



Free

**YOURS TO
TAKE HOME**

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Welcome to the world

Ella May Moore

Born 16th November 2023
weighing 3.4kg and 48cm long

Everyone is doing really well!

Congratulations, Alice!

Meet Nat!

Alice is Farmacist's Agronomist in Northern NSW, and was previously in the Burdekin office. Now that Alice is on maternity leave, we are excited to introduce the NSW region to Natalie Fiocco, our Senior Agronomist who was previously in the Mackay office. Natalie has been in the Northern Rivers region for a few months now and is looking forward to meeting the local growers and working with them towards their agronomy goals!



MERRY CHRISTMAS

and a happy, healthy & prosperous new year



Thank you for working with us in 2023

On Farm Connectivity Program

Farmacist is proud to announce we have been approved as a supplier under the Australian Government's On Farm Connectivity Program. This program provides rebates of up to \$30,000 or 50% of the cost of Agtech equipment for eligible primary producers to support improved productivity, management and safety on farm.

If you've been thinking about working smarter by applying technology on your farm, this is a great opportunity to get started at a reduced cost.

Through this exciting program Farmacist can supply a wide range of connectivity products including:

- Fully automated irrigation systems, pump controllers, valve and irrigation scheduling controllers
- Irrigation end of row sensors, flow meters and irrigation control base stations
- Weather stations and soil moisture sensors
- Localised radio networks
- Internet of Things (IOT) networks to connect a multitude of devices around your farm
- Information dashboards/platforms, record keeping applications and network software
- GPS Base stations and Agleader GPS equipment in far North Queensland
- We can also assist with installation and qualified training and support packages for this equipment.

Contact your local Farmacist Agronomist to find out more. The program is open for applications for a limited time only and funding is on a first in first served basis until the funding runs out, so get in touch with us now to discuss your options!



Observant weather station (photo courtesy of Observant - www.observant.net).

Growth measurements

By Heidi Hatch Gordon & Evan Shannon

The Burdekin Precision to Decision (P2D) project has been working with growers to maximise the effectiveness of their irrigation scheduling tools via daily crop growth measurements over one (or preferably two) irrigation cycles.

P2D grower Jimmy Hayllor purchased his farm in the Clare area nearly three years ago. Jimmy saw the need to gain a better understanding of the sugarcane growth patterns in response to irrigation in order to maximise crop growth. He then conducted growth measurements with support from Senior Agronomist Heidi Hatch Gordon.

Monitoring growth patterns involved measuring the same 20-25 sticks, at the same time everyday, so that peak daily growth rates could be determined. During ideal growing conditions, sugarcane crops can reach a maximum daily growth rate of 45-50mm!

However, as the soil begins to dry and the crop expends more energy into extracting water than producing biomass, the daily growth rate begins to slow (as seen in the graph). When the average daily growth reduces to 50% of the maximum peak growth for two consecutive days – this is deemed your irrigation trigger point. This point can then be correlated to the number of dots displayed on your G-Dot moisture probe or, as in Jimmy's case, the total millimetres removed from the mini-pans.

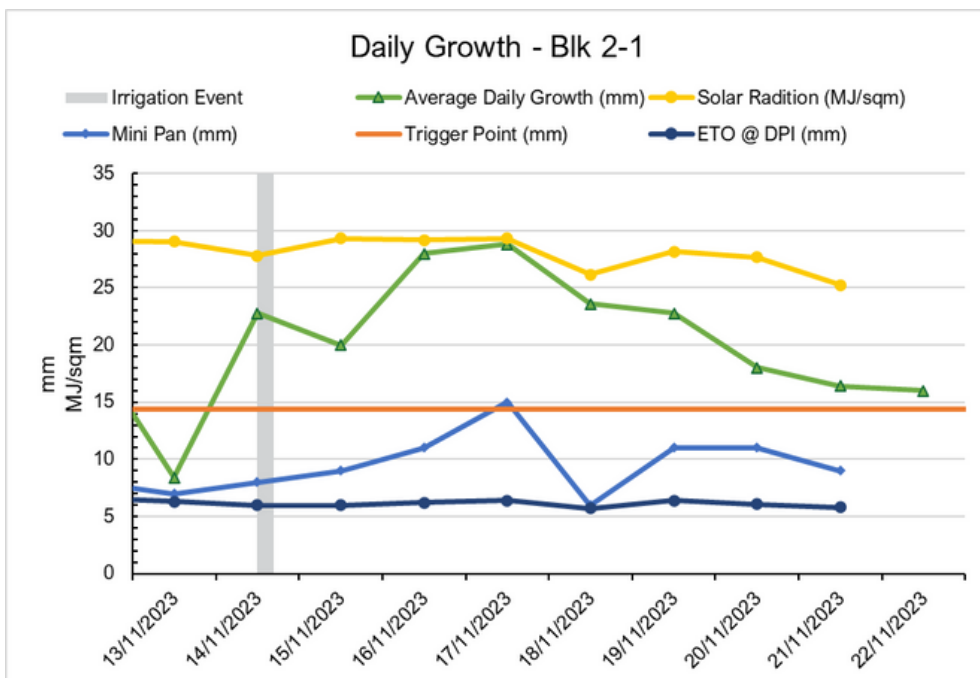
This data can then be compared to solar radiation and evapotranspiration. The analysis of the data aids in making decisions of when to irrigate to maximise growth over the peak growing period.

