



# Case Study

## Reducing Nitrogen Application on Older Ratoons



<b>LANDHOLDER</b>	PCCCF2021BAV26
<b>LOCATION</b>	Calen
<b>CATCHMENT</b>	O'Connell
<b>RAINFALL</b>	1705 mm
<b>PROPERTY SIZE</b>	167.62 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.



Block 11-1 Ploughed Out and not Ratooned



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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 productivity penalties, thereby saving on fertiliser cost and reduce off-farm environmental effects.



Selected Practice Change Block - 2021

●●●● Overview

Selecting an older ratoon block that would not benefit from a full fertiliser application especially during a less than average rainfall event occurrence.

Currently this farm has limited irrigation and totally reliant on rainfall to grow their annual sugarcane crop, by reducing Nitrogen in an older ratoon block should reduce DIN and farm operation costs without impacting yield.

This farm has Pindi soils which occurs on crests and hill-slopes. These soils have developed on weathered fine-grain sedimentary rock.



Pindi 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 was 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 least productive blocks.

●●●● Outcome

The crushing completed 30/12/21 and soil sampling remains in progress. When soil sample collection is completed the grower will be provided with the latest advice that allow them to efficiently manage nutrients in response to their own on-farm conditions, crop requirements and farming practices.

Due to the wet end of the 2021 crush and the late harvest (December) due to Milling issues. The Practice Change block that was selected to be ratooned yielded too low and was not a viable option, therefore the block was ploughed out.

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



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