



Better data and tools to help inform best outcome for harvesting

It is a complex numbers game as growers, harvesting operators, and millers work toward improving harvesting efficiency. SRA's Brad Pfeffer spoke to farmer and harvester operator Michael Brombal about meeting this challenge.

Burdekin farmer and harvesting contractor, Michael Brombal (pictured above), approaches both of his businesses with a similar mindset.

Operating in partnership with his brother, Michael said that for both of the family businesses their focus was about looking at the capital invested in that asset and ensuring that it was providing a return.

With their 134 hectare sugarcane farm at Mona Park, this means that they have grown rotational mungbeans this year to try and best utilise the ground. "We are looking at the benefits of the beans for the soil, but it is not the sole reason why we are doing it. I think we need to get the most from our hectares," he said.

This is the same approach that the brothers have with their harvesting business, where they run a 107,000 tonne group of farms in the Delta.

"Whether it is land or a harvester, it is about having an asset and utilising it," he said. "All businesses are in business to make money."

While they cut for others, the Brombals use a contractor to have their own cane cut, allowing them a full perspective of the economic challenge that comes with achieving the right balance of cane quality and yield from harvest best practice (HBP) and managing the costs of the harvest operation.

Achieving the harvesting best outcome (HBO) and maximising everyone's profitability is an important objective in the industry.

He said the discussion of improving harvesting outcomes needed to start with an acknowledgement that all three parties – growers, harvester operators, and millers – all needed to make money

from the enterprise, which was also a key starting point for discussions around the industry's objective of reducing harvest losses.

"It is the holy grail of the sugar industry," he said. "We all want to cut as efficiently as we can, but it is a challenge for farmers to pay more for harvesting in the current economic market for sugar."

Mr Brombal said that there was always a challenge in determining a payment structure that rewarded all parties and also considered the economic challenges facing all businesses.

Above: Burdekin grower and harvesting contractor Mick Brombal says his objective as a contractor is to deliver the most efficient job that he could in relation to how much he is paid.

"I know for my contractor, knowing the financial situation of running a harvesting business, I would like to implement more HBO, but if I am to ask him to do it then it is going to cost me money," he said.

Finding the sweet spot of increased revenue from HBO and increasing harvesting costs is a challenge for much of the industry.

Sugar Research Australia has responded to industry requests for more research that could help provide sugarcane yield data in real-time, which is one tool that could help inform and improve HBO.

A new project has recently begun to complete a feasibility study on sensors for improved harvesting feedback.

The new, collaborative project is being led by Eloise Keeffe from SRA, and all investigators recognise the importance of changing the payment structure in driving positive practice change.

"However, there is currently no measurement mechanism available to facilitate a quality-based payment system," Ms Keeffe said.

"Real-time or rapid sensors in the harvesting environment will improve harvest quality across the board by allowing contractors to adjust harvester settings based on loss and quality indicators in real-time."

"It would also allow growers to monitor contractors' performance and adherence to HBO, allow mills to receive feed-forward information on the quality of incoming feedstock, and provide the data for a quality-based payment system."

The project is focussed around the completion of a feasibility study to identify the sensing opportunities that are likely to offer the most significant return to industry stakeholders.

The identified sensors will then be put forward as candidates for in-field testing in subsequent projects.

The feasibility study will rely on extensive industry involvement and consultation and the outcomes will be communicated to industry.

Mr Brombal said his objective as a contractor was to deliver the most efficient job that he could in relation to how much he is paid.

"We really need to stop looking at it as an 'us and them' issue, and let's all work together to keep the communication channels open. It is not going to be easy, and it may be a while off, but we need mills, farmers and contractors working together to see some change."

Harvester operators, millers, and growers have been invited to take part in a survey related to this project. For information contact Eloise Keeffe on (07) 3331 3351.

New tool to deliver informed harvest decisions

Harvesting is a very large part of the total cost of production of sugarcane, and if not done well, the loss of value through the harvest and transport operation can exceed the 'visible' costs of harvesting.

SRA has recently invested in a new project to address this issue, as part of SRA's focus on reducing harvest losses as a priority impact area. The R&D provider of the project is Norris ECT, and the work is based around a program called SCHLOT.

SCHLOT, a program built by Norris ECT, allows growers, harvesting operators and millers to assess the cost of harvesting and where gains can be made to implement a payment scheme that increases the profitability of all three sectors, through finding the ideal compromise between harvesting costs and losses.

This type of tool promises to allow growers and contractors to achieve the Harvest Best Outcome under any conditions.



Picture courtesy: Jeff Cantamessa.