

National Variety Trial – Mingenew Glyphosate-Tolerant Canola (CLGA23MING6).

Pip Payne, NVT Co-Ordinator, Living Farm.

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	40 targeted seeds/m ² .
Fertiliser	03/05/2023: Urea (100 kg/ha) and K Till Extra (130 kg/ha). 13/06/2023: Flexi N (180 L/ha). 26/07/2023: Flexi N (152 L/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 canola varieties included into the Mingenew Glyphosate-Tolerant Canola (CLGA23MING6) NVT Trial for the 2023 season.

1	AA1418G	14	Nuseed Emu TF
2	AA1421G	15	Nuseed Raptor TF
3	AN22LR007	16	Pioneer 44Y27 (RR)
4	AN22LR010	17	Pioneer 44Y30 (RR)
5	DG Lofty TF	18	PS-22CX320
6	DG2201TF	19	WW1958W
7	Filler	20	XC214106
8	Hyola Battalion XC		
9	Hyola Garrison XC		
10	Hyola Regiment XC		
11	InVigor LR 4540P		
12	InVigor R 4022P		
13	InVigor R 4520P		

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 Glyphosate-Tolerant Canola (CLGA23MING6) NVT Trial for the 2023 season.

	Range 1	Range 2	Range 3	Range 4	Range 5	Range 6
Row 1	InVigor R 4022P	InVigor LR 4540P	Nuseed Raptor TF	Pioneer 44Y30 RR	AA1421G	XC214106
Row 2	DG2201TF	AA1418G	Hyola Battalion XC	Nuseed Hunter TF	PS-22XC320	Pioneer 44Y27 (RR)
Row 3	Hyola Garrison XC	DG Lofty TF	InVigor R 4520P	Hyola Regiment XC	AN22LR007	AN22LR010
Row 4	WW1958W	Filler	AN22LR007	Hyola Garrison XC	AA1418G	Hyola Regiment XC
Row 5	PS-22XC320	AN22LR010	DG Lofty TF	AA1421G	WW1958W	Hyola Battalion XC
Row 6	InVigor R 4520P	XC214106	DG2201TF	Filler	Pioneer 44Y30 RR	InVigor LR 4540P
Row 7	Nuseed Hunter TF	Nuseed Raptor TF	Pioneer 44Y27 (RR)	InVigor R 4022P	InVigor R 4520P	Filler
Row 8	AA1421G	Hyola Regiment XC	InVigor LR 4540P	PS-22XC320	Nuseed Raptor TF	DG2201TF
Row 9	AN22LR007	Pioneer 44Y27 (RR)	WW1958W	XC214106	Hyola Garrison XC	Nuseed Hunter TF
Row 10	Hyola Battalion XC	Pioneer 44Y30 RR	AN22LR010	AA1418G	InVigor R 4022P	DG Lofty TF

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Contact Information

Pip Payne
 NVT Co-ordinator
 Living Farm
pip@livingfarm.com.au
 0439 771 194

Richard Devlin
 Managing Director
 Living Farm
richard@livingfarm.com.au
 0400 123 596