

# NVT HARVEST REPORT



REVISED MAY 2023

Geraldton  
Western Region



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**PHOTO:** Isabelle Rogers

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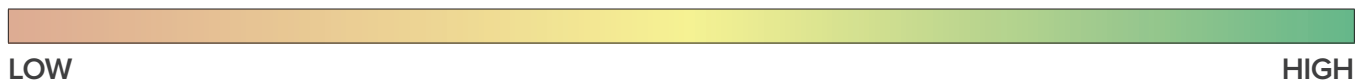
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## LEGEND: MEAN VARIETY YIELD PERFORMANCE



Long-term mean yield illustrated by colour gradient from low (red) to high (green)

## DISEASE RATING COLOUR RANGE

VS	SVS	S	MSS	MS	MRMS	MR	RMR	R
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Disease severity scale from very susceptible (VS) to resistant (R)

The disease ratings in the report are current at the time of publication.

Regularly visit [nvt.grdc.com.au/nvt-disease-ratings](http://nvt.grdc.com.au/nvt-disease-ratings) to find the latest NVT disease ratings.

Refer to the latest *Crop Sowing Guide* for further information at  
[grdc.com.au/nvt-crop-sowing-guides](http://grdc.com.au/nvt-crop-sowing-guides)

# INTRODUCTION

This **NVT Harvest Report** provides information to support growers and advisers with decisions on variety selection for **Geraldton**. The information has been generated from the Grains Research and Development Corporation's (GRDC) National Variety Trials (NVT) database. This publication provides a summary of the 2022 and long-term yield performance of varieties of crop species suitable for production in **Geraldton** together with their quality and disease responses.

The NVT program provides growers and advisers with comparative results on yield performance, quality and disease resistance ratings of commercially available grain varieties that is independent, consistent, timely and robust.

Conducted to a set of predetermined protocols, trials are sown and managed to reflect local best practice such as sowing time, fertiliser application, weed management, pest/disease control and fungicide application. The NVT is not designed to grow varieties to their maximum yield potential.

GRDC acknowledges that an ongoing project of this type would not be possible without the cooperation of growers prepared to contribute sites and who often assist with the management of trials on their property.

## Interpreting long-term yield results

A factor analytic (FA) mixed model approach is used in the multi-environment trial (MET) analysis conducted by GRDC, supported by the Statistics for the Australian Grains Industry (SAGI) program.

This approach generates long-term MET values for varieties at an individual trial level.

This format provides more detailed results to better understand a variety's performance over several years at the individual trial/environment level, rather than just a single averaged value.

In this **Geraldton** Harvest Report, results are presented in year groupings for yield for the past five years and quality for the past two years. Further detailed interrogation of the NVT Online results using the Long Term Yield Reporter will provide more specific performance results on all varieties of each crop species in each NVT location throughout **Geraldton**.

The results presented in this Harvest Report are based on the default filters in the Long Term Yield Reporter. In some cases, trial results are excluded because they do not meet the default standards for statistical validity. These are listed in the tables as 'Trial results below standard'. Trials below standard can be viewed by reducing the default VAF settings within the [Long Term Yield Reporter](#).

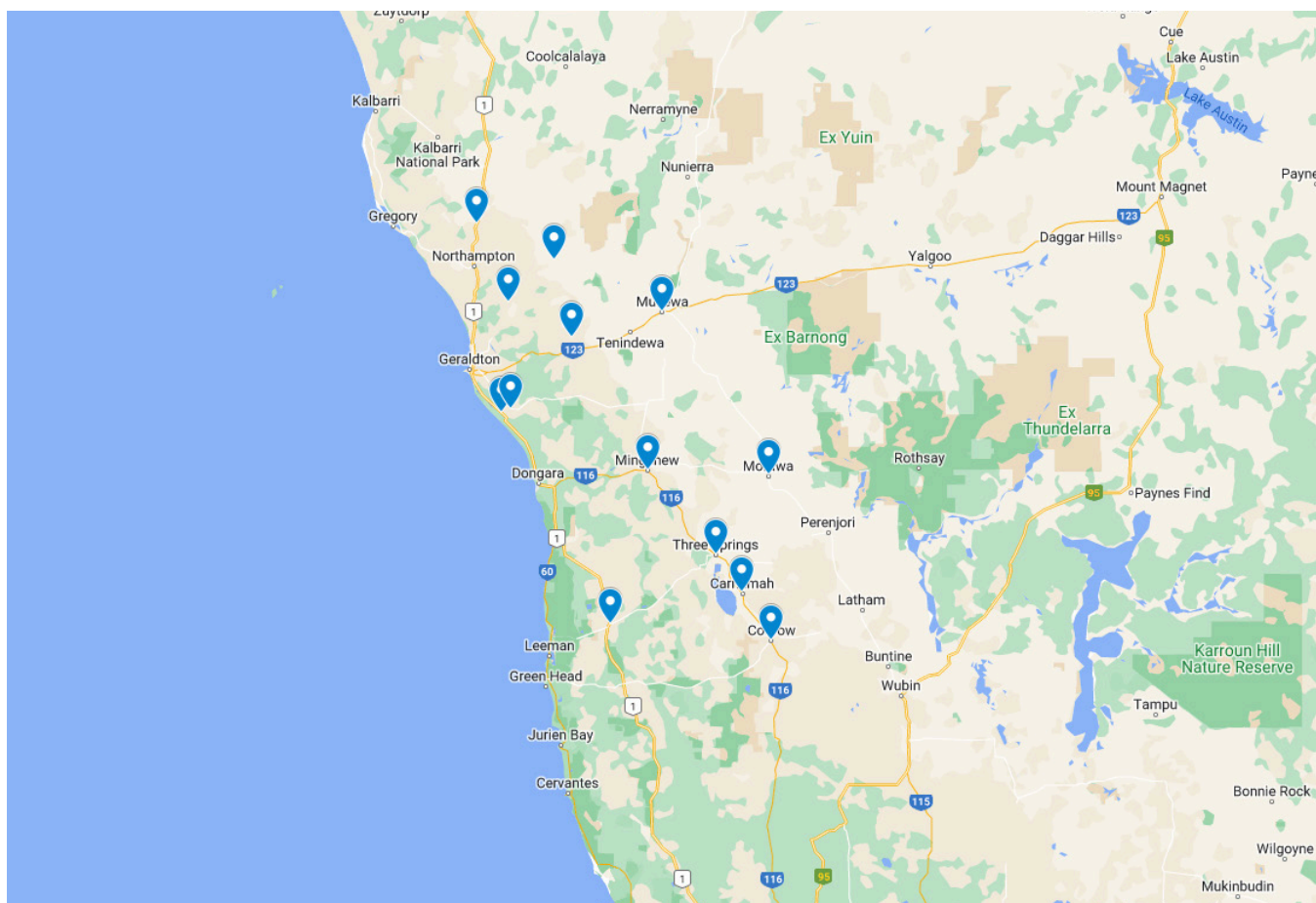
Trials listed as compromised are not suitable for making variety decisions. Results can be found in the [Quarantined trial reports](#).

▶ Refer to the latest **Crop Sowing Guide** for further information at [grdc.com.au/nvt-crop-sowing-guides](https://grdc.com.au/nvt-crop-sowing-guides)

## NVT SITE LOCATIONS – Geraldton

Figure 1: Locality of NVT trial sites in Geraldton from 2018 to 2022.

SOURCE: NVT Online



See all NVT trial locations and view trial results at [nvt.grdc.com.au/trial-results](https://nvt.grdc.com.au/trial-results).

# WHEAT

## New wheat varieties

The following information is for wheat varieties released in the 12 months to the date when the MET analysis was published on NVT online.

Variety	Variety owner	Grain classification	End Point Royalty* (\$)	Comments supplied by variety owner
Brumby <sup>Ⓛ</sup>	InterGrain	Milling	3.50	Mid-maturing, with a slightly later time of flowering than Scepter <sup>Ⓛ</sup> , although earlier than RockStar <sup>Ⓛ</sup> . Well-suited to May sowing.
LRPB Anvil <sup>Ⓛ</sup>	LongReach Plant Breeders Pty Ltd	Milling	4.25	Clearfield <sup>®</sup> Plus wheat with two-gene tolerance to label rates of Intervix <sup>®</sup> herbicide with quick maturity and bold early growth. Fast grain fill with large grain, suited to low to medium-rainfall areas. Bred by Grains Innovation Australia, developed by LongReach Plant Breeders and marketed by Pacific Seeds.
Mowhawk <sup>Ⓛ</sup>	LongReach Plant Breeders Pty Ltd	Milling	4.00	A quick winter variety with similar growth habit and maturity to Longsword <sup>Ⓛ</sup> . Mowhawk <sup>Ⓛ</sup> has broad general adaption and is ideally suited to higher-production areas and early break scenarios. Mowhawk <sup>Ⓛ</sup> is quicker to heading and higher-yielding than the current benchmark winter variety, Illabo <sup>Ⓛ</sup> .
Stockade <sup>Ⓛ</sup>	LongReach Plant Breeders Pty Ltd	Milling	None provided.	Very slow spring maturity similar to RGT Accroc <sup>Ⓛ</sup> . Suitable for high-rainfall zones of south-west Victoria, south-east South Australia and Tasmania as main target area but will have relevance to north-east Victoria and south-east slopes. Growth habit with high production canopy with steady biomass accumulation over season based on its slower maturity. Potential variety replacement for RGT Accroc <sup>Ⓛ</sup> and LRPB Beaufort <sup>Ⓛ</sup> feed wheats.

\* EPR amount is ex-GST, <sup>Ⓛ</sup> denotes Plant Breeder's Rights apply.

WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

Refer to the latest *Crop Sowing Guide* for further information at [grdc.com.au/nvt-crop-sowing-guides](http://grdc.com.au/nvt-crop-sowing-guides)

## Wheat variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

**Table 1: Coorow main season wheat.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.34	1.43	3.17	4.23	4.96
Vixen <sup>db</sup>	116	119	110	112	100
Devil <sup>db</sup>	107	114	105	107	110
Scepter <sup>db</sup>	109	112	106	108	107
RockStar <sup>db</sup>	104	109	103	107	114
Brumby <sup>db</sup>				108	112
Calibre <sup>db</sup>			105	101	109
Sting <sup>db</sup>		118	107	106	102
Ballista <sup>db</sup>		115		100	111
LRPB Havoc <sup>db</sup>	111	104	108	113	94
Ninja <sup>db</sup>	103	104	102	103	110
<b>IMI-TOLERANT</b>					
Razor CL Plus <sup>db</sup>	108	106	105	105	96
Sheriff CL Plus <sup>db</sup>		94	101	105	100
LRPB Anvil <sup>db</sup>			106	106	85
Sowing date	25 May	7 Jun	25 May	13 May	12 May
Rainfall J–M (mm)	71	17	91	98	58
Rainfall A–O (mm)	242	218	172	330	242

Special thanks to 2022 trial cooperator, Clinton Hunt.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 2: Eneabba main season wheat.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.57	2.67	4.39	3.86	5.73
RockStar <sup>db</sup>	108	110	113	106	114
Brumby <sup>db</sup>				105	113
Denison <sup>db</sup>		102	109	107	113
Kinsei <sup>db</sup>	107	104	110	104	113
Devil <sup>db</sup>	106	111	110	105	109
Ninja <sup>db</sup>	104	105	108	101	111
Scepter <sup>db</sup>	104	110	107	104	106
Calibre <sup>db</sup>			109	98	107
Catapult <sup>db</sup>	105	104	107	100	108
Ballista <sup>db</sup>		108		95	110
<b>IMI-TOLERANT</b>					
Valiant <sup>db</sup> CL Plus			106	107	108
Sheriff CL Plus <sup>db</sup>		100	100	104	101
Chief CL Plus <sup>db</sup>	102	101	97	109	94
Sowing date	25 May	7 Jun	7 May	15 May	6 May
Rainfall J–M (mm)	63	12	70	79	70
Rainfall A–O (mm)	409	273	275	477	429

