HCPSL

Herbert Cane Productivity Services Ltd.

THE CANE STALK

March 2022

A word from The Manager,

The Importance of Clean Seed to Increase Farm Productivity

Plant hygiene plays a critical role in enhancing farm productivity. By planting cane varieties from a known Approved Clean seed source (HCPSL Seed Plot or tissue culture) the potential for a block of cane to maximize its growth, productivity (tonnes and sugar) and ratoonability is greatly increased. This in turn can result in a higher return to the farm dollarwise. Data analysis over a recent 6-year period has shown that varieties planted from a known clean seed source can potentially have up to a 13 % increase in production (tonnes of sugar/ha).

Depending on the disease, infected crops can experience significant crop losses in production. As an example, varieties infected with Ratoon Stunting Disease (RSD) can lose up to 40 % productivity in dry stress conditions and may have to be ploughed out 2 years earlier.

In addition to plant hygiene, growers also need to extend their hygiene practices to machinery and block preparation. Using infected equipment or planting into a fallow block with sugarcane volunteers can lead to the resulting crop becoming infected and maximum production reduced.

Take the time to get it right:

1. Get Approved Clean seed cane!
2. Control volunteers in the fallow.
3. Practice good farm hygiene.
4. Sterilize planting and harvesting equipment.

Photo left- Cane being treated at the HCPSL Hot Water Treatment Tanks in 2021.
Photo right- Signage at the HCPSL Central Herbert Approved Clean Seed Farm.

<u>Using Approved Clean Seed is a good investment!</u>

Courses on Offer to all Growers:

- Six Easy Steps
- Intergrated Weed Management
- Precision Agriculture
- Auschem (formerly

INSIDE THIS ISSUE:

Getting Approved clean seed cane from HCPSL in 2022

Ordering clean seed system

2022

Growers interested in obtaining planting material from the HCPSL plots in **2022** are requested to fill out the accompanying form (***white***) and **return it to the HCPSL by *March 25th, 2022.*** Depending on the amount of material available in the plots, variety allocations will then be determined (as close as possible to the grower's request).

Once a grower has placed an order the grower will be invoiced accordingly; if the cane is collected or not. Growers who have filled out an order form will be given first preference.

2023

Growers interested in obtaining planting material from the HCPSL plots in **2023** are requested to fill out the accompanying form (***green***) and **return it to the HCPSL by *March 25th, 2022.*** This will allow HCPSL to determine planting material required for planting into the 2022 plots. Allocations in 2022 will not be based on farm size.

Once a grower has placed an order the grower will be invoiced accordingly; if the cane is collected or not. Growers who have filled out an order form will be given first preference.

In the event that a variety is no longer available or approved for planting (ie, disease outbreak, cyclone, Government / Biosecurity imposed restrictions), growers will ***not*** be charged for that variety. A discount of $5 per tonne for those growers who order 12 months in advance will be awarded.

Plot Details

Most of the HCPSL approved seed plots will be open starting the week of the 2nd **May** 2022. In the cases where varieties have become lodged or sprawled, some varieties may have to be cut by hand, or billeted. The assigned HCPSL officer, their phone number and the days each plot will be open are listed below. Plots will normally open at 7:30am on the assigned days, however growers **MUST** ring the assigned HCPSL officer **at least 1 day** prior to attending a plot.

New Variety Allocations

SRA6^{A}, SRA28^{A} and QA07-2978 will be available for release in 2022. Allocations will be determined once volumes of each variety are calculated. Only very small quantities of SRA6^{A} and QA07-2978 (<0.5t/ grower) will be allocated because of limited material available in plots this year.

SRA31^{A} will be available in 2023, due to limited material held by HCPSL in 2022.

SRA15- Not to be released to Herbert growers

The Herbert Variety Approval Committee in 2021 decided **not** to approve the release of SRA15 to Herbert growers because of it smut susceptibility. Demonstration blocks of SRA15 planted in the Herbert have confirmed the varieties susceptibility in the past few months.

It is recommended that growers **do not plant** the variety and subsequently HCPSL will not releasing the variety through its Approved Clean Seed plots.

2022 HCPSL Approved Seed Plots

Macknade Plot **Thursday** **Tony Mc Clintock** **0447 304 963**
Q183, Q200^{A}, Q208^{A}, KQ228, Q240, Q253^{A}, SRA6, SRA10, SRA14, WSRA24^{A}, SRA26^{A}, SRA28^{A}

Ingham Line Plot (Zatta) **Tuesday** **Tony Mc Clintock** **0447 304 963**
Q138, Q183^{A}, Q200^{A}, Q208^{A},Q219^{A}, Q226^{A},Q232^{A}, Q238^{A}, Q240^{A}, Q253^{A}, SRA5^{A}, SRA10^{A}, SRA14^{A}, SRA26^{A}, SRA28^{A}, WSRA24^{A}, QA07-2978

Abergowrie Plot (Erkkila) **Wednesday** **Richard Hobbs** **0400 544 301**
Q200^{A}, Q208^{A}, KQ228^{A}, Q231^{A}, Q232^{A}, Q240^{A}, Q250^{A}, Q253^{A}, SRA14^{A}, SRA26^{A}, SRA28^{A}, WSRA24^{A}

Stone River Plot **Monday** **Jason Caruso** **0417 622 129**
Q138^{A} (1st ratoon only), Q200^{A}, Q208^{A}, Q215^{A}, Q219^{A}, Q226^{A}, KQ228^{A}, Q231^{A}, Q232^{A}, Q238^{A}, MQ239^{A}, Q240^{A}, Q250^{A}, Q253^{A}, SRA5^{A}, SRA10^{A}, SRA14^{A}, SRA26^{A}, SRA28^{A}, WSRA24^{A}, QA07-2978

Central Herbert Plot (Pietrobon) **Friday** **Jason Caruso** **0417 622 129**
Q183(1st ratoon only), Q200^{A}, Q219^{A} (1st ratoon only), Q208^{A}, Q231^{A}, Q232^{A}, Q240^{A}, Q242^{A}, Q250^{A} Q253^{A}, SRA5^{A}, SRA6^{A}, SRA14^{A}, WSRA24^{A}, SRA26^{A}, SRA28^{A}, QA07-2978

Central Herbert Plot (Reinaudo) **Friday** **Jason Caruso** **0417 622 129**
Q183, Q252^{A}, SRA5, SRA14^{A}, SRA26^{A}, SRA28^{A}, QA07-2978

Four Mile (Kemp)- limited material available **Monday** **Lawrence Di Bella** **0448 084 252**
SRA26^{A}, SRA28^{A}, QA07-2978

Disclaimer : Whole stalk cutter will only be available if cane is erect and supplies are present. HCPSL can shift equipment as required to meet industry needs.

