mackay area productivity services

NEWSLETTER

MARCH 2020

Smartcane BMP

Audra Allan and Indiana Zarb continue to work with growers through the BMP accreditation process. Indiana is meeting with growers across the district to assist with the sign-up and self-assessment components of the program. With Audra's guidance and technical knowledge, growers have been able to work through each step to gain accreditation.

John Simpson first engaged with the MAPS BMP team in December 2019. Since then he has fine-tuned his chemical and nutrient record keeping, updated weed management plans and made minor modifications to his chemical storage area. We asked John a few questions about BMP.

How have you found the BMP Process?

Daunting to start with but once I sat down with Audra and went through it, it was a lot easier than I thought.

What did you find hard about it?

The thought of recording everything and not knowing how to record it correctly.

What was Easy about it?

The help that Audra provided. She was great. She sat down explained everything in detail and helped through every step-by- step process. If I was ever unsure about anything I would just give her a call and she would talk me through it.

How is it going to help going forward?

Now that the processes are in place, record keeping will also help to fine tune nutrient and chemical applications, monitor chemical efficacy and crop performance.

What have you found about the process which you didn't know?

I didn't know about recording the planting date and about recording the chemicals used at planting. Now that I know, its easy to keep the records in Agtrix farming.

One of the tools being offered by MAPS to assist growers with record keeping is the Agtrix farming system software. This is an easy to use GIS based program that is available at no cost to growers. After a quick demonstration from his Productivity Officer, Brendan Rae, John is keen to log onto Agtrix and start recording his chemical and fertilizer applications and recording to the relevant blocks all soil test results.

Brendan Rae and John Simpson

COVID-19

In light of the recent COVID-19 situation and challenges, MAPS is continuing to operate with precautions to maintain all service levels and to ensure growers will be impacted as little as possible from a MAPS perspective.

For the wellbeing of growers and staff, the upcoming Shed meetings and MAPS/ SRA Field Day have been cancelled. However please feel free to contact your Productivity Officer if you have any queries or concerns. Visit the MAPS website which is filled with useful information and links covering everything from approved clean seed plots, variety, pest and disease management and weather stations.

Efforts now will be on inspecting and sampling all Clean Seed plots to ensure all plots are open to growers for distribution. SRA22 is available from all plots and it is a great opportunity to collect a clean source of the other varieties from the Billet Plots.

As the ground dries out and the planting season nears, all MAPS Productivity Officers are available and will be visiting farms when contacted. MAPS responsibilities such as variety, pest and disease advice, plant inspections and Clean Seed distribution will continue to the best of our ability.

