



# Case Study

## Direct Drill Legume Fallow



<b>LANDHOLDER</b>	PCCCF2020BAV12
<b>LOCATION</b>	Silkwood
<b>CATCHMENT</b>	Johnstone
<b>RAINFALL</b>	3283mm
<b>PROPERTY SIZE</b>	91.5ha
<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.



Cane sprayed out prior to cover crop emergence.



Patchy emergence of cover crop



Great Barrier  
Reef Foundation



## ●●●● Goal

Support growers who are already planting legumes to take the next step to direct drilled crops with the aim of reducing cultivation prior to the wet season and therefore reducing the risk of erosion.



Calibrating Direct Drill Planter

## ●●●● Overview

This project aims to assist the grower to assess direct drill legume cover crops. The grower's standard practice for fallow management is to plant a legume fallow crop when weather allows. To plant the cover crop the fallow block is disced out and then the legume seeds are broadcast and incorporated using a seed box and discs.

The grower was interested to see how a legume cover crop would perform on his farm when direct drilled into the old cane bed.



Fallow block two months after planting

## ●●●● Action

Following discussions with neighboring farmers and local extension officers the grower decided to plant his 2020/21 fallow with a direct drill planter.

With a supply shortage for cover crop seed and advice from the local Project Catalyst Extension Officer, the grower chose Ebony Cowpea for the cover crop.

To plant the cover crop the grower hired the local MSF direct drill planter. The cover crop was planted at 23kg/ha on the 4/12/2020 with inoculated seed.

The ratooning cane was sprayed out using a selective grass herbicide on the 28/12/2020.

The growth of the cover crop is being monitored and we intend to biomass sample the crop once it reaches maturity.

## ●●●● Outcome

The grower was very happy with the direct drill planter and the rate that he was able to plant his cover crop.

Unfortunately the grower received 1089mm of rainfall for the month of January 2021. As a result, the fallow block was flooded three times in the early growth stages of the crop. Due to this flooding the germination and establishment of the cover crop has been quite poor and patchy.

We will continue to monitor the cover crop throughout its growth. At this stage the grower is still interested in trying direct drill cover crops again.