Billets & Whole stalk

A billet harvester or whole stalk cutter may not be available in all of the plots, due to availability of machinery or lodging in plant cutter allocated plots. Growers will be able to hand cut seed cane from most plots. There will be a designated trailer drop off point located at the Plant Cutter Plots, with growers returning at a later stage to pick up their loaded trailers. Please ensure that the running boards on planting trailers are in a safe condition for standing on, otherwise trailers will not be loaded. Growers seeking billets may be able to collect a small quantity from all plots pending harvester availability. Stone River and Central Plots may be closed at specific times to maintain enough material to be used to restock HCPSL plots.

Orders for 2023 Tissue Cultured Seedlings

HCPSL are now taking orders for tissue cultured seedlings for the 2023 planting season. Orders must be completed and submitted by **6th June 2022** for the early year pick up (March 2023) and by **28th October 2022** for the later year pick up (August 2023). Order forms will be available from the HCPSL office. Cost of these seedlings will vary between $1.50 - $1.90 per plant, depending on the size of the order. Growers will be required to meet the costs of micro propagation if an experimental variety is withdrawn from approval.

For more information please contact HCPSL on (07) 47761808

Collecting your Approved Clean Seed from HCPSL plots

Instructions

You will need to follow instructions provided by the HCPSL site managing officer at all times in relation to:

- Completing safety documentation and indemnity forms before entry to the plots or the tanks.
- WPHS issues.
- Approved Seed Plot hygiene procedures (like the sterilisation of cutting equipment).
- Allocation of cane.
- Access times to the plot.
- The management of the HCPSL Approved Seed Plot.

Personal protective equipment (PPE)

You will need wear the following personal protective equipment (PPE), while undertaking activities in the HCPSL Approved Seed Plot:

- A long-sleeved shirt (preferably high visibility)
- Long pants
- Safety glasses
- A broad brimmed hat
- Gloves
- Work boots
- Face mask (if directed by QLD Health)

Photo below: Cane trailers awaiting loading at the HCPSL Stone River plot in 2021.

(HCPSL has no obligation to provide non HCPSL employees PPE).

A person will be refused entry into the HCPSL Approved Seed Plot if they fail to have the appropriate PPE.

***Equipment to be used* at the HCPSL Approved Seed Plots.**

Must be:

- Free of cane material, weeds and soil when entering the plot.
- All equipment sterilised before entry of the plot.
- Equipment in sound working order-

Planting trailers must be in sound condition and not pose a safety risk to those cutting the plants. Trailers must have 2 full length running boards present.

Hot water treatment crates must be structurally sound, loads secured within the crate and have 4 structurally sound lifting points.

HCPSL reserves the right to refuse to fill a trailer or handle a crate that are deemed unsafe.

HCPSL
Herbert Cane Productivity Services Ltd.

From time to time there has been interest in getting planting material to the Herbert district from other regions.

If you wish to assess a variety from another region, please contact HCPSL because it is most likely that the variety is already in either HCPSL Approved Seed plots and in SRA plant breeding trials. HCPSL are happy to work with you if you wish to establish a trial to assess a new varieties performance on your farm. Don't just go to another district and bring a new variety home because you may be crossing a quarantine line or you maybe bring a disease (ie. RSD) home to your farm.

Both the far North and the Herbert are within the same Biosecurity Zone, however we strongly discourage sourcing planting material from outside our region due to the biosecurity risk that this poses. It is also important that our local industry continue to adhere to the list of recommended varieties for our region. This list is approved by our Regional Variety Committee following review of local trial data and minimum disease resistance thresholds as required by the Sugarcane Industry Biosecurity Committee. The recommended list is also the reference for varieties accepted under current cane supply agreements and is attached and be found on the HCPSL website.

Quarantine between sugarcane districts in Australia has helped to restrict the spread of serious diseases. We all have a responsibility (known as our "General Biosecurity Obligation") to stop the spread of unwanted pests and diseases. Importantly, the use of a recommended variety is seen as meeting grower's obligation to meet minimum disease resistance thresholds.

The Biosecurity Act (2016) means that everyone must take reasonable steps to ensure that they do not spread a pest, weed seed, disease or contaminant, and that everyone has a responsibility to report unusual events that might be related to biosecurity. You are not expected to know everything about all biosecurity risks, but you are expected to know about risks associated with your work or day-to-day activities in the sugar industry.

Regular use of clean planting material reduces the risk of diseases building up and reducing your productivity. HCPSL provide clean seed through conventional propagation with rigorous disease control measures and through co-ordinating access to the SRA plant tissue culture program.

For more information concerning access to varieties or bio-security matters contact HCPSL on 47761808.

In the fields- Smut, Red Stripe Top Rot diseases and YCS

Red Stripe Top Rot

Red stripe top rot is a bacterial disease affecting the shoots of rapidly growing cane. During periods of rapid crop growth periods the disease is most noticed. In the Herbert it tends to be found on ex. Blady grass country where it is endemic, but it can also be blown into a field by wind.

Impacted cane will show red-maroon colouring of leaf tissue and possible death of the growing point. The dead growing point when pulled out from the plant, the lower part will be rotten and have a characteristic obnoxious smell.

HCPSL staff have identified 9 blocks infected with Red Stripe Top Rot during February & March across the district. Q231 & Q232 appears to be the most impacted varieties at present.

