

Catalyst Project Progress Report

Grower Information

Grower Name:	George Henry
Entity Name:	Burrakin Pty Ltd
Trial Farm No/Name:	F2663
Mill Area:	Tully
Total Farm Area ha:	163.87
No. Years Farming:	
Trial Subdistrict:	Murray Upper
Area under Cane ha:	163.87

Background Information

Aim:

To improve soil pH at depth and improve soil structure

Background: (Rationale for why this might work)

There are many and varied soil types on this farm, and many areas where subsurface drainage is required to prevent fields from being too wet to achieve satisfactory yields and to enable normal farming operations to occur. SIS mapping and historical knowledge of the farm have been used to identify areas to implement subsurface drainage. This block had subsurface drainage issues and ag-pipe was installed to rectify this issue. However, after the installation of the ag-pipe there was still something restricting growth in these areas. Further investigation has revealed that the soil pH below 20cm depth (4.9 pH) is much lower than the soil pH in the top 20 cm (5.4 – 5.7 pH) in the same areas.

George believes that the low pH at depths is causing the growth restrictions he is observing in this field, and he also believes that the installation of the subsurface drainage in these areas along with the drier season has exacerbated the issue.

When George has been digging in these areas he has also noticed that the roots will only go down to a shallow depth and then they cease.

Potential Water Quality Benefit:

By improving the soil pH at depth, George is expecting that the roots will penetrate deeper into the soil which will allow better utilisation of the nutrients that he applies to the paddock, and will reduce the amount of nutrients that are able to leach below the root zone of the crop.

Expected Outcome of Trial:

It is expected that the soil pH at depth will increase with the addition of the mill mud banded at depth resulting in better crop yields with the same amount of inputs.

Service provider contact: Charissa Rixon – T.R.A.P. Services

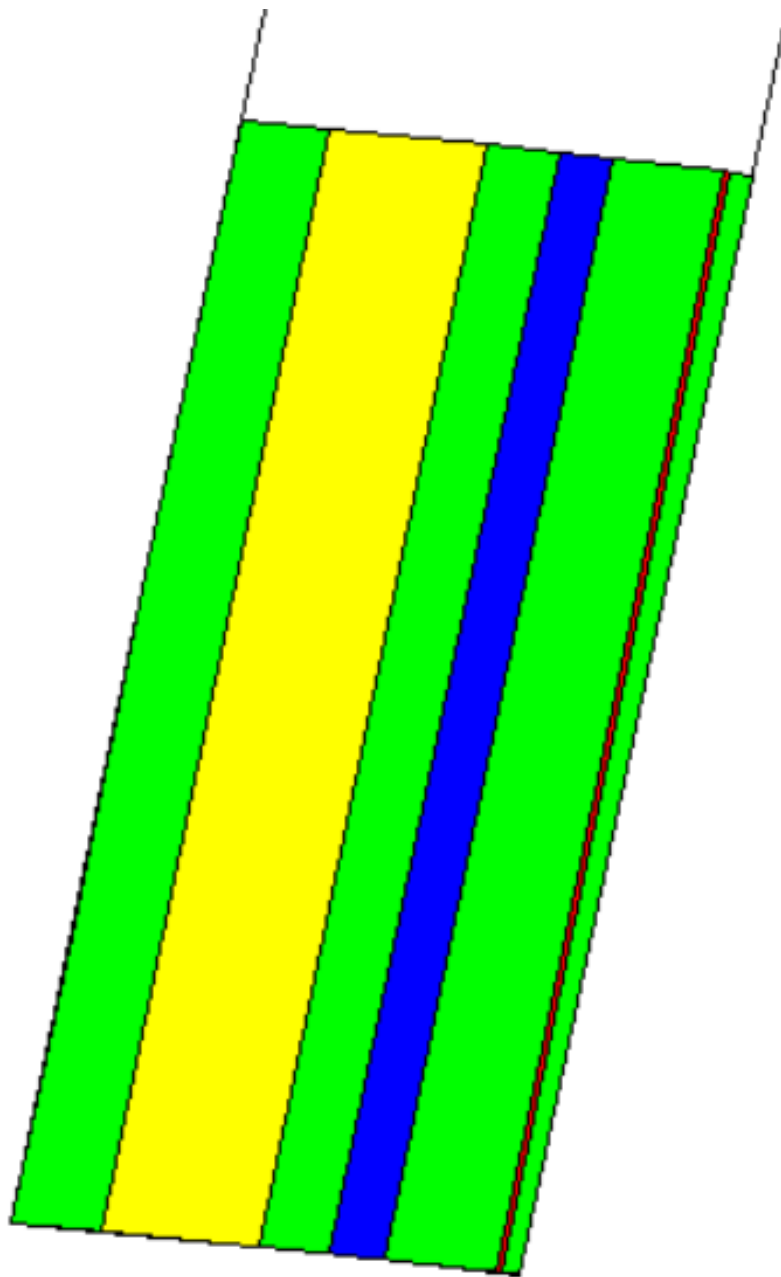
Where did this idea come from: This idea has come from George doing his own research and following articles in various publications and from his investment in SIS mapping.

<u>Plan - Project Activities</u>	Date : (mth/year to be undertaken)	Activities :(breakdown of each activity for each stage)
Stage 1	June 18	Apply Mill mud and mill ash into a furrow below the row pre-plant.
Stage 2	July 18	Plant Cane
Stage 3	May 19	Obtain yield imagery and if available compare to previous yield images for the same block.
Stage 4	September 19	Harvest small areas with weigh bin to validate yield response,
Stage 5	October 2018	In identified areas do shallow and deep soil tests to test soil pH levels in the various treatments.





Project Trial site details

Trial Crop:	Sugarcane
Variety: Rat/Plt:	Plant Q250??
Trial Block No/Name:	Block 5C
Trial Block Size Ha:	18.64 Ha
Trial Block Position (GPS):	18.0740°E 145.8003°W
Soil Type:	Feluga Red Variant, Warrami, Hillview Fine Variant

Block History, Trial Design:



Legend

-  Grower Standard
-  Mud @ 25 t/ha + Ash @ 25 t/ha
-  Mud @ 25 t/ha + Ash @ 50 t/ha
-  Mud @ 50 t/ha + Ash @ 50 t/ha



Results:

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 :