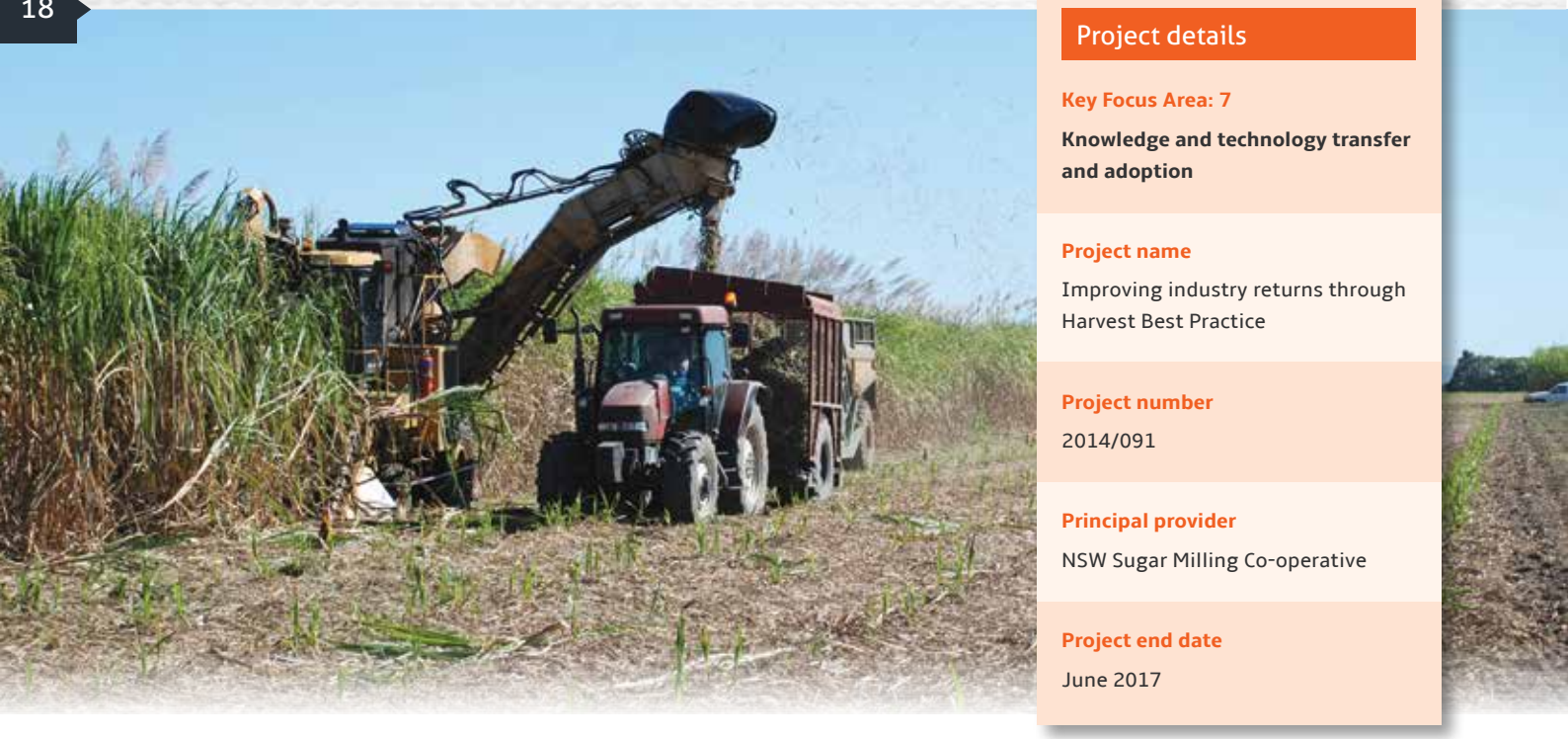


Project details

Key Focus Area: 7

Knowledge and technology transfer and adoption

Project name

Improving industry returns through Harvest Best Practice

Project number

2014/091

Principal provider

NSW Sugar Milling Co-operative

Project end date

June 2017

Quantifying benefits of harvest best practice in NSW

With in-field harvesting losses under the spotlight in New South Wales, industry members realised the best way to address the issue was to look at it from a whole of supply chain perspective.

