



Doug and Rodney Rasmussen see that soil health and growing a good crop is about more than just N, P, K, and S.

## Soil health a core focus for Rasmussen family

*The Rasmussen family at Mossman take a broad-reaching approach to nutrient management and soil health at their properties, and are seeing good results. By Brad Pfeffer*

Brothers Rodney and Justin Rasmussen and father Doug hope that they are in the midst of a rare season when good prices align with one of their best crops in several years.

When **CaneConnection** visited the Rasmussens in June, it was the first day of the harvest with a long way to go, but Rodney Rasmussen was feeling cautiously optimistic.

"It looks like the biggest crop I have grown, and according to dad it is one of his biggest too," Rodney said. "I know that for some growers an El Nino is bad, but for us at the Northern end of the industry it meant that we received rain about once each week and a lot of sunny days, so things were perfect in Mossman."

But Rodney is the first to say that it is not just perfect weather that produces a solid crop. That is why the family have a strong focus on applying research, and in particular looking at new and more efficient ways of managing their soil health.

Their farms includes a mix of heavy clay soils, as well as hillsides with loose red soil, and river sand country that is free-draining.

Using the SIX EASY STEPS™ nutrient management guidelines, soil sampling on fallow blocks sets a foundation for their nutrient management plan.

"That soil sampling lets us know the conditions of blocks going into the crop cycle," he said.

With some acidic soils due to the volumes of rain, they apply lime accordingly, and assess whether they will reapply at the first or second ratoon.

"We also need to assess what is affordable. So if a soil test says that we need 4t/ha of lime then it becomes expensive and prohibitive, so we see that we are better off applying 1t/ha each year rather than the 4t/ha in year one."

"Profitability is the main driver of our approach. If we're not profitable, then we won't be here in four years' time. If we can keep the crop healthy across four years, then we are better off."

He said their approach was also shifting beyond simply nitrogen, phosphorous, potassium and sulphur.

With that in mind, they also use mill mud when it is available, they focus on increasing organic soil carbon, and three years ago changed to using liquid fertiliser sourced from Ingham.

"The liquid fertiliser has molasses in it, which we believe is helping with the microbiology in the soil. Driving along the headland you won't see a vast difference, but we are seeing the results in our figures at the end of the year," Rodney said.

"I think we as an industry need to keep thinking beyond N, P, K, and S."

Rodney said the cost difference of the liquid fertiliser was only a few dollars per hectare more than from the bag, but it was also much safer, easier, and more accurate to use.

A flow rate controller in the tractor allows him to adjust anywhere from 800 litres to 1200 litres per hectare.

"When planting with the liquid everything is in synch, so the powerhaul does 1ha and the liquids do 1ha, and I can get more planted in one day with the liquid."

The Rasmussens are also highly aware of their proximity to the Great Barrier Reef when it comes to farm management. "Our farm that is closest to Reef is particularly important, and even though it is already quite level and there is minimal run-off, we have installed sediment traps. We also know that with the variable application of the liquid fertiliser that we can cut it back at the touch of a button.

"It is an easier process doing it from within the cab than having to get out and change a sprocket."

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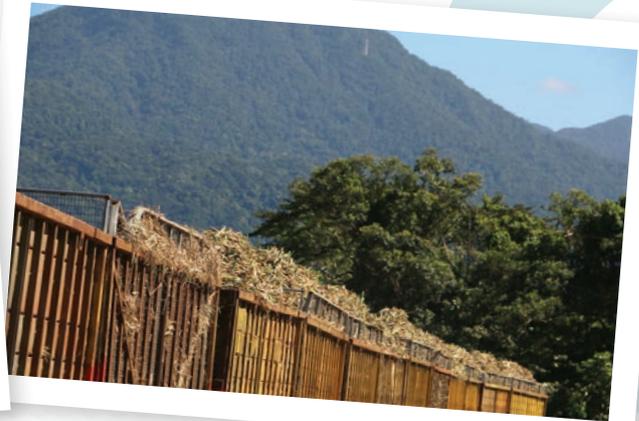
Day one of the harvest at the Rasmussen's property at Mossman.

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"On our harvester we have turned the billet length to the longest chop and that is where it will stay all year," Rodney Rasmussen says.

#### More information

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### Putting research into practice to improve harvest efficiency

The Rasmussen family are keen followers of the latest research and information when it comes to harvesting efficiency and are always on the lookout for ways of putting research into practice.

"In high school I did work experience with BSES (now SRA) with harvest losses, and I saw more than 15 years ago that cutting a longer billet and improving harvesting best practice was going to be the best way to improve profitability," Rodney said. "But it has taken me a long time to convince the guy in the harvester seat that we can do things better.

"With the figures that are being currently being produced by the likes of Adoption Officer Phil Patane (SRA), we are seeing that if we cut cane better we are going to make more money. But we also know that it doesn't always work out that simply for the harvester operator," he said.

"That is something that needs to be worked on and I hope that SRA research can drive that further for the whole industry."

He said he agreed with the approach of a major new SRA project on harvest losses, which would bring together growers, millers, and harvester operators, as all three parties needed to discuss and agree upon the opportunities.

He said this could allow for a better payment system for harvesting, which would be a potential driver for improvement.

Mr Rasmussen also is a stronger follower of research into issues such as billet length. "On our harvester we have turned the billet length to the longest chop and that is where it will stay all year. I am hoping to see an improvement in tonnes of sugar per hectare, which is money in the bank at the turn of a dial," he said.

"The harvester might have to drive a bit slower, but I would rather an extra unit of sugar than knocking off 20 minutes earlier at the end of the day. Wages are cheap compared to sugar lost from out the extractor fan."