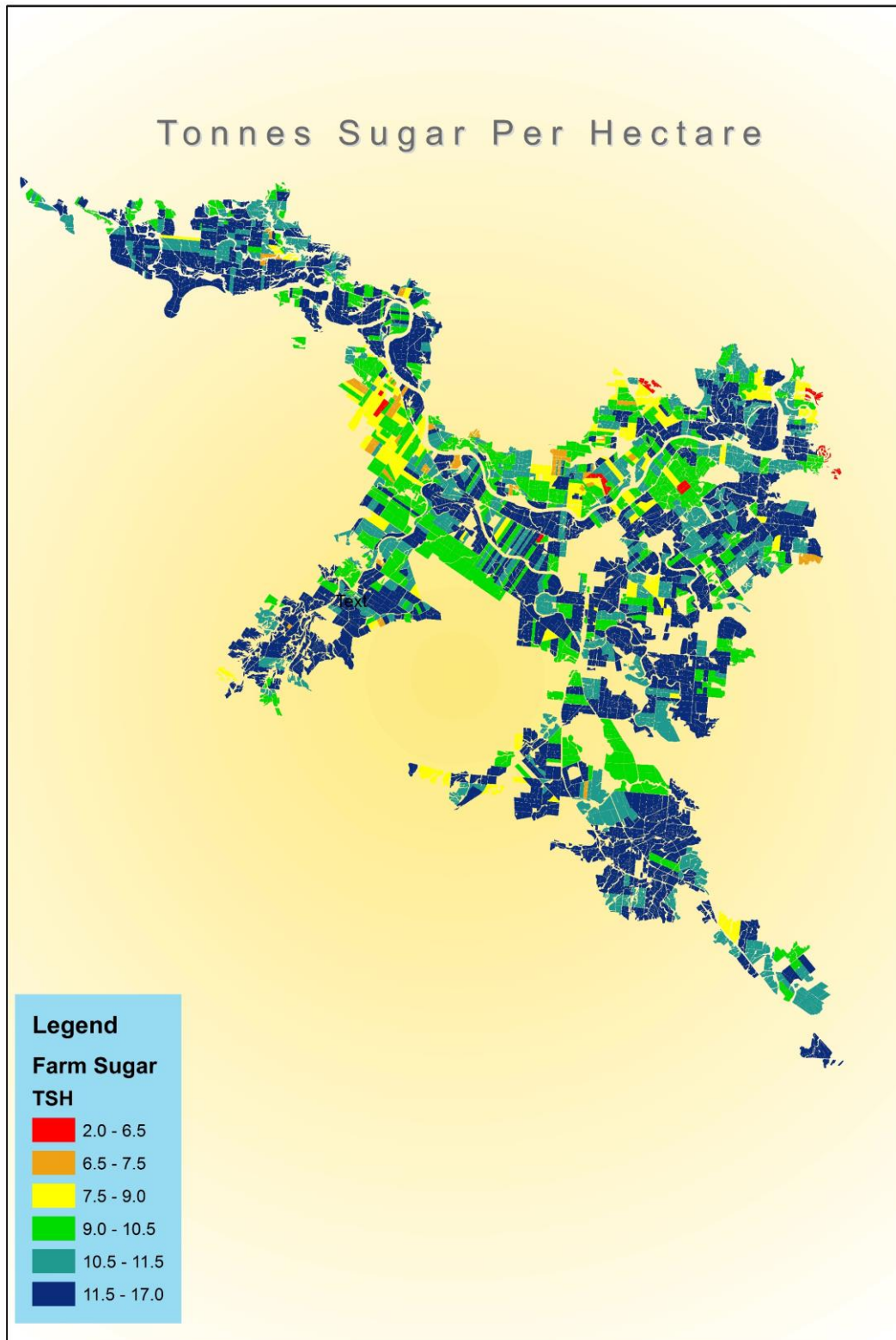




# HERBERT SUGAR INDUSTRY REPORT 2017



## CROP PERFORMANCE 2017

The 2017 crush of 5.033 million tonnes was the fourth largest crop of all time. Exceeding Target 85 for the second consecutive year was a great achievement and some indication that the program is starting to have an impact on productivity. The crop was characterised by larger than normal stool and near record plant and first ratoon yields achieved by some of our new varieties. The unprecedented several hundred millimetres of rain in the second half of the season extensively delayed the crushing by weeks, rather than days and the crop kept on growing and suckering right to the end. The harvesting and milling sectors should be commended for persisting with the muddy conditions to get such a large crop off.

Highlights were Bambaroo and Stone River areas along with Helens Hill achieving outstanding productivity with many growers achieving over the magic 100 tonnes per hectare and some very high CCS results in Stone River. Although the crop produced good cane yields, the CCS drop off towards the wet tail end, and especially in December, was disastrous. It plunged below 7 CCS on some farms with 6,384 tonnes being condemned along with 35,000 tonnes of standover cane left unharvested.

Because of the larger than expected crop, and the already mentioned extreme weather events, the crushing finished on 21<sup>st</sup> December. Field trials and data show that finishing in December results in significantly depressed yields of late cut ratoons the following year. The industry needs to look at alternative ways of finishing earlier, including varietal selection, predictive CCS modelling, better small mill analysis, aggressively topping standing crops to improve early CCS and the use of crop ripeners such as Moddus. Alternative payment schemes and transport schedules for challenging times of the year may also be worth investigating.

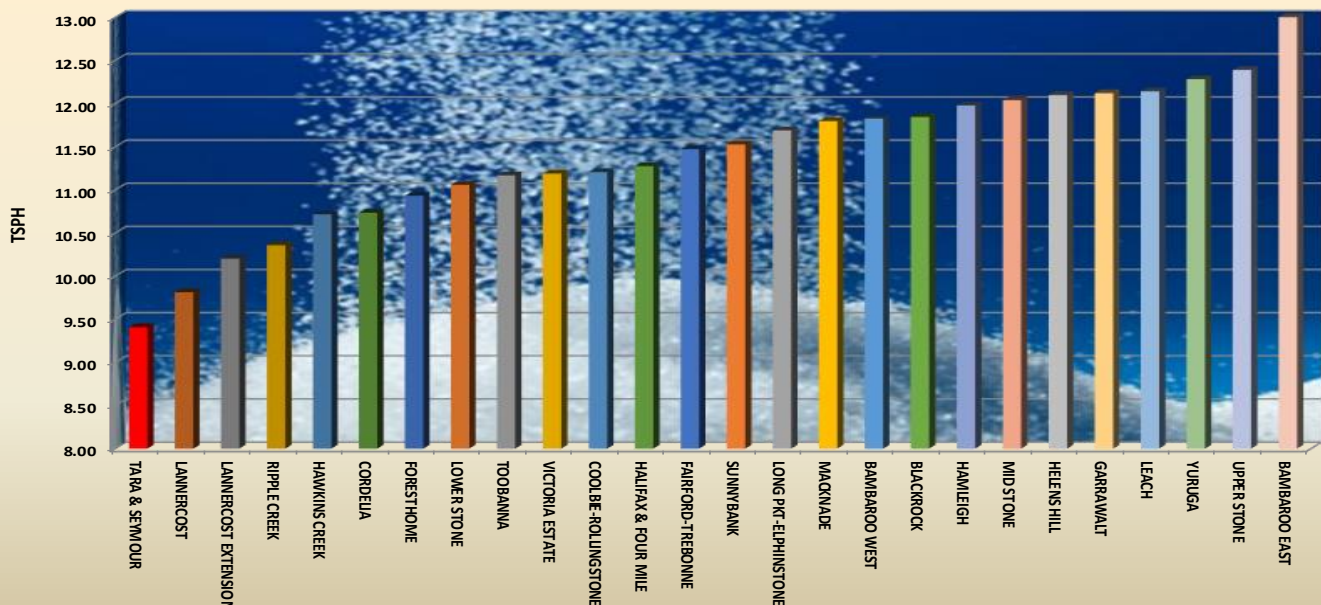
### HISTORICAL DATA

Year	Tonnes	Ha Harvested	CCS	Cane Yield	Sugar Yield
1990	1962716.31	27349.39	14.42	71.76	10.35
1991	2328911.56	41309.36	14.74	56.38	8.31
1992	3398465.82	42926.40	14.23	79.17	11.26
1993	3873973.78	44650.81	13.37	86.76	11.60
1994	3888137.31	46730.02	14.74	83.20	12.27
1995	4908214.85	50051.86	13.05	98.06	12.80
1996	5251285.67	53513.30	13.21	98.13	12.96
1997	5272421.61	57328.33	13.37	91.97	12.29
*1998	4191272.31	48669.90	11.46	86.12	9.87
1999	4151741.51	59955.95	12.73	69.25	8.81
2000	2802049.39	58379.16	13.01	48.00	6.24
2001	3311004.97	56876.94	14.34	58.21	8.35
2002	4243591.27	54892.20	14.40	77.31	11.13
2003	4051558.05	56975.69	13.90	71.11	9.89

Year	Tonnes	Ha Harvested	CCS	Cane Yield	Sugar Yield
2004	4641372.86	56410.75	13.56	82.28	11.16
2005	5553359.05	57078.93	13.11	97.29	12.76
2006	4900084.45	57658.50	12.62	84.98	10.72
2007	4287010.73	57158.66	13.84	75.00	10.38
2008	4688595.64	55061.21	13.54	85.15	11.53
2009	3920941.21	51171.33	14.79	76.62	11.33
*2010	3274402.07	39567.98	12.85	82.75	10.64
2011	2920400.98	52364.64	12.89	55.77	7.19
2012	3625680.08	50394.18	13.57	71.95	9.77
2013	4000685.4	54017.57	13.95	74.06	10.33
2014	4152315.8	55800.99	13.62	74.41	10.13
2015	4459593.6	56615.75	13.41	78.77	10.56
*2016	4812090.08	56166.82	12.26	85.67	10.50
*2017	5033395.85	57078.74	12.88	88.18	12.88

\* Standover Left

### District Productivity





We hit the **Target 85** goal in both 2016 and 2017. 5.03 million tonnes of cane were harvested in 2017, which is the 13<sup>th</sup> time since the 1950's the district exceeded 85 tchp. 2017 was another busy year for HCPSL servicing the needs of the Herbert cane industry.