Susceptibility varies between varieties. Current highly susceptible varieties grown in the Herbert noted in the past 10 years are:

SRA36— can be very susceptible

Q231- can be very susceptible

Q232- can be very susceptible

Q237- can be very susceptible

Q242—can be moderately susceptible

Q247- slightly susceptible

Photo above left: Red stripe top rot in the Lillyponds area. (Feb 2022)

Photo above centre: Yellow Canopy Syndrome in the Leichardt Creek area. (Feb 2022)

Photo above right: Red stripe top rot in the Abergowrie area. (Feb 2022)

YCS

HCPSL staff have worked with SRA Entomology and Herbert staff on YCS. Numerous sites were inspected throughout the district in February. The YCS effort is now focussing on insects as being the possible causal agent or a vector. Insect traps have been installed 4 sites across the district at the following locations:

Palm Creek

Macknade

Leichardt Creek

Cattle Creek

These insects' traps will be assessed over the next few months.

Smut

HCPSL staff have also been inspecting numerous blocks impacted by smut. Increased levels of smut have been observed in Q208, Q200 and SRA14.
The impact of smut in the Abergowrie area is very concerning with a significant impact on ratooning of SRA14,on the sandy ridges of blocks.

Photo below: Smut impacted SRA14 at Abergowrie flats, in December 2021.

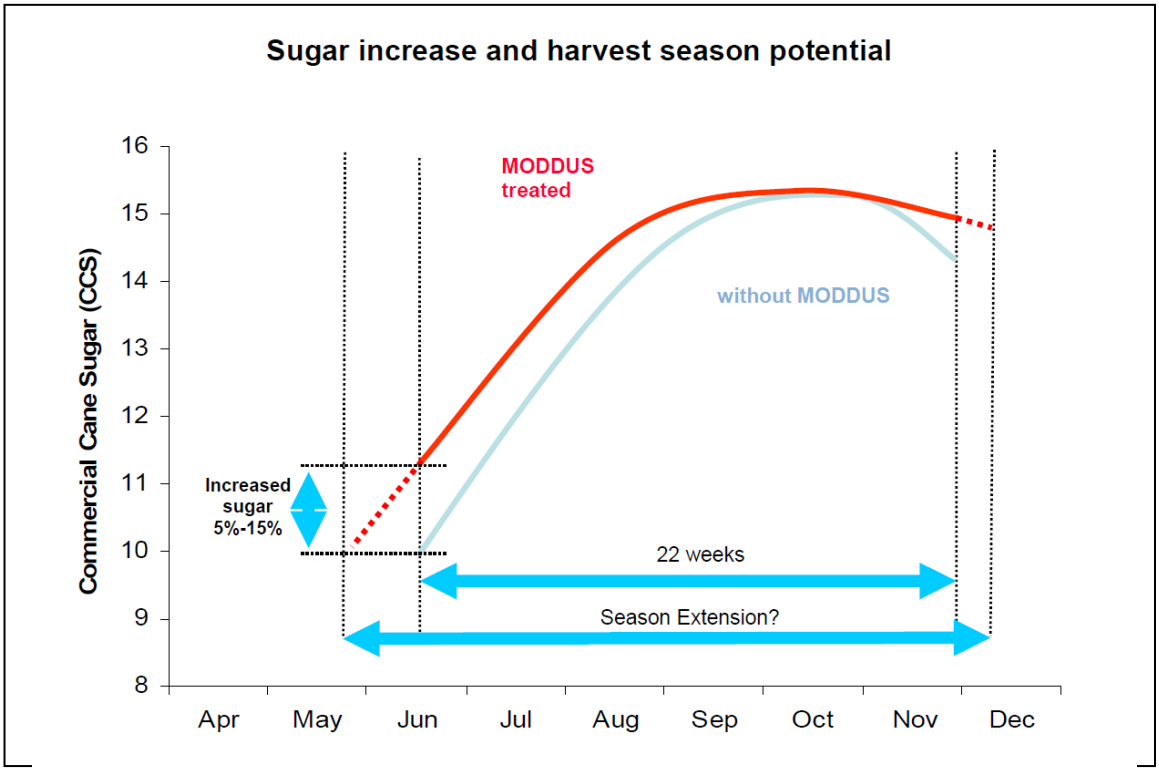
If you spot anything unusual in the cane field,
please contact HCPSL Extension Agronomists-47761808.

MODDUS®- increase CCS levels

MODDUS® is a sugar enhancer that increases CCS levels early and late in the season by redirecting the plant's energy from vegetative growth into the production and storage of sugar.

Does it work?

MODDUS® has been extensively assessed in the Herbert region in years gone by and continues to be used by growers throughout the Australian and overseas sugarcane industries to increase CCS levels. Numerous growers in the Abergowrie and Central Herbert cane growing areas have been using the produce now for several years to increase early CCS with good success. There are numerous examples now were growers have been able to significantly increase their yearly average CCS through the use of the product.
The graph below highlights the differences in CCS that can occur through the use of MODDUS®.
Source: www.syngenta.com.au



Moddus increases the CCS in cane and can extend the harvest season.

Source: www.syngenta.com.au

What rate do I apply?

Apply MODDUS® at 800mL/ha, to healthy, actively growing sugarcane crops between 5 and 8 weeks prior to harvest.

For ground rigs, apply 150-500L of water per hectare. For aircraft, apply 25-60L of water per hectare. Use higher water rates in dense crops. MODDUS® is rainfast within 2 hours of application.

MODDUS® Best Practice

Syngenta and HCPSL recommends the following checklist to maximise the response from MODDUS® application:

- Ensure the crop is actively growing and not flowered.
- Ensure the crop is not stressed from disease, YCS, insect damage, poor nutrition, waterlogging or frost.
- To aid uptake via the foliage, ensure at least 8 green leaves are present. Avoid application to recently lodged cane until upright growth has recommenced.
- Avoid applications when conditions have been hot and dry in the week prior to application (greater than 30 degrees Celsius and less than 50% relative humidity).
- Time applications prior to, or right at the commencement of flower initiation. If spears are already visible then the optimal timing has already passed.
- Understand the ripening properties of each variety. MODDUS® gives the greatest percentage CCS increase when applied to varieties that are traditionally low in early sugar content.
- Do not harvest for 5 weeks after application.
- Do not graze or cut for stock food for 5 weeks after application.

What varieties should I target early in the season?

