Catalyst Project Report – Final Report

Grower Information	
Grower Name:	Daryl Thomsett
Entity Name:	Thomsett Bros
Trial Farm No/Name:	PCK-00611A
Mill Area:	Plane Creek
Total Farm Area ha:	500
No. Years Farming:	
Trial Subdistrict:	Koumala
Area under Cane ha:	450

Background Information

Aim:
To evaluate the reduction of nutrients on late-harvested crops which have a lower yield potential

Background: (Rationale for why this might work)

The 2016 harvest season in the Plane Creek mill area did not finish until December. The blocks cut late in the year will have reduced yield in the 2017 season simply due to the fact that the growing season has been shortened by the late cut. This trial will investigate the possibility of reducing fertiliser on blocks with an expected reduction in yield potential.

Because the crop has compromised yield, applying lower rates of nutrients should have no negative impact on crop growth. Better matching fertiliser use to the yield potential can lead to increases in nutrient use efficiency, reduced loses and increased profitability.

Potential Water Quality Benefit:
Reduced risk of nitrogen run-off from farm

Expected Outcome of Trial:
There will be no impact on yield in the treatments where less nutrients were applied.

Service provider contact: Farmacist

Where did this idea come from: Farmacist/Grower

Plan - Project Activities	**Date : (mth/year to be undertaken)**	**Activities :(breakdown of each activity for each stage)**
Stage 1	**September 2017**	Harvest crop
Stage 2	**November 2017**	Apply nutrients as per trial design
Stage 3	**October 2018**	Harvest trial

Project Trial site details	
Trial Crop:	Sugar Cane
Variety: Rat/Plt:	Q208 Old Ratoons
Trial Block No/Name:	2-1
Trial Block Size Ha:	4
Trial Block Position (GPS):	149.248985, -21.42894
Soil Type:	Alligator – a grey yellow duplex soil

Block History, Trial Design:

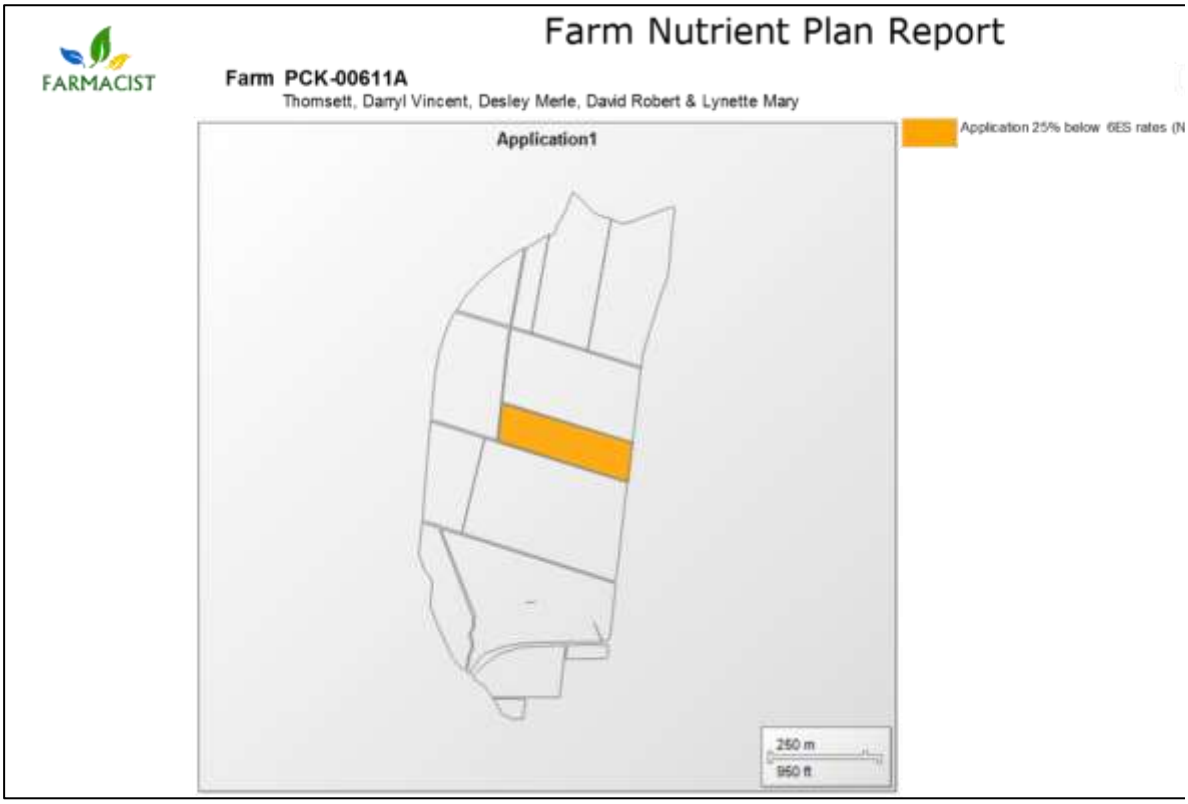

Figure 1 - Farm map showing paddock applied at reduced rate

This trial was applied to the whole of block, as shown in Figure 5, as a demonstration and to improve the grower's confidence in reducing fertiliser rates.

Treatments 2016-2017:
Block was applied with liquid dunder – 25% below Six Easy steps rate

Results:

Harvest results from the 2017 harvest showed minimal difference, hence the introduction of a replicated trial, to further assess the impacts of altering nitrogen application. (see new Thomsett report)

The grower was pleased with the crop and was satisfied that no yield losses occurred due to the lower nitrogen rate.

Conclusions and comments
Applying lower rates of nitrogen on crops with a lower yield potential, due to late harvesting, will not further restrict yield.
Advantages of this Practice Change: **Reduced nitrogen application**
Disadvantages of this Practice Change: There is still some degree of uncertainty in reducing N in these circumstances but the results to date have vindicated the decision on this site.
Will you be using this practice in the future: **Yes**
% of farm you would be confident to use this practice :
This site is complete and is replaced by a new site (See Thomsett Trial in Innovation Progress Report)