

Participation in the Cane to Creek project has given Len Parisi a new understanding of nutrient loss pathways.

Making the connections from *Cane to Creek*

Project details

Project name

Cane to Creek: Russell-Mulgrave Growers and the Nitrogen Story

Funding partner

Department of Environment and Heritage Protection,
Queensland

End date

31/05/2019

Outline:

The Cane to Creek project is based in the Russell-Mulgrave catchments in the Wet Tropics. Growers involved are being assisted to achieve nutrient management best practice, with a focus on profitability and productivity while improving environmental stewardship.

The Cane to Creek project has three main goals:

1. Assist growers to use a balanced crop nutrition plan in accordance with SIX EASY STEPS and Smartcane BMP
2. Assist growers to identify and alleviate potential yield constraints
3. Demonstrate how best practice nutrient management can reduce nitrogen losses to the environment without negative impacts to the grower's bottom line.

*SRA is working with Fishery Falls grower Len Parisi, and other growers, to improve nutrient management and increase understanding of water quality science in a new project based in the Russell-Mulgrave catchment in the Wet Tropics.
By Belinda Billing and Gavin Rodman*

Len Parisi is a third generation cane farmer near Fishery Falls in the Mulgrave River catchment of the Wet Tropics. The Parisi family has been farming here since 1940, with the fourth generation now working on the family farms.

"We have to tackle the water quality issues plus any environmental matters that may impact our business," said Len. "We are trying to achieve a profitable business that can be maintained for future generations while also being sustainable in regards to the environment."

Len was involved in a project with a small group of growers that piloted the concept of Cane to Creek in 2016, farming between the towns of Deeral and Fishery Falls. "I wanted some real data from my own farm so that we could modify our practices if necessary, without economic impact, so we could do our bit to help improve water quality. By being involved in the pilot project and Cane to Creek so far, we have been able to make more informed decisions as to what we do operationally.

"Currently, I think water quality is our biggest issue. We are working hard to make things better, both as individuals and as an industry.

"Prior to being involved with this project, I felt comfortable with the concept of soil testing, but had some difficulty with putting the recommendations into practice. Being able to consult with SRA has assisted greatly.

"Now, having gone through the Whole of Farm Nutrient Management Planning process with SRA in this project, I understand it 100 percent better than before.

"I've been able to use the process to do plans for other farms. ***I now also understand nutrient loss pathways a lot better and have been able to apply that knowledge when questioning claims about the benefits of different fertiliser products.***

"Since joining the pilot project and now Cane to Creek, I have adjusted my rates to conform with SIX EASY STEPS guidelines and in some instances, I now apply slightly below. I am also now more strategic in the blocks where I am applying mill by-products and reducing my nutrient applications for the following crops.

"Of course; by applying less fertiliser than previously, I am saving money. In fact, this year, the average CCS for the farm is higher than it ever has been before. We will continue to monitor this trend to get a better idea of whether this is related to the practice change or seasonal influence.

"We are currently trialling where and how we place our fertilisers, and as a result we are planning to move to sub-surface applications soon across all of our farms.

"Aside from being involved in the Cane to Creek project, we are working closely with the Mulgrave Landcare group to install two wetlands and revegetating an area which will cover approximately seven hectares.

"This was previously cane land that we were not really growing good crops on. We were almost buying those crops and decided we were better off converting it to forest and wetlands to assist with drainage. Hopefully we can clean up some of the waters that leave our farm too.

"I think that projects like this revegetation and wetlands one tell a really positive story that growers are trying to do the right thing."

"If you are serious about staying in the industry, you should really consider how you can progress your farming practices to improve productivity and profitability while minimising any unfavourable impacts on the environment.

"I encourage any growers in the Russell-Mulgrave catchment who are interested in improving their nutrient management or even interested in some of the water quality stuff to get involved with the Cane to Creek project."

If you are a grower within the Russell-Mulgrave catchment area and are interested in being involved with this project, including information sessions, training or demonstrations – please contact Gavin Rodman on (07) 4056 4508.

This project has been funded by the Queensland Government Reef Water Quality Program.

In the Cane:

- SIX EASY STEPS rate demonstrations with end of paddock water sampling
- Fertiliser placement (surface banded vs sub-surface) demonstrations with end of paddock water sampling
- Rate deductions after mill by-product applications
- Rate deductions after legume fallow.

Selected sites have simple end of paddock water quality monitoring to compare current practice with recommended practices. Effort is being made to cover all of the above recommendations.

All sites will have yield, CCS and economic data collected.

In the Creek:

The Cane to Creek project works with growers to understand what is happening in their local creeks.

The Figtree Creek catchment, which also includes McDonnell Creek, will be monitored for nitrates before entering the Mulgrave River.

Changes in the system will be recorded through a Real Time Water Quality Monitoring Trailer continuously monitoring for nitrate at the bottom of Figtree Creek and grab samples taken at other strategic sites to measure water quality from the top to the bottom of the system.

The data from the both the creek and paddock scale monitoring will be shared with the project grower group.