HERBERT SUGAR INDUSTRY REPORT 2024

HCPSL
Herbert Cane Productivity Services Ltd.

wilmar
Sugar and Renewables

CROP PERFORMANCE 2024

The 2024 growing season started with relatively normal rainfall in the January and February period, moving to an above average March (average:394mm, actual:586mm*). The remainder of the year, until November, saw relatively average monthly rainfall totals with an above average number of rainfall days. The increased number to total rainfall days throughout this period caused significant delays to planting. Slightly above average rainfall for November, and a 50% increase in rainfall for December, saw further stoppages to the harvest, delaying an end to the season by several weeks. While overall the annual rainfall was slightly above average for the year, the significant increase in total number of rainfall days was the driving factor behind delays to both planting and harvesting.

The 2024 harvest commenced on the 26th of June 2024 and concluded on the 19th of December 2024 with 52,575 ha of crop being crushed and 1830 ha being left in the field as standover. Despite the estimate of 4.1M tonnes of sugarcane at the start of the crushing season, a crop of only 3.84M tonnes of sugarcane was actually harvested. The primary drivers for the reduced tonnage being wet weather and a late finish, as well as heavy flowering causing a deterioration in the crop yield late in the season. The average district yield for 2024 was 73.06 TCPH, which was similar to 2023. The season average CCS of 12.38 was down on the 2023 average of 13.03.

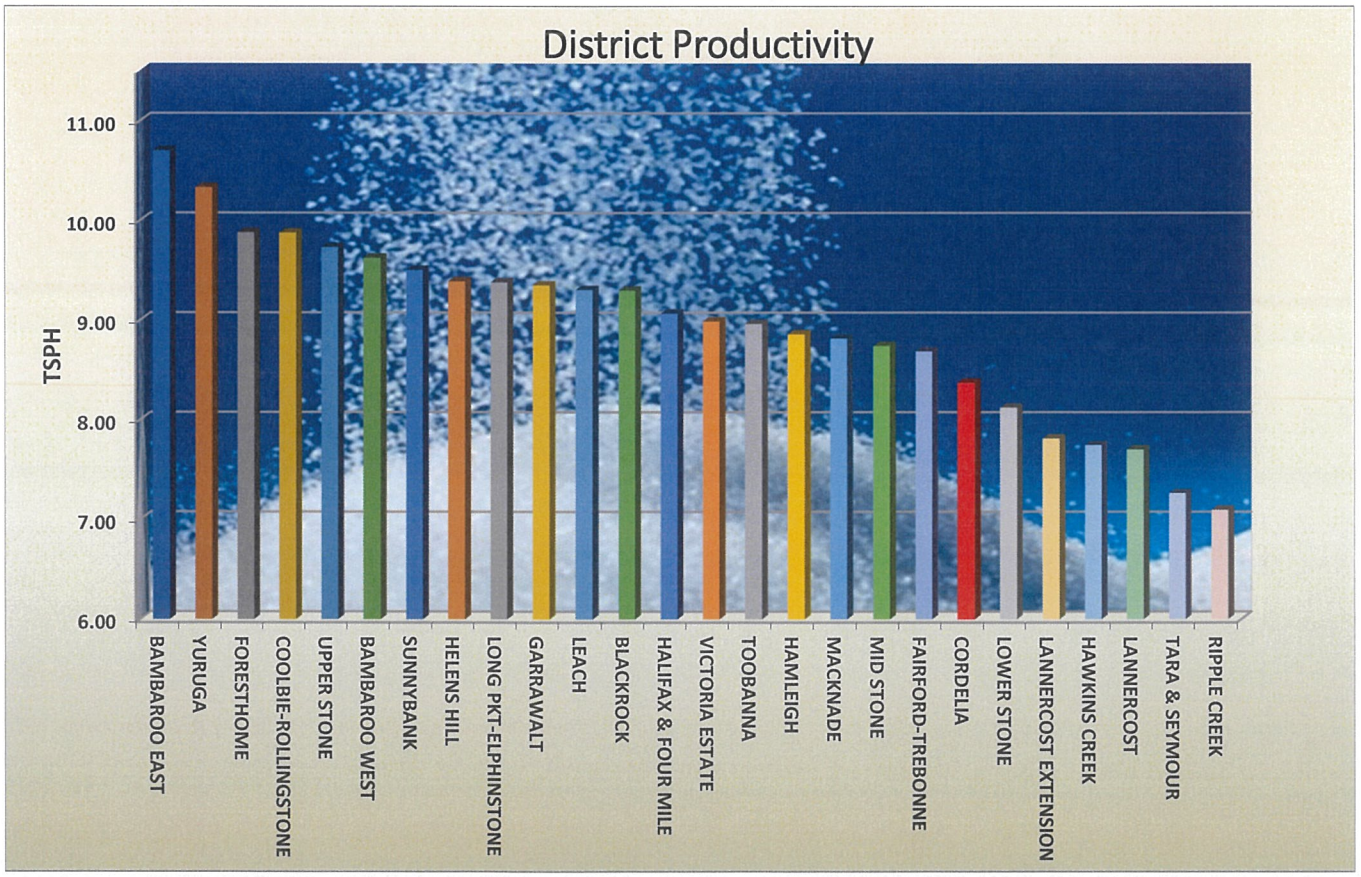
**Ingham Aerodrome Rainfall Station*

HISTORICAL DATA

Year	Tonnes	Ha Harvested	CCS	Cane Yield	Sugar Yield
2007	4287010.73	57158.66	13.87	75.00	10.38
2008	4688595.64	55061.21	13.55	85.15	11.53
2009	3920941.21	51171.33	14.82	76.62	11.33
*2010	3274402.07	39567.98	12.88	82.75	10.64
2011	2920227.24	52361.15	12.93	55.77	7.19
2012	3625680.08	50394.18	13.61	71.95	9.77
2013	4000685.4	54017.57	13.97	74.06	10.33
2014	4152315.9	55800.99	13.65	74.41	10.13
2015	4459593.6	56590.9	13.45	78.77	10.56

Year	Tonnes	Ha Harvested	CCS	Cane Yield	Sugar Yield
*2016	4811839.74	56162.09	12.30	85.67	9.54
*2017	5033376.39	57119.45	12.96	88.18	10.50
2018	4718178.26	57043.23	14.24	82.71	11.36
2019	4055299.12	56361.12	13.92	71.96	11.78
2020	4250399.37	55224.52	13.25	76.97	10.00
2021	3797257.53	54985.47	12.79	69.10	10.13
*2022	4531003.93	49495.77	11.61	91.50	8.80
2023	3993792.10	54527.56	13.03	73.26	10.60
*2024	3840771.60	52575.00	12.38	73.06	8.44

* **Standover Left**



HCPSL SERVICES

Herbert Cane Productivity Services Limited (HCPSL) is a non-for-profit organisation established to provide agricultural technical services and support to the Herbert Sugarcane industry. The key focus of the company is to drive productivity and sustainability for the local industry.

Sugarcane farmers from the Herbert sugarcane growing region and the local miller (Wilmar) make up the membership of the company. The HCPSL Board is represented by its membership, consisting of 3 grower and 3 miller members holding director positions on the company Board.

HCPSL consists of two service groups:

Membership Fee Funded Services (Core Services)

HCPSL undertakes the following activities through a service fee that members pay annually.

- The planting, management, and distribution of seed cane for grower members to plant through the HCPSL approved seed program. This consists of access to seed cane from the approved seed distribution plots, tissue culture program and hot water treatment facilities. This activity constitutes a significant component of the HCPSL annual budget.
- The lease of three farms in the Central Herbert, Lower Herbert and Stone River sub-districts, and commercial arrangements with growers in the Ingham Line, and Abergowrie sub-districts to facilitate distribution of clean seed cane.
- Plant source inspections and associated disease testing (Ratoon Stunting Disease etc.) of grower's seed cane to be used for commercial plantings.
- The provision of basic agronomic advice, including
    - crop nutrition
    - pest and disease management
    - variety management, and
    - fallow management.
- Access to the HCPSL district wide GPS base station network.
- Laser levelling and dumpy level surveys (farm drainage).
- Access to services provided by the Hinchinbrook Community Feral Pig Management Program.
- Industry updates and training (shed meetings, workshops etc.)
- Access to the HCPSL website, which includes resource material.

HCPSL also supports a number of other initiatives and events that provide benefits to the industry and our members.

