



2016 GRDC Lupin NVT Trial

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ACKNOWLEDGEMENTS: Living Farm and GRDC

Purpose:	To independently assess the potential for current, newly released and varieties close to commercial release in various locations and environments.
Location:	Dandaragan – West Midlands Group Main Field day site.
Soil Type:	Brown grey sand to yellow brown sand at depth.
Soil Test Results:	
0-10cm	
Nitrate Nitrogen	35mg/kg
Ammonium Nitrogen	3mg/kg
P	20mg/kg
K	30mg/kg
S	4.8mg/kg
Organic Carbon (%)	0.88%
Conductivity (EC)	0.094 ds/m
pH (water)	6.1
pH (CaCl ₂)	5.5
10-30cm	
Nitrate Nitrogen	7mg/kg
Ammonium Nitrogen	1mg/kg
P	12mg/kg
K	15mg/kg
S	3.5mg/kg
Boron	0.22mg/kg
Organic Carbon (%)	0.29%
Conductivity (EC)	0.021 ds/m
pH (water)	5.8
pH (CaCl ₂)	4.8
Rotation:	2015 Wheat
Growing Season Rainfall (April- October 2015):	572mm

BACKGROUND SUMMARY

The aim of the National Variety Trial (NVT) program is to generate independent information for growers and industry about recently released or those due to be released varieties of winter field crops relative to the current commercial varieties grown in the area. Trial data

can be compared by year/s, location and variety. This data is an important decision support tool for growers when assessing if they are growing the right varieties for their farm business.

TRIAL DESIGN

NVT trials are replicated three times (6 ranges, 2 ranges in each replicate) and randomized.

Plot size: 1.52m x 10m

Machinery use: Small plot seeder (row spacing 25.4cm)

Repetitions: 3 replicates

Crop type and varieties used: Various Lupin varieties

Seeding rates and dates: Trial was sown on the 10/05/16 at 92kg/ha

Fertilizer rates and dates:

At seeding: Gusto Gold 100kg/ha

Herbicide rates and dates:

Pre-emergent: Glyphosate (570g/L) 2L/ha + Atrazine 550g/ha + Simazine 550g/ha + Talstar 200ml/ha + Lorsaban 500ml/ha – 10/05/16

Post-emergent: Brodal 200ml/ha – 15/06/16

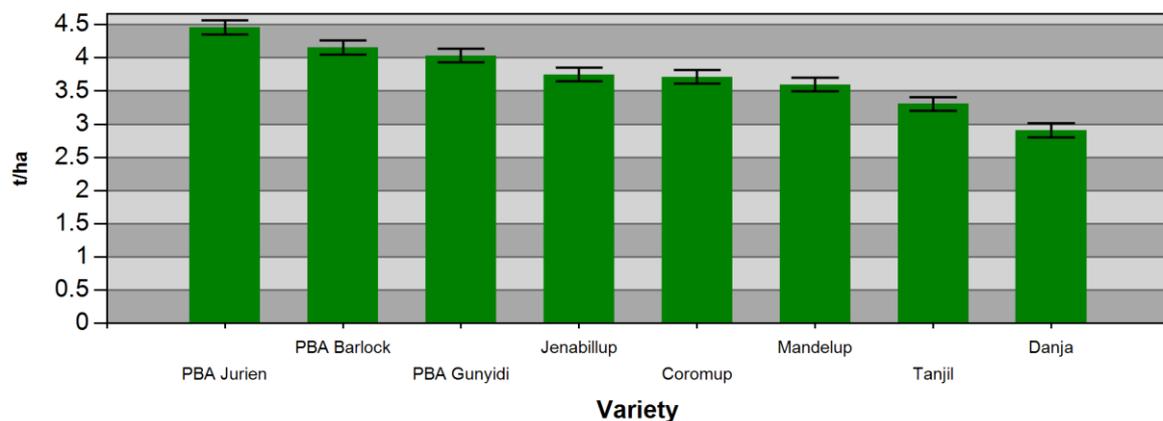
TRIAL LAYOUT

	Range 1	Range 2	Range 3	Range 4	Range 5	Range 6
Row 1	Mandelup	WALAN2533	WALAN2540	WALAN2571	Danja	Tanjil
Row 2	Jenabillup	PBA Barlock	WALAN2556	WALAN2564	WALAN2546	Filler
Row 3	PBA Jurien	Coromup	WALAN2428	PBA Gunyidi	WALAN2540	PBA Barlock
Row 4	WALAN2546	WALAN2571	PBA Jurien	WALAN2533	Jenabillup	PBA Gunyidi
Row 5	WALAN2428	WALAN2564	Tanjil	Filler	Coromup	Mandelup
Row 6	Danja	WALAN2556	Mandelup	Jenabillup	WALAN2428	WALAN2571
Row 7	PBA Gunyidi	Tanjil	WALAN2546	Coromup	WALAN2533	WALAN2556
Row 8	Filler	WALAN2540	PBA Barlock	Danja	WALAN2564	PBA Jurien



RESULTS

Variety Yields



Site Mean: 3.79t/ha

LSD: 0.21t/ha

CV: 3.4%

Probability: <0.001

Analysis and Reveal Standards

	Analysis	Reveal Standards
	14/01/2017	9/11/2016
	<i>Predicted Yield</i>	<i>100 Seed Weight</i>
	<i>tonnes/ha</i>	<i>gms per 100 seeds</i>
PBA Jurien	4.46	16.04
PBA Barlock	4.15	15.26
PBA Gunyidi	4.03	14.97
Jenabillup	3.75	16.95
Coromup	3.71	16.25
Mandelup	3.60	16.73
Tanjil	3.31	14.64
Danja	2.91	15.01

DISCUSSION

This trial was sown into moist soil conditions on the 10th May, providing excellent conditions for establishment. The rainfall received was excellent (527mm GSR) and was consistent throughout the growing season, setting the trial up for a good yield potential.