Responsive varieties: MQ239, Q183, Q215, Q219, Q231, MQ238, Q240, Q247, Q253, SRA5, SRA6, SRA14, WSRA24, SRA28

Less responsive varieties: Q200, Q208, Q250, Q252, SRA26, SRA31

Non responsive varieties: KQ228, Q226, Q232 & Q242 (when it is heavily flowered)

Note: Responsiveness of a variety may differ between blocks and locations. Do not treated varieties that have flowered because response is usually low. The above rating is only an indicator based upon very limited data in some cases. HCPSL will take no responsibility concerning the chemicals performance on different varieties.

Is it economically viable for me to apply the product to my crop?

On the next page different scenarios are presented to show the gross margins for the use of the product. Gross margins will differ pending your payment scheme, field conditions, crop yield and other factors. Seek advice from a HCPSL Extension Agronomist who have a spreadsheet model that can be used to assist growers who are considering their options.

For further information please contact: a HCPSL Extension Agronomist or a Syngenta representative.

Scenario 1. Differing cane yield response (1 unit CCS response)

	Block		
Inputs	*1*	*2*	*3*
Price ($/tonne sugar cane)	500	500	500
MODDUS application cost ($/ha)	120	120	120
Assumed Application Split	100.00%	100.00%	100.00%
Assumed ΔCCS	1	1	1
Area Used (ha)	1	1	1
Yield (t/ha)	75	85	95
Assumed Untreated CCS	12	12	12
Assumed Mill CCS	13.5	13.5	13.5
Outputs			

Grower Return	Block		
	1	*2*	*3*
Net result with MODDUS ($)	3525	3995	4465
Net result without ($)	3254	3688	4122
Difference ($)	271	307	343
Application cost	120	120	120
Syngenta charge ($)	0	0	0
Grower gain ($)	151	187	223

Scenario 2. Differing CCS response (75tcph crop)

	Block		
Inputs	*1*	*2*	*3*
Price ($/tonne sugar cane)	500	500	500
MODDUS application cost ($/ha)	120	120	120
Assumed Application Split	100.00%	100.00%	100.00%
Assumed ΔCCS	0.5	1	1.5
Area Used (ha)	1	1	1
Yield (t/ha)	75	75	75
Assumed Untreated CCS	12	12	12
Assumed Mill CCS	13.5	13.5	13.5
Outputs			

Grower Return	Block		
	1	*2*	*3*
Net result with MODDUS ($)	3389	3525	3661
Net result without ($)	3254	3254	3254
Difference ($)	136	271	407
Application cost	120	120	120
Syngenta charge ($)	0	0	0
Grower gain ($)	16	151	287

Encouraging soil organisms

By Justine Cox and Greg Reid © 2005 State of NSW DPI and Lawrence Di Bella (HCPSL) for sugarcane specific input-modified article from the Soil Basics- NSW DPI publication.

Regularly sugarcane farmers ask the question-

"How do I build a healthy soil and encourage beneficial soil organisms?"

Soil organisms range from microscopic bacteria to large earthworms. All these organisms play essential roles in decomposing organic matter, nutrient cycling and the fertilisation of the soil.

What are soil organisms?

There are four levels of organisms: microflora, microfauna, mesofauna and macrofauna. The microflora, bacteria and fungi , make up to 75-90% of the soil biomass and are the primary decomposers of organic matter. They transform organic molecules into mineral nutrients (eg nitrate, ammonium and phosphate) that are then available for plant uptake and use. The microfauna, single cell animals such as protozoa and nematodes, prey on the microbes. The mesofauna group of Collembola (springtails) and mites also prey on bacteria and fungi. The larger organisms or macrofauna include earthworms, beetles, ants and termites.

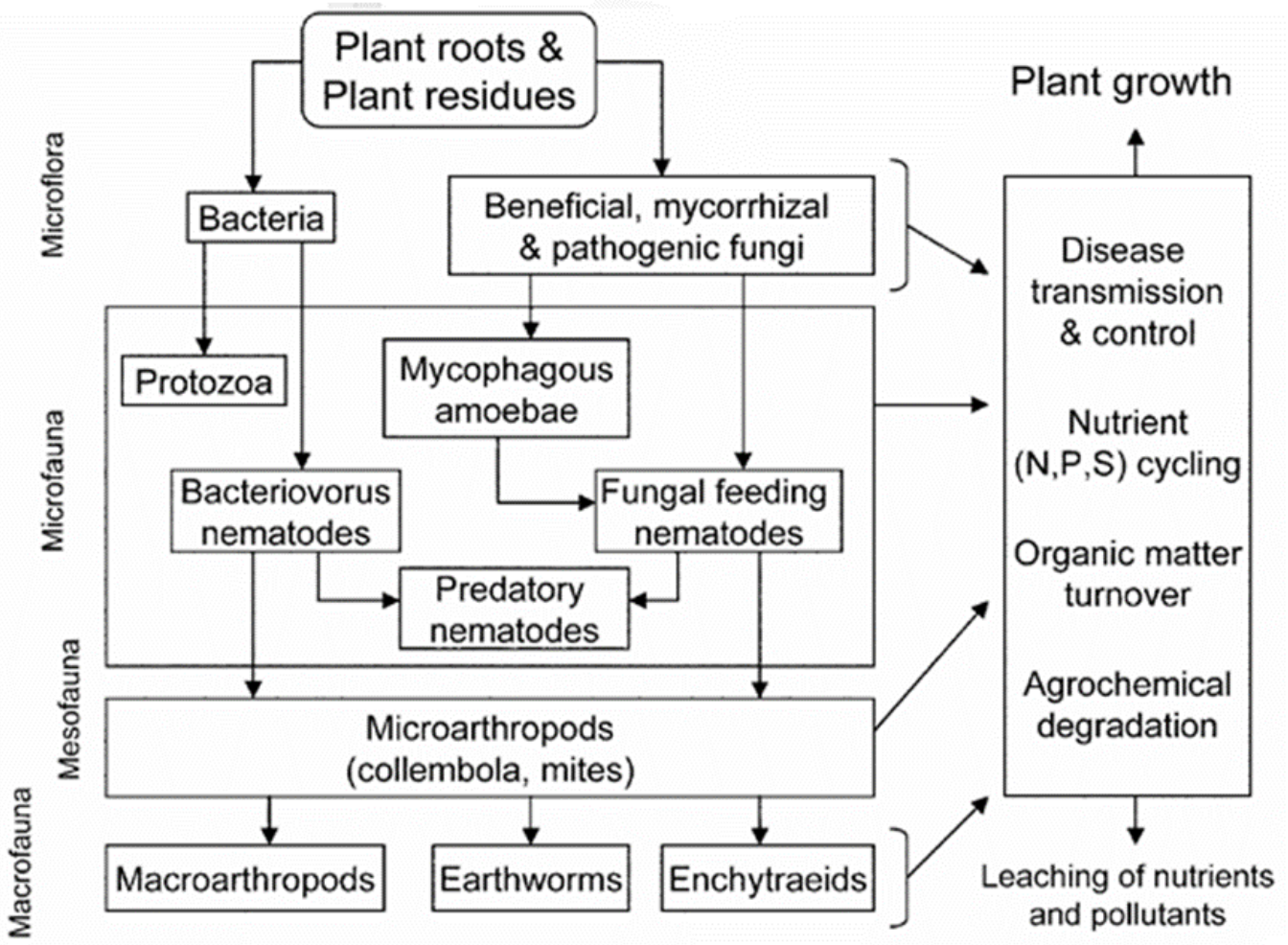
Above: Fungi on the soil surface of a plant cane field in the Herbert, following a green manure cover crop

