Improved Farming System Using Controlled Traffic and Sub-Surface Nutrient Applications

Reef Rescue has helped the Werner’s to make many changes on their farm including adopting a controlled traffic system with improved nutrient management. With the funding, the Werner’s were able to modify their existing equipment and purchase some new equipment to make adopting their ideal system possible in a short time frame.

In 2006, the Werner’s started to convert their farm and equipment to a 1.83 m controlled traffic system and have only around 5% left to plant at the new row spacing.

With the help of Reef Rescue in 2009 they finished the modifications to their harvester including widening the fronts and putting on an elevator extension and purchased a rotary hoe to do zonal tillage operations.

The Werner’s like to utilise rotational fallow crops as part of their new system and this includes planting legumes or forage crops so that they can provide a feed source for their cattle and maintain excellent ground cover during the wet season to reduce the risk of any sediment loss.

As well as improving their soil management, the Werner’s have made other changes to their nutrient, chemical and irrigation management across the farm. This includes the purchase of a 4-row shielded sprayer unit in 2009 so that they could use knockdown chemicals to control weeds in their inter-rows and for vine control before out of hand stage.

John also controls weeds in their grazing land with the introduction of camels to get on top of lantana but explained that “they do prefer the tougher spikier weeds.”

In 2011 they purchased a new hard hose irrigator with automated computer controls to improve the efficiency and accuracy of their irrigation applications.

Annette and Dennis are 3rd generation farmers and their son John, 4th Generation. Their family first farmed near Rosella in 1894 before moving up to Septimus in 1936, which is around 45 km West of Mackay.

Their 330 ha property includes 112 ha of cane, an area leased from them for a council quarry and the rest is grazing. In 1989 they were one of the first farms to be 100% green cane harvested. The property sits in the Cattle Creek Sub-catchment with Seven Mile Creek flowing through the farm before joining Cattle Creek and the Pioneer River.
“We can control the speed of the irrigator so that it speeds up over our hillier country or in our clay soils to prevent over watering,” John explained. This helps to complete their ideal system of irrigate, spray, fertilise/grub control and a final irrigation to incorporate.

The Werner’s are also committed to applying all of their nutrients sub-surface so that it is directly in the root zone. In 2011 with the help of Reef Rescue they purchased a 2-row sub-surface granular side dresser.

They have constructed a mill mud pad and in 2012 through Reef Rescue are building a sub-surface mill mud applicator and are aiming to apply rates at 20 tonnes/ha which will cover 2 years of phosphorous requirements. “Without Reef Rescue we would have still been keen to do all of this work but it would have taken a much longer time,” said John.

“It has helped being able to check out other Reef Rescue projects that have been going on and down the track we may look at getting a GPS,” he added.

Reduced risk of nutrient losses with accurate sub-surface applications

Reduced risk of losses with automated high pressure overhead irrigation

Reduced risk of residual chemical losses by utilising knockdown chemicals where practical

Reef Catchments

Reef Catchments is the regional NRM body who oversees the Reef Rescue program in the Mackay Whitsunday region for the federal government.

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