

REEF RESCUE

2010

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Rex Stroppiana

CONTROLLED TRAFFIC SYSTEM

Reef Rescue helped Rex Stroppiana purchase and install a GPS and make modifications to his existing three-row zonal tillage unit, planter, harvester and other equipment, so that he could convert his sugarcane farm to a 1.85 metre Controlled Traffic System.

Rex Stroppiana first worked with Reef Catchments in 2006, when he constructed a sediment/detention basin through the Sustainable Landscapes program.

When Reef Rescue was established in late 2008 and water quality grants became available for the adoption of improved management practices, Rex made the big decision to convert to a 1.85 metre Controlled Traffic System with GPS guidance and reduced tillage.

Rex received funding from Reef Rescue to help with the purchase and installation of the GPS and the necessary modifications to his existing three-row zonal tillage unit, planter, harvester (elevator extension) and other equipment to suit his new row spacing.

Rex says he also added double-disc openers in front of his wide shute single row planter, to suit his reduced tillage system.

"After all the time in the shed, I finally planted my first cane at 1.85 metres in 2009."

During the conversion phase from 1.5 metres to 1.85 metres, it was still necessary to cultivate the ground to get rid of the old stool and compaction areas.

Currently, Rex still needs to offset and rip the ground to prepare it for planting. This is done on GPS, so there is no overlap.

Rex then uses his zonal tillage unit to work only the ground where he is going to plant. Once fully converted over, Rex hopes to mainly use his zonal tillage unit to renovate and prepare the ground for planting.

Rex says that with the GPS and zonal tillage unit, he saves about half of the costs he used to have with conventional cultivation.

"I have gone from using around 200 litres per hectare of diesel to about 100 litres per hectare and hope to improve on this into the future."

Along with improving his soil management, Rex has also been improving his chemical and irrigation management on farm.



About the farm...

Rex Stroppiana is a third generation farmer who owns and manages a sugarcane property at Devereux Creek, 35km west of Mackay. The property size is 301 hectares, with 250 hectares under sugarcane production and five hectares of forestry. The property is bordered by Devereux Creek and the Pioneer River. The property has water allocation from the river, which is transferred to on-farm storages to be used for irrigation.

Through Reef Rescue, he also received a small amount of funding to purchase and install computerised controls and new guns on two hard hose irrigators.

“I have a lateral overhead low-pressure irrigator on my flat country, but need the high-pressure on my broken sloped country. With the control, I can now put out exactly what I want, reducing the risk of run-off. By using WaterSense for scheduling, it will go on at the right time,” Rex says.

To improve his chemical applications, Rex received funding for a high clearance spray rig. He is keen to make the rig as flexible as possible with spraying different chemicals at different times on varying row spaces. The rig consists of a seven-row boom, legs and droppers with air-induced nozzles, two tanks, two pumps and two controllers. It can be set up to spray any row spacing from 1.5 metres to 1.85 metres and can be used across the farm while Rex is converting to the wider rows, or by other growers. The boom can be used to spray out fallows, but will mainly be used for applying knockdowns for vine control at the out-of-hand stage.

At the same time, the legs have been set up to be used to spray knockdowns in the inter-row. For his plant cane, the droppers will be used for a banded application of residual herbicide directly over the bed.

Rex says this will automatically cut out half of the residual he applies on-farm. Because the spray rig allows Rex

the ability to do weed control at the out-of-hand stage, he has more opportunity to utilise knockdowns over residual chemicals where practical.

Reef Rescue was the catalyst for Rex to make these big changes on his farm.

Without the water quality grants, Rex says he was always keen to use GPS and zonal tillage, but would not have made the decision to go out to the wider rows and modify all of his equipment.

“The chemical and irrigation management improvements allowed us to complete jobs in one year, that might have taken over three years, allowing us to look at what can be done next,” Rex says.

He is also keen to look at improving his nutrient management through the use of a spreader for organic-based fertilisers or the possibility of split applications of Liquid N.

The water quality benefits of the work Rex is doing through Reef Rescue include reducing the risk of sediment and particulate nutrient losses with a Controlled Traffic minimum tillage system on GPS guidance decreasing soil exposure over a crop cycle, reducing run-off and improving soil structure.

Rex is also reducing risk from residual chemical losses with accurate targeted applications based on weed pressure reducing the amount of residual applied and the replacement of residuals with knockdowns where practical throughout a crop cycle.



OUTCOMES



Saving costs by almost 50 per cent



Improving soil, chemical and irrigation management



Reducing the risk of sediment and particulate nutrient loss, decreasing soil exposure, reducing run-off and improving soil structure



Reducing the risk of weed pressure