



Case Study

Mixed Fallow Legumes and Soil Amendments

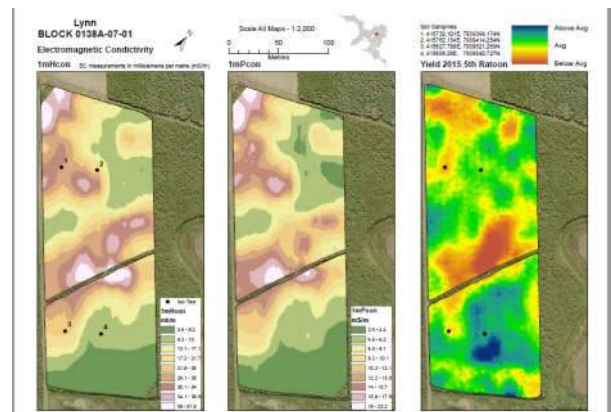


LANDHOLDER	Alan Lynn
LOCATION	Forest Home, Ingham
CATCHMENT	Lower Herbert
RAINFALL	1959mm
PROPERTY SIZE	200ha
ON-GROUND PROVIDER	HCPSL

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 grow a mixed legume crop on all fallow ground where possible and to trial different liming products to compare which products is the most effective and economical.



●●●● Overview

Alan has been growing mixed legume fallows on his fallow ground when weather allows to improve overall soil health and cane productivity. These fallow crops allow him to reduce his chemical fertilizer and improve his overall soil structure and composition.

Alan has been trialling different liming products to determine which products is the most effective at shifting his pH values in a more neutral zone. He has also been looking at the economical aspect of these liming products including cane yield and improved aluminium saturation in his soil profiles.

●●●● Action

- Lime fallow ground to prepare for growing a mixed legume crop.
- Mound ground
- Grow mixed legumes when weather permits.
- Set up trial to compare different lime product for effectiveness of moving pH values closer to neutral.
- Soil sample, pH soil sample, leaf sample and compare harvest data over a three year period.

●●●● Outcome

By growing mixed legumes on his fallow ground, Alan has improve soil tilth and his organic matter content allowing him to reduce his fertilizer for his cane plant crop.

The lime trial has shown so far that agriculture lime when compared to prilled lime and a kiln dust/Ag lime mix, is the most effective at moving soil pH value and holding it. It is also more economical over a five year period when compared to the other liming products too. There has been no significant difference between harvest data, but the Ag Lime treatments are always slightly higher in yield when compared to the other products. The Lime products trial will continue for a full crop cycle to fully understand the effects and economic value of these liming products.