The NSW Sugar Milling Co-operative is currently working with growers and harvesters to understand how harvesting best practice (HBP) principles can be applied to local conditions to deliver positive results through an SRA-funded project.

Ian McBean, General Manager, NSW Sugar Milling Co-operative, said that they are hoping to collect credible local data that will identify the real costs and benefits of adopting HBP in NSW.

"If we want to prove to growers and harvesters that there are real benefits to implementing HBP we need to show them local results to convince them," Ian said.

"Previous work done has shown that the major beneficiaries of HBP are the growing and milling sectors at the expense of the harvesting sector. We are hoping that this project will give us the information we need to develop commercial arrangements that will share the benefits across the supply chain."

According to Ian, the first step of the project was to sit down with representatives from the milling, growing and harvesting sectors to work out what harvesting best practice looked like in New South Wales.

"We formed a project group with representatives from harvesting groups, NSWSMC Ag Services staff, cane growers and Agtrix and as a group we were able to define a range of HBP parameters such as ground speed, extractor fan speed, machine setup and base cutter height that were applicable to local conditions," he said.

"For example, we cut mostly burnt two-year old cane whereas Queensland cuts mainly green one-year old cane. This means the machine setup and field conditions are very different to Queensland and we need to take this into account when agreeing on the HBP parameters."

NSW cane harvesters are already fitted with GPS devices that record data about location, ground speed as well as some other parameters which are remotely reported via Agdat. The group agreed to fit extra loggers and sensors to the six project machines which would collect and report data for all agreed HBP parameters.

"Once we had worked out how to capture data and turn it into meaningful information for each HBP parameter, we worked with Agtrix to develop a number of mapping layers, reports and dashboards that will give us tools to monitor and improve harvesting performance in real-time," Ian said.

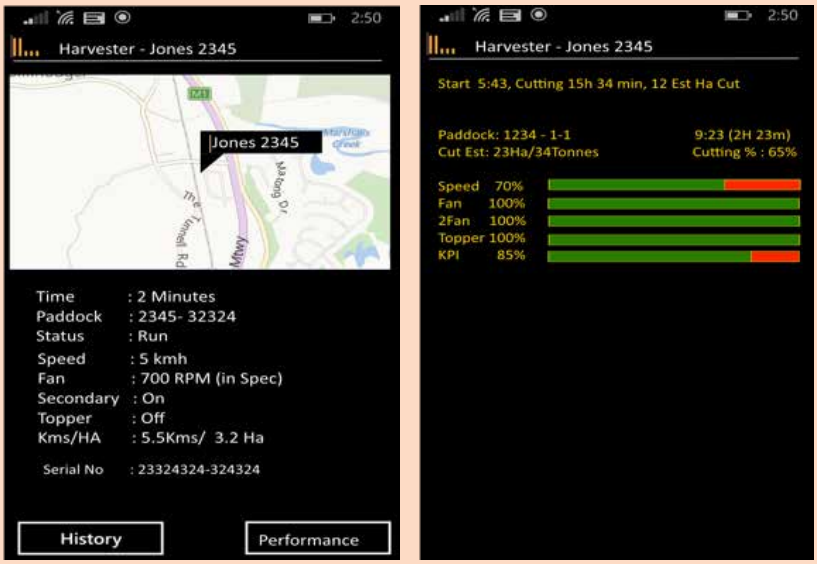
"Trial work started during the 2014 season with 11 harvester speed trials and four base cutter height trials successfully completed," he said.

Results from these trials will be used to quantify the impacts of different harvesting speeds and cutting heights on cane losses, cane quality and subsequent yields. The results will also help the New South Wales industry to quantify the impact of in-field conditions like row spacing, row profile and crop class.

"The project runs over three years and we will continue the trials over the next two seasons with the aim of collecting enough data to allow us to answer some of the key questions relating to the costs and benefits of HBP in New South Wales."

"Once we understand the cost and benefits implications of HBP adoption across the supply chain, we can start thinking about what the best payment model will be."

"We hope that the results of this research will help the supply chain determine an equitable payment structure which encourages growers and harvesters alike to implement best practices and reduce in-field losses and share the benefits," Ian said.



Left images

Real-time HBP statistics available on smartphones, desktop computers or tablet devices show performance against a range of agreed parameters.

Below image

Mapping overlays provide a useful tool in understanding harvester performance in individual blocks.