The original work by Gary Ham, Evan Shannon, and the BSES team in the mid-1990s, stated that improvements in irrigation scheduling with mini-pans resulted in 10% yield improvements on some farms, and water savings of up to 10-47% in others (Shannon & Raine 1996).

Jimmy has been working closely with P2D project manager Heidi Hatch Gordon and Principal Agronomist Evan Shannon from the Burdekin Farmacist office to build a better understanding of his farm through EM mapping, targeted top and subsoil samples, mung bean yield mapping, satellite imagery and irrigation water samples to maximise his sugar yield.

The data sets have also enabled Jimmy to make more informed chemical decisions and appropriate pre-emergent chemical choices through the Bluewater 2 project.

Reference:
Shannon, E. L., & Raine, S. R. (1996, January). Improving the irrigation efficiency of Burdekin canegrowers. In *Proceedings of the 8th Australian Agronomy Conference* (pp. 502-506).



Scan here to watch the video!



Precision to Decision is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation, and Farmacist.

Carcass competition showcases FNQ beef

By Shannon Byrnes

Farmacist was thrilled to have sponsored the Rocky Creek Abattoir Carcass Competition, which was a fantastic event that brought together beef producers, butchers, and enthusiasts from far and wide!

Rocky Creek Abattoir is a third generation family run beef processing plant managed by Farmacist's own Shannon Byrnes and her husband Cailan Byrnes. The competition featured a whopping 96 head of cattle, entered by nine butchers representing 23 producers.

The event was a resounding success, with approximately 65 producers and butchers attending the Saturday morning field day. A highlight was seeing Jess Bennett from Farmacist Mackay's office guest present on how precision ag techniques, such as NDVI and EM mapping, can be integrated into grazing systems to optimise production and profitability. It was a fantastic opportunity to witness the incredible work and dedication that goes into producing top-notch beef.

And the excitement didn't end there! Saturday night was the awards dinner - a night filled with celebration as we honoured the best of North Queensland beef.

The competition serves a vital purpose in promoting Far North Queensland butchers, supporting local beef producers, and identifying the region's best beef suppliers. Initiated by Victor Byrnes in 2001, the competition ran successfully until 2005. Reinstated in 2022 by Cailan Byrnes due to its immense industry benefits, the Rocky Creek Abattoir Carcass Competition stands as a premier beef event in North Queensland.

The competition exemplifies the region's commitment to producing superior beef, showcasing seamless collaboration among butchers, wholesalers, and producers, who are all aiming for the highest standards.

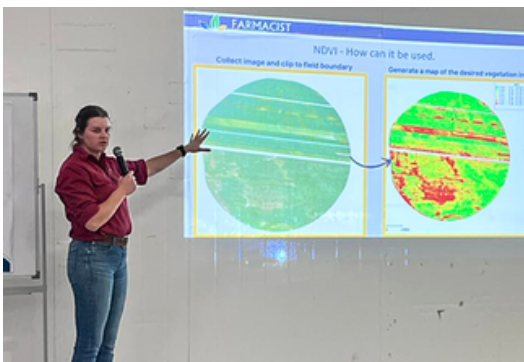
The competition provides invaluable feedback to producers and butchers on beef carcass compliance, saleable meat yield, and predicted eating quality, assessed through the Meat Standards Australia (MSA) Index.

