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Report identifies opportunities and challenges for diversifying sugarcane revenue streams

A new report commissioned by SRA has identified opportunities and challenges for diversifying revenue streams for the Australian sugarcane industry.

The report was prepared by Lazuli Consulting, who worked extensively with SRA Members and industry stakeholders to gain a more detailed appreciation around value-adding and diversification within the sugar industry value chain. They also analysed the technological and market landscape in Australia and overseas.

"Sugarcane is an incredible crop," SRA CEO, Mr Neil Fisher, said. "In Australia it is grown across diverse climatic conditions from subtropical New South Wales along the Queensland coast into the Wet Tropics, and it is generally much more resilient to climatic and disease challenges than other crops grown in these regions.

"Sugarcane is the economic scaffold for many regional communities in Queensland and NSW. It also produces a large biomass, yet we are not extracting the full potential from this biomass.

"Diversification already plays an important role in the industry through products such as molasses, rum, ethanol, and electricity cogeneration, but this new report by Lazuli Consulting identifies that there are other opportunities for our industry. However, these opportunities may also face considerable challenges in becoming commercial reality."

Mr Fisher said the report was an initiative of the SRA Board and had also been identified as an industry need at a Futures Forum convened by SRA and industry in April 2018.

CANEGROWERS Chairman Mr Paul Schembri welcomed the report as a platform from which the industry can move forward.

"As farmers, we are proud of the crop that we produce and the significant amount of biomass it offers as feedstock to new ventures," Mr Schembri said. "This report is a good starting point for industry discussions around a more diversified future and the mechanisms by which all sectors can benefit from the rewards that new opportunities present."

Managing Director of Lazuli Consulting, Mr Eris O'Brien, said that the report identified the primary opportunities as electricity cogeneration, ethanol, food products and densified biomass, and a secondary list of opportunities as specialty chemicals including sugar and animal feed.

Mr O'Brien said that the report reinforced the view that Australia was heavily reliant on raw sugar production when compared with major competitors such as Thailand and Brazil.

"Construction costs in Australia are high compared to other sugar-producing countries, and financing projects is difficult without long-term, commercially priced off-take agreements," he said.

Despite these and other challenges, the report identified the importance of the Australian industry continuing to investigate new technologies and opportunities.

SRA currently invests in this research area through Key Focus Area six of its Strategic Plan: Product Diversification and Value Addition.

This includes a major research project supported by SRA through investment from the Australian Government Department of Agriculture as part of the Rural R&D for Profit program and by the Queensland Government Department of Agriculture and Fisheries.

This research project, led by QUT, is developing technologies to convert Australian agricultural feedstocks, including from sugarcane, into new value-added animal feeds, chemicals, and advanced fuels.

- SRA acknowledges the investment contribution from the Queensland Department of Agriculture and Fisheries towards this research activity.

Capability development to encourage the next generation of sugarcane scientists

The next generation of sugarcane industry researchers is being offered a leg-up into the world of sugarcane industry science and technology, through two capability development programs being offered through Sugar Research Australia (SRA).

Applications are open for Sugar Research Australia's (SRA's) Sugar Industry Research Awards and Sugar Industry Postgraduate Scholarships. Both programs encourage innovative research ideas and aim to enhance the capability of the research sector that supports the Australian sugarcane industry. The Postgraduate Research Scholarships program is aimed at Masters or PhD level researchers and is open for applications until October 31, 2019.

The Research Awards program is aimed at existing researchers looking to develop research skills or explore new and innovative ideas. This program is open for applications until October 1, 2019.

"These programs are intended to encourage innovative thinking and allow participants to conduct projects that can demonstrate benefits to the Australian sugarcane industry," General Manager of the SRA Research Funding Unit, Dr Harjeet Khanna, said.

"Through the Research Awards, projects may be used to develop research skills or explore new and innovative ideas. Not every idea or concept leads to success, but the objective of this scheme is to help provide a catalyst that could result in great potential R&D opportunities.

"We encourage existing or prospective sugarcane industry researchers to apply for these excellent opportunities to advance their career."

Applications will be preferred in the fields of:

- Optimally adapted varieties, plant breeding and release: sugarcane breeding / quantitative genetics / genomic selection / molecular marker implementation.
- Pest, disease and weed management: sugarcane entomology / soldier fly / biosecurity.
- Farming systems and harvesting: digital agriculture (integrating precision farming and smart farming)

SRA Burdekin-based researcher Mr Sijesh Natarajan recently completed his PhD through a Postgraduate Research Scholarship, where he looked at understanding how different sugarcane varieties respond to water stress.

"Water stress is a major constraint for sugarcane productivity, estimated to cost the industry \$250 million per year," Mr Natarajan said. "Even in irrigated conditions, having varieties that use water more efficiently is increasingly important.

"Increasing transpiration efficiency (TE), the amount of biomass produced per unit of water used, is one way of improving water productivity and water use efficiency of sugarcane.

“My PhD research, supported by the SPRS, was aimed at understanding the underlying physiological basis for variation in TE among sugarcane genotypes, and its impact on productivity for the typical production conditions in Australia. Results suggests that targeted selection for higher TE in the breeding program may lead to varieties with higher water use efficiency, improved productivity and resilience under water stress conditions.”

- For more detail visit the “Research Investment” section of www.sugarresearch.com.au.

FertFinder update

SRA has updated the online tool, FertFinder, which can help you determine the right fertiliser blend that matches the nutritional requirements of your paddocks. Download the new version at the link.

Tully assay lab notches up 10,000th sample milestone

The SRA Tully assay laboratory recently processed its 10,000th sample for *Pachymetra* root rot and nematodes. This represents a significant achievement for our industry, and congratulations to all the growers and productivity services organisations who have sent us samples for analysis over the years. A soil assay for *Pachymetra* root rot can be used to determine the likely severity of the disease in commercial fields and can help inform management decisions for growers / prod services. You can hear more from ABC Rural journalist Charlie McKillop at the link.