Project details

Key Focus Area:

Optimally adapted varieties, plant breeding and release

Project name

Optimising productivity, variety recommendations and mill operations through analysis of mill data

Project number

2016/032

Chief investigator

Dr Jo Stringer

Collaborative use of mill data creates path for productivity improvement

SRA has worked collaboratively with Wilmar and HCSPL in the Herbert region to analyse mill data to drive productivity improvements.

Research that has analysed mill data to help improve productivity in the Herbert region is being extended across the Australian sugarcane industry.

Over the last two years, the Herbert research project has looked at a range of characteristics of both high-yielding farms and low yielding farms in the Herbert, as well as comparing the differences.

It has analysed farms according to factors such as overall production (tonnes) in terms of small, medium and large business, with the aim of identifying steps that growers can take to boost their productivity.

This has been with the objective of answering the question – what are the farm practices occurring on high yielding farms compared to low yielding farms?

SRA Leader for Data Analysis, Dr Jo Stringer, said the project looked at vast volumes of data on the Herbert industry, with all individual information being confidential and only available to that grower or harvesting contractor.

The work occurred in collaboration with Wilmar and Herbert Cane Productivity Services Limited (HCPSL).

"We know that there are small farm size high-producing growers, and there are also small farm size low-producing growers. Our project looked at what practices are the high producers implementing to make them high producing," Jo said.

"Is it their *Pachymetra* level and use of clean seed? Is it their soil type? Is it the timing of their farming practices?"

Industry in the Herbert has initiated a program called Target 85, a program targeting an average district yield of 85 TCH.

It appears that the region is likely to meet that yield target in 2016, and this project has identified a number of practices that could help the region continue to meet that target even when seasonal conditions are less favourable, via long-term extension programs.

Jo said the project identified common practices across top performing farms.

"We know soil and climate play an important role, but there was a number of practices that were common across the high yielding farms," she said.

"A major finding was that growers who have adopted the modern farming system had significantly higher productivity than those who used traditional practices.

"The impact of *Pachymetra* was also apparent, suggesting incorrect variety selection may also be a factor contributing to poor ratooning."

She also said the project identified the value of clean seed in the region, which had translated into a huge demand from hot-water treated cane from HCPSL since the project began.

"Growers who regularly obtained clean seed had 10 percent or greater yields than growers who never or infrequently obtained clean seed."

According to Manager of HCPSL, Lawrence Di Bella, many more growers now undertake *Pachymetra* screening and want to source *Pachymetra* resistant varieties from HCPSL approved clean seed plots.

Over the last two years, HCSPL has distributed between 800-1200 tonne of cane as whole stalks and billets out of clean seed plots, compared to 200t previously.

There have been group extension and one-on-one extension activities as a result of this project, as a collaboration between SRA, HCPSL, and Wilmar. This extension activity has been targeted to the different groups of growers.

The project also collaborated with Norris ECT to identify the impact of harvesting practices in relation to productivity.

The work by both NorrisECT, SRA engineering, Wilmar and many other milling companies has demonstrated significant improvements in crop recovery and quality associated with reduced harvesting speeds.

The research is now being extended across the industry, working in collaboration with millers and productivity services companies.

More information

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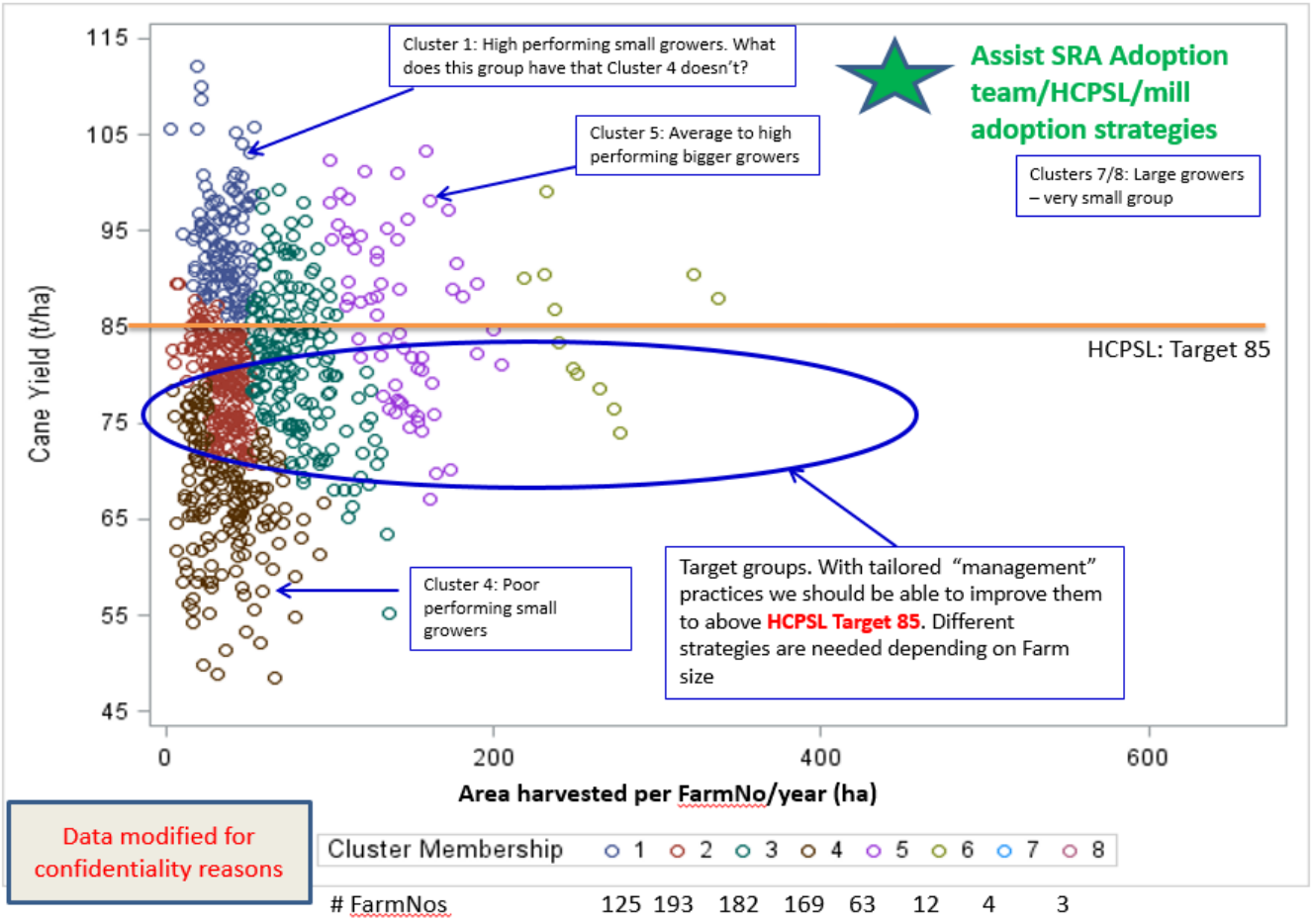
Below: Performance of 8 clusters over time: TCH.



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