



Denis Pozzebon has planted a lot of native trees around his home and loves his garden.



Continued innovation delivers in the Burdekin

Burdekin cane grower Denis Pozzebon says trialling new technology and innovation has led to positive outcomes and improved farm management practices. By Belinda Billing, Adoption Officer, Burdekin

Denis Pozzebon is a second generation sugarcane farmer managing 128 hectares of irrigated cane at Mount Kelly in the Burdekin region.

In November 2015, he received his Smartcane Best Management Practice (BMP) accreditation. He acknowledges that while he uses industry-recognised best management practices across his farm, for Mr Pozzebon improving the way he farms is a passion and there is always more to be done.

His father Ugo immigrated to Australia from Italy in 1954 and hand cut cane until he could afford to purchase his own property and bring his wife over from Italy.

Ugo worked hard and utilised the best farming practices of his time. Denis grew up farming with his father and says Ugo's values of innovation and adopting the best technology and practices have rubbed off.

"Dad always told me that we should stay with the times, think ahead, take that

leap forward if you see something, and go to new technology. I tinker a lot with technology, and I do a lot of that in the original shed dad built in about 1975," Denis said.

For Denis, many of the improvements he has made to his farming system have been through sophisticated use of GPS and precision technology.

He bought his first GPS in 2007 after borrowing a friend's GPS-equipped tractor to plant legumes and set up an AB line for the subsequent plant cane.

He still uses the same AB line, and was so impressed that he purchased his own GPS.

"At that time I was just using the GPS to drive straight, but I could see there were other benefits to the technology, particularly record keeping," he said.

At the same time, Denis began working with independent agronomists Tony Crowley and Peter McDonald to have his farm EM mapped.

The maps were validated with GPS-referenced soil tests and they provide the foundation for Denis's farming system.

"I was one of the first to have my farm mapped, and the maps, with the soil tests, are probably my most important information," he explained.

It was around this time that Denis also purchased Farm Works, a software program that allows him to keep electronic records, import maps and a range of farm management data.

The program now holds records dating back to 2007 for land preparation, nutrition and weed management as well as a range of EM and yield maps.

Another important purchase occurred in 2010 when, with support from the Australian Government's Reef Rescue program (now known as the Australian Government Reef Programme), Denis was able to purchase a variable rate controller for his fertiliser box.

He was interested in trying variable rate management across the different zones identified through the EM mapping process he had undertaken and was able to use the controller to easily and accurately change rates across blocks. With a bit more effort, he was able to implement variable rates within some blocks.

“At the time, I thought that varying rates within blocks with different yield and soil attributes was the way to go. Now I use the information I have to apply my ameliorants, such as gypsum, at variable rates and even-out my yield across blocks rather than adjusting my fertiliser rates all the time,” he explained, adding that he has been able to use the accumulated data over the years to refine his nutrient management to three management zones, based on clay, silt and sandy soils.

He has also found that it is much more economical to apply the expensive gypsum at high rates only in the sodic areas where it is needed rather than spreading it across entire blocks.

“I used to try and work with multiple management zones with lots of fertiliser rates and blends, but having all the data on there in the electronic form meant that I was able to sit down and look at all of the maps and the soil tests and that showed that the results were almost the same across three groups. I now manage these zones differently for fertiliser, irrigation and harvesting.

“I have different fertiliser rates for each zone, and on the sandy soil I split the application. I have soil moisture probes in each soil type to guide the irrigation management and I harvest the sandy soils green. I do still do soil testing in the fallow times and I use my EM maps to guide where I get the tests taken,” he said, adding that he continues to plant fallow crops and uses only minimum tillage.

More recently Denis has acquired variable rate controllers for his chemical applications. He has controllers on a flat boom spray and his shielded sprayer. The controllers improve accuracy of application, allow for sections to be automatically shut off to prevent overlapping or spraying outside the block when turning around and entering. It also automatically adjusts as the driver speeds up and slows down.

Denis says that the technology has made farming easier and the combination of data and precision technology allows him to invest his money and time where it is most required. As an early adopter of precision agriculture, Denis has spent a good deal of money paying for experts to come and teach him how to use the equipment, as well as many months of his own time figuring things out. He is now regularly called upon to support others who are just now adopting the technology.

He says that many farmers now have GPS systems and could be getting more from them. “The GPS can go a long way to keeping records for you. You just need to set it up right and enter your activities before you leave the shed.”

Denis will continue working to refine his farming system and helping others to adopt the new technology. “I enjoy spending time with other growers who are trying new things and improving their farms. We can always learn from each other.”



Denis has a weather station on farm and can read the weather data on his phone.