WHOLE FARM NUTRIENT PLANNING

HERBERT RP161

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LUCIANO'S STORY

A LAND OF DROUGHT & FLOODING RAIN

Managing soils and crop nutrition a big part of the solution.

When asked about the main challenge farming presents in the Yuruga area, Herbert RP161 grower Luciano Mammarella got straight to the point, "We go from extreme dry, to extreme wet. It's like the poem by Dorothea MacKellar, a land of drought and flooding rain."

Despite the challenges, taking over the family farm, which his father had worked since 1958, was never in question for Luciano. Located 30 mins south of Ingham, the Mammarella farm lays just inside the southern extent of the wet tropics.

Successfully farming sugarcane in this area is often defined by a grower's ability to manage extremes in weather and soils. Sodic and occasionally saline conditions mean that soil and nutrient management is key to growing a good crop.

Luciano admits that when he first heard about the Herbert RP161 whole farm nutrient management project his initial thoughts were that it would be a way to help him through the reef regulations.

"Initially, I felt like I had to do it, the government was forcing new regulations on us, and I felt that at the time I had no choice."

"The main selling point for me was the assistance I got from the on-farm visits to electro-magnetically (EM) map my blocks and collect soil samples. Now, after I've seen what the project can do for me, I can really see the advantages."

Luciano Mammarella on the family farm.

HCPSL and project extension agronomist Adam Royle worked with Luciano to develop management options to overcome some of the soil issues on his farm. "Luciano's farm has some fairly significant soil constraints that need to be managed to grow a decent crop. To do that, we needed to understand where and how big these issues were. We used EM mapping and strategic soil sampling to give us that understanding. It allowed us to not only map where the sodic and saline areas were, but to see how significant the problem was, so that we could put a plan in place to address the issues."

Adam went on to add, "The Herbert RP161 project provided Luciano with a tailored whole farm nutrient management plan (NMP) that allowed him to better manage his soils and crop. He could apply the ameliorants and nutrients his crop needed, where it needed it. The plan (NMP) also provides him with the ability to monitor his applications and tweak them if required."

This project is funded through the Queensland Government's Reef Water Quality Program and the Australian Government's Reef Trust.

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So, does Luciano believe the work done on his farm was paying off? He had this to say, "It's still early days, and I want to see a whole crop cycle, but yes, I believe it's making a difference in improving things on my farm. I've always known I had issues with sodic patches, but this (EM mapping) has allowed me to measure the extent of the problem and where exactly I need to address it. I need every square inch on my farm to grow as much cane as it can to be profitable. Using EM mapping and getting advice from HCPSL project staff on how to fix the issues has been valuable."

"Using EM mapping and taking soil tests where I need to take them, like I have with the project (Herbert RP161), can definitely cut costs and save money. Knowing exactly where I need to apply gypsum or lime and where I can cut back makes a big difference."

The Herbert RP161 project provided growers with a tailored whole farm NMP and record keeping system bundled into one easy to follow book. Another benefit of participating in the Herbert RP161 project that Luciano was keen to share.

"It's definitely made it easier to keep good records, especially for me. I no longer find that I'm writing things down and losing them, it's all in one place so when I see something working well on the farm I can go back and see exactly what I did."

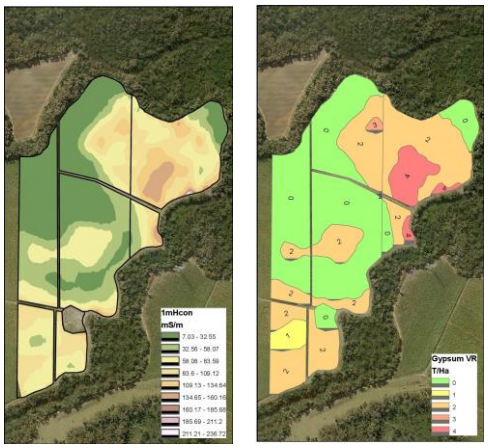
"When I take out a block I can now soil sample the same location and see what's changed and what hasn't. It's great because in 5 years' time I can look back and see what I changed, see if it worked, and then work out if I need to change anything or not."

"Another thing I really enjoyed about (Herbert) RP161 was the workshops. I could talk to other growers outside of my area and I could compare what I was doing with what they were doing and walk away with something different to try at home."

In summing up his experience with the Herbert RP161 project, Luciano had this advice for other growers.

"Most growers know their farms better than anyone else, but what I'd say to them is, EM map their farm and use a GPS to mark where they take their soil samples. I know that I can go back to the same spot on my farm in 5 years' time, or even 10 years' time, and take a sample to see what has changed, what has worked, or what hasn't. You have a permanent record of what's happening at that exact spot, it's about recording your history, so that you never have to repeat the same mistakes."

Above: Luciano inspects a healthy crop where variable rate lime was applied 12 months earlier. Rates were determined by EM mapping and strategic soil sampling conducted by HCPSL staff working under the Herbert RP161 project.



Left: An EM map and variable rate (VR) gypsum map developed to address sodic soils on the Mammarella farm at Yuruga.

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