



Case Study

Wider Row Spacing and Mixed Species Fallow



LANDHOLDER	Michael Giudice
LOCATION	Mossman
CATCHMENT	Mossman
RAINFALL	2000 - 3000mm
PROPERTY SIZE	151ha
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 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.



Mixing Inoculant through seed



Seed mix in direct drill planter



Great Barrier
Reef Foundation



●●●● Goal

The goal is to work with Michael, looking at ways to assist with his mixed species fallow and moving to wider row spacing.



Michael's mixed species fallow crop

●●●● Overview

Michael has taken an interest in mixed species fallowing. He is also moving to wider row spacing as part of his farming plan. Mixed species fallowing has been a interest point of many growers in recent years, due to the trials and demonstrations conducted through Project Catalyst. Many blocks are usually fallowed with a sprayed out trash blanket, or a single legume crop. A mixed species fallow allows the interaction and increased soil microbial biodiversity on the fallow block. The mix is sometimes restricted by the seed that is available at the time. Wet weather often plays a part in when blocks can be planted. Mossman Ag has a direct drill legume planter that is hired out to growers, this service works well although often it is in high demand.



Calibrating the mixed species seed rate

●●●● Action

Michael purchased a wavy disc cultivator and a legume seed planter box attachment, the planter box can be attached to multiple implements depending on the situation. Michael has planter seed box behind the wavy disc.

We spoke with Michael about options for his his mixed species fallow in 2020. The seed availability was limited this year as Cowpea was in short supply, this is usually a standard in a mix for Mossman and the Wet Tropics. Michael was able to obtain some Cowpea for his mix.

●●●● Outcome

Michael determined his mixed species preference, using Cowpea, Soybean and Sunflowers. On some blocks; his process was to disc the paddock, bedform/renovate and then his planter box is attached behind his wavy disc cultivator. He planted about 5ha under this system.

Another 5ha was planted direct drill using the Mossman Ag planter, on different soil types.

He found to have better success where he sprayed out the previous cane crop before planting. The Sunflower germination was not as good as expected. Overall the cover crop has established well.