

The project demonstrated the yield benefits for growers who regularly obtained clean seed.

Mill data analysis identifies key productivity drivers

A research project is using mill data to help inform and improve on-farm productivity, delivering benefit along the value chain for both growers and millers.

Key Focus Area

Optimally-adapted varieties, plant breeding and release

Project name

Optimising productivity and variety recommendations through analysis of mill data

Project number

2014/054

Project collaborators

SRA, HCPSL, Wilmar

Project end date

2016

A joint research project between Sugar Research Australia, Herbert Cane Productivity Services Ltd (HCPSL) and Wilmar Sugar Australia has quantified the impact of cane farms using modern farming systems and technologies for the industry.

Researchers have analysed the Herbert River mill rake data using innovative techniques to identify key drivers of productivity.

Dr Jo Stringer from SRA said the project was borne out of a need to identify the reasons behind productivity declining in the Herbert River mills after 2005.

"Analysis of mill data in the Herbert successfully identified groups of farms with similar productivity trends over time and the major

factors associated with these groupings," Dr Stringer said.

Results showed growers who adopted new farming systems had significantly higher productivity than those who continued to use traditional practices.

The impact of the Pachymetra resistance of previous varieties on yield of the current crop was also significant, suggesting this may be a major factor contributing to poor ratooning in the Herbert.

Growers who regularly obtained clean seed had more than 10% higher yields than growers who infrequently obtained clean seed and greater than 6% higher yields than growers who only obtained clean seed in 3 or 4 years out of 6.

Points of focus included the correlation between farm size, age of manager running the farm, yield, and those who regularly obtained clean seed.

Overall the study identified factors improving farm performance, including obtaining clean seed, adoption of new varieties and new farming systems.

Manager of HCPSL Lawrence Di Bella said the research has allowed HCPSL to design targeted extension strategies with growers, with the view to influence better variety choices and increase productivity.

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

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 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.

For more information on harvest losses research, contact Adoption Officer Phil Patane (07) 4776 8202.