Externally Funded Services (Fee for Service)

HCPSL conducts 'fee for service' activities and undertakes work delivered through commercial contracts between government agencies, NRM groups, universities, commercial companies, and growers. Activities that fall within this category include,

- Soil tests for crop nutrient, soil health and pathogen assessments (i.e. *Pachymetra* root rot, nematodes).
- Water quality testing (i.e. irrigation).
- Nutrient and weed management plans.
- Facilitation of training and accreditation activities for growers and industry workers (i.e. chemical use accreditation courses).
- Electromagnetic (EM) soil mapping.
- Precision agriculture application maps.
- Drone technology applications (i.e. mapping, imagery).
- Project specific activities (i.e. grower engagement and training activities, evaluating new practices and technologies).
- Development of new products and applications (i.e. soil amendments, fertilisers, chemicals).

For more information about the services HCPSL offers contact the Company Manager Adam Royle on (07)47761808.

HCPSL Field Technicians hot water treating seed cane material to be planted into approved seed cane plots.

APPROVED SEED PROGRAM

Approved Seed Distribution Plots

Wet weather heavily impacted the distribution of approved seed from the HCPSL seed plots in 2024. The Central Herbert plot was the most affected by the ongoing wet conditions with the bulk of the available material not able to be accessed until late in the planting season.

A total of 1905 tonnes of billet and 220 tonnes of whole stalk were distributed from the approved seed plots in 2024.

Six approved seed distribution plots totaling 26ha were planted in the Abergowrie, Stone River, Central Herbert, Lower Herbert and Ingham Line (2) sub-districts.

Due to persistent wet weather the Central Herbert and Stone River plots were planted later than normal, which is expected to impact the amount of material available in 2025.

HCPSL approved seed plot labelled in preparation for distribution to growers.

Hot Water Treatment

A total of 106 tonnes of whole stalk and billet material was treated at the Victoria mill hot water treatment facility. The facility is run by HCPSL with Wilmar Sugar providing the location for the facility, steam to heat the tanks, and general maintenance.

The facility includes two hot water treatment tanks that can long hot water treat eight (8) tonne of seed material per day under normal operating conditions.

Grower whole stalk and billet seed cane material awaiting hot water treatment.

Tissue Culture

Tissue culture sales to growers in 2024 totaled 19,210 plants with a number of both new and existing varieties being ordered. Additional to grower orders, HCPSL invested in 10,600 plants for their Macknade mother plot.

Tissue culture is a great way to propagate varieties that do not respond well to hot water treatment, and to rapidly propagate newly approved varieties.

Several growers also took advantage of the ability to hire the HCPSL seedling planter to plant their own tissue culture orders.

Tissue cultured sugarcane plants being planted into a HCPSL mother plot.

GROWER AND INDUSTRY FORUMS

The Herbert Walk and Talk Day

The 2024 Herbert Walk & Talk Day was held at the Herbert SRA – HCPSL offices and research station on the 26th of March 2024. The day included static displays from agribusinesses, a guided grower tour, and the Herbert Sugar Industry Awards presentations. The event was well attended with over 102 growers and industry representatives present.

The guided grower tours included presentations on -

- Drone technology and grower operated drones – Queensland DAF
- New varieties and variety management – SRA
- Better management of soil amendments to grower a bigger crop. – Townsville Lime
- Research into New Canegrub Control - SRA
- Grower group grants – Queensland DAF

HCPSL Shed Meetings

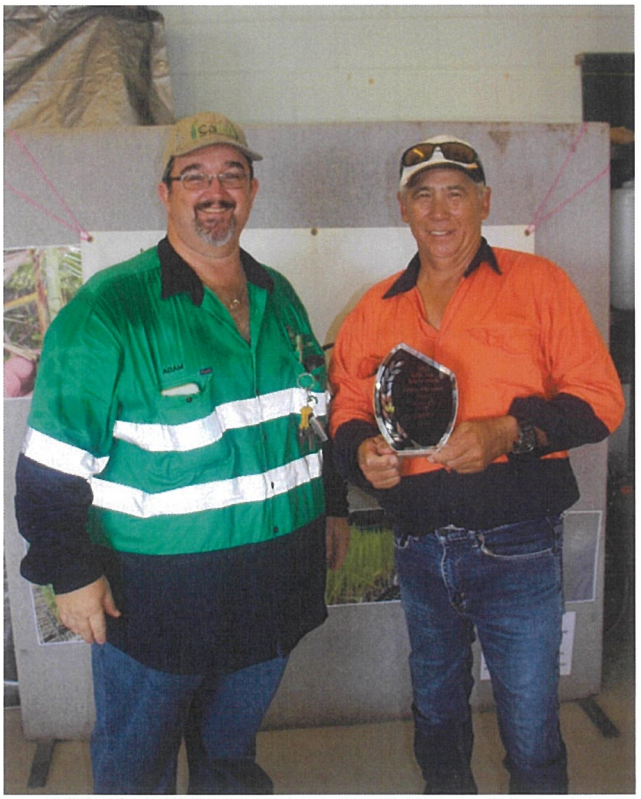
The 2024 shed meetings were held in the Ingham Line, Central Herbert, Lower Herbert, Stone River, and Abergowrie sub-districts on the 14th & 15th of February 2024 with 75 growers and industry stakeholders attending.

The following topics were presented -

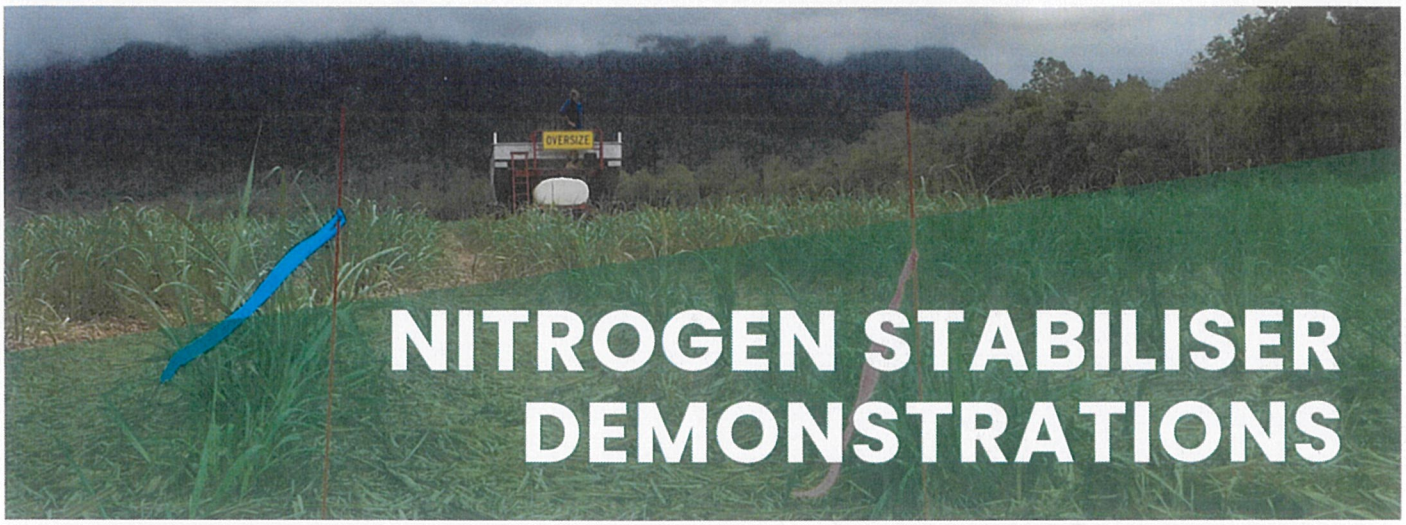
- HCPSL approved seed plots and ordering system
- Tissue culture orders and management
- Water quality monitoring (latest results)
- RSD sampling program and booking a test
- Herbicides applications – getting it right.
- Mill by-product and nitrogen stabiliser trial results.

HERBERT SUGAR INDUSTRY AWARDS PRESENTED IN 2024	
AWARD	**RECIPIENT**
Grower of the Year (Sponsored by Wilmar)	Charles Girgenti
Young Grower of the Year (Sponsored by Canegrowers Herbert River)	Alex Pisano
Mangrove Jack Award (Sponsored by Herbert River Catchment Landcare Group)	Ramon Jayo
Harvesting Efficiency Award (Sponsored by Sugar Research Australia)	Daryl Larsen
Innovation Award (Sponsored by Rabobank)	Peter Sheahan
R&D On-farm Co-operation (Sponsored by QSL)	Mark Chiesa
Lifetime Achievement Award (Sponsored by HCPSL)	Geoff Low

Marcus Bulstrode from Queensland DAF talking to growers about drone technology at the 2024 Walk & Talk Day.