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 3: Eradu main season wheat.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.10	0.32		2.03	3.66
Vixen <sup>db</sup>	113	117	Compromised trial	121	107
Devil <sup>db</sup>	112	107		115	111
RockStar <sup>db</sup>	111	99		113	113
Scepter <sup>db</sup>	110	107		115	109
Calibre <sup>db</sup>				114	105
Brumby <sup>db</sup>				112	111
Sting <sup>db</sup>		117		115	104
LRPB Havoc <sup>db</sup>	107	103		114	106
LRPB Avenger <sup>db</sup>		116			102
Ballista <sup>db</sup>		112		109	103
IMI-TOLERANT					
LRPB Anvil <sup>db</sup>				110	99
Chief CL Plus <sup>db</sup>	104	93		105	106
Razor CL Plus <sup>db</sup>	103	109		107	99
Sowing date	25 May	7 Jun	25 May	26 May	21 May
Rainfall J–M (mm)	48	3	63	79	46
Rainfall A–O (mm)	318	270	201	343	329

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 4: Mingenew main season wheat.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.21	1.53	4.30	4.04	4.99
Vixen <sup>db</sup>	124	115	102	112	104
Devil <sup>db</sup>	107	115	106	112	108
RockStar <sup>db</sup>	100	115	108	113	109
Calibre <sup>db</sup>			107	106	109
Scepter <sup>db</sup>	110	113	105	110	106
Brumby <sup>db</sup>				110	108
Sting <sup>db</sup>		112	103	106	105
Ballista <sup>db</sup>		110		101	108
LRPB Havoc <sup>db</sup>	120	107	97	112	99
LRPB Avenger <sup>db</sup>		109	95		99
<b>IMI-TOLERANT</b>					
Razor CL Plus <sup>db</sup>	114	103	99	102	99
LRPB Anvil <sup>db</sup>				107	95
Chief CL Plus <sup>db</sup>	107	102	95	109	97
Sowing date	25 May	7 Jun	7 May	13 May	19 May
Rainfall J–M (mm)	75	12	104	68	69
Rainfall A–O (mm)	338	370	203	434	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.  
Learn more via the [NVT Long Term Yield Reporter](#)

WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

Table 5: Morawa main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.34	0.27	1.33	2.22	4.24
Vixen <sup>db</sup>	118	179	119	121	102
Sting <sup>db</sup>		169	116	114	104
Calibre <sup>db</sup>			112	105	108
Ballista <sup>db</sup>		134		102	112
Scepter <sup>db</sup>	109	126	110	107	108
LRPB Havoc <sup>db</sup>	112	135	111	120	97
Devil <sup>db</sup>	107	119	107	103	110
LRPB Avenger <sup>db</sup>		181	111		92
Brumby <sup>db</sup>				100	114
RockStar <sup>db</sup>	103	85	102	96	114
<b>IMI-TOLERANT</b>					
Razor CL Plus <sup>db</sup>	110	147	112	114	98
LRPB Anvil <sup>db</sup>				121	85
Hammer CL Plus <sup>db</sup>			108	107	98
Sowing date	25 May	7 Jun	25 May	15 May	13 May
Rainfall J–M (mm)	63	5	111	78	83
Rainfall A–O (mm)	246	186	145	297	329

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 7: Nabawa main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.13	2.08	4.79	6.24	5.67
RockStar <sup>db</sup>	110	116	111	106	115
Brumby <sup>db</sup>				109	111
Denison <sup>db</sup>			110	103	117
Kinsei <sup>db</sup>	103	110	110	105	114
Devil <sup>db</sup>	111	113	107	105	108
Scepter <sup>db</sup>	110	111	105	107	104
Ninja <sup>db</sup>	103	108	108	105	108
Calibre <sup>db</sup>			106	99	103
Ballista <sup>db</sup>		106		102	103
Zen <sup>db</sup>	104	106	100	109	101
<b>IMI-TOLERANT</b>					
Valiant <sup>db</sup> CL Plus				98	116
Sheriff CL Plus <sup>db</sup>		103	101	105	102
Chief CL Plus <sup>db</sup>	105	104	96	105	100
Sowing date	25 May	7 Jun	25 May	15 May	10 May
Rainfall J–M (mm)	58	3	35	40	39
Rainfall A–O (mm)	363	305	279	404	445

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 6: Mullewa main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.62	0.52	1.81	4.63	5.05
Vixen <sup>db</sup>	121	144	133	116	116
Sting <sup>db</sup>		144	126	112	113
LRPB Havoc <sup>db</sup>	118	111	126	114	110
Scepter <sup>db</sup>	109	113	112	109	110
Ballista <sup>db</sup>		133		107	111
Calibre <sup>db</sup>			112	105	110
Devil <sup>db</sup>	105	107	105	106	109
Emu Rock <sup>db</sup>	109	129	119	104	101
Brumby <sup>db</sup>				107	108
Mace <sup>db</sup>	107	116	110	103	102
<b>IMI-TOLERANT</b>					
Razor CL Plus <sup>db</sup>	113	131	125	110	109
LRPB Anvil <sup>db</sup>			122	106	104
Hammer CL Plus <sup>db</sup>			113	104	104
Sowing date	25 May	7 Jun	25 May	11 May	18 May
Rainfall J–M (mm)	99	3	81	126	63
Rainfall A–O (mm)	255	152	209	278	268

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 8: Ogilvie main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.73	1.45	4.14	5.34	
Vixen <sup>db</sup>	106	120	114	108	Compromised trial
Sting <sup>db</sup>		116	112	106	
Scepter <sup>db</sup>	107	112	108	106	
Calibre <sup>db</sup>			107	104	
Ballista <sup>db</sup>		109		106	
Devil <sup>db</sup>	108	112	105	105	
LRPB Havoc <sup>db</sup>	103	110	110	106	
Brumby <sup>db</sup>				107	
RockStar <sup>db</sup>	109	108	103	105	
Boree <sup>db</sup>				105	
IMI-TOLERANT					
Razor CL Plus <sup>db</sup>	100	108	109	104	
LRPB Anvil <sup>db</sup>				99	
Hammer CL Plus <sup>db</sup>			104	101	
Sowing date	25 May	7 Jun	25 May	12 May	4 May
Rainfall J–M (mm)	70	7	30	61	22
Rainfall A–O (mm)	233	195	227	510	403

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN



Table 9: Yuna main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.75	0.93	3.20	5.50	4.20
Vixen <sup>db</sup>	121	112	112	116	99
LRPB Havoc <sup>db</sup>	117	103	114	115	99
Devil <sup>db</sup>	108	117	106	109	111
RockStar <sup>db</sup>	103	118	105	108	117
Brumby <sup>db</sup>				109	115
Scepter <sup>db</sup>	110	113	107	110	107
Zen <sup>db</sup>	106	101	109	109	107
Sting <sup>db</sup>		111	106	110	98
LRPB Avenger <sup>db</sup>		106	110		92
Calibre <sup>db</sup>			101	106	102
<b>IMI-TOLERANT</b>					
Chief CL Plus <sup>db</sup>	105	100	109	107	103
LRPB Anvi <sup>db</sup>			110	108	86
Razor CL Plus <sup>db</sup>	111	100	105	107	93
Sowing date	25 May	7 Jun	25 May	11 May	5 May
Rainfall J–M (mm)	64	7	37	71	32
Rainfall A–O (mm)	216	195	174	340	270

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 11: Ogilvie early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.12	1.87			5.32
Mowhawk <sup>db</sup>			Compromised trial	Trial failed	121
Stockade <sup>db</sup>					113
Longsword <sup>db</sup>	95	98			123
Cutlass <sup>db</sup>	104	106			110
Denison <sup>db</sup>					107
Illabo <sup>db</sup>	100	100			107
Kinsei <sup>db</sup>	103	112			94
LRPB Nighthawk <sup>db</sup>	99	95			103
Catapult <sup>db</sup>	102	110			94
RockStar <sup>db</sup>		119			84
IMI-TOLERANT					
Valiant <sup>db</sup> CL Plus					106
Sheriff CL Plus <sup>db</sup>		104			76
Sowing date	20 Apr	17 Apr	4 May	21 Apr	14 Apr
Rainfall J–M (mm)	70	7	30	61	22
Rainfall A–O (mm)	233	195	227	510	403
Irrigation A–O (mm)			10		

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 10: Eneabba early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			4.24	4.58	5.29
Mowhawk <sup>db</sup>	Compromised trial	No trial			128
Longsword <sup>db</sup>			98	100	130
Stockade <sup>db</sup>					124
Cutlass <sup>db</sup>			110	103	110
Kinsei <sup>db</sup>			112	110	102
Denison <sup>db</sup>			115	106	101
RockStar <sup>db</sup>			117	111	95
Catapult <sup>db</sup>			112	110	99
Illabo <sup>db</sup>			94	97	119
Coota <sup>db</sup>					109
IMI-TOLERANT					
Valiant <sup>db</sup> CL Plus				105	108
Sheriff CL Plus <sup>db</sup>			103	108	78
Sowing date	25 May		22 Apr	21 Apr	12 Apr
Rainfall J–M (mm)	63		70	79	70
Rainfall A–O (mm)	409		275	477	429

Special thanks to 2022 trial cooperator - permission to publish was not received.  
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WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

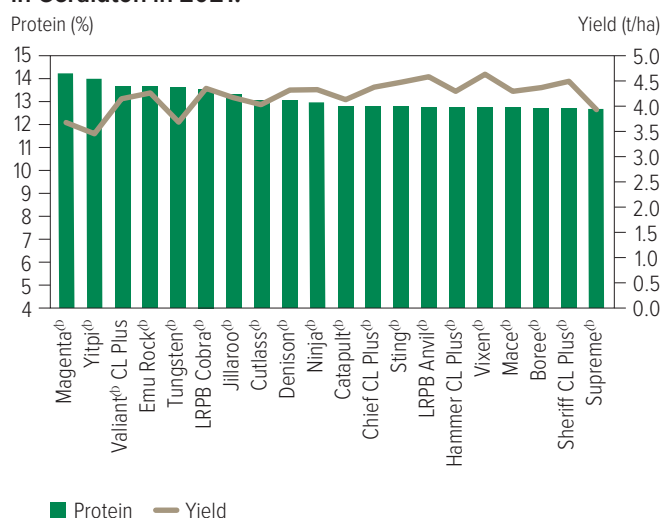
## Wheat variety quality – Geraldton

Grain quality for individual varieties varies from site to site and from year to year. However, long-term and across-site trends highlight varieties that can consistently achieve high protein percentage, high test weight or low grain screenings under a wider range of environments.

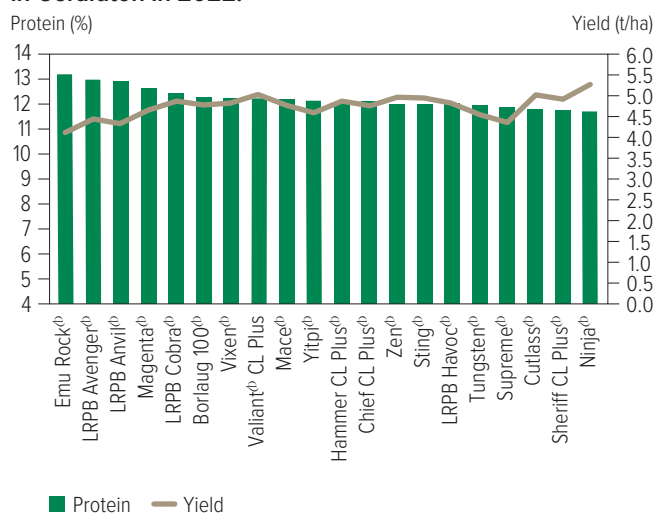
The following figures show the grain quality trends as histograms from 2021 and 2022 NVT averaged for trials in the Geraldton region. Only the varieties evaluated at every site are included. These are plotted in order of performance, up to a maximum of 20.

