

HERBERT SUGAR INDUSTRY REPORT 2025



HCPSL

Herbert Cane Productivity Services Ltd.

wilmar

Sugar and Renewables

CROP PERFORMANCE 2025

The 2025 growing season was heavily influenced by intense rainfall and record breaking flooding during the months of February and March. Rainfall to the end of March totalled 3526mm (February: 1784mm, March: 1289mm), which represented 78% of the total rainfall for the year (4513mm). Despite the above average rainfall total for the year, planting across the Herbert was generally carried out earlier in 2025 compared to 2024. The exceptions being pockets of lower lying areas, particularly in the Wet Belt and Lower Herbert productivity zones, where in some areas fallow blocks were not planted at all.

The 2025 harvest commenced with Macknade mill kicking off on the 10th of June, processing 33,300 tonnes of sugarcane in the first week of crushing. The season came to an end on the 23rd November with the last rake of sugarcane going through Victoria mill. A total of 53,728 ha was harvested in the Herbert with 3.82 million tonnes of sugarcane being crushed by Wilmar mills in 2025, resulting in 465,000 tonnes of raw sugar being produced. End of season production figures were higher than initially forecast following the severe flooding earlier in the year. The average district wide yield for 2025 was lower than the previous year at 71.1 TCPH, compared to the 2024 average of 73.06 TCPH, while the seasonal average CCS of 12.82 was higher than the 2024 average of 12.38.

Weather data sourced from Bureau of Meteorology, Ingham Aerodrome Rainfall Station.

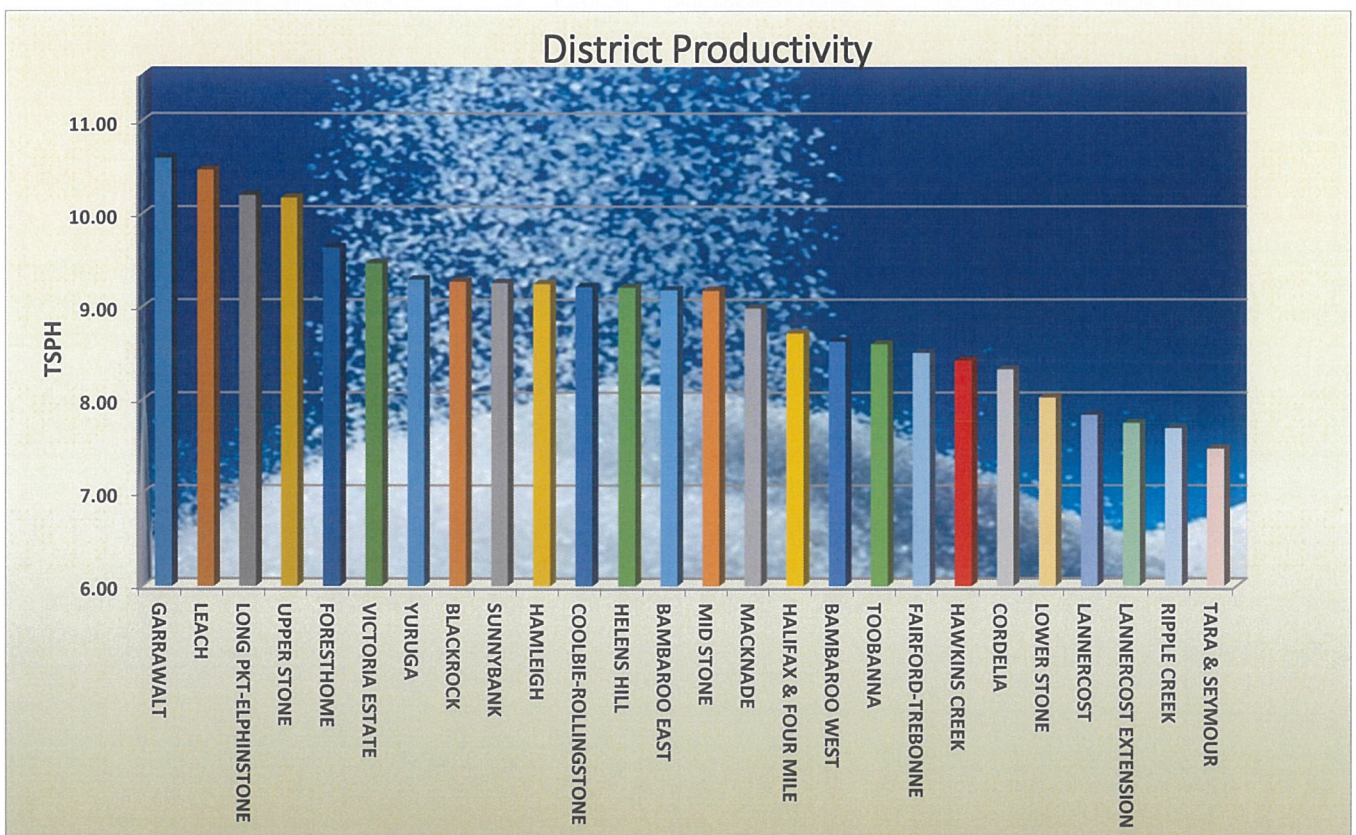
Milling data sourced from Wilmar Sugar.

HISTORICAL DATA

Year	Tonnes	Ha Harvested	CCS	Cane Yield	Sugar Yield
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
*2016	4811839.74	56162.09	12.30	85.67	9.54

Year	Tonnes	Ha Harvested	CCS	Cane Yield	Sugar Yield
*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
2025	3822510.60	53728.50	12.82	71.10	9.12

* Standover Left





HCPSSL SERVICES

Herbert Cane Productivity Services Ltd (HCPSSL) 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 HCPSSL Board is represented by its membership, consisting of 50% grower and 50% miller members holding director positions on the company Board.

HCPSSL consists of two service groups:

Membership Fee Funded Services (Core Services)

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

- The planting, management, and distribution of seed cane for grower members through the HCPSSL approved seed program. This consists of access to seed cane from approved seed distribution plots, tissue culture program and hot water treatment facilities. This activity constitutes a significant component of the HCPSSL annual budget.
- The lease of three farms in the Central Herbert, Lower Herbert and Stone River sub-districts, and agreements with growers and grower collectives in the Ingham Line and Abergowrie sub-districts, as well as a new site at Halifax, to facilitate distribution of seed cane.
- Plant source inspections and associated disease testing (Ratoon Stunting Disease) 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 HCPSSL 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, regular bulletins etc.)
- Access to the HCPSSL website, which includes resource material.

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

Externally Funded Services (Fee for Service)

HCPSSL 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 service include,

- Soil tests for crop nutrient, soil health and pathogen assessments (i.e. Pachymetra root rot, nematodes).
- 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 HCPSSL offers contact the Company Manager Adam Royle on (07)47761808.



Herbert grower Mark Zatta taking delivery of his tissue culture plants from HCPSSL Extension Agronomist Rhiannan Harragon.

APPROVED SEED DISTRIBUTION PLOTS

Wet weather once again impacted the distribution of seed cane material from the HCPSL approved seed plots in 2025. The Central Herbert plot was the most affected following record breaking flooding early in the year. As a result, the bulk of the plant crop material was reserved for establishing new approved seed plots for 2026 distribution.

To overcome future issues with sourcing mother plot material from the Central Herbert plot, a new mother plot was established on the Macknade mill farm. The Lower Herbert approved seed plot was subsequently moved from Macknade mill farm to a new site in Halifax.

A total of 2273 tonnes of billet and 183 tonnes of whole stalk were distributed from the approved seed plots in 2025; an increase of 331 tonnes from 2024.

Five approved seed distribution plots totaling 28ha were planted in the Abergowrie, Stone River, Central Herbert, Lower Herbert and Ingham Line sub-districts.

A further 5.5ha of hot water treated and tissue culture material was planted into two mother plots in the Macknade (5ha) and Ingham Line (0.5ha) sub-districts.



Above: Planting at Stone River approved seed plot in 2025

HOT WATER TREATMENT (HWT)

The HWT facility at Victoria mill ceased operation for the year on 30th October 2025. A total of 141 tonnes of whole stalk and billet material was treated during the 2025 planting season.

The facility is operated by HCPSL with Wilmar Sugar providing the location, steam to heat the tanks, and assistance with general maintenance.

