

SRA PROJECT PORTFOLIO AND INVESTMENT BY KEY FOCUS AREA (KFA)

The following project type classifications are used within SRA's investment portfolio:

- C SRA - R&D contestable - internally won;
- C Ext - R&D contestable - externally won;
- CRP - collaborative research project;
- SRA - R&D internal core and corporate support projects.

KFA1: VARIETY DEVELOPMENT			
PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2017002 / 2017806	Implementing and validating genomic selection in SRA breeding programs to accelerate improvements in yield, commercial cane sugar, and other key traits	C EXT/SRA	367
2018002	Validating root system traits for enhanced nutrient capture in challenging environments	C EXT	286
2018005 / 2018801	Genetic analysis and marker delivery for sugarcane breeding	C EXT/SRA	445
2019002	Validating high throughput phenomics technologies for sugarcane clonal selection	C SRA	343
2019804	Measuring fibre quality data and providing feedback for pilot shredder tests and planned trials	CRP	13
ANADATA	Statistical analysis of data	SRA	308
BIODTLY / BLOWFD	Development of resistant varieties	SRA	751
INNOV9	Image processing and machine learning for next generation disease resistance screening	SRA	25
INNOV10	CRISPR/Cas9 (a genome editing tool) targeted allele (variant form of a gene) specific chromosome enrichment for smut resistance molecular markers mining at a known quantitative trait locus (QTL) location	SRA	25
PLANBKN / PLANCEN / PLANHBT / PLANNNSW/ PLANNTH / PLANSTH"	Plant breeding - core selection	SRA	6,616
PLANCRO	Plant breeding - crossing	SRA	653
PLANDNA	Molecular selection	SRA	333
PLANGEN	Plant breeding - introgression	SRA	347
PLANINT	Plant breeding - integrated database and crossing systems	SRA	131
PLANLAB	Laboratory	SRA	31
PLANMGT	Breeding management	SRA	489
PLANPBR	Plant Breeder's Rights	SRA	70
PLANQCS	QCANESelect® support	SRA	12
PLANSPE	Spectracane support	SRA	254
PLANVPD	Variety propagation and distribution	SRA	628
Total Investment KFA1			12,127

KFA2: SOIL HEALTH, NUTRIENT MANAGEMENT AND ENVIRONMENTAL SUSTAINABILITY

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2016804	Complete nutrient management planning for cane farming	CRP	15
2016805	Improved water quality outcomes from on-farm nitrogen management	CRP	34
2016807	"Reef Trust 4 - cane farmer trials of enhanced efficiency fertiliser in the catchments of the Great Barrier Reef"	CRP	1,050
2017004 / 2017805	SIX EASY STEPS - continuing perspectives in time and space	C Ext/C SRA	821
2017005	Measuring soil health, setting benchmarks and driving practice change in the sugar industry	C SRA	868
2018003	Implementation of root system diagnostics to deliver a field-based measure for root health	C EXT	126
2018008	Establishing sugarcane farming systems to improve soil health	C SRA	303
2019903 / 2019904	Australian sugarcane industry soil health benchmarking in Central Queensland – increasing profit and transforming soil health practices through competitive industry research, extension and adoption	C EXT	296
2020801	SIX EASY STEPS Advisory Committee	CRP	5
Total Investment KFA2			3,520

KFA3: PEST, DISEASE AND WEED MANAGEMENT

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2014049	Solving Yellow Canopy Syndrome (YCS)	C SRA	20
2017008	Keeping chemicals in their place - in the field	C SRA	368
2017809	Modern diagnostics for a safer Australian sugar industry	CRP	228
2018009	Development of commercial molecular biological assays for improved sugarcane soil health and productivity	C SRA	208
2018010	Moth Borers - how are we going to manage them when they arrive?	C SRA	160
2019003	Ratoon stunting disease (RSD) detection at the sugar factory – disease detection blueprint	C SRA	312
2019806	Advancing techniques for diagnosis of YCS	CRP	98
2019905	Boosting diagnostic capacity for plant production industries	C EXT	42
BIOEBBG / BIOEMER / BIOEMKY	Biosecurity entomology	SRA	25
BIOPIND / BIOPTLY / BIOPWFD	Biosecurity pathology	SRA	382
BIOQUAR	Quarantine pathology	SRA	247
BIORSDL	RSD Laboratory	SRA	223
BIOSPLY	Soil pathogen laboratory	SRA	121
INNOV11	In-house capability for rapid screening of insecticides to cane grubs using a clearly defined artificial diet	SRA	28
PHEAMGT	Plant health management	SRA	23
Total Investment KFA3			2,484

