

SUPERIOR FERTILISERS BLACK UREA™ TRIALS “OBAN”, JIMBOUR

Trials were conducted on the property of Mr Russell Dent at “Oban” Jimbour, to test the performance of Black Urea™ against normal Urea on a crop of winter Kaputar Barley (Feed Barley).

Trial

The trial was conducted on paddock 2 of the property “Oban” where the paddock was divided into 3 sections. In section 1, Black Urea™ was applied @ 50Kg/Ha. Section 2 had no fertilizer application (control) whilst section 3 was placed under normal practice of applying Urea @ 80Kg/Ha.

SAP Tests were conducted on sections 1 & 3, at early fruiting stage.

Yield Tests were conducted on each of the 3 sections at harvest time.

Protein Tests were also carried out on each of the 3 sections.

Information

2001 Planted Barley on pre-plant Superior Fertilisers SF16 @ 40Kg/Ha. Crop failed as result of drought conditions.

2002 Pre-plant Black Urea™ and Urea as stated above. No Starter Fertiliser used.

Planting The crop was planted week 2 June with good sub-moisture and after receiving 35mm of rain.

Rainfall During the growth of the crop the following rainfalls were recorded:
Week 4 August recorded 80mm.

Soil Test Last Soil Test taken and analysed 29 March.

SAP Test Samples were taken for SAP testing on sections 1 & 3 on 25 September.
(A copy of SAP Test Results can be supplied upon request)

Harvesting The crop was harvested Tuesday 22 October, a yield test was carried out on each section and samples taken for a protein test.
(See Yield Results following)

Protein Levels Protein Results are attached to the Trial Results following:

This trial work was set up and monitored by Peter Morris of Superior Fertilisers and was overseen by Independent Agronomist, Mr John Ferguson, of “The Best on Earth” laboratory, Caboolture Queensland.

Superior Fertilisers

Barley Trials, “Oban” Jimbour – Paddock 2

Black Urea™ 50Kg/Ha (21 units of Nitrogen) Section 1	Control No Fertiliser Application Section 2	Urea 80Kg/Ha (37 units of Nitrogen) Section 3
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Trial

The Trial was simply to test the response of Black Urea™ against Urea @ the recommended application rate of approx 65% (Actual application rate was 63%)

Urea = 46% N

Black Urea™ = 42.78% N

applied @ 80Kg/Ha

applied @ 50Kg/Ha

Yield Results & Net Return Figures

Trial	Fertiliser Rate	Yield Tonnes/Ha	Fertilisers Cost/Ha	Grain Values/Tonne	Return \$/Ha	Net Return \$/Ha
Section 1	Black Urea™ @ 50Kg/Ha (21 units of N)	3.71	\$29.70	\$310.00	\$1,150.10	\$1,120.40
Section 2	Control No fertiliser application	2.38	Nil	\$310.00	\$737.80	\$737.80
Section 3	Urea @ 80Kg/Ha (37 units of N)	3.63	\$28.80	\$310.00	\$1,125.30	\$1,096.50

Conclusion

The Net Return per Hectare figures show that the Black Urea™, applied @ 63% rate of Urea, yielded **\$23.90 per Hectare more**. Considering that the cost of fertiliser to farm of the Black Urea™ was greater, the results were very pleasing.

Summary

This was a repeat Trial as results of a similar Trial on Sorghum showed the same trend that higher yields and greater profits were obtained by using Black Urea™ @ approx 65% rate of Urea. The Black Urea™ is obviously working in releasing Nitrogen as it is required by the plant and the Nitrogen is not being lost by volatilization or by leaching. We will continue similar Trials in the future and see if we can obtain consistency with future results.

The Best On Earth

John Ferguson
Soil Consultant

188 Moorina Road
Moorina QLD 4506
Tel: 07 5496 7037
Mobile: 0418 989 802
Fax: 07 5497 0069

23 October

Laboratory Report to Superior Fertilisers

Barley Trials, Jimbour

Mr Russell Dent

Protein Levels of Harvested Grain.

Laboratory No. 4094

Section 1

Black Urea™ 50Kg/Ha

Protein Level 14.3%

Laboratory No. 4095

Section 2

Control – No Fertiliser

Protein Level 10.1%

Laboratory No. 4096

Section 3

Uncoated Urea 80Kg/Ha

Protein Level 12.0%

John Ferguson

SUPERIOR FERTILISERS BLACK UREA™ TRIALS “OBAN”, JIMBOUR

Trials were conducted on the property of Mr Russell Dent at “Oban” Jimbour, to test the performance of Black Urea™ and Phosphate Coated Slow Release Urea against normal Urea on a crop of Pacific Seeds Sorghum.

Trials

The Trial plot was set out in sections (see enclosed diagram) as follows:

- 1) Section 1 & 2 has Phosphate Coated Urea @ 80Kg/Ha (33 units of N). This was tested against sections 6 & 7 with Urea @ 72Kg/Ha (33 units of N)
- 2) Sections 3 & 4 had Black Urea™ @ 80Kg/Ha (33 units of N). This was tested against sections 6 & 7 (33 units of N).
- 3) Section 5 had Black Urea™ @ 50Kg/Ha (21 units of N). This was tested against sections 6 & 7 with 72Kg/Ha (33 units of N).
Testing Black Urea™ @ the recommended 65% rate of Urea
- 4) Sections 8 & 9 had no fertiliser application being the control.

Information

Crop Type Pacific Seeds Sorghum MR43

Procedure Pre-Plant fertiliser applied 8 weeks prior to planting.

