



CASE STUDY

Ross Williams and his father Lindsay own and operate a 200 ha cane farm approximately 3 km west of the Bakers Creek community. The Williams' also have cattle on a 50 ha parcel of land adjacent to their cane farm. The cane farm drains into Bakers Creek. Ross is a member of the Board of Mackay Area Productivity Services (MAPS) and as such has a strong interest in developments in farming practices which improve both environmental and economic sustainability. Ross was engaged in the Reef Rescue 1 Programme (2008 – 2013), obtaining financial assistance toward a GPS auto-steer unit to facilitate the move to controlled traffic for permanent beds on 1.8 m row spacings, to increase the sustainability of his farming operation.

Ross joined the Reef Trust 3 Programme (RT3) in December 2016, electing to engage MAPS to provide agronomic services. Since joining, MAPS have benchmarked Ross's farming operation and commenced examining nutrient and herbicide practices, with a view to adopting improved practices which fit in with his farming operation.

FOCUS ON



- ▶ Optimise the amount, placement and use of nutrients on the farm so as to maximise sugar per hectare productivity and minimise wastage of nutrients to the local waterways.

“The pressure for us to make sure we look after water quality from our farm is external, but we'd prefer to self assess and make the changes ourselves than be regulated. If we don't do it, they'll make it mandatory. I heard about the programme through my involvement with MAPS and involvement with the first Reef Rescue program.”

For nutrient use Ross will move toward B class through calculation of N using Sugar Research Australia's (SRA) 6 Easy Steps (6ES) programme, plus block yield potential. This will determine the optimal rate of N that will be required to grow the crop. This method of N rate calculation will mean that different N rates will be required for different blocks. To assist with varying fertiliser rates between blocks Ross has been awarded a major grant to contribute toward the purchase and installation of a variable rate fertiliser controller unit. The fertiliser rate controller will use Ross's existing GPS to provide a ground speed measure and adjust the fertiliser rate to that set by the user. This major project will be completed by November 2017.

When asked for the reason for signing onto RT3, Ross replied what caught his interest was, “More insight into soil health and soil management techniques. The ABCD framework benchmarking process was interesting. It showed we are sitting somewhere between C moving up to B. We are interested in looking at the nutrient efficiency of the plant, which is tied in with both water quality and farm profitability.”

Ross said he preferred to make changes on his own terms.

“The pressure for us to make sure we look after water quality from our farm is external, but we'd prefer to self assess and make the changes ourselves than be regulated. If we don't do it, they'll make it mandatory. I heard about the programme through my involvement with MAPS and involvement with the first Reef Rescue programme.”

Ross is keen to learn about farming practices which will minimise wastage of nutrient and herbicides into the environment, with the realisation that this will also benefit the sustainability of his farming operation.

KEY POINTS



- ▶ Implementation of 6ES plus block yield potential. It will be interesting to observe how Ross implements nutrient calculation based on 6ES plus block yield potential.
- ▶ The next step for the Williams' farm is to implement variable rate fertiliser applications within the block. At this stage Ross will obtain equipment to allow him to select a fertiliser rate, and the controller will maintain that rate irrespective of the ground speed. Ultimately Ross would like to move toward variable rate within the block depending upon soil conditions/productivity zones.