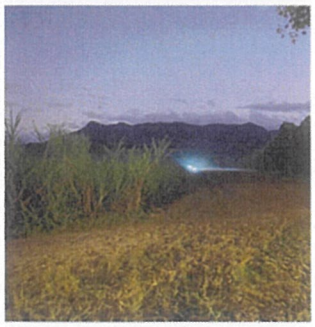
HCPSL manager Adam Royle presents Geoff Low with his Lifetime Achievement award at the 2024 Herbert Sugar Industry Awards.



NITROGEN STABILISER DEMONSTRATIONS

The aim of the demonstrations was to assist growers to assess the logistics and potential benefits of Nitrogen stabiliser products on their farm. Project staff worked with growers to assess both productivity and profitability relating to the use of these products.

PRODUCTION FINDINGS

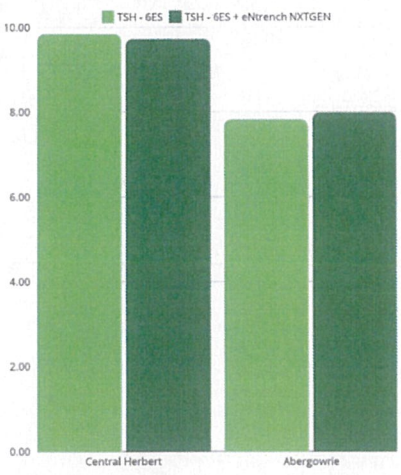


Harvesting of the demonstration sites was conducted by commercial harvesting contractors under the supervision of HCPSL Extension Agronomists. At each site, traditional fertiliser (control) and treated fertiliser (with eNtrench NXTGEN) were applied at the same rate, in line with the SIX EASY STEPS (6ES) guidelines. Production data (CCS and tonnes of cane) was provided by Wilmar Sugar Mills.

Unseasonably wet weather made harvesting a challenge, hence harvesting was delayed. Despite the application of a baiting program, the Abergowrie site was substantially damaged by rats. Harvesting of the site was still conducted however results should be treated with caution.

Production results were similar between treatments at each site, however there were no consistent trends associated with using eNtrench NXTGEN. (Refer to Table 1 & Figure 1). Due to the demonstrative nature of the sites, results cannot be quantified statistically. Therefore, it is uncertain whether the production differences were caused by the application of eNtrench NXTGEN or other factors.

Figure 1: Yield (Tonnes of Sugar/ha)



Sub-District	Treatment	Tonnes Cane/ha	Commercial Cane Sugar (CCS)^	Tonnes Sugar/ha
Central Herbert	GF 554 @ 6ES	83.53	11.78	9.84
	GF 554 @ 6ES + eNtrench NXTGEN	81.48	11.93	9.72
Abergowrie	GF 502 @ 6ES	73.90	10.59	7.82
	GF 502 @ 6ES + eNtrench NXTGEN	76.63	10.42	7.98

Table 1: Demonstration sites harvest data
^Weighted averages of actual CCS

ECONOMIC FINDINGS

Economists from the Queensland Department of Agriculture and Fisheries (DAF) evaluated the demonstration site data and calculated net revenues for each treatment. A statistical analysis was not able to be completed due to the nature of the demonstration sites (e.g. limited replicates). Therefore, the required yield increase to cover cost of using eNtrench NXTGEN was also investigated.

NET REVENUE = GROSS REVENUE – [FERTILISER & APPLICATION COST + HARVESTING COSTS + LEVIES]

Key Parameters	
Harvesting and Haulout Cost	$9.92/t ^1
Sugar Price	$675.40 ^2
eNtrench NXTGEN	$46.50/ha/yr ^3

Table 2 Key parameters used in the economic analysis

eNtrench NXTGEN Change from Control			Breakeven
Sub-District	Gross Revenue	Net Revenue	Required yield increase (%TCH) to cover cost of eNtrench NXTGEN ^4
Central Herbert	-0.63%	-2.10%	+1.63%
Abergowrie	1.02%	-2.77%	+2.01%

Table 3 Change in average eNtrench NXTGEN treatment performance relative to control, and breakeven analysis

Table 3 shows the change in performance, relative to the control, for the eNtrench NXTGEN treatment plots.
There were no consistent trends in gross revenue for the eNtrench NXTGEN treatments, with Central Herbert showing a reduction (-0.63%) and Abergowrie an increase (1.02%) relative to the control. Once various costs (including the cost of eNtrench NXTGEN) were accounted for, there were decreases in Net Revenue at both sites **(-2.10% and -2.77%)** relative to the control.

Table 3 shows the findings of a breakeven analysis, using the average control CCS from each site (11.98 at Central Herbert and 10.59 at Abergowrie). This analysis shows that to cover the cost of using eNtrench NXTGEN, cane yield would have needed to increase by 1.63% for Central Herbert and 2.01% for Abergowrie.

CONCLUSIONS

- The demonstration sites were established to assist growers to assess the logistics and potential benefits of Nitrogen stabiliser products on their farm.
- At each site, both fertiliser treatments were applied at the same rate, in line with the SIX EASY STEPS (6ES) guidelines.
- It is important to note that statistical analysis could not be completed on production and economic results due to the nature of demonstration sites (e.g. limited replicates).
- Production results were similar between treatments at each site and there were no consistent trends associated with using eNtrench NXTGEN.
- Economic analyses showed there were reductions in net revenue, largely due to the additional cost of using eNtrench NXTGEN.
- Due to the uncertainty in the production data and the site issues experienced (wet weather and rat damage), a breakeven analysis was completed to explore the cane yield increase required to cover the cost of using eNtench NXTGEN.

Each farming business is unique in its circumstances and therefore the parameters and assumptions used in this research only reflect the situations of each demonstration. Consideration of individual circumstances must be made before applying the findings of this research to another situation. It is noted by HCPSL that growers should trial N-stabiliser products on different soil types, varieties and rainfall patterns before making a final decision on whether to adopt this practice.

[^1] Harvest price is inclusive of fuel, after rebate. Price based on regional advice and historical data.
[^2] Sugar price is the 2022-2024 average net $/tonne IPS price.
[^3] Entrench NXTGEN pricing was calculated using a rate of 1.7L/ha for each application, each year and based on a multi-year average.
[^4] Change in tonnes of cane, assuming a constant CCS (control average for each site)

Australian Government | Reef Trust | Great Barrier Reef Foundation | HCPSL Herbert Cane Productivity Services Ltd. | Project CaNE Crop & Nutrient Efficiencies | Queensland Government

Project CaNE™ is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation
The economics components of this project were completed by DAF Economists, funded by the Queensland Government's Queensland Reef Water Quality Program

PROJECT CaNE™

PROJECT REPORT CARD

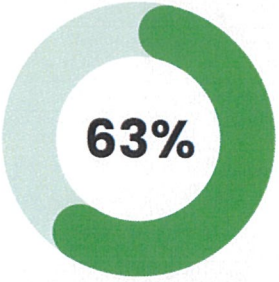
Over the past 4 years, Project CaNE™ has provided growers with on-ground agronomic support and tailored solutions to help them improve productivity, profitability and environmental outcomes on their farm.

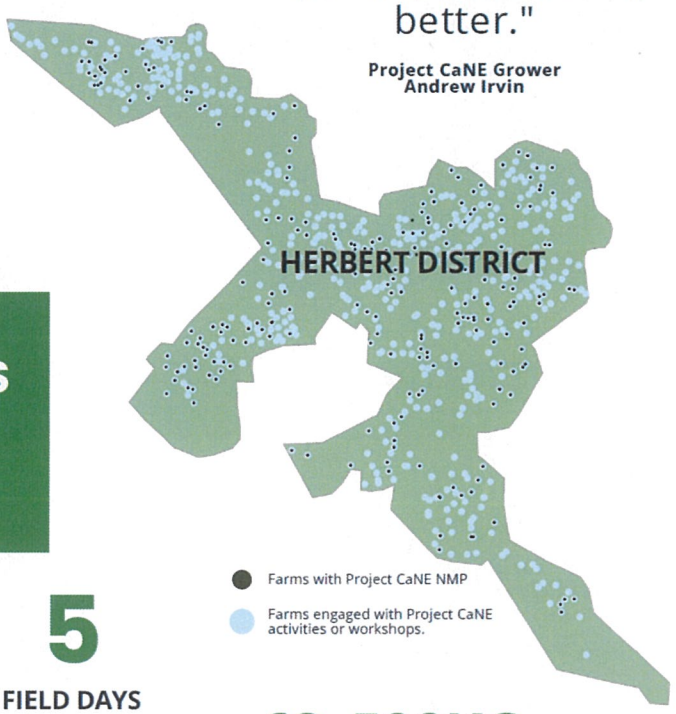
167 **NUTRIENT MANAGEMENT PLANS DELIVERED TO HERBERT GROWERS**

"The information we are getting out of Project CaNE is helping us understand the soil better."

