SUMMARY OF SRA RESEARCH OUTPUTS – APRIL to SEPTEMBER 2018

The following outputs (products, scientific knowledge, soft technology and tools/enablers) were successfully completed within SRA's contestable research portfolio for the period 1 April – 30 September 2018.

As part of SRA's Monitoring and Evaluation Framework, outputs are tracked and reported on a bi-annual basis. Note that this is not an exhaustive list of outputs, activity from within SRA's ongoing core business outputs are not presented here.

Products

Output	Project	Lead R&D provider	Delivery comments	Adoption/Next Steps
Molecular pathogen diagnostic service (assays) for soil borne pathogens	2016/047	SRA	DNA assays were developed for major root pathogens / parasites in the Australian sugarcane industry. A framework for commercial delivery of the test in the industry was implemented and training of productivity services commenced.	Assays are being trialled at SRA soil health sites in projects 2017/005 and 2018/008. Research continues in project 2018/009 to develop further molecular biological assays for industry.

Scientific Knowledge

Output	Project	Lead R&D provider	Delivery Comments	Adoption/Next Steps
Performance evaluation of black liquor based fertiliser	2012/053	QUT	Black liquor based fertiliser performance evaluation completed concluding that black liquor waste from a potassium hydroxide based bagasse pulping process performs similarly to muriate of potash as a fertiliser.	No further investment at this time.
A moth borer phylogenetic tree	2016/041	SRA	Phylogenetic trees have been developed which highlight the genetic diversity and relationships of major moth borers.	Exotic moth borer R&D continued in project 2017/902.
Baseline description of sugarcane root systems	2015/002	CSIRO	Baseline description of healthy sugarcane root systems completed and used to demonstrate presence of genetic variation for root traits amongst varieties.	Outputs have been rolled into two new projects: 2018/002 and 2018/003.
Effects of environmental constraints on root systems			Defined the effect of stress on root systems.	
Knowledge of correlations between fibre quality and economics of factory operations.	2017/001	QUT	Completed. Knowledge that there are correlations between fibre content, short fibre content and factory operations.	SRA exploring further fibre quality measurement research.

SRA acknowledges and thanks its investors, including levy payers (sugarcane growers and millers), the Commonwealth Government and the Queensland Government for their contribution to the development of these outputs.

Soft Technology

Output	Project	Lead R&D provider	Delivery Comments	Adoption/Next Steps
Electrical conductivity (EC) mapping of SRA Clonal Assessment Trial (CAT) blocks to account for site variability	2012/351	SRA	EC mapping is now routinely done in the SRA variety selection trials, especially for the CATs.	No further work, fully integrated into SRA breeding program.
Model of Nitrogen mineralization rates under representative cane soils	2015/069	Former Queensland Government Department of Science, Information Technology and Innovation	Modelling successfully conducted and demonstrated factors for improved modelling of N mineralisation estimates under field conditions. Modelling informs options for development of a decision support tool but further funding required for development.	Further research understanding of nutrient cycle commenced in a DES/DAF project.
Best legume residue management practice recommendations	2015/074	Former Queensland Government Department of Science, Information Technology and Innovation	Recommendations are being fed into development of guidelines and draft decision tree for SIX EASY STEPS® toolbox.	Development of SIX EASY STEPS® toolbox in project 2018/003.
Improved understanding of Nitrogen mineralization of legume residues			Comprehensive understanding achieved and research findings and data sets to be fed into development of SIX EASY STEPS® toolbox.	

Tool/Enablers

Output	Project	Lead R&D provider	Delivery Comments	Adoption/Next Steps
Evaluation of existing irrigation control tools	2015/082	SRA	Project evaluated irrigation scheduling in the Australian industry and provided industry recommendations.	Further irrigation research continued in projects 2017/011 and 2018/011.
Defining of industry climate needs and identify suitable tools, products and services.	2015/904	AgriFutures	Completed.	Outputs with the Bureau of Meteorology to consider modifications to ACCESS forecasting model enhancement.

If you would like more information on any of these research outputs contact SRA's Research Funding Unit on (07) 3331 3346.

SRA acknowledges and thanks its investors, including levy payers (sugarcane growers and millers), the Commonwealth Government and the Queensland Government for their contribution to the development of these outputs.