MSA Research and Development officer Matthew Scott, officiating from Armidale, commended the exceptional quality of presented carcasses, which surpassed Queensland MSA grading averages.

David and Glenyse Hampton emerged victorious, winning several accolades for their 35 years of dedicated beef cattle breeding. Their winning carcass, a black Simmental/ black Limousin cross, showcased excellence in breeding and quality.

Rocky Creek Abattoir's mission is to strengthen the Far North Queensland meat industry, promoting it as a promising career choice. Future competitions look to include interschool meat judging and increased sponsor involvement, fostering growth and learning opportunities.

The Rocky Creek Abattoir Carcass Competition was a testament to dedication, innovation, and industry excellence, and Farmacist is proud to have been part of this celebration!



Success for multispecies

By Che Trendell

Farmacist Mackay has recently completed a GBRF funded Innovation project focused on incorporating multispecies break crops in the sugarcane system. The key aims of the project were:

1. Develop affordable and practical ways to plant multispecies break crops using existing farm implements
2. Develop management strategies to assist growers with species selection, weed control, crop termination, sourcing seed, etc
3. Determine if there are any soil health benefits from planting multispecies crops in a subtropical sugarcane system.

Planting equipment

During the project, Che and the Farmacist team found the use of air seeders on existing implements to be the most cost effective and easy to install means of planting different seed sizes during the sugarcane fallow. The implements trialled with the air seeders included wavy disc, rotary hoe, power harrow, weeder rake, bed renovator, and fertiliser box. An air seeder was even installed on a sugarcane harvester - a first for the industry - which successfully grew a multispecies break crop.

Farmacist Mackay has air seeders, a crimp roller to assist with crop termination, and an inter-row wavy disc planter available for growers wanting to plant a multispecies crop.

Management of a multispecies crop

There are some critical management decisions which need to be considered prior to planting multispecies crops. These include:

- The key objectives for planting the crop (soil protection, weed control, fodder)
- Weed management – opportunities to maintain trash blanket; species selection to allow for weed control during the crop; planting and termination timing; selecting species that will not become weeds in the following cane crop
- Field conditions – low pH, sodicity, water logging, previous herbicide use
- Planting method – air seeder, direct drill, spreader
- Seed size and inoculants
- Crop termination
- And using the above factors to determine species selection and planting rate.

Farmacist has developed tailored species mixes to meet the objectives of different farming systems. One limitation growers identified when planting multispecies is the fact they end up with part bags of different species as they do not need the full bags to complete the mix.

To address this barrier, Farmacist Mackay offers seed mixes, as well as individual seeds sold by the kilograms needed rather than by the bag. Mixes can be tailored to individual situations to maximise the benefits for your farm and ensure success.

Key outcomes:

- Soil health improvements identified – soil chemical, physical and biological improvements
- Affordable equipment proves capable of planting multispecies
- Detailed knowledge developed to properly manage multispecies crops
- Seed supply service offered so growers can purchase tailored seed mix by kilograms needed rather than by 25kg bags.

Soil benefits from multispecies break crop

Farmacist conducted two replicated trials as well as monitoring at 19 sampling points in the Mackay region.

Using before and after soil samples (a total of 38 samples), a trend for changes in soil chemical properties was identified. These included:

- 89% of samples showed an increase in phosphorus Colwell following the multispecies crop
- 84% of samples had:
 - an increase in organic carbon
 - an increase in potassium % and Nitric K
 - an increase in EC (1:5).



Figure 1. Replicated multispecies trial plots.

Monitoring soil biological conditions, the Haney soil health score was used to compare the changes to the average score across four different fallow treatments in a replicated trial. The results indicated that planting any break crop was more beneficial than a bare/weedy fallow, as can be seen in Table 1.

Table 1. Results from fallow management trial 2021-2022.

Treatment	Details	Average Haney soil health score* change	Cost of seed
Bare/weedy fallow	Sprayed fallow	-2.55	\$0
Multispecies crop broadcast	10 species mix broadcast and worked in	1.6	26 kg/ha \$114.64/ha
Soybeans on beds	2 rows soybean planted on preformed beds	1.6	60kg/ha \$210/ha
Cowpea broadcast	Ebony cowpea	1.15	35kg/ha \$126/ha

*calculation (Solvita CO2/10) + (Total water Extractable Carbon/100) + (Total Water Extractable Nitrogen/10).

