain.

The ABGC agrees with biosecurity zone changes, as long as there is a pest protection area around the main banana growing region.

The ABGC supports the removal of the restrictions on the number and species of backyard banana plants that can be grown outside the main growing regions.

This is because the regulation is very difficult to enforce as the population of south east Queensland grows. In the state’s north, untended plants in the Far Northern Biosecurity Zone are unlikely to survive unless cultivated.

Any proposed changes to the current regulation that states an infestation of yellow Sigatoka is not supported by the ABGC as they are an inviable tool for industry when trying to trace the source of disease incursions, especially exotic ones. The ABGC would prefer to keep a plant permit system but would like to work with BQ to develop a more simple, grower-friendly system.

The RIS also outlines options for changes to regulations for the mango, sugarcane, cattle and bee industries. Submissions closed on November 21 and announcements on BQ’s decisions on future regulations are expected by early 2015.

For further information: Please contact ABGC Chief Executive Officer Jim Pekin 07 3278 4786.

Bananas in import risk submission

Submissions on the import risk analysis (IRA) process are now being considered as part of changes to Australia’s Quarantine Act.

The Australian Banana Growers’ Council (ABGC) is among horticultural and agriculture groups who have made about 50 submissions as part of industry consultation on the changes.

The legislation is of major importance to the banana industry because of its interests in biosecurity and the threat of exotic pests being introduced with imported produce.

Federal Agriculture Minister Barnaby Joyce said the legislation, if passed, would provide a national capability to respond to pest and disease incursions within Australia.

For more information on the Biosecurity Bill 2014 and the supporting legislation, visit www.agriculture.gov.au/biosecuritylegislation or subscribe to the Biosecurity Bill 2014 subscription list at https://agriculture.custhelp.com/.

Ginger import review starts

A review of import conditions for Fijian ginger has been announced following industry biosecurity concerns and a find of live nematodes in some of the first imports to arrive.

The banana industry has been among industries to voice concerns over any biosecurity risk posed by the fresh ginger imports.

Of particular concern to bananas is any risk of Fijian burrowing nematodes (Radopholus similis) entering Australia. The nematode appears to be a more aggressive pest than nematodes already found in Australia, based on the damage it causes to Fijian ginger.

Although the live nematodes found in a box of imported Fijian ginger in September were a different type of nematode, root-knot nematodes (Meloidogyne spp.), there are concerns about the nematodes surviving quarantine fumigation.

The import review was commissioned by the Queensland Department of Agriculture, Fisheries and Forestry on a consignment of imported ginger did find live nematodes—root-knot nematodes—these are already found in Australia and their presence was not a surprise, nor a quarantine concern.

The Minister said media reports suggesting a compromise of the biosecurity status of the ginger industry were “misguided”.

While tests performed by the Queensland Department of Agriculture, Fisheries and Forestry on a consignment of imported ginger did find live nematodes—root-knot nematodes—these are already found in Australia and their presence was not a surprise, nor a quarantine concern.

He said independent tests had confirmed the live nematodes were root-knot nematodes.

The import review is looking at existing and new science on the quarantine status of burrowing nematodes and the efficacy of measures to manage identified biosecurity risks.
Banana Freckle eradication

0.75 cents-a-kg levy proposed to fund freckle fight

Banana Freckle is the most serious banana-pest incursion since black Sigatoka hit Tully in 2001. A national committee has approved a $26 million eradication.

A plan for a production levy of 0.75 cents-a-kilogram is now being discussed with banana growers to fund the industry’s share of the Banana Freckle eradication in the Northern Territory.

Under the terms of a joint government and industry agreement, the Emergency Plant Pest Response (EPPR) Deed, the banana industry must contribute to the eradication fund via a compulsory production levy.

Banana growers will contribute between $11 million and $13 million towards the eradication’s $26 million budget. The Northern Territory, State and Commonwealth Governments and the nursery industry will contribute the balance.

The Australian Banana Growers’ Council (ABGC) has been representing the banana industry in national consultative committee discussions on the eradication. The Commonwealth Government will pay the banana industry’s share of the response costs and the ABGC is now proposing a 0.75 cents-a-kilogram Emergency Plant Pest (EPP) Levy to repay the funds.

ABGC Chairman Doug Phillips said the levy proposal had been discussed at the ABGC’s Board meeting held on November 27 and 28. ABGC directors spoke about the potential amount per-kilogram and likely timeframe for repayment.

The levy will be paid in addition to the existing 1.7 cents-per-kilogram levy which funds industry research and development and banana marketing.

“We will be continuing to consult with banana growers about the proposal for repaying the EPP loan,” Mr Phillips said. “The ABGC Board’s proposal is for the EPP levy to be struck at 0.75 cents-per-kilogram of bananas produced. On a carton basis, that equates to 9.75 cents for each 13-kilogram banana carton.

“The levy will be paid by all commercial banana growers in Australia and collected by the Commonwealth Government’s Levies Revenue Service, in the same way as the existing R&D and marketing levy.

“We are proposing that the levy should start on July 1, 2015 and we would expect it to be in place for about five to six years. The exact time will depend on banana production figures, the final cost of the freckle eradication and the EPP loan’s interest rate, which will be set to match the inflation rate.

“The proposed levy is based on expectations of national banana annual production averaging 25 million cartons, or 325,000 tonnes. This is below the record annual production for the last financial year of 28.6 million cartons.”

Mr Phillips said banana growers had been kept informed about the freckle incursion since it was first detected in July 2013.

Information has also been provided about the need for an EPP levy. This included a letter sent by the ABGC to all growers on October 10 this year when the final eradication response was announced.

The eradication was approved after a national consultative committee found it was technically feasible to eradicate the disease. A national management group of government and industry groups then decided to proceed.

In making their decision, the groups considered an analysis from Commonwealth Government economists from ABARES who conducted a benefit cost analysis. This found the cost of the eradication to banana growers would be many times lower than the cost if the disease spread to major growing regions.

“We wrote to banana growers on October 10 and have now written again to provide an update on the levy proposal,” Mr Phillips said. “We will also be contacting banana grower associations and will discuss the issue at the associations’ upcoming meetings.”

The EPP levy structure was put in place in 2013 with the levy set at zero until needed to fund a pest response.

The freckle eradication will be the first use of the levy by the banana industry and one of the first times the new EPP levy system has been used in Australian horticulture. It is a compulsory levy, unlike the voluntary levy used to fund the successful eradication of black Sigatoka from north Queensland when the disease was found there in 2001.

Mr Phillips said any levy payers with comments or concerns about the levy should discuss them at the upcoming banana grower association meetings or raise them by 1 February with ABGC CEO Jim Pekin by emailing jim.pekin@ abgc.org.au

Red-hot effort in six zones

More than 45,000 residential properties are in the NT’s six freckle-hit “red zones” where surveillance and banana plant destruction has begun.

The summer wet season is a key danger period for the spread of freckle, a fungal spore which can move from plant-to-plant in water splashes – such as those caused by rain.

Visits to properties which are harder to access during the wet are among the priorities for field officers who are working to have all banana plants within the red zones destroyed by next April.

It is expected that about one-quarter of the properties have banana plants and these will be destroyed by field officers or by residents using guidelines provided as part of the eradication.

Regulations for the destruction and treatment of banana plants have been endorsed by the NT Government.

Field officers have been appointed and Australian Banana Growers Council (ABGC) Yellow Sigatoka Liaison officer Louis Lardi has visited the NT to assist in training the field officers in plant destruction and stem injection.

The effort is being led by National Banana Freckle Eradication Program State Coordinator Kevin Cooper. Mr Cooper, formerly of the NSW Department of Primary Industries, is a veteran of emergency work including floods, fires and exotic disease outbreaks with his efforts recognised in the 2013 Australia Day honours list.

He has worked on emergencies and disasters including Newcastle Disease at Mangrove Mountain in 1999, the horse flu epidemic in 2007, and marine and plant pest incursions in 2010. He was deployed to assist with Foot and Mouth Disease (FMD) operations in the UK in 2001.

The program has launched an extensive communications program including a Banana Freckle Hotline, detailed red zone maps and information materials for the public and media and roadside signs identifying red zones.

More information is available at www.dpf.nt.gov.au/bananafreckle

Above: Field officers travel throughout the red zones to destroy banana plants. Left: Banana plants are cut down and stem injected.

Freckle facts

● new three-year plan to eradicate Banana Freckle (Phyllosticta caven-dishii) from Australia by mid 2017 with work started in October 2014
● total cost of eradication, including work already conducted, estimated at about $26 million and jointly funded by banana growers, the nursery industry and Commonwealth, State and Territory governments
● commercial banana growers’ contribution expected to be about half, in the range of $11 million to $13 million, with a 0.75 cents-per-kilogram levy proposed
● all banana plants to be removed from six “red” zones – the Greater Darwin area; Rum Jungle and Batchelor, south of Darwin; Dundee Beach, south west of Darwin; Nauiyu/Daly River, south west of Darwin; Milikapiti on Melville Island; and the Ramingining Aboriginal community in west Arnhem Land
● a four-phase approach of removing banana plants; a banana plant-free period including a full wet season; controlled reintroduction and monitoring of banana plants and assessment of freedom from the pest
● movement controls for banana plants and fruit
● Owner Reimbursement Costs (ORCs) for affected commercial banana growers and production nurseries.
Concerns over plant damage as magpie geese arrive

Magpie geese have been damaging crops in the Northern Territory and are now finding their way to Queensland. Gavin MacKay and Richard Piper provide this report on damage to banana plants in the Tully Valley and Murray Upper.