Planting The crop was planted week 1 of November after receiving 50mm of rain.

Rainfall During the growth of the crop the following rainfall was measured:

November	152 mm
December	Nil
January	80 mm
February	61 mm
March	7 mm prior to harvesting

SAP Test A SAP Test was taken on each section of the Trial Plot on 10 January.
(A copy of SAP Test Results can be supplied upon request)

Harvesting The crop was harvested Saturday 23 March and a yield test was carried out on each section.
(Yield Results are following this page).

Comment Due to the heavy rain after sowing, the paddock became waterlogged causing the crop to struggle at first. However, once dry, the crop grew well and follow up rain ensured Mr Dent produced his best ever on this property.

NB. This Trial work was set up by Superior Fertilisers but was overseen by independent Agronomist, Mr John Ferguson of “The Best on Earth” laboratory, Caboolture, Queensland.

SUPERIOR FERTILISERS

Sorghum Trials “Oban”, Jimbour

Phosphate Coated Urea		Black Urea™		Black Urea™		Urea		Control	
80Kg/Ha		80Kg/Ha		50Kg/Ha		72Kg/Ha		No Fertiliser Application	
(33 units of N)		(33 units of N)		(65% Rate of Urea)		(33 units of N)			
1	2	3	4	5	6	7	8	9	

- Trial 1 To trial Phosphate Coated Urea response in comparison to Urea on Sorghum.
 Application of 33 units of Nitrogen for both fertilisers
 Phosphate Coated Urea = 41% N applied @ 80Kg/Ha
 Urea = 46% N applied @ 72Kg/Ha
- Trial 2 To trial Black Urea™ response in comparison to Urea on Sorghum
 Application of 33 units of Nitrogen for both fertilisers.
 Black Urea™ = 41% N applied @ 80Kg/Ha
 Urea = 46% N applied @ 72Kg/Ha
- Trial 3 To trial Black Urea™ @ 65% application rate of Urea.
 Urea applied @ 72Kg/Ha
 Black Urea™ applied @ 50Kg/Ha (section 5)

Trials to be conducted on paddock 8, “Oban”, Jimbour, property of Mr Russell Dent.

SUPERIOR FERTILISERS

BLACK UREA™ TRIAL RESULTS

“OBAN” JIMBOUR

Yield Results & Net Return Figures

Trial	Fertiliser Rate	Yield Tonnes/Ha	Fertilisers Cost/Ha (B/Bag price on Farm)	Grain Values	Return \$/Ha	Net Return \$/Ha
Section 1 & 2	Phosphate Coated Urea @ 80Kg/Ha (33 units of N)	7.14	\$48.80	\$160.00	\$1,142.40	\$1,093.60
Section 3 & 4	Black Urea™ @ 80Kg/Ha (33 units of N)	6.99	\$48.80	\$160.00	\$1,118.40	\$1,069.60
Section 5	Black Urea™ @ 50Kg/Ha (21 units of N)	6.82	\$30.50	\$160.00	\$1,091.20	\$1,060.70
Section 6 & 7	Urea @ 72Kg/Ha (33 units of N)	6.50	\$32.76	\$160.00	\$1,040.00	\$1,007.24
Section 8 & 9	No Fertiliser Application	5.90	Nil	\$160.00	\$944.00	\$944.00

Conclusion

Trial 1 Phosphate Coated Urea compared to Urea on Sorghum

The Net Return per Hectare figures show that Phosphate Coated Urea applied @ 33 units of Nitrogen against Urea applied @ 33 units of Nitrogen yielded \$86.36 per hectare more.

Trial 2 Black Urea™ compared to Urea on Sorghum

The Net Return per Hectare figures show that Black Urea™ applied @ 33 units of Nitrogen against Urea applied @ 33 units of Nitrogen yielded \$62.36 per hectare more.

Trial 3 Black Urea™ applied 65% rate of Urea on Sorghum

The Net Return per Hectare figures show that applying Black Urea™ @ 65% rate of Urea (21 units of Nitrogen against 33 units) a gain of \$53.46 per Hectare was achieved. It is recommended to apply the Coated Urea @ 65 % rate of Urea and the increase yield achieved in these trials for a similar dollar outlay are excellent.

Summary

This was our first attempt to trial Phosphate Coated Urea and looking at these results we will certainly follow up more trial work on a broader scale. We have been conducting trials with Black Urea™ for some time now and although it has been with varied results, these results are very favourable. The Coated Urea performed very well under the conditions of this crop. However, we will not let it rest here and Trials of Black Urea™ will continue.

The Best On Earth

John Ferguson
Soil Consultant

188 Moorina Road
Moorina QLD 4506
Tel: 07 5496 7037
Mobile: 0418 989 802
Fax: 07 5497 0069

8 August

Laboratory Report to Superior Fertilisers

Sorghum Trials, Jimbour

Mr Russell Dent

Protein Levels of Harvested Grain.

Laboratory No. 3933
Protein Level 10%

Trial Area No 1 & No 2
Phosphate Coated Urea 80 kg per Ha

Laboratory No. 3934
Protein Level 11.8%

Trial Area No 3 & No 4
Black UreaTM 80 kg per Ha

Laboratory No. 3935
Protein Level 11.6%

Trial Area No 5
Black UreaTM 50 kg per Ha

Laboratory No. 3936
Protein Level 9.5%

Trial Area No 6 & No 7
Urea 72 kg per Ha

Laboratory No. 3937
Protein Level 8.3%

Trial Area No 8 & No 9
Nil Fertiliser

John Ferguson.