The most notable HCPSL achievements in 2017 were:

### **Crop agronomy**

- Numerous nutrient management plans were undertaken for growers through the Wet Tropics Sugar Industry Partners (WTSIP) program. These plans have allowed growers to better target nutrient applications, while addressing water quality concerns.
- Undertook 16 Project Catalyst trials assessing innovative farming practices. The Coca Cola Foundation through WWF have funded this project.
- SRA funded a large farming systems research program to assess what determines good soil health. The project team consists of involved growers, SRA, University of Queensland, Burdekin Productivity Services, MSF and HCPSL staff.
- Conducted a glasshouse experiment, funded by DOW Agrosiences to compare conventional urea to Entec® and eNtrench®.

### **Crop improvement**

- The continuation of the joint funded HCPSL/ SRA Ratoon Variety Trials. These trials were established in 2013 to assess varieties on difficult environments in the Herbert region. These trials complement the SRA core plant breeding program.

### **Variety management**

- Variety management plans were established for approximately 30% of the fallow area for planting. HCPSL staff use the SRA QCane Select program to assist growers select the correct variety to plant in a field.
- A trial to assess SRA5 at varying nitrogen rates.

### **Biosecurity and disease management**

- Inspection of machinery entering or leaving the region.
- Provision of over 1100 tonnes of approved seed cane to growers.
- Continued work associated with the management of the *Pachymetra* root rot following the survey work completed in 2015.

### **Pest management**

- Continued funding the Hinchinbrook Community Feral Pig Management Programs leading to a significant reduction in feral pig damage to cane crops.
- HCPSL, CANEGROWERS Brisbane and Mackay Area Productivity Services (MAPS) and Animal Control Technologies Australia worked together to obtain an aerial rat baiting permit for lodged cane crops. The permit allows only UAV's or helicopters to be used for the baiting activity. In 2017, around 500 hectares were treated to manage rat infestations, mainly in Q208.

### **YCS management**

- Assisting SRA funded projects on YCS. HCPSL made its own investment into variety trials to assess the differences between varieties for YCS and to possibly select high performing varieties into the future. The data generated from this work will assist growers make better management decisions concerning YCS.

### **Drainage**

- Continuation of laser levelling surveys and dumpy level surveys to improve in-field drainage.

### **Precision agriculture**

- Continuation of the HCPSL Yield Mapping project, mapping over 20,000 hectares annually. The maps generated are now being used by industry to site specific manage cane blocks within a farm.
- HCPSL continued to fund and operate the Herbert Community Basestation network with over 300 GPS users now accessing the signal provided.
- The HCPSL Board decided to purchase a Dualarm unit to allow soils to be mapped in the district in 2017. HCPSL and Miriwinni Lime staff worked together to develop and apply soil amendments to cane blocks in the Herbert.

### **Harvest management and systems**

- Continued work between HCPSL, Wilmar and SRA to investigate harvesting losses and associated issues concerning harvesting and transport.
- SRA, HCPSL and Wilmar worked together to undertake Harvest Optimisation Week (HOW). HOW was a huge undertaking involving running Macknade Mill differently to Victoria Mill. Harvesters supplying Macknade Mill operated at harvest optimised settings and data collected on the associated impacts. The collated data and trial results will be reported back to industry at the 2018 Harvesting Forum.
- Continued support of data management to ensure accurate cane consignment and the analysis of data to base decisions upon.

### **Youth development**

- Support and coordination of the young farmer group.
- Financial support to the under 18 section of the Ingham Show cane display.
- Attendance at the Hinchinbrook Shire Careers Day, which was held at Tyto.

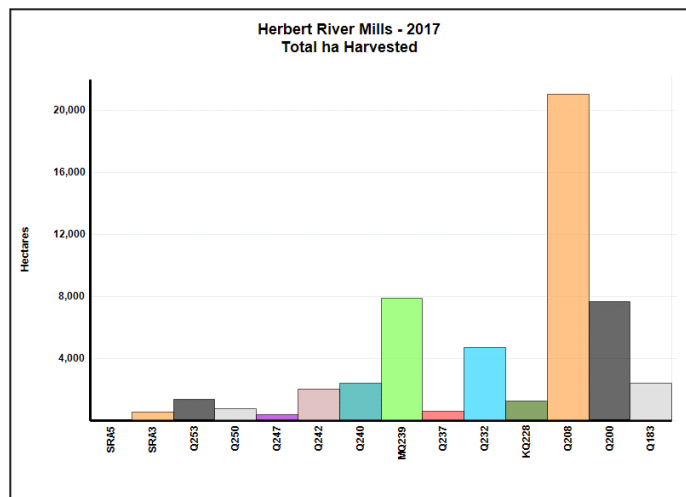
### **Environment and sustainability**

- The Queensland Government funded Project NEMO. This project works with growers through farm demonstration plots to investigate farming systems and fertiliser products that could lead to improvements in water quality outcomes, while remaining profitable.
- The Queensland Government and HCPSL water quality monitoring project. The data from this project is used to inform growers of their environmental impacts.

**The HCPSL Board and staff would like to sincerely thank its members for their continued support in 2016 and look forward to providing a high quality service again in 2018.**



# VARIETY PERFORMANCE & RECOMMENDATIONS



Herbert Recommended Varieties x Soil Type			
Dry Zone		Wet Zone	
Terrace Loamy Soils	Q200 <sup>db</sup> , Q247 <sup>db</sup> , Q208 <sup>db</sup> , SRA3 <sup>db</sup> , SRA5 <sup>db</sup> , Q238 <sup>db</sup> , Q240 <sup>db</sup> , Q242 <sup>db</sup>	Alluvial Soils	Q238 <sup>db</sup> , Q200 <sup>db</sup> , Q208 <sup>db</sup> , SRA3 <sup>db</sup> , Q237 <sup>db</sup> , Q240 <sup>db</sup> , Q247 <sup>db</sup> , Q250 <sup>db</sup>
	Q200 <sup>db</sup> , Q208 <sup>db</sup> , Q242 <sup>db</sup> , Q232 <sup>db</sup> , Q226 <sup>db</sup> , SRA5 <sup>db</sup> , SRA3 <sup>db</sup> , Q253 <sup>db</sup>		Q242 <sup>db</sup> , Q200 <sup>db</sup> , Q208 <sup>db</sup> , SRA3 <sup>db</sup> , Q237 <sup>db</sup> , Q240 <sup>db</sup> , Q238 <sup>db</sup> , Q250 <sup>db</sup>
Clay Soils	Q208 <sup>db</sup> , Q238 <sup>db</sup> , Q226 <sup>db</sup> , Q200 <sup>db</sup> , Q242 <sup>db</sup> , Q253 <sup>db</sup> , SRA3 <sup>db</sup> , SRA5 <sup>db</sup>	Terrace Loamy Soils	Q242 <sup>db</sup> , Q237 <sup>db</sup> , Q200 <sup>db</sup> , SRA5 <sup>db</sup> , Q208 <sup>db</sup> , Q240 <sup>db</sup> , Q232 <sup>db</sup> , SRA3 <sup>db</sup>
Sandy Soils	Q208 <sup>db</sup> , Q247 <sup>db</sup> , SRA5 <sup>db</sup> , Q232 <sup>db</sup> , Q238 <sup>db</sup> , Q242 <sup>db</sup> , Q253 <sup>db</sup> , SRA3 <sup>db</sup>	Clay Soils	Q200 <sup>db</sup> , Q240 <sup>db</sup> , Q183 <sup>db</sup> , SRA3 <sup>db</sup> , Q208 <sup>db</sup> , SRA5 <sup>db</sup> , Q242 <sup>db</sup> , Q253 <sup>db</sup>
Hill Slope Soils	Q208 <sup>db</sup> , Q247 <sup>db</sup> , SRA5 <sup>db</sup> , Q232 <sup>db</sup> , Q238 <sup>db</sup> , Q242 <sup>db</sup> , Q253 <sup>db</sup> , SRA3 <sup>db</sup>	Seymour Soils	
Varieties Displaying Tolerance of Sodic Soils		Q138, Q215 <sup>db</sup> , Q226 <sup>db</sup> *	

Note – This information has been compiled using limited data for SRA5<sup>db</sup>, SRA3<sup>db</sup>, Q253<sup>db</sup>, Q252<sup>db</sup>, Q250<sup>db</sup>, Q247<sup>db</sup>, Q242<sup>db</sup>, Q240<sup>db</sup>, MQ239<sup>db</sup>, Q238<sup>db</sup>, Q237<sup>db</sup>, Q232<sup>db</sup>, Q226<sup>db</sup>.