What do soil organisms need?

Most soil organisms need (except some bacteria) all need the same things we need to live:- food, water and oxygen. Most organisms need a moist habitat, with access to oxygen in the air spaces in the soil; this is why 75% of the soil organisms are found in the top 5cm of soil.

Other factors that determine whether species can survive and grow, include pH, temperature, salt content (including sodicity), type of carbon, and heavy metals.

Below: This diagram shows the organisms in the soil, what they feed on, and their impact on plant growth. Source: Gupta VVSR and Sivasithampram K, (2004) in Soil biological fertility (eds LK Abbott and DV Murhy) pp 163-185 Kluwer Acadmic Publishers.



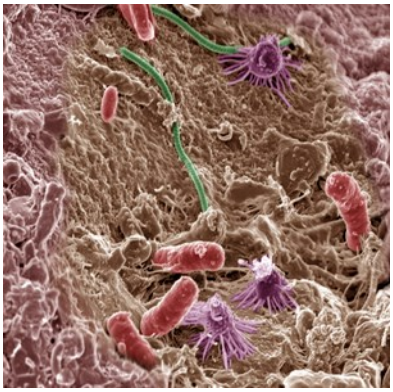


Photo above - Soil bacteria under a microscope

Photo above centre: Earth worms.

Photo above right: A nematode.

What can I do to encourage soil organisms?

1. **Maintain ground cover.**

   Bare ground is prone to moisture loss, structural degradation because of raindrops splashing, high temperatures and lacks organic material to feed organisms. Keeping the soil covered with cover crops, trash, mulch and leaf litter is the first step in promoting soil organisms.

2. **Reduce the physical disturbance and compaction**

   Every time soils are cultivated (especially aggressively) and laser levelled soil organisms' habitats are destroyed and the rate of organic matter break down is significantly increased. Reduce compaction of machinery, so that there is space for water and air to move around freely in the soil.

3. **Maintain soil moisture**

   This is hard to achieve in rainfed sugarcane cropping, however, maintain ground cover (through a trash blanket or mulches from cover crops).

4. **Rotate crops or have mixed species plantings**

   Soil organisms need different root systems to maintain a diverse community- look at the native forests they don't consist of one type of plant species.

   Soil with microbial diversity are usually better at resisting disease, cycle nutrients for crop growth and maintain their activity throughout the seasons. Consider legumes to introduce rhizobia bacteria in the root nodules to convert atmospheric nitrogen to soil bound nitrogen.

5. **Reduce the use of chemicals**

   Insecticides and fungicides applied to a crop can also affect insects and microbes in the soil. Some organisms can be eliminated from the soil when some chemicals are regularly applied.

6. **Consider the use of organic products (eg. manures and mill mud)**

   Organic products provide microorganisms with a stable food source which then provides long term slow-release nutrients for the plant to utilise.

Photo below: Lawrence Di Bella standing in a mixed fallow cover crop of Sunn hemp, cowpea, lablab, soybean and sunflower on his farm, near Ingham.

7. **Consider the use of soil amendments and managing soil pH levels.**

   Soil amendments like lime, gypsum, mill mud and mill ash can lead to beneficial soil structural changes. These products will also assist in managing soil pH. The ideal range for most organisms is pH (water) between 5-8; with most Herbert soils sitting below 5 pH. Addressing soil acidicity is essential for nitrogen fixing bacteria and earthworms- living is an acid bath is not ideal for soil organisms.

8. **Improve field drainage to build good soil structure**

   Waterlogging encourages anaerobic bacteria that can damage plant roots. Lasering leveling will assist with improved drainage, but the initial shifting of soil can be detrimental. Once laser levelling has occurred other practices mentioned in this article should be implemented as quickly as possible to remediate the soil. Mounding in the cane cropping phase and during the cover cropping phase will improve field drainage and aeration.

Consider your soil as a living system?

The soil is one of the most valuable resources on your farm. A healthy, diverse soil food web actively decomposes organic matter and cycles nutrients, while ensuring soil and plant health which leads to productive crops.

For more information concerning soil management

Please contact your HCPSL Extension Agronomist—47761808.

Photo above- Lime application

Photo above- Sugarcane field drainage

HCPSL Herbert Cane Productivity Services Ltd.

PROJECT CATALYST

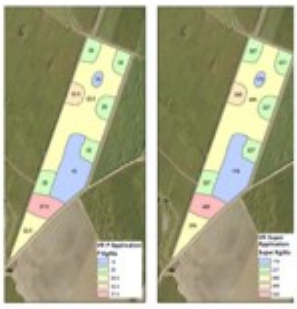
PROJECT CATALYST GROWER SUPPORT PROGRAM

OPPORTUNITIES

Get support for making change on your farm.

PLANNING

Full scale Nutrient Management Plan.



MAPPING

EM & drone mapping for identifying soil constraints.

SHARING

Grower information sessions & annual forum.

