



# Case Study

## Implementation of the Bio-fertilizer Program

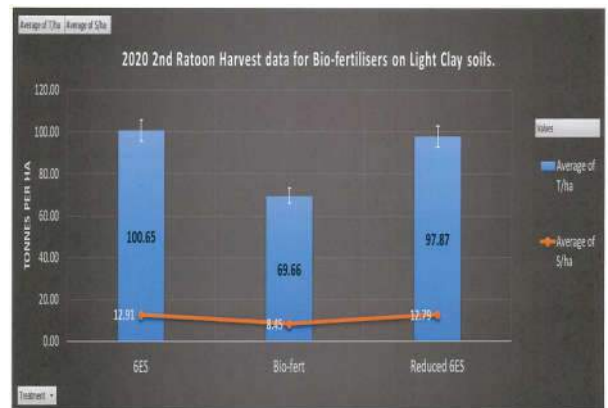
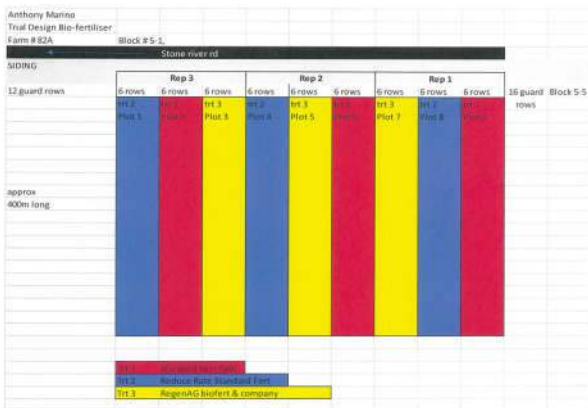


<b>LANDHOLDER</b>	Anthony Marino
<b>LOCATION</b>	Trebonne
<b>CATCHMENT</b>	Lower Herbert
<b>RAINFALL</b>	1923mm
<b>PROPERTY SIZE</b>	307ha
<b>ON-GROUND PROVIDER</b>	HCPSL

**Project Catalyst** is a grower led, sugar cane innovation and adoption project that explores, develops and validates farm management practice change to improve the enduring water quality of the Great Barrier Reef.

### BROADER ADOPTION VALIDATION & GROWER SUPPORT

Founded in 2009, the project operates in the Mackay Whitsunday, Burdekin and Wet Tropic regions to deliver valued practice change outcomes and develop methods for industry adoption. Under the Broader Adoption and Grower Support program, professional on-ground service providers assist selected growers to adopt and validate appropriate change practices. Service providers continue to monitor implementation benefits and derived environmental performance improvements. Through targeted extension activities, the program seeks to accelerate the uptake and broader adoption of improved farming practices at local, regional and industry levels.



Great Barrier Reef Foundation



## ●●●● Goal

By implementing a bio-fertilizer program onto his farm, Anthony hope to improve soil health, reduce chemical fertilizer and improve his cane yield.



## ●●●● Overview

To reduce chemical fertilizer cost and improve NUE of his cane. To improve overall soil health.

Bio fertilizer helps improve nutrient uptake by the plant and improves overall soil health to sustain agricultural practices. By foliar spraying on micro nutrients can we improve overall productivity while still maintaining sustainable soils.



## ●●●● Action

- Do a ReGenAG bio-fertilizer's training course with Kym Kruse.
- Make bio-fertilizer
- Have bio-fertilizer tested for nutrient analysis
- Trial bio-fertilizer on a reduce fertilizer rate and compare that with a 6 easy steps fertilizer rate.
- Soil testing, Leaf testing and collecting harvest data over a three year period.

## ●●●● Outcome

- Outcomes from harvest data for this trial has shown that 6ES is still the recommended method for maximum cane yield and sugar's.
- Bio-fertilizer brewing is time consuming to Anthony who has five separate farms spread around the district.
- Bio-fertilizer material has been hard to come by in some seasons compared to others.
- Cost of the private consultant and regular sampling required to make future recommendation has been an extra cost, not originally considered.
- Soil biological samples have shown no statistical differences between treatments.
- Anthony understand that soil health improvements can be a slow process so will continue with some of the bio-fertilizer concepts like the folia spraying of micro-nutrients, though due to time management will not be able to apply the practice across all farms as hoped.