## DISEASE RATINGS FOR RECOMMENDED VARIETIES IN THE HERBERT

	Brown rust	Chlorotic streak	Leaf scald	Orange rust	Pachymetra root rot	RSD	Red rot	Smut	Yellow spot	
Q183 <sup>db</sup>	Green	Red	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q183 <sup>db</sup>
Q190 <sup>db</sup>	Yellow	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q200 <sup>db</sup>
Q208 <sup>db</sup>	Green	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q208 <sup>db</sup>
Q215 <sup>db</sup>	Green	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q215 <sup>db</sup>
Q200 <sup>db</sup>	Green	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q190 <sup>db</sup>
Q226 <sup>db</sup>	Yellow	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q226 <sup>db</sup>
KQ228 <sup>db</sup>	Green	Red	Yellow	Green	Green	Red	Yellow	Yellow	Yellow	KQ228 <sup>db</sup>
Q231 <sup>db</sup>	White	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q231 <sup>db</sup>
Q232 <sup>db</sup>	White	Green	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q232 <sup>db</sup>
Q237 <sup>db</sup>	Green	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q237 <sup>db</sup>
Q238 <sup>db</sup>	Green	Red	Yellow	Green	Green	Yellow	Yellow	Yellow	Red	Q238 <sup>db</sup>
MQ239 <sup>db</sup>	White	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	MQ239 <sup>db</sup>
Q240 <sup>db</sup>	White	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q240 <sup>db</sup>
Q242 <sup>db</sup>	White	Yellow	Yellow	Green	Green	Red	Yellow	Yellow	Green	Q242 <sup>db</sup>
Q247 <sup>db</sup>	White	White	Yellow	Green	Green	Red	Yellow	Yellow	Red	Q247 <sup>db</sup>
Q250 <sup>db</sup>	White	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Q250 <sup>db</sup>
Q253 <sup>db</sup>	Yellow	White	Yellow	Green	Green	Red	Yellow	Yellow	Red	Q253 <sup>db</sup>
SRA3	Green	White	Yellow	Green	Green	Red	Yellow	Yellow	Yellow	SRA3
SRA5	Green	White	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	SRA5



= Resistant



= Intermediate



= Susceptible



= Unknown/In Trial

**BIOSECURITY IS EVERYONE'S RESPONSIBILITY**  
Machinery and equipment that has come into contact with sugarcane MUST be inspected before crossing biosecurity zones.



Contact HCPSL to arrange a free inspection - 47761808



## Introduction of Herbert Clonal Assessment Trials

Based on Herbert Plant Breeding Review recommendations, continued expansion of plant breeding operations was a primary focus in 2017. The first SRA Herbert Clonal Assessment Trial (CAT) was planted this year, containing 526 replicated experimental clones from various breeding programs:

- 37 foreign clones from USA, Barbados, Guatemala, Columbia and French Réunion
- 5 clones from the Wilmar Burdekin Breeding Program
- 457, 7 and 20 clones produced by the northern, central and southern SRA breeding and selection program, respectively

When the Herbert CAT reaches first ratoon in 2019, plant crop and first ratoon data will be analysed together to select the top performing clones from this trial. These top performing clones will progress to large plot Herbert SRA Final Assessment Trials (FATs) (prior to release).

## Introgression and Clonal Assessment Trials

SRA is placing greater emphasis on the use of Introgression to introduce genetics from wild relatives of sugarcane to increase the productivity of new varieties. Introgression clones will be trialled in Herbert CATs from 2018 onward, creating a unique opportunity for these clones to be tested under local industry conditions. Introgression has become an integral part of the Herbert plant breeding expansion and was moved to the SRA core breeding budget as of July 2017. From 2018 onward, Introgression seedlings will be propagated and trialled in the Herbert annually. Selections from Introgression seedlings will be trialled in Introgression CATs, then progress into regional CAT breeding trials. Top performing clones will be further tested in large scale plot trials. Primary focal points for the introduction of Introgression experimental clones is to test ratoon performance and parental selection. Understanding the ratooning potential of experimental varieties prior to release has been an important issue circulating the local industry, something that the SRA Herbert breeding program are eager to investigate.

## New Release Varieties in 2017

The Herbert Regional Variety Committee (RVC) decided against the release of any new varieties in 2017. Questions have been raised regarding potentially releasing newly-released Northern varieties SRA6<sup>Φ</sup>, SRA7<sup>Φ</sup> and SRA10<sup>Φ</sup> to the Herbert industry. The table below contains Herbert trial data that has been collected on these newly-released varieties across SRA Final Assessment Trials (FATs) and HCPSL/SRA Ratooning Variety Trials (RVTs). These Herbert trials have been conducted on a variety of soil types including, Red Loam, Clay Loam, Sandy Loam, Sandy Clay Loam, Medium Clay, Cordelia Clay, Hamleigh Clay and Silty Clay, with data collected since 2011 (SRA6<sup>Φ</sup>), 2012 (SRA10<sup>Φ</sup>) and 2014 (SRA7<sup>Φ</sup>).

TCH				Compared to Q200 <sup>Φ</sup>			Compared to Q208 <sup>Φ</sup>		
Variety	Average P	Average 1R	Average 2R	P	1R	2R	P	1R	2R
Q200 <sup>Φ</sup>	89.75	87.61	85.94						
Q208 <sup>Φ</sup>	92.92	92.88	88.05						
SRA10 <sup>Φ</sup>	81.30	81.03	74.64	-8.45	-6.58	-11.30	-11.62	-11.85	-13.41
SRA6 <sup>Φ</sup>	83.23	90.85	80.90	-6.52	3.24	-5.04	-9.69	-2.03	-7.15
SRA7 <sup>Φ</sup>	84.45	102.20	80.05	-5.30	14.59	-5.89	-8.47	9.33	-8.00

CCS				Compared to Q200 <sup>Φ</sup>			Compared to Q208 <sup>Φ</sup>		
Variety	Average P	Average 1R	Average 2R	P	1R	2R	P	1R	2R
Q200 <sup>Φ</sup>	15.94	16.47	15.67						
Q208 <sup>Φ</sup>	15.94	16.75	15.63						
SRA10 <sup>Φ</sup>	16.60	16.95	16.34	0.66	0.47	0.67	0.66	0.19	0.72
SRA6 <sup>Φ</sup>	15.22	16.39	14.47	-0.72	-0.08	-1.20	-0.72	-0.36	-1.15
SRA7 <sup>Φ</sup>	15.04	15.39	14.38	-0.90	-1.08	-1.29	-0.90	-1.36	-1.25

TSH				Compared to Q200 <sup>Φ</sup>			Compared to Q208 <sup>Φ</sup>		
Variety	Average P	Average 1R	Average 2R	P	1R	2R	P	1R	2R
Q200 <sup>Φ</sup>	14.15	14.42	13.65						
Q208 <sup>Φ</sup>	14.67	15.40	13.85						
SRA10 <sup>Φ</sup>	13.37	13.65	12.25	-0.78	-0.77	-1.40	-1.29	-1.75	-1.60
SRA6 <sup>Φ</sup>	12.67	14.12	12.03	-1.48	-0.30	-1.62	-2.00	-1.28	-1.82
SRA7 <sup>Φ</sup>	12.68	15.71	11.64	-1.47	1.29	-2.01	-1.98	0.31	-2.21

## Promising Varieties for Potential Future Release

Among the experimental varieties currently being trialled across FATs and RVTs, several show promise as potential future commercial varieties for the Herbert industry. Propagation material has been forwarded from SRA to HCPSL for experimental clones that show promise, to ensure adequate clean seed is available in preparation for potential future release. There has been a noticeable shift in the disease resistance of experimental varieties coming through the Herbert breeding program. Increased disease resistance is mostly attributed to the SmutBuster program (initiated by SRA in 2006), advances in disease testing methods and more rigorous screening for pathogens such as pachymetra in early stages of trials. Producing experimental clones with intermediate/high resistance to diseases impacting the sugar industry is one of the many primary focusses of the SRA plant breeding team.