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

The HWT services are utilised by Herbert growers, Wilmar, SRA, TCP SL, and is used to treat material planted into the HCPSL mother plots.

TISSUE CULTURE

Tissue culture is an exciting and efficient method for rapidly producing and supplying approved seed cane, whether it's for newly released varieties or older established ones. Over the past three years tissue culture distribution to growers has increased significantly.

Year	Tissue Culture Plants Ordered	Number of Growers
2023	23,320	10
2024	29,810	17
2025	27,690	16
2026	38,740	28

Tissue culture order deadlines in 2026 (2027 delivery) are as follows:

- 1st June 2026 for Autumn 2027 delivery
- 2nd November 2026 for Spring 2027 delivery

For order forms or more information, please contact the HCPSL Office on 4776 1808 or reach out to Rhiannan Harragon on 0490 905 367.



Above: Tissue culture planted at Macknade mother plot.

Below: Whole stalk material being lowered into a HWT tank



NEW RELEASES

Some of the information below has been extracted from SRA's 2025/26 Herbert Variety Guide.

SRA43^ϕ

Approved for release by the Herbert Regional Variety Committee (RVC) in 2024 with limited distribution to growers in 2025.

In trials SRA43^ϕ has shown,

- lower CCS than Q200, Q208 and Q240^ϕ, but similar to Q232^ϕ.
- a yield advantage over Q200, Q208, Q232^ϕ and Q240^ϕ.
- yield advantages were consistent across most crop classes and trial locations representing Herbert's main soils and growing environments.
- resistance to Pachymetra and leaf scald and intermediate to smut.
- reliable germination with an erect growth habit providing good harvesting presentation.



SRA32^ϕ

Approved for release by the Herbert RVC in 2025 with limited distribution from several HCPSL approved seed plots in 2026.

In trials SRA32^ϕ has shown,

- CCS to be better than Q232^ϕ, similar to Q253^ϕ, while slightly lower than Q200 and Q208.
- a substantial yield advantage over Q200, Q232^ϕ, Q208, Q240^ϕ, and Q253^ϕ.
- reliable germination, similar to Q208, with a sprawled growth habit prone to lodging, and has large, pointy eyes (often prone to side shooting).
- resistance to leaf scald with intermediate resistance to smut and Pachymetra.
- A preference for mid to late harvesting times.

SRA48^ϕ

Approved for release by the Herbert RVC in 2025 with limited distribution from HCPSL approved seed plots in 2027.

In trials SRA48^ϕ has shown,

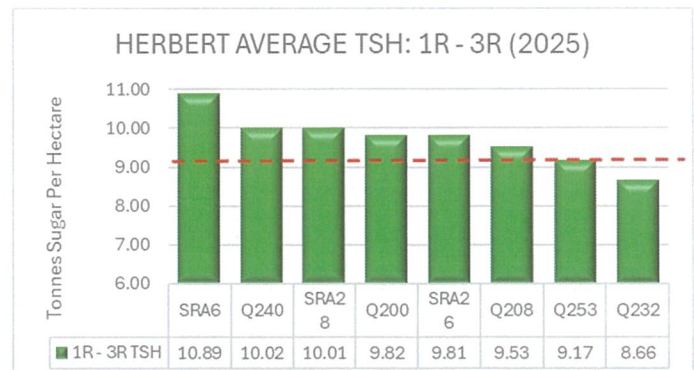
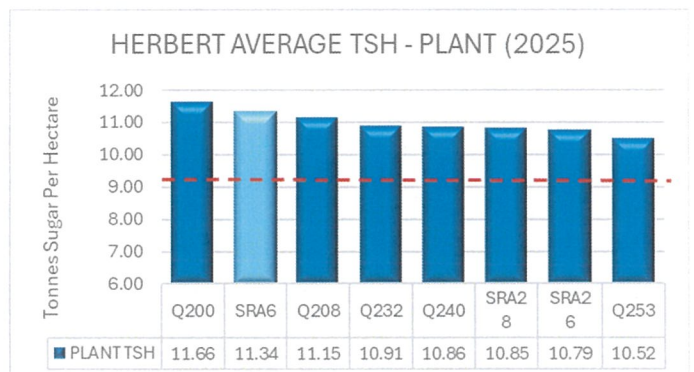
- slightly lower CCS than Q200, Q208, and Q240^ϕ, and slightly higher CCS than Q232^ϕ.
- a cane yield advantage over Q200, Q208, and Q240^ϕ, and is comparable to Q232^ϕ.
- resistance to leaf scald and smut with an intermediate - susceptible rating for Pachymetra, (avoid planting on blocks with high Pachymetra spore counts).
- reliable germination with an erect, compact stool and upright growth habit, providing excellent harvesting presentation.

Further information on all approved varieties can be found in the SRA variety guide. The variety guide is available through the HCPSL office or on the SRA website -

www.sugarresearch.com.au/publications/herbert-variety-guide-2025-26.

COMMERCIAL VARIETY PERFORMANCE

The charts below show the 2025 commercial sugar yields for eight major varieties grown in the Herbert for Plant and 1st – 3rd Ratoon. The red dotted line represents the seasonal mill average across all crop classes and varieties, while a lighter shaded column highlights limited supply. The information to develop these charts was taken from the Wilmar grower web.



GROWER AND INDUSTRY FORUMS

Severe flooding during the February and March period, as well as ongoing recovery work post-flood, limited the capacity to deliver some planned industry events.

The Smarter Pesticide Use forum, scheduled for February was cancelled, and the annual industry awards were not held in 2025.

HCPSL Shed Meetings

The 2025 HCPSL shed meetings were held in the Ingham Line, Central Herbert, Lower Herbert, Stone River, and Abergowrie sub-districts on the 29th and 30th of January with 90 growers and industry stakeholders attending.

Topics discussed included -

- HCPSL approved seed plots and ordering system.
- Variety surveys (forecasting grower needs).
- Tissue culture (ordering and management).
- Seed inspections and RSD testing.
- Chemical Updates
 - Chlorpyrifos deregistration
 - Suscon Maxi withdrawal from market
 - Paraquat review update

Link2Country Expo

The inaugural Link2Country Expo was held at the Ingham Showgrounds on the 23rd and 24th of May 2025.

Supported by local businesses and organisations, HCPSL staff dedicated their time to promoting careers in agriculture at a display stand showcasing what HCPSL had to offer.



Top: Richard Hobbs discussing herbicide updates at the Stone River shed meeting.

Middle: Rhiannan Harragon discussing tissue culture at the Macknade shed meeting.

Bottom: Richard Hobbs discussing insecticide updates at the Central Herbert shed meeting.

Left: HCPSL stand at the 2025 Link2 Country Expo.

