



Case Study

Exploring Cropping Options for an 18 Month Sugarcane Fallow Period



LANDHOLDER	Max Musumeci
LOCATION	Burdekin
CATCHMENT	Barratta Ck
RAINFALL	984mm (2019)
PROPERTY SIZE	110ha
ON-GROUND PROVIDER	Farmacist-Burdekin

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

To explore different cropping options for an 18 month fallow after a sugarcane crop cycle.



●●●● Overview

A number of project Catalyst growers have experimented with an 18 month fallow over the past 10 years, with some adopting it as their regular practice. Providing the ground with a fallow period can increase soil mineralisation, break disease cycles and provide significantly higher yields in the subsequent cane crop. Over the next 18 months cropping options for the Burdekin region will be explored for those wishing to move to extended fallow periods between their sugarcane crops.



●●●● Action

In June 2019, block 7-1 (12.47ha) was ploughed out, fertilised with 180kg/ha of a pre-plant fertiliser (11.1%N, 17.1%P and 5.5%S), which contributed 20kgN/ha, 31kgP/ha, and 10kgS/ha.

The block was then pre-watered and planted to Kuranda soybeans on the 8th August 2019.

Agile wallabies caused considerable damage to 2ha and as a result a netting fence has been installed in late 2019.

At the end of 2020, another block (4-1 comprising 15.74ha) will be ploughed out, land levelled and planted to soybeans at the start of another 18month fallow period.

●●●● Outcome

A grain yield of 4.8t/ha was achieved from the harvest of block 7-1 which occurred on the 9th January 2020.

Subsequently the paddock was sprayed three times with Roundup mixtures between March and June 2020.

Originally the plan was to plant popping corn on this block in May 2020, however, returns from popping corn have been reduced from \$850/t to \$700/t, which reduces gross margins from \$3000/ha to \$2100/ha. Given this reduction in returns and the delay due to rain events, Kuranda soybeans were planted in early July 2020. These soybeans were harvested in December 2020, yielding 4.5t/ha.

Volunteer soybeans will be allowed to regrow and be sprayed out before the cane planting March/April 2021.