Magpie geese have been found feeding on young banana plants in the Tully Valley and Murray Upper in what is believed to be the first instances of the birds damaging bananas.

The geese were first seen late in 2013 in a Tully Valley plantation and on closer examination were found to have damaged a plant crop.

In this instance, scrap bananas and bunch stalks had been deposited into a fallow block. It appears the magpie geese fed on the decaying scraps and then moved across to the adjacent block to feed on growing banana plants.

They stripped back the outer leaf bases on the main pseudostem and shredded the suckers. The geese had apparently also fed on the lower leaves of the plants resulting in a wave pattern on the leaf blade of some affected leaves.

There appear to be no previous published reports of damage to bananas by magpie geese.

Another grower in the Murray Upper area had damage to young plants in a newly planted. The damage was so severe the block needed to be replanted.

It is possible behavioral change could see more damage to banana crops by magpie geese occurring in the future. This is the same phenomenon that has occurred with sacred ibis and seagulls becoming urbanised and frequenting rubbish dumps and suburban parks where they feed on food scraps.

Magpie geese have been reported to cause problems to rice, watermelon, rambutan and mango growers in the Northern Territory. There are reported to be two to three million of the geese in the Territory and there is now debate over how to minimise crop damage.

Because magpie geese occur in flocks and are large birds, the potential for damage, should they start to damage banana crops, could be high if they were to start favouring this crop.

It may be prudent to spread banana waste so that it dries out or rots more rapidly than to deposit it as a heap where it can provide a food source for magpie geese.

Another potential concern is the possibility that the birds could carry banana pathogens, such as Panama disease, in any soil on their feet.

Magpie geese in a paddock on Mullins Road, Tully

NT birds are back for a gander at Queensland

Magpie Geese are reported to be moving out of the Top End, now being found in increasing numbers as far away as south east Queensland.

Media reports in recent months have said the geese, a native bird, have been sighted as far afield as Gympie, north of Brisbane.

In the Northern Territory, there are reported to be two to three million of the birds and the crop damage they cause has increased in recent years.

Territory wildlife expert Keith Saalfeld, from the NT’s Department of Land Resource Management, says magpie geese were once common in most parts of Australia but moved north when their southern habitats were lost to development or agriculture.

He told ABC National Rural News the birds now appear to be moving back south and are becoming an increasing problem for farmers outside of the Territory.

In the Territory, the geese have traditionally eaten bulbs out of the ground but the expansion of horticulture there has given them a variety of crops to choose from. This season, mango farmers have reported crop losses with some hosting thousands of the geese on their farms during harvest.

The geese have also been reported to damage irrigation by pecking at and piercing the lines.

In the Territory, farmers who can show they have exhausted all other avenues for controlling the geese, such as use of netting and scaring devices, can apply for a category of shooting licence known as a Pest Mitigation Permit. However, the NT Government is investigating strategies other than shooting to deter the birds.

There is also a four-month waterfowl hunting season, beginning in September, when the birds can be shot for food, with bag limits applying. There has been debate about whether hunting worsens the problem by scaring geese away from swamps and into farmland.
It’s been called banana science’s version of “speed dating” and it’s a concept that banana growers seem to have fallen in love with.

The National Banana Roadshow was an industry first – a road trip taking some of Australia’s top banana scientists and industry experts on a six-stop, three-state tour to visit banana growers on their home patch.

Presenters with years of research and technical experience were given only a strictly-policed, ten-minute timeslot to tell banana growers and industry partners the key points about their projects. The days had three major themes – farm production and best environmental practice; farm business and marketing; and supply chain management.

Topics included soil health and Panama Disease, disease-resistant and new banana varieties, leaf disease, best management practices, plant nutrients and sediment, chemical registrations, banana marketing and supply chain, carton design, benchmarking farming profitability and international production insights.

The snappy 10-minute presentation format allowed up to 15 presentations at each session as well as group discussions, questions and feedback from attendees. While some of the presentations were made at each roadshow stop there were also some especially tailored for specific regional issues. Video presentations were also included and showed footage of carton design, tissue culture science and international growing practices.

The roadshow was part of the levy-funded National Banana Development and Extension Program led by banana scientist Naomi King.

Naomi said the roadshows had been a valuable way to find out how science could help growers and the industry achieve their production goals. The ten-minute presentation format had been a hit with growers.

“We told them it was banana science’s version of speed dating – a chance for scientists to talk about the most interesting aspects of their work. The growers loved the idea and the scientists have also been very pleased with the response.

“The event not only gave banana scientists the chance to tell growers about their work, just as importantly, it gave growers the chance to talk directly with scientists about how they can use that research and what other research they would find useful.

“We now have some great information on the issues that are of most interest to growers, both nationally and on a regional basis.”

Attendees from across Australia, at sessions in north Queensland, northern and mid-north coast New South Wales and Carnarvon in Western Australia, all provided enthusiastic feedback on the roadshow.

They rated the roadshows using electronic polling keypads and the results have been impressive. The event achieved a major upgrade in knowledge about the research projects that are a key to improving banana farming practices.

At the start of the roadshows, 84 per cent of participants had rated their knowledge of research projects at the lower end of a five-point scale – in the range of one to three. Only 16 per cent rated themselves in the top two levels.

By the end of the event, that result had flipped with 71 per cent of participants rating their knowledge about the projects in the top two levels, an increase of 55 percentage points.

Other impressive results were that 90 per cent of participants said they either would change or were thinking of changing a farming practice based on the information they heard about on the day.

The roadshows seemed assured of strong continuing interest from growers with 98 per cent saying they’d attend another event.

The roadshows are now planned to be held every second year with the next ones to be held in 2016. This slots them into continuing interest from growers with 90 per cent saying they’d attend another event.

GROWERS SHOWN HOW TO SPEED-DATE SCIENTISTS

Banana Roadshow leader Naomi King at the Tully roadshow with, from left, Aiden Mackay, Paul Inderbitzin, Caleb Matthews, Keith Rixon, Stephen Lowe and Paul Johnston.

Naomi is leaving the Queensland Department of Agriculture, Fisheries and Forestry, which delivers the National Banana Development and Extension Program.

As reported in the last edition of Australian Bananas, growers who attended the first roadshows at Murwillumbah in northern NSW and Coffs Harbour on the mid-north coast, were enthusiastic about the event.

Comments from the north Queensland roadshow were equally appreciative:

Stephen Lowe: “The ten-minute format is a winner; the presenters have to put all the main points in to that timeframe and you can’t fall asleep in ten minutes! It’s great to have the researchers presenting directly to us.”

Craig Buchanan: “It was just a good day all round. There was a little bit of everything. I like all the soil health stuff.”

Adrian Crema: “There was a great variety of information. I really enjoyed Paul Inderbitzin’s video presentation on his Nuffield Scholarship studies. He hit every nail on the head. It’s all about bunch care, and I loved the comment he made about bunch care.”

Banana Roadshow leader Naomi King will be handing over the role to another researcher following her move to a new industry position in 2015.

What the growers said

More than 150 attendees

Banana grower and industry partners participated

Achieved a major upgrade in knowledge about research projects

90% of participants to consider or make changes to farming practices based on roadshow information

98% would attend future roadshow and 62% said they would also recommend the roadshow to others

94% of participants rated the day 7 or higher, out of 10

Roadshow snapshot

National Banana Development and Extension Program leader Naomi King: “The ten-minute format is a winner; the presenters have put all the main points in to that timeframe and you can’t fall asleep in ten minutes! It’s great to have the researchers presenting directly to us.”

Craig Buchanan: “It was just a good day all round. There was a little bit of everything. I like all the soil health stuff.”

Adrian Crema: “There was a great variety of information. I really enjoyed Paul Inderbitzin’s video presentation on his Nuffield Scholarship studies. He hit every nail on the head. It’s all about bunch care, and I loved the comment the shed’s not a hospital.”

Handover

Banana Roadshow leader Naomi King will be handing over the role to another researcher following her move to a new industry position in 2015.

Banana growers at the roadshow held for Tablelands growers at Walkamin in north Queensland.

Discussing the presentations at the Tully roadshow, are growers Stephen Lowe (left) and Jenny Wells.

Tully grower Aiden Mackay (centre) discusses industry issues with ABGC CEO Jim Pekin and Lakeland grower Paul Inderbitzin (backs to camera) and Tully grower Keith Rixon.

Roadshow co-ordinators, Queensland Department of Agriculture, Fisheries and Forestry horticulturists Stewart Lindsay and program leader Naomi King at the final roadshow at Walkamin.
Soils ain’t soils, national grower survey finds

Improving soil health on Australia’s banana farms will require a range of actions to suit individual regions, according to an analysis of grower surveys conducted at the national banana roadshow.

The surveys spanned both subtropical and tropical banana-growing regions and have provided valuable information on what growers from different regions need to improve soil quality.

Queensland Department of Agriculture, Fisheries and Forestry (DAFF) scientist Dr Tony Pattison conducted the surveys during soil-health presentations given at each of the six roadshow stops.

The presentations included topics previously rated by some growers as important. Some new topics relating to agro-ecosystem management were also included ideas such as intercropping nitrogen-fixing trees among bananas.

Growers were surveyed using individual electronic key pads that recorded their votes on what important the soil-health practices would be on their farms.

“The answers growers gave us were really informative and showed some strong regional differences in what’s required for improving soil health,” Dr Pattison said.

“This is the first time we’ve been able to assess the views of growers from across Australia on a series of soil-health topics. The information will be very useful in helping banana scientists to focus on the issues of importance to growers and the solutions that will work best on their farms.”