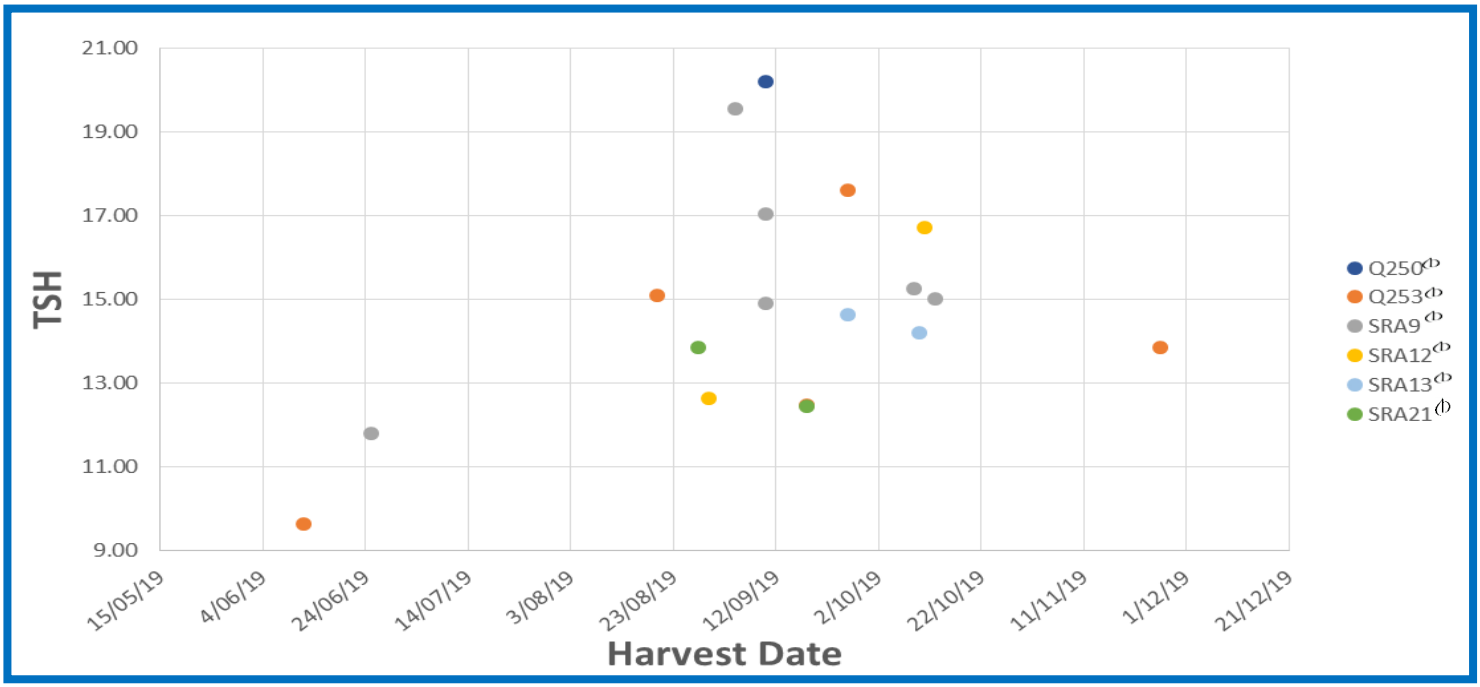
While COVID-19 is a challenge for everyone, MAPS staff are working on developing a long term plan that allows us to carry out our daily activities and minimise the impact on growers.

Anthony Schembri (CEO)

Commercial Data

Throughout the 2019 harvest, MAPS collected limited commercial data of Q250 ⏀, Q253 ⏀, SRA9 ⏀, SRA12 ⏀, SRA13 ⏀ and SRA21 ⏀. The table below displays the data of the varieties harvested throughout the Mackay sugar region, across soil types, crop class, productivity zones and harvest times. The data collected is an indication of how the varieties performed throughout the harvest season under commercial conditions. While limited data was collected for most of the varieties, substantial tonnages of SRA9 ⏀ was sent to the mills. The data reinforces that SRA9 ⏀ is ideally harvested mid-late season to achieve to best CCS levels. Overall the excellent result demonstrates the benefits of regular uptake of Clean Seed. For further information of the variety data, please contact your Productivity Officer.

Variety	Crop Class	Soil Type	Productivity Zone	Harvest Date	CCS	Mackay Sugar Daily CCS	TCH	TSH
Q250 ⏀	Fallow Plant	Alluvial	Palms/ Foulden	10/09/2019	15.65	15.30	129	20.19
Q253 ⏀	1st Ratoon	Alluvial	Palms/ Foulden	12/06/2019	10.58	11.12	91	9.63
Q253 ⏀	Fallow Plant	Grey Clay	Habana	20/08/2019	15.09	14.33	100	15.09
Q253 ⏀	Replant	Solodic	North Coast	18/09/2019	15.77	15.45	79	12.46
Q253 ⏀	Fallow Plant	Solodic	North Coast	26/09/2019	15.71	15.49	112	17.60
Q253 ⏀	Fallow Plant	Podzolic	Sandy Creek	26/11/2019	13.32	15.46	104	13.85
SRA9 ⏀	Fallow Plant	Prairie	Habana	25/06/2019	12.29	12.39	96	11.80
SRA9 ⏀	1st Ratoon	Podzolic	Sandy Creek	4/09/2019	13.48	15.06	145	19.55
SRA9 ⏀	Fallow Plant	Podzolic	Sandy Creek	10/09/2019	13.85	15.30	123	17.04
SRA9 ⏀	Fallow Plant	Soloth	Bakers Creek	10/09/2019	15.22	15.30	98	14.92
SRA9 ⏀	Fallow Plant	Soloth	North Coast	9/10/2019	15.57	15.64	98	15.26
SRA9 ⏀	4th Ratoon	Sandy Loam	Septimus/Pinevale	13/10/2019	15.31	15.60	98	15.00
SRA12 ⏀	Fallow Plant	Black Earth	Habana	30/08/2019	14.85	14.82	85	12.62
SRA12 ⏀	Fallow Plant	Prairie	Victoria Plains	11/10/2019	15.62	15.53	107	16.71
SRA13 ⏀	Fallow Plant	Solodic	North Coast	26/09/2019	14.94	15.49	98	14.64
SRA13 ⏀	Fallow Plant	Prairie	Victoria Plains	10/10/2019	15.12	15.07	94	14.21
SRA21 ⏀	Replant	Prairie	Habana	28/08/2019	14.74	14.71	94	13.86
SRA21 ⏀	Replant	Solodic	North Coast	18/09/2019	15.57	15.45	80	12.46