### Protein and yield comparisons

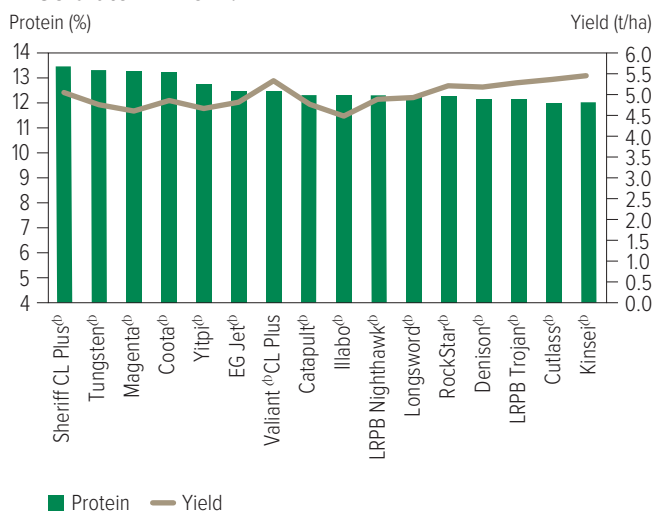
**Figure 1: Protein (%) and yield (t/ha) comparisons for main season wheat varieties from nine NVT sites in Geraldton in 2021.**



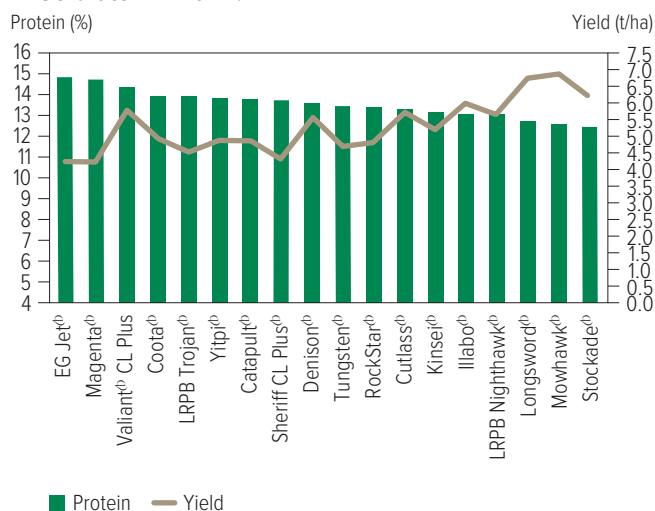
**Figure 2: Protein (%) and yield (t/ha) comparisons for main season wheat varieties from eight NVT sites in Geraldton in 2022.**



**Figure 3: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from two NVT sites in Geraldton in 2021.**



**Figure 4: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from two NVT sites in Geraldton in 2022.**



WHEAT

BARLEY

CANOLA

CHICKPEA

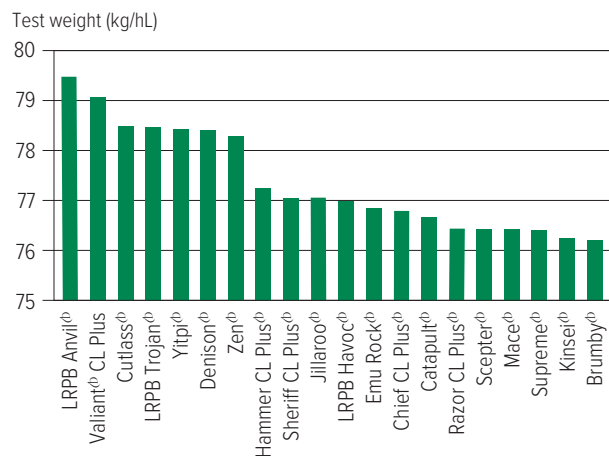
FIELD PEA

LENTIL

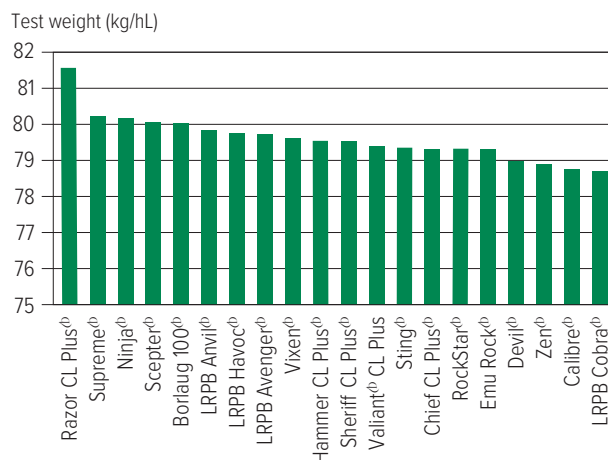
LUPIN

## Test weight comparisons

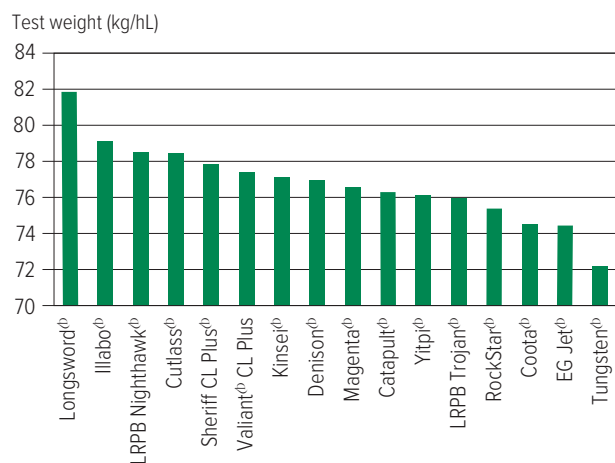
**Figure 5: Test weight (kg/hL) comparisons for main season wheat varieties from nine NVT sites in Geraldton in 2021.**



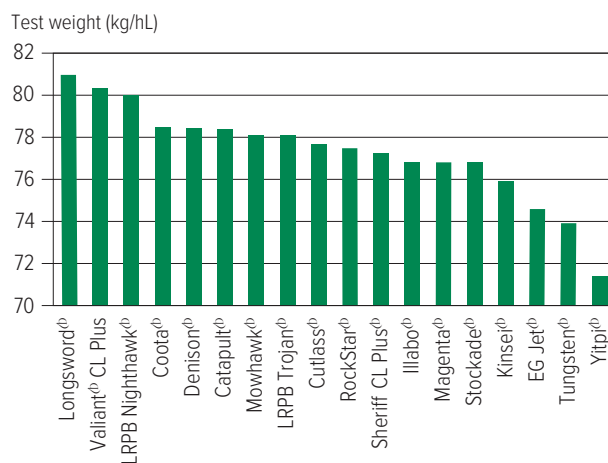
**Figure 6: Test weight (kg/hL) comparisons for main season wheat varieties from eight NVT sites in Geraldton in 2022.**



**Figure 7: Test weight (kg/hL) comparisons for early season wheat varieties from two NVT sites in Geraldton in 2021.**



**Figure 8: Test weight (kg/hL) comparisons for early season wheat varieties from two NVT sites in Geraldton in 2022.**



WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

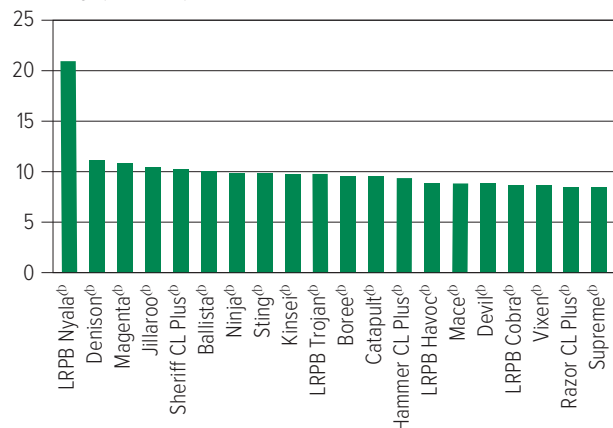
LENTIL

LUPIN

## Screenings comparisons

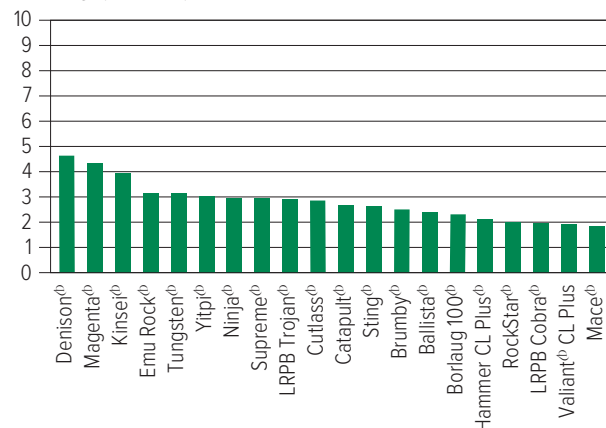
**Figure 9: Screenings (<2.0mm) comparisons for main season wheat varieties from nine NVT sites in Geraldton in 2021.**

Screenings (%<2.0mm)



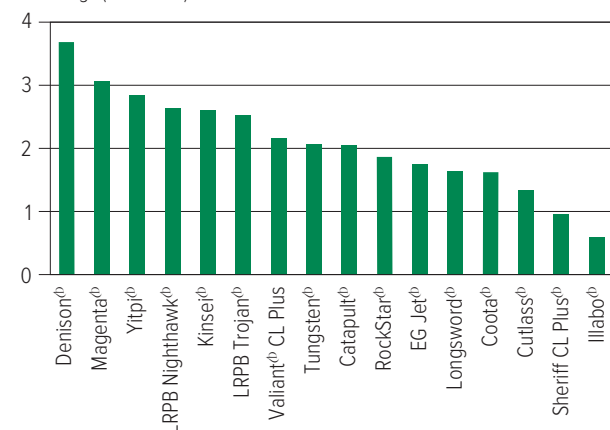
**Figure 10: Screenings (<2.0mm) comparisons for main season wheat varieties from eight NVT sites in Geraldton in 2022.**

Screenings (%<2.0mm)



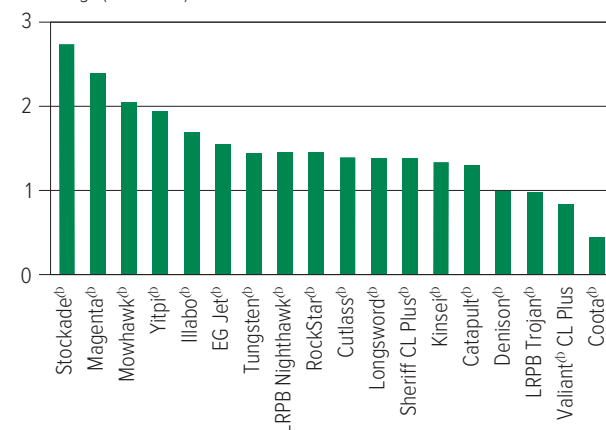
**Figure 11: Screenings (<2.0mm) comparisons for early season wheat varieties from two NVT sites in Geraldton in 2021.**

Screenings (%<2.0mm)



**Figure 12: Screenings (<2.0mm) comparisons for early season wheat varieties from two NVT sites in Geraldton in 2022.**

Screenings (%<2.0mm)



WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN



## Wheat variety disease ratings – Western Australia

The following table contains varietal ratings for the predominant diseases of wheat in Western Australia. These ratings are updated annually by crop pathologists and were released in March 2023.

