

# REEF RESCUE

2010

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Don Myers

## IMPROVED FARMING WITH CONTROLLED TRAFFIC

**Reef Rescue assisted Don Myers in converting his sugarcane farm to a Controlled Traffic Minimum Tillage System. Don received funding to modify his equipment to match the new row spacing, purchase a legume planter and install GPS guidance.**

Don Myers first began making changes to the original design of his sugarcane farm in 2006. He constructed a 80 megalitre ring tank, to hold irrigation water and applied for funding through the Sustainable Landscapes program to build two sediment/detention basins.

In late 2008, Don decided to move to a 1.83 metre Controlled Traffic Minimum Tillage System and incorporate rotational legume fallow crops. He applied for support through Reef Rescue and was successful, receiving funding to assist in modifying his equipment to match the new row spacing, purchase a legume planter and install GPS guidance. 2010 will be his second year of planting on the new system.

Along with improving his soil management, Don has also been looking at ways of improving his nutrient and chemical management on farm. He uses EM mapping, soil testing

and BSES Six Easy Steps to determine nutrient requirements across the farm.

After a legume crop, Don adds no nitrogen to the following plant cane crop. To improve his chemical management, Don also applied and was successful in receiving funding to help purchase a four-row Shielded Sprayer unit and to modify a four-wheeler motorbike into a high clearance spray rig.

Don says that his overall aim is to reduce his use of residual herbicides.

"This will be through applying only banded applications on top of the stool and the replacement of them with knockdowns where practical, such as in the inter-row."

Along with all of these improvements in the paddock, Don was also interested in doing some more stormwater management work and in 2009, applied to construct some more sediment/detention basins. After some negotiations, one of these structures was actually turned into a constructed



### About the farm...

In 2005, Don Myers decided he was tired of doing shift work and wanted the opportunity to work for himself. So, he and his family purchased a 127 hectare sugarcane farm near Homebush, around 25km south-west of Mackay. They currently have 107 hectares under cane production. Sandy Creek borders Don's farm along the southern edge, with some big trees left amongst the riparian vegetation.

wetland and designed through the Queensland Wetlands Program being run through DPI&F (now DEEDI) at the time. Through this program, it was identified that for a constructed wetland to be able to provide water quality improvements, its surface area must be a minimum of 10% of the catchment area. In this case, Don's catchment area was 36 hectares - which means that normally, it would have had to be 3.6 hectares in size. But with Don's improved land management activities reducing losses, the structure could be made smaller to fit in the site available and still provide water quality improvements. Despite at first being skeptical about the changes and whether they would work, Don says he is glad he went through with it and is proud of the structure.

The design of the constructed wetland is completely aimed at water quality improvements. There are two deeper holes at the entry and exit points for the refuge of animals, such as fish, during the dry. However, about 80 per cent of the wetland is shallow (60 to 120 cm) to allow native water plants to grow in the water body and along the edge. Don says he was shown how the plants grow the biofilms

that help breakdown nutrients and chemicals.

In November 2009, the structure was planted up with local native species around the edge and middle of the wetland.

Most survived.

"The wet season in early 2010 meant that the structure was very full for nearly four months and the

water plants put in the middle will need to be replaced."

Don says Reef Rescue helped him significantly in achieving his vision for the farm, in a shorter time frame.

"We would not have been able to do the Shielded

Sprayer and the constructed wetland, and it would have taken another two to three years to get the GPS and see the full benefits of the farming system that we are trying to implement. Now, between 80 and 85 per cent of all run-off from the farm goes through a stormwater management structure."

For water quality, the benefits of the work that Don is doing through Reef Rescue includes reduced risk of sediment and particulate nutrient losses, reduced run-off and improved soil structure and reduced risk from residual chemical losses.

***"Now, between 80 and 85 per cent of all run-off from the farm goes through a stormwater management structure."***



## OUTCOMES



Improved soil structure through GPS controlled traffic



Reduced use of residual herbicides



Improved stormwater management



Reduced risk of sediment and particulate nutrient losses, reduced risk from residual chemical losses.