

Project Catalyst Trial Report

Regen Ag Farming Systems vs Traditional

Grower Information

Grower Name:	Chris Condon
Entity Name:	SJ Farming
Trial Farm No/Name:	F
Mill Area:	Tully
Total Farm Area ha:	2800
No. Years Farming:	15
Trial Subdistrict:	Riversdale
Area under Cane ha:	1595.32 including fallows

Background Information

Aim: A case study around change of farming systems

Background: (Rationale for why this might work)

Chris and Neville, have been growing cane for approximately 15 years in the Tully region as a mixed farming operation with cattle.

After observing results through Catalyst and from Mario Raccanello and Ray Zamora, they have decided to further explore the use of biofertilizers and evaluate the cost and the practicality in implementing a new farming system. The new farming system will incorporate the use of multiple species in the fallows, and the possibility of grazing the fallows with cattle, prior to returning it to sugarcane, and the use of 4 day biology brews and biofertilizers to reduce the amount of nitrogen applied to the sugarcane crop.

The biggest driving force about conducting this trial is the data presented from the Attard's in Mackay, and how their input costs have gone down and production has held or increased.

Potential Water Quality Benefit:

There should be an improvement in water quality as there should be less nitrogen leaching through the soil profile, and more being utilized by the plant.

Expected Outcome of Trial:

Successful implementation would see no yield loss in the sugar cane, where N fertilizers are reduced and improvements in soil health and soil structure.

Service provider contact:

Charissa Rixon – T.R.A.P. Services & Kym Kruse – RegenAg

Where did this idea come from:

Kym Kruse, Mario Raccanello, Ray Zamora, Catalyst

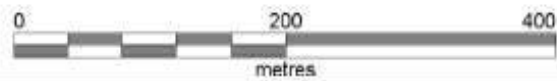
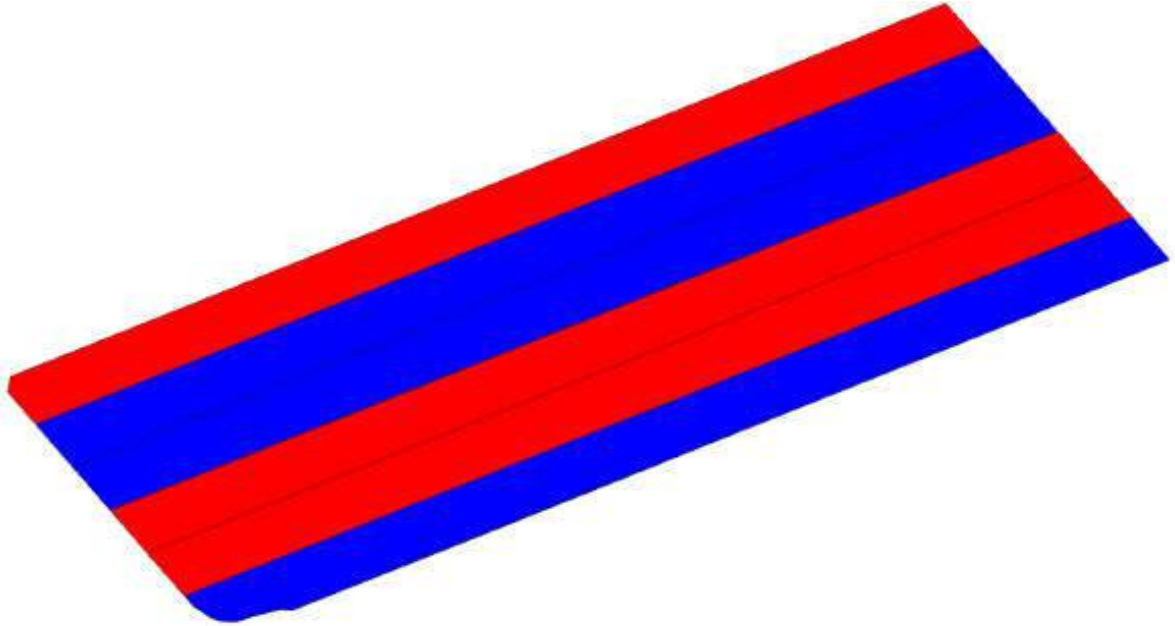
Plan - Project Activities	Date : (mth/year to be undertaken)	Activities :(breakdown of each activity for each stage)
Stage 1	2017	Finish laser levelling block Divide block into 6 strips and randomise Plant mixed species in the alternative fallow vs standard legume
Stage 2	Mar/Apr 2018	Change to a winter mixed species mix in the alternative fallow.
Stage 3	Aug/Sep 2018	Plant Trial. Apply alternative treatments to the strips that had the alternative fallow Standard fertilizer program on legume fallow strips.
Stage 4	Oct – Jan 2019	Apply alternative amendments in consultation with Kym Kruse
Stage 5	Sep – Nov 2019	Harvest Trial Collect and analyse data Conduct Chromas
Stage 6	Dec 2019	Fertilize
Stage 7	Jan – Apr 2020	Apply alternative amendments in consultation with Kym Kruse
Stage 8	Sep – Nov 2020	Harvest Trial Collect and analyse data Conduct Chromas