Selected varieties of most relevance to Western Australian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

**Table : Wheat disease guide for Western Australia.**

Variety	Yellow spot	Nodorum blotch (leaf)	Nodorum blotch (glume)	Stem rust	Stripe rust (west coast resistance)	Leaf rust	Powdery mildew	Septoria tritici blotch	RLN resistance ( <i>Pratylenchus neglectus</i> )	RLN resistance ( <i>Pratylenchus quasitereoides</i> )	CCN	Crown rot
Ballista <sup>db</sup>	MS	MRMS	MS	MR	RMR	S	S	SVS	S		MRMS	S
Borlaug 100 <sup>db</sup>	MRMS	MRMS	MRMS	MR	RMR	MR	S	MS	S		MS	MSS
Brumby <sup>db</sup>	MRMS	MS	MRMS	MR	RMR	SVS	R	MSS (P)	MRMS		MRMS	S
Calibre <sup>db</sup>	MRMS	MSS	MSS	MR	RMR	S	MSS	SVS	S	MR (P)	MRMS	S
Catapult <sup>db</sup>	MRMS	MRMS	MRMS	MR	RMR	S	S	S	S	MRMS	R	MSS
Chief CL Plus <sup>db</sup>	MRMS	MRMS	MS	MR	S	MR	S	MSS	MRMS	MRMS	MS	MSS
Coota <sup>db</sup>	MSS	MS	MRMS	RMR	MR	MR	S	MSS	MR		MR	MSS
Cutlass <sup>db</sup>	MSS	MRMS	MRMS	R	RMR	RMR	S	MSS	MSS	MS (P)	MR	S
Denison <sup>db</sup>	MRMS	MRMS	MR	MS	MR	S	S	MS	S	MR (P)	MS	MSS
Devil <sup>db</sup>	MRMS	MRMS	MS	S	MR	SVS	S	SVS	MSS	MRMS	MSS	MSS
DS Bennett <sup>db</sup>	MRMS	MR	MR	MS	RMR	SVS	RMR (SVS)	MR	S		S	VS
DS Pascal <sup>db</sup>	MS	MRMS	MRMS	MSS	RMR	MS	RMR	MS	S		S	S
EG Jet <sup>db</sup>	MRMS		MSS	S	RMR	S	MS	MSS	S		MRMS	S
EG Titanium	MSS		MRMS	MS	RMR	MS	MSS	MSS	MSS		R	MSS
EGA Wedgetail <sup>db</sup>	MSS	MRMS	MRMS	MRMS	MS	MSS	MRMS	MRMS	S		S	S
Emu Rock <sup>db</sup>	MS	MRMS	S	MS	MRMS	SVS	MSS	S	MSS	MS (P)	S	MSS
Hammer CL Plus <sup>db</sup>	MRMS	MRMS	MRMS	MR	RMR	S	SVS	MSS	MSS	MR (P)	MRMS	MSS
Illabo <sup>db</sup>	MS	MR	MR	MRMS	RMR	S	RMR	MR	MSS	RMR	MRMS	S
Kinsei <sup>db</sup>	MS	MRMS	MRMS	MSS	MRMS	MSS	S	MSS	S	S	MSS	MSS
Longsword <sup>db</sup>	MRMS	MRMS	MRMS	MR	RMR	MR#	MRMS	MRMS	MRMS		MRMS	MSS
LRPB Anvil <sup>db</sup>	MSS	MSS	MSS	MR	RMR	SVS	S	S	MSS		MRMS	MSS
LRPB Avenger <sup>db</sup>	MS	MS	S	MS	MRMS	S	S	MSS	MSS		MRMS	SVS
LRPB Cobra <sup>db</sup>	MRMS	MS	MRMS	MR	MSS	MR#	MSS	S	MSS	MSS (P)	MS	S
LRPB Havoc <sup>db</sup>	MRMS	MRMS	MS	S	MR	S	MSS	MRMS	S	MRMS	S	MSS
LRPB Nighthawk <sup>db</sup>	MS	MR	MRMS	RMR	RMR	MSS	MSS	MRMS	MSS	MRMS (P)	MS	MSS
LRPB Nyala <sup>db</sup>	MS	MR	MSS	SVS	RMR	S	R	SVS	S		MSS	MSS
LRPB Oryx <sup>db</sup>	MSS	MSS	S	MR	RMR	RMR#	RMR	SVS	MSS	MSS (P)	S	MSS
LRPB Trojan <sup>db</sup>	MSS	MS	MS	MRMS	MR	MR#	S	S	MSS	MS (P)	MS	MS
Mace <sup>db</sup>	MRMS	MS	MS	MRMS	RMR	S	MSS	S	MS	MRMS	MRMS	S
Mowhawk <sup>db</sup>	MRMS (P)			RMR (P)	RMR (P)	MR (P)						
Razor CL Plus <sup>db</sup>	MSS	MS	MS	MRMS	RMR	S	MSS	SVS	S		MR	S
RockStar <sup>db</sup>	MRMS	MRMS	MRMS	MRMS	RMR	S	MS	S	MRMS	MS	MSS	S
Scepter <sup>db</sup>	MRMS	MSS	MRMS	MRMS	RMR	MSS	S	S	S	MS	MRMS	MSS
Severn <sup>db</sup>	MRMS	MR (P)	MR	MS	RMR	MRMS	R	MS (P)	S		MSS (P)	S
Sheriff CL Plus <sup>db</sup>	MRMS	MRMS	MRMS	MS	MS	SVS	SVS	S	MRMS	MRMS (P)	MS	S
Sting <sup>db</sup>	MRMS	MS	MS	MRMS	MR	SVS	S	S	MRMS	MS (P)	MS	MSS
Stockade <sup>db</sup>	MRMS	MR	MRMS	MS	RMR	MR (P)	S	MS (P)	S		MRMS	S
Valiant <sup>db</sup> CL Plus	MRMS	MRMS	MR	MR	RMR	S	S	MRMS	S	MS (P)	MSS (P)	S
Vixen <sup>db</sup>	MRMS	MSS	MSS	MRMS	MRMS	SVS	SVS	MSS	MRMS	MSS	MSS	S
Yitpi <sup>db</sup>	SVS	MRMS	MS	S	MRMS	S	MS	MS	MSS	MS	MR	S

Learn more via the [NVT Disease Ratings](#).

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, (P) = provisional rating, # warning, may be more susceptible to alternate pathotypes, ( ) show outlier.

# BARLEY

## New barley varieties

The following information is for barley varieties released in the 12 months to the date when the MET analysis was published on NVT online.

Variety	Variety owner	Grain classification <sup>#</sup>	End point royalty* (\$)	Comments supplied by variety owner
Combat <sup>Ⓛ</sup>	InterGrain	Feed	3.50	Mid-maturity suited to all regions. Semi-prostrate growth habit that will provide more weed competition than Rosalind <sup>Ⓛ</sup> . A potential variety replacement for Rosalind <sup>Ⓛ</sup> with a more competitive plant type.
Titan AX <sup>Ⓛ</sup>	Australian Grain Technologies	Under malt evaluation	4.55	The world's first CoAXium® barley variety. Mid-season maturity, slightly later than Compass <sup>Ⓛ</sup> , similar to RGT Planet <sup>Ⓛ</sup> . Agronomically similar to Compass <sup>Ⓛ</sup> .
Zena <sup>Ⓛ</sup> CL	InterGrain	Under malt evaluation	4.25	Zena <sup>Ⓛ</sup> CL is an imidazolinone-tolerant barley variety best-suited to medium-high rainfall environments.

\* EPR amount is ex-GST, <sup>Ⓛ</sup> denotes Plant Breeder's Rights apply, <sup>#</sup> barley malting quality accreditation correct at time of download (10 March 2023).

WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

Refer to the latest *Crop Sowing Guide* for further information at [grdc.com.au/nvt-crop-sowing-guides](https://grdc.com.au/nvt-crop-sowing-guides)

## Barley variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

**Table 1: Eradu main season barley.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.93	0.11		2.34	4.46
Combat <sup>db</sup>			Compromised trial	115	113
Buff <sup>db</sup>		116		109	104
Cyclops <sup>db</sup>				113	108
Leabrook <sup>db</sup>	107	94		118	108
Beast <sup>db</sup>		112		123	108
Rosalind <sup>db</sup>	102	134		119	109
Compass <sup>db</sup>	102	100		119	105
Laperouse <sup>db</sup>	105	106		109	104
Fathom <sup>db</sup>	105	104		111	102
Minotaur <sup>db</sup>				104	106
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Titan AX <sup>db</sup>					106
Maximus <sup>db</sup> CL	99	129		109	102
Zena <sup>db</sup> CL				99	105
Commodus <sup>db</sup> CL				111	102
Sowing date	25 May	7 Jun	25 May	26 May	21 May
Rainfall J–M (mm)	48	3	63	79	46
Rainfall A–O (mm)	318	270	201	343	329

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 2: Mingenew main season barley.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.61	1.12	4.98	4.59	5.64
Combat <sup>db</sup>				114	112
Rosalind <sup>db</sup>	114	119	106	115	109
Cyclops <sup>db</sup>			106	113	109
Beast <sup>db</sup>		124	105	106	107
Laperouse <sup>db</sup>	109	114	103	109	105
Buff <sup>db</sup>	106	137	99	109	105
Leabrook <sup>db</sup>	117	118	105	97	106
Minotaur <sup>db</sup>			107	110	106
Compass <sup>db</sup>	119	121	102	94	103
La Trobe <sup>db</sup>	109	112	99	105	101
<b>HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)</b>					
Maximus <sup>db</sup> CL	109	117	100	119	105
Titan AX <sup>db</sup>					105
Spartacus CL <sup>db</sup>	106	108	98	110	100
Commodus <sup>db</sup> CL			100	94	100
Sowing date	25 May	7 Jun	7 May	13 May	12 May
Rainfall J–M (mm)	75	12	104	68	69
Rainfall A–O (mm)	338	370	203	434	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 3: Yuna main season barley.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.80	5.01	5.34
Beast <sup>db</sup>	No trial	No trial	112	111	109
Cyclops <sup>db</sup>			101	111	110
Combat <sup>db</sup>				112	106
Leabrook <sup>db</sup>			107	104	110
Rosalind <sup>db</sup>			112	111	99
Compass <sup>db</sup>			112	102	106
Laperouse <sup>db</sup>			101	109	107
Minotaur <sup>db</sup>			102	110	101
La Trobe <sup>db</sup>			106	105	101
Fathom <sup>db</sup>					105
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Maximus <sup>db</sup> CL			104	114	102
Titan AX <sup>db</sup>					109
Commodus <sup>db</sup> CL			108	102	104
Spartacus CL <sup>db</sup>			104	108	100
Sowing date			25 May	11 May	5 May
Rainfall J–M (mm)			37	71	32
Rainfall A–O (mm)			174	340	270

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

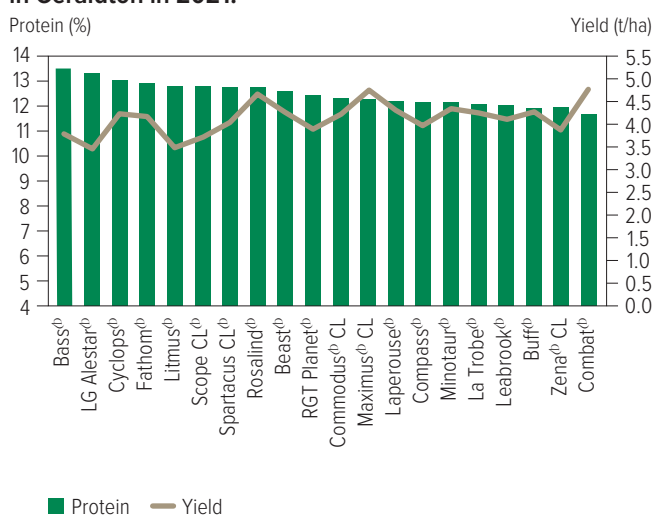
## Barley variety quality – Geraldton

Grain quality for individual varieties varies from site to site and from year to year. However, long-term and across-site trends highlight varieties that can consistently achieve high protein percentage, high test weight or low grain screenings under a wider range of environments.

