



Sugar Research
Australia

eNewsletter

We take a deeper dive into some of our research projects, collaborations and partnerships.



Genomic selection offers sweet success for cane farmers

Researchers have proven that genomic selection can successfully predict the performance of key sugarcane traits, with the technology set to improve plant breeding outcomes in the crop.

The program is the culmination of five years of collaboration between Professor Ben Hayes' team at the University of Queensland and SRA's Variety Development team led by Dr Jason Eglinton.

Professor Hayes said a validation trial confirmed genomic selection could double the rate of gain for key sugarcane traits.

(Above): Prof. Ben Hayes, The University of Queensland and (right) SRA's Executive Manager Variety Development Dr Jason Eglinton

[Read the full genomic selection story](#)



Benefits of fallow crops

Having a non-grass species as a fallow break crop has multiple benefits for sugarcane growers, including breaking pest and disease cycles.

[Watch the fallow crops video](#)

Fungicides have a role in managing smut

The integrated management of sugarcane smut is a paper which has just been published by Springer Nature Group@Sugar Tech and was written by SRA Manager Biosecurity and Disease Screening Dr Shamsul Bhuiyan and the Variety Development Team.

“Sugarcane smut, caused by a fungus, *Sporisorium*



(Above): Shamsul Bhuiyan discusses the management of smut with growers.

“This study demonstrated that intermediate resistant and moderately susceptible varieties can be protected from smut when treated using commercial rate or 50 per cent of commercial rates of flutriafol fungicide. It also indicated that sugarcane smut can be effectively managed by a combination of moderately susceptible or intermedia resistant varieties and lower rates of fungicides. This finding has implications not only for the

scitamineum, can be managed using resistant varieties and to some extent by using fungicides,” Shamsul commented. “Fungicides play an important part in sugarcane smut management, in particular for the protection of the plant crop.

reduction of production costs but also for reducing the environmental impact.”

[Read how flutriafol fungicide helps manage sugarcane smut](#)



Hunting viruses to protect sugarcane crops

Insect-specific viruses are being investigated to protect Australia’s \$4 billion sugar industry in a research project at The University of Queensland.

Dr Kayvan Etebari from UQ’s School of the Environment is using genomics to identify viruses which could be developed into environmentally safe biopesticides to attack notorious pests such as canegrubs and soldier flies.

This project is funded by the Department of Agriculture and Fisheries and SRA.

[Read more about the virus research](#)



(Above): Kevin Powell discusses biosecurity issues with growers.

Inaugural Northern Plant Biosecurity Roundtable

When it comes to biosecurity, northern Australia is considered a frontline. The Northern Australia People Capacity and Response Network (NAPCaRN) has been developed in partnership with the Northern Australia Biosecurity Strategy (NABS) to improve biosecurity leadership, enhance partnerships with industry and boost response capability.

SRA's Entomology Leader, Dr Kevin Powell and Research Mission Manager Dr Stephen Mudge will represent the sugarcane industry next week when the first NAPCaRN Northern Plant Biosecurity Roundtable will be held in Cairns (3-4 October).

In the same week, Stephen and Kevin will also attend the Regional Surveillance RD&E workshop to discuss the next stage of the iMapPESTS program and other opportunities for collaboration and co-investment for RD&E to support northern surveillance for improved pest management and biosecurity.

[Read more about NAPCaRN](#)

[More about iMapPESTS](#)



SRA Variety Development Manager North, Dr Felicity Atkin updates South Johnstone growers on new variety data as part of the CCRSF project.

Cassowary Coast Reef Smart Farming project - the full story

The Cassowary Coast Reef Smart Farming project is working with sugarcane and banana growers in the Tully and Johnstone basins to improve productivity and optimise nitrogen use efficiency (NUE).

The project aims to identify and implement new opportunities to increase nutrient uptake in plants to reduce the risk of unused nitrogen entering waterways.

CCRSF is managed by CANEGROWERS Innisfail with SRA as a project partner.



CASSOWARY COAST
Reef Smart Farming

[Read more about the CCRSF project](#)



Sugar weather - latest forecast now available

The latest **Sugarcane Rainfall Outlook briefing** from the Bureau of Meteorology is now available for your region:

1. Far North & North: [Video](#) | [Audio](#) | [PDF](#)
1. Burdekin: [Video](#) | [Audio](#) | [PDF](#)
1. Central: [Video](#) | [Audio](#) | [PDF](#)
1. South - QLD: [Video](#) | [Audio](#) | [PDF](#)
1. South - Gold Coast & NSW: [Video](#) | [Audio](#) | [PDF](#)

Prepared by the Australian Bureau of Meteorology on behalf of Agricultural Innovation Australia (AIA).

[Provide feedback on this service](#)

ESG news highlights

There's a lot going on at the moment in the Environmental, Social and Governance (ESG) space.

Here are some highlights:

Suppliers sought

The Department of Environment and Science is seeking tenders from potential suppliers to engage with stakeholders and explore opportunities to develop projects in Great Barrier Reef sub-catchments for agricultural land and catchment management and other issues. Offer closes COB Tuesday 24 October.

[More information: Alison Buchanan](#)

Funding for industry experts to help sugarcane growers

Industry experts are invited to apply for a share in funding under a new \$3.6 million Sugarcane Practice Change Program to help sugarcane growers improve their use of nitrogen and phosphorus on farm. Successful applicants will provide agronomic advice and support to help cane growers undertake actions to improve their nutrient use efficiency and address yield constraints to reduce nutrient loads in water flowing to the Great Barrier Reef.

[Specialised support sought](#)

Survey about farmer participation in carbon projects



Sustainability grants available to support farmer groups

Project funding of up to \$20,000 is now available to support farmer peer-to-peer learning. The aim of the three-year project is to protect the Great Barrier Reef through projects that lead to sustainable farming practices and improved Reef water quality. Applications close 27 October 2023

[Get the funding guideline and project application form](#)

Handbook on natural capital

A new handbook released by CSIRO aims to guide farmers, forest growers, mining companies and non-governmental organisations on how to report and account for their natural assets to better protect our environment.

Queensland Farmers' Federation (QFF) invites farmers and agribusinesses to take part in a survey to evaluate the drivers and barriers to farmer participation in carbon/biodiversity projects.

The survey is part of a project being managed by QFF and the University of Southern Queensland to develop practical and affordable adaptation solutions by exploring alternative income streams to increase profitability and benefit the environment.

[Download the Natural Capital Handbook](#)

Measuring your relationship with your soil

The University of Sydney and Australian Farm Institute (AFI) are undertaking research to deliver a process to measure producers' relationship with their soil and the farming practices they implement (human connectivity) to soil.

[Complete the carbon/biodiversity survey here](#)

[Receive a personalised report when you undertake the survey](#)

SRA Events

[Advanced Pre-Emergent Herbicide Workshop \(Mossman\)](#) - CWA Hall, Mossman, Friday 6 October, 10am

[Advanced Pre-Emergent Herbicide Workshop \(Gordonvale\)](#) - Mulgrave Rambler, Gordonvale, Monday 9 October, 12 noon

[Guided Tour to MLG's Mt Garnet mine and processing plant](#) - Tuesday 14 November, full day

[SRA's Annual General Meeting \(AGM\)](#) - Thursday 16 November from 10am at The Atrium (UQ), 308 Queen Street, Brisbane and hybrid.

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