

**Trial:** AM1202

**Location:** "Lochearn", ~10 km south of Bellata, NSW

**Planting date:** 28/6/2012

**Plot size:** 18 x 2 m on 32 cm row spacings

**Trial design:** Randomised complete block with four replicates

**Variety:** PBA HatTrick<sup>®</sup>

**Soil nitrate level:** 69 kg N/ha from 0-90 cm at 11/4/2012 (excluding mineralisation credit)

**Basal fertiliser:** Granulock SuPreme Z 80 kg/ha, applied to all plots in the planting furrow

**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 28/6/2012, incorporated by sowing (IBS) with narrow point tyres. First significant rainfall, ~92 mm between 11-16/7/2012

**In-crop Urea:** Applied on the 30/8/2012, plants ~20 cm diameter. Negligible rainfall in next month with only ~5 mm on 29/9/2012

**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*

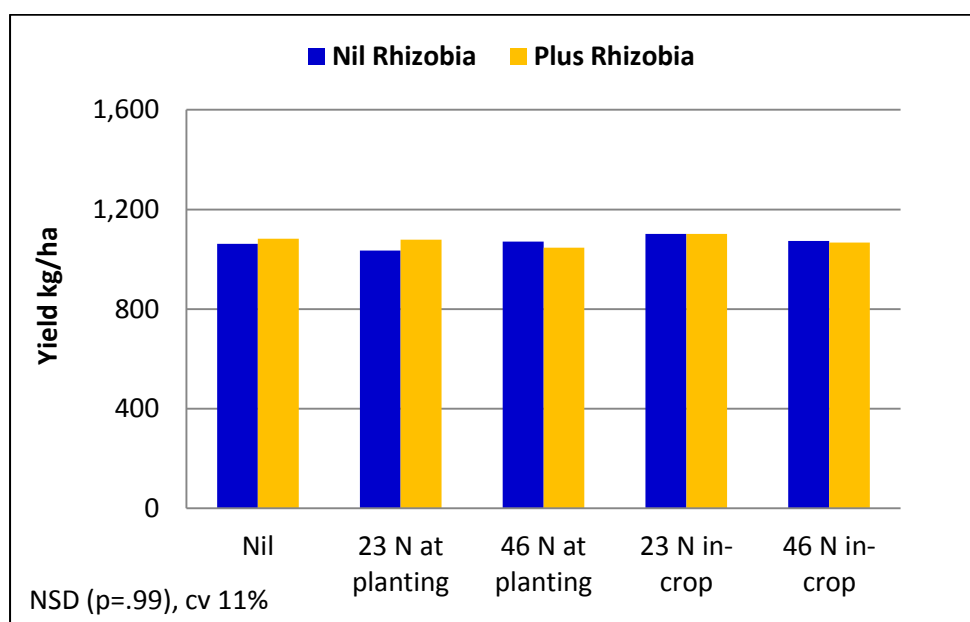
### Emergence:

There was no significant impact on emergence from any treatment with a mean plant stand of 25/m<sup>2</sup> on the 30/7/2012 (32 days after planting).

### NDVI:

All plots were assessed with NDVI (Normalised Difference Vegetative Index) on the 30/8/2012 and 20/9/2012. 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*
- Additional treatments evaluated responses to phosphorous (20 kg P/ha) and sulphur (15 kg S/ha) in combination with nitrogen. There was no significant response to any of these treatments
- **NB there was a significant nitrogen response in an adjacent canola trial**

### Conclusion:

**There was no indication of any chickpea 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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