



Case Study

Nitrogen Fertiliser Reduction of Low Yielding Blocks and Older Ratoons



LANDHOLDER	CSMW010002
LOCATION	Marian
CATCHMENT	Pioneer
RAINFALL	1541mm
PROPERTY SIZE	673.73ha
ON-GROUND PROVIDER	Nutrien Ag Solutions

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.



Old 8th Ratoon Block cut in last round in 2021



Old Ratoons with 'N' reduction



Great Barrier
Reef Foundation



Goal

Reduce Nitrogen inputs on lower yielding blocks and or older ratoons.



8th Ratoons with 'N' reduced

Overview

Selecting a lower yielding older or late cut block that wouldn't benefit from using a full fertiliser program, saving input costs and reduce DIN.

Action

Reducing nitrogen by 20kg/ha following a good fallow crop and reducing nitrogen by 19kg/ha old or late ratoons. Additional practice changes included planting legume fallows, improved P fertiliser management and applying less mill mud.

Outcome

Grower is observing the growth of the reduced 'N' through out the growth stages and acknowledges that the crop by age and harvest timing would not benefit from the full nutrition program.

Grower actually reduced his 'N' from 160 kg/ha back to 141 kg/ha due to the late cut. Phosphorous of 10 kg/ha was required however no 'P' was applied.

The grower has been provided with a compliant Nutrient Management Plan which guides a Best Management Practice approach to farming and the environment. The grower has taken advice that has helped to efficiently manage nutrients in response to their own on-farm conditions, crop requirements and farming practices.

The grower has now implemented 5 practice changes across their farm which exceeds the project practice change pathway goal of 2 new practice changes being adopted.