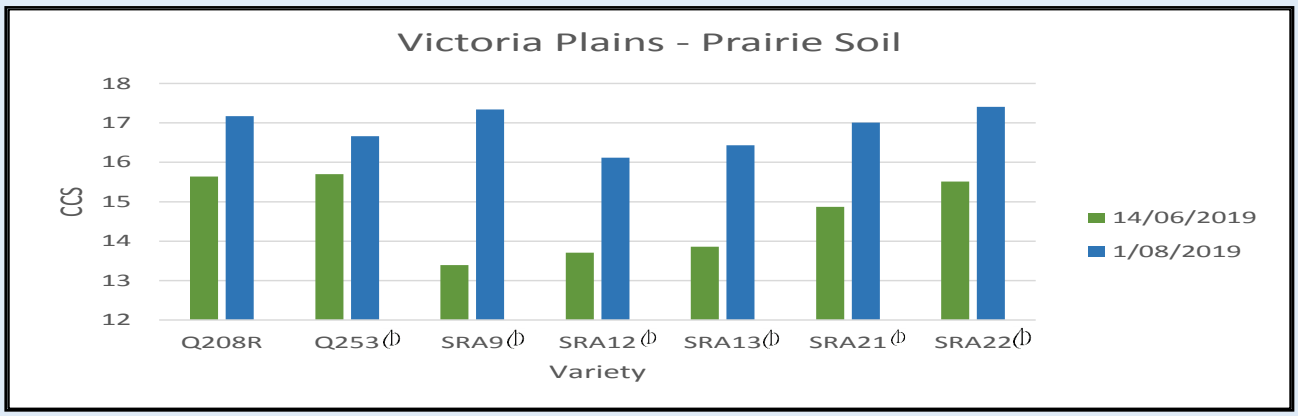
MAPS Observation Plots

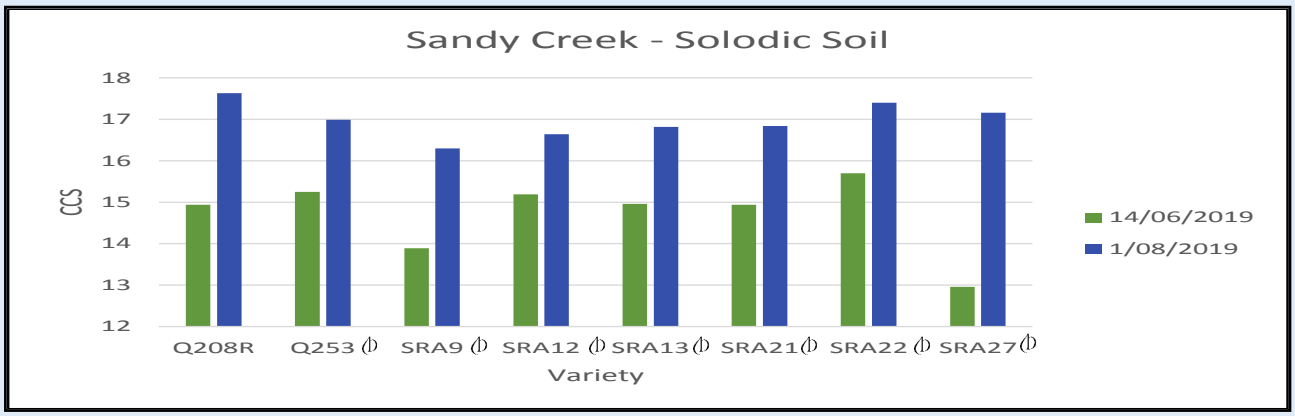
Early maturity testing was carried out in four of the MAPS Observation Plots on the 12th June 2019. Samples from seven varieties were collected by MAPS staff and analysed by SRA. All plots at the time of sampling were 10 months old and were 1st Ratoon, apart from the Victoria Plains plot which was Plant Cane.