WHO IS ELIGIBLE?

Growers willing to adopt two farming practice changes. Some **examples** of practice changes are: mixed legumes, enhanced efficiency fertilisers, banded mud, or variable amendments. What are you interested in? Let us know!

INTERESTED? | CONTACT Megan Zahmel **phone:** 0447 317 102 **email:** mzahmel@hcpsl.com.au
Bethany Donker **phone:** 0490 077 176 **email:** bdonker@hcpsl.com.au

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

Newsletter 2021 – Project Catalyst: Practice Change Program

Project Catalyst's Grower Support Program launched in 2021 with the aim of enabling sugarcane farmers to identify and evaluate innovative practices for incorporating into their existing farming systems. Participants in the program receive a full-scale Nutrient Management Plan, one-on-one agronomic advice, support with demonstration trials, and mapping services to select and implement innovative practices that are the right fit for their farm.

PRACTICES BEING ADOPTED:

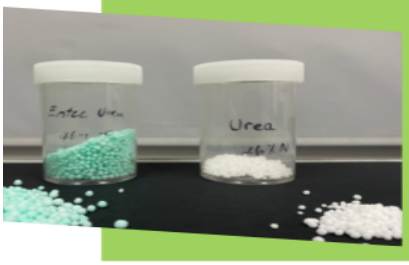
MILL BY-PRODUCTS

Mill mud and ash are a valuable source of essential nutrients for sugarcane. They are also effective in improving soil structure, texture and water holding capacity when applied at an appropriate rate.

Catalyst growers are currently exploring low rate (75t/ha) banded applications to areas with historically poor cane growth for bringing down costs while still improving yield and CCS. Cane in these zones has already improved in growth and appearance as compared to previous years.

ENHANCED EFFICIENCY FERTILISERS

One grower is trialing a management strategy of price matching EEFs with fertiliser. They hope to extract value from EEFs which inhibit nitrogen loss through leaching under wet conditions, while also slightly reducing fertiliser output and cost.The grower is curious to see how this approach may benefit their nitrogen use efficiency, and their profitability, in the long-run.



MIXED LEGUMES

Past innovation trials under Project Catalyst have demonstrated multiple benefits from legume mixes in fallow that include improved soil health, structure, reduced weed pressure and fixed nitrogen. Some growers planted site-specific mixes for the first time in 2021. Other growers with previous cover crop experience will be extending on their knowledge in 2022 by adjusting their plant cane N rates based on residual nitrogen as a cost saving efficiency measure.

VARIABLE AMENDMENTS

Previous Catalyst trial work has shown significant value in variable applications to address soil constraints and match crop needs. Since the start of the 2021 harvest, several growers have taken up the opportunity offered through the Grower Support Program to EM map their blocks free of charge.

The EM maps generated by HCPSL, in combination with targeted soil sampling, have enabled growers to identify and address sodic and poor performing zones with amendments. This targeted approach reduces costs and time spent out in the field while also improving yield evenness across blocks. This practice has enabled a number of growers to improve their soil structure and yields while also gaining a better understanding of their soil health and capacity.

RIPENERS

The plant growth regulator Moddus acts as a ripener in sugarcane. The product raises early and late season CCS levels and helps prevent lodging, improving grower management over crop maturity for timing with harvest. One grower has applied Moddus to early-cut plant cane to improve their harvest results. This proved profitable, with the sprayed blocks showing higher CCS. The grower is looking to extend this practice to younger ratoon cane within their farming system for greater control in CCS at harvest.

Project CaNE
CROP & NUTRIENT EFFICIENCIES™

Now Offering Free Farm Nutrient Planning

On 1st December 2021, under the Queensland Governments Reef protection regulations, all sugarcane farmers in the Herbert region will need to have a farm nitrogen and phosphorus budget.

HCPSL, through Project CaNE™, is offering eligible growers the opportunity to develop a CaNE Plan™, which includes a nitrogen and phosphorus budget.

What is a CaNE Plan™?

CaNE Plan™ is a whole farm nutrient management tool that provides growers with a one-stop solution to managing and recording on-farm nutrient applications.

Based on SIX Easy Steps, a CaNE Plan™ is easy to use, paper-based, reef regulation compliant, and can be used toward BMP accreditation.

What do I get from doing a CaNE Plan™?

- ✓ A whole farm nutrient management plan and record keeping book.
- ✓ On-farm support with soil testing and tailored agronomic advice
- ✓ Access to Farming 4 CASH® and Back 2 Basics™ Workshops (hands on, interactive workshops tailored to grower needs)

Who Can Do a CaNE Plan™?

Free to eligible growers, Project CaNE™ is looking for growers who have not yet developed a nutrient management plan. Growers interested in a CaNE Plan™ should contact HCPSL on 47761808. Hurry... numbers are limited!

For more information on nitrogen and phosphorus budgets click on the link below.

Reef protection regulations farm nitrogen and phosphorus budget guide for sugarcane cultivation (www.qld.gov.au)

HCPSL
Herbert Cane Productivity Services Ltd

FOR FURTHER INFORMATION & ADVICE CONTACT HCPSL

181 Fairford Road, Ingham QLD | (07) 4776 1808 | www.hcpsl.com.au

Australian Government | Reef Trust | Great Barrier Reef Foundation

Project CaNE™ is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

Expression of Interest to provide services to

Herbert Cane Productivity Services Ltd

HCPSL is seeking Expressions of Interest from interested parties to provide all or some of the following services to the company:

- Whole stalk plant cutting at the HCPSL Clean Seed plots located at Stone River, Abergowrie, Macknade, Central (Ingham) and Ingham Line.
- Billet harvesting at the HCPSL Clean Seed plots located at Stone River, Abergowrie, Macknade, Central (Ingham) and Ingham Line.
- Laser levelling of HCPSL farms.
- Land preparation at HCPSL farms located at HCPSL Macknade, Stone River and Central (Ingham) farms.
- Whole stalk planting of the HCPSL Clean Seed plots located at Macknade, Central (Ingham), Abergowrie, Stone River and Ingham Line.
- Billet planting of a HCPSL Clean Seed plot located at the Abergowrie, Ingham Line, Macknade and Central (Ingham).
- Cartage of Clean Seed billet cane across the district.
- Out of hand spraying of Clean Seed plots located at HCPSL Macknade, Stone River and Central (Ingham) farms.
- Operate and manage a Clean Seed plot under the direction of HCPSL management and staff. Activities will be in accordance with industry best practice procedures on Clean Seed production and HCPSL Workplace Health and Safety procedures.