Project CaNE Grower Andrew Irvin

Percentage of Herbert growers who engaged with Proect CaNE activities or workshops.





11 ON-FARM DEMONSTRATION SITES

COMPRISING OF:

- 5 MILL BY-PRODUCT SITES
- 4 NITROGEN STABILISER SITES
- 1 LEGUME SITE
- 1 NEMATODE SITE

41 SHED MEETINGS

18 GROWER WORKSHOPS

5 FIELD DAYS

"It is important to look at soil tests and develop an NMP that responds to what your paddocks need, and then fine-tune things like reductions in rates for plant cane when it follows a legume fallow."

"Through nutrient management planning with the help of Project CaNE, we are showing that we can be commercially viable and environmentally sustainable."

Project CaNE Grower Ramon Jayo

62, 500KG

OF NITROGEN FROM APPLIED FERTILISER NO LONGER ENTERING LOCAL WATERWAYS

11 **WATER QUALITY MONITORING SITES**

867, 240

WATER QUALITY MONITORING SITE READINGS OVER THE COURSE OF THE PROJECT

Australian Government | Reef Trust | Great Barrier Reef Foundation | HCPSL Herbert Cane Productivity Services Ltd. | Project CaNE Crop & Nutrient Efficiencies™ | Queensland Government | TropWATER

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

Targeting balanced nutrition and productivity constraints in the Herbert

In 2024 SRA and HCPSL launched a new joint project: Targeting balanced nutrition and productivity constraints in the Herbert.

The project aims to work one-on-one with growers to identify and address productivity constraints affecting their crops by improving farm management practices and utilising the resources and guidance within the SIX EASY STEPS® toolbox.

In the second half of the year a total of 13 growers, covering 3700 ha joined the program. Farm visits identified key constraints across paddocks, including:

- Soil pH and liming strategies'
- Variety suitability and selection
- Weed pressure
- Variable sodicity
- Macro and micronutrient deficiencies

The project addresses these constraints and optimises current management strategies through soil and crop diagnostic services, EM mapping, whole-of-farm nutrient management plans and tailored farm action plans.

As part of the project, SRA and HCPSL are also conducting a disease survey to assess the presence and severity of Pachymetra root rot. This survey follows a similar process to the one undertaken by HCPSL in 2014-15. From November to December a total of 55 samples were strategically collected across productivity zones to assess spore levels and associations with soil type, pH, and varietal choice. Additional Pachymetra sampling is scheduled for 2025 to continue targeted sampling of key blocks and extend the survey further into other soil types.

To find out more details about the project contact Bethany Donker on 0490 077 176.

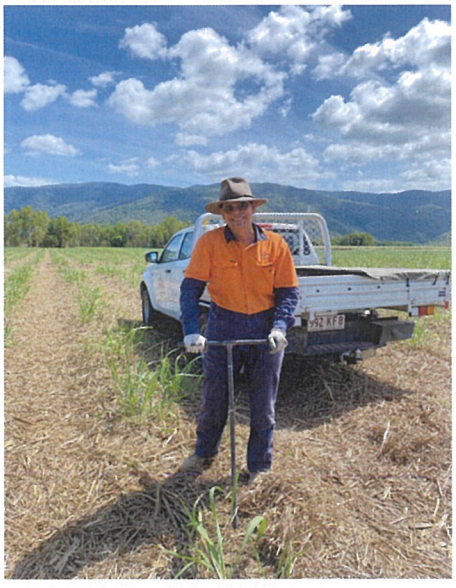
Acknowledgement

Targeting balanced nutrition and productivity constraints in the Herbert is delivered by Sugar Research Australia in collaboration with Herbert Cane Productivity Services Limited and is part of the $4.38 million Sugarcane Practice Change Program funded through the Queensland Government's Queensland Reef Water Quality Program.

Queensland Government

Identifying varying soil types during soil sampling

Monitoring banded mud applications to improve soil structure



SRA Senior Agronomist Nancy Rincon sampling for Pachymetra at Bambaroo

SOIL CRC PROJECTS

HCPSL has been involved with SOIL CRC for the last 7 years, covering more than twelve different Soil CRC projects. Over the last four years our involvement has been working with Universities from Queensland, New South Wales, Victoria, Tasmania, South Australia and Western Australia. DAF and DPI in QLD, NSW, VIC and SA along with various farming groups throughout Australia have also been involved. The Projects are looking into improving soil organic matter, organic waste, organic amendments (green waste etc), evaluation of soil resilience, soil carbon and an in-field soil sampling tool (Lab on A Chip) to name a few.

Soil CRC aims to develop useful, usable technology for growers to make better data-based soil decisions. One of the new instruments developed is the **"Lab-on-a-Chip"**. This instrument is designed to give soil test results in the field.

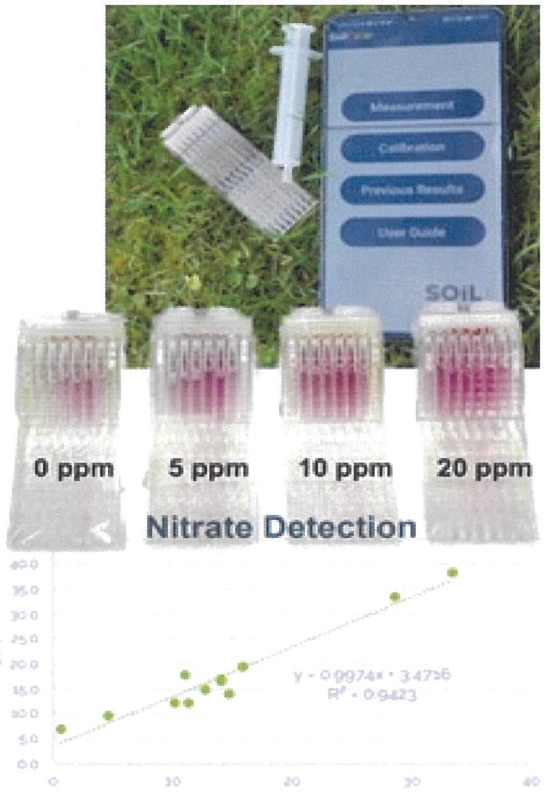
The costs and time required for traditional soil sampling and chemical analysis can be significant. Many farmers would conduct more soil testing if they had rapid, cheap and reliable in-field soil tests to support their decision making.

The Soil CRC's project, **Affordable rapid field-based tests**' has developed a prototype of a field-based toolkit for measuring soil pH and nitrogen, using microfluidic chip technology ('lab-on-a-chip'). The device will allow GPS mapping of soil testing data to existing soil and geological information, which will help enhance the meaning of the test result. This device is simple and relatively inexpensive.

A related colourimetric calibration tool using smartphone cameras has also been developed. The prototype of the smartphone app uses the phone camera to capture results from the colourimetric measurement of the reactions on the microfluidic chip. This app can automatically interpret the colour values into the quantitative prediction of targeted soil nutrients using calibration models.

