



# Case Study

## Reducing Nitrogen Application on an Older Ratoons



<b>LANDHOLDER</b>	PCCCF2021BAV38
<b>LOCATION</b>	Calen
<b>CATCHMENT</b>	O'Connell
<b>RAINFALL</b>	1705 mm
<b>PROPERTY SIZE</b>	45.34 ha
<b>ON-GROUND PROVIDER</b>	Nutrien Ag Solution

**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.



Fertiliser Reduction on old ratoon Block 5-1



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●●●●● Goal

Based on a complete review and update of the grower's nutrient management plan, identify whether reductions in fertiliser application rates could be made without penalising crop yields, thereby saving fertiliser costs and reduce off-farm environmental effects.



Practice Change Block

●●●●● Overview

This farm has limited irrigation and is reliant on rainfall to grow their annual sugarcane crop. By reducing Nitrogen on an older or less productive block should reduce DIN and farm operation costs without impacting yields.

The Practice Change Blocks area 2ha with variety Q208.

The main soil series of this farm is Calen which occur on slightly elevated areas on alluvial plains and are usually found some distance from the nearest creek or river. Calen soils have formed from floods depositing sands, silt and clay over a long period of time.



Calen Soil Profile

●●●●● Action

The grower completed the P2R 21 Question survey and provided property information to set a baseline of their current farming practices. With this information, the grower's nutrient management plan is being revised and updated in comparison to their current practices. With this done, the grower could see where N application savings could be made simply and safely.

The benefit to the grower in being able to reduce applied N without impacting crop yield is to create immediate cost savings and therefore higher value in the least productive blocks.

A reduction of 32kg/ha N was implemented on an old ratoon block.

●●●●● Outcome

The 2021 crushing ended 30/12/21 and soil sampling remains in progress.

When soil sample collection is complete the grower will be provided with the latest advice that will allow them to efficiently manage nutrients in response to their own on-farm conditions, crop requirements and farming practices.

The practice change is now part of the farm management system going forward and implementation each season.

Reduced Nitrogen application to an old ratoon block by 32kg/ha.



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