



Case Study

Reducing Inorganic Nitrogen (N) Rates on Older and Late Cut Ratoons



LANDHOLDER	Peter Canning
LOCATION	Koumala
CATCHMENT	Rocky Dam Creek
RAINFALL	1600mm
PROPERTY SIZE	204ha
ON-GROUND PROVIDER	Farmacist Pty Ltd Author: Laura Sluggett

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.



Fig.1 Peter Canning has adopted precision N application strategies



Fig.2 Peter is reducing the input cost of N to improve profitability



●●●● Goal

To reduce overall farm use of inorganic N fertiliser by reducing applications on late cut, older ratoons.



Fig.3 Peter Canning has not experienced a reduction in yield from reducing N on identified crops

●●●● Overview

Inorganic N fertiliser applied to late harvested paddocks at the Six-Easy-Steps (6ES) recommended rate may provide an over-supply to these crops that have a low crop yield potential due to reduced vigour.

A lower yield potential provides the opportunity to reduce the amount of N fertiliser applied.

As reduced yields have a lower economic return, a reduction in input cost will increase the profitability of late harvested sugarcane.

●●●● Action

Peter, in consultation with Farmacist, identified blocks of older and late cut ratoons when preparing his whole farm N budget. In the first year of implementing this budget he reduced N fertiliser applications by >10kg/ha the recommended 6ES guidelines on older and late cut ratoons.

●●●● Outcome

Peter, with ongoing support from Farmacist, continues to drop his N application rates on older and late cut ratoons.

He is closely monitoring the yield performance of these paddocks to ensure there is no production impact.

The reduced N rates applied to Peter's paddocks will increase N use efficiency and therefore reduce N run-off risk. This results in improved water quality outcomes for the local catchment and reduced input costs for Peter's business.

He continues to work with Farmacist to tailor his nutrient plan.

For further information contact Laura Sluggett (Farmacist) Mb. 0429 474 698.



Fig.4 Peter has increased the economic viability of older ratoons by reducing N rates