Soil physical conditions

Measurements were collected from a replicated trial before and after a multispecies crop and showed improvements in effective rooting depth, earthworm counts and water infiltration as a result of planting multispecies crops.

Summary

Farmacist has developed detailed knowledge and expertise to plant, manage and monitor multispecies crops. We have seen first-hand the benefits of planting these crops in a sugarcane fallow and have been involved in monitoring to identify the actual benefits.

Farmacist is continuing to promote the use of these break crops in the sugarcane system and, to address the issue associated with ordering excess seed, we are now offering growers tailored species mixes with the ability to purchase seed by the kilogram rather than bag.

Farmacist Mackay would like to thank all our contributing growers for trialling equipment, planting new and exciting species, volunteering for case studies or trial sites and hosting field days. 🌱



About Che



Farmacist Senior Agronomist Che Trendell has worked extensively to promote the planting of multispecies break crops during the sugarcane fallow period. The major benefit of multispecies crops is improvements to soil health through:

- Breaking the sugarcane monoculture – decrease pest and disease pressure
- Include legumes for nitrogen fixation which leads to reduced fertiliser inputs in the following sugarcane crop
- Increase soil microbial activity which leads to more mineralisation of other nutrients for the following sugarcane crop
- Increase soil conditioning – different roots structures will break up soil compaction and aerate the soil
- Maintain ground cover over the wet season to reduce soil losses.

Che has developed detailed knowledge to identify suitable planting mixes and rates for different situations, numerous planting methods based on available equipment, weed management within the multispecies crop, crop termination options (timing and method), and general management to ensure success.



Scan here for more multispecies information, fact sheets, videos and results.



The Innovative Multispecies Project is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation, and Farmacist.

Using soil sampling to improve swale design in dry coastal grazing

By Mandy Jeppesen

When it comes to a challenge, Mark and Sharon Yensch are not ones to shy away and take the easy road. They are constantly adding to their knowledge bank of regenerative grazing principles and looking at new and innovative ways to improve their productivity, all while maintaining environmental sustainability.

Mark and Sharon had spent 15 years running an 800 hectare property situated between Stanthorpe and Warwick. Their cattle herd consisted of Murray Grey cows and Brahman bulls, the progeny of which they turned off as steers and heifers. They also produced Rhodes Grass seed and hay.

In 2007, they made the decision to start afresh and purchased 2,400 hectares just south of Bowen. The property had bare bones infrastructure, no internal fencing and little grass. It took the couple two years to completely muster all of the red and white brahman cattle that were on the property, after which they set about making major improvements. They installed laneways, built sheds, replaced the old timber yards with steel and started working on improving their herd.

The Brahman bulls were sold and replaced with Murray Greys. In response to a growing market interest in the Greyman breed, they currently turn off 60 pasture-raised bulls a year, destined for repeat buyers from the Northern Territory to Toogoolawah. Mark and Sharon find the breed to be docile and adaptable to the hard Dry Tropic region.

Regenerative agriculture playing a part

Sharon was invited to attend a holistic grazing workshop presented by Brian Wehlberg from Inside Outside Management and was instantly taken with the concept of regenerative grazing. Sharon started incorporating the principles she had learned into their herd and pasture management.

The couple installed additional fencing and started using the grazing methods outlined in the workshop, which provided positive change in their pastures. They followed up their new learnings by attending GrazingforProfit®, ProfitProbe® and Next Steps training courses being run by RCS to improve their business management skills.

The introduction of rehydration swales

Mark had undertaken swale construction previously on a property in Tamworth and was convinced the principle could benefit their pastures in Bowen. He attended a workshop run by Geoff Lawton, Discover Permaculture, to learn the basics about rehydration swales, how they work and construction techniques.

In 2016, they started construction of rehydration swales using a grader to mark the contour, followed by a dozer and scraper to do the excavation works.



Figure 1. The rehydration swales collect water to rehydrate the soil.