“There are big differences among the regions including issues such as rainfall and use of irrigation, whether farms are on flat or sloping land, and the size of farms.

“Something that’s right for the wet tropics won’t necessarily work in Carnarvon or New South Wales.”

Dr Pattison said previous interviews with growers at various field days and field visits had suggested the following were among the top soil-health priorities:

- crop rotation
- nutrient and soil organic matter management (all regions)
- management of Panama disease and erosion control (NSW)
- salinity, sodicity and water quality (WA).

The roadshow survey took that information one step further by looking at some of ways to manage those issues and ideas for using agro-ecology methods on banana farms. These included:

- groundcover management
- fertiliser and water management
- cropping design
- organic amendments and
- computer based, farm management decision aids.

The accompanying story is Dr Pattison’s analysis summing up growers’ responses.

Below: Growers in north Queensland were most interested in GPS-guided tractors, such as this one, being used to plant bananas. The yellow GPS sensor can be seen on the tractor cab.

A ‘yes’ to new systems but ‘no’ to trees

by Tony Pattison

The national survey of growers at the banana roadshows has found substantial differences in requirements for improving and managing soil health.

While all growers expressed interest in redesigning their production systems to improve soil health, there was a range of views on the best way to achieve the results.

In the surveys, growers were asked to respond to 11 questions (Table 1), giving a rating on a five-point scale, one being of no importance through to five being very important.

Percentages were calculated for banana growers’ responses to each question. Then, to gain a better idea of the importance of each potential soil health practice, a weighting was given so that the percentage of growers that believed a practice was more important obtained a greater result (Figure 1).

To summarise the results, the responses were compared between tropical and subtropical banana production. Three roadshow workshops were held in each production zone.

System redesign

Banana growers in tropical and subtropical banana-growing regions were interested in soil health and were willing to redesign their production systems if it improved soil health and reduced inputs (Figure 2, Q1). The workshop where participants expressed the greatest interest in soil health and willingness to change was in Innisfail.

The use of tree legumes, agroforestry and agro-ecological practices to improve soil health and reduce foliar diseases were unpopular in both the tropics and subtropics (Figure 2, Q5). It was thought that this was because it added additional complexity to crop management, was not seen as important and which could be implemented, particularly on the Atherton Tablelands.

Biggest difference

The practice with the greatest difference between subtropical and tropical production regions was GPS- and controlled-traffic systems (Figure 2, Q10). This was primarily due to subtropical banana production being on sloping ground and smaller farms, making this type of technology inappropriate for many subtropical farms where use of machinery was limited.

Conversely, in the tropics where there is greater mechanisation of banana production and traffic within banana paddocks, there was interest in developing and implementing this type of technology.

Soil moisture

The management option with the greatest weighting in the tropics was question 7, with regards to use of soil-moisture-monitoring equipment in banana plantations, which growers saw as important and which could be implemented, particularly on the Atherton Tablelands.

Continued next page >
**Table 1: Questions asked to road-show participants about soil health management options.**

| Q1 | Would you be willing to redesign your banana production system if it improved soil health and reduced inputs? |
| Q2 | Would you be willing to try or do you currently use interplant ground covers? |
| Q3 | Would you be willing to try or do you currently use predatory mites with groundcovers? |
| Q4 | Would you be willing to try or do you currently use organic amendments? |
| Q5 | Would you be willing to try or do you currently use controlled traffic with N fixing trees? |
| Q6 | Would you be willing to try or do you currently use controlled traffic? |
| Q7 | Would you be willing to try or do you currently use minimum tillage rotations? |
| Q8 | Would you be willing to try or do you currently use permanent beds? |
| Q9 | Would you be willing to try or do you currently use controlled traffic and rotations? |
| Q10 | Would you be willing to try or do you currently use soil moisture monitoring and irrigation scheduling? |
| Q11 | Would you be willing to try or do you currently use soil organic amendments? |

**Figure 1: Responses to importance of soil health of all banana growers.**

**Regional solutions**

In the tropics, question 8 on fallow management and rotation crops was seen as important, particularly on the wet tropical coast (Tinnisford and Tilly) where fallow crops are used to manage plant-parasitic nematodes.

**Subtropics**

In the subtropics, the practice which created the greatest interest was the use of soil organic amendments, which could promote soil health. This was particularly the case in Carnarvon and Murwillumbah areas, with less interest in the Coffs Harbour area (Figure 2, Q4).

**Beat the drum for cleaner farms**

Empty agvet chemical containers can be a health hazard to both users and the environment, but a common dilemma is safely disposing of them.

“The banana industry, like other horticulture and agriculture industries, has been working hard to further improve farm practices,” said Mr Phillips. “Banana growers helped develop our own Best Management Practices guidelines so we could make sure we set high standards for everything we do on-farm, including the disposal of used chemical containers. Our BMP guidelines advise triple rinsing the insides of used containers and disposing of them using drumMUSTER,” he said.

Mr Hoey encourages growers to also let their neighbours know about the program as everyone should be involved.

“drumMUSTER is heading towards recycling 25 million drums and banana growers are urged to participate in reaching the milestone.”

Mr HoeyM and another program, ChemClear, are ideally set up to meet chemical user requirements for quality assurance (QA) programs. ChemClear is a jointly funded program which safely

**Figure 2: Contrasting banana growers’ responses in banana growing areas to importance of four questions dealing with soil health.**
Irrigation without the irritation

Taking heed of a few simple tips could be all you need to get more out of irrigation and fertigation systems. Irrigation specialist Pat Daley toured north Queensland banana farms as part of the Reef Water Quality Program to provide some advice. Pat spoke with ABGC Communications Manager Rhyll Cronin.

Narrow suction pipes, fittings in the wrong places and a lack of air valves – in a week of visits to north Queensland banana farms these were just two of the problems found by irrigation expert Pat Daley. They’re simple things but the impacts are significant for the effectiveness, maintenance and running costs of the systems.

Pat, a 37-year veteran of troubleshooting such issues admits he can talk all day about the topic.

“It’s not always about reducing the amount of water you use – it’s about getting the timing right and getting more out of that water,” Pat says.

“By scheduling right you will get more out of the crop and if you get your crop and nutrient efficiency right it will also reduce the cost of the power.”

As part of the Reef Water Quality Program, which is helping growers to install infrastructure including irrigation and fertigation systems, Pat and ABGC Reef Rescue Officer Robert Mayers visited eight banana farms that have recently installed a range of new equipment. Pat then spoke at a half-day workshop open to all banana growers to help them get the best out of their irrigation and fertigation systems.

The Reef Water Quality Program is funded by the Commonwealth Government as part of initiatives to improve water quality in the Great Barrier Reef lagoon.

More than 40 projects were approved this year (see story, Pat 25) with many being for irrigation and fertigation systems that make the best use of water and nutrients and minimise run off into waterways.

Some of the problems Pat saw during his farm visits, such as the problems with pipes, fittings and valves mentioned above, can be quickly and easily fixed at little cost.

“You don’t need to do a lot to get a lot more out of your irrigation system,” Pat said.

Pat also had some more in depth tips for growers on installing and upgradning systems, including the addition of fertigation to existing irrigation systems and introducing automation.

Pat, from Daley’s Water Service, is based in south east Queensland but consults to a range of farms, including some in North Queensland. He is not a product supplier or reseller and provided independent advice as part of the project.

Here’s some tips from Pat:

Soil condition

Properly assessing your soil condition is the number one factor in success with irrigation and fertigation. Pat says there are “infiltration limitations” that is, limits to the amount of water the soil can handle over time.

Sandy soil means water and nutrients could be flowing through without much benefit. Similarly, there could be a barrier to water and nutrients entering the soil with them ending up as run off.

Once you know what your soil can handle, other factors to then look at include drainage, water quality, irrigation design and scheduling, nutrient application and scheduling and the return on investment you’d like to achieve.

Crop efficiency

Pat says crop water-use efficiency and crop nutrient-efficiency are what it’s all about. “You might find out you have increased production by using the same amounts – you’re just using them better,” he says.

“What you’re wanting to do is drip feed the plant. You need to work out what’s needed at any particular time of the crop cycle. Being able to adjust the system to do that is where you really get the benefits.”

Pump factors

“I consider the pump as the heart of the operation, the filters are like the lungs and the pipe work is the arteries and capillaries,” Pat says.

“If we don’t get that system right it’s difficult to get the rest right.”

Pat says the capital cost of the pump can be fairly insignificant compared with ongoing energy costs and maintenance.

All pumps have a best efficiency point and Pat says “it’s not about how big or how small the pump is – it’s about the cost per megalitre.”

He also says the pump must fit the job you need it to do. It’s something to think about when looking at the size and location of your blocks. “If the pump really only suits 10 per cent of the area then there are probably better ways to do the job.”

Growers can look at having a bigger pump that runs at slower revs and provides better suction and longer pump life.

Variable-speed drives

Growers should also consider using a variable-speed drive which Pat says goes hand-in-hand with automation.

The drive adjusts the hertz and this governs the pump speed. The advantage of the drive is that it avoids burning off energy because it rams the speed up or down to suit what’s needed to irrigate different blocks. Pat advises setting pump pressure at the controller.

To get the most out of a variable-speed drive, team it with a pump that has a steep performance curve.

An advantage of the drives are that they can clean up “dirty power” – electricity that doesn’t flow constantly but has spikes. This keeps the motor running efficiently and reduces the current draw on start-up.

It can also help reduce suction caviation – voids created within the water as it’s drawn into the pump - that can damage pumps on start up.

Locating the transducer

The pressure transducer should be located away from the pump. Pat prefers to see it before the filter and not after – the worst place to locate it is on the discharge valve of the pump.

