



TRIAL REPORT SUMMARY

Petersen trial: Homebush, QLD, 2014

INTRODUCTION

This trial set out to demonstrate the relative yield performance of nutrient application via a Bio Dunder® liquid fertiliser formulation and a commercial granule formulation on a sandy loam in Homebush, Queensland.

TRIAL SITE AND TREATMENT

Treatment	Bio Dunder®	Granules
Product	Spring 1	Homebush Ratooner
Rate	4.5m ³ /ha	740 kg/ha
Total N (kg/h)	182.2	185.0
Total P (kg/ha)	21.4	22.2
Total K (kg/ha)	115.5	118.4
Total S (kg/ha)	32.0	26.0

The site selected was a flood-irrigated crop of 3R Q208 cane blocks. The trial area consisted of five plots: three for Bio Dunder treatments and two for granular treatments. Total area for the trial was approximately four hectares.



Satellite image of the trial site. Plots highlighted in blue are the Bio Dunder application plots.

RESULTS

Treatment	Plot	TC/HA (t/ha)	TS/HA (t/ha)	CCS
Bio Dunder	1	89.93	13.43	14.93
	2	91.42	13.34	14.59
	3	85.68	13.25	15.46
Average		89.01	13.34	14.99
Granules	1	79.40	11.57	14.57
	2	83.21	12.76	15.34
Average		81.30	12.17	14.96

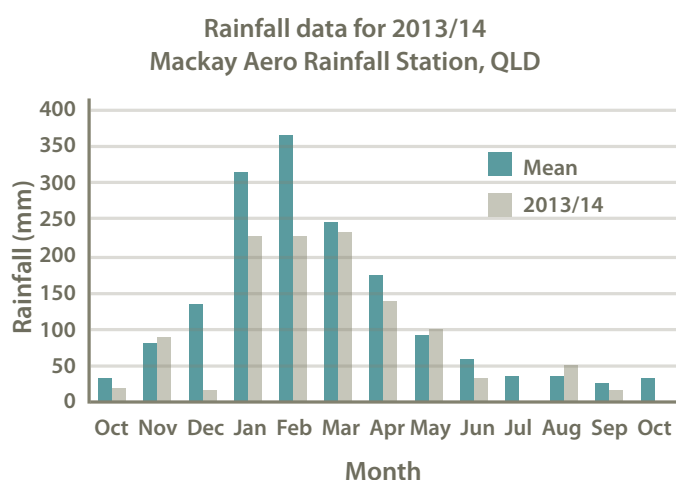
The above illustrates the results for CCS (Commercial Cane Sugar – the sugar content of cane), average cane yield (TC/HA) and average sugar yield (TS/HA) between treatments. The trial data showed a significant difference in all results, favouring Bio Dunder over conventional practice.

RESULTS (CONTINUED)

Treatment	Bio Dunder	Granules
Product cost ex. GST (\$/t, m ³)	111.88	631.34
Application rate	4.5 (m ³ /ha)	740 kg/ha
TC/HA	89.01	81.30
CCS	14.99	14.96
TS/HA	13.34	12.17
Gross return (\$/ha)	\$3,727.22	\$3,390.73
Fertiliser (\$/ha)	\$503.46	\$467.19
Application costs (\$/ha)	\$0 (included in fertiliser cost)	\$40.00
Net return (\$/ha)	\$3,224.12	\$2,883.54

The economic analysis above considered fertiliser only, as all other variables such as chemicals and irrigation were constant. The economic analysis resulted in the Bio Dunder plots outperforming the granular treatments by 11.8% or \$340/ha.

Rainfall



Local data from the trial period indicates that the season provided lower than average rainfall. The first three months of the critical growing period, especially December, provided very little rainfall to the crop. While the performance of the crop exceeded the mill average, greater rainfall during the early period may have potentially improved production for all treatments.



CONCLUSION

The trial results demonstrated a significantly higher yield advantage when applying Bio Dunder liquid fertilisers compared to conventional fertiliser practice.

Wilmar acknowledges and appreciates the support of Gary Petersen and team, without which this trial would not have been possible.