Due to the success of the program and the overwhelming support of the Burdekin growers, the program has now become available in the Central region. For more information about RP161 or how you can become involved, please contact the Farmacist Burdekin office on (07) 4782 2300 or the Mackay office on (07) 4959 7075.

# Tailored planning delivers nutrient use efficiency

## The Complete Nutrient Management Planning for Cane Farming (RP161) project provides practical assistance to cane farmers in the Burdekin to adjust their fertiliser application rates to the industry standard, SIX EASY STEPS.

**PROJECT DETAILS**

***Project name:*** **RP161 – Complete Nutrient Management Planning for Cane Farming**

***Funding partner:*** **Department of Environment and Science, Queensland**

***Start date:*** **1 July 2016**

***End date:*** **30 December 2020**

**Burdekin cane grower Joseph Quagliata is a third generation farmer who purchased his Airville property in 1996 from his father.**

Joe has been involved with the RP161 project since 2016 and has seen the benefits of being involved firsthand.

The RP161 project provides practical assistance and one-on-one extension to growers and aims to improve productivity and profitability while meeting their regulatory requirements.

Farmacist is providing this practical assistance through the development of whole-of-farm nutrient management plans based on individual farm data, on-farm calibrations of fertiliser applicators, farm visits, phone support, and training for growers who are involved with the project. The project not only focusses on nutrients but employs a holistic management approach to all aspects of farming. To date, 109 growers have already completed the program and another 50 growers are involved in the program for the 2018 season.

RP161 looks at the individual farmer's system and tries to identify areas that could lead to improved profitability to ensure the growers are getting the best return for their investment, especially when the sugar price is depressed as it currently is. "I have been getting water and soil tests in the past but what I have found with Farmacist is that they have fine-tuned what I've been doing for the last ten years. I was also surprised to find what was in my water and we've adjusted the fertiliser rates because of that. We are starting to see a lot of benefits," Joe said.

"We, as growers, need to start learning that it's not about tonnes per hectare anymore, it's tonnes of sugar per hectare. We have to start educating ourselves for that.

"We implemented some replicated trials in our early plant block last year, which included sections of straight urea and sections of a mixture (in line with SIX EASY STEPS). We found using the mixture gave us more tonnes of sugar per hectare which swung me straight away. I've learnt a big lesson from that."

While RP161 is primarily focused on nutrition, tools such as the G-Dot moisture monitor and Water Alert Sensor are available to growers to help optimise irrigation and improve nitrogen use efficiency.

Joe states, "The G-Dot is another great tool. I've noticed on a paddock behind my house, when I irrigate normally the G-Dot only moves up about 4 dots but when it rains it goes all the way to the top. This is telling me that my irrigation water is not soaking across the bed, but a rain event does. The G-dot has taught me that this paddock might need a bit of gypsum after it is cut."

Heidi Hatch, agronomist at Farmacist, explains that the program provides a legacy and a pathway forward well after the completion of the project. "Growers really appreciate the nutrient plans and spatial recording of their data," she said.

"Having all of their soil test and electrical conductivity (EC) data easily accessible through a simple geographic information system (GIS) platform allows them to easily see all of their historical and current information in one place allowing them to make informed decisions," she said.

"Tailoring nutritional plans to their farm makes it personal and relevant not only for the project year, but identifies a strong platform that growers can use going forward.

"The tools provided as part of the program such as moisture probes, EC data and soil tests have been well received and growers are using them to get a better insight into improving other aspects of farm management."

The RP161 project aims to engage up to 210 farms across the Burdekin over the four-year life of the project.

Joe states, "I have encouraged a lot of growers to become part of the RP161 project as it will benefit them in the long run. It is a great service and well worth it. Every day we come across problems and knowing that Farmacist is there and only a phone call away is really reassuring." ■

*(Over page) Joe Quagliata and Farmacist agronomist, Heidi Hatch, sighting soil sample locations and results on Google Earth App on Joe's iPhone.* ***(Above left)*** *Joe, Jayson Dowie (Senior Agronomist and Burdekin Manager with Farmacist) with Lenny Quagliata (Planting Contractor).* ***(Above right)*** *Joe and Rita Quagliata viewing their grower folder.*

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

## PLANNING

- *Benchmark current nutrient practice*
- *Collect and spatially locate all relevant soil test data to allow for site specific nutrient requirements*
- *Conduct a full farm nutrient plan considering varieties, crop classes, soil types, soil chemical analysis, limitations and previous block history (mud, legumes and ameliorants). Provide a block by block plan in accordance with the industry accepted SIX EASY STEPS program providing what blend to use, what rate, when to apply, and product placement. This data is then uploaded into a free spatial program such as google earth for their records.*
- *Variety and Class Planning*

## APPLICATION

- *Go on-farm and calibrate the fertiliser box with the grower to ensure they understand the process to enable correct calibrations for them to do in the future.*
- *Farm visits to ensure all other factors that lead to efficient N use are under control (irrigations, pests and weeds etc.)*
- *Phone support*
- *Collect actual application records after project to determine practice change*

## EDUCATION

- *Provide SIX EASY STEPS and Google Earth training for project participants*
- *Provision of free tools to enable soil specific recommendations and improve farm management decision support, including two from the following list: soil test, G-Dot moisture monitor, Water Alert Sensor (WAS) and EC Mapping (up to 10ha).*