

# REEF RESCUE

2011

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## Peter Hackett

## IMPROVED EFFICIENCY AND ACCURACY IN NUTRIENT AND CHEMICAL MANAGEMENT

**REEF RESCUE HELPED PETER TO MAKE CHANGES TO THE WAY HE PLANS AND THEN APPLIES HIS NUTRIENTS AND CHEMICALS ACROSS HIS FARM. WITH THE FUNDING, HE WAS ABLE TO MODIFY EXISTING EQUIPMENT AND PURCHASE SOME NEW EQUIPMENT AND VARIABLE RATE TECHNOLOGY TO MAKE IMPLEMENTING HIS NEW SYSTEM POSSIBLE.**

Through Reef Rescue, Peter was able to get some support to change and improve his chemical and nutrient management on farm. With regards to chemical management, Peter said, "the main thing I am trying to do is break down the seed bank of weeds in the paddock, particularly for vines." To do this, Peter starts to get on top of weeds in the fallow and then during the cane crop with the use of his high clearance spray rig applies knockdowns up to the out of hand stage. If the weed pressure is high, he may then use it to band residual for grass and vine control into the stool. Peter says, "the high clearance rig has a variable rate controller and has the ability to spray two chemicals in one operation but at the moment I prefer to spray one chemical and then if required come back and spray a second chemical in another pass

and make sure both jobs are done as accurately with the minimum amount of product."

Another focus for Peter was to upgrade his seven-row liquid fertiliser applicator to have a Viper Pro variable rate controller, a new flow meter and high floatation tyres. Peter says, "I contract fertilise around 5000 ha a year, but more importantly it is set up to do what I need on my farm." Peter added "I wouldn't go back to the old system of application, but you do need specific flow meters to be able to use the variable rate technology." Through EM mapping and soil testing, Peter has identified productivity zones within his farm. He then develops his nutrient input plans for these based on the soil test results, fallow history (mill mud or legumes) and crop yield potential. Peter said "last year we had three



About the farm...

Peter is a third generation farmer, who has 153 ha of cane near Koumala, around 50 km South of Mackay.

The farm is part of the Rocky Dam Creek Sub-Catchment and is where his dad in the late 1960's started to grow cane on 50 ha of virgin land. In 2006 they purchased another farm and moved permanently into the area.

The farm drains through a series of smaller creeks and wetlands before entering Rocky Dam creek in the estuary section. Peter won the 2010 Plane Creek Reef Rescue Productivity Award.



*This project is supported by Reef Catchments through funding from the Australian Government's Caring for our Country.*





different nutrient blends and these were used at 6 different rates to match specifically what we needed to apply."

For soil management, Peter has also commenced converting to a controlled traffic system with GPS guidance. Peter says, "we have some rows at 1.6 and 1.7m and in 2009 planted some at 1.83m and started modifying machinery to suit this and reduce compaction across the farm." As part of this system he also tries to plant a rotational legume crop as green manure and to benefit soil health.

Peter said, "that without Reef Rescue funding he would not have been able to do all of the activities he has." He added, "with the funding I was also able to do it better than if I did it all on my own, which means I'm doing the best job possible

straight away." Peter was happy with the Reef Rescue process used and the support available when you first get involved. "When I went for Stage two funding, I understood the

process and was able to look after everything much easier which was pleasing" Peter finished off with.

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#### Outcomes

- Reduced risk of nutrient losses with controlled accurate application of fertiliser into the growing zone
- Reduced risk of residual chemical losses from using knockdown chemicals where practical in the farming system.
- Targeted nutrient and chemical applications based on precision planning and variable rate technology

## OUTCOMES



Reduced risk of nutrient losses



Reduced risk of residual chemical losses



Targeted nutrient and chemical applications

### Reef Catchments

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

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