2021

PROJECT CATALYST

Case Study

Broader Adoption of Mixed Species in Sugarcane Fallow

LANDHOLDER	PCGBRF2020130
LOCATION	Murray Upper & Syndicate Subdistricts of Tully Sugar Mill
CATCHMENT	Murray River Catchment
RAINFALL	3547mm
PROPERTY SIZE	Murray Upper Syndicate
ON-GROUND PROVIDER	Charissa Rixon of T.R.A.P. 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.

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Goal

To utilise a standard seed mix of multiples species, to grow amixed species cover crop as a green manure crop in the fallow. The aim of this is to use biodiversity to improve soil health which in return will produce higher cane yields with equivalent or lower chemical fertilizer inputs.

Overview

Peter and his son Cameron went to the Regen Cane conference in Ingham in 2019 and saw mixed species in fallows.

They have since been watching what Ray Zamora has been doing with his mixed species cover crops and has also been speaking to Ray about it.

Action

They converted their ratooning discs into bed renovators, and modified their big rippers to become zonal rippers.

The ratoon crop was sprayed out with verdict, and cultivated once with the bed renovators.

They planted a a mixtrue which included 17 kg/ha of Meringa Beans, 8 kg/ha of Ray's Mix + some sunflowers.

The Meringa Beans were inoculated.

Outcome

The mixed species grew well and generated a huge amount of biomass. The sorghum sudan grass which was part of Ray's Mi, grew to a height of roughly 4 m and the beans were green to the top.

The mixed species fallow was firstly mowed/slashed. A traditional slasher was comapared to a Krone side mower to cut the mixed species fallo. The Krone side mower gave a neater cut, but thw slasher cut it up finer. The mowing was done 12 - 14 inches above the mound to keep the beans alive. The beans were later sprayed out using Roundup.

The sorghum sudan grass has become an issue in the plant cane and has necessitated additional spraying. The amount of biomass to incorporate and break down was a challenge. Will trial again using a different mix. Will not include Sorghum Sudan grass again.

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