To be eligible you must have the following:

- Have an ABN.
- The appropriate equipment to undertake the activity including GPS guidance.
- All the company employees who work on the HCPSL sites will need to be inducted into HCPSL work sites.
- Appropriate insurances to cover the activity.
- Meet HCPSL Workplace and Safety requirements.
- Have Safe working systems or follow the HCPSL safe work system
- GPS guidance fitted to all tractors.
- Provide an estimated price per hour or price per hectare.
- Complete the HCPSL EOI- Services to HCPSL form which can be collected from HCPSL reception.

EOI application forms can be collected at the HCPSL reception between 9am -3pm Monday to Friday or by emailing scocco@hcpsl.com.au

Completed EOIs must be submitted in the EOI box located at the HCPSL front counter by 12pm on the 22nd of April 2022. The cheapest EOI may not necessarily be selected to provide services to the company.

The selection and use of a service provision business will be at the discretion of the HCPSL management team after the equipment has been inspected to ensure it is compliant with the required safety standards.

For further information concerning the EOI process please contact the HCPSL Manager on 47761808 or 0448084252.

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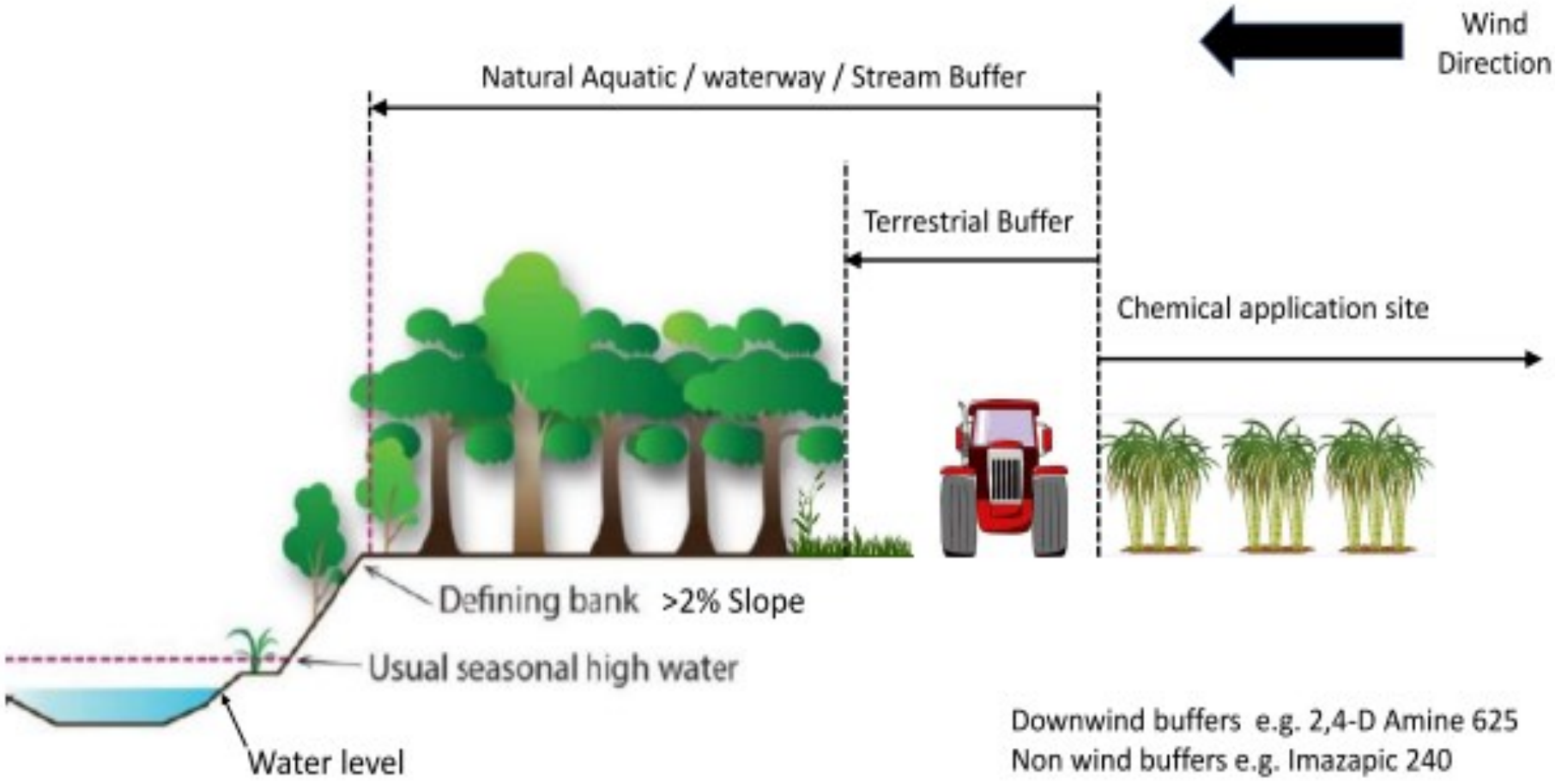
Agricultural Chemical Label Buffers

A 'buffer zone' is an area where pesticide application does not occur between the application site and an identified sensitive area which maybe downwind from the application site.



Downwind buffers e.g. 2,4-D Amine 625
Non wind buffers e.g. Imazapic 240

Windbuffers: Downwind

100m to Natural Aquatic systems
150m Terrestrial
45m Sensitive Vegetation
20m Terrestrial Protected areas
20m Natural Aquatic Areas

Refer to chemical label for exact details

Other Buffers

20m Atrazine to creeks
50m Imazapic to waterways
20m Palmero to creeks (Mix, load)
50m Spinnaker to waterways

HERBERT WALK & TALK 2022

On Wednesday, HCPSL held the annual Walk & Talk Day for 2022. Over 120 growers from across the Herbert district attended the event. Growers had the opportunity to gain knowledge and understanding on a range of topics including - fallow crops, new varieties, tissue culture, chemicals, and harvester management.

