

# Total Research Investment

Sugar Research Australia aims to invest in projects that will deliver real benefits on key issues for its investors.

PROJECT TITLE	PROJECT NUMBER	PRINCIPAL R&D PROVIDER	CHIEF INVESTIGATOR	END DATE
<b>Key Focus Area 1 (Optimally-adapted varieties, plant breeding and release)</b>				
Improving the accuracy of selection in sugarcane breeding trials through accounting for site variability	2012/351	SRA	Xianming Wei	02/06/2018
Applying the genome sequence for variety improvement: validation and implementation	2013/030	CSIRO	Karen Aitken	01/08/2018
Sugarcane root systems for increased productivity; development and application of a root health assay	2015/002	CSIRO	Anne Rae	01/07/2018
Impact of stool architecture on ratooning ability	2015/004	CSIRO	Anne Rae	01/08/2018
Leaf sucrose: the link to diseases such as YCS and enhancement of sugarcane productivity	2015/016	SRA	Gerard Scalia	30/06/2019
Generation of a high throughput SNP marker chip for introgression of resistance genes from wild germplasm into sugarcane, targeting smut, pachymetra and nematodes, to generate more resistant varieties faster	2015/025	CSIRO	Karen Aitken	01/08/2018
Selecting high value chromosomes from wild introgression material to deliver more resistant varieties faster	2015/026	CSIRO	Karen Aitken	01/08/2018
Improving early stage selection of SRA breeding program by indirect selection of plant vigour	2016/028	SRA	Jaya Basnayake	01/07/2019
Optimising productivity, variety recommendations and mill operations through analysis of mill data	2016/032	SRA	Jo Stringer	01/02/2021
New approaches to identify and integrate Pachymetra resistance genes from Erianthus into the SRA breeding program	2016/039	SRA	Nathalie Piperidis	31/12/2019
Licence to Farm: Nitrogen use efficient varieties to meet the future environmental targets	2016/044	SRA	Prakash Lakshmanan	01/07/2019
Reviewing and extending knowledge of fibre quality assessment and effects of cane varieties	2017/001	QUT	Geoff Kent	01/09/2018
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
Genetic control and genomic selection for important traits in sugarcane (funding through: Australia-India Strategic Research Fund)	2016803	SRA, Sugarcane Breeding Institute, Coimbatore	Prakash Lakshmanan	01/05/2019

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<b>Key Focus Area 2 (Soil health, nutrient management and environmental sustainability)</b>				
Strategies to manage soil-borne fungi and mitigate sugarcane yield decline	2013/101	CSIRO	Paul Harvey	01/06/2018
Boosting N-use efficiency in sugarcane through temporal and spatial management options	2014/045	USQ	Bernard Schroeder	01/03/2018
Improving NUE for sugarcane crops with constrained yield potential	2015/065	SRA	Danielle Skocaj	30/06/2018
Decision support for informed nitrogen management: soil nitrogen mineralisation test and the assessment of soil crop N contribution to crop N requirements	2015/069	DSITI	Phillip Moody	30/06/2018
Improving management practices of legume crop residues to maximise economic and environmental benefits	2015/074	DSITI	Weijin Wang	30/06/2018
How much N will that crop need? Incorporating climate forecasting into nitrogen management in the Wet Tropics	2015/075	JCU	Yvette Everingham	30/06/2018
Waste to revenue: Novel Fertilisers and feeds (Rural R&D for Profit)	2015/905	APL	Janine Price	30/06/2018
More profit from nitrogen	2015/907	CRDC	Felice Driver	30/06/2020
Master classes in soil health and soil biology for the sugar industry	2016/025	SRA	Andrea Evers	30/07/2018
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	Dave Olsen	01/09/2022
Unravelling the impact of climate and harvest time on nitrogen fertiliser requirements	2017/009	SRA	Danielle Skocaj	01/02/2022

<b>Key Focus Area 3 (Pest, disease and weed management)</b>				
Solving yellow canopy syndrome	2014/049	SRA	Dave Olsen	30/06/2019
Developing an alternative herbicide management strategy to replace PSII herbicides in the Wet Tropics area	2014/050	SRA	Emilie Fillols	01/01/2018
A Novel Polyphasic Framework to resolve yellow canopy syndrome Paradox	2014/082	UWS	Brajesh Singh	30/06/2018
Identifying new-generation insecticides for canegrub control as contingency for loss of amenity with the existing product	2016/003	SRA	Andrew Ward	01/01/2020
You can't manage what you can't identify – Managing threat from exotic moth borers through accurate identification	2016/041	SRA	Andrew Ward	01/07/2018
Molecular assay of major soil-borne pathogens for better exploitation of commercial varieties	2016/047	SRA	Rob Magarey	01/07/2018
Investigation of biotic causes of yellow canopy syndrome	2016/064	UQ	Andrew Geering	01/12/2019
Keeping chemicals in their place – in the field	2017/008	SRA	Emilie Fillols	01/07/2021
Delivering solutions for chlorotic streak disease	2017/010	SRA	Kathy Braithwaite	30/06/2020
Integrated disease management of sugarcane streak mosaic in Indonesia (ACIAR-funded project)	HORT/2012/083	SRA	Rob Magarey	31/12/2018
Field ready, optimised precision weed identification sensor system	2015/055	USQ	Steve Rees	1/4/2019
Delivery of remote sensing technology to combat cane grubs in Queensland cane fields	2015/038	SRA	Kevin Powell	01/07/2021