

TOTAL RESEARCH AND DEVELOPMENT INVESTMENT

PROJECT TITLE	PROJECT NUMBER	R&D PROVIDER(S)	CHIEF INVESTIGATOR	END DATE
🌱 Key Focus Area 1 (Variety Development)				
Exploiting introgression for the development of productive & regionally adapted varieties for NSW	2013/022	Sunshine Sugar	Roy Parfitt	30/06/2020
Leaf sucrose: The link to diseases, physiological disorders such as YCS and sugarcane productivity	2015/016	SRA	Gerard Scalia	01/06/2020
Implementing and validating genomic selection in SRA breeding programs to accelerate improvements in yield, commercial cane sugar, and other key traits	2017/002	UQ	Ben Hayes	01/07/2022
Validating root system traits for enhanced nutrient capture in challenging environments	2018/002	CSIRO	Anne Rae	01/09/2021
Impact of stool architecture on ratooning: extending current trial to 4R to strengthen correlations	2018/004	CSIRO	Anne Rae	01/03/2021
Genetic analysis and marker delivery for sugarcane breeding	2018/005	CSIRO	Karen Aitken	30/06/2022
Selecting high value chromosomes from Saccharum species - extension to 2015/026	2018/006	CSIRO	Karen Aitken	30/06/2020
Strategies to minimise impacts of processing existing soft cane varieties, and industry cost/benefit analysis	2019/005	QUT	Floren Plaza	01/05/2021
Validating high-throughput phenomics technologies for sugarcane clonal selection	2019/002	SRA	Sijesh Natarajan	30/09/2022
NIR calibrations for fibre quality	2019/001	SRA	Roy Parfitt	30/06/2021
🌱 Key Focus Area 2 (Soil health, nutrient management and environmental sustainability)				
More profit from nitrogen: enhancing the nutrient use efficiency of intensive cropping and pasture systems	2015/907	CRDC	Multiple	30/06/2020
SIX EASY STEPS - continuing perspectives in time and space	2017/004	USQ	Bernard Schroeder	01/02/2022
Measuring soil health, setting benchmarks and driving practice change in the sugar industry	2017/005	SRA	Danielle Skocaj	01/08/2022
Unravelling the impact of climate and harvest time on nitrogen fertiliser requirements	2017/009	SRA	Danielle Skocaj	04/03/2022
Seeing is believing: managing soil variability, improving crop yield and minimising off-site impacts in sugarcane using digital soil mapping	2017/014	UNSW	John Triantafyllis	01/10/2020
Implementation of root system diagnostics to deliver a field-based measure for root health	2018/003	CSIRO	Anne Rae	01/08/2021
Greenhouse gas emissions from sugarcane soils: strategies for increasing NUE and reducing environmental pollution	2018/007	QUT	Peter Grace	30/06/2021
Establishing sugarcane farming systems to improve soil health	2018/008	SRA	Barry Salter	01/03/2023
Development of commercial molecular biological assays for improved sugarcane soil health and productivity	2018/009	SRA	Rob Magarey	30/06/2020
SIX EASY STEPS Tool Box development for refined on farm nutrient management	2018/013	SRA	Barry Salter	01/02/2020
Complete nutrient management planning for cane farming (Funding provider: Queensland Government DES)	2016/804/ RP161	SRA/Farmacist	Jayson Dowie	30/12/2020
Improved water quality outcomes from on-farm nitrogen management (Funding provider: University of Queensland)	2016/805/ UQ_NESP	SRA	Danielle Skocaj	10/12/2020
Cane farmer trials of enhanced efficiency fertiliser in the catchments of the Great Barrier Reef (Funding provider: Commonwealth Department of Environment and Energy and Queensland Government Great Barrier Reef Innovation Fund (Reef Trust 4))	2016/807	CANEGROWERS / SRA	Barry Salter	31/12/2021
Improving NUE for sugarcane crops with constrained yield potential	2015/065	SRA	Danielle Skocaj	15/06/2020

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🎯 Key Focus Area 3 (Pest, disease and weed management)				
Soldier fly management	2015/804	SRA	Kevin Powell	31/12/2019
Feeding behaviour of Soldier fly	2017/808	SRA	Kevin Powell	11/12/2019
Modern diagnostics for a safer Australian Sugar Industry	2017/809	SRA	Nicole Thompson	01/06/2022
Solving Yellow Canopy Syndrome	2014/049	SRA	-	30/06/2020
Identifying new-generation insecticides for canegrub control as contingency for loss of amenity with the existing product	2016/003	SRA	Kevin Powell	01/01/2020
Investigation of biotic causes of yellow canopy syndrome	2016/064	UQ	Andrew Geering	01/12/2019
Keeping our chemicals in their place - in the field	2017/008	SRA	Emilie Fillois	01/07/2021
Moth Borers – how are we going to manage them when they arrive?	2018/010	SRA	Kevin Powell	01/08/2021
RSD detection at the sugar factory – disease detection blueprint	2019/003	SRA	Rob Magarey	30/06/2022

