



Nitrogen Sources for Broadacre Agriculture

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Nitrogen Sources for Broadacre Agriculture

- Context
- Background
- Results
- Positioning
- Conclusion



Context

- AN's are widely used as nitrogen fertilisers in a number of prominent markets globally.
- WA Growers looking for more efficient nitrogen sources
- Greater emphasis on the environment and sustainable agriculture



Background for Australian N Trials

Alternate forms & methods of applying nitrogen to broadacre crops have been commercially evaluated in recent years.

Many decisions have been made based on hearsay and demonstration rather than scientific proof that these methods will consistently provide results.



Background for Australian N Trials

In response to this, various trials have been conducted to investigate the effectiveness associated with alternate N forms.

An extension program is now underway to take the results to the growers.



Trial Treatments

- Equal N Rates
- Equal Product Rates
- N Topdressed IBS
- N Topdressed 4WAS
- N Topdressed 6-8WAS

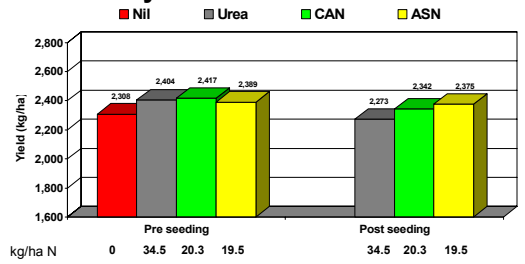


Trial Fertilisers

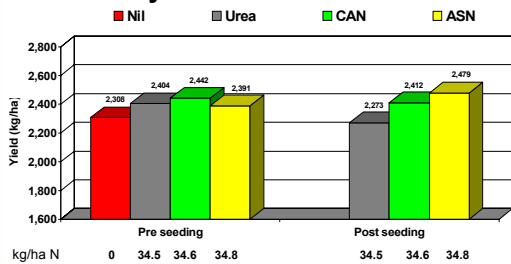
- Calcium Ammonium Nitrate (CAN)
27% Total Nitrogen
- Ammonium Sulphate Nitrate (ASN)
26% Total Nitrogen 14% Sulphur
- Urea
46% Total Nitrogen



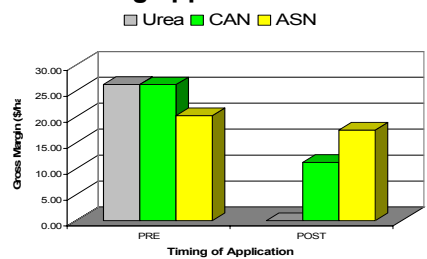
The effect of equal amounts of Product on the yield of wheat WA 1999-2001, N=9



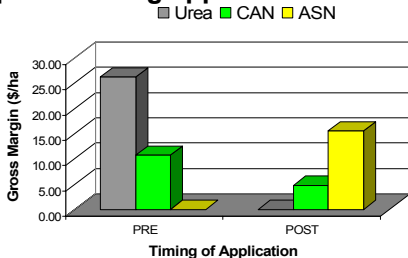
The effect of equal amounts of Nutrients on the yield of wheat WA 1999-2001, N=9



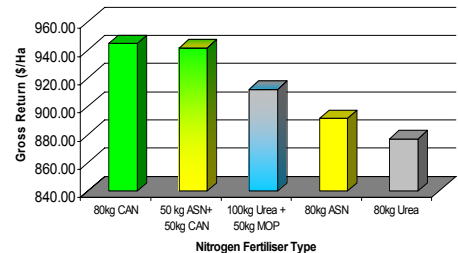
\$ returns net of fertiliser cost compared to a post seeding application of Urea - Equal Product



\$ returns net of fertiliser cost compared to a post seeding application of Urea - Equal N



Demonstrations





WA Trial Conclusions

CAN & ASN

- Offers greater nitrogen efficiency than Urea.
- Offers an economic alternative and/or adjunct to Urea when conditions of atmospheric N losses from Urea are least favourable



WA Trial Conclusions

CAN & ASN

- Offers flexibility in N management.
- Reduces \$ risk in early applications.
- Offers greater predictability of N uptake under less predictable rainfall patterns



CAN/ASN Positioning in WA

Pre Seeding

- Urea (incorporated) / SOA

At Seeding

- Urea (IBS)
- Banded (Agronomic advice on soil type recommended)

Post Seeding

- CAN / ASN (depending on S requirement)
- Pre or Post tillering dependent on rainfall, or not at all



Thankyou

fertiva

 **BASF**
The Chemical Company



Thankyou



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