## VISITORS TO THE HERBERT

During 2017 the Herbert cane industry received the following delegations to view our industry practices first hand -

- Early February - Sunrice Board and technical staff met with HCPSL to look at rice as a rotation with sugarcane.
- Mid-February - Sri Lankan sugarcane delegation to look at cane farming systems.
- Early March - CRT technical advisors from Queensland and NSW held a joint training and information session with HCPSL, with focuses on sugarcane agronomy and precision agriculture.
- Late March - Vietnamese sugarcane delegation to look at cane farming systems and agronomy.
- Mid-August - Brazilian sugarcane delegation to look at cane farming and harvesting systems.
- Mid-August - MSF group to review HCPSL trials and local farming systems.
- Late August - Brazilian sugarcane delegation to look at cane farming and harvesting systems.
- Early September - The GFRAS APEN International conference was held over a week, with over 350 delegates attending the event. Delegates from 45 countries, from grazing, agriculture, horticulture and rural health industries, attended. Representatives from the Australian and foreign governments, international banks (like the World Bank), WWF, domestic and international extension providers also attended the event. The conference was a huge success with delegates leaving impressed with the progressive nature of the industry and well-coordinated development and extension programs managed by HCPSL.
- Late September - Philippines sugarcane delegation to look at cane farming systems and agronomy.
- Late September - Buriram Sugar Research and Development Group, Thailand delegation to look at cane farming systems and agronomy.
- Early November - American Sugar Refineries visited to review industry practices.



International Delegates attending the GFRAS APEN Conference



## 2016 HERBERT SUGAR INDUSTRY AWARDS

Award	Recipient
<b>Grower of the Year</b> (Sponsored by HCPSL)	Paul Mizzi
<b>Young Grower of the Year</b> (Sponsored by QSL)	Glen Irlam
<b>Mangrove Jack Award</b> (Sponsored by Herbert River Catchment Group)	Burnside Farming
<b>QMCHA Harvesting Efficiency Award</b>	MPF Harvesting
<b>Innovation Award</b> (Sponsored by Rabobank)	Stephen & Brendan Accornero
<b>Farm Presentation Award</b> (Sponsored by CAMECO)	TJ & GP Low
<b>Improved Farm Layout Award</b> (Sponsored by Canegrowers Herbert River)	JSP Sartor
<b>Consistent High Productivity</b> (Sponsored by QSL)	AE & W Hobbs B, D & SE Celotto Enzo Motti Farming G, AJ, RA & JP Zatta RV & G Zatta SO, KA, GC & EM Torrisi Russo Farming
<b>R&amp;D On-farm Co-operation</b> (Sponsored by HCPSL)	Robert & Peter Quabba Frank Russo Stephen & Brendan Accornero Joe, Eric & Matthew Girgenti Alan Robino
<b>Lifetime Achievement Award</b> (Sponsored by HCPSL)	Renzo Di Bella



Grower of the Year – Paul Mizzi



Young Grower of the Year – Glen Irlam





Australian Government



Queensland Government

## NITROGEN EFFICIENCY MANAGEMENT ON-FARM (PROJECT NEMO)

Project NEMO (nitrogen management efficiency on-farm) is a targeted extension program aimed at improving water quality and on-farm productivity. In 2017, the project conducted several nitrogen use efficiency (NUE) workshops in the Herbert and other sugarcane growing regions. Extension staff also participated in school-based education workshops and hosted tours for international visitors looking at work being to improve water quality in the Herbert.

While grower extension will continue into 2018, the new year marks the end of infield grower demonstration trials. Six sites were harvested in 2017, including one farming systems and five NUE sites. Each site was established with input from the collaborating growers. A simple economics assessment of two sites, one a NUE and the other a farming system site, are shown below.

Figure 1 shows the basic economics of a first, second and third ratoon crop of MQ239 with various NUE treatments. While yields were similar for all treatments a slight drop in CCS and extra costs associated with the 6ES + 25% N, Entec® and Agromaster® (CR) treatments resulted in lower economic returns. It is surmised that below average rainfall over the three-year period has resulted in below average nitrogen losses and therefore limited the efficacy of the Entec® and Agromaster® treatments.

In Figure 2, conventional furrow planting (1.63m row spacing) was compared to dual row mound planting (1.8m row spacing) in plant and first ratoon (2016 – 2017) on a clay soil. The assessment only considers the cost of harvest and more detailed financial assessment is likely to show even greater benefits towards the mounded planting system.

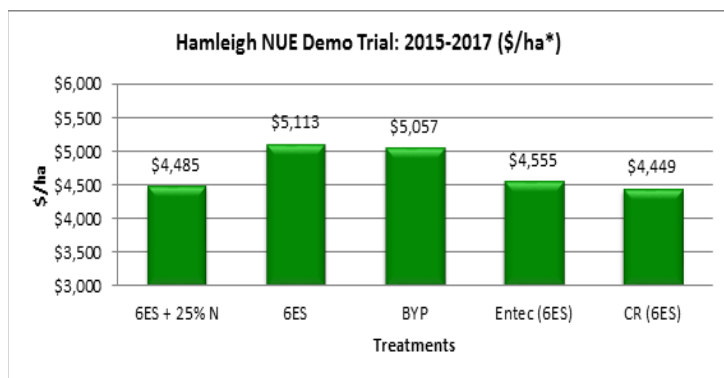


Figure 1 \$/ha\* = \$500/t sugar price, less \$9.90/t harvesting/levies, less cost of fertiliser. CR = Agromaster®, 6ES = Six easy steps, BYP = Block yield potential, N = Nitrogen

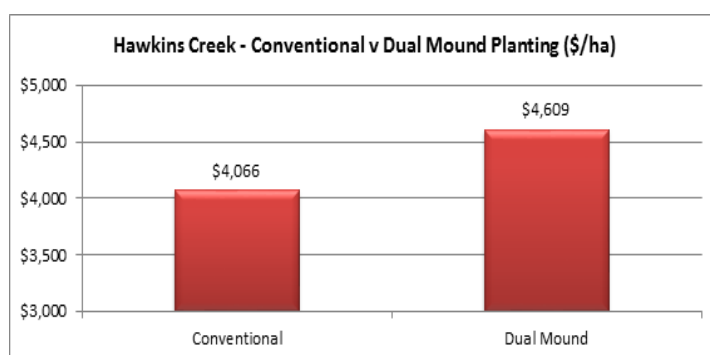


Figure 2 \$/ha = \$500/t sugar price, less \$9.90/t harvesting/levies.

## LEGUME NITROGEN MANAGEMENT TRIAL

The legume nitrogen management trial was established in Stone River to investigate methods of reducing nitrogen losses from legume fallow crops. Following a soybean fallow crop, 12 treatments including different cultivation methods and nitrogen fertiliser top-up rates, and a nitrification inhibitor, were imposed. Three control treatments were also included for comparison.

### Control Treatments

1. NL + FT + 0kg N
2. NL + FT + 130kg N (6ES)
3. LG + FT + 0kg N

### Management Treatments

4. LG + ZT + 55kg N
5. LG + MT + 55kg N
6. LG + FT + 55kg N
7. LG + ZT + 90kg N
8. LG + MT + 90kg N
9. LG + FT + 90kg N
10. LG + ZT + DMPG + 55kg N
11. LG + MT + DMPG + 55kg N
12. LG + FT + DMPG + 55kg N

(NL = no legume, LG = legume, ZT = zero tillage, MT = minimum tillage, FT = full tillage, DMPG = nitrification inhibitor, N = nitrogen, 6ES = six easy steps)

The harvest results (TSH) from the trial are displayed in Figure 1. Figure 2 shows the results of nitrogen loss from legume residue left on the soil surface compared to residue incorporated sub-surface. Note the rapid release of nitrogen from the sub-surface treatment.

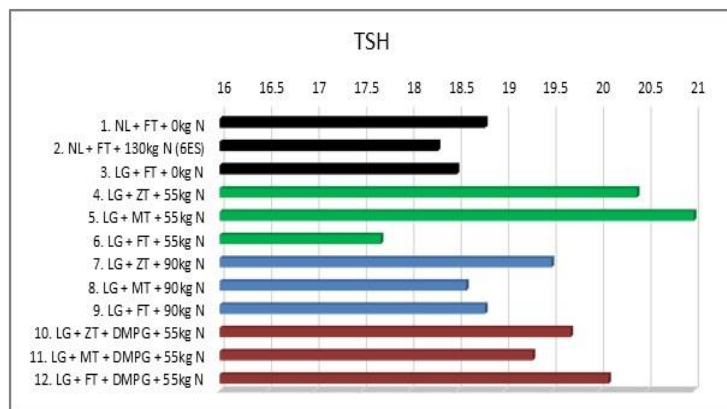


Figure 1 – Legume nitrogen trial harvest results (tonnes sugar per hectare)

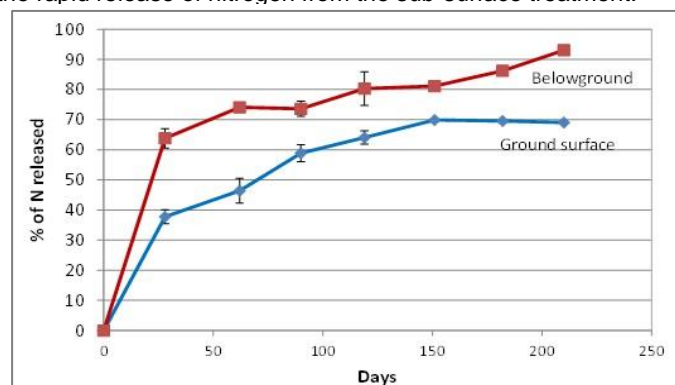


Figure 2 - Percentage of nitrogen (N) released from residual legume fallow crop material (surface and sub-surface)

## SOIL HEALTH PROJECT

This is a new project funded by Sugar Research Australia (SRA) to assess the benefits of Improved Farming Systems in the Herbert and Burdekin districts. HCPSL and Burdekin Productivity Services along with SRA, University of Queensland (UQ), University of Southern Queensland (USQ) and QDAF are the principle contributors to the project. This project will run for 5 years (Plant and 4 Ratoons).

