

Lupin National Variety Trial - Pingelly

Living Farm

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KEY MESSAGES

The top yielding varieties in this trial were Coyote, PBA Bateman, PBA Gunyidi, PBA Barlock, Mandelup (3.69 t/ha average for the top 5 varieties) with 0.66 t/ha difference between the first & fifth variety.

Season 2020 in the region started with rainfall events in February and March which provided some subsoil moisture, near average seasonal rains were followed by a dryer than average October & early finish.

Grower decision on variety choice for 2021 should not purely be based on this data but include data from across the region and over a number of years.

AIM

The aim of the National Variety Trials (NVT) is to generate independent information for growers and industry about newly released varieties of field crops to the current commercial varieties grown in the area.

BACKGROUND

The NVT program has been designed to identify the highest yielding varieties, free from the constraints of nutrition and disease. As a result, the nutrition and crop protection packages applied to NVT trials are typically higher than may be applied by the average grower. Management is the same for all plots with no differences in timing for crop protection or nutrition. All trials have 3 replicates of each variety and all plots are sown (and subsequently harvested) on the same day. Timing of sowing is dependent upon the season, but is typically done within an average district “best practice” window and located on a typical soil type for the area.

TRIAL DETAILS

Plot size & replication	10 m x 1.85 m x 3 replicates
Soil type	Sandy Loam
Paddock rotation:	2019 Barley
Sowing date	27/4/20 dry sown
Sowing rate	45 seed/m ²
Fertiliser	27/5/20 Macro Pro Extra 100 kg/ha
Herbicides, insecticides & fungicides	Knockdown & pre-emergents pre-seeding Broadleaf & grass top up spray Broadleaf spray Grass spray Fungicide spray Insecticide spray x 2 Desiccation spray pre-harvest Details of chemicals used and rates available at nvtonline.com.au
Growing season rainfall	286 mm (May-Oct)

Table 1: Rainfall (mm) Source DPIRD Weather Station

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.4	25.6	18.6	6.8	65.0	67.0	41.0	62.0	48.6	2.4	62.0	0.0

TREATMENTS

1	AGTP0001
2	AGTP0003
3	AGTP0004
4	AGTP0006
5	AGTP0007
6	AGTP0010
7	Coromup
8	Coyote
9	Mandelup
10	PBA Barlock
11	PBA Bateman
12	PBA Gunyidi
13	PBA Jurien
14	PBA Leeman
15	Wonga

FIELD PLAN



	Range 1	Range 2	Range 3
Row 1	PBA Gunyidi	AGTP0006	Wonga
Row 2	AGTP0007	PBA Leeman	Coyote
Row 3	AGTP0004	PBA Barlock	PBA Jurien
Row 4	AGTP0003	AGTP0010	Coromup
Row 5	Mandelup	AGTP0001	PBA Bateman
Row 6	PBA Bateman	Mandelup	PBA Barlock
Row 7	Coyote	Coromup	AGTP0001
Row 8	AGTP0010	AGTP0004	PBA Gunyidi
Row 9	PBA Leeman	Wonga	AGTP0003
Row 10	PBA Jurien	AGTP0007	AGTP0006
Row 11	AGTP0006	PBA Bateman	AGTP0010
Row 12	AGTP0001	AGTP0003	AGTP0007
Row 13	Wonga	PBA Jurien	Mandelup
Row 14	Coromup	PBA Gunyidi	PBA Leeman
Row 15	PBA Barlock	Coyote	AGTP0004

SOIL COMPOSITION

Table 2: Soil composition of the Pingelly NVT lupin trial site at 0-10 cm and 10-30 cm.

Depth	Texture 1 sand, 2 sandy loam, 3 loam, 4 loamy clay, 5 clay	Total Nitrogen mg/kg	Phosphorus mg/kg	P Test Type	Organic Carbon %	pH (water)	pH (CaCl ₂)	Conductivity (EC) dS/m	ESP %
0-10	1.5	20	37	Colwell	2.5	6.4	5.9	0.1	5.17
10-30	1	23				6.7	5.7	0.2	8.15

RESULTS

MET Analysis of the 2020 data is not available at the time of publishing and will be available online at NVTonline.com.au

Variety Descriptions

For variety descriptions and information on the best choice of variety to grow this season see the 2021 WA Crop Sowing Guide at <https://grdc.com.au/2021-western-australian-crop-sowing-guide>

COMMENTS

The NVT Pingelly Lupin trial was sown on the 27th April into dry soil with some germination on the 6th May rainfall and the majority germinating on the 25th May rainfall. Some initial patchiness filled out through the season with the trial ending the season as the highest yielding WA lupin NVT.

For results of all NVT trials for 2020 please visit the National Variety Trials online www.nvtonline.com.au

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