

NVT HARVEST REPORT



REVISED MAY 2023

Wimmera and Upper South-East South Australia
Southern Region

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South Australia

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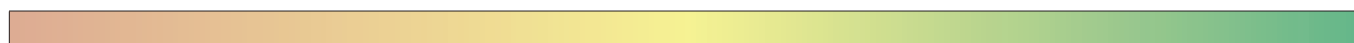
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LEGEND: MEAN VARIETY YIELD PERFORMANCE



LOW

HIGH

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 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

INTRODUCTION

This *NVT Harvest Report* provides information to support growers and advisers with decisions on variety selection for **Wimmera and Upper South-East South Australia**. 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 **Wimmera and Upper South-East South Australia** 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 **Wimmera and Upper South-East South Australia** 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 **Wimmera and Upper South-East South Australia**.

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](#).

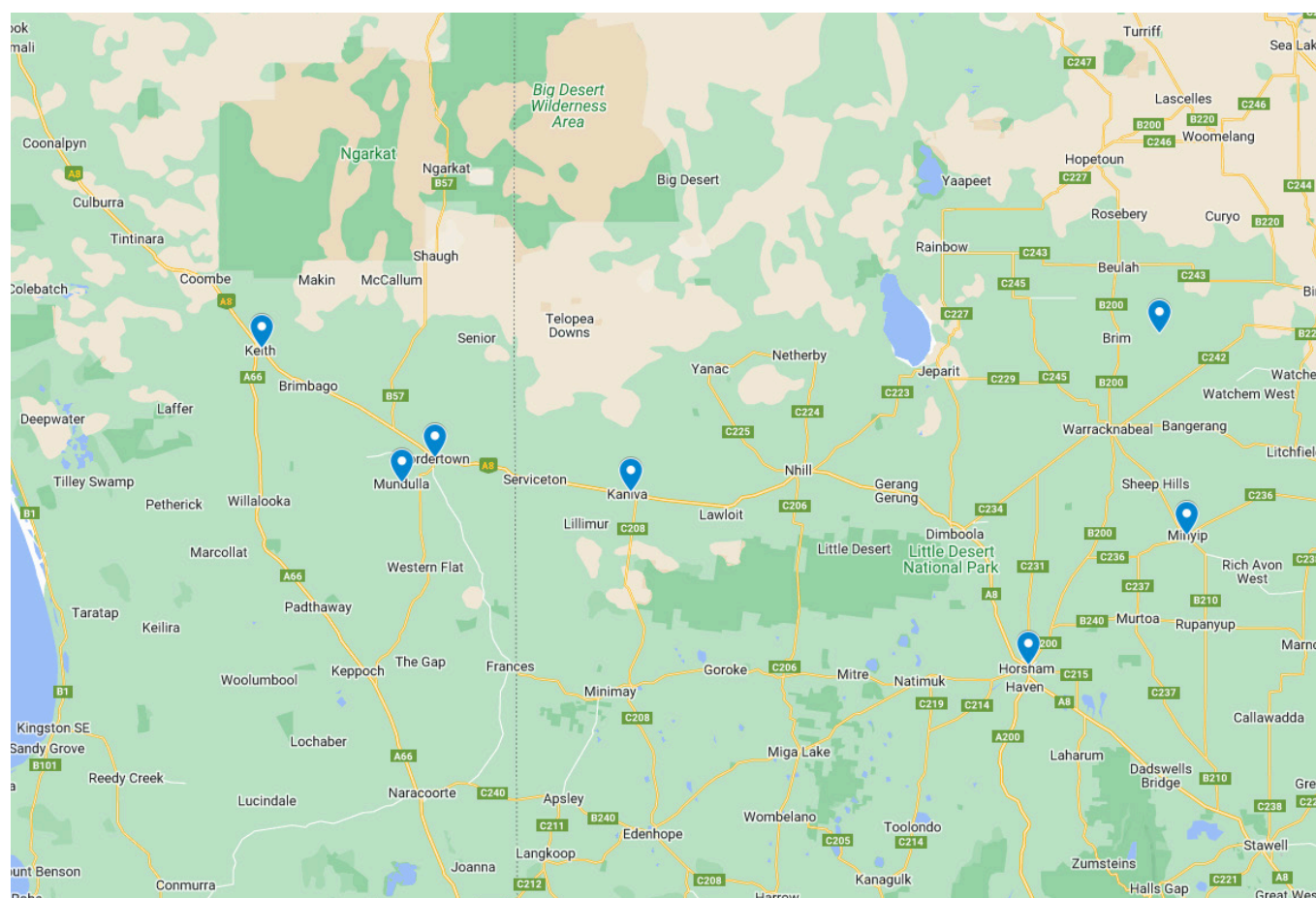
Trials listed as compromised are not suitable for making variety decisions. Results can be found in the [Quarantined trial reports](#).