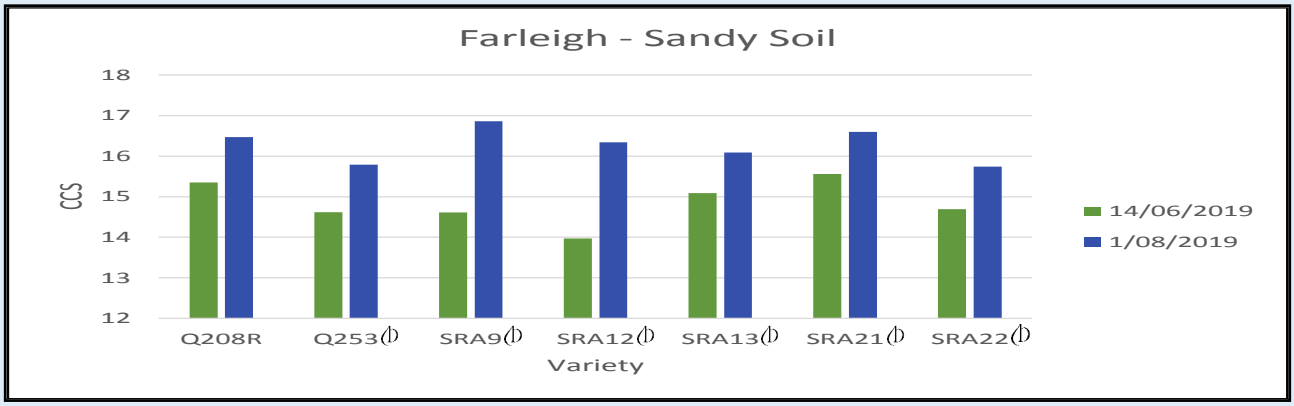
The exercise gives an indication of CCS levels of varieties on different soil types throughout the region at the start of the harvest season. The plots were sampled again on the 1st August 2019 to determine the increase in CCS.

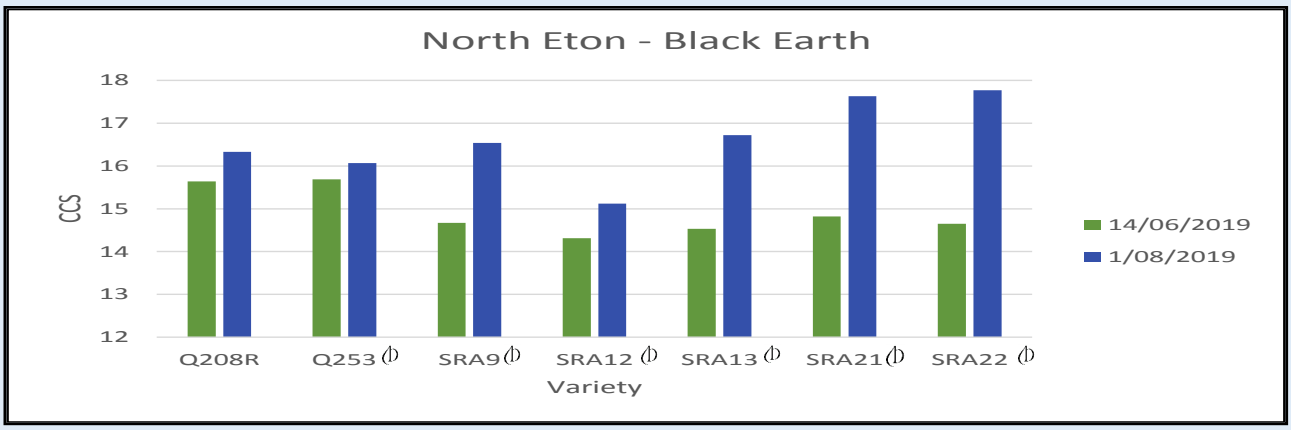
Early indications from the plots suggests Q208R and Q253 ⓓ can be harvested at the start of the harvest and SRA9 ⓓ needs to be harvested mid to late.

