

Catalyst Project Report

Stool Split v Side dress v Stool Zipper

Grower Information

Grower Name:	Steve Pilla
Entity Name:	
Trial Farm No/Name:	BKN-00374A
Mill Area:	Invictor
Total Farm Area ha:	148.6
No. Years Farming:	
Trial Subdistrict:	Houghton Catchment
Area under Cane ha:	123.5

Background Information

Aim: The aim of this trial is to compare the water quality and yield from 3 different fertiliser application methods.

Background: (Rationale for why this might work)

While both stool split and side dress applications are currently accepted as regular practice, the implementation of a stool zipper on the back of a stool splitter is a new technology which hopes to minimise the loss of fertiliser through volatilization. The side dresser places fertiliser subsurface on either side of the stool, while the stool splitter places the fertiliser in a band in the centre of the hill. The stool zipper follows behind the stool splitter and focuses on covering the soil behind the stool splitter to provide adequate cover. The soil type that is present will determine the effectiveness of each applicator.

To date there has been minimal work done of the water quality effects of stool splitting verse side dressing and no work has currently been done on the stool zipper. The trial will compare all 3 treatments and be replicated 4 times across a paddock in a randomised strip block trial design.

Water quality data that will be collected will include a Nitrogen and phosphorus monitoring over a full range of irrigation and rainfall events until deemed necessary.

Potential Water Quality Benefit:

The potential water quality benefit will include a reduction of fertiliser runoff in the stool zipper treatment. The difference between stool split and side dress could also have ramifications for the industry if the result shows conclusively one is better than the other.

Expected Outcome of Trial:

The expected outcome includes a reduction of fertiliser runoff in the stool zipper treatment.

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Where did this idea come from: Farmacist and grower.

<u>Plan - Project Activities</u>	Date : (mth/year to be undertaken)	Activities : (breakdown of each activity for each stage)
Stage 1	Nov 2018	- Design and implement a trial comparing different fertiliser applications.
Stage 2	Nov-Feb 2018/19	- Collect water samples from any rainfall or irrigation runoff events.
Stage 3	Dec 2019	- Harvest and analyse data.

Project Trial site details

Trial Crop:	Sugarcane
Variety: Rat/Plt:	KQ228- 2R
Trial Block No/Name:	BKN-00374A-5-1
Trial Block Size Ha:	20ha- trial over 72 rows
Trial Block Position (GPS):	147.1545260 -19.5786588
Soil Type:	6Drc

Block History, Trial Design:

Trial Layout

Steve Pilla Stool Split v Side Dress v Stool Split with Stool Zipper

Stool Split = 2 Runs or 6 Rows

Stool Split & Stool Zipper = 2 Runs or 6 Rows

Side Dresser = 2 Runs or 7 Rows + half row either side.

KP Samplers installed at bottom of paddock to capture irrigation events.

Yield to be collected at Harvest.

Legend

- Guard
- KP Samplers
- Side Dressed
- Stool Split
- Stool Zipper



Results:

Water Quality results:

The water quality results from this trial are still been analysed. They will be provided in full in the next milestone update.

The harvest of the trial will be in the next few months.

Conclusions and comments

Advantages of this Practice Change:

Disadvantages of this Practice Change:

Will you be using this practice in the future:

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