A SUMMARY OF THE ASSCT ARTICLE TRENDS IN SOIL CHEMICAL FERTILITY WITHIN THE HERBERT DISTRICT

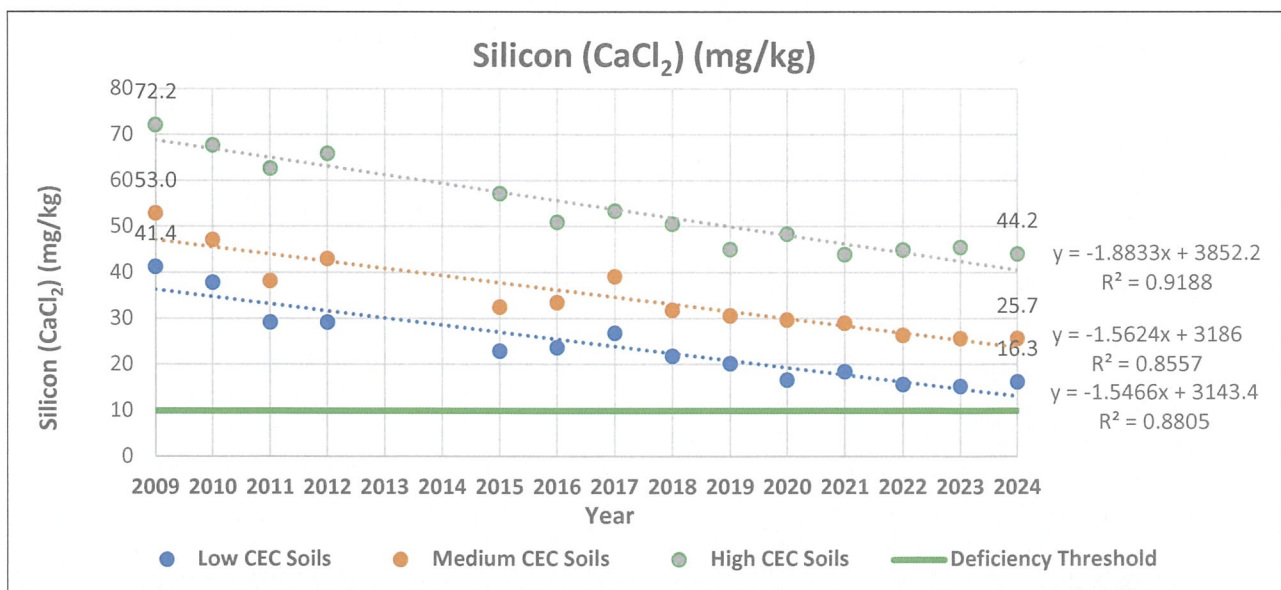
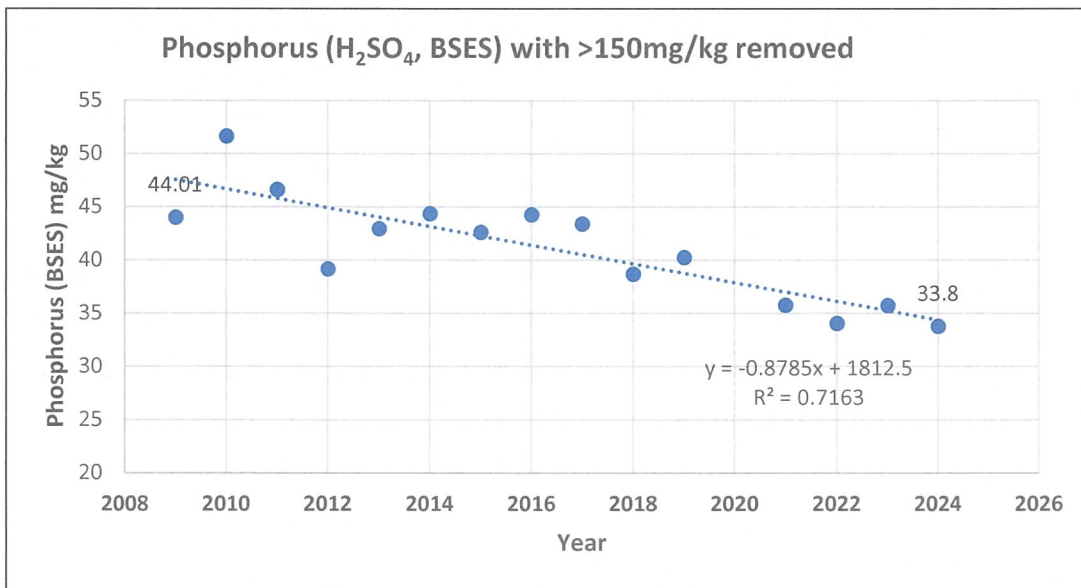
Herbert Cane Productivity Services Ltd (HCPSL) has tested over 5,000 soil samples from across the Herbert District since 2009. Individual soil nutrient levels were averaged each year and trends assessed. In general, there is a decline in soil fertility, although an increase in soil pH (1:5 soil to water) was observed, probably due to growers using lime as promoted by HCPSL's amelioration extension program. However, downward trends in soil silicon (CaCl₂) and phosphorus (H₂SO₄, BSES) levels were observed, with soils with low cation exchange capacity (sand and loam) approaching deficiency levels. There was a general trend of phosphorus mining of soils that have not received mill by-products. The results provide insights that will guide future soil fertility extension activities and research projects in the Herbert district.

Soil pH (1:5 water) (pHw) increased linearly from an average of 5.18 in 2009 to 5.62 in 2024, while pH (1:5 CaCl₂) remained constant at approximately 4.50. Silicon (CaCl₂) decreased in all CEC classes over the 15 years, while silicon (H₂SO₄, BSES) increased slightly in the high CEC (>6 cmolc/kg) class and decreased in the medium CEC (3-6 cmolc/kg) and low CEC classes (<3 cmolc/kg). Soil organic carbon levels fluctuated between 1.1 and 1.3% between 2009-18, but since 2019 soil organic carbon levels have reduced, ranging between 0.8 and 1.0%.

There has been a steady decline in soil phosphorous (H₂SO₄, BSES) levels.

Soil sulphate-S, exchangeable potassium, calcium and magnesium and soil iron and manganese levels have trended down since 2009, while nitric acid extractable potassium has increased slightly. Similarly, zinc (HCl, BSES) and copper (DPTA) have steadily declined over the 15 years, while zinc (DPTA) has remained relatively constant although reducing slowly.

For the full report please contact the HCPSL office.





Targeting balanced nutrition and productivity constraints in the Herbert



Queensland Government

This project focused on identifying and addressing constraints affecting growers' crops by improving farm management practices and utilising the resources and guidance within the SIX EASY STEPS® toolbox.

Several additional growers joined the project at the start of the year to make up a total cohort of 19 growers, with approximately 5,570 ha under cane.

Flooding delayed the planned February 6ES workshop until May. The 6ES workshop was led by Dr Barry Salter, SRA Manager for Translation Research along with Nancy Rincon and Erin Headon, Translation Research Agronomists from Tully. Responses from the workshop were very positive. Growers left the workshop with more confidence to interpret their soil test results and diagnose constraints.



Growers and SRA Staff at the 6ES Workshop

'The course has given me the knowledge to ask the questions I need to ask.'

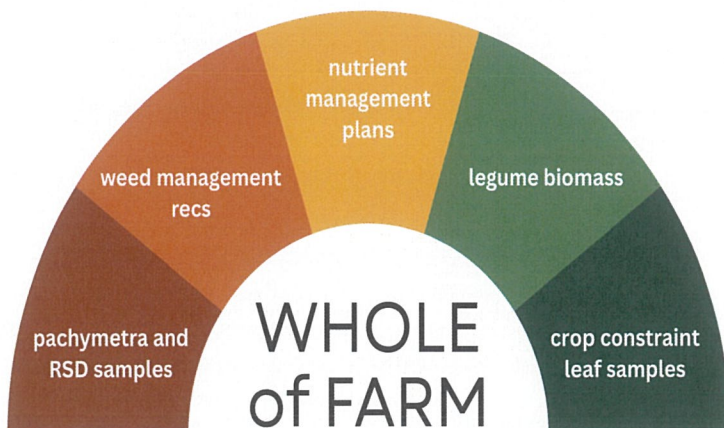
'[Now] I know working it out myself there is genuine formulas. Before I knew there were formulas, but now I understand how you get to that genuine result.'

'I can see we could put a bit of lime on and just fix the paddock, or we could put on a lot and improve production.'

'Understanding soils on your own farm is a necessity.'



The 6ES course accredits growers to develop and maintain their own farm N&P budgets. Another workshop is planned for early 2026.



The diagram at left provides an overview of the other activities undertaken with growers as part of the whole-of-farm approach. Over the course of the year HCPSL extension agronomist Bethany Donker and Nancy Rincon from SRA assisted growers in taking soil and crop samples. Growers received nutrient and ameliorant management plans with strategies to address yield limiting factors. Further sampling of leaf and legume biomass enabled growers to refine their nutrient budgets even further.



Targeting balanced nutrition and productivity constraints in the Herbert



Queensland Government

Growers were also provided with pest & disease pressure maps, identifying the potential susceptibility of blocks to *Pachymetra* root rot and Smut based on variety. By sampling according to these pressure maps, some growers were able to confirm the pressure of *Pachymetra* spores and reassess which varieties they planned to plant.

More extensive sampling for *Pachymetra* root rot took place as part of a district-wide survey from November 2025 to May 2026. Project staff collected 100 samples for *Pachymetra* spore analysis to determine the presence and severity of *Pachymetra* root rot across productivity zones and investigate any potential links with soil type, pH, and varietal choice.

Consistent with past research and the SRA Herbert variety guide, spore count results were much higher for *Intermediate* varieties than for *Resistant* varieties. Results also showed some differences across the six sub-districts with the Lower Herbert having the highest mean spore count.