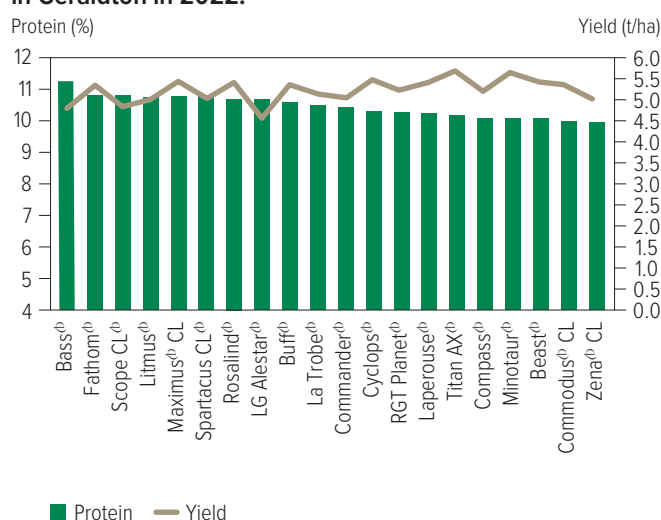
The following figures show the grain quality trends as histograms from 2021 and 2022 NVT averaged for trials in the Geraldton region. Only the varieties evaluated at every site are included. These are plotted in order of performance, up to a maximum of 20.

### Protein and yield comparisons

**Figure 1: Protein (%) and yield (t/ha) comparisons for main season barley varieties from three NVT sites in Geraldton in 2021.**

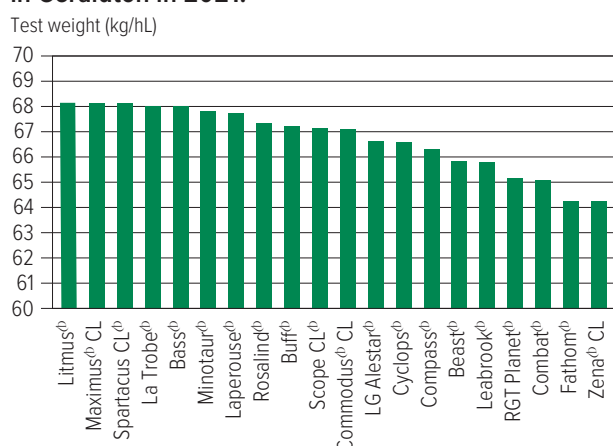


**Figure 2: Protein (%) and yield (t/ha) comparisons for main season barley varieties from three NVT sites in Geraldton in 2022.**

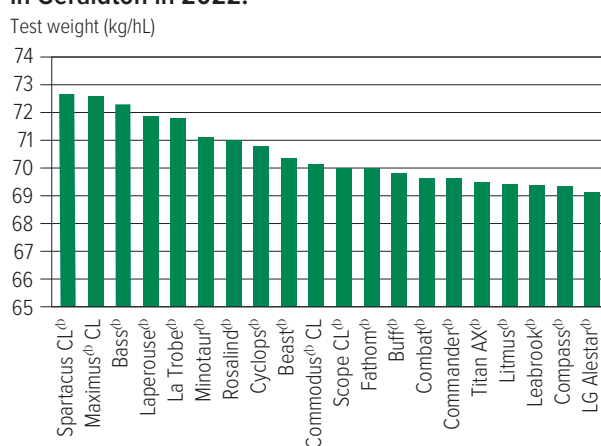


### Test weight comparisons

**Figure 3: Test weight (kg/hL) comparisons for main season barley varieties from three NVT sites in Geraldton in 2021.**



**Figure 4: Test weight (kg/hL) comparisons for main season barley varieties from three NVT sites in Geraldton in 2022.**



WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

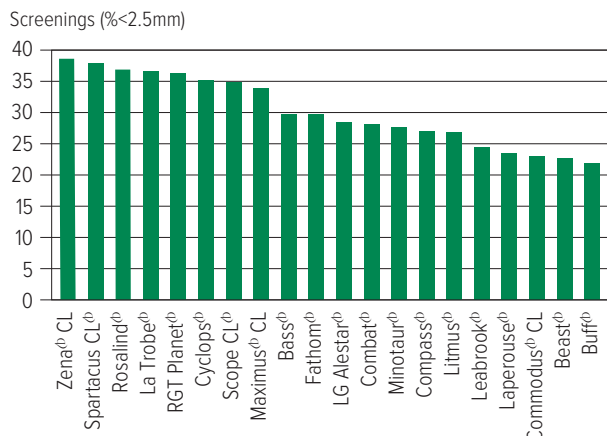
LENTIL

LUPIN

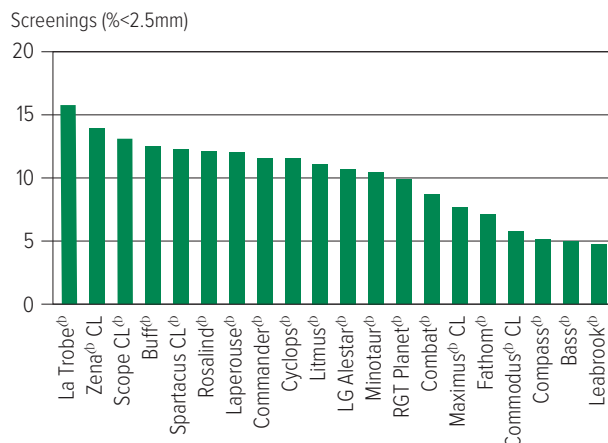


## Screenings comparisons

**Figure 5: Screenings (<2.5mm) comparisons for main season barley varieties from three NVT sites in Geraldton in 2021.**

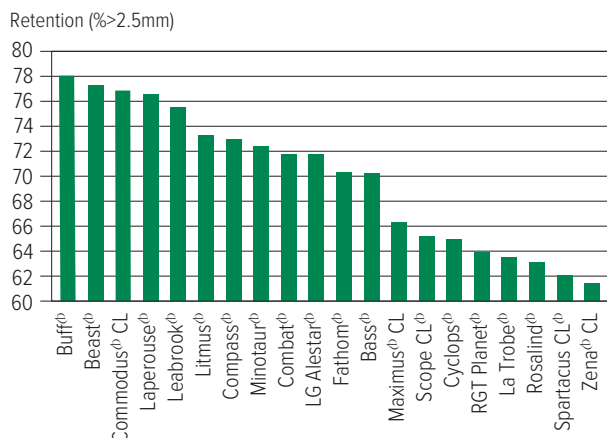


**Figure 6: Screenings (<2.5mm) comparisons for main season barley varieties from three NVT sites in Geraldton in 2022.**

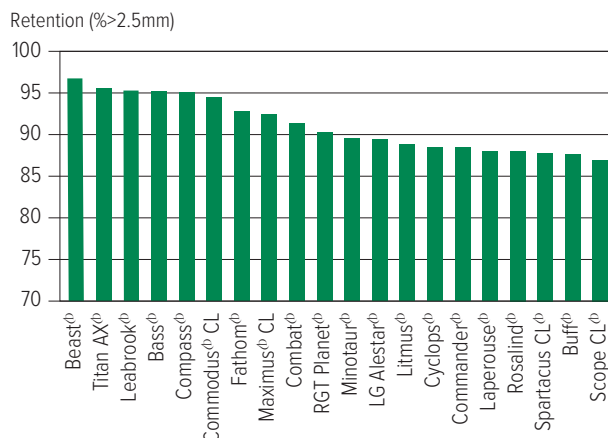


## Retention comparisons

**Figure 7: Retention (>2.5mm) comparisons for main season barley varieties from three NVT sites in Geraldton in 2021.**



**Figure 8: Retention (>2.5mm) comparisons for main season barley varieties from three NVT sites in Geraldton in 2022.**



WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

## Barley variety disease ratings – Western Australia

The following table contains varietal ratings for the predominant diseases of barley in Western Australia. These ratings are updated annually by crop pathologists and were released in March 2023.

Selected varieties of most relevance to Western Australian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Variety	Scald	Net form net blotch	Spot form net blotch	Powdery mildew	Leaf rust	Crown rot	Barley yellow dwarf virus	RLN resistance ( <i>Pratylenchus neglectus</i> )	RLN resistance ( <i>Pratylenchus quasitereoides</i> )	CCN	Ramularia	
Bass <sup>db</sup>	MRMS-MS	MRMS-SVS	MSS	MSS	SVS	MSS	MRMS	MS	MSS	S	VS (P)	WHEAT
Beast <sup>db</sup>	S	MRMS-S	MSS	MR	MSS	S	MS	MRMS	MS (P)	MR	SVS (P)	BARLEY
Bottler <sup>db</sup>	S	MR-MS	MSS	RMR	MS	SVS	MRMS	MS			SVS (P)	
Buff <sup>db</sup>	MRMS-MS	MR-MSS	MSS	S	S	S	MRMS-MS	MRMS	S		SVS (P)	
Combat <sup>db</sup>	S	MRMS-S	MRMS	R	MS	S (P)	MRMS	MR		MRMS	SVS (P)	
Commander <sup>db</sup>	MS-S	MRMS-S	MSS	MR	MSS	S	MRMS-MS	MRMS		R	SVS (P)	
Commodus <sup>db</sup> CL	MS	MRMS-S	MSS	R-MRMS	S	S (P)	MRMS	MRMS	MS (P)	R	SVS (P)	CANOLA
Compass <sup>db</sup>	MS	MR-S	MSS	R-MRMS	S	S	MS	MRMS	S	R	SVS (P)	
Cyclops <sup>db</sup>	MRMS	MR-S	S	MR	S	S (P)	S	MRMS	MSS (P)	S	SVS (P)	
Fairview <sup>db</sup>	S	MRMS-VS	MSS	R	S	MSS	MRMS	MR			SVS (P)	
Fandaga <sup>db</sup>	VS	R-MSS	S	RMR	MSS	MSS (P)	MS	MR		R	VS (P)	CHICKPEA
Fathom <sup>db</sup>	MR	MS-SVS	MR	MR-MRMS	MS	SVS	MRMS	MRMS	MSS	R	SVS (P)	
Flinders <sup>db</sup>	S	MRMS-S	MSS	RMR	MS	MSS	MRMS	MRMS	MSS (P)	S	SVS (P)	
La Trobe <sup>db</sup>	RMR	MRMS-S	MSS	S	S	S	MS-S	MRMS	S	R	SVS (P)	
Laperouse <sup>db</sup>	S	MR-S	MS	R-MR	MSS	S	MRMS-MS	MR	MS (P)	S	VS (P)	FIELD PEA
Leabrook <sup>db</sup>	MS	MRMS-S	MSS	R-MR	MSS	S	MS-MSS	MRMS	MS	RMR	VS (P)	
LG Alestar <sup>db</sup>	S	MRMS-S	S	R	MS	S	MRMS-MS	MR		R <sup>a</sup> (P)	SVS (P)	
Litmus <sup>db</sup>	S	MS-SVS	MSS	MR	S	S	S	MS	MSS (P)	MS	VS (P)	
Maximus <sup>db</sup> CL	R	MR-S	MSS	MR	MSS	S	MRMS	MRMS	S	R	VS (P)	
Minotaur <sup>db</sup>	VS	MRMS-MS	S	S	S	MS	MSS	MRMS	MS (P)	R	SVS (P)	LENTIL
RGT Planet <sup>db</sup>	RMR	MRMS-SVS	S	R	MRMS-MS	MSS	MRMS-MS	MRMS	MS	R (P)	VS (P)	
Rosalind <sup>db</sup>	MSS	MR-S	MSS	MSS	MR	MSS	MRMS-MS	MRMS	MSS	R	VS (P)	
Scope CL <sup>db</sup>	MS	MR-MSS	MSS	MR	MSS	S	MRMS	MRMS	MRMS	S	SVS (P)	
Spartacus CL <sup>db</sup>	RMR	MRMS-S	SVS	MSS	MSS	S	MSS	MRMS	MSS	R	VS (P)	
Titan AX <sup>db</sup>	S	MR-MSS	MS	RMR	S	MSS (P)	MS	R		MR (P)	VS (P)	LUPIN
Zena <sup>db</sup> CL	MR	MRMS-SVS	SVS	R	MS	MSS (P)	MRMS-MS	MRMS		R	VS (P)	

Learn more via the [NVT Disease Ratings](#).

