

BLACK UREA® VERSUS WHITE UREA.

..Now No More White Urea is needed.....



CASE STUDY

Grower	Ross Armstrong
Agronomist	Marshall Seed & Grain
Location	“Coolibah Plains” Comet QLD
Crop	Wheat

Demonstration Purpose

The grower undertook a demonstration site to look at ways to reduce input costs. Plus the grower has always looked at innovative technology to improve his farming enterprise and nitrogen use efficiency was a key due to its overall costs. The purpose of this demonstration was to investigate opportunities to reduce these input costs through innovative technology; hence applying Black Urea at a reduced rate of 25% less than white urea (standard practice) and still maintain yield was to be tested.

Demonstration Set Up

The goal was a two year test program. The first a small area in a field was chosen and then in the second year half the field was treated as a result of positive first year results. The area chosen was an average representation of the field and was believed to give an unbiased and true result. The Black Urea was applied to the selected area and the white urea was applied to the remaining area of the field. The crop was a bread wheat and the products were both applied as a combination of pre plant and top dress application.

The white urea was applied at 200kg per hectare and the black Urea at 150kg per hectare. These rates were based on soil test results and traditional practice of the farm. All other practices were kept the same throughout the growing of the crop. The crop was harvested and yield monitors were used to gauge the results of the plots.

Application Date	Product Applied	Application Rate
Pre Plant & Top Dress	White Urea	200 kg/ha
Pre Plant & Top Dress	Black Urea	150 kg/ha

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Demonstration Results

The results of the demonstration showed a positive response to Black Urea. The results showed no difference in yield when Black Urea was applied at the 25% reduced rate for the two years tested. The grower now for the past two seasons has utilised Black Urea across his complete cropping programs and the financial pay off below shows why.

The Financial Pay-off and Return on Investment

The financial return in using Black Urea for this grower was significant. The grower undertakes a full farm program of Black Urea over their cropping hectares at 75% of the traditional rate of 200kg per hectare of white urea, and requires only 150kg per hectare of Black Urea. As a result they achieve a full farm saving of **\$36,100** off their fertiliser bill. This does not include the freight reduction costs.

Black Urea vs White Urea. The Financial Return on Investment

Product	Average Application Rate	Typical Total Tonnes	Average Total Cost	Average Savings
White Urea	200 kg/ha	380	\$281,200 (\$740/t)	
Black Urea	150 kg/ha (75%)	285	\$245,100 (\$860/t)	\$36,100

Conclusion

Black Urea, in the two year field demonstration, showed how it can greatly increase nitrogen use efficiency. As a result of the two years the grower only uses Black Urea for his cropping program. By applying Black Urea at 75% of the rate of white urea he continues to make significant savings on his fertiliser costs, freight and handling, maintains his yields and his base soil nitrogen levels.

About Advanced Nutrients

Advanced Nutrients is a leader in the development of innovative, environmentally benign fertilisers which cost less and deliver more. For the last 22 years, smart agricultural, horticultural and livestock producers throughout Australia, Africa, Asia and the Middle East have been using our products to cut input costs, boost returns and reduce farming costs.

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☎ 1800 207 009
info@ecocatalysts.com.au