The project will measure biological, chemical and physical properties that quantify what constitutes good soil health and the financial implications. Three growers were approached to conduct demonstration trial sites on farms. These sites will compare the grower's standard practice against Improved Farming System (IFS) in relation to soil health and resilience.

During the trial, we will be measuring the nutritional, physical, chemical & biological levels within the blocks at various stages. Stages will be, within 2 weeks of harvest before fallow, at the end of fallow pre-plant, plant cane at out of hand stage, plant and ratoon cane post-harvest. A suite of soil health tests will be conducted including soil tests, root sampling, water infiltration, bulk density, penetrometer and gravimetric soil tests & 6-month bio-mass sampling of the cane. Additional ten trials will be carried out through the district on paired sites, sampling different farming systems using the same tests as the 3 demo sites.

In the fallow, farmers did what they usually do (eg lime, spray out or working the soil to destroy volunteer cane, plant legumes or grassy fallow). After the wet, the growers will work their ground prior to planting. In the IFS section of the trial, we planted a 4-species legume crop (Leichhardt Soy Bean @ 10kg/ha, Ronghi LabLab @ 8kg/ha, Calypso Cowpea @ 8kg/ha, and Sunn Hemp @ 6kg/ha) on mounds. All IFS legumes were inoculated with Rhizobium bacteria, so atmospheric nitrogen could be fixed. At the end of the wet seasons, the legume crop will be sprayed out and minimum tillage be undertaken (one or two passes), prior to planting.

At planting, the grower standard planting method (furrow planting) and row spacing will be compared to the IFS, which will be planted using a mound planter and wider row spacing (1.80 -1.83m). Nutrient applications will be based upon soil tests and recommendations based upon 6 Easy Steps. Herbicide spraying will be carried out on an as need basis. Both farming systems will be harvested for five years and with individual weights and CCS obtained from the mill data.

For more information concerning this project contact Richard Hobbs, HCPSL Extension Officer or Davey Olsen, SRA Research Officer.



Mounding and planting legumes on 1.80m rows

## HERBERT SUSTAINABLE FARMING SYSTEMS FORUM

Twenty-six grower and industry representatives from the Herbert and Tully regions attended the Herbert Sustainable Farming Systems Forum on the 1<sup>st</sup> February 2017.

A field tour of the mill mud trial site was also planned but had to be cancelled due to wet weather. Topics and presenters included;

- Sugarcane and Legume Companion Trial (Susanne Schmidt & Monica Salazar Cajas – UQ)
- Herbert Microbe Trial (Adam Royle & Shelby Berg - HCPSL & UQ)
- Assessment of EEF to investigate N loss pathways in sugarcane (Lawrence Di Bella - HCPSL)
- Farming System & Mill Mud Rainfall Simulation Trial (Bruce Cowie - DNRM)
- Mill Mud Trials (Peter Larsen - Wilmar Sugar)



Susanne Schmidt presenting to grower and industry representatives



Mixed legumes covered with Rhizobium Inoculant

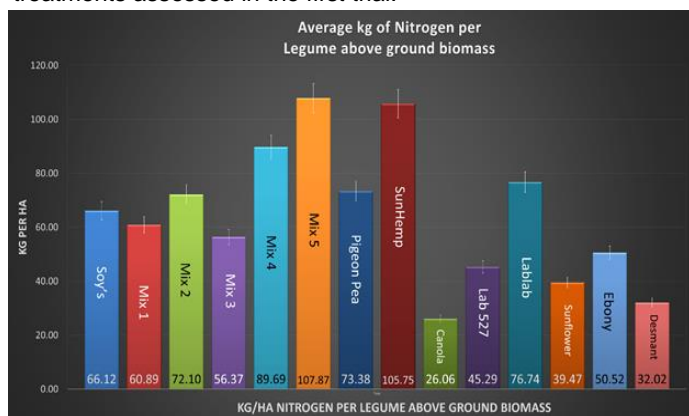


## PROJECT CATALYST

HCPSSL have been contracted through Project Catalyst (PC) to work with growers to assess innovative farming practices to improve soil and water quality. HCPSSL has assisted growers to establish 17 trials throughout the District. Project Catalyst trials are farmer-initiated trials that run over a three-year period. The trials look at ways to reduce chemical use, improve nitrogen use efficiency (NUE), improve soil health, improve sediment and water quality runoff, while still improving or maintaining yield and sugar.

### Mixed fallow trials

Two trials were established to investigate the benefits of a mixed fallow cropping system in rotation with sugarcane. HCPSSL have collected some very interesting and useful data from these trials, with more sampling to be collected mid-2018. The graph below highlights the difference in the treatments assessed in the first trial.



HCPSSL and Catalyst have trials which are looking at using ameliorants in a different way to try and produce better yield results while keeping cost to a minimum.

### Assessment of lime based products

These trials are assessing different lime products. One of these trials is comparing different Ag lime products to see which is the most beneficial over the crop cycle while considering economic value within the cropping period. Another trial is investigating if fine limes such as Ozcal can increase plant calcium uptake and improve cane and sugar yields.

### Mill mud and ash trials

These trials are investigating if reducing the amount of product can improve water runoff, increase cane yields and financial returns to the grower. If we can still obtain high yields with less mud, then there is a possibility that farmers can afford to transport mud to areas outside of the traditional mill zones, while gaining the benefits of mill by-products.



Showing traditional use of Mud @ 200 t/ha and Mud being applied sub-surface @ 50 t/ha

### Bio-fertiliser trials

Two trials are investigating the use of bio-fertilisers to reduce their chemical fertiliser use. Bio-fertilisers have many other benefits, such as improving water holding capacity and promoting soil health bio-diversity. Further research is currently underway and will be published when results come to hand.

### Improving NUE (nitrogen use efficiency)

A trial has been carried over from the Game Changer project, which is investigating the benefits of using Entec® in a farming system. Because of the additional cost associated with Entec, the nitrogen rate has been reduced by 25% in the trial. To date there has been no yield loss with the lower rate of nitrogen from the Entec.

It should be noted that the last two years have been below average wet seasons, with minimal nitrogen loss occurring.

The other NUE trial is looking at reducing nitrogen (N) rates following a sunn hemp crop. From recent data collected, there is potential to reduce N rates significantly after a good sunn hemp fallow crop. Watch this space as the trial will be harvested in mid-2018.



Sunn hemp being slashed in preparation for cane planting. Sunn hemp grows huge amounts of biomass, which can provide valuable nutrients for the subsequent cane crop

An additional four trials looking at microbial products and other products that provide trace elements are underway. These trials are investigating improved ways to achieve improved NUEs and longer ratoon life due to the use of these products. Such products are said to improve root health and structure as well as help resist disease also.

The Project Catalyst program has a website where farmers can become "Friends of Catalyst". This website helps share farming innovation with other growers who are interested. The website also shares information about the trials, the results and what did and didn't work, whilst keeping private information confidential. In PC, a failed trial is not such a failure, if we can all learn from past mistakes.

Project Catalyst is about sharing great ideas to improve farming systems and keep our environment sustainable.

Please feel free to have a look at [www.projectcatalyst.net.au](http://www.projectcatalyst.net.au)



CANE GROWERS



MOSSMAN AGRICULTURAL SERVICES LTD.



Sugar Research Australia



terrain



TULLY SUGAR



中粮 COFCO



Wet Tropics  
Sugar Industry  
Partnership

## EXTENSION OFFICERS OFFER WHOLE FARM NUTRIENT MANAGEMENT PLANNING

Cane growers across the Herbert are reaping the benefits from whole farm nutrient management planning being provided by WTSIP Extension Officers Jarrod Sartor and Leanne Carr. Funded through the Australian Government's Reef Trust III program, they are working one-on-one with growers to refine fertiliser use and reduce runoff losses.

Developing a whole farm nutrient management plan is a one-on-one consultative process between the grower and the extension officer. They work with you to analyse soil tests and farm maps to match inputs better to crop requirements and save on costs.

The soil test recommendations are then compiled together and rationalised into a plan which belongs to you so you can provide it to other advisors. You can use the plan to guide your purchasing decisions regarding soil amelioration, planting, side dressing and ratooning, all in accordance with legislations. The plan is also made easy to follow for nutrient recommendations and record keeping by matching farm blocks up on similar soil type and proximity to keep the product and rate selection to a minimum.

A similar process is available for growers interested in developing or updating their Weed Management Plan. Both these tools, as well as good record keeping, are useful in the process of gaining BMP accreditation.

Grower grants are also being made available under the Reef Trust III program. They are provided to growers to help them adopt practices that are seen as having the most benefit to water quality in the Wet Tropics. These mainly include improved fallow management, fertiliser application methods, chemical usage and drainage.