The plots will be tested again this year to compare to the 2019 results. If there are any questions about the result, please contact your Productivity Officer to discuss further.









2020 Clean Seed Plots

There are a couple of changes to note in regard to clean seed distribution this year. The Victoria Plains plot will operate as per previous years, opening for whole stick distribution in mid - late May. One new variety, **SRA22**Φ will be available for release from Victoria Plains. MAPS has introduced two small additional distribution plots at Mt Pelion and the Pioneer Valley. These plots have been 2 years in the making and will help cater for the growing demand for clean seed in billet form. We thank the landholders for their engagement.

Victoria Plains

Opening (weather pending)	Mid May to Late August	
Times (or contact Productivity Advisor)	Wednesday, 7am – 12pm	
Varieties	KQ228Φ Q183Φ Q208Φ Q208R Q240Φ Q250Φ Q253Φ SP80	SRA9Φ SRA12Φ SRA13Φ SRA21Φ SRA22Φ (stick quota)

Selected varieties may be pre-ordered and cut onto our trailers at Victoria Plains. Contact your Productivity Advisor by Monday morning for collection on Wednesday of that week. As per 2019, growers can arrange to have their own trailers filled. These must be in good order, and transport is the responsibility of the grower. Please respect these conditions to avoid unnecessary disappointment. **Please remember whole-stick distribution will cease at the end of August.** Selected varieties will be offered for billet collection in the first week of September. There will be a nominal cost for billets and growers need to arrange their own tipper bin transport. Contact Andrew Dougan - 0417 326 674.

North Coast

The Mt Pelion Clean Seed Plot will be open by appointment by contacting Brendan Rae – 0417 326 393. **SRA22**Φ will be available as whole-stick and **Q183**Φ **and Q208R and Q253**Φ **will be available in billet form**.

Pioneer Valley

The Finch Hatton plot will have **SRA9**Φ **, SRA21**Φ **and SRA22**Φ available as whole-stick clean seed. There will also be distribution of billets from Benholme. Varieties available are **Q183**Φ **, Q208R and Q240**Φ **.** Contact Ian Marais for details and arrangements - 0417 326 669.

While the number of varieties available at the new billet plots has been kept to a minimum, the goal is to alternate varieties in subsequent years to allow more growers greater access to clean seed. Dates for billet distribution will be set as the season progresses.