KFA4: FARMING SYSTEMS AND HARVESTING

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2017012	Southern sugar solutions	C EXT	183
2017014	Seeing is believing: managing soil variability, improving crop yield and minimising off-site impacts in sugarcane using digital soil mapping	C EXT	30
2019004	Harvester losses assessment by real-time machine vision systems	C EXT	96
2019901	Smarter Irrigation for Profit Phase 2	C EXT	202
AGROMGT	Agronomy management	SRA	27
Total Investment KFA4			539

KFA5: Milling efficiency and technology

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2016019	Developing online analysis systems to measure the available nutrients in mill mud	C SRA	63
2016020	Reducing boiler maintenance costs and deferring capital expenditure through improved technology	C EXT	47
2017007	Investigations to mitigate the effects of sucrose degradation and acid formation in factory evaporators on sugar recovery and quality, corrosion and effluent loadings	C EXT	145
2018012	Pan design and operational changes to suit Australian pan stages operating on low pressure vapour	C EXT	165
2019005	Improved strategies to process soft canes	C EXT	125
2019006	Australian sugar industry training - development of factory training modules - Phase 2	C EXT	162
2019007	Eliminating roll arcing	C EXT	282
2020791	Small milling research projects	C EXT	200
NIRDMER	Near Infra Red (NIR) at Meringa	SRA	117
PLANCAS	Cane Analysis System (CAS) service and support	SRA	450
Total Investment KFA5			1,755

KFA6: PRODUCT DIVERSIFICATION AND VALUE ADDITION

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2019902	Biorefineries for Profit - Phase 2	C EXT	200
Total Investment KFA6			200

KFA7: KNOWLEDGE AND TECHNOLOGY TRANSFER AND ADOPTION

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2016032	Optimising productivity, variety recommendations and mill operations through analysis of mill data	C SRA	241
2017011	Productivity improvements through energy innovation in the Australian sugar industry	C EXT	40

KFA7: KNOWLEDGE AND TECHNOLOGY TRANSFER AND ADOPTION (CONTINUED)

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2017810	Pathways to water quality improvements in the Myrtle Creek sub catchment	CRP	378
2018803	Cane to Creek 2.0	CRP	795
2019802	Reviving GrubPlan to ensure appropriate use and application of imidacloprid for control of cane grubs	CRP	94
2019803	Nutrient management planning in the Russell Mulgrave	CRP	430
COMMMGR	SRA communications, marketing and graphic design	SRA	608
PECCOMM	Research adoption - non-project related	SRA	2,372
Total Investment KFA7			4,959

KFA8: Collaboration and capability development

PROJECTS			
PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
2007003	Collaboration, cross-sectoral and industry good investment	C EXT	207
2013900	Contribution to Council of Rural Research and Development Corporations (CRRDC)	CRP	40
2014200	Consultancies and research workshops	C EXT/C SRA	167
2014201	Board approved uncontracted 2020/21 capability investment	C EXT/C SRA	99
2017101	PhD Scholarship - Re-evaluating the biology of the sugarcane root system; new knowledge allows for assessment of production impacts and implications for yield decline	C EXT	42
2017102	PhD Scholarship - Microwave sensors for sugarcane sugar analysis	C EXT	30
2018015	Sugar Milling R&D Capability Building Program	C EXT	123
2018101	Scholarship - New Approaches to Quantifying Nitrogen Fluxes in Enhanced Efficiency Fertilisers in Australian Sugarcane Soils	C EXT	31
2018102	Scholarship - Characterizing Nitrogen Use Efficiency in Sugarcane	C EXT	31
2018501	Building a sugar industry economic model to quantify and prioritise global trade policy and market access initiatives for the Australian sugar industry	C EXT	50
2019102	PhD Scholarship - Genetic solutions for determining fibre quality traits in sugarcane	C EXT	31
2019303	Sugar Travel and Learning Award	C EXT	3
2019401	Research Award: A new high throughput method for screening for root-knot and root-lesion nematode resistance in sugarcane	C EXT	6
2019402	Enhancing the resilience of sugarcane with photoactive carbon nanodots	C EXT	4
2020792	Miscellaneous investments under consideration	C EXT	200
Total Investment KFA8			1,062

KFA9: Organisational effectiveness

PROJECTS

PROJECT NUMBER	DESCRIPTION	PROJECT TYPE	2020/21 \$K
Various	Research funding management, research stations and resources	SRA	5,714
Various	Board and investor relations	SRA	1,961
Various	Corporate support	SRA	2,654
Total Investment KFA9			10,329

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