2021

PROJECT CATALYST

Case Study

Wider Row Spacing and Composting

LANDHOLDER	Gerard Puglisi
LOCATION	Mossman
CATCHMENT	Mossman
RAINFALL	2000 - 3000mm
PROPERTY SIZE	144ha
ON-GROUND PROVIDER	Mossman Ag Services

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 bene its 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.

Gerard inspecting his ratoon crop

Harvesting at Puglisi's

Australian Government | Reef Trust | Great Barrier Reef Foundation | The Coca-Cola Foundation | WWF

Goal

The goal is to work with Gerard, looking at ways to assist Gerard with his EM mapping project and moving to wider row spacing. He is also interested in using compost as a soil ameliorant before planting as well as mixed species fallowing.

Sunflowers in flower, Puglisi's mixed species cover crop

Overview

Gerard Puglisi has begun moving his farm to wider row spacing. Geard is interested in improving his farm where he can see there are gains to be made, and looking at limits to yield.
In the past Gerard has tried innovative pratices like skip row fallowing. In 2019 Geard had some EM mapping done on a number of blocks, the EM mapping helped determine nutrient rates for those blocks. He has further made changes to his farm which will be dicsussed in this case study.

Action

Discussed with Gerard about options, produced Nutrient Management Plant. EM Mapping was conducted on some blocks.

Gerard has moved his implements to suit his new row spacing, which is a gradual change.

Gerard has also begun using a compost product, called Bedminster before planting. Initially used and applied as a broadcast to the block before planting, now he is modifying machinery to apply on the row for a more targeted application.

Wavy Disc Cultivator

Outcome

The move to wider row spacing is a progression. Although the EM mapping was carried out, unfotunately it was not able to be used for variable ameloriant spreading as there was insufficient information and data processing from those blocks to warrant the differing rates within blocks.

Gerard has purchased a muck spreader which he is converting to be able to spread the compost on the row, rather than broadcast before planting. He will use a 3 leg deep ripper, then drop the compost in the furrow, that will be followed by the wavy disc cultivator and then the bed will be formed, and planted to cane with their mound planter. This practice hasnt been overly tried in Mossman so is a new practice to the area.
Gerard has also continued the use of mixed species fallowing, which quite a few Mossman Growers are now interested in.