New ideas are being supported through an innovation grants program. In the Herbert, Paul Mizzi received funding to develop a deep ripping implement. His idea is to use this implement to zonal rip up to a depth of 1m in controlled traffic rows, to break the compaction layer and provide a greater soil depth for roots to access.

For more information go to [wtsip.org.au](http://wtsip.org.au). The Wet Tropics Sugar Industry Partnership is an alliance between industry bodies, productivity services, sugar research, millers, natural resource management and government organisations.



Growers attending a WTSIP Information Meeting



## COSCER – SUGARPROFIT PROGRAM

Over the past 24 months Coscer, in collaboration with HCPSSL, SRA, AgProfit, Millers and Growers, has developed 'SugarProfit'. SugarProfit started out as a local benchmarking service to help growers understand how they were going against the top 20% of growers in the Herbert. The tools and resulting program that we've developed has allowed Coscer, along with the grower, to take a deep dive into production and financial data at a block level to really understand what's driving production and profits.

Since the initial program, we have invested heavily in improvements. We have developed further tools to help our growers make smarter decisions in terms of production and finances, and understand the impact of those decisions. Our most recent tool, 'RiskMitigator', helps growers (in collaboration with their advisers) look forward to understand future production, financing, equipment replacement and living costs, among other things, and really nail pricing decisions that have to be made to meet those costs. The flexibility we've built in gives the grower the ability to vary CCS levels, tonnage and any other cost, so that they've got certainty, not just what price is required to break even, but also what it will take to meet any forward pricing commitments made.

'SugarProfit' runs all year with face-to-face meetings during the off season (just prior to forward pricing nominations), and as required during the season for when you might be thinking of making any significant changes.

SugarProfit's unique and only available through Coscer. To be part of something that will really make a difference for you and your family, visit [www.coscer.com.au/sugar](http://www.coscer.com.au/sugar) or contact Ross Girgenti or Mitchell Pratt on (07) 4776 2177 for more information.





The **Herbert River Catchment Landcare Group** partook in the following activities in 2017 -

- Commencement of weed control and revegetation works in the Waterview area.
- A display on pest and weed management at the Ingham Show.
- Continued riparian revegetation and weed control in the Palm Creek system.
- Continued involvement in the Hinchinbrook Community Feral Pig Management Program.
- Continued management of the Insulator Creek stream bank stabilization and revegetation project.
- Continued support for the Herbert Water Quality Monitoring Program.
- Continued support for the eradication of declared weeds in the shire.

There has been a steady increase in the number of members throughout the year in the Lower Herbert sub-group, while the Upper Herbert sub-group remains in care-taker mode. The Herbert River Catchment Group Landcare Group is always seeking new members.

Please do not hesitate to contact Lawrence Di Bella on 47761808 or Peter Sheedy on 47765350, if you are interested in being involved with Landcare.



**Pest & Weed Management Display at the Ingham Show**

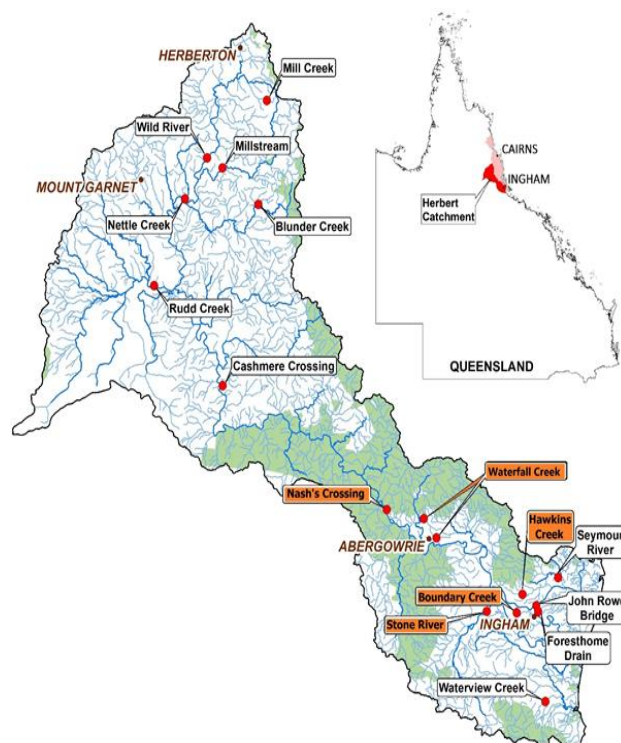
## HERBERT WATER QUALITY MONITORING PROGRAM UPDATE 2017

Water quality sampling for the HWQMP was limited for the 2016 -17 water year, due to some significant changes in available funding, and relatively dry conditions. Thankfully, HCPSL has continued supporting the monitoring of key sites in the Lower Herbert by maintaining the Rainforest Reference Site and two Sugarcane Sites from the previous program (Hawkins Creek & Boundary Creek) as a priority for WQ investigations and extension purposes. However, since the

program has five years of good data from Nash's Crossing (Upper Herbert Catchment contributions) and three years of data from the Stone River tributary, without any signs of significant WQ issues, since high levels of Imidacloprid were detected in the Stone River in 2013 -14. Project managers decided to re-allocate these resources elsewhere for the 2016 -17 financial/water year to look at other potential WQ issues.

In addition, some investigations of potential new sites based on new information from the Paddock to Reef Monitoring and Modelling Program (P2R), highlighted other areas in the Lower Herbert Catchment that were also likely hotspots for WQ pollutant loss. Although the current 2016 -17 data should be considered **preliminary at this stage**, results from the WQ monitoring available from the new Macknade site, does support the P2R modelling as a likely hotspot for nutrient loss in the Lower Herbert Catchment. The Macknade site will continue to be monitored in 2017 -18, in order to provide a more comprehensive insight into the potential issues in this area.

In the Herbert more generally, the total pollutant loads for the Herbert River Catchment measured at the John Row Bridge as part of the Queensland Governments, GBR Catchment Load Monitoring Program has seen a steady decline in pollutant loads over the past three years. These reductions are largely driven by the favourable climatic conditions (and lower rainfall) experienced in the Herbert Catchment since June 2014. Nevertheless, these reductions are also supported by the positive improvements made by producers in better matching nutrient rates to crop requirements and clearly demonstrate the effectiveness of reducing the amount of surplus nutrients available to be lost during heavy rainfall events, especially early in the wet season.



**A map of the Herbert Catchment showing all previous HWQMP sampling points. Note the five current sampling points highlighted in orange used to monitor previously identified hotspots**



## RATOON STUNTING DISEASE (RSD) AND CHLOROTIC STREAK DISEASE (CSD)

The District continues to manage RSD and CSD through the HCPSL Approved Seed Plots, hot water treatment of cane and plant tissue culture programs. The data below showcases the number of tonnes through these programs over the past 4 years and the alignment with Target 85 objectives.

Year	Approved Seed	Tissue Culture	Hot Water Treated
2014	1200	200	110
2015	842	3500	93
2016	1200	2500	73
2017	1169	-	104

Growers are increasingly realising that quality seed is critical, to optimise full varietal genetic yield potential. Staff undertook 850 RSD inspections for growers in 2017 prior to planting. Data and trials both show that with regular clean seed, farmers can increase average farm yields by 10 to 12 tonnes/ha. During 2016, SRA made a scientific breakthrough finding the causal agent for CSD, being a Protozoa. This has been a significant breakthrough in the management and control of this disease

## FERAL PIGS

Feral pig numbers continue to remain static and crop damage at historical lows since the inception of the Hinchinbrook Community Feral Pig Management Program (HCFMP), nine years ago. The HCFMP has been successful in getting numbers of feral pigs down with 500 feral pigs being taken out in 2017, with 45 taken out in just one morning alone by chopper in Halifax Bay. HCFMP was successful in attracting State Government funding to manage feral pigs impact on turtle populations along the coast areas and adjacent cane lands within the Hinchinbrook Shire. Growers are advised to get actively involved and assist with the baiting and trapping program. The Herbert is lucky to have this control program which is the envy of many other regions.



**DAVID BACCHIELLA**

Feral Pig Management  
Officer

Mobile: 0458 764 660

Phone: (07) 4776 4607  
Facsimile: (07) 4776 3233

## CANEGRUBS

Levels of canegrub damage were very low in historically impacted areas due to a combination of good farming practices and the 2017 crushing season being "wet" which did not allow suitable conditions for the beetles to lay their eggs. Understanding the climate and the type of year along with other signs such as beetle numbers can give growers an indication of the likelihood of grub damage in any one year.

## YCS

Levels of YCS appeared to be lower in 2017 than in 2016 however the impact on CCS and yield is still a major concern. SRA and the industry is learning more about this disease. Understanding the cause however is not easy stuff. Some growers still sustain yield and CCS losses due to YCS throughout the district. Growers are encouraged to look at the substantial amount of available information on the SRA website. <https://sugarresearch.com.au>

## PACHYMETRA ROOT ROT

Following the HCPSL district wide survey for *Pachymetra* and the extension of results, many growers are now undertaking routine *Pachymetra* testing of soil before planting. This disease is of serious concern to industry and has been directly linked to reduced productivity of some fields, ratoon failure and posing a crop stress, which in turn leads to the crop being more susceptible to YCS. Growers are urged to continue sampling soils for *Pachymetra*, prior to planting. Growers now plant 20% of fallow with legumes and alternate resistant varieties between cropping cycles to achieve good soil health. The only option for controlling *Pachymetra* is the use of resistant varieties. In 2017 there were 136 *Pachymetra* samples sent away to Tully for testing.



