



Kangaroo Island Fertiliser Trials 2020

Parndana Small Plot Trial

Parndana, Kangaroo Island	2020
Location	Year
Tremaine Family	Pasture
Conducted by	Crop
Small plot replicated	
Trial Type	

Background

The BioAg fertiliser trial was established in 2019. The trial has 6 treatments with 4 replications and compares various BioAg products and rates against an annual application of single super.

The site is located on M & M Tremaine's at the big bend on the Playford Highway east of Parndana. The pasture is an annual regenerating pasture. In 2019, the composition was 70:30 clover:capeweed. The site was burnt out in January 2020 and it is likely that this influenced capeweed to dominate the sward with the ratio tending 10:90 clover:capeweed in 2020.

The biomass was measured by mowing with a push behind mower and weighing the catchings. The site was not grazed.

Results

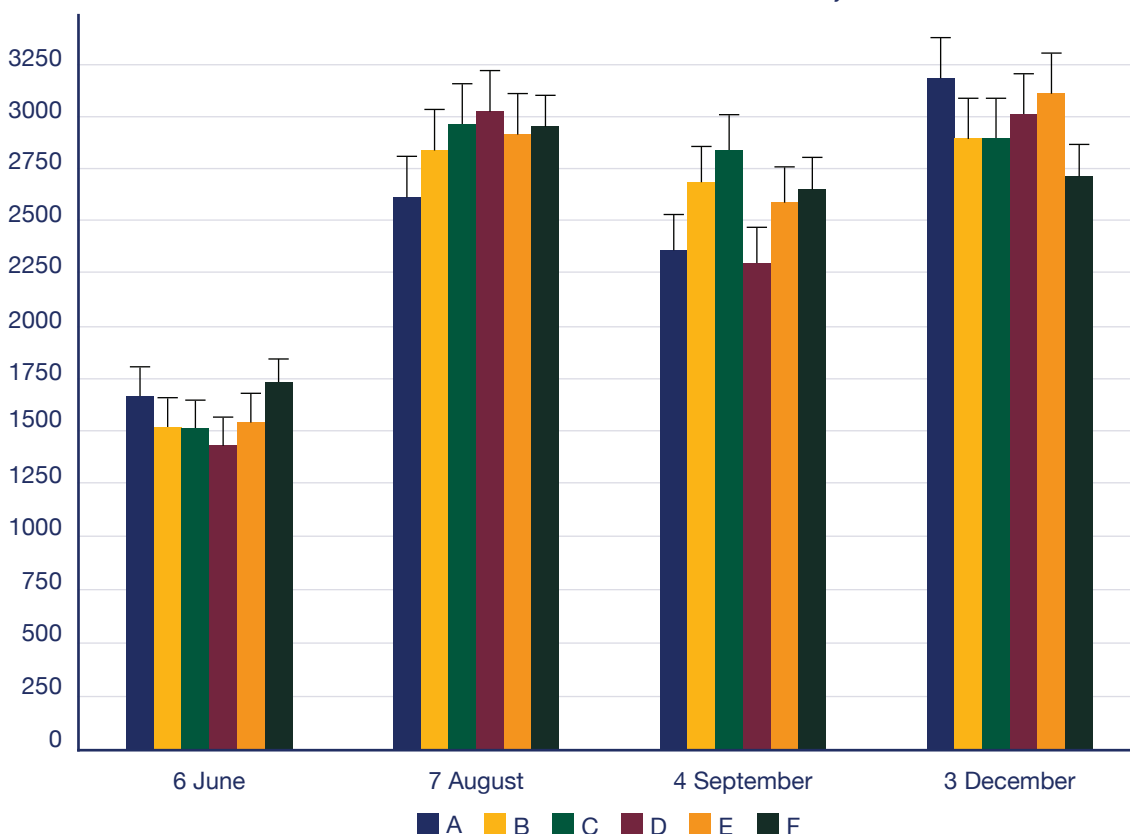
The following page includes a summary from the site in 2020 when 4 cuts were taken. The trial will run for another two years.

Table 1: Means and standard errors of each treatment at both harvest times Parndana 2020. (Biomass kg/Ha).

	6 Jun	7 Aug	4 Sep	3 Dec	Cumulative
A: Control	1670±130	2613±195	2355±176	3187±186	9824±341
B: 275kg Superb® – Biennial	1518±130	2844±195	2693±176	2897±186	9952±341
C: 200kg S10 BioAgPhos® – Biennial	1507±129	2964±194	2844±175	2903±184	10218±339
D: 125kg Single Super – Annual	1428±129	3033±194	2301±175	3013±184	9775±339
E: 135kg Superb® – Annual	1539±130	2922±195	2595±176	3114±186	10171±341
F: 275kg Superb® + Lime + Trace Elements – Biennial	1730±109	2953±164	2651±148	2724±156	10058±270

Figure 1: Bar plot of averages across treatments of cuts at each date for Parndana trial. Biomass (kg/Ha)

Error bars are standard errors. Refer to codes in Table 1 to identify treatments.



Conclusion

There was no significant difference on a dry matter basis between all fertiliser products. Nor was there an effect of the cumulative amount over the four harvest times.

There was a hint in the data that plots receiving treatment D (single super) were the least productive at both the Parndana and the Stokes Bay trials.

Stokes Bay Small Plot Trial

Stokes Bay, Kangaroo Island	2020
Location	Year
W&J Stanton	Pasture
Conducted by	Crop
Small plot replicated	
Trial Type	

Background

The BioAg fertiliser trial was established in 2019. The trial has 6 treatments with 4 replications and compares various BioAg products and rates against an annual application of single super. The biomass is measured by mowing with a push behind mower and weighing the catchings. The site was not grazed.