HCPSSL encourages growers with underperforming ratoons to consider sampling for *Pachymetra* spore levels and developing a long-term sampling strategy for blocks if you have a significant number of 'Susceptible' or 'Intermediate' rated varieties. Talk to one of the staff agronomists about sampling protocols and tools to manage this constraint to production.

The project wraps up in early 2026 having supported growers in their BMP reaccreditation (3 growers), constraint and EM mapping (285 ha), *pachymetra* sampling (13 blocks), weed management (6 plans) and amelioration assessments and strategies (15 plans). Throughout the project, growers have enjoyed the opportunity to work more closely with extension staff and agronomists to fine-tune their decision-making process and gain confidence in dealing with complex constraints to production and build towards greater productivity on their farms.

To find out more about the Project contact Bethany Donker at HCPSSL on 0490 077 176.

Acknowledgements

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



Bethany Donker (HCPSSL) & Nancy Rincon (SRA) sampling cations



Biomass Sampling

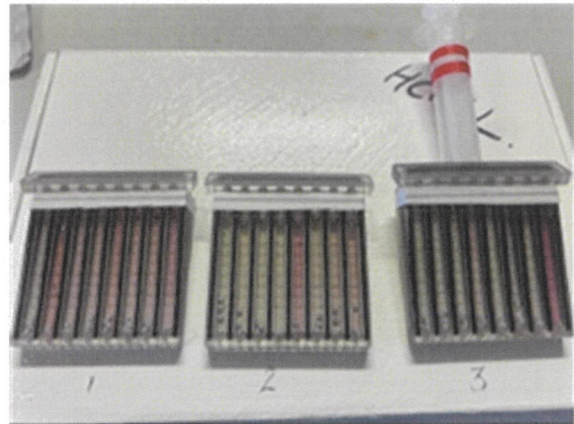
SOIL CRC PROJECTS

HCPSSL has been heavily involved with Soil CRC for the past 8 years with 17 projects covering many different aspects of soil science, soil amendments, carbon creating and retaining in the soil profile, designing and manufacturing of measuring and detecting tools for soil moisture, compaction, salinity & conductivity (*Bandicoot™ Penetrometer*). Another development is the *Bilby®* a below ground wireless data communication tool that can send data up to 3000m to an above ground receiver. HCPSSL was also part of a team looking at novel ways to analyse soil samples in the field by your phone camera to give you faster results (*Lab on a Chip*), just to name a few.

Some of these projects have been challenging, like deep core soil sampling with a jackhammer to 1.2 m and collecting soil and leaf samples in the rain and mud. We also collected large scale soil samples up to 60kg which were bagged and sent to various Universities throughout Australia to be used in lab trials.

Below soil pit and deep core samples are useful to determine Slaking and or Sodicity.

The picture at right was one site we visited in Western Australia. They have similar problems as we have here in the Herbert which is shallow top soil (A horizon) over an acidic sub-soil (B horizon).



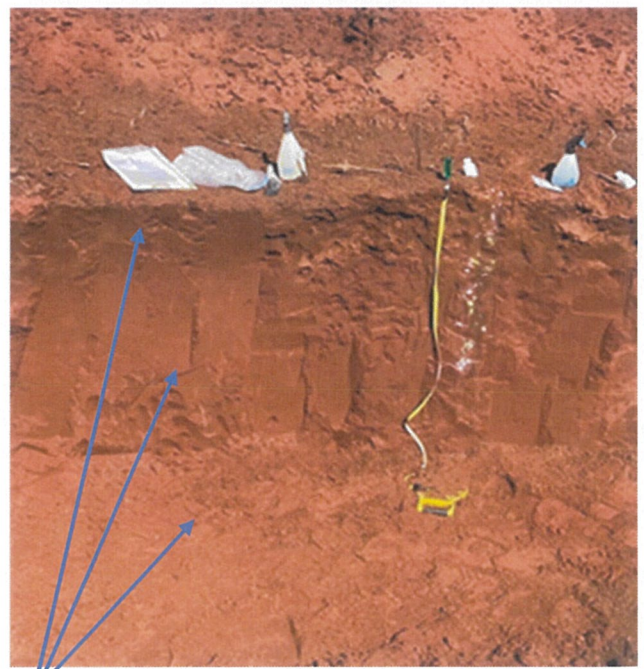
Lab on a Chip prototype being tested



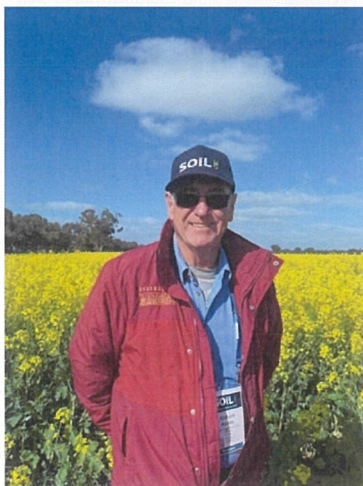
Soil Pit at Dandaragan in Western Australia



Deep core soil sampling
Left is top soil – right is sub soil



Soil pit showing different soil types at depths



Richard Hobbs in a Canola crop in Western Australia

SOIL CRC PROJECTS

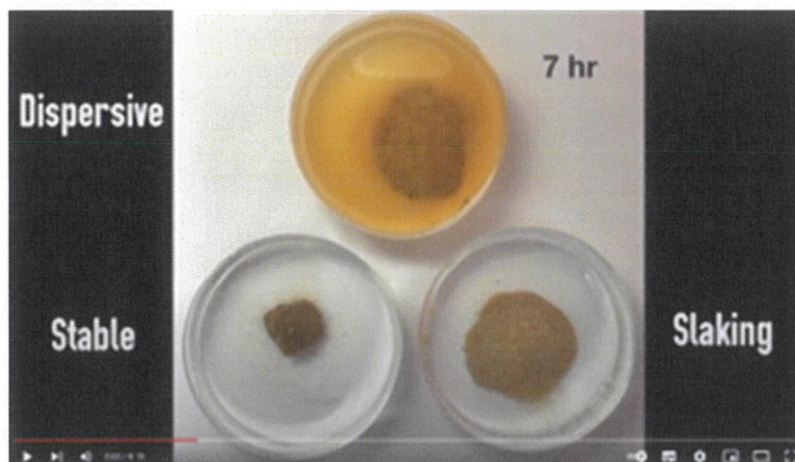


SOIL SLAKING

Soil slaking is the breakdown of large, air-dry soil aggregates (>2-5 mm) into smaller microaggregates (<0.25 mm) upon rapid wetting, indicating unstable soil structure. This phenomenon occurs when trapped air and swelling clays within dry aggregates create internal pressure that exceeds the cohesive strength of the soil, causing it to collapse.

