

Trial: RH1211

Location: "Strathview", ~15 km east of Yallaroi Hall, NSW

Planting date: 21/5/2012

Plot size: 12 x 2 m on 32 cm row spacings

Trial design: Randomised complete block with four replicates

Variety: PBA HatTrick

Soil nitrate level: 30 kg N/ha from 0-90 cm at 9/3/2012 (excluding mineralisation credit)

Basal fertiliser: Granulock SuPreme Z 80 kg/ha to all plots

Treatments:

Treatment	Additional Nitrogen applied kg/ha	Nitrogen timing	Rhizobia inoculation
1	0	Planting	Nil
2	23	" "	Nil
3	46	" "	Nil
4	0	" "	Plus
5	23	" "	Plus
6	46	" "	Plus
7	23	In-crop	Nil
8	46	" "	Nil
9	23	" "	Plus
10	46	" "	Plus

All 'Additional Nitrogen' was surface applied as Urea.

Urea at planting: Spread on the 21/5/2012, incorporated by sowing (IBS) with narrow point tynes. First significant rainfall, ~80 mm between 21-25/5/2012

In-crop Urea: Applied on the 16/8/2012, plants early flowering. First significant rainfall, ~16 mm on 17-20/9/2012

Rhizobia: Nodulator at 3.3 kg/ha applied with the seed into the planting furrow

The trial was well managed for weeds, *Helicoverpa* and *Ascochyta*

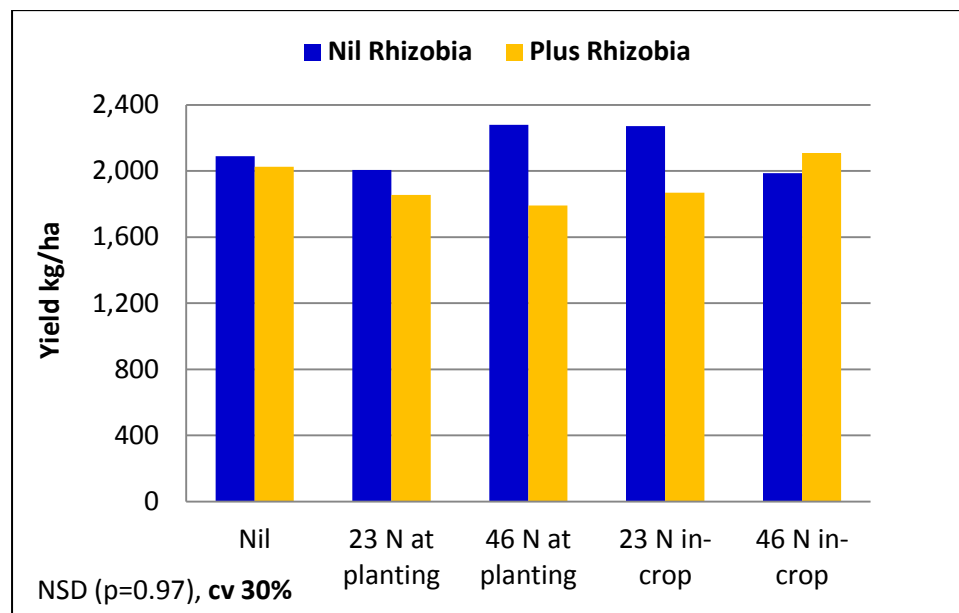
Emergence:

There was no significant impact on emergence from any treatment with a mean plant stand of 23/m² on the 14/6/2012 (24 days after planting). However there was a wide range in treatment mean plant stand from ~16-32/m². There was also a trend to reduced emergence where nitrogen was applied at planting.

NDVI:

All plots were assessed with NDVI (Normalised Difference Vegetative Index) on the 13/8/2012 and 27/9/2012. NDVI can provide an indication of 'greenness' or biomass differences between treatments. There was no significant difference between treatments at either assessment.

Yield:



Key messages:

- No significant impact on yield from additional nitrogen at either rate or time of application
- No significant impact on yield from addition of *Rhizobia*
- High variability within trial for both emergence and yield
- **NB there were significant nitrogen responses in both a canola and wheat trial located within ~20-40 m**

Conclusion:

There was no consistent indication of yield response to additional nitrogen at this site. With no yield benefit obtained, soil testing for residual nitrogen was not warranted.

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