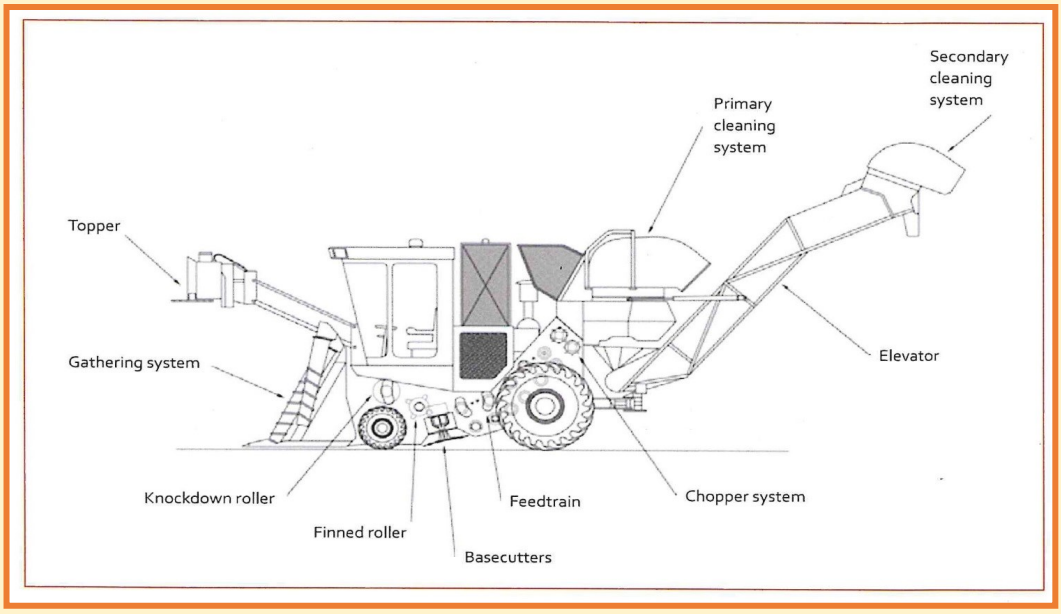
RSD Sterilisation

Although a serious disease, ratoon stunting disease can be quite easily prevented. The keys to controlling the disease are sterilisation of equipment before moving between paddocks and farms, planting approved disease-free cane, and using resistant varieties where possible.

Sterilisation is achieved by firstly removing all soil and plant material from the machine, and then treating all parts of the machine that have come in contact with cane juice with a registered sterilising agent, available at your chemical reseller. Steri-max or Methylated Spirits are two commonly used products to achieve sterilisation. The sterilising solution should be left in contact with the implement for at least 5 minutes before use.

When sterilising harvesters, the base-cutter, topper, butt-lifter roller, chopper box and extractor fans should be disinfected before cutting cane to be sent to the mill. If cutting billets for planting, the whole feed-chain should be disinfected, as well as the base-cutter, chopper-box, topper and extractor fans.

MAPS staff are available to all growers and contractors to further discuss RSD, machinery sterilisation techniques, or to conduct plant inspections. However, ultimately growers and contactors must work together in reducing the risk of spreading this disease and maintain the current low RSD levels in the Mackay Sugar district.



Picture Courtesy of SRA

MAPS/SRA FIELD DAY 2020

- ***MAPS has cancelled the upcoming MAPS/SRA Field Day and all Grower Shed Meetings due to the escalating Coronavirus situation.***

- ***MAPS will be focusing on sampling all the Approved Clean Seed Plots to ensure all plots are open to growers for distribution.***

Any queries please contact your Productivity Officer.

SUGARCANE INDUSTRY RESPONSE TO FALL ARMYWORM

Sugar Research Australia

Fall armyworm *(Spodoptera frugiperda)* is now considered established in Australia. It has been detected by Biosecurity Queensland at two sites on mainland Australia, including most recently on a farming site in Queensland's northwest Gulf region. It has not yet been detected in Australia on sugarcane.

(Above left) *Fall armyworm egg mass;*
(Middle) *Large larvae -30mm;*
(Top right) *Large larva head;*
(Bottom right) *Larvae emerging from eggs.*

Fall armyworm images by James Castner, the University of Florida and Sanbi .org.

Fall armyworm is an invasive pest and its larval (caterpillar) stage feeds on more than 350 plant species, and impacts cultivated grasses such as maize, rice, sorghum, sugarcane and wheat, as well as fruit and vegetable and cotton crops.

Fall armyworm is native to tropical and subtropical regions of the Americas, and since 2016 has spread to Africa, the Indian subcontinent, China and South East Asia.

Adult moths are highly mobile and can fly long distances (up to 200km). This pest is also prolific, reproducing at a rate of several generations per year.

Australia's climate and the production of suitable hosts are favourable for fall armyworm to establish and spread. Australia's environment and native flora may also be impacted.

The Queensland Department of Agriculture and Fisheries (DAF) is continuing to undertake surveillance across key farming areas.