The evolution of swale design

The first swales constructed on the property were 3m wide, up to 1m deep (depending on soil type), and 10m elevation spacings. The soil excavated from the swale was used to construct a raised bank on the downhill side which Mark and Sharon hand-seeded with reed and dicanthium grasses. As the water runs down the slope, it collects in the shallow swale long enough to infiltrate into the soil. This increases the effectiveness of rainfall and provides a greater reservoir of soil moisture for plant growth.



Figure 2. An original swale demonstrating the wide, shallow design and hand-seeded bank.

Their initial observations from the swales were that there was less runoff, the pasture plants stayed green for longer, species diversity increased and, consequently, so did biodiversity. A paddock that was initially Indian couch and snakeweed now contained over 40 different species of plants.

Figure 3. (Right) A newly constructed narrower and deeper swale.



Figure 4. (Left) Slumping of the swale walls reflect the poor soil structure associated with sodicity.

This year, Mark and Sharon altered the design of their swales in order to reduce maintenance associated with sediment accumulation. The new design saw the swales become narrower and deeper, with dimensions of 1-1.5m widths and 2-3m depths. This meant less soil was removed during construction, there were lower evaporation rates due to less surface area of water in the swales, and one machine could be used in their construction.

The importance of soil sampling

Mark and Sharon engaged Farmacist to undertake soil sampling as part of their pasture management. One of the samples was taken from the paddock where the new swale design had been implemented. The results indicated sodium levels high enough to limit pasture growth, which was reflected in the lack of species diversity and plant vigour noticed across the paddock.

Wanting to investigate further, soil samples were taken at 40-50cm and 60-70cm depths in the subsoil. The results from these samples indicated high levels of both sodium and salinity. The design of the deep swales would mean that this soil would be brought to the surface, severely limiting growth of pasture species and causing excessive slumping of the swale walls due to the detrimental effect of sodium on soil structure.

Going forward

Going forward, subsoil testing will be an integral part of swale design. The knowledge gained from this testing will enable Mark and Sharon to adapt their swale design to suit existing subsoil conditions and constraints, with the aim of achieving better productivity outcomes.

By avoiding disturbance of the saline and sodic soils, they are also reducing the need to apply treatments such as lime or gypsum, thereby reducing input costs.

If you would like sampling done on your soils, pastures or fodder crops, please contact your local Farmacist office.

For further information regarding rehydration swales or Greyman bull purchases, please contact Sharon on 0409056168. 🌿



Figure 5. (Right inset) Greyman cows bred by Mark and Sharon Yensch.

Figure 6. (Right) Greyman bulls on the Yensch property.



Investigating reduced nitrogen rates with application of prilled lime

By Belinda Billing



Grower: John Ferrando
Location: Highleigh, Mulgrave QLD
Crop Class/Variety: 1R SRA26
Soils: Virgil Clay
Project Officer: Shannon Byrnes
Year/s: 2022-23

Treatments

Prilled lime applied @150kg/ha across all treatments. Three replicates for each treatment:

- T1 91N kg/ha (blue)
- T2 116N kg/ha (pink)
- T3 136N kg/ha (orange)



Figure 1. John Ferrando supervises fertiliser being loaded into his fertiliser box to apply to the trial.

Lime is applied to bring soil pH closer to neutral and increase calcium levels. It is traditionally applied to the entire block at a rate that is expected to provide amelioration benefits for three years. It is not uncommon for lime to only be applied once per crop cycle.

Prilled lime products use ultra fine calcium carbonate particles that are bound into small prills. The fine particles react quickly with the soil to correct pH while adding calcium. Unlike conventional lime, these products must be applied annually to provide adequate pH amelioration and calcium. They can be easily applied to the cane bed with a standard fertiliser box.

An adequate annual application can address pH issues and calcium deficiency present in the block, preventing run down that can occur over time when lime is applied in one application. As pH moves closer to 6, most nutrients, including nitrogen, become more readily available to the plant (see Figure 2). Maintaining a good pH and providing an adequate supply of calcium throughout the crop cycle is beneficial for crop growth and resilience to stressors, and can maximise the impact of applied fertiliser.

Anecdotally, growers using prilled lime products in ratoon cane had noted a decrease in CCS and wondered if reducing applied fertiliser to account for the improved availability of nutrients applied could benefit their sugar production.