KEY ASPECTS OF SOIL SLAKING

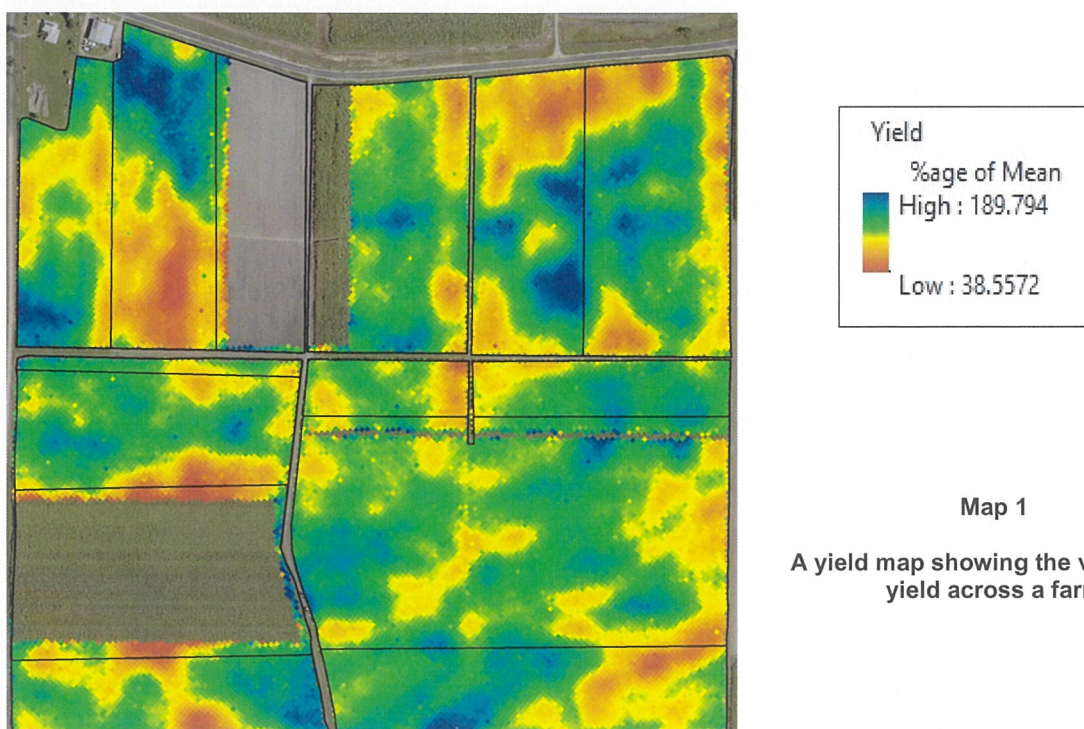
- **Mechanism:** When dry soil is submerged, water rushes into pores, displacing air. If the soil lacks strong organic bonds to hold it together, the trapped air bursts, destroying the structural integrity.
- **Causes:** Poor soil structure, low organic matter, and for clays, repeated cycles of wetting and drying, which create tensile stresses.
- **Consequences:** Slaked soil leads to surface crusting, reduced water infiltration, increased erosion and poor aeration for plant roots.
- **Testing:** A slake test (or slaking and dispersion test) involves immersing dry aggregates in water to observe if they break down, which helps assess soil stability.
- **Management:** Improving soil organic matter and adopting conservation tillage techniques can enhance structural stability and reduce slaking.



Although the Soil CRC provided challenges, it was also very rewarding to be interacting with other Grower groups, Universities across Australia and various State Departments of Agriculture. It has also been beneficial being part of a group of likeminded people looking outside the box to make a difference in our soils.

Precision agriculture is a farming approach that uses technology to measure, monitor, and manage variability in crops and livestock so farmers can make better, more efficient decisions. The goal is to improve productivity, reduce costs, and minimise environmental impact by treating each part of a paddock according to its actual needs instead of applying one blanket treatment. It includes things like:

- GPS-guided machinery for accurate planting, fertilising, and spraying,
- Drones and satellites to map crop health,
- Soil sensors to measure moisture and nutrients,
- Yield monitors on harvesters,
- Data analysis and modelling to plan management decisions.



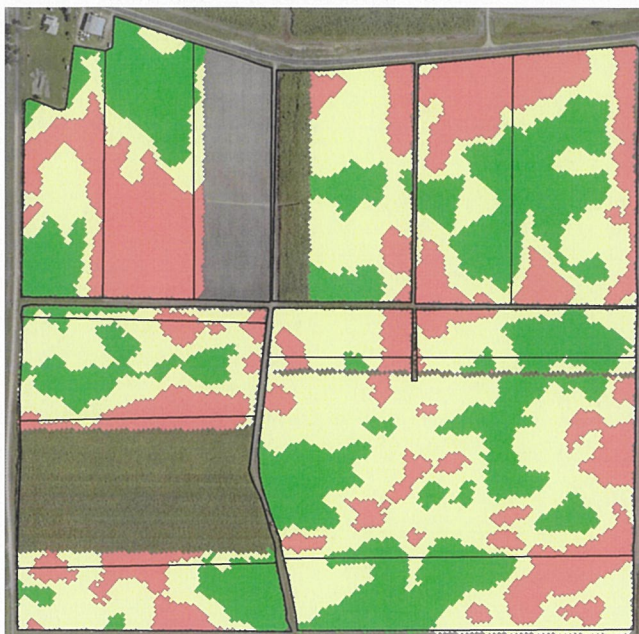
Map 1
 A yield map showing the variation in yield across a farm

Yield monitors on cane harvesters are relatively new, compared with grain harvesters, but the intent is the same; to identify areas of yield variation across a field. Identifying actual yield variation from harvesting, is an important step in determining yield limiting factors in the field. **Map 1** shows sugarcane yield across a farm simply as areas of high yield to areas of low yield (as a percentage from the mean). Percent from the mean negates the effect of weight loss due to the length of the harvesting season and climactic effects across the farm.

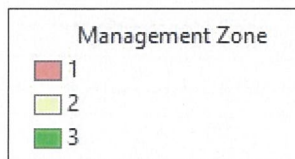
In the absence of weed, pest or disease pressure, we are left with the soil: soil moisture and soil chemistry. A yield map provides information for targeted soil sampling. Over subsequent harvests, this method helps identify specific areas of a field that consistently underperform or overperform, allowing for a more efficient and effective soil analysis than traditional random or composite sampling. While growers often have detailed knowledge of high performing vs low performing areas, a yield map can provide a visual extent of these areas. This data over multiple years can be aggregated to create digital yield maps showing variability (high/low zones) for targeted management, leading to better resource use, profitability, and sustainability by addressing specific soil/growth needs.

Targeted soil sampling provides an entry point into further precision agriculture applications, such as variable rate application of ameliorants and nutrients. Yield maps fit nicely with other layers like NDVI and grid mapping to build a better understanding of yield trends or correlations in a paddock. The true value of yield data isn't realised until multiple years of data are collected, providing information across different crops and seasons, allowing potential management zones to be identified, which can be ground-truthed through strategic soil testing.

Precision farming with integrated yield mapping enables farmers to reach higher yields while simultaneously improving environmental standards, as increased operations efficiency is coupled to reduced fuel consumption and optimisation of fertiliser use.



Map 2 is an example of a management zone map for variable rate application of ameliorants and/or nutrients. Rates of either required in each zone in each field would be determined via the results from the targeted soil samples. A calibrated fertiliser box with a variable rate controller and an RTK GPS will change the rate of application each time the fertiliser box crosses a line into a new management zone.

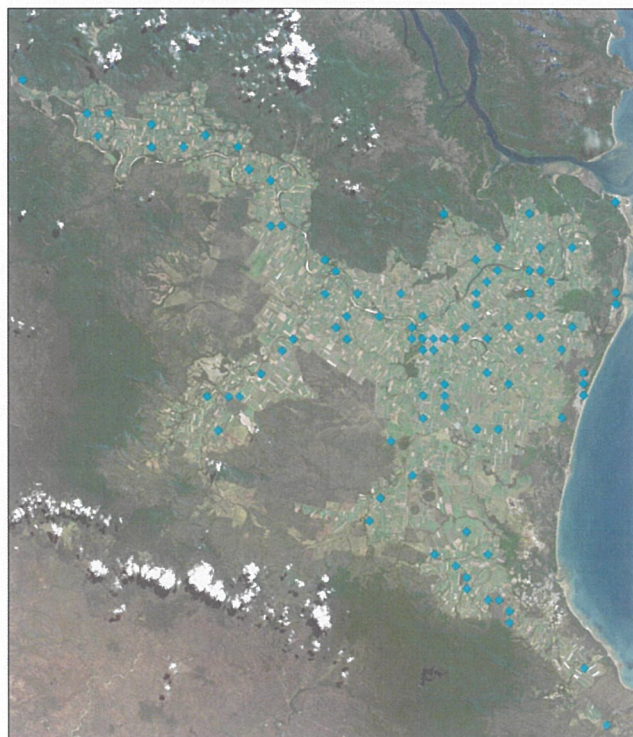


Map 2

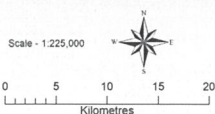
A map of proposed management zones based on yield mapping.

During fertiliser trials at HCPSL, application rate changes were made every 20 metres throughout the trial plots, so it is possible to have management zones which are quite narrow when the yield data dictates.

Yield maps are not a new concept, and there are a range of uses for yield data. However, at the base level they are a valuable tool for reviewing the season and planning for the next. Yield maps can help understand what is driving profitability at a paddock and farm level and yield data may also have a fit for insurance, banks, family communication or other reporting.



