New research project into sugarcane harvest losses builds momentum

Australian Government
Department of Agriculture and Water Resources

A holistic research program is looking at the vexed challenge of sugarcane harvest losses right along the value chain.

A major new research program is tackling the challenge of reducing the loss of sugarcane associated with mechanical harvesting, a problem that has been estimated to cost the Australian sugarcane industry $150 million per year.

The research is being led by Sugar Research Australia (SRA) and it is aiming to improve harvesting efficiency from multiple research strategies along the value chain, all the way from encouraging the adoption of existing research on-farm, to exciting new on-line tools to help harvester operators maximise the efficiency of removing sugarcane and sugar from a field in real-time.

This project is supported by funding from the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D for Profit programme and will run for three years, going through to June 2019.

SRA has appointed consultant Bernard Milford to coordinate the activity within the $5.5 million program, which involves multiple research and industry collaborators.

"Bernard Milford is well known to many within the industry and has an understanding of the challenges and opportunities facing cane growers, harvester operators and millers," SRA CEO Neil Fisher said.

A project Research Management Group has also formed to help steer the project and ensure its outputs are relevant to industry needs.

It met in September for the first time and it comprises researchers, mill owners, harvester operators and cane growers.

This group will play a key role in developing strategies to ensure that the benefits of the research flow through to the industry.

"With the harvest well underway, SRA is committed to ensuring that this program maximises the opportunity of creating positive outcomes via research and adoption," Mr Fisher said.

The research work will kick off with investigations into cane cleaning in conjunction with low-loss harvesting, machinery modifications to reduce stool damage and improve cane feeding, sensing tools to give feedback on the quality of the harvesting job, and improvement of a software tool to assess the financial benefits of different harvesting strategies (SCHLOT, Sugarcane Harvest Loss Optimisation Tool). Additional work will be commissioned on advice from the Research Management Group, but is likely to include economic analyses across the sugarcane value chain and initiatives to encourage adoption of harvest best practice.

"This work complements existing research and adoption activity that is underway to reduce sugarcane harvest losses," Mr Fisher said.

"This research program is an amazing opportunity to answer specific research questions, to develop new technology for the industry, to better understand the economics of efficient harvesting, and to ultimately deliver the adoption of improved practices.

"This will lead to a more profitable industry value chain, creating a positive outcome for the industry, regional communities, and the economy."

Key Focus Area
Multiple
Project name
Enhancing the sugar industry value chain by addressing mechanical harvest losses through research, technology and adoption
Project number
2016/901
Project end date
June 2019

The industry representatives on the committee are:

- Gary Longden (SRA Research Funding Panel)
- Hywel Cook (MSF)
- Ian Davies (Wilmar)
- Ian McBean (NSW Sugar)
- Dick Camilleri (Tully Sugar Limited and cane grower)
- Craig Bentley (Mackay Sugar)
- Paul Nicol (Isis Central Sugar Mill)
- Simon Doyle (Bundaberg Sugar)
- Michael Deguara (grower and contractor)
- Joe Marano (grower and contractor)
- Vince Russo (grower and contractor)
- Mario Raccanello (grower).