



# Case Study

## Lower Rates of N Fertiliser in Old/Late Ratoons



<b>LANDHOLDER</b>	CSLH010027
<b>LOCATION</b>	Fairford-Trebonne
<b>CATCHMENT</b>	Lower Herbert
<b>RAINFALL</b>	2512mm
<b>PROPERTY SIZE</b>	70ha
<b>ON-GROUND PROVIDER</b>	HCPSL

**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 apply reduced N rates in older or late ratoons where possible with the intention to see if cost savings are possible while still maintaining yield.



Changes within the soil profile of a Trebonne clay

●●●● Overview

This farm is located in Trebonne, with soils that range from well drained riverbank soils and organic clays to poorly draining silty clays over clay subsoils.

In addition to addressing these management zones differently in their nutrient management plan, the grower may also save in their fertiliser output costs by reducing N in their older/late ratoons as studies suggest older crops do not have the ability to use nutrients as efficiently as younger ratoons of cane.

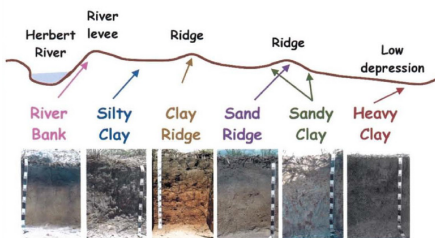
●●●● Action

The grower will receive a Nutrient Management Plan which will account for the differing nutrient requirements across their soil types and also include a management zone for the older ratoons with an adjusted lower rate of N to suit the nutrient requirements for the crop, improving nutrient use efficiency and reducing costs.

●●●● Outcome

The grower received a Nutrient Management Plan in 2023. The plan followed best management practice guidelines for defining management zones while also incorporating the grower's understanding of their farming system to provide a productive and sustainable approach to balanced nutrient management. As part of this approach, a recommendation was made to reduce N applications in late ratoons by 35kg. The grower implement the plan and is looking to continue nutrient applications according to the defined management zones.

The grower works closely with grower CSLH010028. Following joint discussions with their advisor they are also considering incorporating mixed legumes as a green fallow to supply nitrogen and improve soil health.



Soils found in the Lannercost & Trebonne area (Wood et al. 2003)