PRIVATE WEATHER STATIONS
Weather Underground
<https://www.wunderground.com/wundermap>



◆ Wunderground Stations December 2025

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Date: 10/12/2025



Weather Stations

Currently there are more than 100 private weather stations across the Herbert, transmitting weather information to the internet. Over time new ones have appeared in the Wundermaps web portal, (<https://www.wunderground.com/wundermap>) while others have disappeared or have ceased transmitting to the internet. Since HCPSL began mentioning these weather stations in 2020, 136 sites have been recorded in the Herbert with 105 (about 77%) contributing data to the internet as of December 2025.

While these stations may not be 100% accurate, they do provide an insight into rainfall across the district, and a times they contribute information to project reports. For example, locals understand the accessibility limitations that the wet season creates to collecting in-field data, either for projects, or, as the 2025 wet season demonstrated, collecting RSD samples from seed cane. The Wundermaps website allows HCPSL staff to quickly assess rainfall in an area, after a rainfall event, to determine whether some cane blocks may be accessible for RSD testing, laser surveys or EM mapping surveys.

RATOON STUNTING DISEASE (RSD)

2025 RSD sampling results showed that 11% of seed blocks tested by HCPSL using the qPCR test returned a positive result; that's 1 in every 9 blocks infected with RSD.

While SRA26^ϕ and Q253^ϕ once again returned the highest rates of RSD in 2025, testing reinforced the fact that no varieties are immune.

Aside from RSD testing to better understand the scope of RSD on your farm, the two best defenses against productivity losses associated with RSD remain -

1. Sterilisation of all equipment that comes in contact with sugarcane and sugarcane juice (harvesters, planters, whole stalk cutters, mulchers etc).
2. Establishing a dedicated on-farm seed block from the following sources;
 - a. HCPSL approved seed plot material.
 - b. Tissue culture plant.
 - c. Hot water treated material.

In 2025, HCPSL tested seed material for 488 farms spanning a total farming area of over 46,000 ha.

The table below outlines the type and number of samples collected by HCPSL, as well as infection rates detected in 2025.

Testing Method	Number of Samples	% of positive infections
Phase Contrast (Microscope)	378	11%
qPCR (Leaf Sheath Biopsy and Xylem)	1646	11%
Total	2024	11%



RSD samples collected by HCPSL staff being prepared for dispatch to the SRA lab for analysis.

SUGARCANE SMUT

Anecdotally, the level of sugarcane smut reported across the Herbert increased in 2025, when compared to 2024. While difficult to quantify, smut can have a significant effect on crop productivity.

Using a smut effective fungicide at planting and growing smut resistant varieties are the primary means of combating this fungal disease.

Smut resistant varieties include: SRA40^ϕ, SRA36^ϕ, SRA26^ϕ, SRA6^ϕ, Q253^ϕ, Q240^ϕ, Q183^ϕ.

CANEGRUBS

Damage associated with canegrubs has also been on the increase with several growers reporting productivity losses in 2025.

Combined with an increase in reported Greyback cane beetle flights over the November – December 2025 period, further losses are expected in subsequent years.

Imidacloprid remains the primary management tool in controlling cane grubs. The two most common factors associated with failure of imidacloprid fully controlling canegrubs are;

1. Applying imidacloprid too early – Application should be as close to the end of the season as possible. Early applications (June – August) may result in reduced efficacy of imidacloprid and subsequent crop losses.
2. Exposing imidacloprid to sunlight – Application must be applied at 100mm ground depth with good soil cover. Losses due to UV breakdown, or run-off, will occur where this is not done successfully.



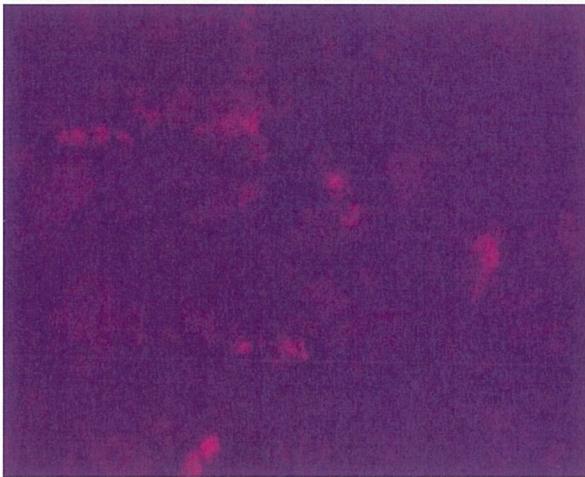
Stool tipping and crop dieback caused by Greyback cane grubs.



Project Squealer™

An Initiative of the Hinchinbrook Community Feral Pig Management Program

From March 2022 to April 2025, Herbert Cane Productivity Services (HCPSL) received Queensland Feral Pest Initiative (Round 6) funding on behalf of the Herbert Community Feral Pig Management Program (HCFPMP) to trial innovative feral pig control methods and measure their impacts. The project assessed several emerging technologies, including thermal aerial surveillance, GPS tracking collars and the use of drones to deploy baits into inaccessible wet-season areas. It also examined the feasibility of using AI to automate trap-gate closure once pigs entered a trap.



Thermal image showing feral pigs in a cane block

HCPSL hired a DJI Matrice 300 drone with a Zenmuse H20T thermal camera to test two survey methods:

1. pre-programmed flights capturing nadir images, and
2. free-flight surveys over known pig-infested areas.

Method 1 was less effective due to long flight times, multiple battery changes and coarse pixel resolution that made heat signatures hard to identify. Method 2 worked well because pigs were known to be present, and the drone could be flown at variable heights and angles to better confirm the animals producing the heat signatures.

The project purchased three GPS tracking collars and collared six pigs over about 29 months. The GPS data collected measured home range extents, showed some seasonal resource preference, and that some feral pigs don't go into sugarcane blocks, even when they're close. Further analysis using methods recommended by Biosecurity Queensland, showed areas of regular use which could be used as a focus for management activities. As an unexpected bonus, no change in activity was observed during TC Kirrily on the 25th of January 2024.



Kelly photographed wearing the GPS tracking collar

Transporting feral pig baits by drone is possible but likely not economically viable. Drones need a 40–50 kg capacity, qualified pilots and cost over \$200 per hour, with operations taking several hours. Bait sites require at least three days of pre-monitoring with trail cameras, ideally set up before the wet season with mobile data for monitoring. Flights beyond visual line of sight require additional certification, and CASA assessment costs around \$3,000. Overall, drone baiting is feasible but likely less cost-effective than other management approaches.

With some pig traps now fitted with remotely triggered gates, Project Squealer partnered with James Cook University to explore automating the gate-triggering process. The goal was to use AI to identify and count pigs around a trap, triggering the gate once a high proportion had entered. Project Squealer focused on this identification and counting stage, contributing to what would be a much larger, integrated project.

LINK2COUNTRY

In 2025, HCPSL had the privilege of attending the Link2Country Expo, where Tayla Harragon and Bethany Donker had the opportunity to showcase the diverse range of work done at HCPSL to students from the wider community. They explained the various pathways individuals have taken to reach their current roles at HCPSL, offering valuable insights into the different career opportunities within the organization.

As part of the event, HCPSL also ran a "Guess the Variety" competition, which exposed children to five different sugarcane varieties grown in the Herbert District. This interactive activity helped raise awareness about the importance of variety selection in cane production. Additionally, HCPSL was able to showcase the Tissue Culture planter and the plants it produces, giving attendees a closer look at this innovative technology used for rapid seed cane production.



HCPSL DISPLAYS AT THE LINK2COUNTRY EXPO



CANEGROWERS HERBERT RIVER SUGAR CANE SCHOOL INITIATIVE

In 2025, Canegrowers Herbert River partnered with HCPSL and SRA for an important and hands-on program called the "Canegrowers Herbert River Sugar Cane School Initiative." This collaboration allowed HCPSL to provide Tissue Culture plants and offer additional support to local primary schools within the district. The initiative aimed to spark interest in the sugar industry by engaging students with the science and practices behind sugarcane production.