The project will undertake commercialisation and market studies for the devices' design and cost. If fully developed and integrated, the final devices should attract significant commercial interest, especially from organisations that supply soil testing services to farmers. Ultimately, farmers will have access to a faster, cheaper and reliable alternative to conventional soil tests.

https://soilcrc.com.au/projects/rapid-soil-tests-using-lab-on-a-chip-and-an-app/



Soils CRC Conference field trip to a Grain Research Farm

Researchers demonstrate the Lab on a Chip device during a Soils CRC Conference

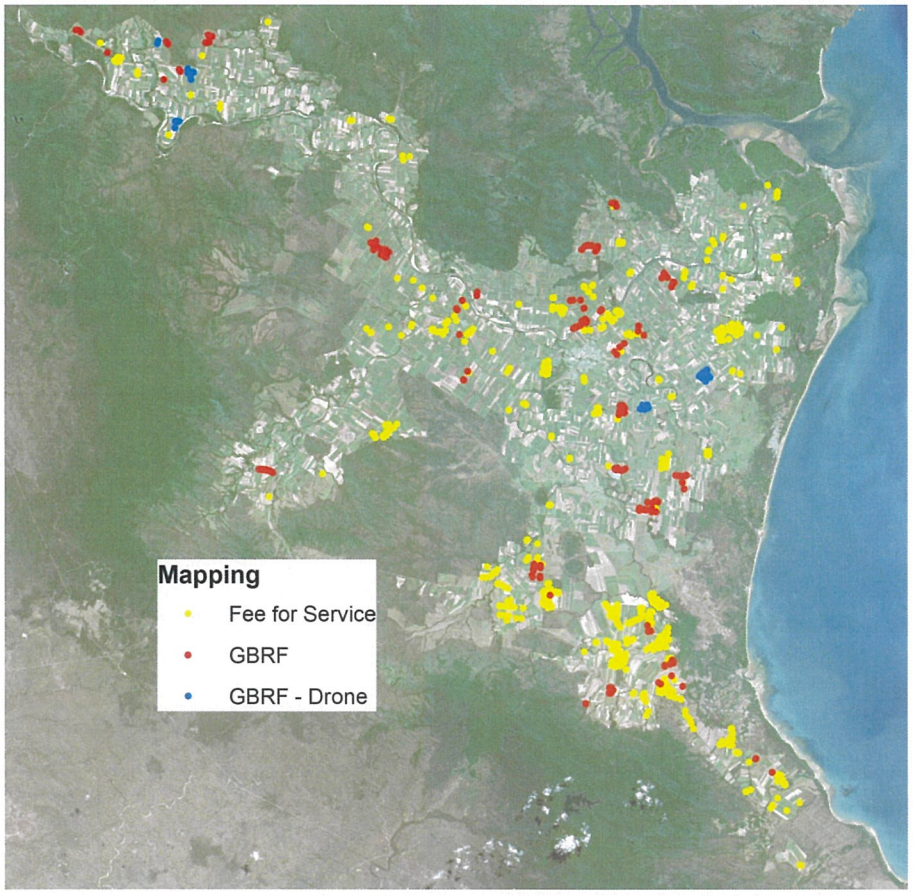
Project CaNE EM Mapping

Early in 2017 HCPSL purchased a DualEM 421s, a device which measures the electrical conductivity of the soil. The electrical conductivity of soil is primarily affected by salinity and soil moisture. In areas where salinity is negligible and when soil moisture is uniform across the survey area, conductivity is then affected by other aspects of soil chemistry, soil organic matter and soil structure etc. The data helps growers and agronomists understand how soils change across a field, and how this may affect crop productivity.

From 2017 to early 2024 HCPSL had EM mapped 3,259 hectares across the district. The amount of mapping undertaken by 2023 and 2024 had reduced down to just over 100 hectares per year. In late 2024, HCPSL was able to secure funding through Project CaNE™ to map up to 1,000 hectares with the DualEM device and/or the drone. The drone NDVI mapping was suggested as an alternative if there was an early start to the wet season, preventing vehicular access to cane blocks.

After a couple of setbacks at the very start, i.e. a broken cable and a small issue with HCPSL's plastic sled, HCPSL managed to cover 841 hectares before the Christmas break, more than the previous three years combined. A further 212 hectares we mapped using the drone and NDVI was calculated from the imagery acquired.

This will help growers, with the aid of their agronomists, better manage the soils on their farms through targeted soil sampling and variable rate applications of ameliorants where required.



The map (left) shows the areas where EM mapping was undertaken as fee for service, or as part of a funded project, e.g. under catalyst shown in yellow. Areas where EM mapping and drone NDVI mapping was undertaken as part of the GBRF funding is shown in red (EM mapping) and blue (Drone NDVI).

Moving forward, these surveys will be undertaken using the drone and NDVI analysis due to our inability to drive into the wet cane block presently, and due to the height of the cane.

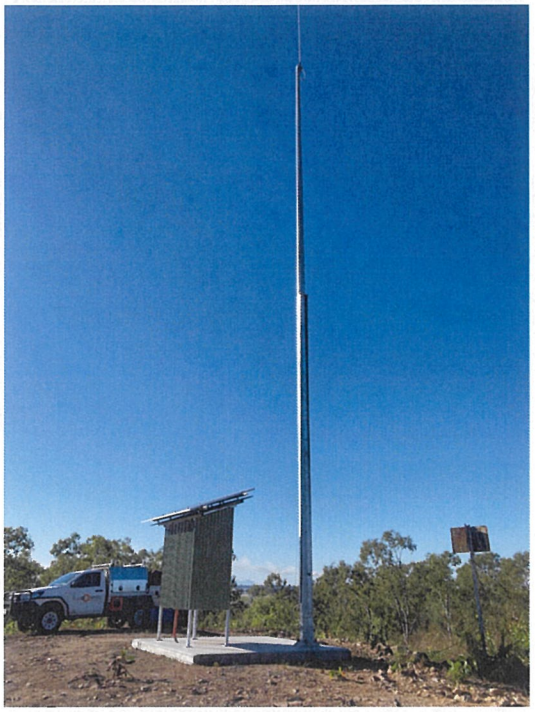
Even though the GBRF funded EM mapping was advertised via HCPSL's website, Facebook page and SMS, the response to the offer resulted in only 28 growers with a total of 57 farms between them requesting EM mapping be undertaken. That's just over 5% of growers in the district

The number of hectares each grower was able to have mapped depended mainly on what had already been cut and the height of their ratoons. Some first round cut ratoons were too tall to drive over but with some it was still possible. Some farms were small and didn't have a lot that could be driven over at any one time. The rain began in the later half of November and continued into December, preventing many cane blocks from being driven into. From this time on the drone was used to collect data for NDVI analysis when weather permitted.

GPS

A new GPS base station was commissioned in June 2024, located on Goitiandia's Hill at Macknade. This is part of HCPSL's work to improve RTK GPS coverage and to facilitate the decommissioning of several of the older sites.

The installation was undertaken by Russo & Vella Machinery, who will also be doing the ongoing maintenance to the site. Growers can now get access to this site via Channel 8, Frequency 464.85.



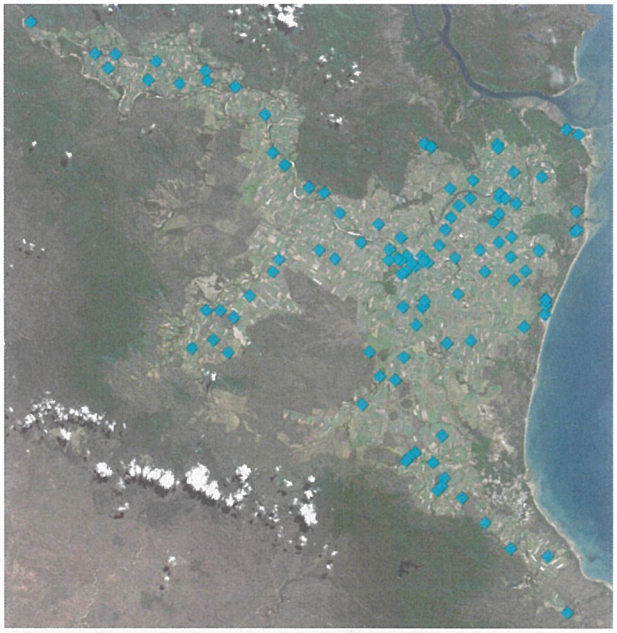
New GPS Base Station installed in 2024 on Goitiandia's Hill at Macknade

Drones

HCPSL upgraded its drone this year to a DJI Mavic 3 Enterprise Multispectral (M3M). This new drone comes with the capacity to connect to HCPSL's SmartNet RTK correction subscription, replacing the need for the collection of ground control data and extra processing to get an RTK accurate image.

The drone (left) comes with the standard 20MP/4K camera and has four additional MP cameras which combined, make the multispectral component. These extra cameras collect single band images which, when combined in processing software, allow the creation of several vegetation health indices including NDVI (normalised difference vegetation index) and GNDVI (green NDVI) among others.

The drone has been used to complete the Project CaNE™ EM mapping after the early rain in December and January through to February. Post flood HCPSL will be using the drone to inspect the seed plots for 2025 to assess any damage that may have occurred. The accuracy of the drone has been helpful in mapping out the clean seed plots. Having an RTK accurate image allows precise area calculations and drill distances which helps in determining total tonnes of cane available.



As of January 2025, there are more than 100 private weather stations across the Herbert, transmitting weather information to the internet. These weather data may not be 100% correct but do provide a good idea of what is happening across the district. None of these weather stations are owned or managed by HCPSL.