Results

There was no significant difference between any treatments for tonnes sugar with variability within the replicates for all treatments. The average tonnes of sugar/ha grown was 18.2-18.3 across the three treatments. This indicates reducing the rate of fertiliser when applying a prilled lime product is unlikely to impact yield.

CCS was highest for the 116N treatment and lowest for the 91N treatment. Tonne's cane/ha was highest for the 91N treatment and lowest for the 136N treatment. However, the difference between these results is not considered significant.

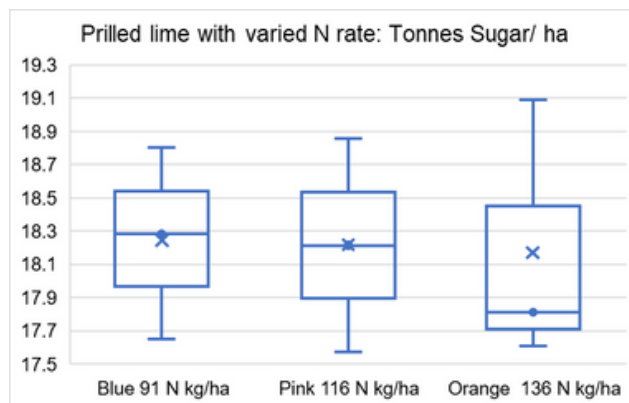


Table 1. Box and whisker chart showing the average and range of tonnes sugar/ha achieved across the three treatments.

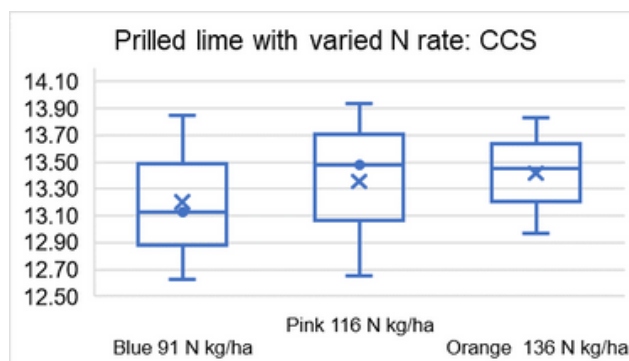


Table 2: Box and whisker charts showing the average and range of tonnes cane/ha and CCS achieved across the three treatments.

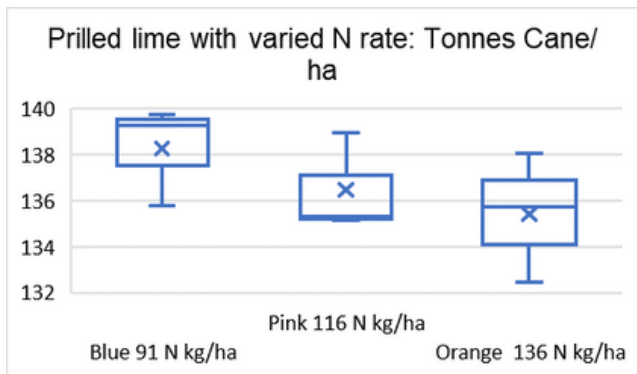


Table 3: Box and whisker charts showing the average and range of tonnes cane/ha and CCS achieved across the three treatments.

Demonstration design and methods

Prilled lime was applied at 155kg/ha (1.25 bag/acre) to the entire block as a band on the crop row using a three row spreader.

The soil sample for this block indicated a pH of 5.1. This rate of prilled lime has the potential to lift the pH of a clay soil by 0.15 and will supply 55kg/ha of calcium. This will not meet the requirements of the block for pH or calcium, however shifting the pH from 5.1 to 5.25 increases the availability of nitrogen, phosphorus, potassium, sulphur, calcium, magnesium, and molybdenum, as can be seen in Figure 3. This includes nutrients that are present in the soil as well nutrients that have been applied as fertiliser.

The fertiliser treatments were applied as granular fertiliser to a first ratoon block of SRA 26 according to the trial plan shown in Figure 3 (91kgN/ha, 116kgN/ha and 136kgN/ha). One blend was used for all three rates, meaning that the amount of potassium and sulphur reduced with the nitrogen rate. The recommended rate using SIX EASY STEPS was 140kgN/ha. There was no phosphorus applied to this block.