Having the transducer correctly positioned will help give more accurate readings and send more accurate signals to the drive.

Cost efficiency

Pat says growers need to think about the cost of every megalitre of water used and how many megalitres are required to irrigate each hectare.

The pressure the pump runs at has a big impact on running costs. “Every PSI is costing you,” Pat says. An analysis he has done shows the costs for irrigating with one megamiltre of water can vary dramatically – from $45.25 to $175.13.

Pat says the best efficiency for pump operation is one that achieves the best efficiency point for both pump and motor.

Things to look out for are pump speed and the creation of damaging cavitation that can cause changes in pressure and reduce the pump’s life.

Continued next page >

Growers should calculate the output of sprinklers in millimetres-per-hour.
Pat says an irrigation diary is a good way to start documenting water use and requirements and working out the megalitres used per units of fruit. Pat is very much in favour of using probes but warns there are some traps. “I’m very pro using soil moisture probes. But you need to know that it gives you a snapshot and it’s not indicative of the whole farm. Going out on the farm and checking trees is still important. Pat says the simple manual-read systems are best and he doesn’t favour probes being connected to automated systems “because you can get it wrong pretty quickly by going down that track”.

He also says growers should look at their under-tree sprinkler design to check for leaks where the poly has not sealed around the sprinkler connecting-tube bath. Placement of probes in relation to sprinklers was also important to make sure readings were as accurate as possible.

Watering at night
Pat’s advice on night time watering was one of the most informative for growers who take advantage of night-time electricity tariffs to cut watering costs.

“You need to question why you’re irrigating at night time,” Pat says. “Plants, apart from those in the pineapple family, take water up during the day. All other plants, including bananas, don’t feed at night. If you’re on sandy soil you need to think about the wisdom of irrigating at night.”

Pat advises to make sure if you’re taking advantage of lower night-time electricity tariffs to ensure that the water used will still be available to the plants for their daytime uptake.

Using crop factors
Growers should look at crop factor ratings when working out how much water their plants need. For example, a small tree might have a crop factor of 0.4 but a mature tree that’s filling a bunch could be 1.2.

Pat says the value of using the crop factors is that you can look at rainfall and evaporation data from the Bureau of Meteorology and work out what the evaporation loss has been for a day and what needs to be put on the next day to satisfy the plant. There are calculators to allow growers to work out how much to irrigate depending on evaporation loss and irrigation efficiency.

Growers need to know the output in millimetres-per-hour of their sprinklers.

Fertigation tanks
Growers should look at the design of their fertigation tanks. Pat says tanks with a conical bottom, like aquaculture tanks, have advantages – for example, there are no internal edges to clean. He advises against systems using butterfly valves and says valves should never be used to control the flow of water.

Some systems allow fertigon of different nutrients, flushing out the system before moving to the next product. Pat also advises to use an EC (Electrical and Conductivity) meter rather than dye when checking nutrient distribution. A handheld meter will check the level of nutrients getting through and the time taken to reach the paddock.

Air valves
Pat says air valves are a critical part of an irrigation system. Without them, air builds up inside the pipes and, with nowhere to go, it reduces the space for water flow. At the banana farm he visited, about half did not have enough air valves. He recommends an air valve on the upstream side of every water valve, placed at the highest point on the pipe.

Without an air valve, no matter what velocity you have in the flow you’re not going to be able to get the air out of the pipe – there’s nowhere for it to go,” he says.

“The air in there will restrict the flow of water through the line. The air bubble takes up room in the pipe.”

Contour
Pat says growers who are setting up irrigation systems from scratch should consider designing them to follow block contours.

“For those who have been in a ‘square world’, farming in rows, it may be difficult to get your head around, but there are a lot of advantages in going with the contour.”

Included is better pump operation and fertigation system manually, and improvements to block levels, contouring permanent beds and better on-farm management.

“The end result is that farms are making better use of water and nutrients and are improving the quality of the water-ways that feed into the Great Barrier Reef lagoon by reducing run-off and erosion.”

A great benefit of the program is that there is also support extended to growers to help ensure they are making best use of new equipment, such as slasher, fertiliser spreaders and irrigation and fertigation systems.

“IT’s a great win for the environment and the growers are very happy to be improving farming methods. It’s usually practices and farming more sustainably. As an added incentive, the projects are also helping to make some farming tasks a little easier.”

Growers work on reef brief
Most of the north Queensland banana farm projects that are improving water quality in the Great Barrier Reef lagoon are complete or due to be in place by next June. Meanwhile, applications for the next round of grants are set to open in late January 2015.

More than 40 projects were approved in 2014 as part of the Reef Water Quality Grants Program which gives banana growers financial subsidies for projects improving farming practices.

Australian Banana Growers’ Council (ABGC) Reef Rescue Officer Robert Mayer is working with grants manager Terrace Natural Resource Management on the Commonwealth Government-funded project.

“Banana growers in all the north Queensland growing regions have participated in the latest two rounds of grants and the response has been overwhelmingly positive,” Robert said.

“The grants are helping growers to improve farming practices as well as making farming tasks, such as running air valves and maintaining irrigation systems, more manageable.

Projects are prioritised to make sure the investment being made has the maximum benefit to the environment. Funding is being used for things such as manual or automated fertigation systems, side-throw slashers, fertiliser spreaders and improvements to block levels, contouring permanent beds and better on-farm management.

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Tiger drives an automatic

“How good is this thing?” is East Palmerston grower Tiger Mereid’s thoughts on the automated irrigation system he had installed with the assistance of a Reef Water Quality grant. “I should have done this ten years ago.”

Tiger is a banana farmer who believes in giving his bananas all they need to ensure top quality fruit. “I’m pretty dedicated when it comes to my babies,” he says of his crop. “I put everything into it. I put everything into it.”

Tiger was used to running his irrigation and fertigation system manually, and all that went with it – including about six visits to the pumping station daily and sorting out problems at all hours. “I’d go down there at night and be holding a little LED torch in my mouth to be working on it – undoing filters, washing that one, then washing that one. I did that for years,” he said.

Tiger initially had some reservations about making the change thinking “I’ll never be able to drive it, I’m lucky to drive a telephone!” But he took some time to learn the system and finds it quick and easy to use.

He now gets better irrigation and fertigation results and has freed up time for other farm work.

East Palmerston grower Tiger Mereid at his newly automated pump station.
James finds ways to kill a bill

When Walkamin-based growers Howe Farming Enterprises decided it was time to start cultivating some energy-saving measures to reduce costs, they called the Kill-a-Watt campaign.

Regional Development Australia has launched the campaign – funded by the Commonwealth Government’s Department of Industry and exclusive by Far North Queensland – to help small and medium-sized businesses and community organisations identify ways to slash their electricity usage.

Howe Farming manager James Howe asked Kill-a-Watt energy assessor and qualified engineer, Cary White, to investigate power-saving opportunities on one of their farms which includes a packing shed, cool room storage, administration block and outdoor canteen.

Mr White inspected the cool rooms in August he found a significant amount of energy was literally walking out the door, because the main doors to the chiller room were being left open for extended periods, allowing cool air to escape. Low stock levels at the time just exacerbated the energy wastage.

“These factors combined were inflating the running costs of the refrigeration system by up to 300 percent,” he calculated “because the cool rooms are not reaching their set temperature quickly – if at all.”

Mr White advised Howe Farming Enterprises to consider installing automatic doors. “This will lead to a reduction in the duty cycle of the refrigeration system – and automatically reduce energy consumption.”

If automatic doors were not practical to operate, placing flexible plastic blinds over cool room entrance ways was an alternative option. “These need to hang from top to bottom with minimal air gaps,” he added.

Lighting is not often viewed as a high-energy consumer, but it can eventually make growers such as Howe Farming Enterprises see red when it comes to power costs.

“The over, the large amount of fluoro lighting – mainly T8 bar lights – used in the factory not only add to power consumption, but also the base load demand charges incurred under Ergon Energy’s Tariff 44 for large businesses,” Mr White said.

Replacing the 90 fluoro tubes in the cool rooms with more energy-efficient LED lights would save the business almost $2,300 per year, he calculated.

For the cost of a Level 2 assessment ($990), Cary White undertook a comprehensive on-site survey and equipment analysis that identified thousands of dollars in potential energy savings per year for the banana farm.

Refrigeration costs are a hot-potato issue for most growers, and Howe Farming Enterprises is no exception. Their refrigeration system accounted for almost 60 percent of total energy consumption on site – costing about $60,000 annually to operate.

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If Howe Farming Enterprises also swapped the 50 fluoro tubes used elsewhere on site with LED lighting, they would save almost another $1000 per year. Replacing the high bay induction lights in the main packing area and extension shed with LED equivalents would slash an extra $1,250 from their annual power bill.

Sometimes it is easy to overlook small areas of energy wastage, while focussing on the big ticket items. However, even relatively small savings add up.

The energy assessor noted that one of the display fridges in the outdoor canteen was leaking and not closing properly – allowing cool air to escape from the bottom of the seals.

He also recommended turning off the canteen kitchen appliances, including ovens and grills, when not in use, to reduce both their power use and the amount of energy required by the air-conditioner to deal with the heat they generate.

Howe Farming Enterprises already have a roof-top 30 KW PV solar system installed last year. Mr Howe said figures showed solar energy output from November through to the end of July showed that, based on the electricity tariff being used for that period, the solar system had saved about $8,900 in electricity charges.

After discounts, the solar system cost about $50,000.

Mr White advised Howe Farming Enterprises to consider extending it to a 100 KW system.