The site is located on W & J Stantons at Stokes Bay on a sandy soil. The pasture is a perennial veldt grass and serradella with a light smattering of capeweed and annual ryegrass. The site was burnt out in January 2020 with the treatments closest to the scrub line suffering the most damage to the pasture base.

Results

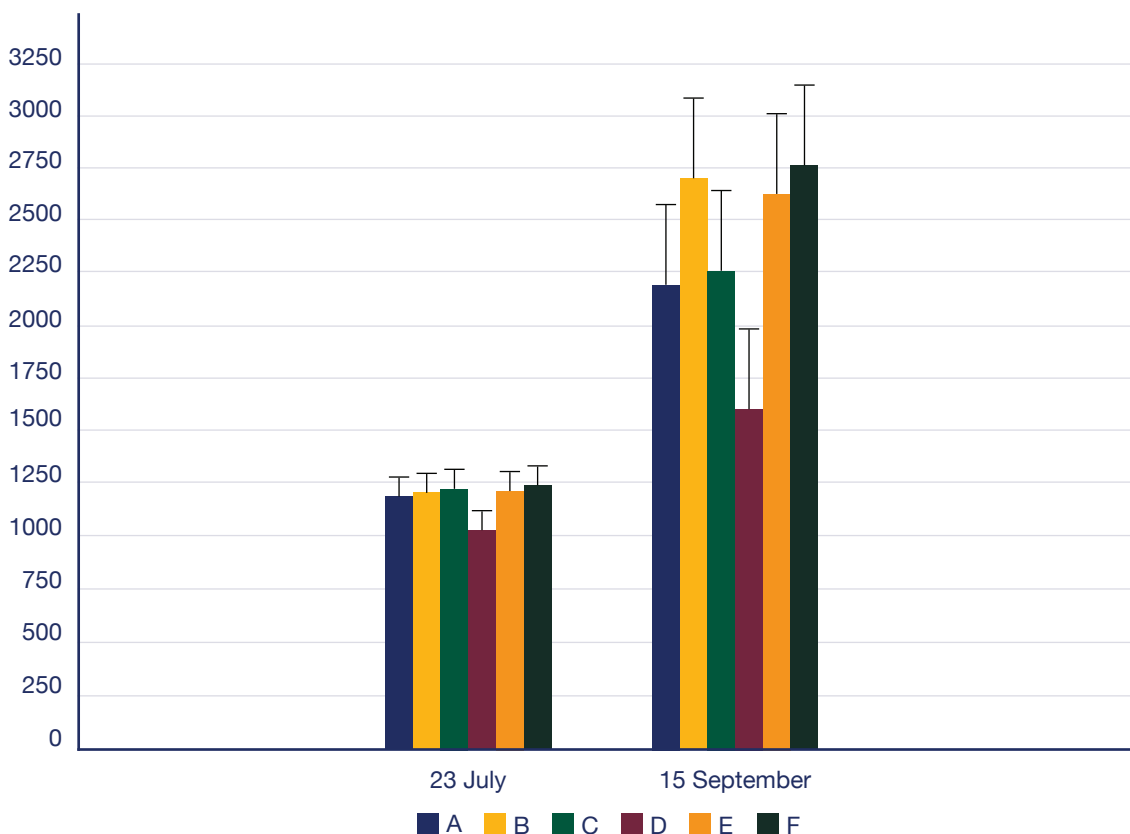
Due to the fire and the upright podding nature of serradella it was decided to allow the serradella to set seed in spring 2020. As a result, only 2 cuts were taken during the growing season. Veldt and serradella typically hit their straps in spring and there was estimated to have been an extra 4t DM/Ha grown between September and November. The trial will run for another two years.

Table 2: Means and standard errors of each treatment at both harvest times Stokes Bay 2020. (Biomass kg/Ha).

	23 Jul	15 Sep	Cumulative
A: Control	1184±95	2190±378	3374±456
B: 275kg Superb® – Biennial	1202±95	2705±378	3907±456
C: 200kg S10 BioAgPhos® – Biennial	1222±95	2253±378	3475±456
D: 125kg Single Super – Annual	1022±95	1610±378	2632±456
E: 135kg Superb® – Annual	1212±95	2626±378	3838±456
F: 275kg Superb® + lime + Trace Elements – Biennial	1236±95	2765±378	4001±456

Figure 2: Bar plot of averages across treatments of cuts at each date for Stokes Bay trial. Biomass (kg/Ha)

Error bars are standard errors. Refer to codes in Table 2 to identify treatments.





Conclusion

There was no significant difference on a dry matter basis between all fertiliser products. Nor was there an effect of the cumulative amount over the four harvest times.

There was high variability across the site owing to the effect of the January bushfire.

There was a hint in the data that plots receiving treatment D (single super) were the least productive at both the Parndana and the Stokes Bay trials.

Futher Information

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Additional Background – About BioAg

BioAg's solid fertiliser range is based on *BioAgPhos*, a high-grade and highly reactive phosphate rock combined with BioAg's microbial digesting agent. The result – a phosphate rock-based fertiliser range that is less reliant on rainfall to be plant available.

By replacing water solubility with microbial digestion, we have reduced the amount of nutrient susceptible to soil lock-up or leaching and provided a fertiliser range that can be spread at any time of the year. Around one-third of the phosphorus and calcium is immediately available, while the remainder is slowly digested and released, allowing for annual or every second-year fertiliser application. Independent analysis proves that 100% of our phosphorus is bio-available.

As a major importer of high-grade reactive rock phosphate, we are able to deliver a secure source of phosphate-based fertilisers year-round. Our products are a natural and sustainable alternative to conventional fertilisers, and can be used at lower volumes, saving transport and storage costs.