The block was well managed for weeds with herbicide applied shortly after harvest and at out of hand. There was no canegrub pressure to impact yield. A fallow crop of soybean was grown in this block over the 2020-2021 wet season prior to planting.

The crop was commercially harvested with tonnes of cane and CCS supplied through mill data for each replicate.

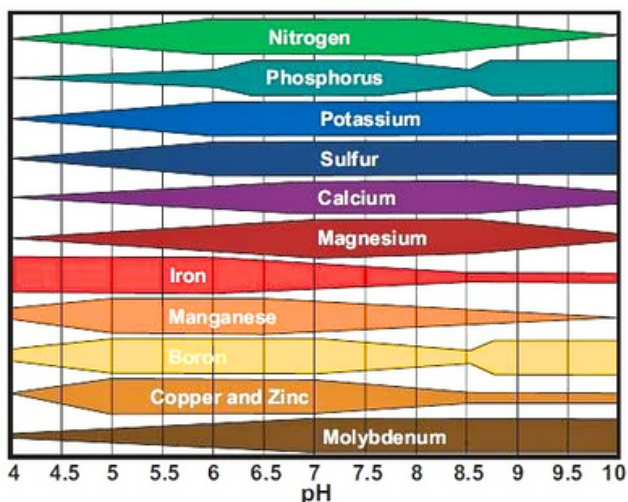


Figure 2: A diagram showing the availability of nutrients at different pH. Cane farmers target between 5.6 and 6.

Recommendations

The lack of significant difference in yield indicates fertiliser applications can be reduced with an annual application of prilled lime. This is highlighted by the lowest rate of fertiliser growing the highest yield tonnes of cane. As CCS was variable within replicates across all treatments, it is unlikely the reduction in fertiliser applied increased CCS.

It is possible that some nitrogen remained from the fallow crop of soybeans and contributed to the strong yields, however this would likely be a small amount and the lime application may have assisted the crop in utilising this source of nitrogen.

This trial will be continued in 2024 to determine if the results are consistent over time. Additional trials with varied fertiliser rates with and without the prilled lime application would also be informative.



Figure 3: Trial site design.



This trial is run as part of the Precision to Decision project in the Mulgrave Russell. Precision to Decision is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation and Farmacist.

Koumala grower appreciative of Project Bluewater savings



By Chloe Venz



Grower: Neville and Treena Huddleston
Location: Koumala, QLD
Area: 65 Hectares
Crop: Sugarcane
Project Officer: Adam Keilbach, Senior Field Officer

Neville Huddleston is without a doubt one of Farmacist's busiest clients, juggling both a full-time job at Aurizon and the lifestyle of a cane farmer in between. Farmacist has been providing agronomic advice and support to Nev for several years now, and during this time he has always been eager to adopt sustainable and economical farming practices.

In terms of soil type, their farm is a combination of sandy loam and medium clay soils, which has caused problems when it comes to chemical choices in the past. Nev heard about GBRF's Project Bluewater 2 through our on-farm visits and was interested in joining to gain confidence and expand his knowledge of pesticide applications and product choices.

Project Bluewater 2 is designed to assist and educate growers on appropriate pesticide management plans for their farm and to reduce their pesticide risk factor.

Growers are provided with on-farm extension tailored to the specific needs of their farm, taking into consideration factors like previous and current pesticide use.

Under the project, Farmacist assesses their spray rigs and also provides growers with a Pesticide Management Plan that details neighbouring sensitive areas, their weed pressures, drainage, soil constraints, paddocks slopes, and the proximity of watercourses/buffers, and provides choices for pesticide use within regulations.

"The project has been a blessing in providing knowledge as well as new and more effective ways to apply pesticides." - Nev

Prior to being part of the project, Nev was applying a variety of products that included Imazapic, Hexazinone, Paraquat, 2,4-D Amine, Glyphosate, Diuron, and Atrazine. Since signing up to the project, Nev's pesticide choices now consist of Paraquat, S-Metolachlor, 2,4-D Amine, Fluroxypyr, Pendimethalin, Flumioxazin, Picloram (75-D), and Isoxaflutole.



Figure 1. T-Bar inter-row system.

