

REEF RESCUE

2010

www.reefcatchments.com.au

(07)4968 4200



John and Phil Deguara

IMPROVED FARMING SYSTEM

Reef Rescue helped John and Phil Deguara to finish modifying their equipment for a Controlled Traffic System. The Deguaras also purchased and installed a Viper Pro Variable Rate Control unit to improve the efficiency and accuracy of nutrient and chemical applications across the farm.

John and Phil Deguara began converting their sugarcane farms to a Controlled Traffic System in 2003.

After measuring their harvester, haul-out and tractor wheel spacings, they decided that a 1.9 metre single wide row system would be most suitable.

In seven years, the pair have modified their tractors and planters to match the new row spacing and have installed a GPS autosteer unit and base station.

After this year's planting, the Deguaras will have about 20 hectares left until the farm is entirely converted to the Controlled Traffic System.

Phil says they have experienced significant timesaving of labour whilst managing the new system.

"We are looking forward to even more saving when coming into establishing the second crop cycle.

Maybe even some extra ratoons in a crop cycle with the reduced compaction."

Reef Rescue helped John and Phil to finish modifying their equipment to match

their row spacing, which including a zonal tillage unit, mounding boards and their ripper and grubber which is also now three-row.

They also have a bean planter, so that they can plant legume crops such as soybean during the fallow period. This helps to provide a cover crop during the wet season and helps put organic matter and nitrogen back into the soil, which can be utilised by the following cane crop.

Along with improving their soil management, John and Phil have been looking at ways to improve their nutrient and chemical management on-farm.

Through Reef Rescue, they received funding to purchase and install a Viper Pro Variable Rate Control unit. This is used for both nutrient and chemical applications and has improved the efficiency and accuracy of operations across the farm.

This was combined with Reef Rescue funding to modify their three-row Stool Splitter Fertiliser Box to match their



About the farm...

John and Phil Deguara are third and fourth generation sugarcane farmers. They have two farms in the Mackay sugar district - one at Beaconsfield (70 hectares) and the home farm at Brightly (252 hectares) where the family has been farming since 1983. The southern branch of Sandy Creek flows next to their Brightly property, not far from where both branches meet near Eton.

row spacing and the fitting of double discs for improved sub-surface application.

Phil says that he uses EM mapping, soil testing and the BSES Six Easy Steps recommendations to determine the nutrient and fertiliser blend requirements across the farm.

"This might mean four or five different blends for a year, which usually would be difficult to apply and maintain accuracy, such as correct calibration, for the different blends."

The Viper Pro Unit controls this well, allowing for specific targeting of nutrient requirements. It is also mapped on a kilogram output which is good for record keeping.

The new double discs and press wheel set up has been a major improvement to the Deguara's fertiliser application. They go through wet trash or thick trash (better window of opportunity for applications) and help with no moisture loss which can cause stress on ratoons."

To improve their chemical applications, the pair received funding to purchase a four-row shield sprayer unit and to modify and widen out their High Clearance Spray Rig.

"The shielded spray unit has been very useful in the soybean fallow and plant cane in replacing residuals in the inter-row, but time may only allow for targeted applications in ratoons due to

weather conditions and weed pressure," Phil says.

The High Clearance Spray Rig is used to apply knockdowns at out-of-hand stage and will be useful in controlling areas with vine problems.

The Viper Pro unit is used to control the boom sprayer, so that there is auto-calibration, no overlap and mapped applications of knockdowns in fallow and residuals in the cane cycle.

"Reef Rescue really helped speed up what we were trying to achieve on our farms from probably over a five to ten year period, perhaps to a two to three year period. We would most certainly have done something like the zonal tillage unit, but would not have done something like the Viper Pro Unit and most of the chemical activities in such a short time frame," Phil says.

The work that John and Phil are doing through Reef Rescue benefit water quality by reducing the risk of sediment and particulate nutrient losses as the Controlled Traffic minimum tillage system reduces run-off and improves soil structure. There is also a reduced risk from dissolved nutrient losses, with accurate targeted sub-surface granular applications based on crop requirements. There is also a reduced risk from residual chemical losses, with accurate targeted applications based on weed pressure and replacement of residuals with knockdowns.



OUTCOMES



Improving efficiency and accuracy of operations across the farm



Improved soil management and fertiliser application



Improved chemical management



Improved water quality through reduction of sediment, particulate nutrient and residual chemical losses