## RATS

Rats were down from an estimated 40,000 tonnes devastation in 2016 to 20,000 tonnes of severe losses in 2017. The variety specific nature of the loss was again quite evident. Aerial baiting with Rattoff™ showed good control in some blocks with mixed results in others. Thanks to the efforts and vision of a few people we now have the first effective aerial control measure for 30 years in our pest and disease control arsenal. Farmers working together can achieve control synergies by strategically baiting neighbouring farms simultaneously.



Severe rat damage in a block of cane in the Herbert

## Herbert Tonnes Pig Damage

Years	Tonnes Loss
2012-2013	32059
2013-2014	12599
2014-2015	6044
2015-2016	6373
2016-2017	5576



## DUAL EM

Our first year of EM mapping with the DualEM 421S has been a steep learning curve. The year has included the delivery of the device, initial trials to understand the data and limitations of the device, training at the University of NSW with Dr. John Triantafyllis, Dr. Jingyi Huang and their group of post-graduate students, some rebuilding and modifications of the sled which carries the DualEM during surveys and the design and manufacture of a new sled (to be delivered). To date where Wilmar's 1:5,000 scale soil mapping is available, we find a high correlation with identifiable changes in EM values.

So far in the Herbert approximately 540 ha over ~120 cane blocks have been mapped using the DualEM. In addition to this, mapping work has been undertaken by Mossman Agricultural Services and by SRA; mainly over their EEF trial sites.

## DRONE (UAV)

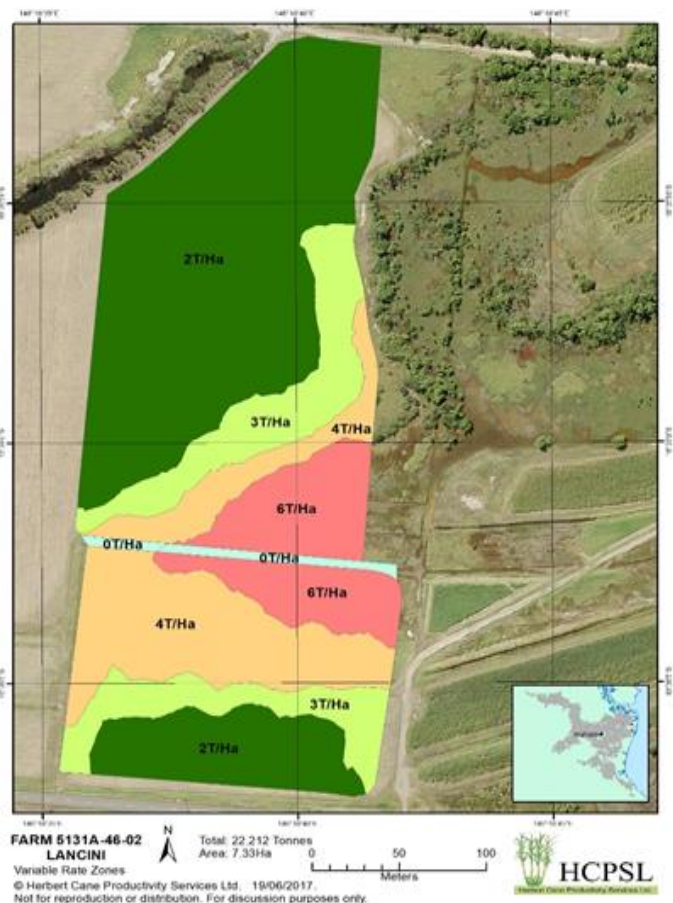
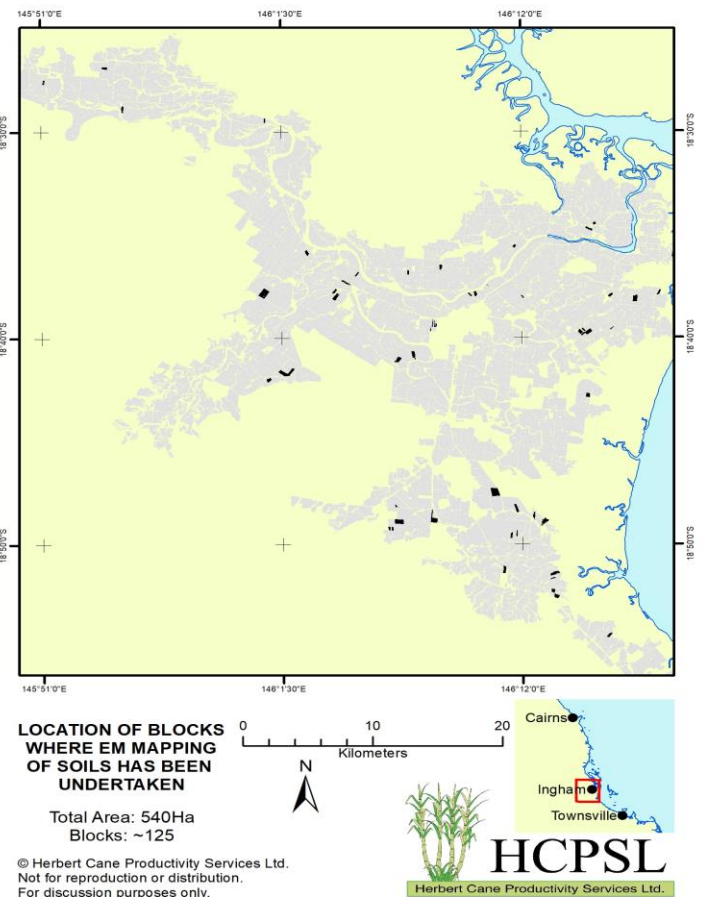
In June, HCPSSL purchased a small UAV (drone) to provide additional information on trials such as germination rates, plant health etc. Included with the drone purchase was a Parrot Sequoia multispectral camera which captures spectral wavelengths in the Red Edge and the Near Infrared along with RGB. These bands are used in the calculation of NDVI (normalised difference vegetation index) and GNDVI (green normalised difference vegetation index), which provide an indication on plant health and vigour. Data analysis software was purchased to mosaic and interrogate the imagery. HCPSSL also now has a CASA qualified drone pilot on staff.

The drone provides very high resolution imagery, which in conjunction with RTK positioning, provides very accurate data for mapping. Several tests have been done to assess the positional accuracy of the imagery with regard to the surface of the ground which have proved encouraging. Several trial sites have been mapped in this way providing very accurate positioning of individual plants and trial plots.



## VARIABLE RATE

Ten blocks of cane had variable rate Lime or Gypsum applied using Miriwinni Lime's GPS Variable Rate controllers fitted to band and broadcast enabled trucks. To create these maps, a survey of ground electrical conductivity is conducted. Maps produced are viewed along with any other layers such as elevation or yield. Targeted soil samples are taken in the zones identified and agronomists make a recommendation based on all the data, usually with grower input as well. Variable rate zonal maps are made which are loaded onto the trucks SD card and the truck automatically changes the rate according to GPS and the underlying zonal map on the screen in the cab. At right is an example of a final actual VR map. The benefits of this VR technology will be studied in the coming crop cycles.





## GPS AND BASE STATIONS

Farming systems in the Herbert are increasingly trending towards zonal farm management and the Herbert has seen a trend towards mound planting with almost 50% of the district now using some form of bed forming. This farming system requires GPS and interestingly much of the work setting up the farm for the following year is now performed after the season and before the wet, where plough out blocks are mounded.

Commendably, over 20% of fallow blocks are planted with legumes, hemp, sunflowers etc., as growers strive to improve soil health and break the disease cycle. Mounding can also allow earlier planting opportunities and optimal timing to align with soil structure and moisture levels. Beds are seen by many growers in wetter areas as a way of avoiding waterlogging of plant cane and thereby mitigating losses.

Growers not wishing to invest in this high-tech equipment are still able to benefit by setting up their farms with beds using contractors who are nearly all using GPS. Although compaction is still an issue, many farms can now plant cultivate and harvest using GPS, thereby reducing compaction.

Over 50% of the harvesters now have GPS auto steer and this, apart from reducing compaction, improves driver fatigue and can reduce pickup losses, particularly in big lodged crops whilst cutting in the dark – which is now common with large contracts.

## BRINGING IT ALL TOGETHER

Technology delivers the most benefits when it can be leveraged across multiple platforms and programs. HCPSL is starting to integrate technology and systems to multiply the value of our Precision Ag investments.