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, (P) = provisional rating, - hyphen indicates a range, ^ line contains a few susceptible off types.

# CANOLA

## New canola varieties

The following information is for canola varieties released in the 12 months to the date when the MET analysis was published on NVT online.

Variety	Variety owner	End point royalty* (\$)	Comments supplied by variety owner
Bandit TT <sup>Ⓛ</sup>	Australian Grain Technologies	10.00	Triazine-tolerant, open-pollinated variety suitable to low rainfall environments. Very quick to flower.
HyTTec® Velocity	Nuseed Pty Ltd	5.00	An early maturing variety that exhibits impressive early vigour, with a compact plant height and improved pod shatter tolerance built in to improve harvesting.
InVigor® T 4511	BASF Australia	-	InVigor® T 4511 is an early-mid triazine-tolerant hybrid of medium height. With excellent early vigour InVigor® T 4511 is ideally suited to early and mid-season growing regions. With higher seedling vigour, higher oil and better blackleg tolerance InVigor® T 4511 is a replacement for InVigor® T 3510 and InVigor® T 4510.
Nuseed® Hunter TF	Nuseed Pty Ltd	-	An early-mid maturity TruFlex® hybrid canola with adaptability from low to high-rainfall regions. It has improved pod shatter tolerance with a compact plant height, reducing head loss, and is suitable for medium to quick-growing regions.
Renegade TT <sup>Ⓛ</sup>	Australian Grain Technologies	10.00	Triazine-tolerant, open-pollinated variety. Quick to flower with best performance under medium yield potential conditions.
RGT Baseline TT	RAGT	10.00	Mid-maturing triazine-tolerant hybrid variety. Suited to medium to high-rainfall zones. Medium-tall height. Marketed by Seed Force, an RAGT Company.

\* EPR amount is ex-GST, <sup>Ⓛ</sup> denotes Plant Breeder's Rights apply.

WHEAT

BARLEY

CANOLA

CHICKPEA

FIELD PEA

LENTIL

LUPIN

Refer to the latest *Crop Sowing Guide* for further information at [grdc.com.au/nvt-crop-sowing-guides](http://grdc.com.au/nvt-crop-sowing-guides)

## Canola variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

**Table 1: Coorow low-med rainfall GLY.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)				3.38	3.02
Nuseed® Hunter TF	No trial	No trial	Trial failed	112	108
Pioneer® 44Y27 RR				107	104
Pioneer® 44Y30 RR				105	106
InVigor® R 4520P				109	100
Nuseed® Raptor TF				106	103
InVigor® R 4022P				105	99
Nuseed® Emu TF				100	101
Hyola® Battalion XC				97	100
Hyola® Garrison XC					100
DG Lofty TF				97	96
Sowing date			25 May	8 May	26 Apr
Rainfall J–M (mm)			119	83	62
Rainfall A–O (mm)			159	323	244

Special thanks to 2022 trial cooperator, Catalina Farms.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 2: Greenough low-med rainfall GLY.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		1.77		2.48	2.31
Nuseed® Hunter TF	Trial failed		Compromised trial	109	111
InVigor® R 4520P		92		114	115
Pioneer® 44Y27 RR		105		106	107
Nuseed® Raptor TF		103		105	106
Pioneer® 44Y30 RR				103	105
InVigor® R 4022P		98		107	106
Nuseed® Emu TF					92
DG Lofty TF				99	95
Hyola® Garrison XC		102			95
Hyola® Battalion XC				95	93
Sowing date	25 May	7 Jun	12 Jun	21 Apr	12 May
Rainfall J–M (mm)	19	11	32	53	32
Rainfall A–O (mm)	274	379	233	416	480

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 3: Mingenew low-med rainfall GLY.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.52	0.78	2.59	2.42	2.20
Nuseed® Emu TF		112	113		109
Nuseed® Hunter TF				110	112
Pioneer® 44Y27 RR	109	104	106	107	108
Pioneer® 44Y30 RR				103	102
Hyola® Battalion XC			103	101	99
Nuseed® Raptor TF		107	99	104	102
InVigor® R 4022P		95	98	104	104
Hyola® Garrison XC		109	99		94
DG Lofty TF				100	96
InVigor® R 4520P		84	93	103	105
Sowing date	25 May	7 Jun	5 May	5 May	12 May
Rainfall J–M (mm)	75	12	104	58	69
Rainfall A–O (mm)	338	370	203	333	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.  
Learn more via the [NVT Long Term Yield Reporter](#)

**Table 4: Yuna low-med rainfall GLY.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		1.06		3.64	2.71
Nuseed® Hunter TF	No trial		Trial failed		109
Pioneer® 44Y27 RR		102		110	104
Pioneer® 44Y30 RR				100	107
Nuseed® Emu TF				114	100
InVigor® R 4520P		100		105	104
InVigor® R 4022P		99		105	103
Hyola® Battalion XC				100	101
DG Lofty TF				97	101
Hyola® Garrison XC		112			101
Hyola® 410XX		101		90	96
Sowing date		7 Jun	6 May	5 May	28 Apr
Rainfall J–M (mm)		7	37	71	32
Rainfall A–O (mm)		195	174	340	270

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

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Table 5: Mingenew low-med rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.77	0.67	2.60	2.31	2.14
Saintly CL		109			
Hyola® Equinox CL					98
Pioneer® 44Y90 CL	98	98	100		
Pioneer® 44Y94 CL				102	104
VICTORY® V7002CL	104	103	99		
Pioneer® 43Y92 CL	96	103	98	98	96
Hyola® 575CL	92	96			
Hyola® Solstice CL				93	
Sowing date	25 May	7 Jun	5 May	5 May	12 May
Rainfall J–M (mm)	75	12	104	58	69
Rainfall A–O (mm)	338	370	203	333	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 6: Coorow low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)				2.86	2.81
HyITec® Trident	No trial	No trial	Trial failed	118	114
SF Dynatron TT™				116	108
HyITec® Velocity				113	109
HyITec® Trophy					109
InVigor® T 4510				113	107
Hyola® Blazer TT					107
InVigor® LT 4530P				111	103
InVigor® T 4511				108	106
RGT Baseline TT					103
RGT Capacity™ TT				102	105
Sowing date			25 May	8 May	26 Apr
Rainfall J–M (mm)			119	83	62
Rainfall A–O (mm)			159	323	244

Special thanks to 2022 trial cooperator, Catalina Farms.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 7: Greenough low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		1.67		1.87	2.07
Hyola® Blazer TT	Trial failed		Compromised trial	113	117
InVigor® T 4510		107		112	112
InVigor® LT 4530P				114	113
InVigor® T 4511				105	106
Hyola® Enforcer CT				100	101
RGT Capacity™ TT				98	101
SF Spark TT		103		101	99
Bandit TT <sup>Ⓟ</sup>				99	98
Renegade TT <sup>Ⓟ</sup>				103	104
AFP Cutubury <sup>Ⓟ</sup>				91	91
Sowing date	25 May	7 Jun	12 Jun	21 Apr	12 May
Rainfall J–M (mm)	19	11	32	53	32
Rainfall A–O (mm)	274	379	233	416	480

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 8: Mingenew low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.48	0.51	2.39	1.99	1.94
InVigor® T 4510	108	111	107	112	112
InVigor® T 4511				108	107
SF Spark TT		105	104	105	104
Bandit TT <sup>Ⓟ</sup>				104	103
RGT Capacity™ TT			105	100	101
InVigor® LT 4530P			100	107	108
Hyola® Enforcer CT		118	102	102	100
Hyola® Blazer TT		101	100	102	105
Renegade TT <sup>Ⓟ</sup>				94	98
AFP Cutubury <sup>Ⓟ</sup>				89	90
Sowing date	25 May	7 Jun	5 May	5 May	12 May
Rainfall J–M (mm)	75	12	104	58	69
Rainfall A–O (mm)	338	370	203	333	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 9: Yuna low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		0.92		3.02	2.35
HyITec® Trident	No trial	131	Trial failed	123	117
HyITec® Velocity					111
InVigor® T 4510		113		115	110
HyITec® Trophy		120			110
InVigor® T 4511				108	110
InVigor® LT 4530P				110	107
Hyola® Blazer TT					108
Hyola® Enforcer CT					106
Bandit TT <sup>Ⓟ</sup>				105	102
SF Spark TT		98		106	101
Sowing date		7 Jun	6 May	5 May	28 Apr
Rainfall J–M (mm)		7	37	71	32
Rainfall A–O (mm)		195	174	340	270

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

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## Australian canola variety disease ratings

The following table contains varietal ratings for blackleg disease of canola.

These ratings are updated twice a year by crop pathologists and were released in autumn 2023.

Varieties are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

**Table 10: Canola disease guide – autumn 2023 ratings.**

Variety	2023 autumn blackleg rating			Type
	Bare	Fluopyram (e.g. ILeVO®)	Pydiflumetofen (e.g. Saltro®)	
CONVENTIONAL VARIETIES				
Nuseed® Quartz	R			Hybrid
Nuseed® Diamond	RMR	R	R	Hybrid
Outlaw <sup>Ⓢ</sup>	RMR	R	R	Open pollinated
TRIAZINE-TOLERANT VARIETIES				
HyTTec® Trident	R			Hybrid
HyTTec® Trifecta	R			Hybrid
HyTTec® Trophy	R	R	R	Hybrid
Hyola® Blazer TT	R			Hybrid
DG BIDGEE TT <sup>Ⓢ</sup>	R	R	R	Open pollinated
InVigor® T 4511	R	R		Hybrid
DG MURRAY TT <sup>Ⓢ</sup>	R			Open pollinated
DG Torrens TT <sup>Ⓢ</sup>	R		R	Open pollinated
Monola® H421TT	RMR			High stability oil, hybrid
Monola® 420TT	RMR			High stability oil, open pollinated
ATR-Bluefin <sup>Ⓢ</sup>	RMR			Open pollinated
InVigor® T 4510	MR	R	R	Hybrid
SF Spark TT	MR	R	R	Hybrid
HyTTec® Velocity	MR			Hybrid
Renegade TT <sup>Ⓢ</sup>	MR	R	R	Open pollinated
Monola® 422TT	MR			High stability oil, open pollinated
ATR-Stingray <sup>Ⓢ</sup>	MRMS	R	R	Open pollinated
RGT Baseline™ TT	MRMS	R	R	Hybrid
ATR-Swordfish <sup>Ⓢ</sup>	MRMS			Open pollinated
SF Dynatron™ TT	MRMS	R	R	Hybrid
InVigor® T 6010	MRMS	R	R	Hybrid
RGT Capacity™ TT	MRMS	R	R	Hybrid
Bandit TT <sup>Ⓢ</sup>	MRMS	R	R	Open pollinated
AFP Cutubury <sup>Ⓢ</sup>	MS	RMR	RMR	Open pollinated
ATR-Bonito <sup>Ⓢ</sup>	MS	RMR	R	Open pollinated
IMIDAZOLINONE-TOLERANT VARIETIES				
Hyola® Feast CL	R			Winter, hybrid, Clearfield®
RGT Nizza CL	R			Winter, hybrid, Clearfield®
Hyola® Solstice CL	R			Hybrid, Clearfield®
Captain CL	R			Winter, hybrid, Clearfield®
Hyola® Equinox CL	R			Hybrid, Clearfield®
Pioneer® 45Y93 CL	R		R	Hybrid, Clearfield®
RGT Clavier™ CL	R			Winter, hybrid, Clearfield®
Hyola® 970CL	R			Winter, hybrid, Clearfield®
Phoenix CL	R			Winter, hybrid, Clearfield®
Nuseed® Ceres IMI	R			Hybrid
VICTORY® V7002CL	R			High stability oil, hybrid, Clearfield®

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

Please check updated ratings using the [Blackleg Management Guide](#) or the [NVT Disease Ratings](#).