To access these weather stations, go to https://www.wunderground.com/wundermap, then like in Google Earth, pan the map to the Herbert. In settings, change the temperature from °F to °C. Click on Layers to view alternative basemaps. Click on a station icon for more information from that site.

RATOON STUNTING DISEASE (RSD)

RSD remains a significant concern for the Herbert district with as many as 1 in every 10 seed blocks tested returning a positive result through the qPCR method.

There are no varieties with immunity to the RSD bacteria, however in 2024 SRA26 and Q253 showed proportionally higher rates of infection than most other varieties tested.

Aside from good hygiene practices (sterilising cutting equipment), research has shown that significant gains in productivity can be made by having dedicated on-farm seed blocks planted with cane from approved seed plots, hot water treating seed cane material, and getting regular RSD checks of the on-farm seed cane material.

HCPSL continues to invest heavily in combating RSD by providing best practice hygiene advice, annual RSD testing and seed cane inspections, and through the provision of clean seed material through the following methods.

- Approved seed cane distribution plots
- A coordinated tissue culture ordering program and access to a planter; and
- Access to a hot water treatment facility.

In 2024, HCPSL tested seed material for 278 growers spanning a total farming area of over 41,000 ha.

The table below outlines the type and number of samples collected by HCPSL, as well as infection rates detected.

Testing Method	Number of Samples	% of positive infections
Phase Contrast (Microscope)	409	14.2%
qPCR (Leaf Sheath Biopsy and Xylem)	1685	9.8%
Total	2094	10.6%

CANEGRUBS

Damage associated with canegrubs was up from 2023 but was still relatively minor and isolated in nature. Reports of increasing grub populations in other districts indicate that Herbert growers need to remain vigilant.

RATS

Overall crop losses from rat damage were down in 2024 when compared to the previous two years. Despite the drop in rat numbers, growers still reported rat damage to be their most significant crop loss to a pest species for 2024 with pockets of damage recorded across most of the major sub-districts.

FERAL PIGS

Under the Hinchinbrook Community Feral Pig Management Program (HCFPMP) 1032 feral pigs were culled in 2024. Damage to the Herbert cane crop from feral pigs continues to be an ongoing issue, particularly on farms adjacent to non-farming land.

Data shows that since the HCFPMP commenced feral pig numbers and overall damage has declined significantly. Having a dedicated management program in place continues to reduce the potential impact compared to an uncontrolled feral pig population.

COOTS & WALLABIES

In 2024 HCPSL staff assisted several growers in obtaining species management permits for controlling Coots and Wallabies.

While impacts from these native pests rank relatively low across the whole of the Herbert sugarcane growing region they can cause significant impact to individual farms, particularly in hindering the establishment of plant cane blocks.

ABOVE: Feral pigs captured on a trail camera adjacent to a cane paddock.
LEFT: Leaf sheath biopsy (LSB) samples being processed for dispatch to the SRA lab.

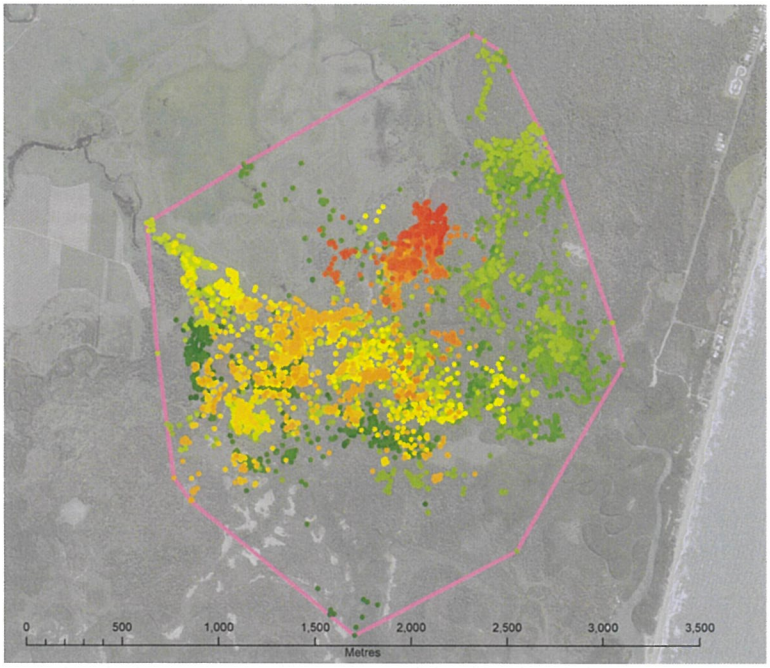
Project Squealer ™

An Initiative of the
Hinchinbrook Community Feral Pig Management Program

From mid-2023 through 2024 Project Squealer used GPS tracking collars to track several pigs in the environment along with the deployment of several trail cameras. A total of five pigs were trapped, collared, and tracked over the past 18 months. By January 2025 three of the collared pigs had died, one had escaped from the collar, and one continues to be tracked.

The collaring process starts with capturing a pig in a trap, usually as part of the HSC's or QPWS' feral pig trapping program. The pig is tranquilised by a registered veterinarian and once able to be handled safely, the collar is put on. The photo to the left shows our first candidate, "Jill," with the collar and with an ear-tag.

The collars acquire a GPS coordinate every half-hour, and data is uploaded via a satellite data transmission every six hours. The data is sent to a database in Canada which is then made available to HCPSL and other HCFPMP partners via a secure internet web service. Data is then downloaded by HCPSL, analysed and displayed on a map.



When the data was displayed on a map it showed that the pigs used in the study did not move around as much as was expected. The map to the left shows point data for Angie over 347 days. The pink outline is the extent of Angie's total range: 512 hectares or 5.12 square kilometres.

Interestingly, even though Angie was so close to blocks of sugarcane, she never actually moved into the cane. Out of the five pigs tracked in the project, only one went into sugarcane, and since the beginning of the wet weather, has not gone back into any cane blocks.

The project purchased four trail cameras; two to be moved around on an ad hoc basis, and two as long-term, stationary cameras monitoring wetlands, and connected via the mobile phone network, to a "smart" database which identified all species that moved in front of the cameras. Both of these smart cameras have fallen victim to the local flood events in February 2025.

YOUTH ENGAGEMENT

HCPSL prides itself on staying connected to the youth in the community and allowing them to experience industry related activities at an entry level. In 2024 HCPSL engaged in multiple youth related activities such as Ingham State High School Speeds Career Day, Ingham Annual Show and School Tissue Culture Day.

HCPSL were also able to welcome a work experience student to the team for a couple of days. This allowed us to show the young student many different avenues that are possible when working in the agricultural industry.

This year at the Ingham Show we saw a total of 20 exhibitors enter in the under 18's Category. A highlight out of the 2024 show was to see many of the Kindy kids, who had previously participated in our school competition, now competing by themselves in the under 18 Section.

If you are interested in working in the agriculture sector and would like to gain more knowledge about the cane industry, please don't hesitate to contact the staff at HCPSL and we will help you out.