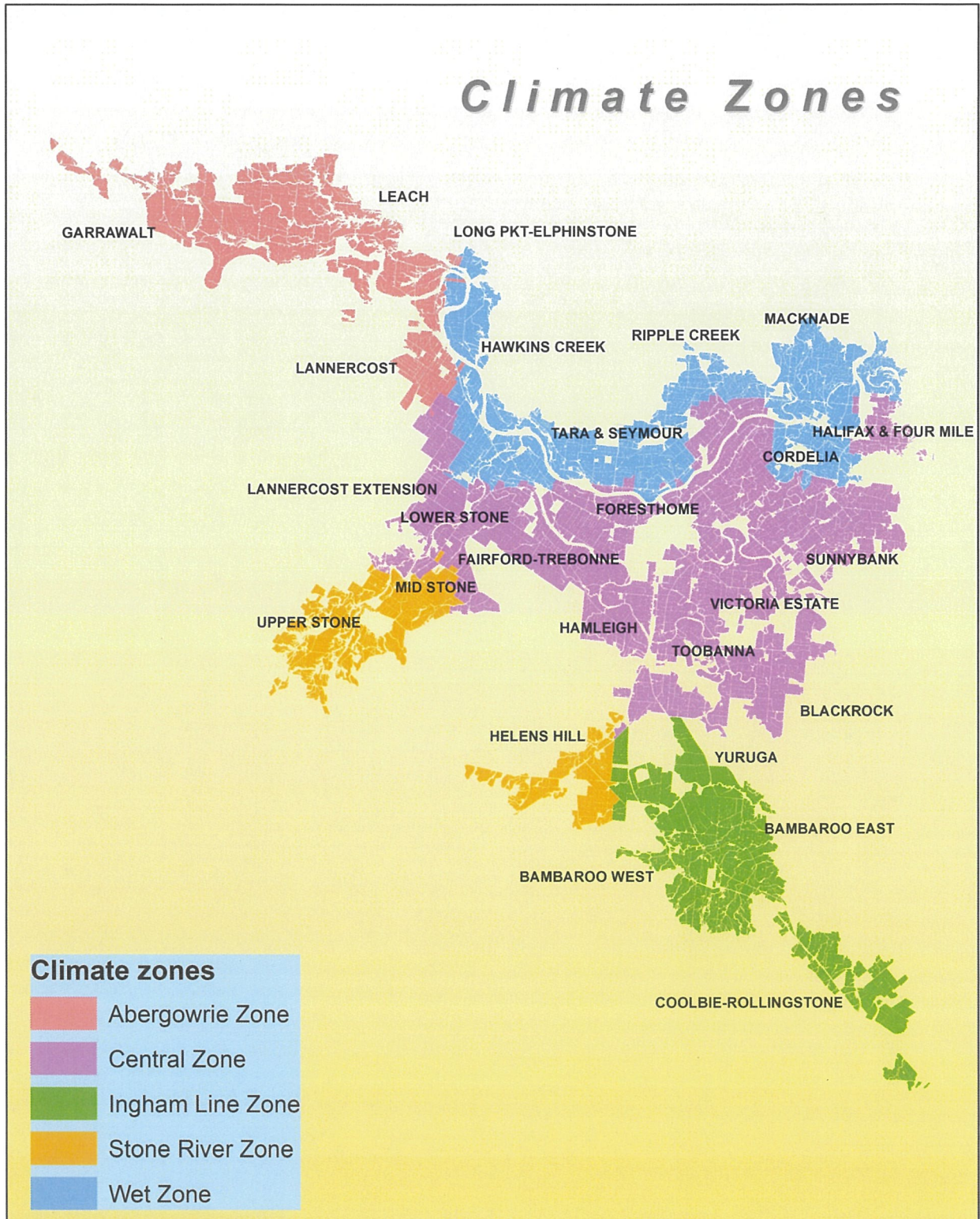
Rhiannan Harragon from HCPSL worked closely with primary school students, alongside Canegrowers Herbert River, Sugar Research Australia and Ingham State High School. Together, they helped students explore the process of tissue culture, giving them hands-on experience in planting, watering, and later applying fertiliser to the plants. This interactive approach gave students a deeper understanding of the industry and its role in the local community.



Working with the Ingham State High School agricultural students to plant tissue culture



HCPSL & Canegrowers Herbert River oversee the tissue culture planting at Lourdes school



Sub-regional climatological differences for the Herbert River mill area were determined using a statistical clustering algorithm. Five distinct sub-regions were identified based on seasonal (summer, autumn, winter and spring) rainfall and radiation data for the period 1975 to 2016. The sub-regions are referred to as the Wet, Abergowrie, Stone River, Ingham Line and Central climate zones. These climate zones were an output of the SRA funded project 2017/009 lead by Dr Danielle Skocaj, SRA Tully.

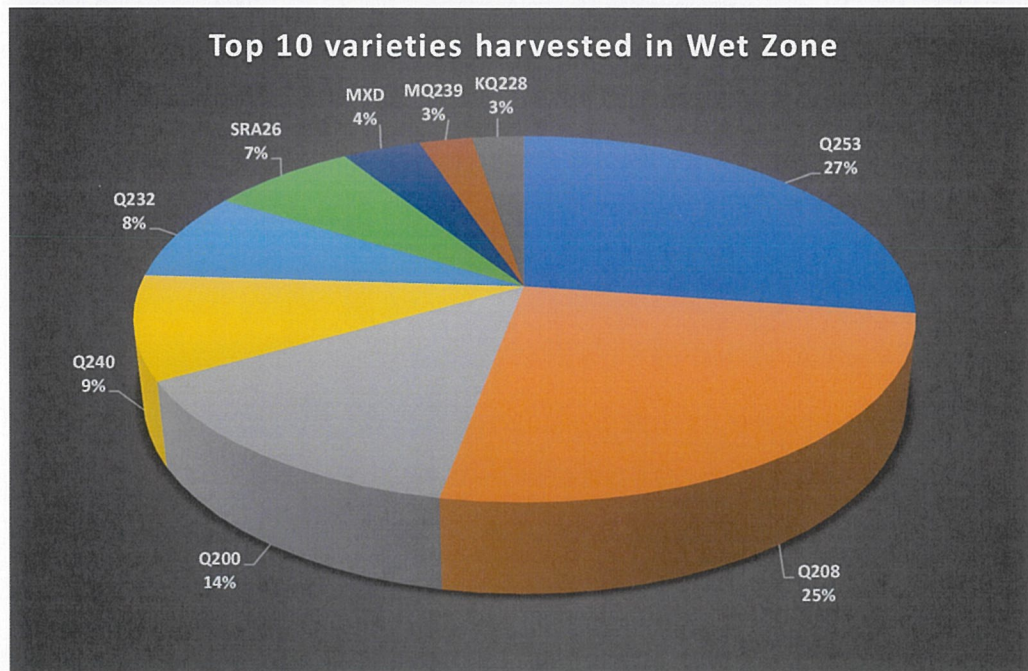
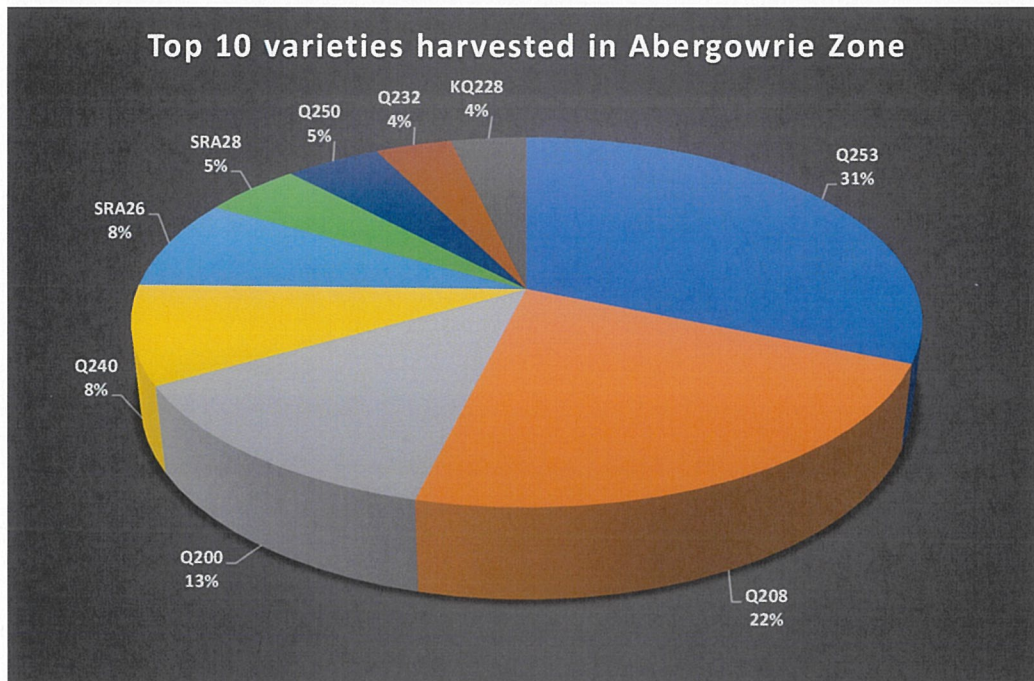
CLIMATE ZONES

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).