“The annual yield from a 70 KW extension, facing north/south, would be $115,000 kW, he calculated. “However, they would need to obtain approval for the extension from Ergon Energy first.”

The energy assessment provided Howe Farming Enterprises with plenty of food for thought.

“It was very thorough and alerted us to certain practices we had never considered inefficient – but it turns out these are better ways of going about it,” said Mr Howe.


James Howe at the Walkamin farm. Recommendations on cool room operations were part of the energy audit.

Major savings in farm energy use and costs have been identified in a year-long study of fruit orchards.

An estimated $921,302 in combined annual energy savings were identified for 30 orchards that participated in the nationwide study – more than $30,000 on average for each business.

And while the study was conducted for the temperate fruit industry – including apples, pears, summerfruit and cherries – its findings are also of interest to banana growers.

Energy savings were identified for equipment also used on banana farms such as irrigation pumps, cool rooms, packing shed equipment and lighting as well as in electricity tariffs.

The Watts in Your Business program, developed by the Apple and Pear Australia Ltd (APAL), Watts in Your Business team, was funded by the Commonwealth Government’s Energy Efficiency Information Grant (EEIG) program.

At the time of writing a final technical report was being prepared. A draft report showed the following:

- the audited farms spent a combined $5.7 million annually on energy (Table 1)
- combined savings for the audited farms reached 5.5 million kWh of energy use (electricity and LPG)
- the savings represented a 13 per cent reduction in energy usage and a 16 per cent reduction in costs valued at $921,302 (Table 2)
- electricity was the largest energy cost for the audited farms
- they paid on average 0.20 kWh per E kWh for packhouses and 0.20 kWh for irrigation
- savings represented a 13 per cent reduction in energy use and 9 per cent in costs.
- finding on “cost effective” saving opportunities with a payback period of six years or less showed savings opportunities valued at $519,160 representing reductions of 7 per cent in usage and 9 per cent in costs.

The report found there was a lack of knowledge among temperate fruit industry small-to-medium enterprises (SMEs) on tariffs, energy consumption and efficiency.

“Some SMEs in the industry already struggle financially and therefore were eager for information on practical ways to reduce their operating costs and improve cash flow,” the report stated. “Reducing energy costs, with resulting benefits of lowering their carbon footprints, is an important part of reversing this situation.”

The study also produced fact sheets including:

- refrigeration in packing sheds
- irrigation in orchards
- grading in packing sheds
- lighting in packing sheds
- electricity tariffs
- and case studies including:
  - voltage power optimisation – optimising incoming site voltage to assist inductive loads in operating more efficiently
  - VSDs for irrigation – using variable speed drives to reduce unnecessary pump operation
  - installing VSDs in cool rooms
  - automated cool room doors – keeping doors shut and reducing operation of the refrigeration systems
  - LED lighting – installing energy efficient lighting
  - solar energy – installing solar PV panels to generate electricity on site
  - timing peak energy use – installing Smart Meters or staging irrigation for use in the off-peak period.

Both fact sheets and case studies are being shared with the broader horticulture industry and can be viewed at http://apal.org.au/watts-in-your-business/

Studies grow Emily’s science-career hopes

Who’ll be part of the next generation of horticultural scientists? We talk to University of Queensland agricultural science student Emily Pattison, of Innisfail, who sees some exciting career opportunities in horticulture.

Assignment and then began to start showing an interest in the agriculture around Innisfail, which lead me to really enjoy working with bananas. What was your favourite subject in high school and where are you studying now? Tell us a bit about your course and what you like about your studies so far.

I have always really enjoyed biology. In high school I topped the biology cohort for three years in a row. I am one of the few people in my course who comes from a scientific background and am now struggling to learn the practical component. Most people are from farms and come here to learn the scientific component.

I really enjoy the prac especially. My course (Agricultural Science at UQ’s Gatton campus) is very broad so it often doesn’t cover my specific interests, but I am still really enjoying learning about farming from a broad perspective. However, I really can’t wait to specialise.

Tell us about the opportunities you’ve had to work in horticultural science and some of the experiences you’ve enjoyed the most. I think I am pretty lucky and have had some wonderful opportunities. One of the best opportunities I’ve had is to work with Stewart Lindsay at South Johnstone DAFF during the summer break after my first year.

Tell us about some of the research topics in the banana industry you think would be the most interesting to work on.

I went to a local university with a project that was developing a new method of using nematodes, which I really enjoyed. Another project I have worked in is using crop rotations with brassicas and Rhodes grass to decrease nematode numbers. I loved them both even though they are not that similar.

What do you like about horticultural science the most? I like horticulture science because it’s not boring. There is such a diverse range of crops and, because of the value of these crops, the processes are so specialised. It is certainly one of the most innovative branches of agriculture and quickly moving forward. Traditionally, it is the least recognised in Australia, but I think that’s about to change and it’s going to boom soon. I really can’t wait to be a part of that.

And what do you find to be the thing that might take a bit of getting used to? It is certainly one of the most innovative branches of agriculture and quickly moving forward. Traditionally, it is the least recognised in Australia, but I think that’s about to change and it’s going to boom soon. I really can’t wait to be a part of that.

What would be your ideal role in horticultural science? At this point in my life I’m not ready to have a job that spends too much time indoors. And I definitely want to be involved in research. I feel like a field-technician role suits my desires pretty well, because I still get to be involved in the research and I get to spend my time outside, being able to observe plants and see physical results. If everything goes to plan, what type of work do you think you might be doing in ten years’ time?

At the moment, I would like to end up at South Johnstone working for DAFF with a role in banana science. I don’t really want to make plans though, but I think keeping my options open might lead into something I would enjoy just as much. I always use my father (DAFF nematologist Dr Tony Pattison) as a role model. He started out studying agricultural science to go into the sheep industry, but after university went into nematodes in wheat and then for the last 20 years has been working with nematodes in bananas. I know how much he loves that, and he certainly wouldn’t have seen himself ending up there.

How do you like your bananas, fresh or cooked? What’s your favourite banana recipe and how often do you make it?

I am one of those people who love to leave their bananas out until they’re almost fermented and are starting to attract fruit flies. They are just so much sweeter that way!

As a university student still living in college I can’t cook, so sorry, can’t help you there. But my sister makes a killer banana smoothie. I would have no idea how to do it myself though.

When you’ve got some time off, what are some of your favourite pastimes?

I am a die-hard cyclist. I haven’t been in a while because I’m scared of the magpies around Gatton. But when I get back to Innisfail for the uni holidays I will definitely get back into it. I really enjoy being able to go to the rodeos around Gatton on the weekends, they’re a lot of fun too!

Tell us about some of the research that impacts the load placed on the motor

● refrigeration is one of the largest consumers of energy

● a poorly maintained refrigeration unit runs 100% of the time – up to five times the cycle time of a well-designed system

● continual opening and closing of refrigeration equipment can increase cycle times by 50 per cent, lifting power use accordingly

● consider using T5 fluo light replacement for an energy saving of around 30 per cent

● using LED lights achieves a saving of up to 50 per cent

● lower heat from LEDs generates further savings in air-conditioning costs.

For more information, see: www.kill-a-watt.com.au

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Some tips from the campaign fact sheet include:

● remotely located, stand-alone pumps can cost more to run – transmission losses increase power usage and affect operating capacity

● using a smaller pump for long-distance water distribution lowers efficiency and costs more to maintain

● the size of pipe connections influences the load placed on the motor

● continual opening and closing of refrigeration equipment can increase cycle times by 50 per cent, lifting power use accordingly

● consider using T5 fluo light replacement for an energy saving of around 30 per cent

● using LED lights achieves a saving of up to 50 per cent

● lower heat from LEDs generates further savings in air-conditioning costs.

For more information, see: www.kill-a-watt.com.au
Fresh-food passion brings young chef home

A passion for cooking took Rob Johnson from the family banana farm across the country. Now the young chef is back and enjoying growing bananas. Rob answers our next-gen grower questionnaire.

How long has your family been in the business of farming bananas and tell us how they became involved?
The Johnson family began growing bananas in Clothiers Creek in the 1940s when my great grandfather started growing them. Back then, growing bananas was more financially feasible as the subtropics had the market share.

Did you come straight from school to begin work on the farm or have you also done some other type of work?
I grew up on the farm but wasn’t overly involved in the fruit farming. I began my cheffing apprenticeship during school and ventured into full-time commercial kitchen work straight after the HSC.

What do you like about banana farming?
I thoroughly enjoy cooking, growing and supplying fresh local produce around the Valleys, from the Tweed to Nimbin. I love selling my produce to customers at the local farmers markets. It’s great to receive personal appreciation for my passion.

What do you see for your future in the banana industry?
Personally, I would like to see more appreciation for the effort that goes into producing the bananas that grows well in local conditions. I'd love to see more of these trial varieties being grown in the banana industry?

What do you see for the overall future of the industry? Standardised packaging and a mini-mum price per carton guarantee. This would encourage growers to take more effort in producing better quality fruit.

What do you think will happen in the banana industry?
I would love to see more of the disease-resistant varieties available to growers, such as the Panama Race 1-resistant varieties from the Duranbah trial blocks.

What don’t you like about banana farming?
Unreliability of workers. Unreliability of income due to price fluctuation. Always not knowing.

What are your other interests apart from farming bananas?
I thoroughly enjoy cooking, growing and supplying fresh local produce around the Valleys, from the Tweed to Nimbin. I love selling my produce to customers at the local farmers markets. It’s great to receive personal appreciation for my passion.

A section of the Johnson family farm.
Matt on a mission to help growers

The NSW Department of Primary Industries’ newest industry development recruit has been working towards a move to the Northern Rivers area since the 1980s. Finally, after two decades in various agricultural roles in Australia and overseas - he’s arrived.