The HCPSL Team would like to say thank you to all growers who attended, asked questions, shared experiences, and participated in open discussions throughout the day.

HCPSL would also like to extend our thanks to the sponsors and supporting organisations of the 2022 Walk & Talk Day – Sugar Research Australia, Stoller Australia, Nufarm Australia, Project CaNE, Project Catalyst, The Australian Government Reef Trust, John Deere and Norris Schlot Live.

Following the Walk & Talk, HCPSL held the annual Industry Awards. The awards recognise grower's commitment to productivity, innovation, research, and the broader industry. HCPSL is proud to announce the award recipients below.

Award	Recipient
Grower of the Year (Sponsored by Wilmar)	Ian Kemp
Young Grower of the Year (Sponsored by Wilmar)	Briannan Pace, Rebekah Pace, Jeffrey Pace
Mangrove Jack Award (Sponsored by Herbert River Catchment Group)	John Pavetto
Harvesting Efficiency Award (Sponsored by Sugar Research Australia)	Celotto Harvesting
Innovation Award (Sponsored by Rabobank)	Mizzi Farming
Farm Presentation for Harvesting Award (Sponsored by Honeycombs)	Walter Giordani
Improved Farm Layout Award (Sponsored by Canegrowers Herbert River)	Remo & Gino Zatta
Consistent High Productivity (Sponsored by QSL)	Glen Irlam Beeva Nominees Pty Ltd Pace Farming Russo Farming Glen Cristaudo
R&D On-farm Co-operation (Sponsored by HCPSL)	Abergowrie Sugar Beeva Nominees Pty Ltd P Dametto G & T Erkkila Wilmar Sugar
Lifetime Achievement Award (Sponsored by HCPSL)	Jo Stringer Joe & Gerry Girgenti Lex Mackee Ian Kemp

Ian Kemp
Grower of the Year—Sponsored by Wilmar

Young Grower of the Year—Sponsored by Wilmar
Jeffrey Pace, Briannan Pace & Rebekah Pace
Santo Lamari made the presentation on behalf of Wilmar

John Pavetto
Mangrove Jack Award—Sponsored by Herbert River Catchment Group

Celotto Harvesting
Harvesting Efficiency Award - Sponsored by SRA

Mizzi Farming
Innovation Award—Sponsored by Rabobank

Gino & Remo Zatta
Improved Farm Layout Award—Sponsored by Canegrowers Herbert River

Pace Farming, Glen Cristaudo, Beeva Nominees Pty Ltd, Glen Irlam
Consistent High Productivity—Sponsored by QSL

T Erkkila, Abergowrie Sugar, Beeva Nominee
R & D On-farm Co-Operation—Spon

Joe (absent) & Gerry Girgenti
Lifetime Achievement Award—Sponsored by HCPSL

Lex Mackee (absent)
Lifetime Achievement Award—Sponsored by HC

Megan Zahmel HCPSL—Catylst Stand

SRA Variety Information

es Pty Ltd, Wilmar Sugar
sored by HCPSL

HCPSL Staff (L to R)

Bethany Donker
Rhiannan Harragon
Ellie McVeigh
Bailey Kilpatrick

CPSL

Stoller
Stand

HCPSL Core Staff Profiles

Gidday, I am Sandra Coco, Resource Officer at HCPSL. I have been with HCPSL since May 2005 when I was seconded into the role of Harvest Management Officer in conjunction with Wilmar and HCPSL.

I was born here in Ingham and was raised on a canefarm at Hawkins Creek. For the first 17 years of my life until my family moved to Sydney, which I spent the following 3 years studying and working at The University of Sydney in the School of Chemistry. At the age of 21, I moved back to Ingham from Sydney to be with my now husband Joseph Coco and children Trista 25, Meegan 23 and Ethan 17. From 1993, I commenced work at CSR Victoria Mill (now Wilmar) in the roles with the Expansion Program, Juice Lab, Engineering and Technical Field Department (Macknade Mill) programs.

Since joining the team at HCPSL in 2005, I have carried out the roles of Harvest Management and working out in the field. Since 2009, I have held the position of Resource Officer where I wear many hats in my role. Some of roles are: handling enquiries on a day to day basis, liasioning with growers, co-ordination of field days and conferences and managing the HCPSL Office space. I can honestly say that I do enjoy my job, my job is different daily and having a joke and laugh with the growers makes my day!

Welcoming Jason Caruso to the Team!

Hello, my name is Jason Caruso and I am a Field Technician with HCPSL. I joined the HCPSL Team in October of 2021.
I am a 3rd generation farmer and I reside in the Lower Herbert area with my wife and three children. Prior to joining HCPSL, my background was fabrication where I was self-employed.
My current role with HCPSL involves the ongoing maintenance and upkeep of our three main seed plots located at Macknade Station, Ingham and Stone River. Some of my duties include spraying, fertilizing, plant and machinery maintenance and the planting of legumes as well as interacting with growers on many different levels in regard to variety selection, disease resistance and general advice. Other responsibilities include the planting of plots, tissue culture cane, hot water treatment. Collecting data from the HCPSL Ratoon varieity trials is another component of my job.. I have always enjoyed farming and although my time at HCPSL has only been a few short months, I have found it rewarding so far and I am looking forward to the challenges that lay ahead.

HCPSL Core Staff Profiles Cont.

Welcoming Rhiannan Harragon to the Team!

Hi all as most of you probably know I am a local girl born and bred here, with my family's farm based at Stone River (as we call it "God's Country"). I graduated from Ingham State High in 2021 and I have started here at HCPSL as junior Field Technician, while I am studying a dual Diploma of Agriculture and Agribusiness. I completed my first work experience at HCPSL while still at school and as a student and decided that working on the land and in agriculture is where my passion lies. I am very excited to see what the future here at HCPSL holds for me. I am very eager to meet many new farmers and work together with them.

Herbert Cane Productivity Services Ltd			
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Administration Support Officer - Projects	Melissa Royle	0439 697 080	mroyle@hcpsl.com.au
Hot Water Treatment Tanks		0437 017 805	
Macknade Office		4777 7643 4777 7349	
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