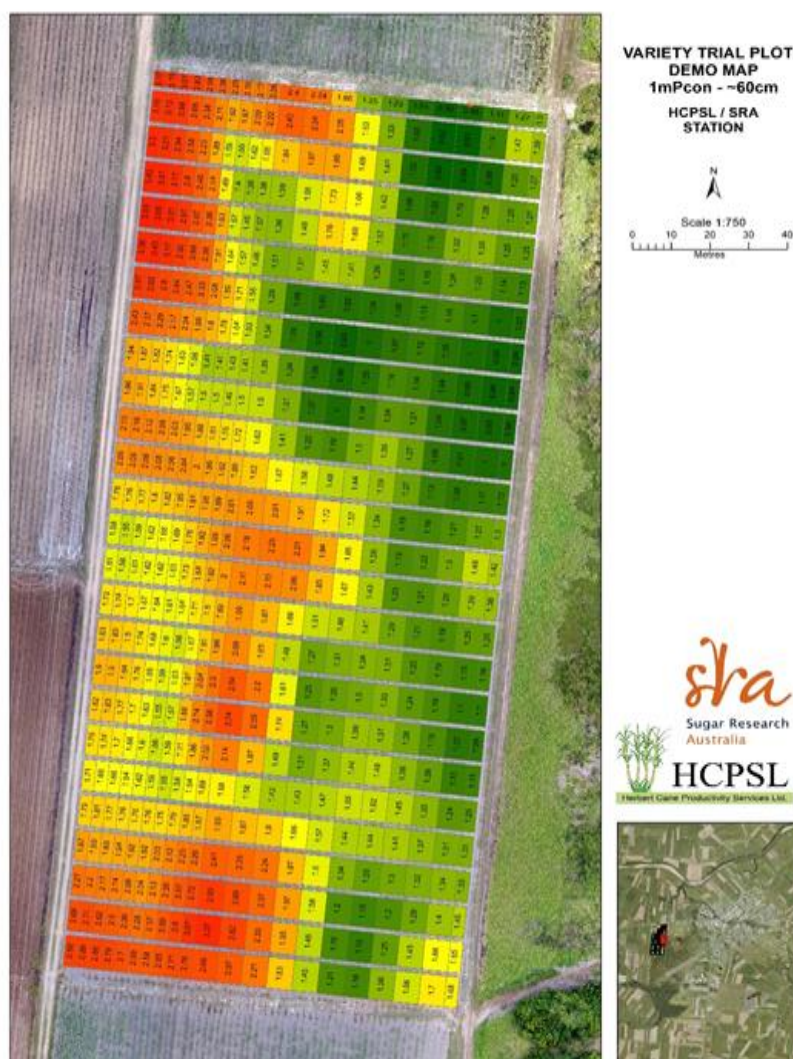
One example previously discussed was using our Dual EM survey data and other layers and uploading zonal variable rate maps to the Miriwinni lime truck rate controller. Another example is a trial where our Base Stations are sending a correction signal using the internet instead of radio.

A further exciting example is the integration with the plant breeding program. Both the Dual EM survey and Drone use GPS for high spatial accuracy data collection and are used to survey the trial plot. The corresponding integrated data sets and maps can provide additional valuable soil information on CAT and FAT sites and even RVT trials.

HCPSL is working closely with SRA and this data is currently being trialed by their Plant Breeders and Biometricians as a co-variant to improve the variety selection process.

## GPS BASESTATION FREQUENCIES

Name	2018 CMR+	Location	CH.	FREQ. MHZ
J Irvin	B	Warrens Hill	0	465.2750
V Russo	R	Trebonne	0	465.2750
A Pace	B	Mutarnee	3	466.7500
R Pace	R	Bambaroo	3	466.7500
R & G Zatta	B	Mt Abswold	2	462.8000
V Castellani	B	Abergowrie	4	464.9000
W & J Russo	R1	Herbert Vale	4	464.9000
C Carey	R2	Dalrymple	4	464.9000
G Accornero	B	Foresthorne	5	463.0750
Water Tower	R	Halifax	5	463.0750
C Guy	B	Bogottos Hill	6	463.6750
S Harrigan	R1	Top Stone	6	463.6750
S Patane	R2	Lannercost	6	463.6750
N Reid	B	Pinnacle Hill	8	464.8500
C Lenzo	R	Pappins Rd	8	464.8500



An example of individual plot data linked to a new variety trial



## GROWER FORUMS

Two rounds of grower forums were held in 2017, with the first in May and then again in October. Each round consisted of a series of five grower info meetings, each located within the Abergowrie, Stone River, Ingham Line, Central Herbert and Macknade sub-districts. Approximately 140 growers attended both forums. Topics presented and discussed included -

May (3<sup>rd</sup> – 4<sup>th</sup> May)

- Pig Management – David Bacchiella (HSC)
- Wet Tropics Report Card – Richard Hunt (Terrain)
- New Varieties – Sam Sellick (HCP SL)
- HCP SL Approved Seed Plots – Graeme Holzberger (HCP SL)
- Rat Baiting – Graeme Holzberger (HCP SL)

October (11<sup>th</sup> – 12<sup>th</sup> October)

- eNtrench™ Nitrification Inhibitor - Ken Springall (Dow Agrosiences)
- Fallow Legume Cropping & Project Catalyst Update - Megan Zahmel (HCP SL)
- Enhanced Efficiency Fertiliser Research - Julian Connellan (SRA)
- Farming Systems Update - Lawrence Di Bella (HCP SL) & Anthony Curro (SRA)

## GROWER WALK & TALK DAY

The Herbert Walk & Talk Day was held on the 20<sup>th</sup> April 2017 and is an initiative of HCP SL and SRA. The event attracted 120 growers and started with a field tour on the Macknade research station to look at research being conducted within the district. The tour included the following displays and presentations -

- Sunn Hemp & Mixed Species Fallow – Richard Hobbs (HCP SL)
- Variable Rate Technology (Lime etc) - Miriwinni
- Lime, Rod Nielsen & Michael Sefton (HCP SL)
- Harvesting Loss – Phil Patane & Joseph Bonassi (SRA)
- Enhanced Efficiency Fertilisers (Glasshouse Trial) – Adam Royle & Melissa Royle (HCP SL)
- Yellow Canopy Syndrome – Davey Olsen (SRA)
- Varieties – Melanie Adams (SRA) & Sam Sellick (HCP SL)

The field tour was followed by a lunch, where guest speaker St. John Kent spoke on the benefits of moving to a sustainable farming system. The day finished with the annual industry awards presentations.

## PHOTOS FROM THE HERBERT WALK & TALK DAY



Mike Sefton explaining the Dualam Machine



Growers viewing first-hand the harvester chopper test rig in operation



Adam Royle discussing the results of the glasshouse trial with Maurice McGree and Ian Kemp



Growers viewing first-hand seed boxes for legume planting



*Become part of the movement:*

## Sign up to Smartcane BMP

Contact your local Smartcane BMP facilitator at the office of CANEGROWERS Herbert River. Get recognised for what you are already doing.

[www.smartcane.com.au](http://www.smartcane.com.au)

## Statistics

*As at March 7, 2018*

### Queensland

- Businesses Benchmarked 1,677
- Area Benchmarked 279,477 ha
- Businesses Accredited 256
- Area Accredited 65,877 ha

### Herbert River

- Businesses Benchmarked 302
- Area Benchmarked 51,994 ha
- Businesses Accredited 49
- Area Accredited 12,050 ha

## Smartcane BMP - the pathway to:

- Ensuring legislative obligations are satisfied
- Satisfying sugar marketing customers
- Maintaining a high standard of reliable business records

The flurry of activity by growers pursuing the accreditation process in the 2017-18 summer is very encouraging that the Herbert will continue its leading role in the industry with the Smartcane BMP over the next year.

An incentive payment by Wilmar that is available upon achievement of accreditation by way of a once only 15 cents per tonne of sugar cane payment on the whole of the accredited business's cane production harvested for the relevant season when accreditation is achieved, is a welcome development since last year. The incentive is payable at the time of the final season's cane payment once accreditation is achieved and a claim made in time. There is a cap on the payment of 25 000 tonnes per ABN.

The pathway to evidence our sustainable farm practices is through Smartcane BMP, our own industry-owned and managed Best Management Practice Program.

Growers are urged to work through Smartcane BMP because it is a locally-relevant program designed by industry to demonstrate responsible stewardship for our Great Barrier Reef, with an additional focus on practices to improve productivity and profitability.

Growers are encouraged to benchmark and seek accreditation in Smartcane BMP in the knowledge that it will soon incorporate an extra, international layer of significance and value.

Smartcane BMP is working collaboratively with Bonsucro and on relevant international forums to get the best for the benefit of all Australian cane growers, our environment and social awareness, as well as future markets.

Larger international customers, such as Coca Cola, Nestle and Pepsi, are increasingly demanding sustainable sugar and this is where Smartcane BMP accreditation builds a platform to take advantage and maintain these increasing markets.

Registering for Smartcane BMP is easy.

Contact Smartcane BMP facilitator for the Herbert Region, Maria Battoraro

**Maria is located at the Herbert CANEGROWERS office and she can be contacted on 4776 5350.**

Workshops are held when numbers are available otherwise one-on-one appointments are also an alternative. There are resources, examples and assistance available to any Herbert River grower who wishes to become Smartcane BMP accredited.