



# Case Study

## Reduced Rates of N Fertiliser for Late/Older Ratoons & Zonal Mill Mud Application at 75t/ha



<b>LANDHOLDER</b>	CSLH010029
<b>LOCATION</b>	Abergowrie
<b>CATCHMENT</b>	Lower Herbert
<b>RAINFALL</b>	1385mm
<b>PROPERTY SIZE</b>	97ha
<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 lower N rates in late/older ratoons to provide confidence there is potential to save money in fertiliser outputs without limiting yield.

To apply lower rates of mud at 75t/ha and banded the mud zonally for more targeted application.



Mill mud applied zonally at 75t/ha in ratoons

●●●● Overview

By lowering N rates in their older ratoons the grower has an opportunity to save in their output costs for fertiliser while also maintaining yield as studies suggest that older crops will not have the ability to use nitrogen as efficiently as younger cane.

Trials as part of ongoing work with mill by-products have found a number of benefits from applying these products at lower rates using new technologies. By lowering application rates to 75t/ha and applying the mud zonally the grower can address soil constraints and supply nutrients across a greater area of his farm while also keeping costs down.

●●●● Action

Older blocks will be identified as a specific management zone in the growers Nutrient Management Plan and will be allocated a reduced, but balanced quantity of N that will supply the crop with sufficient balanced nutrition while also saving the grower on fertiliser costs.

The grower is currently considering appropriate blocks to receive zonal mud. The blocks will be marked and zonal mill by-products will be applied at 75t/ha.

●●●● Outcome

The grower received a Nutrient Management Plan in 2023. A careful review of the growers soil tests and their current nutrient applications practices determined that the grower could reduce N in an older ratoon management zone. A reduction of 5kg of N was outlined in the growers NMP for their late ratoons.

The grower is still planning on trailing zonal mud applications at lower rates. The mud will be applied in 2024 and the blocks monitored by the grower as part of an ongoing review of their nutrient management practices.