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Table 10: Canola disease guide – autumn 2023 ratings (continued).

Variety	2023 autumn blackleg rating			Type
	Bare	Fluopyram (e.g. ILeVO®)	Pydiflumetofen (e.g. Saltro®)	
Pioneer® 43Y92 CL	R		R	Hybrid, Clearfield®
Pioneer® 45Y95 CL	R		R	Hybrid, Clearfield®
Pioneer® 44Y94 CL	R		R	Hybrid, Clearfield®
VICTORY® V75-03CL	RMR	R		High stability oil, hybrid, Clearfield®
IMIDAZOLINONE AND TRIAZINE-TOLERANT VARIETIES				
Hyola® Enforcer CT	R			Hybrid, Clearfield®, Triazine
Pioneer® PY520 TC	RMR	R	R	Hybrid, Clearfield®, Triazine
GLYPHOSATE-TOLERANT VARIETIES				
Nuseed® Raptor TF	R			Hybrid, TruFlex®
Nuseed® Eagle TF	R		R	Hybrid, TruFlex®
DG Hotham TF	R		R	Hybrid, TruFlex®
VICTORY® V55-04TF	R	R		High stability oil, hybrid, TruFlex®
VICTORY® V5003RR	R	R		High stability oil, hybrid, Roundup Ready®
DG Lofty TF	R		R	Hybrid, TruFlex®
Pioneer® 45Y28RR	RMR		R	Hybrid, Roundup Ready®
Nuseed® Hunter TF	RMR		R	Hybrid, TruFlex®
Pioneer® 44Y27 RR	RMR	R	R	Hybrid, Roundup Ready®
InVigor® LR 4540P	RMR	R		Hybrid, LibertyLink®, TruFlex®
Pioneer® 44Y30 RR	RMR		R	Hybrid, Roundup Ready®
Nuseed® Emu TF	MR		R	Hybrid, TruFlex®
Hyola® 410XX	MR			Hybrid, TruFlex®
DG Bindo TF	MR			Hybrid, TruFlex®
InVigor® R 4022P	MR	R		Hybrid, TruFlex®
InVigor® R 4520P	MRMS	R		Hybrid, TruFlex®
GLYPHOSATE AND IMIDAZOLINONE-TOLERANT VARIETIES				
Hyola® Regiment XC	R			Hybrid, TruFlex®, Clearfield®
Hyola® Battalion XC	R			Hybrid, TruFlex®, Clearfield®
Hyola® Garrison XC	R			Hybrid, TruFlex®, Clearfield®
GLUFOSINATE AND TRIAZINE-TOLERANT VARIETIES				
InVigor® LT 4530P	RMR	R		Hybrid, LibertyLink®, Triazine

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.  
Please check updated ratings using the [Blackleg Management Guide](#) or the [NVT Disease Ratings](#).

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# CHICKPEA

## Chickpea variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

Table 1: Mingenew desi chickpea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.42	0.90	1.52	1.73	1.52
CBA Captain <sup>db</sup>	103	111	116	108	112
PBA Striker <sup>db</sup>	104	106	108	106	112
Neelam <sup>db</sup>	100	102	106	105	106
PBA Slasher <sup>db</sup>	103	103	103	102	108
PBA Maiden <sup>db</sup>	104	106	102	103	103
Ambar <sup>db</sup>	108				
Genesis™ 079	99				
Genesis™ 836	96	95	97	97	92
PBA Seamer <sup>db</sup>					85
Genesis™ 090	84	71	79	93	76
Sowing date	4 Jun	7 Jun	15 May	27 May	13 Jun
Rainfall J–M (mm)	75	12	104	58	69
Rainfall A–O (mm)	338	370	203	333	314

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Table 2: Mullewa desi chickpea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	0.94	0.80	1.18	1.75	
CBA Captain <sup>db</sup>	104	102	116	104	Trial results below standard
PBA Striker <sup>db</sup>	99	103	105	107	
Neelam <sup>db</sup>	101	98	105	104	
PBA Slasher <sup>db</sup>	98	103	101	105	
Ambar <sup>db</sup>	97				
PBA Maiden <sup>db</sup>	97	105	98	100	
Genesis™ 836	102	96	99	96	
Genesis™ 090	101	77	80	98	
Sowing date	25 May	7 Jun	15 May	26 May	18 May
Rainfall J–M (mm)	99	3	44	87	58
Rainfall A–O (mm)	255	152	220	270	264

Special thanks to 2022 trial cooperator - permission to publish was not received.  
Learn more via the [NVT Long Term Yield Reporter](#)

Refer to the latest [Crop Sowing Guide](#) for further information at [grdc.com.au/nvt-crop-sowing-guides](http://grdc.com.au/nvt-crop-sowing-guides)

## Chickpea variety disease ratings – Western Australia

The following table contains varietal ratings for the predominant diseases of chickpea in Western Australia. These ratings are updated annually by crop pathologists and were released in March 2023.

Selected varieties of most relevance to Western Australian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 3: Chickpea disease guide for Western Australia.				
Variety	Ascochyta blight (pathogen group 2 – north)	Phytophthora root rot	RLN resistance ( <i>Pratylenchus neglectus</i> )	RLN tolerance ( <i>Pratylenchus neglectus</i> )
<b>DESI</b>				
CBA Captain <sup>Ⓛ</sup>	MS	S	MR	MT
Genesis™ 836	S		MR	MII
Neelam <sup>Ⓛ</sup>	S		MRMS	MI
PBA Maiden <sup>Ⓛ</sup>	S		MRMS	MI
PBA Seamer <sup>Ⓛ</sup>	MS	S	MRMS	MI
PBA Slasher <sup>Ⓛ</sup>	S		MRMS	MI
PBA Striker <sup>Ⓛ</sup>	S		MRMS	MI
<b>KABULI</b>				
Genesis™ 090	MS		MRMS	IVI

Learn more via the [NVT Disease Ratings](#).

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, T = tolerant, MT = moderately tolerant, MI = moderately intolerant, I = intolerant, VI = very intolerant.

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# FIELD PEA

## Field pea variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

**Table 1: Mingenew field pea.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.41	1.21	3.09	2.14	2.88
PBA Pearl	110	92	111		
PBA Butler <sup>†</sup>	113	99	110	106	108
PBA Taylor <sup>†</sup>	108	99	106	103	102
Kaspa <sup>†</sup>	104	101	107	99	103
PBA Gunyah <sup>†</sup>	96	95	106	97	102
PBA Twilight <sup>†</sup>	94	98	103	95	98
PBA Oura <sup>†</sup>	96	99	97	99	99
PBA Wharton <sup>†</sup>	96	99	98	97	96
GIA Ourstar <sup>†*</sup>			84	91	89
GIA Kastar <sup>†*</sup>			81	86	81
Sowing date	4 Jun	7 Jun	15 May	27 May	13 Jun
Rainfall J–M (mm)	75	12	104	58	69
Rainfall A–O (mm)	338	370	203	333	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.

\* herbicide-tolerant variety. Learn more via the [NVT Long Term Yield Reporter](#)

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Refer to the latest *Crop Sowing Guide* for further information at [grdc.com.au/nvt-crop-sowing-guides](https://grdc.com.au/nvt-crop-sowing-guides)

## Field pea variety disease ratings – Western Australia

The following table contains varietal ratings for the predominant diseases of field pea in Western Australia. These ratings are updated annually by crop pathologists and were released in March 2023.

Selected varieties of most relevance to Western Australian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

**Table 2: Field pea disease guide for Western Australia.**

Variety	Bacterial blight	Downy mildew	Powdery mildew	RLN resistance ( <i>Pratylenchus neglectus</i> )	RLN resistance ( <i>Pratylenchus thornei</i> )
GIA Kastar <sup>Ⓛ</sup>	S	S	RMR	MR	MS
GIA Ourstar <sup>Ⓛ</sup>	S (P)	S	S	MRMS	MSS
Kaspa <sup>Ⓛ</sup>	S	S	S	RMR	MRMS
PBA Butler <sup>Ⓛ</sup>	MS	S	S	RMR	MRMS
PBA Gunyah <sup>Ⓛ</sup>	S	S	S	RMR	MRMS
PBA Oura <sup>Ⓛ</sup>	MS	S	S	MR	MRMS
PBA Pearl	MS	S	S	MR	MRMS
PBA Percy	MRMS	S	S	RMR	RMR
PBA Taylor <sup>Ⓛ</sup>	S	S	S	RMR	MRMS
PBA Twilight <sup>Ⓛ</sup>	S	S	S	MR	MRMS
PBA Wharton <sup>Ⓛ</sup>	S	S	RMR	MR	MRMS

Learn more via the [NVT Disease Ratings](#).

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, (P) = provisional rating.

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# LENTIL

## New lentil varieties

The following information is for lentil varieties released in the 12 months to the date when the MET analysis was published on NVT online.

Variety	Variety owner	Grain classification	End point royalty* (\$)	Comments supplied by variety owner
GIA Leader <sup>®</sup>	Grains Innovation Australia	Red	5.40	An imidazolinone-tolerant red lentil variety well suited to reliable lentil growing areas in medium to higher-rainfall zones. GIA Leader <sup>®</sup> has a good level of foliar disease resistance (both Botrytis grey mould (BGM) and Ascochyta blight) and improved vegetative frost tolerance compared to PBA Hurricane XT <sup>®</sup> . This variety has imidazolinone and soil residue sulfonylurea herbicide tolerance similar to existing XT varieties. GIA Leader <sup>®</sup> has mid to late flowering and maturity, similar to Nugget, making it well suited to early sowing. It has a spreading plant type that can assist protection of pods at maturity. Uniform grey seed coat and the grain is well suited to the medium-sized Nugget-type market.
GIA Lightning <sup>®</sup>	Grains Innovation Australia	Red	5.40	An imidazolinone-tolerant, high-yielding small round red lentil with superior adaptation to light textured sandy soils than other lentil varieties, making it suitable for growing in Mallee regions. GIA Lightning <sup>®</sup> has an upright plant type, which aids harvestability. This variety has imidazolinone and soil residue sulfonylurea herbicide tolerance similar to existing XT varieties. GIA Lightning <sup>®</sup> is mid to late flowering with mid-maturity, has moderate resistance to pod drop and lodging, and is resistant/moderately resistant to shattering at maturity. GIA Lightning <sup>®</sup> has the same Ascochyta blight disease rating as GIA Thunder <sup>®</sup> but is more susceptible to BGM. GIA Lightning <sup>®</sup> is not well suited to soil types or regions prone to BGM.
GIA Metro <sup>®</sup>	Grains Innovation Australia	Red	7.50	The first lentil to combine imidazolinone and metribuzin herbicide tolerances. This unique combination of herbicide tolerance will expand weed control options in lentil, particularly in light-textured soils prone to damage from the application of Group 5 (previously Group C) herbicides. Grain yield is significantly lower than existing lentil varieties in the absence of weed pressure, or where weeds are controlled effectively without crop damage from Group 5 herbicides. GIA Metro <sup>®</sup> is a large, lens-shaped red lentil with a grey seed coat.
GIA Sire <sup>®</sup>	Grains Innovation Australia	Red	TBC	The first lentil with improved tolerance to Clopyralid soil residues from a prior crop applied according to product label directions. GIA Sire <sup>®</sup> is a premium, small, round red lentil with a grey seed coat. Its tolerance to imidazolinone and soil residue sulfonylurea is similar to existing XT varieties. GIA Sire <sup>®</sup> is slow-growing with smaller plant parts, increased basal branching and shorter plant height compared to other lentil varieties. It is best suited to agronomic practices such as early sowing and lentil growing environments that maximise growth, harvest height and grain yield. Avoid growing this variety in low-fertility sandy soils or low-rainfall, frost-prone environments. Seed of GIA Sire <sup>®</sup> is available only under small, scale-controlled release.
GIA Thunder <sup>®</sup>	Grains Innovation Australia	Red	5.40	A broadly adapted, imidazolinone-tolerant, small, round red lentil, offering growers high and stable yields across all lentil growing regions. GIA Thunder <sup>®</sup> is a mid-flowering and mid-maturing variety, with better vegetative frost tolerance than PBA HighlandXT <sup>®</sup> , PBA Hallmark XT <sup>®</sup> , PBA Hurricane XT <sup>®</sup> and GIA Lightning <sup>®</sup> . GIA Thunder <sup>®</sup> has similar Group 2 (imidazolinone and soil residue sulfonylurea) herbicide tolerance to existing XT varieties. GIA Thunder <sup>®</sup> has the same Ascochyta blight disease rating as PBA Hurricane XT <sup>®</sup> and GIA Lightning <sup>®</sup> but an improved BGM rating over both. The grain is well suited to the small premium round grain market with a uniform grey seed coat with seed size similar to PBA Hurricane XT <sup>®</sup> .