Variety Summary

PBA Jurien was the top performer in this trial 4.46t/ha. It is widely adapted to a range of environments, with early flowering and maturity. PBA Jurien is metribuzin tolerant and has a good disease resistance profile.

The second highest yielding variety in this trial was PBA Barlock at 4.15t/ha which was 0.3t less than PBA Jurien. It is considered a replacement for Mandelup and Tanjil in most areas. It shows early flowering and maturity with tolerance to Metribuzin.

PBA Gunyidi was slightly behind that of Barlock. It is a later maturing variety, slightly later than Mandelup. It has good resistance to pod shatter and tolerance to metribuzin.

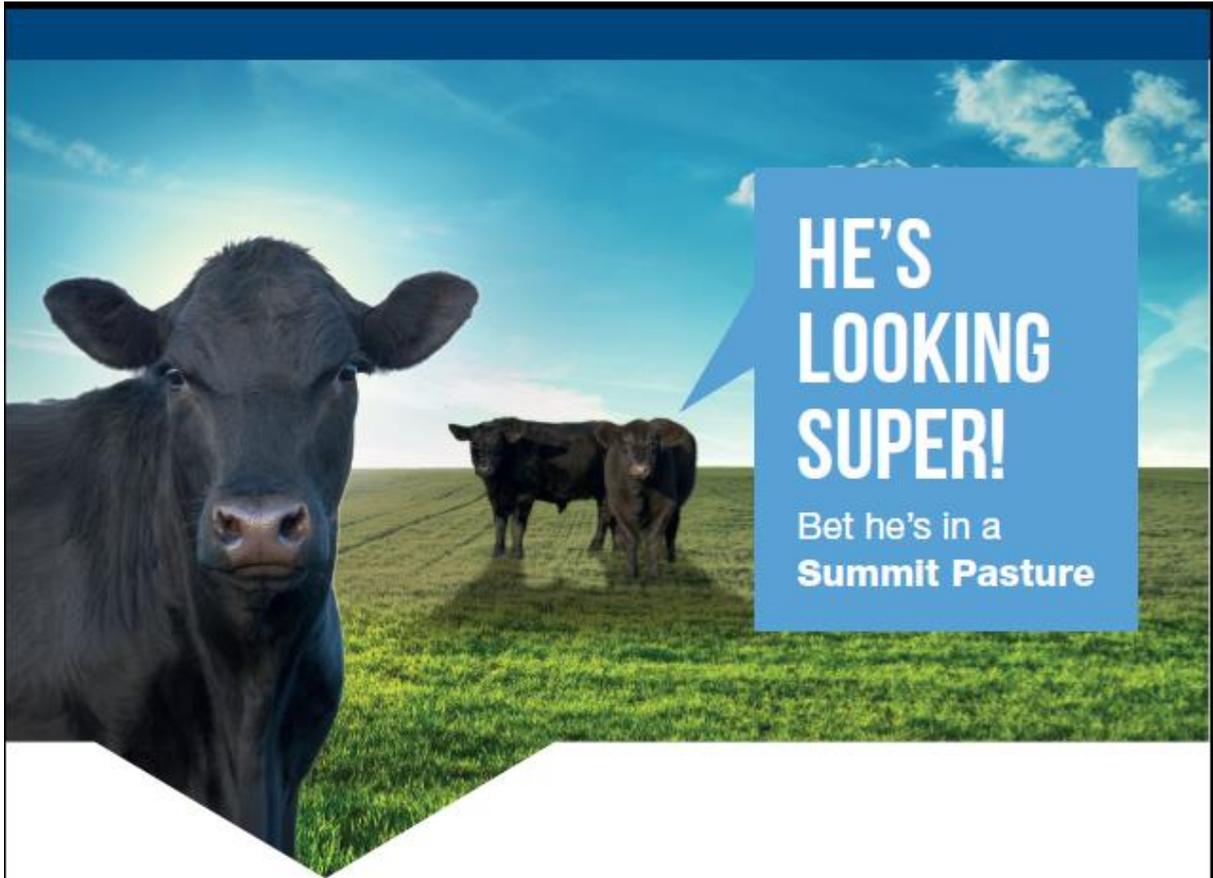
PAPER REVIEWED BY: Richard Devlin

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Typical Analysis	P	K	S	Ca	Bulk Density (t/m ³)
	13.5		9.8	17.0	1.11

Typical Analysis	P	K	S	Ca	Bulk Density (t/m ³)
	9.1		11	20.0	1.15

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