By Stephanie Dale.

And it’s not just the attractions of living in the area that have been calling him. As the new Banana Industry Development Officer (IDO), Matt is on a mission: to reinvigorate the subtropical banana industry in NSW.

Matt’s new position is jointly funded by DPI, national banana industry levy funds and NSW grower association funds. He is one of eight IDOs working within the DPI across a broad variety of horticultural industries.

Over the next 12 months, Matt plans to attend the meetings of Banana Growers’ Association branches between Macksville and Murwillumbah, in order to better understand the needs of the local industry.

He started the role in October and the biggest surprise for Matt in his first few weeks in the job has been the disparity in growers’ views on the state of the NSW banana industry.

“I’ve heard two stories as I’ve travelled around the region,” Matt said.

“Some growers say ‘the industry is doomed’ others say they can’t keep up with demand.

“It’s a curious situation to have viewpoints at such extremes.”

For Matt it’s an exciting time for the NSW subtropical industry, which has suffered severe decline in recent years due to pests, disease, competing land use and competition from North Queensland banana production.

North Queensland currently produces more than 90 per cent of Australia’s bananas with other growing regions, including New South Wales, southern Queensland and Western Australia, growing the rest.

“For growers who are willing to change - to renew plantations, trial new varieties and plant new ground - the opportunities for the future are tremendous,” Matt said.

“For those who don’t want to change - well, as with anything, if you keep doing what you’ve always done then logic says you’ll keep getting the same results.”

Matt’s IDO position is funded for three years. He said it was his hope that in that time, all NSW subtropical growers would fall into the category of ‘can’t keep up with demand’.

“From an agricultural perspective, being unable to keep up with demand is a brilliant situation to be in!” he said.

Other targets are better farm practices and fruit quality resulting in improved sustainability for farming businesses.

“One aspect of my role is to help growers increase production of fruit that meets market specifications,” he said.

“I’ll be working with growers to achieve better production through improved farming practices, including improved nutrition, soil health, trialing new varieties and better pest and disease control.”

Matt grew up on a broad acre dryland grain farm on the Darling Downs, west of Brisbane. He spent 15 years in research and development in Brisbane with Queensland’s Department of Agriculture, Fisheries and Forestry (DAFF, then known as the Department of Primary Industries), CSIRO and the University of Queensland. He then headed to the Top End, where for three years he was based in Darwin working as a plant pathologist for the Northern Australia Quarantine Strategy.

He then moved to North Queensland, doing the same work from Mareeba before returning to Queensland DAFF, focusing on industry development in the avocado and mango industries.

“Then I was fortunate enough to get this job,” he said.

“I’ve long had a passion for bananas and it’s exciting to be finally working in the industry.”

On top of a challenging mission, Matt has a substantial vision for the industry.

“There are massive challenges facing the subtropical industry, all of which can be overcome by improving farming practices and developing strong niche markets,” he said.

“My strengths are building networks and troubleshooting. It’s my intention to work closely with growers to reinvigorate the industry - to connect like-minded growers with each other, as well as people throughout the supply chain, to ensure we use all the resources we have available to us to solve the problems facing the NSW industry.”

A primary concern for many NSW subtropical growers has been the exodus of young growers. Matt would like to see an increasing number of young players in the industry.

“Some of the younger growers are from banana-growing families - others are newcomers,” he said.

“It’s my role to encourage the new growers, connect them with the existing wisdom in the industry, oversee what can be achieved with the best use of the resources and support available - and, ultimately, help growers accomplish their own vision for their industry.”

Matt’s IDO project has the support of a Project Reference Group which includes banana industry representatives and grower representatives from the NSW growing regions.

“We’ve got a great project reference group for the project and I’m looking forward to working with them,” Matt said.

“It’s a really exciting time for banana growers in New South Wales.”

Matt Weinert’s banana IDO role includes:

● attending BGA meetings
● helping growers increase production
● assisting with the development of new markets
● supporting growers to manage pests, disease and industry challenges
● organising field days
● developing networking opportunities for growers and others in the industry
● reinvigorating the NSW industry.
Taking a trip to banana central

Australian growers visited some global banana-export frontrunners in Central America to bring back the latest information on fruit quality and chemical use. ABGC CEO Jim Pekin reports.

It’s not often Australian banana growers have the chance to see how farming and packing happens in some of the world’s biggest banana export markets.

But ten banana growers and a nurseryman were among those who travelled to Central America to learn first-hand how growers in Ecuador, Costa Rica and Martinique run their operations.

The study tour provided participants, as well as all growers wanting to share in the information, a rare opportunity to look at some international production trends.

The Ecuadorian and Costa Rican industries are respectively the largest and third largest exporters of bananas in the world. Martinique, on the other side of the Caribbean from Costa Rica, is a French West Indies island selling bananas mainly to France and was visited because it is a banana producer in a developed nation.

In this report, growers share some of the highlights of the tour, including their main messages of placing more emphasis on bunch protection and the use of chemicals.

**Fruit Quality**

In his assessment of fruity quality, Tully grower Stephen Lowe said it was widely evident at all farms that great care is taken to ensure the bunch reaches the packing facility in pristine condition.

“In Ecuador and Costa Rica, the system used in the field was a cableway to transport bunches to the shed,” Stephen said.

Martinique farmers use sophisticated tractor-drawn trailers which allowed bunches to hang freely without touching each other on way to the shed.

“The use of pads and jigs to avoid pressure injuries to the bunches when they are being humped is something that could also have benefits to the harvesting process used in Australia.

“The evidence was clear that packing facility operations are much improved when fruit is arriving at the shed clear of damage. The additional care in the plantation may pay off for some via better quality and less waste in the packing shed.”

Tully grower Gavin MacKay observed that in Ecuador they removed four hands in summer and five in winter to produce about five hands of Extra Large.

**Not a hospital**

Study tour participants saw first-hand what Nuffield Banana Scholar Paul Inoubelthis means in the video he made of his international studies. In that video, shown at the recent banana roadshows, Paul noted the importance of protecting the bunch saying “the packing shed is not a hospital.”

Practices that protect the bunch are taken very seriously with workers in many cases held directly responsible. Tully grower Paul Johnston noted that in some packing sheds the wages of field workers were docked if damage was caused to fruit on the bunches as they were brought into the shed.

Adrian Crema, also from Tully, was particularly impressed with the quality of fruit in both Ecuador and Costa Rica.

“There was a lot of emphasis on the bunch-hugging operation,” Adrian said.

“Their farms had plastic slips between the hands that kept the fruit from being bruised. Quality was excellent.”

Tully grower Dino Costa was impressed with the overall industry standards.

“I think one thing that really stood out for me across all three countries we visited was that they had a strong industry standard that all growers followed,” he said.

“Each grower was not trying to gain an advantage over the other by doing something different, but instead they had collectively decided the best way to grow and package their product. I think that gives them a strong, known product to deliver to the world market.”

**Chemical Use**

Innisfail grower Craig Buchanan noted the very low chemical use and Stephen Lowe summed up the reason.

“All farms exported to Europe and had stringent conditions placed on them with regards to what chemicals they can use,” Stephen said.

“No farm we visited used any insecticides on their soil. Nematicide use was either low or non-existent.”

Gavin MacKay noted that demands from European supermarkets were determining chemical use on farms in all three countries.

Mullumbimby grower Peter Molenaar said: “Europe was strong on environmental and social standards, hence less likelihood of food quality issues. If an outbreak did occur then there is only government-to-government communication to resolve the issue. The farmer is left out of the resolution.”

**Borer traps**

The group noted non-chemical management of banana weevil borers in Martinique.

Mareeba grower Andrew Coulson said the use of pheromone lures would help reduce insecticides used, but the issue might be labour cost as it is labour intensive to insert traps and to count and kill borers.

“On a medium farm infestation, eight traps per hectare were required,” he said.

Craig Buchanan said he would like to see these traps sourced for the Australian industry, and this has subsequently been arranged via a trial shipment.

Stephen Lowe said the only chemical treatments were for black and yellow Sigatoka post-harvest crown fungus control and impregnated bunch covers or strips.

All farmers and agronomists indicated that root and soil health were the key to being able to farm successfully without traditional chemicals.

Black Sigatoka was an issue in all three countries. Paul Johnston noted that in Ecuador the climate seemed to dictate only 24 sprays-a-year to manage the disease.

“The group visited a higher-rainfall farm in Costa Rica that had sprayed for black Sigatoka 74 times-per-year, mainly preventative and not systemic fungicides.

The group was advised that Martinique first detected black Sigatoka in September 2010 and it is now endemic. However, in March this year the French Government banned all aerial applications.

Nurseryman Steve Lavis noted that this restriction had led to labour saving, innovative mechanisation.

“We saw quad bikes adapted to mist the plantation with fungicide. The same farmer had added a herbicide set-up that sprays six metres.”

A final study-tour report has been submitted to Horticulture Innovation Australia for publication and will then be available on the ABGC website. The report details many other important messages for Australian banana growers.

Study tour participants were:

- Craig Buchanan, Innisfail grower
- Adrian Crema, Tully grower
- Dino Costa, Tully grower
- Andrew Coulson, Mareeba grower
- Paul Druy, Tully grower
- Marc Jackson, tour leader
- Chris Jamesion, Lakeland grower
- Paul Johnston, Tully grower
- Stephen Lavis, Mission Beach nurseryman
- Stephen Lowe, Tully grower
- Gavin MacKay, Tully grower
- Peter Molenaar, Mullumbimby grower
- Jim Pekin, ABGC CEO

Above: Picang bananas being packed on a small farm in Costa Rica.

