



# Case Study

## EM Mapping and Soil Management of Ameliorants and Micro-nutrients



<b>LANDHOLDER</b>	Gino Zatta
<b>LOCATION</b>	Bambaroo
<b>CATCHMENT</b>	Lower Herbert
<b>RAINFALL</b>	2672mm
<b>PROPERTY SIZE</b>	496ha
<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.



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## ●●●● Goal

To better manage soil restraints on his farms by applying ameliorants and micro-nutrients where they are needed by using EM mapping, soil sampling and precision agriculture to target problem zones.



## ●●●● Overview

Gino has a history of soil problems relating to sodic soils, and deficiencies in micro-nutrients mainly zinc. By using precision agriculture to apply the ameliorants and micro-nutrients into problem targeted zones he is hoping to maintain yield consistencies across the whole of his blocks.

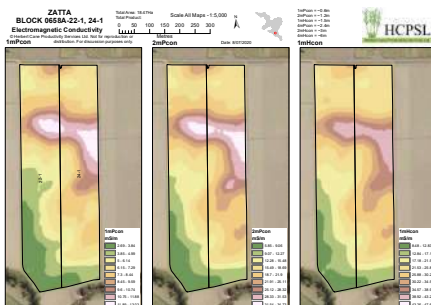
Gino also plants mixed species & legumes during his fallow periods to increase soil biodiversity and soil health. He is also using these fallow crops to reduce his nitrogen rates in his plant cane.

## ●●●● Action

- Planting fallow mixed species crops to improve soil health and add organic matter.
- EM mapping blocks across farms to view potential problem zones
- Soil sampling identified problems zone and comparing results to high yielding zones to create prescription maps to apply ameliorants or micro-nutrients via variable rates.

## ●●●● Outcome

- Majority of Gino's farms are EM mapped
- Soil samples and prescription maps have been made.
- Ameliorants and micro-nutrients have been applied into identified problem zones with in blocks.



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