

National Variety Trial – Mingenew Main Season Narrow-Leafed Lupins (LMNA23MING6).

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Key Messages

- The 2023 season in the region began with a challenging dry start with reasonable follow up rainfall in June and July to promote valuable germination and enabled beneficial growth. Although the current dry conditions are unfavourable.

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:	2022 Wheat.
Sowing date	03/05/2023 – Germinating rainfall 06/05/2023.
Sowing rate	45 targeted seeds/m ² .
Fertiliser	03/05/2023: K Till Extra (130 kg/ha).
Herbicides, insecticides & fungicides	03/05/2023: Knockdown pre-seeding spray. 13/06/2023: Broadleaf & grass spray. 26/07/2023: Insecticide & fungicide spray. 24/08/2023: Insecticide & fungicide spray. Details of chemicals used and rates available at nvtonline.com.au
Growing season rainfall until 31st August 2023	179.8 mm (01/04/2023 – 31/08/2023).

Table 1. Mingenew NVT Canola & Lupin Trial Site Total Rainfall (mm).

Source Long Paddock Patch Point Data (Retrieved from <https://www.longpaddock.qld.gov.au/silo/point-data/#>).

Jan	Feb	Mar	April	May	June	July	August
0.8	0	5.2	9.5	15.2	90.3	42.1	22.7

Soil Composition

Table 2. Soil composition of the Mingenew NVT Canola & Lupin Trial Site at 0 -10 cm and 10 – 30 cm compiled from CSBP test results.

Depth (cm)	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 (H ₂ O)	pH (CaCl ₂)	Conductivity (EC) (dS/m)
0-10	2	2	15	Colwell	0.87	6.8	6.2	0.047
10-30	2	< 1				6.5	5.8	0.032

Variety Entry List

Table 3. List of lupin varieties included into the Mingenew Main Season Narrow-Leafed Lupin (LMNA23MING6) NVT Trial for the 2023 season.

1	AGTP0016	9	Mandelup
2	AGTP0069	10	PBA Barlock
3	AGTP0214	11	PBA Bateman
4	AGTP0258	12	PBA Gunyidi
5	Coromup	13	PBA Jurien
6	Coyote	14	PBA Leeman
7	Gidgee	15	Rosemont
8	Lawler	16	Wonga

Variety Descriptions

For variety descriptions and information on the best choice of variety to grow this season see the 2022 WA Crop Sowing Guide at

<https://grdc.com.au/resources-and-publications/all-publications/nvt-crop-sowing-guides>

Field Plan

Table 4. Field plan of the Mingenew Main Season Narrow-Leafed Lupin (LMNA23MING6) NVT Trial for the 2023 season.

	Range 1	Range 2	Range 3	Range 4	Range 5	Range 6
Row 1	PBA Jurien	Mandelup	PBA Gunyidi	AGTP0016	PBA Leeman	Coyote
Row 2	AGTP0258	Wonga	PBA Barlock	AGTP0214	PBA Bateman	Lawler
Row 3	Gidgee	Coromup	AGTP0069	Rosemont	PBA Jurien	PBA Gunyidi
Row 4	Rosemont	Lawler	Gidgee	PBA Bateman	AGTP0069	Wonga
Row 5	Coyote	AGTP0214	Mandelup	Coromup	AGTP0258	AGTP0016
Row 6	PBA Barlock	PBA Leeman	Lawler	PBA Jurien	AGTP0214	Gidgee
Row 7	PBA Bateman	PBA Gunyidi	AGTP0258	Coyote	Coromup	PBA Barlock
Row 8	AGTP0016	AGTP0069	PBA Leeman	Wonga	Rosemont	Mandelup

Acknowledgements

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