HOW BLACK **UREA[®] COMPARES TO ORDINARY GRANULAR UREA**



	Black Urea [®]	Ordinary Urea
Nitrogen that reaches crops	80-90%	50-60%
Nitrogen remaining after 10 weeks	>45% after 10 weeks	<5% after 10 weeks
Application rate	As little as 65% of GU	Full application rate
Reapplication rate	Once per 10 weeks	Once per four weeks
Pre-sowing without loss	1-2 weeks before rainfall	No
Shelf life	Indefinite	Indefinite
Nitrate leaching	Low	High
Nitrate vaporisation	Low	High
Contains organic carbons	Yes	No
Promotes soil health	Yes	No

* These are typical results that growers experience on low-fertility, low-carbon soils under average weather conditions

1800 207 009

ABOUT ECOCATALYSTS

EcoCatalysts fertiliser division brand Advanced Nutrients is a leader in the development of innovative, environmentally benign fertilisers which cost less and deliver more. For the last 15 years, smart agricultural, horticultural and livestock producers throughout Australia, USA, Africa, Asia and the Middle East have been using our products to cut input costs, boost returns and reduce farming risks.

BLACK UREA

BLACK UREA® IS SPECIALLY FORMULATED **TO GET MORE** NITROGEN INTO YOUR CROPS Cut wastage and run-off so more Nitrogen reaches your crops. Up to 30% more.

✓ Cut inputs costs

✓ Fertilise less often

✓ Boost Urea-use efficiency ✓ Optimise your Nitrogen levels ✓ Reduce wastage and run-off ✓ Improve yield on low-fertility soils

Your distributor:



BLACK UREA



1800 207 009 www.blackurea.com.au



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BUY, STORE AND USETWO-THIRDS I ESS FERTILISER

You spend up big on granular urea fertilisers. You have to. Yet science tells us that up to threeguarters of the Nitrogen that drives growth, yield and profit never reaches your crops.

Some of it simply evaporates into the air. More is consumed by natural microbes. And a large proportion disappears through leaching and runoff into creeks and waterways. Leaving little to be actually absorbed by your crops to promote growth.

Black Urea® (NPKS 46-0-0-0): less wastage, same or better results

Black Urea[®] is specially formulated to reduce this wastage, so more Nitrogen reaches your crops -up to 30% more.

A unique carbon coating cuts fertiliser wastage and improves the efficiency of nitrogen and phosphorus uptake by crops — ultimately delivering growers greater value-for-money.

It's why growers who use Black Urea® need only two-thirds of the standard amount of fertiliser to achieve the same - or better - crop results.



the 46% Nitrogen reaches the plant

25-30% MORE NITROGEN reaches the plant with Black Urea®

Standard granular urea: too much Nitrogen, too soon

Uncoated fertiliser delivers nutrients too guickly - so guickly that your crops cannot absorb them all for growth. As a result, a large proportion is lost to the environment through volatisation and leaching. The majority of vour investment is wasted.

The more-stable complex formed by Black Urea® stays available longer, more closely matching

the nutrients release rate to the ability of the crop to absorb nutrients.

You cut the amount of urea you apply to the soil, but not the nitrogen your plant gets.

Reduce use, cut input costs, for the same or better yields

Using as much as 25% - 30% less fertiliser will - in almost all cases reduce overall input costs. And since Black Urea[®] lasts longer, you also reapply less often.

HOW BLACK UREA® WORKS TO DELIVER MORE NUTRIENTS TO CROPS FOR LONGER

Black Urea®

Leaching resistance

The exterior carbon coating around the urea granule resists leaching even if pre-sown 4-6 weeks before rainfall.

Longer-lasting bonds

When Black Urea® dissolves, the core urea granule bonds with the coating, hydrolising into longer-lasting ammonium nutrients rather than short-lived, fast-leaching nitrates.

Black Urea[®] field tests monitored and reviewed by independent agronomists

Crop	Black Urea® yield	Granular Urea yield	Black Urea [®] return	Granular urea return	Black Urea [®] net profit
Cotton	13.79 bales/Ha	12.67 bales/Ha	\$6,895 per Ha	\$6,335 per Ha	\$538 per Ha
Barley	3.71 t/ha	3.63 t/ha	\$1,120 per Ha	\$1,096 per Ha	\$23.90 per Ha
Sugar cane	1404 units/Ha	1342 units/Ha	\$5,617 per Ha	\$5,368 per Ha	\$294 per Ha

Black Urea® application rates: Cotton applied at 95%, Sugar Cane at @ 73% and Barley at 62.5%.

The problem with other nitrogen regulator "breakthroughs"

Successful nitrogen regulators are few and far between. Urease inhibitors, nitrification inhibitors and impervious coatings all work to some degree, but the economic benefits (profits) remain nonexistent for many growers. And global research has shown that humic acid alone cannot provide an economic return to growers. Black Urea® works because it is coated in organic carbons and bio-catalysts, not simply humic acid.



Three production strategies for optimal results

Black Urea[®] offers growers exceptional flexibility. Depending on soil conditions and weather, they can choose any of three strategies:

Increase production. Matching existing nitrogen application rates can increase production by 10-50%. It is critical to increase water and nutrient delivery to suit the higher production target. This strategy is particularly suited to high rainfall areas or irrigated systems.



Nitrogen remaining in soil



Minimum % of nitrogen remaining in the soil of five plots of different moisture ratings, from low to very high.

Alone, the opportunity to cut overall costs makes Black Urea[®] verv attractive as a commercial proposition.

But on top, repeated independent field trials on a range of crop types show Black Urea® will yield the same (or better) results in tonnes per hectare than granular urea.

Especially for low-fertility soils. Generally, Black Urea® delivers the best net profit increase when used on soils of less than 2% organic carbon (or where carbon is not bio-available) and low in nutrients.

Remains available for plants longer

The more stable ammonium taken up by plants converts to nitrates in a way that better matches the crop's natural rate of nutrient uptake reducing leaching and wastage.

Healthier soil biology

The carbon coating contains bio-catalysts that promote the growth of microbial communities that store nutrients for your crops.

Reduce farm inputs. Cut Urea application rates by 15-30% to rein in production costs with no change to usual yields and quality. This strategy is particularly suited to dryland systems.

A combination of the two above strategies.