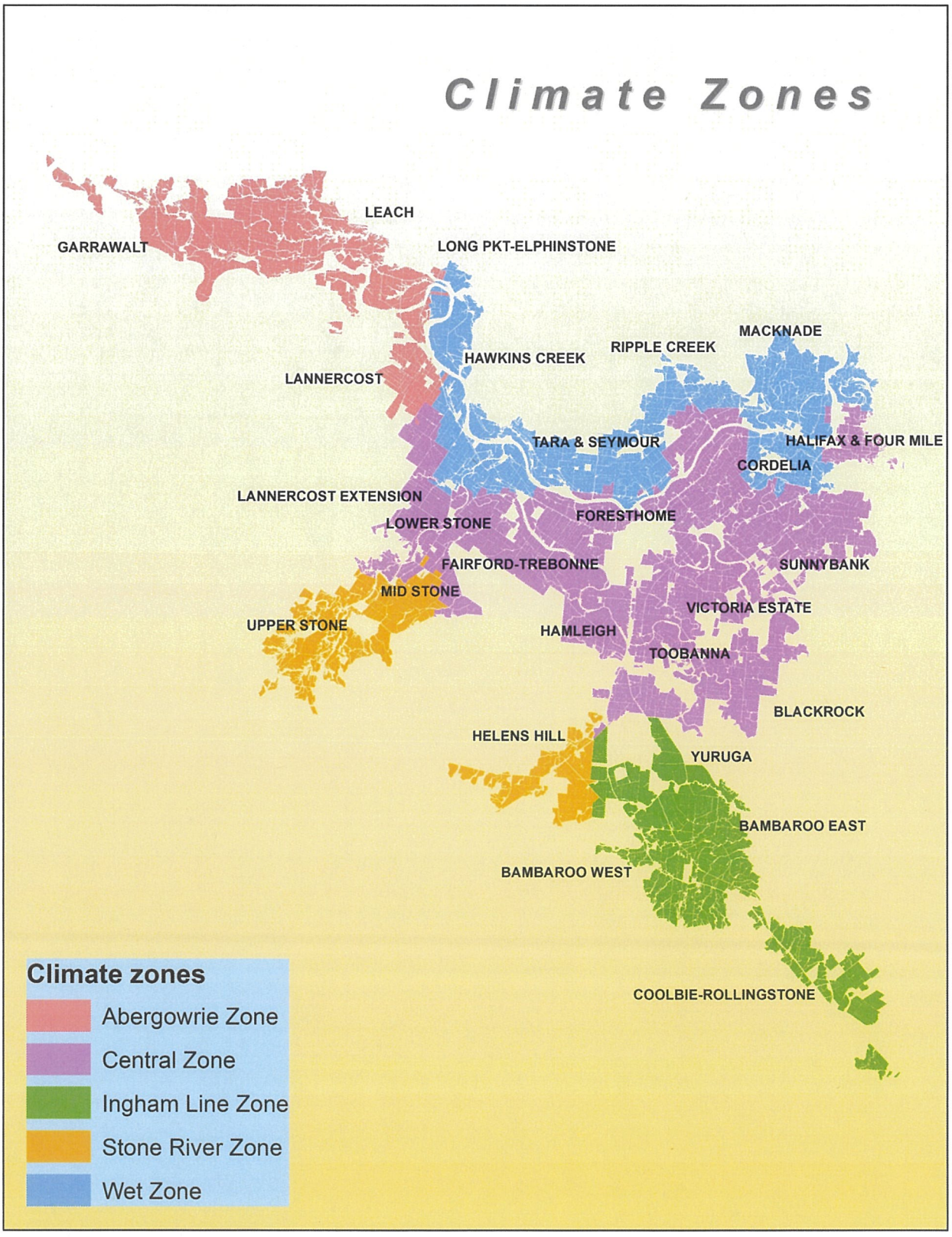
Dimitty Harragon receiving her trophy for the HCPSL Aggregate of Points Under 18 Section

Rhiannan Harragon planting tissue culture at the Kindy

HCPSL Welcomes Tayla Harragon

Tayla takes on the new position of Junior Field Technician and has hit the ground running assisting with farm and approved seed plot work, machinery maintenance, and RSD sampling.

Having grown up on a sugarcane farm in the Herbert, Tayla will be a valued addition to HCPSL and the local sugar industry. Having graduated from high school in 2024, Tayla's appointment is part of HCPSL's commitment to developing and supporting youth in the sugarcane industry.


Climate Zones
LEACH
GARRAWALT
LONG PKT-ELPHINSTONE
MACKNADE
RIPPLE CREEK
HAWKINS CREEK
LANNERCOST
TARA & SEYMOUR
HALIFAX & FOUR MILE
CORDELIA
LANNERCOST EXTENSION
FORESTHOME
LOWER STONE
FAIRFORD-TREBONNE
SUNNYBANK
MID STONE
VICTORIA ESTATE
UPPER STONE
HAMLEIGH
TOOBANNA
BLACKROCK
HELENS HILL
YURUGA
BAMBAROO EAST
BAMBAROO WEST
COOLBIE-ROLLINGSTONE
Climate zones
Abergowrie Zone
Central Zone
Ingham Line Zone
Stone River Zone
Wet Zone

CLIMATE ZONES

The Herbert River District can be broken into five different climatic zones (indicated on the map on page 15) and these are as follows: Wet Zone (Blue), Abergowrie Zone (Pink), Stone River Zone (Yellow), Ingham Line Zone (Green) and Central Zone (Purple).

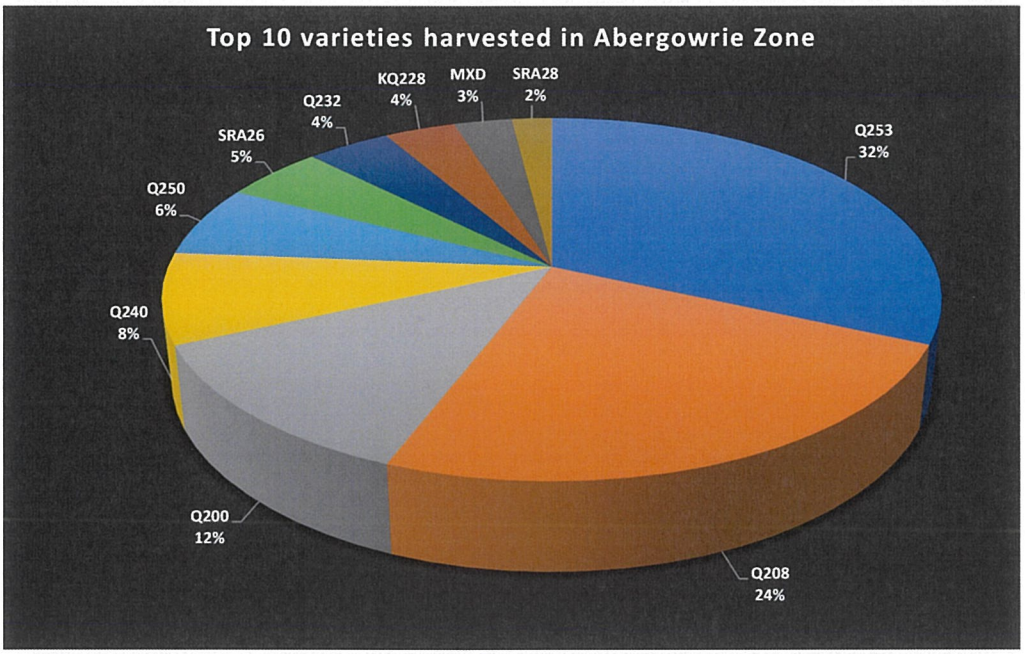
The weather once again plagued the 2024 season, with repeated rain events hampering progress in both planting and harvesting in the majority of regions in the district. Speculation of a two year fallow grew early in the season, with ground preparation again becoming a challenge, as well as trying to reach blocks containing planting material.

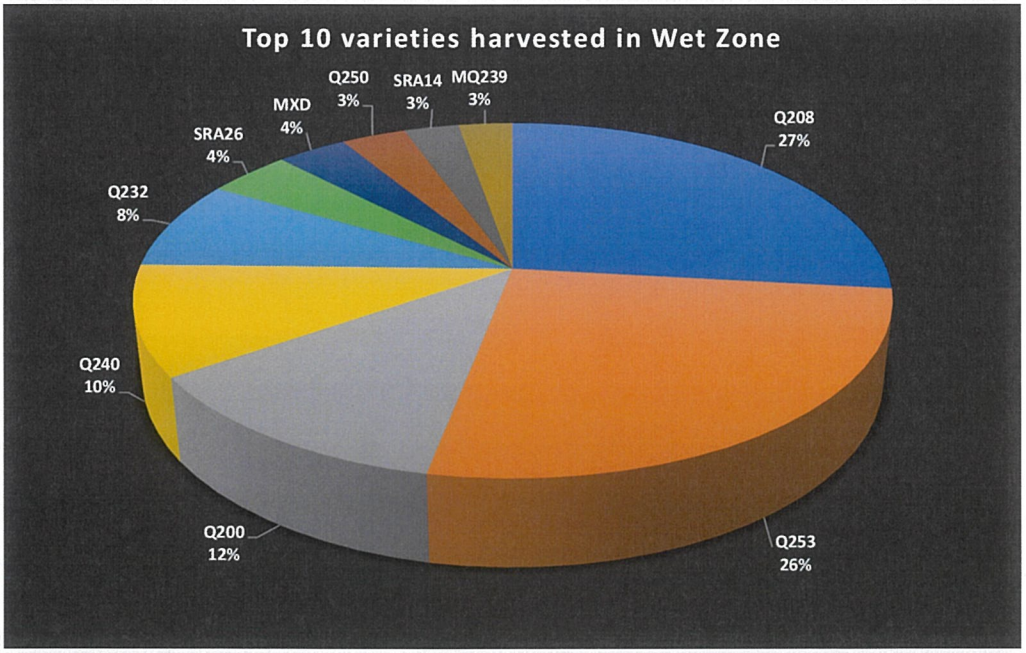
Issues continued when the harvesting season started, accessing blocks and adequate cane supply becoming the biggest challenge. Concerns of another year of standover began early and unfortunately, for the second time in 3 years, was realised with cane being left in the paddock at the end of 2024.