Below: Bunch protection was a priority with slips placed between hands.
Toxic past challenges French West Indies

French West Indies banana plantations have cut pesticide use but are battling revelations of toxic residues stemming from decades past. Jeff Daniells and Christian Chabrier report on Martinique and Guadeloupe banana production.

In the French West Indies, pressure has been brought to bear from several quarters on the use of pesticides in recent years, leading to major changes to the Martinique and Guadeloupe banana industries.

Included is the elimination of insecticides, phasing out of nematicides, reductions in pesticide use and more recently, legislation against aerial application of fungicides.

The industries have been making a major effort to turn these challenges into an opportunity to position their product as the global benchmark in sustain-ability. Overall use of insecticides and nematicides has declined from 9.8 to 1.1 kilogram per hectare from 1996 to 2009. This is mainly a result of adoption of falloving or crop rotations (sugarcane in particular) combined with tissue cultured planting material and mass trapping of banana weevil borer.

20-year toxic trail

However, the industries are in damage control because of major media attention over the revelation of the seriousness of a environmental contamination and health disaster brought about by indiscriminate use of the toxic pesticide chlordecone more than 20 years ago in the French West Indies banana plantations.

Chlordecone (Kepone® before 1976, Carbone® after 1978) is an organochlo-rine pesticide that was used for banana weevil borer control from 1972 to 1993. It is an endocrine disruptor (that is, it affects the way hormones work in the body) and is toxic to humans.

Pollution surveys conducted in 2001 by the French Department of Health revealed the presence of chlordecone in soils, rivers and springs over large areas in Guadeloupe and Martinique.

Contamination of drinking water, food crops (particularly root crops such as yams) and aquatic species by chlordecone has been observed as well as its wide-spread presence in human blood. There is therefore a large social concern about the extent and evolution of chlordecone pollution in the French West Indies and its impact on human health, ecosystems and people’s livelihoods.

As the contamination has spread, fishing had to be stopped and freshwater prawn farms closed. The same soon applied to the crabs caught in the mangrove swamps and it remains to be seen which deepwater species will be allowed to be caught in the future.

The main banana soil, the andosol, has a very high capacity to adsorb the chemical and is not broken down. It is estimated that chlordecone will slowly ‘leak’ from these andosol soils causing ongoing environmental contamination for more than 500 years (Environmental Pollution 157:1677-1705) unless a soil remediation strategy is discovered.

The chlordecone story is a sobering reminder of the consequences of poor decision making leading to serious impacts for generations to come. Fortunately chlordecone has never been used in Australia.

Pheromone borer traps

Potential pesticide residues in harvested product brought pressure from the EU to remove insecticides and nematicides from the production system. This led to the eventual adoption of pheromone trapping of banana weevil borer with products such as Cosmolure®

When the product was first released it had poor efficacy. A better capture system and a better attractant were subsequently developed. There were also issues related to insect behaviour that had to be taken into consideration to better target the pest.

A recipe approach would not work. The insect’s gregarious behaviour necessi-tates more management to carefully monitor the pest distributions and move traps around accordingly. Traps need to be inspected weekly/notoughly to remove weevils and to ensure the reservoir remains filled with water plus detergent so that it remains effective. There is a need to trap hard when taking old plantations out to prevent major incursions into other plantations. Weevils can remain for two to three months or more in the old decaying corms follow-ing glyptoslate injection. In the French West Indies Cosmolure® is authorized for ‘monitoring’ but not for control.

How different things might have been in Martinique and Guadeloupe if someone had come up with pheromone trapping of banana weevil borer 40 years ago!

Aerial spray ban

Strong governmental pressure has now contributed to the ban on aerial application of fungicides in Martinique and Guadeloupe. On one of the farms visited they had already grounded their helicopter spray fleet and are now applying fungicides by tractor-drawn misters even though at the time of his visit growers had a special dispensation to continue aerial applica-tion for six months.

Black Sigatoka

Black Sigatoka was first detected on Martinique in 2010 and in Guadeloupe in 2012. Plantains (AAB, Plantain subgroup) are a common cooking banana in the Caribbean and Central & South America. They are relatively resistant to yellow Sigatoka but quite susceptible to black Sigatoka and so acted as a sentinel to the arrival of the pathogen.

The arrival of black Sigatoka has led to an increase in the number of fungicide applications required from about eight each year, up to between 10 and 12, and is steadily increasing. This number of applications is nevertheless low by most standards because of the biological forecast-agging approach to scheduling fungicide applications which continues to be used.

The system was developed in the 1980s by CIRAD and is based on the use of mineral oil, which has fungistatic effect, and a mixture of systemic fungicides (of five different chemical families). To be effective the treatment must be applied to an entire production area.

Fortunately the black Sigatoka which arrives in a ‘wild’ strain, so it is relatively sensitive to two registered triazoles Tilt® (a.i. propiconazole) and Sino® (a.i. difenoconazole) and so is kept in check almost as well as yellow Sigatoka which has for some time had tolerance to triazoles. Thus yellow and black are currently cohabiting. Black has not yet replaced yellow even though tem-peratures in all regions are favourable. However, eventually black could be expected to develop tolerance and the current balance should shift rapidly.

But all this coupled with the imminent loss of aerial application does not augur well for good control of leaf disease. When their industry has only ground riggs available we expect spray applications to greatly increase in frequency.

This will be due to less timely and synchronized fungicide application and poorer targeting of chemical on the young emerging leaves requiring protec-tion. With the resulting poorer disease control sensitivity to systemic fungicides could also be expected to develop more quickly.

There will be a need for more and more applications per year and thus reduced profitability and viability. There is a great need for genetic resistance. The banana industry is closely involved in CIRAD’s breeding effort which may be the lifeline they need in the not too distant future.

This report follows an earlier report in the Sprint 2014 edition of Australian Bananas from Jeff Daniells, of Queensland DAF and Christian Chabrier of the French Research Centre, CIRAD.

Global look at bananas

Some of Australia’s top banana scientists helped lead a global symposium on banana and plantain science at the International Horticultural Congress (IHC) in August.

Thousands of horticulture industry representatives attended the six-day Congress held in Brisbane.

Banana science topics discussed included banana genetics and breeding, development of disease-resistant varieties, management of Panama disease and farm practices.

Australian banana scientists chaired sessions, presented symposium sessions and workshops. They also presented five-minute summaries of their research findings at poster sessions held in the Congress exhibition area.

Australian scientists included James Dale, André Drenth, David Turner, Jeff Daniells, Mike Smith, Juliane Henderson, Kathy Parmenter, Stewart Lindsay, Naomi King, Suren Samuelan and Elżbieta Czislowski.

International banana scientists also toured Brisbane research labs and visited a banana industry trial block and banana farm in northern New South Wales.

The event is held every four years with the next Congress to be held in Istanbul, Turkey.

Below: Banana farms in the French West Indies have cut chemical use.

Australian Bananas magazine | Summer 2014-2015
Younger growers stand out at Murwillumbah

Younger growers displayed the stand-out fruit, taking the majority of prizes at this year's Murwillumbah Show in Northern NSW.

Eungella growers Andy and Sue Everest were the most successful exhibitors with wins in five categories, and Andy’s brother, Will, grew the banana exhibit’s champion bunch and took out two other awards.

Growers Matt and Jenny Hesse also had major show success with their Cavendish exhibits, taking out four awards for best commercial bunch, heaviest bunch, best hand and champion hand.

Another highlight was the success of new local variety Little Gem with a bunch grown by Wayne Shoobridge winning the best ‘other variety’ award.

Eungella grower Will Everest with the Murwillumbah Show’s champion bunch.

Will Everest’s other wins were for Lady Finger exhibits taking the prizes for best commercial bunch and heaviest bunch (44.5 kg).

Andy and Sue’s wins were for best hand of Lady Fingers, best commercial cartons for both Cavendish and Lady Fingers, and champion carton.

Exhibition co-judge, wholesaler Greg Bradshaw said the Lady Finger exhibits were impressive. “These young growers have a good strain in the variety of Lady Fingers that they grow. They are conscientious, don’t cut corners and they feed and work their plants well, resulting in high quality fruit. Given the current dry conditions, the fruit quality was surprisingly good.”

High prices in the market in the lead up to and during the October show were perhaps too tempting for some growers who chose to get the fruit packed rather than exhibiting.

“It was disappointing that more local growers chose not to exhibit this year, preferring to chase prices,” Greg said.

“These annual shows are a key opportunity to showcase the local banana industry to the Tweed community and it would be good to see more growers participating in the future.”

The National Banana Bunchy Top Project also had a display at the show featuring a treated and inert plant showing the symptoms of Bunchy Top.

The plants have previously only ever been exhibited in a perspex case, but were this time treated and displayed so visitors could get a better look at what Bunchy Top looks like.

Bananas an energy gift at Macksville

Energy-giving bananas have again been promoted at Australia’s oldest professional foot race carnival, the Macksville Gift.

The fourth World Championship Banana Hurl has promoted bananas as a healthy energy snack each year since joining the Gift program in 2011.

The Banana Hurl attracted dozens of competitors including runners of all ages who were at the 61st Gift on the mid-north coast of NSW for a day of 70-metre, 120-metre and 300-metre foot races.

For those wondering, “how far can you chuck a banana?” The answer is “quite a long way”.

The larger bananas are used for the event’s Open sections and the hurl’s main winner was Jack Mitchell who made a 51.62-metre throw in the Open Male category. Open Female champion Anna Leksinkska hurled a banana 38.39 metres.