\* EPR amount is ex-GST, <sup>®</sup> denotes Plant Breeder's Rights apply, TBC denotes to be confirmed.

The table above has been updated in this **Revised May 2023** harvest report. Please disregard all previous versions of this report, which regrettably contained incorrect information. Of specific importance, it should be noted that GIA Thunder<sup>®</sup> lentil is in the same small round lentil market class as PBA Hurricane XT<sup>®</sup>; this was incorrectly stated in previous editions.

Refer to the latest **Crop Sowing Guide** for further information at [grdc.com.au/nvt-crop-sowing-guides](http://grdc.com.au/nvt-crop-sowing-guides)

## Lentil variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

**Table 1: Mingenew lentil.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			1.68	1.58	
GIA Thunder <sup>db</sup> *	No trial	No trial	123	112	Compromised trial
GIA Lightning <sup>db</sup> *			122	105	
PBA Jumbo2 <sup>db</sup>			107	113	
PBA Kelpie XT <sup>db</sup> *			117	102	
PBA HighlandXT <sup>db</sup> *			116	103	
PBA Bolt <sup>db</sup>			105	98	
PBA Hurricane XT <sup>db</sup> *			98	98	
PBA Hallmark XT <sup>db</sup> *			92	95	
PBA Blitz <sup>db</sup>			92	94	
GIA Leader <sup>db</sup> *			89	97	
Sowing date			7 Jun	27 May	13 Jun
Rainfall J–M (mm)			104	58	69
Rainfall A–O (mm)			203	333	314

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.

\* herbicide-tolerant variety. Learn more via the [NVT Long Term Yield Reporter](#)

## Lentil variety disease ratings – Western Australia

The following table contains varietal ratings for the predominant diseases of lentil in Western Australia. These ratings are updated annually by crop pathologists and were released in March 2023.

Selected varieties of most relevance to Western Australian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

**Table 2: Lentil disease guide for Western Australia.**

Variety	Ascochyta blight (Pathotype 2 PBA Hurricane XT <sup>db</sup> virulent)	Ascochyta blight (Pathotype 1 Nipper <sup>db</sup> virulent)	Botrytis grey mould	RLN resistance ( <i>Pratylenchus neglectus</i> )	RLN resistance ( <i>Pratylenchus thornei</i> )
GIA Leader <sup>db</sup>	MR	MR	MRMS (P)	R	MR
GIA Lightning <sup>db</sup>	MRMS	R	MS	R	MR
GIA Metro <sup>db</sup>	RMR	MR	MRMS	MR	MRMS
GIA Sire <sup>db</sup>	MRMS (P)	R	MS	MR	MR
GIA Thunder <sup>db</sup>	MRMS	R	MRMS	MR	R
Nipper <sup>db</sup>	MR	MRMS	MRMS (P)	RMR	MR
PBA Ace <sup>db</sup>	MR	R	MS	MR	MRMS
PBA Blitz <sup>db</sup>	MR	MRMS	MS (P)	MR	MRMS
PBA Bolt <sup>db</sup>	MRMS	MR	S	MR	MR
PBA Hallmark XT <sup>db</sup>	MRMS	RMR	MRMS (P)	MR	MRMS
PBA HighlandXT <sup>db</sup>	MR	MR	MS	MR	MRMS
PBA Hurricane XT <sup>db</sup>	MRMS	RMR	MS	MRMS	MRMS
PBA Jumbo2 <sup>db</sup>	RMR (P)	R	MR (P)	MR	MRMS
PBA Kelpie XT <sup>db</sup>	MRMS	MRMS	MS (P)	MRMS	MRMS

Learn more via the [NVT Disease Ratings](#).

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, (P) = provisional rating.

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LUPIN

# LUPIN

## New lupin varieties

The following information is for lupin varieties released in the 12 months to the date when the MET analysis was published on NVT online.

Variety	Variety owner	End point royalty* (\$)	Comments supplied by variety owner
Lawler <sup>db</sup>	Australian Grain Technologies	4.00	A widely adapted variety, offering growers high and stable yields across all NSW, Victorian and South Australian lupin growing regions.

\* EPR amount is ex-GST, <sup>db</sup> denotes Plant Breeder's Rights apply.

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Refer to the latest *Crop Sowing Guide* for further information at [grdc.com.au/nvt-crop-sowing-guides](http://grdc.com.au/nvt-crop-sowing-guides)

## Lupin variety yield performance – Geraldton

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

**Table 1: Eneabba narrow-leaf lupin.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.95	0.89	1.67	3.44	3.42
Coyote <sup>db</sup>	104	112	113	109	118
Lawler <sup>db</sup>			104	107	117
PBA Jurien <sup>db</sup>		96	101		114
PBA Bateman <sup>db</sup>	101	106	110	106	104
Mandelup <sup>db</sup>		92	94	103	109
PBA Barlock <sup>db</sup>		82	85	101	103
PBA Gunyidi <sup>db</sup>		106	109	101	91
Coromup <sup>db</sup>	100	98	87	91	106
PBA Leeman <sup>db</sup>	101	95	81	89	109
Wonga		52	48	82	80
Sowing date	25 May	7 Jun	6 May	18 May	2 May
Rainfall J–M (mm)	63	12	114	79	70
Rainfall A–O (mm)	409	273	257	477	429

PBA Jurien<sup>db</sup> was not included in 2021 due to a seed quality issue.

Special thanks to 2022 trial cooperator - permission to publish was not received.

Learn more via the [NVT Long Term Yield Reporter](#)

**Table 2: Mingenew narrow-leaf lupin.**

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.50	0.39	1.39	3.52	2.65
PBA Jurien <sup>db</sup>		72	103		117
Coyote <sup>db</sup>	106	103	107	108	120
Lawler <sup>db</sup>			103	107	118
Mandelup <sup>db</sup>		75	97	106	110
PBA Barlock <sup>db</sup>		58	93	107	104
PBA Bateman <sup>db</sup>	103	102	106	105	107
PBA Gunyidi <sup>db</sup>		118	106	98	92
Coromup <sup>db</sup>	93	104	90	92	101
PBA Leeman <sup>db</sup>	95	98	85	91	103
Wonga		34	71	92	75
Sowing date	25 May	7 Jun	12 Jun	18 May	5 May
Rainfall J–M (mm)	75	12	87	67	50
Rainfall A–O (mm)	338	370	302	419	362

PBA Jurien<sup>db</sup> was not included in 2021 due to a seed quality issue.

Special thanks to 2022 trial cooperator, Mingenew Irwin Group.

Learn more via the [NVT Long Term Yield Reporter](#)

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Table 3: Mullewa narrow-leaf lupin.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.99	0.70		2.85	2.89
PBA Jurien <sup>db</sup>		106	Trial failed		104
Coyote <sup>db</sup>	102	114		108	109
Lawler <sup>db</sup>				108	107
Mandelup <sup>db</sup>		103		106	101
PBA Barlock <sup>db</sup>		95		106	97
PBA Bateman <sup>db</sup>	101	103		104	103
PBA Leeman <sup>db</sup>	96	109		96	102
Coromup <sup>db</sup>	95	107		96	102
PBA Gunyidi <sup>db</sup>		95		97	98
Wonga		75		94	83
Sowing date	25 May	7 Jun	5 May	14 May	10 May
Rainfall J–M (mm)	99	3	44	87	58
Rainfall A–O (mm)	255	152	220	270	264

PBA Jurien<sup>db</sup> was not included in 2021 due to a seed quality issue.

Special thanks to 2022 trial cooperator - permission to publish was not received.

Learn more via the [NVT Long Term Yield Reporter](#)

Table 4: Yuna narrow-leaf lupin.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		0.97		2.35	2.79
PBA Jurien <sup>db</sup>	No trial	110	Trial failed		107
Coyote <sup>db</sup>		113		111	106
Lawler <sup>db</sup>				109	105
PBA Bateman <sup>db</sup>		107		107	104
Mandelup <sup>db</sup>		103		105	103
PBA Barlock <sup>db</sup>		99		103	103
PBA Gunyidi <sup>db</sup>		101		99	99
Coromup <sup>db</sup>		92		91	95
PBA Leeman <sup>db</sup>		89		89	95
Wonga		71		82	91
Sowing date		7 Jun	6 May	14 May	28 Apr
Rainfall J–M (mm)		7	37	71	32
Rainfall A–O (mm)		195	174	340	270

PBA Jurien<sup>db</sup> was not included in 2021 due to a seed quality issue.

Special thanks to 2022 trial cooperator - permission to publish was not received.

Learn more via the [NVT Long Term Yield Reporter](#)

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## Lupin variety disease ratings – Western Australia

The following table contains varietal ratings for the predominant diseases of lupin in Western Australia. These ratings are updated annually by crop pathologists and were released in March 2023.

Selected varieties of most relevance to Western Australian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 5: Lupin disease guide for Western Australia.

Variety	Anthraxnose resistance	Cucumber mosaic virus (CMV)	Phomopsis pod infection	Phomopsis stem infection
Coromup <sup>db</sup>	MR	MR	MS	MR
Coyote <sup>db</sup>	MRMS	MRMS	MRMS	S
Jenabillup <sup>db</sup>	MS	MRMS	MR	MS
Lawler <sup>db</sup>	MR	MRMS	MS	MR
Mandelup <sup>db</sup>	MRMS	MRMS	S	RMR
PBA Barlock <sup>db</sup>	RMR	MR	MR	MR
PBA Bateman <sup>db</sup>	MRMS	MR	MS	RMR
PBA Gunyidi <sup>db</sup>	MRMS	MRMS	MRMS	RMR
PBA Jurien <sup>db</sup>	RMR	MS	MR	RMR
PBA Leeman <sup>db</sup>	MRMS	MRMS	MRMS	MR
Wonga	RMR	MR	MR	MR

Learn more via the [NVT Disease Ratings](#).

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

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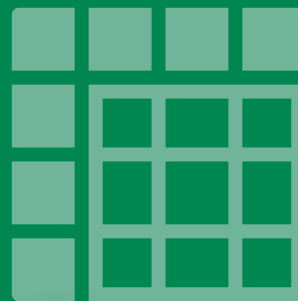
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