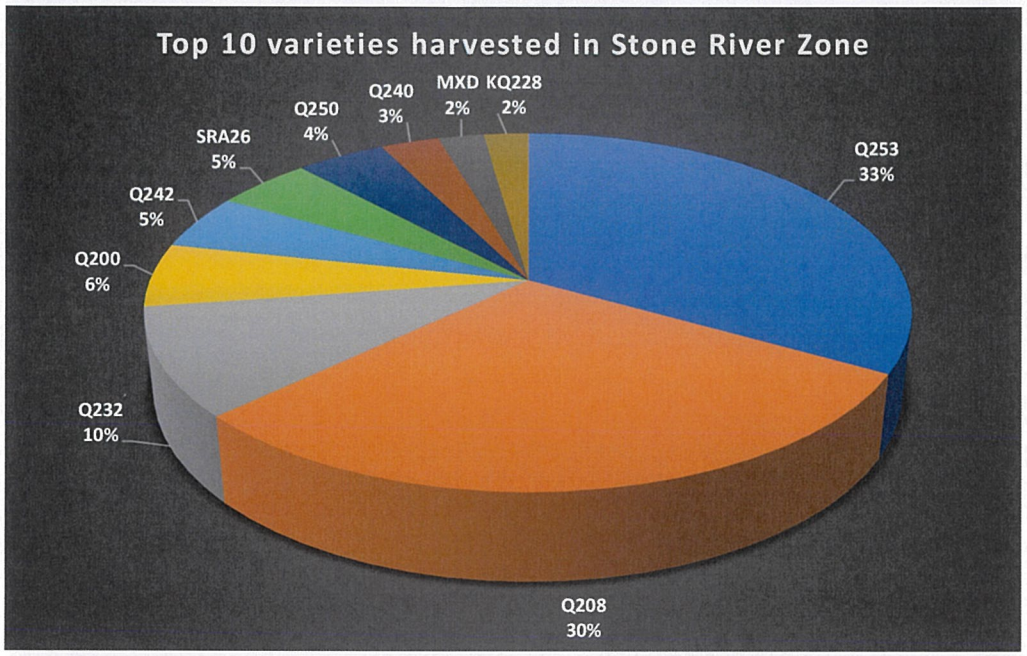
Rats, pigs and cockatoos again made their presence felt in 2024, although this was more prevalent in some areas than others. Cane grub damage was also experienced in 2024, again more prevalent in certain areas.

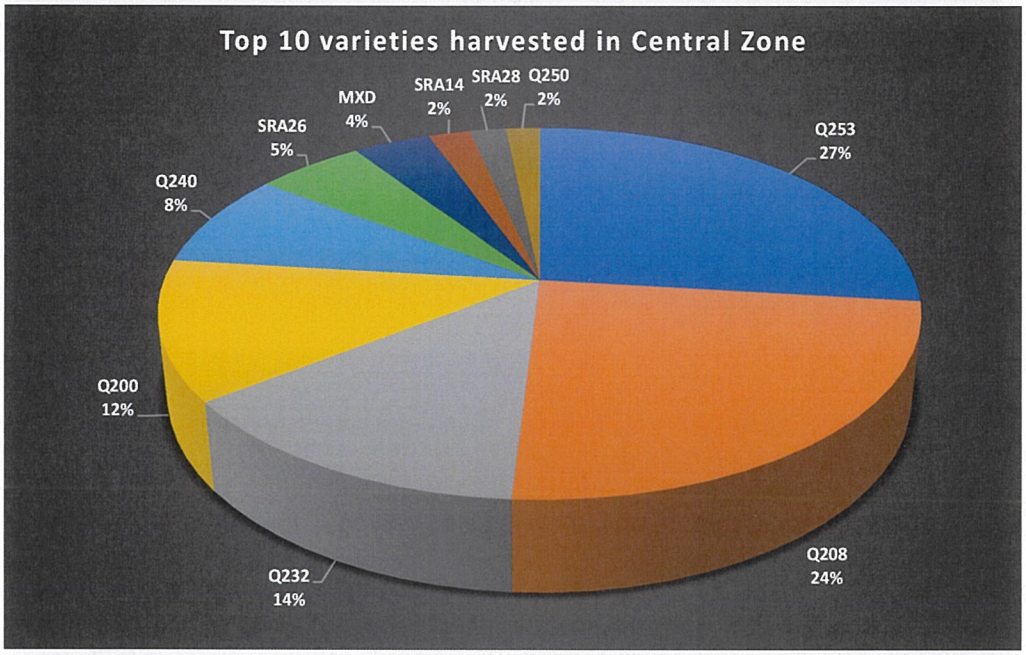
Even though SRA28 has shown performance in the wetter conditions in the past, the prevalent wet conditions in 2024 unveiled a management issue with this variety. As crops of SRA28 progressed beyond 12 months old, death above the growth point of the variety started becoming visible, indicating that crop age may be critical with SRA28. Hollowing or piping was also seen on a wider scale in SRA28 across the district.

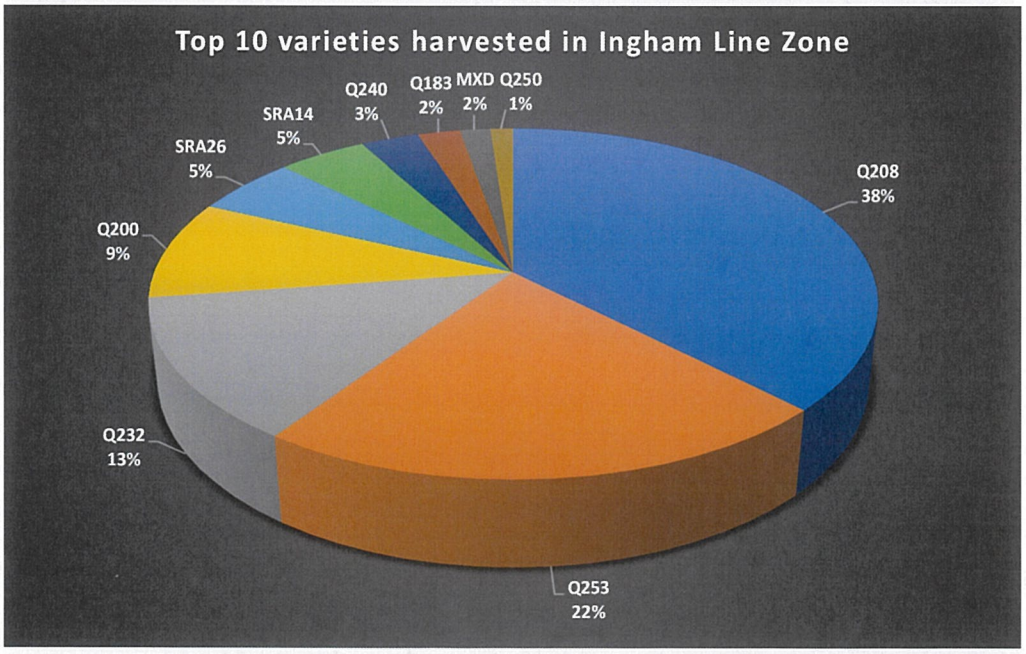
With rain forcing growers to harvest blocks and varieties outside of their ideal period due to accessibility, varietal performance may not be truly reflected in the 2024 harvest data.






Top 10 varieties harvested in Stone River Zone
Q253 33%
Q208 30%
Q232 10%
Q200 6%
Q242 5%
SRA26 5%
Q250 4%
Q240 3%
MXD 2%
KQ228 2%


Top 10 varieties harvested in Central Zone
Q253 27%
Q208 24%
Q232 14%
Q200 12%
Q240 8%
SRA26 5%
MXD 4%
SRA14 2%
SRA28 2%
Q250 2%


Top 10 varieties harvested in Ingham Line Zone
Q208 38%
Q253 22%
Q232 13%
Q200 9%
SRA26 5%
SRA14 5%
Q240 3%
Q183 2%
MXD 2%
Q250 1%

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Staffing Highlights

Sue Beccaris achieved a special milestone in 2024 having provided 30 years of service to HCPSL and the Herbert sugarcane industry. An outstanding achievement and we thank Sue for her continued dedication and commitment.

Alwyn Maree joined the HCPSL Team in August 2024. Coming from a sugarcane farming background in South Africa, Alwyn brings to the team a wealth of knowledge, enthusiasm, and innovative ideas in his role as Lead Field Technician.