The National Management Group has determined that it is not technically feasible to eradicate fall armyworm from Australia.

HOW IS THE AUSTRALIAN SUGARCANE INDUSTRY RESPONDING TO FALL ARMYWORM?

The Australian sugarcane industry, through the Sugarcane Industry Biosecurity Committee (SIBC), is working closely with governments and a range of groups to manage the threat posed by fall armyworm and respond appropriately. The community, industry and agronomists are encouraged to report any unexpected symptoms in the field by phoning the DAF hotline on **13 25 23.**

CANEGROWERS is the industry representative organisation for fall armyworm. SRA is assisting with specialist knowledge, and is

receiving support from productivity services organisations, Australian Sugar Milling Council, and the Australian Cane Farmers' Association. In addition to the work SRA is doing with DAF, we are also working with other industries as part of the Plant Biosecurity Initiative, including participation in workshops proposed to be held in Brisbane in March and April.

SRA will provide regular technical updates to the industry as further information becomes available.

WHAT COULD FALL ARMYWORM MEAN FOR THE AUSTRALIAN SUGARCANE INDUSTRY?

SRA has been in close contact with overseas sugarcane countries regarding the impact of fall armyworm on sugarcane crops. The extent of this impact will be more fully understood as more information is gathered on the strain(s) and feeding preferences of fall armyworm present in Australia.

The strain that has been detected in Australia is the r-strain (rice-strain), which is believed to favour small grass crops and maize. However, it is also understood to impact sugarcane and more information is required on the potential extent of this impact.

Alternative host plants within the vicinity of sugarcane could also be attractive to this pest, such as other crops, fallow crops and native grasses. This is an area which requires further investigation.

Overseas, younger cane is thought to be more susceptible to significant impacts of fall armyworm. The effect of fall armyworm infestation on Australian sugarcane crops remains unclear.

ARE CHEMICAL OPTIONS BEING CONSIDERED AS PART OF THE RESPONSE?

Currently there are no chemicals registered for use in sugarcane for the control of fall armyworm.

The industry is working with the Australian Pesticide and Veterinary Medicines Authority (APVMA) on an emergency permit for a chemical control option for fall armyworm.

At this point, it is not known if a chemical control option is needed in the long-term, but industry groups will continue to assess the situation.

Any chemical control option needs to be carefully considered in the context of integrated pest management, sustainability (avoiding resistance), potential environmental risk, and economic thresholds.

WHAT SHOULD CANE GROWERS DO TO ASSIST?

Growers and service providers are encouraged to be on the lookout for signs of fall armyworm. Biosecurity Queensland is the main point of contact for identification of potential fall armyworm and they should be contacted on **13 25 23**. Good quality photographs of the suspect caterpillar and plant damage, wherever possible, would assist with this identification. Farms will not be placed under quarantine if fall armyworm is reported and found, and early detection will assist in the response.

For further information on fall armyworm and how it is spread along with monitoring and action, visit the Biosecurity Queensland web page about this pest: *www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/priority-pest-disease/fall-armyworm*

***(Top left)** Adult female moth - 40mm wing span;*
***(Top right)** Adult male moth - 40mm wing span.*

LANDHOLDERS WEED MANAGEMENT OBLIGATION

The spread of weeds is a concern to everyone. The Queensland Biosecurity Act introduces the ***General Biosecurity Obligation*** (GBO); which means everyone must take reasonable and practical steps to prevent or minimise biosec urity risks.

A risk is an adverse effect.

Landholders are expected to know about potential risks on their property.

Eg: SICKLEPOD – seeding in cane at harvesting time

Eg: RATS TAIL GRASS – not being controlled on headlands

Eg: PARTHENIUM – not being treated on headlands and in cane

An activity is work undertaken on property.

Such as, harvesting, transporting of stock/ fodder/equipment, selling of plants.

Eg: Harvesting Sicklepod infested cane

Eg: Knowingly transporting harvester from weed infested property to another property without clean down.