Tom Newman competed in the secondary school section and was the overall distance champion for the event, hurling one of the smaller bananas used in the schools sections a massive 62.5 metres.

The smaller kids also got in on the fun with some enthusiastic throws. Primary School banana hurl champions were Jade Pond and Tom Sweeney.

Cancer Support Group, Taylors Arm grower Stephen Spear said the Banana Hurl was a popular part of the gift and well supported.

Attending the event was newly appointed NSW Industry Development Officer Matt Weinert who contributed significantly to the fundraising effort through his numerous unsuccessful attempts to make a throw worthy of a finals berth.

Support for the event, including promotional giveaways, was provided by Australian Bananas marketing.
2000 at Innisfail’s banana gallops

One of the Australian banana industry’s major social events, the Australian Banana Industry Race Day, was held under sunny skies in Innisfail after days of heavy rain cleared on race day eve.

About 2000 racegoers attended the August event at Pease Park, including banana growers and industry partners.

Event sponsors included the Australian Banana Growers’ Council, who sponsored the raceday lunch, and Australian Banana marketing.

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Banana growers get ready - registrations open in January for our exciting Banana Industry Congress.

The Congress is being held in Melbourne from June 17 to 20, 2015 and will feature a series of firsts.

It will be first time our Congress exhibition opening kicks off on the same day as a State Of Origin match with both events held in the same city.

Both are in the centre of Melbourne - Congress at the Crown Promenade, part of the Crown complex at Southbank, and State Of Origin at the iconic Melbourne Cricket Ground (MCG).

Growers are already looking ahead and grabbing some early airfare specials for Congress as well as the best available Origin seats which are already on sale.

Congress firsts

In other firsts, Congress will showcase its fresh approach to R&D workshops with shorter, sharper sessions and there will be site visits showing growers the latest trends in supply chain and retail.

The event coincides with the scheduled opening of the new Melbourne Wholesale Fruit, Vegetable and Flower Market with opportunities for growers to see the latest in produce management.

Of course the Congress favourites will still be there: our exhibition space where growers and industry partners meet, the Banana Bar, and the Banana Industry Ball and Awards of Honour.

The traditional Congress fridge magnet is also out now – this time featuring a banana making an impact on the MCG's hallowed turf. The “Bananas in Melbourne” magnet commemorates the historic combination of two favourite events for banana growers – Congress and rugby league’s showcase event.

Melbourne buzz

Congress Management Committee Chairman Steve Lizzio said there was already a lot of excitement about Congress with hundreds of banana growers and their partners expected to attend.

“There’s a real buzz about Congress and a lot of growers are getting excited about the 2015 event and all that the Melbourne venue will offer,” Steve said.

“The Crown venue is excellent and combines our exhibition, conference and meeting room facilities all on the one level,” Steve said.

“We will also be making sure there is great business and social program with plenty for growers’ partners and families to do in and around Melbourne.

“The Banana Industry Ball and Awards Of Honour will be a very special event and held in one of Australia’s most prestigious venues, the Crown Palladium, which also hosts events such as the Logies and Brownlow Medal awards.”

Get your tickets

Steve said many growers were already planning ahead and securing flights as well as tickets to the Origin match.

“There have already been some great airfare specials on offer with more to come over Christmas and into the New Year,” Steve said.

“Some growers have already gotten in early and snapped up some great prices on return airfares to Melbourne and there should be more great specials on offer soon.

“We’ve put the web addresses for flight specials on our Congress website and growers can use the link to sign up for email notifications on airfare sales. There’s also links to Ticketek for Origin tickets.”

State Of Origin tickets won’t be offered as part of event registration but growers are getting friends and family organised to attend the event and buy tickets now. It will be a rare chance for many to see a live Origin game – the second in the series in a year when Queensland will be desperate to take back the title from New South Wales.

Program highlights

The Program will officially be announced early in 2015. Highlights will include:

- Great value registration price including business and social program events
- Retail tour showing the latest trends in produce markets
- Opportunity to see the new Melbourne Market
- Special R&D session with a new format
- Exhibition, conference and meeting room spaces co-located on the same level
- Partners’ program
- Banana Bar in the Crown Promenade’s Tonic Bar
- Banana Industry Ball and Awards of Honour.

More event announcements will be made early in 2015. For more information, see the event website www.banana-congress.org.au
All on Board after Tully meeting

Two new directors have been elected to the Board of banana industry peak body, the Australian Banana Growers’ Council (ABGC), taking it to a full complement of eight directors.

Carnarvon grower Tom Day and Tully’s Stephen Lowe have joined, giving the ABGC representatives from across the national growing regions.

Tom took up the position vacated when previous Western Australia/Northern Territory representative Michael Nixon retired from the Board in 2013. Tom has previously served as an ABGC director.

Stephen Lowe has joined the Board following the departure of South Johnstone grower Marc Darveniza who completed six years’ service.

The Board positions were unopposed and both new directors were appointed at the ABGC’s Annual General Meeting (AGM) held at Tully on November 26.

ABGC Chairman Doug Phillips was also re-elected and later reappointed as Chairman at the ABGC Board meeting held after the AGM. Adrian Crema continues as deputy chairman.

The Board’s first post-AGM meeting discussed topics including the Banana Freckle eradication in the NT and the proposed new 0.75 cents-a-kg production levy; proposed Queensland biosecurity changes and progress with the creation of the new levy-management body Horticulture Innovation Australia.

The ABGC Board, from left: Tom Day, Peter Molenaar, Paul Johnston, Doug Phillips, Adrian Crema, Stephen Lowe, Steve Lizzie and Stephen Spear.

Industry issues bring Tom back

Carnarvon’s Tom Day has rejoined the ABGC Board, strengthening the Council’s national representation.

You’ve had a lengthy involvement with horticulture in the Carnarvon region, tell us about your background.

I’ve lived in Carnarvon all my life, having been involved in industries including transport, and earth moving, hospitality and horticulture. I was in local government for 15 years (six years as shire president); a State Government Development Commission Board Member; founding member of Sweeter Banana Co-Op and chairperson for three years; member of Gascoyne Water Co-Op and Gascoyne Assets Mutual Co-Op and current chairperson. I’ve been a member and active in many local sporting and community groups over the years.

Tell us about your involvement with ABGC and why you’ve rejoined the Board.

I first joined the ABGC Board when changes were made to achieve the present structure of ABGC so the Council is able to be seen as representing all banana growers and to demonstrate the Carnarvon banana industry support for ABGC. I have rejoined as I believe we as an industry need to be represented on the national stage to protect our industry and also keep across issues that affect the industry today.

What are you farming at the moment?

We have been growing bananas as a main source of income for over 25 years. We usually have around 4 ha in ground at any one time; we have just been through a total replanting program. We also have a small number of mango trees and have grown pumpkin on-and-off at times.

What’s it like growing bananas in Carnarvon and what are some of the major issues there?

Bananas have been grown in Carnarvon since the 1930s. Growing bananas in Carnarvon is quite intensive with spacing much closer than elsewhere, hence the production per ha is quite good. The environment is subtropical, hence the size is much smaller than tropical environments. In recent times we have been very successful in marketing this aspect of our product. Other advantages are there are very little disease issues in the area, plus the ground is flat and easy to manage. The biggest threat to the industry is the lack of water, at the moment with no river flow for almost four years.

Are there some things the industry in Carnarvon is doing that could be useful for other regions to look at?

The Sweeter experience has totally changed the outlook for the Industry, even though it has been frustrating that all growers have not seen the advantages of working as a group. However, Sweeter have now positioned themselves in the market to achieve excellent returns for their members. Our problem now is meeting the demand. Sweeter have done a lot of marketing to the public, hence creating demand in the shop. The message which has come out of this is that if you can create demand for your product it will achieve results. The Compensation Fund has been the saviour of the industry many times during adverse weather conditions, it is a successful scheme which could have good results for other areas but a lot of thought would need to go into how to set it up in today’s world as this was started when government still thought they should make a commitment.

New ABGC director Stephen Lowe farms in Tully and tells us about his background.

The Lowe family is one of the Tully family’s first banana-farming families, farming for more than 50 years. Tell us a bit more about your background.

From a young age I have been exposed to the banana industry and I can remember back to the late sixties when farming for more than 50 years. Tell us a bit more about your background.

From a young age I have been exposed to the banana industry and I can remember back to the late sixties when my father Barry grew bananas on land leased from the Henry family. Through my schooling years I would work on the farm during school holidays. After finishing high school at Tully State High I completed my Bachelor of Engineering with honours at James Cook University, Townsville. In 1989 I began working with the Department of Defence in Canberra as a secure communications engineer. I remained in Canberra for six years and in this time completed my Masters of Engineering Science at the Australian Defence Force Academy. In 1995 my wife and I returned to Mission Beach and I have been farming bananas on the Tully River since this time.

How many hectares of bananas do you grow and what other crops do you have?

At this point in time the family farming business grows approximately 160 hectares of bananas and around 130 hectares of sugar cane.

Tell us about some of the major challenges for growers in the Tully region.

Farming bananas has many challenges. Major issues for the growers in the Tully region include cost of transport, market access; labour market reliability and the mounting pressure of compliance to government and retailer regulations and specifications.

Tell us why you nominated to become an ABGC director and what you would like to achieve.

I have known several members of the Board for a period of time and I am impressed with their knowledge and passion for the industry. It was the strength of this existing team which beckoned to me and I hope to be able to share my knowledge of the industry in a constructive manner. As a director I would like to see an increase in the number of ABGC members. I would also like to see a greater awareness by members as to where, and for what purpose, their levies and fees are being used.
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