"When driving around the farm, I can see the difference in the cane's performance and very little product is needed. I'm saving money and time thanks to Adam and GBRF Project Bluewater 2."
-Nev

Nev used his minor grower grant towards upgrading his spray rig to a T-Bar Inter-row system with floodjets (Figure 1) and a flat-boom with triple nozzle bodies and nozzles (Figure 2). Nev has worked closely with Adam Keilbach from Farmacist throughout the project, explaining that Adam has "helped me bring life to my existing spray rig equipment with his wealth of knowledge".

Nev also noted, "It doesn't matter what size equipment or budget you have, there are always improvements that can be done. The Farmacist team has always been excellent with their advice and recommendations to help from the smallest improvements to the larger ones."



Figure 2. Flatboom with triple nozzle bodies and nozzles.



FARMACIST

Project Bluewater is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation, and Farmacist.

Linear bugs

By Evan Shannon

Over the past few weeks a number of growers have raised concerns over yellowing of their cane crops. These crops are showing symptoms which look similar to Yellow Canopy Syndrome (YCS).

However, on close inspection of the crops, an insect known as a Linear bug (*Phaenacantha australiae*) appears responsible for the leaf effects.

Linear bugs are long slender insects orange to brown in colour and 8-10mm long. They feed by puncturing the leaves and this causes the yellowing and death of the leaf margins.

The symptoms are usually found around the edges of the sugarcane fields. There is no need to control these insects as the effects are usually transient and the crops will recover given suitable growing conditions.

(Image: Samson, P., Limited, B., Sallam, N., & Chandler, K. (2013, January 1). Pests of Australian Sugarcane.)



Burdekin UV spray dye night



Burdekin growers were invited to attend the Project Bluewater Spray Dye Night last month to check out some alternative spray setups and learn how to optimise their Paraquat performance.

Using UV spray dye through the spray rig to various leg and nozzle setups allowed the participants to see the difference in penetration and coverage of different droplet sizes, water rates, and nozzles to enhance their own spray jobs.

An after dark walk with UV torches through the cane provided a visual demonstration of spray patterns.

Thank you to all those who chose to spend the evening with us!



Great Barrier Reef Foundation



Project Bluewater is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation, and Farmacist.

New partnership powering local farming innovation

Farmacist is excited to announce that we are partnering with Observant across all our regions to bring market leading innovative solutions to our customers.

Observant has a long history of innovation in the Australian agricultural sector with a range of connected solutions. These can be as simple as a standalone weather station, or as sophisticated as large fully automated irrigation systems integrated with state-of-the-art scheduling tools and crop vigor, soil moisture and weather monitoring systems, and everywhere in between. Observant's connectivity hardware is robust and reliable and is backed by a 7-year pro rata manufacturer warranty.

Farmacist has successfully installed the first stage of an Observant automated flood irrigation system at our Burdekin demonstration farm and are very pleased with the quality of the equipment and ease of installation. After seeing the benefits, we quickly decided to extend to a full automation system over the whole demonstration site. The system will incorporate integrated remote pump and valve control, flow monitoring and soil moisture monitoring. Installation will be completed in early 2024. We welcome growers to get in touch to arrange a demonstration of the equipment.

One great benefit of Observant's solutions is you can set up a fully capable control and monitoring system on a single standalone site, without large upfront capital costs. The system can then be easily scaled up over time.

Beyond irrigation systems, Observant has a wide range of solutions including:

- Water level monitoring for remote sites
- Remote pump starting
- Remote image capture
- Soil moisture monitoring
- Local weather monitoring
- Satellite imagery for crop vigor analysis and precision irrigation recommendations.

If you've ever considered automation or connectivity solutions on your property, please contact your local Farmacist agronomist or nearest Farmacist office to discuss the options suitable to your needs.



Precision to Decision Project Presents

THE SUMMER SERIES

(COMING SOON)

**BURDEKIN
EARLY 2024**

DATES TO BE CONFIRMED

**INTRO TO PRECISION AG
SMALL SESSIONS ON A RANGE OF PA TOPICS**

**Register your interest in attending and let us know what topics you'd like to see covered!
Email Heidi heidih@farmacist.com.au**



Daily Rainfall Record

Location:

Year:


Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
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23												
24												
25												
26												
27												
28												
29												
30												
31												
Monthly Total												
Year to Date												


Notes:


Total Rainfall for the year:




 info@farmacist.com.au

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