Mackay Regional Council would like to raise awareness of practises that would ensure you are meeting your ***GBO.***

1. Regular spraying for weeds in Cane and headlands.

2. Ensure all equipment is cleaned down, before entering property and leaving.

3. Keep headlands slashed to prevent weeds from seeding.

Mackay Regional Council's Pest Management Officers are available to answer any questions you may have with regards to weed control. They can be contacted on call centre number 1300 622 529 or through your MAPS officer.

New DAF Pesticide Stewardship Project in Central Region

A new project to enhance the responsible use of pesticides in Great Barrier Reef catchments is moving into its assessment phase in 2020. The project, led by the Department of Agriculture and Fisheries (DAF), involves a range of activities to support the agricultural sector in meeting their obligations under the *Chemical Usage (Agricultural & Veterinary) Control Act 1988* and improving water quality outcomes for the Great Barrier Reef.

From February 2020, project officers will be conducting farm assessments on the chemical use practices of agricultural enterprises including cane farms across the Mackay Whitsunday, Burdekin and Wet Tropics areas. Starting in the Plane Creek (Mackay) and Haughton River (Townsville) catchment areas, assessments will focus on record keeping and compliance with label instructions. Other focus areas will include general pesticide stewardship, promotion of best management practice (BMP), and increased communication and engagement with farmers on pesticide management issues.

Farmers are welcome to contact the project manager to learn more about planned activities or to arrange an assessment time that suits them. Otherwise, a project officer may be in contact.

For more information, contact the project manager, Dan Stampa on 13 25 23.

Upskilling Extension Staff in Measuring Soil Health

Central region extension staff recently spent a day developing their skills in accessing soil health. Soil health gets lots of discussion and growers often ask how do they know if soil health has changed after they modify farming practices; e.g. what is different about my soil after introducing a legume crop into the cane cycle?

The Soil Health Extension Kit (SHEK) is being developed by the Burdekin/Herbert Soil Health Project, and validated here by the Soil Health Project - Central.

The training was conducted by the SRA Burdekin/Herbert Soil Health research team Dr Monia Anzooman, Linda Di Maggio and Robert Verrall.

Participants included extension staff from Mackay Area Productivity Services, Sugar Services Proserpine, Plane Creek Productivity Services, Farmacist, DAF and SRA.

“It is an important part of the Soil Health project to validate the Soil Health Test Kit for Central Region conditions. We need advisors to share their experience in using it so that we can iron out any issues before going mainstream with the kit” Dr Anzoom said.

Growers who are interested in participating in validating the test kit should contact Zoe Eagger (Farmacist), Clare Gersch (SRA), or your MAPS advisor.

Extension staff from MAPS, SSP, PCPSL, Farmacist, SRA and DAF getting the rundown on soil health

The Soil Health Project- Central is supported by the Department of Agriculture, through funding from Australian Government’s National Landcare Program, Sugar Research Australia and the Queensland Government with assistance from Farmacist Pty Ltd, Plane Creek Productivity Services Ltd, Sugar Services Proserpine Ltd, Central Queensland Soil Health Systems, Wilmar Sugar, Queensland Department of Agriculture and Fisheries, The University of Queensland and University of Southern Queensland.

Central Region RP161

Project update

Growers have saved on fertilizer costs while maintaining yields by participating in the CQRP161 Complete Nutrient Planning for Cane Farming project, run by Farmacist and MAPS in the Central Region.

The project provides a whole farm nutrient planning service that looks at every aspect of your soil, nutrition and fertiliser program and provides a reef-compliant fertiliser plan based on the Six Easy Steps® program. Since 2018, participating growers have used the nutrient plans to save over 200 tonnes of urea and over 80 tonnes of DAP equivalent. Monitoring of performance has included the taking of over 500 soil tests and more than 100 plant biomass and nutrient uptake samples.

By working with local agronomists from Farmacist and MAPS, detailed farm management and planning advice will be provided to growers and this will be specific to their farming needs. A joining fee of $550 (GST inclusive) per farm is required to join the project but this is returned via free soil testing.

The CQ161 project is funded through the Queensland Government’s Reef Water Quality Program and the Australian Government’s Reef Trust; and is focused on agronomists working on-farm with growers to improve profitability. For more info call Dave McCallum 0427 326 665.