



# Case Study

## Bare Fallow to Legume Fallow



<b>LANDHOLDER</b>	Leo & Guido Gattera
<b>LOCATION</b>	Nerada
<b>CATCHMENT</b>	Johnstone
<b>RAINFALL</b>	3283 mm
<b>PROPERTY SIZE</b>	70 ha
<b>ON-GROUND PROVIDER</b>	CANEGROWERS Innisfail

**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.



Spiked Roller



2021 Fallow



Great Barrier Reef Foundation



●●●● Goal

To move from spray out fallows to legume fallow, with the aim of improving soil health and productivity of the following cane crop.



2022 Fallow

●●●● Overview

Leo & Guido are interested in growing legume cover crops on their fallow blocks. Currently their standard practice is to spray out the ratooning cane at the end of the crop cycle and any weeds are managed throughout the fallow period with broad spectrum herbicides as required.

They hope that the legume cover crop will provide good ground cover reducing erosion risk, suppressing weeds and improving soil health through crop rotation.

Leo & Guido farm on red basaltic clays known as the Pin Gin soil series, which is classified as a Krasnozem soil.



Pin Gin Soil Profile

●●●● Action

Leo & Guido intended to plant the fallow block by cultivating the old cane stool using a spiked roller, spread the cover crop seeds over the row using a seed box and then incorporate the seeds with another pass of the spiked roller.

Due to seed supply shortages and planting delays as a result of wet weather, Leo & Guido were unable to plant their cover crops for the 2020/21 fallow. These blocks were managed as spray out fallows.

For the 2021/22 fallow, Leo & Guido have implemented a whole of farm legume fallow management plan for all future fallow blocks. The intention for all future fallow will be to zonally cultivate the old cane rows using a spiked roller then spread the seeds onto the cultivated rows before one final pass with the spiked roller to incorporate the cover crop seeds.

●●●● Outcome

Unfortunately due to external factors, Leo and Guido were unable to plant a legume cover crop prior to the start of the 2022 wet season. If the weather allows, they may still plant a late cover crop this year.



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