Challenging conditions were experienced across all five climatic zones early in 2025, with no zone being spared. The Southern zone did dry out reasonably quickly around mid-year when the winds started picking up again which allowed for planting to occur. However, some of the Northern zones were once again trying to get cane in the ground in October. Fallow blocks were carried over into 2026 as planting opportunities slipped away from growers due to lingering wet conditions.

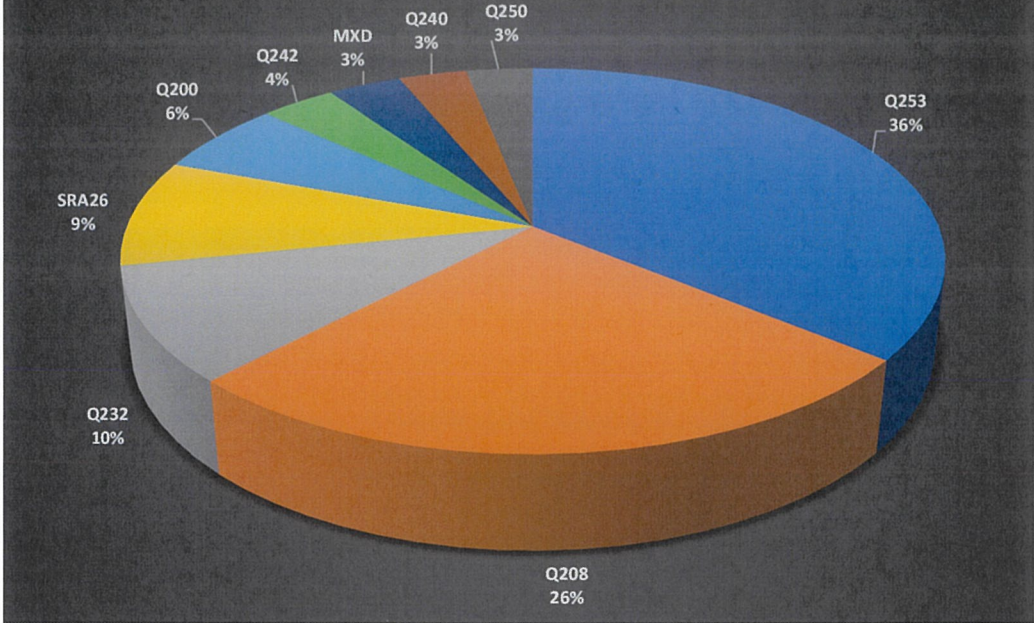
With improved conditions over 2024, SRA28[Ⓞ] was able to be harvested within a more suitable time frame, so the death of the top seen in 2024 was not as visible in 2025. Late in the year, brown rust was observed in a small number of blocks of SRA36[Ⓞ] plant and ratoon, however SRA36[Ⓞ] may follow Q253[Ⓞ] and Q226[Ⓞ] in being able to pick up again relatively well, once the rust subsides.

SRA6[Ⓞ] still seems to be the variety showing most grower interest of the younger varieties, with the variety being planted in a broader range of soil types again in 2025. Meanwhile, the popularity of SRA26[Ⓞ] is still mixed amongst growers across all five climatic zones. Confidence still lies with the older varieties, with MQ239[Ⓞ] still potentially showing the greatest interest for increase at the moment in the Wet zones. Q208[Ⓞ] is potentially showing the greatest level of declining interest in the Wet zone, and across the district again showed visible symptoms of smut. Whilst existing in smaller volumes, Q232[Ⓞ] is still a sought after variety in the Southern and parts of the Northern zone.

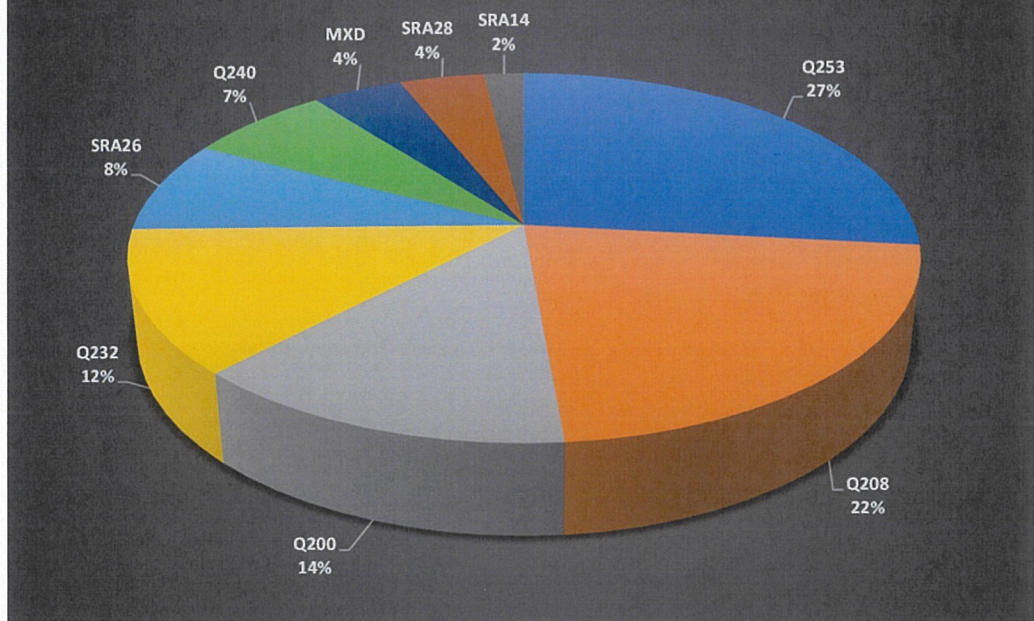


CLIMATE ZONES

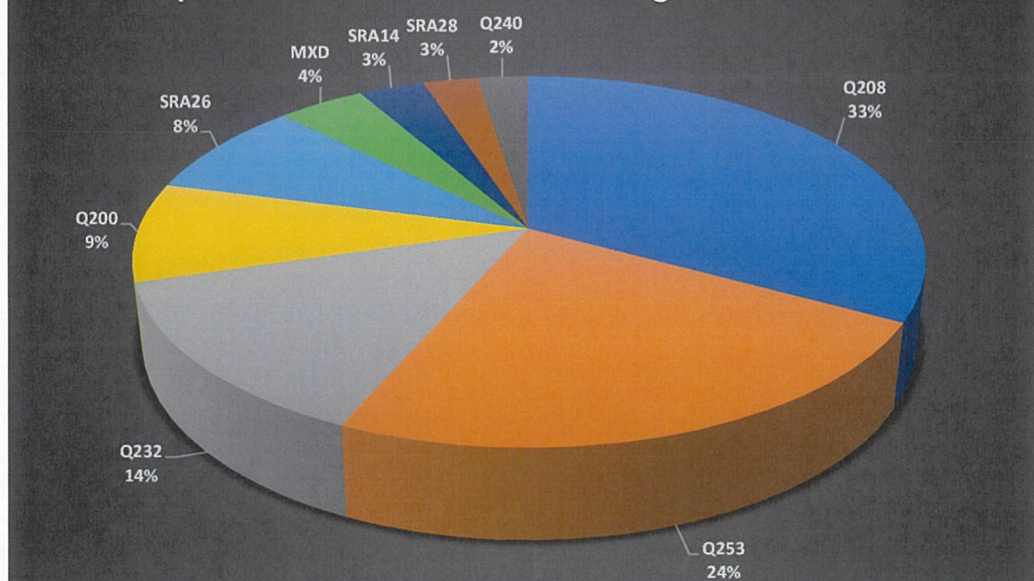
Top 10 varieties harvested in Stone River Zone



Top 10 varieties harvested in Central Zone



Top 10 varieties harvested in Ingham Line Zone



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