Lupin Bud Trial 2013

Nutrian- Darren Ogley
Report: Alan Meldrum, Pulse Australia

Purpose:	To test 'Lupin Bud' for improvement in the main stem pod set in lupins
Location:	WMG Main trial site, Peter Negus
Soil Type:	Red sandy Loam
Soil Test Results:	
Rotation:	Oats 2012
Growing Season Rainfall (April- October 2013):	339.5mm

BACKGROUND SUMMARY

Preliminary testing indicates that 'Lupin Bud' can increase the number of pods set on the main stem in lupins. Trial data is required to determine of a yield response can be reliably obtained using 'Lupin Bud'. Trials were established at the main trial sites at WMG, MIG and Liebe.
'Lupin Bud' is a nutrient rich suspended dolomite based product. Manganese was added to replicate its use at flowering to prevent Mn deficiency.

TRIAL DESIGN

Plot size: 5m x 20m

Machinery use: WMG bike sprayer

Repetitions: 4

Crop type and varieties used: Angustifolius lupins

Seeding rates and dates: Conducted in Peter Negus' lupin crop

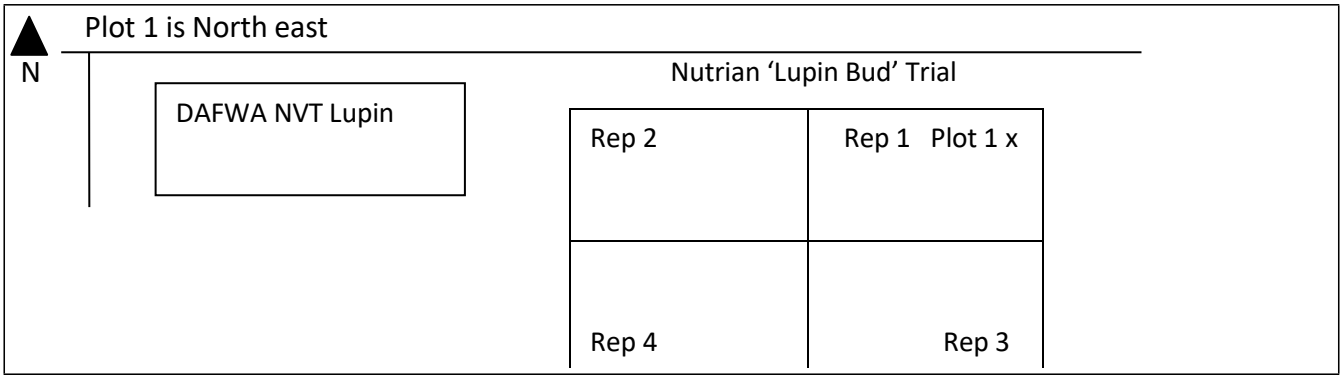
Fertilizer rates and dates:

Herbicide rates and dates:

Other applications/ treatment rates and dates:

TRIAL LAYOUT

Randomised block design



Lupin Bud Trial treatment and plot list

Treatment	Rep 1	Rep 2	Rep 3	Rep 4
Nil	5	9	14	20
Lupin Bud 2 l/ha @ 6 leaf	2	7	15	19
Lupin Bud 2 l/ha + Mn 500 ml/ha @ 6 leaf	3	8	12	16
Lupin Bud 2 l/ha @ Full flower	4	6	11	17
Lupin Bud 2 l/ha + Mn 500 ml/ha @ Full flower	1	10	13	18

RESULTS/STATICS

West Midlands Group trial

Treatments	Plot yield (kg)	t/ha	Main stem pods (ave /plant)	Secondary Pods (ave /plant)
Nil	9.06	3,021	9.6	32.0
Lupin Bud 2 l/ha @ 6 leaf	8.73	2,911	9.8	28.4
Lupin Bud 2 l/ha + Mn 500 ml/ha @ 6 leaf	9.28	3,092	9.6	32.9
Lupin Bud 2 l/ha @ Full flower	8.94	2,979	9.6	29.3
Lupin Bud 2 l/ha + Mn 500 ml/ha @ Full flower	8.80	2,933	8.8	27.7

Mingenew-Irwin Group trial

Treatments	Main stem pod count Ave of 10 plants	Other pods Ave of 10 plants
Nil	8.2	10.6
Lupin Bud 2 l/ha @ 6 leaf	9.4	12.3
Lupin Bud 2 l/ha @ Full flower	8.7	11.7
Lupin Bud 2 l/ha + Mn 500 ml/ha @ 6 leaf	8.7	11.5
Lupin Bud 2 l/ha + Mn 500 ml/ha @ Full flower	8.7	10.9

OBSERVATION/ DISCUSSION/ MEASUREMENTS

- Analysis of the results has not been conducted. The analysis will be distributed to the WMG membership when it is completed.
- Despite this, it is apparent that the data for the WMG trial does not show any trend to an improvement in pod numbers or yield for any treatment over the 'Nil' treatment.
- Of the other 2 sites, only the Mingenew trial showed a significant trend to increased pod numbers using 'Lupin Bud' at the 6 leaf stage. Secondary pod numbers were also higher for all treatments compared to the Nil. This trial was not harvested.
- This trial should be repeated in 2014 to see if any conclusive claim can be made for the efficacy of 'Lupin Bud'.

PEER REVIEW

ACKNOWLEDGEMENTS

Peter Negus for the use of his crop for the trial and the WMG staff for assistance and use of the motorbike sprayer. Thank you to Trevor Bell, Geraldton DAFWA, for harvesting the trial and forwarding the results.