Project Trial site details

Trial Crop:	Sugarcane
Variety: Rat/Plt:	Fallow 2017 & 2018
Trial Block No/Name:	F8838 Blk 21A
Trial Block Size Ha:	~18.15 HA
Trial Block Position (GPS):	17.9862°S 145.7491°E
Soil Type:	Thorpe

Block History, Trial Design:

Multispecies and Legume fallow planted 5th October 2017

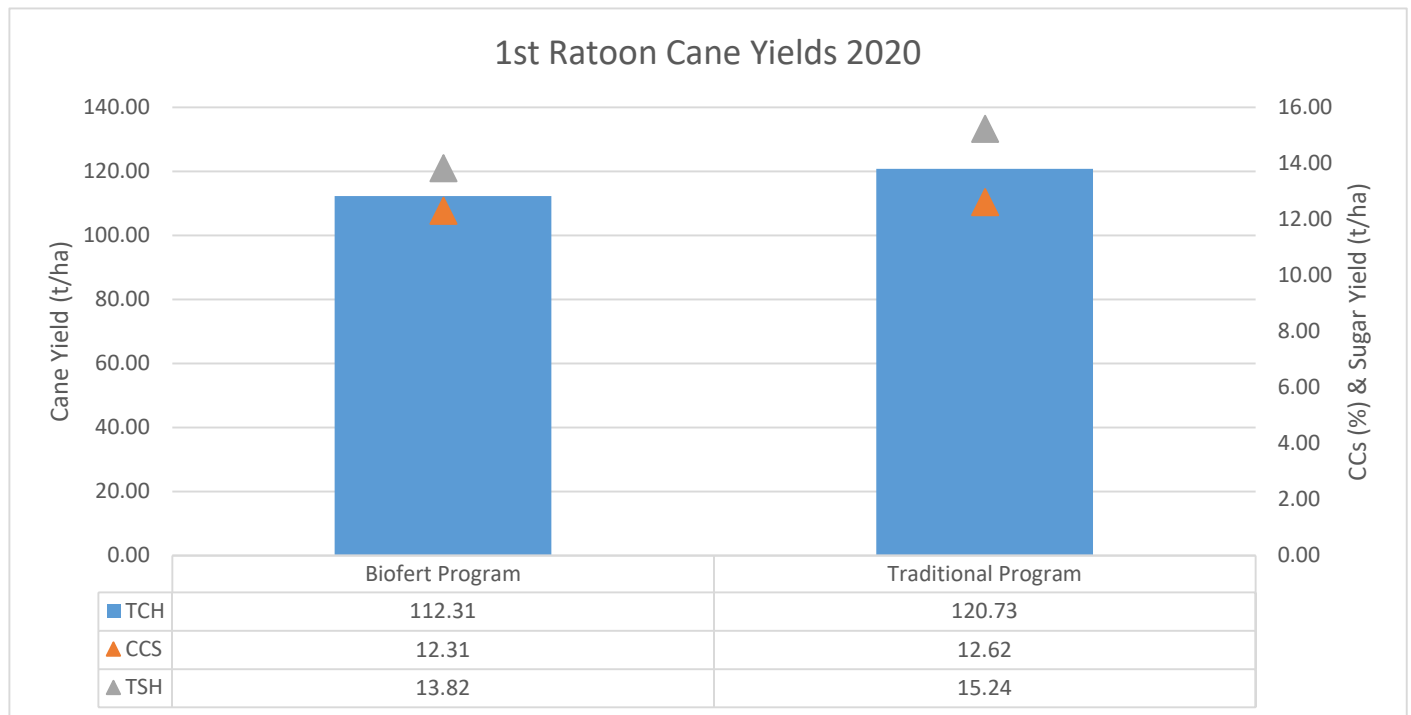
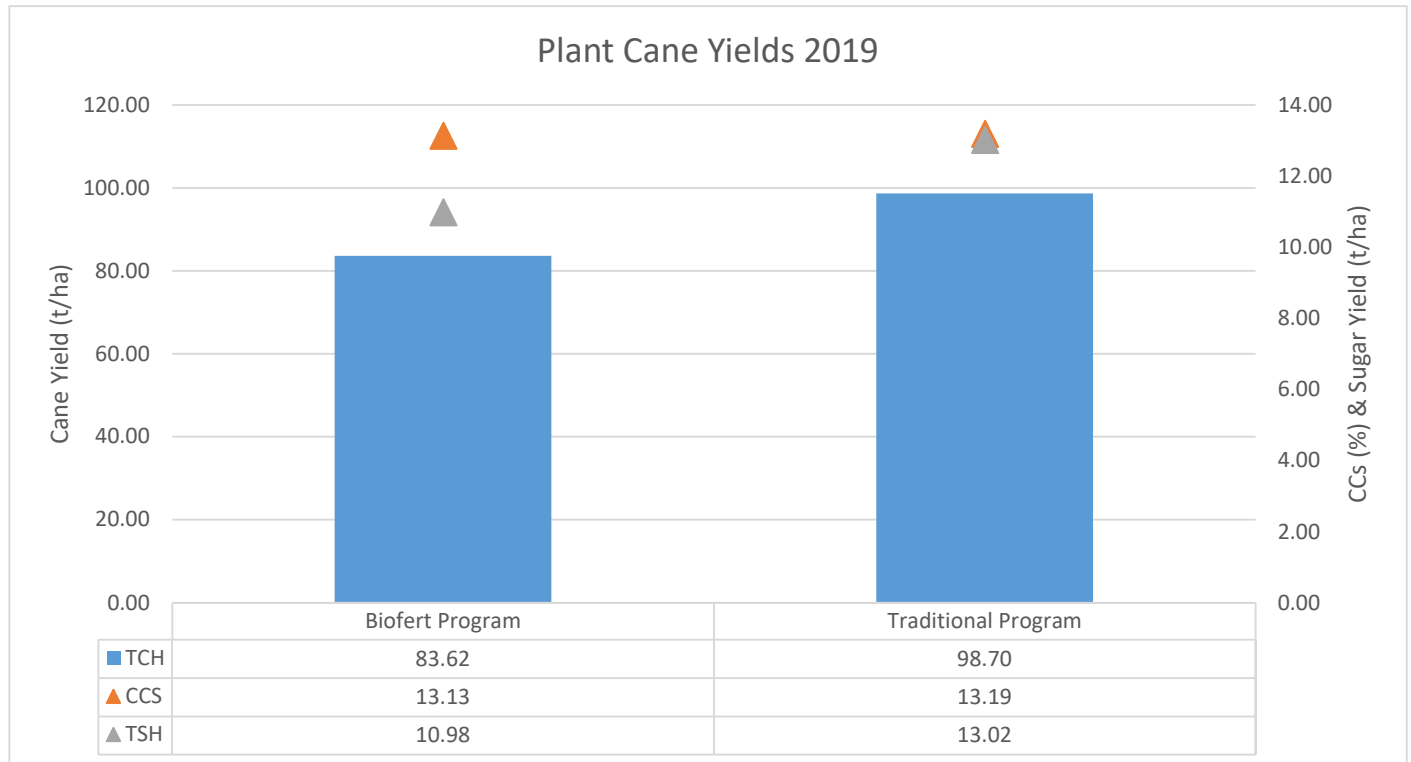


-  Biofert Program
-  Standard Farming Practice

Treatments:

1. BAU
2. Alternative Farming System

Results:



Conclusions and comments

The radish in the mixture was eaten by insects. The new farming system did not yield as well as the traditional farming system. The new farming system also had a lot more compaction and took a lot more working to prepare it for planting

Preparation of this field for the mixed species was not ideal as the block needed major earthworks, and we were under pressure to get the trial established. The mixed species fallow required more passes to prepare the ground for planting compared to the legume, as there was more compaction

Advantages of this Practice Change:

No advantages for the farm at this point. However there is an advantage for water quality as lower rates of inorganic fertiliser has been used

Disadvantages of this Practice Change:

The hardest thing with the mixed species was controlling the guinea grass in the mixed species. Whereas in the legume fallows, an application of verdict was able to control the guinea grass

Will you be using this practice in the future:

We are continuing to trial this practice to see if we can fine tune it and see if it will work in the longer term

% of farm you would be confident to use this practice :

Still evaluating