



Isis Chief Field Officer Paul Nicol with bins on the way for milling earlier this season.

CLEAN team improving harvest efficiency at Isis

A collaborative effort between the mill, growers, harvester operators and researchers is delivering productivity and profitability outcomes for the local industry at Isis. By Brad Pfeffer

Isis mill Chief Field Officer Paul Nicol knows that improving sugarcane harvesting efficiency is a big mountain to climb.

But after two seasons of identifying and quantifying the challenge and making improvements, he can see progress through the collaborative work that has occurred with the mill, growers, contractors, and drivers.

The results of this work were apparent in week 10 this year when a rake of bins entered the mill via one group that had instigated a number of changes to its harvesting practices. The result was a dramatic increase in quality that Paul said was a direct result of change in practice that had been made by that harvesting group.

The recent work on improving harvest efficiency at Isis began when the mill decided it needed to step back and assess the true quality of the cane supply.

"I looked at the bins go past each day and the cane still looked okay to me," Paul said. "But we were also noticing small things like shredder hammers needed replacing a day earlier than expected. Normally we would get through 90,000 tonnes before replacing them, then say 81,000t, or 78,000t, so that suggested there was a problem."

Extraneous matter levels had increased steadily over the years from about 7 percent to 15 percent.

To see it for themselves, they pulled apart an average cane bin during the 2015 season, and the result was 14 percent EM and 790kg of the total 5610kg having no value for making sugar.

They also took part in a number of SRA demonstrations with the in-field sucrose loss measurement system (ISMS), also known as the sugar loss trailer (see page 13).

"The trailer gives us hard data on losses," he said. "But it also lets you clearly see evidence of the losses – there was juice dripping at the back of the harvester, the trash was sticky, and the primary and secondary extractor fans had little rings of sugar."

"So by the time we added the 14-15 percent EM to the 20TCH being lost in the field, it was easy to come up a figure of people losing \$1000 per hectare. For us as a grower, as a miller, and a transporter, we saw that there was cane there that we wanted."

Paul said the focus was on collaboration between all parties, and direct engagement with the harvesting contractors and drivers. "Everyone's involvement in the bin dissection has now evolved into what we call the CLEAN team, which involves all contractors and growers and has the goal of decreasing EM, reducing losses, and increasing income for the value chain."

CANE quality improves – increase income for all stakeholders

LOSS of TCH and CCS minimised, bin weight maintained

EXTRANEOUS matter levels below 7.5%

ANSWERS how is the pie divided – who pays and what modifications need to occur?

NORMALISED return to acceptable standards <7.5% EM and cane loss



Increase
income
\$

Reduce
losses

Decrease
Extraneous
Matter

The results of Dicanna harvesting's efforts – bins entering the mill (see page 12).