🔧 Key Focus Area 4 (Farming systems and harvesting)				
Increased Harvest Recovery: Reducing sugar loss and stool damage	2014/048	SRA	Matt Schembri	01/09/2019
Assessment of new management strategies for marginal soils	2015/007	SRA	Barry Salter	31/12/2019
Sugar from space: improved data access, yield forecasting and targeted nitrogen application for the Australian Sugar industry	2016/062	UNE	Andrew Robson	01/01/2020
Understanding interactions between basecutters and other forward-feed components with the cane stalk, and determining practical strategies to minimise damage as harvester speed increases	2016/952	Norris ECT	Chris Norris, Phil Hobson	01/05/2020
Southern Sugar Solutions	2017/012	DAFQ	Neil Halpin	01/01/2021
Development of commercial molecular biological assays for improved sugarcane soil health and productivity	2018/009	SRA	Rob Magarey	01/06/2021
Smarter Irrigation for Profit Phase 2	2019/901	Cotton Research and Development Corporation	Multiple	20/06/2022

🏭 Key Focus Area 5 (Milling efficiency and technology)				
Investigation into modifying pan boiling techniques to improve sugar quality	2015/013	QUT	David Moller	01/06/2020
Online analysis systems to measure the available nutrients in mill mud	2016/019	SRA	Steve Staunton	01/06/2020
Reducing boiler maintenance costs and deferring capital expenditure through improved technology	2016/020	QUT	Floren Plaza	01/06/2021
Managing aspects of raw sugar quality in the Australian sugar industry Part II	2017/006	Griffith University	Chris Davis	01/11/2019
Investigations to mitigate the effects of juice degradation in factory evaporators on sugar recovery and quality, corrosion and effluent organic loading	2017/007	QUT	Darryn Rackemann	01/03/2022
Pan design and operational changes to suit Australian pan stages operating on low pressure vapour	2018/012	QUT	Ross Broadfoot	01/11/2021
Pan design and operational changes to suit Australian pan stages operating on low pressure vapour	2018/012	QUT	Ross Broadfoot	01/11/2021
Evaluate the performance of the falling film tube evaporator at Bingera Mill	2019/201	Bundaberg Sugar	Neil Sichter	22/05/2020
Evaluate the suitability of the fixed element crystalliser for widespread adoption in Australian sugar factories	2019/202	Sunshine Sugar	Daniel Rojo	22/05/2020
Reducing surging in shredders	2019/204	MSF Sugar	Peter Chohan	22/05/2020

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 Key Focus Area 5 (Milling efficiency and technology) continued				
Australian Sugar Industry Training – Development of factory training modules – Phase 2	2019/006	QUT	David Moller	End date: 30/06/2022
Milling R&D Program Development	2019/008	Lazuli	Eris O'Brien	15/12/2019
 Key Focus Area 6 (Product diversification and value addition)				
A profitable future for Australian agriculture: Biorefineries for higher-value animal feeds, chemicals and fuels	2015/902	QUT	Ian O'Hara	01/04/2019
Biorefineries for Profit – Phase 2 (R&D for Profit Round 4)	2019/902	QUT	Ian O'Hara	29/10/2020
 Key Focus Area 7 (Knowledge and technology transfer and adoption)				
Productivity improvements through energy innovation in the Australian sugar industry	2017/011	AgEcon	Jon Welsh	01/07/2020
Pathways to water quality improvements in the Myrtle Creek sub catchment (Funding provider: Queensland Government Department of Environment and Science)	2017/810/EHP17066	SRA	Phil Ross	17/05/2020
Cane to Creek 2.0. Funding provider: Partnership between Australian Government Reef Trust, Great Barrier Reef Foundation with support from SRA.	2018/803	SRA	Belinda Billing	31/03/2021
Optimising productivity, variety recommendations and mill operations through analysis of mill data	2016/032	SRA	Jo Stringer	01/02/2021
Sugar milling R&D capability development program	2018/015	QUT	-	30/09/2023
 Key Focus Area 8 (Collaboration and capability development)				
Combining controlled release and nitrification inhibitor properties to deliver improved fertilizer nitrogen use efficiency in high risk environments	2016/101	UQ	Chelsea Stroppiana	31/03/2020
Development and modelling of novel controlled release fertilisers for improved nutrient delivery efficiency	2016/102	UQ	Ian Levett	01/09/2020
Integrated standardised competency based training for Sugar Milling operations	2017/013	QUT	David Moller	01/01/2019
Re-evaluating the biology of the sugarcane root system: new knowledge allows for assessment of production impacts and implications for yield decline	2017/101	Southern Cross University	Anders Claassens	30/06/2020
Microwave sensors for sugarcane sugar analysis	2017/102	UQ	Scott Thomason	30/06/2020
New approaches to quantifying nitrogen fluxes in enhanced efficiency fertilisers in Australian sugarcane soils	2018/101	UQ	Aidan Chin	01/06/2022
Characterising nitrogen use efficiency in sugarcane	2018/102	UQ	Anoma Ranagalage	01/06/2022
Developing a marker system to measure dosage of alleles for use as a selection tool in the sugarcane breeding program	2018/402	CSIRO	Meredith McNeil	01/12/2019