▶ Refer to the latest *Crop Sowing Guide* for further information at grdc.com.au/nvt-crop-sowing-guides

NVT SITE LOCATIONS – Wimmera and Upper South-East South Australia

Figure 1: Locality of NVT trial sites in Wimmera and Upper South-East South Australia from 2018 to 2022.

SOURCE: NVT Online



See all NVT trial locations and view trial results at 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 [Ⓛ]	InterGrain	Milling	3.50	Mid-maturing, with a slightly later time of flowering than Scepter [Ⓛ] , although earlier than RockStar [Ⓛ] . Well-suited to May sowing.
Kingston [Ⓛ]	BASF Australia	Milling	3.55	Exhibits outstanding lodging resistance with a plant type that produces low residue to manage the following year.
LRPB Anvil [Ⓛ]	LongReach Plant Breeders Pty Ltd	Milling	4.25	Clearfield [®] Plus wheat with two-gene tolerance to label rates of Intervix [®] 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 [Ⓛ]	LongReach Plant Breeders Pty Ltd	Milling	4.00	A quick winter variety with similar growth habit and maturity to Longsword [Ⓛ] . Mowhawk [Ⓛ] has broad general adaption and is ideally suited to higher-production areas and early break scenarios. Mowhawk [Ⓛ] is quicker to heading and higher-yielding than the current benchmark winter variety, Illabo [Ⓛ] .
Patron [Ⓛ]	Australian Grain Technologies	Durum	4.00	Mid-season maturity durum wheat, similar to DBA-Aurora [Ⓛ] .
Reilly [Ⓛ]	BASF Australia	Milling	3.55	Shows yield stability in tough conditions. Provides new genetics for Australian growers.
Stockade [Ⓛ]	LongReach Plant Breeders Pty Ltd	Milling	None provided.	Very slow spring maturity similar to RGT Accroc [Ⓛ] . 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 [Ⓛ] and LRPB Beaufort [Ⓛ] feed wheats.

* EPR amount is ex-GST, [Ⓛ] denotes Plant Breeder's Rights apply.

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Refer to the latest *Crop Sowing Guide* for further information at grdc.com.au/nvt-crop-sowing-guides

Wheat variety yield performance – Wimmera and Upper South-East South Australia

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: Brim main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.97	2.76	2.42	1.56	4.82
Calibre ^{db}			110	127	98
Cutlass ^{db}	94	100	111	105	120
RockStar ^{db}		112	110	117	104
Ballista ^{db}		111	106	119	102
Sunmaster ^{db}				106	120
LRPB Scout ^{db}	108	102	105	111	111
Denison ^{db}			110	114	99
EG Jet ^{db}			105	96	125
Brumby ^{db}				114	100
Reilly ^{db}		104	103	112	105
IMI-TOLERANT					
Sunblade CL Plus ^{db}		103	106	111	112
Valiant ^{db} CL Plus			106	101	112
Elmore CL Plus ^{db}	94	95	102	95	109
Sowing date	11 May	21 May	8 May	20 May	13 May
Rainfall J–M (mm)	9	19	101	33	119
Rainfall A–O (mm)	136	188	252	214	396

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

Table 2: Horsham main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.78	4.71	3.90		6.36
Calibre ^{db}			112	Compromised trial	105
Ballista ^{db}		111	113		109
RockStar ^{db}		113	111		108
Sunmaster ^{db}					116
Brumby ^{db}					107
Beckom ^{db}	104	100	109		110
Denison ^{db}			106		102
Vixen ^{db}	101	107	111		104
Scepter ^{db}	100	111	106		104
Boree ^{db}			106		103
IMI-TOLERANT					
Sunblade CL Plus ^{db}		103	110		110
Valiant ^{db} CL Plus			102		106
Razor CL Plus ^{db}	99	104	101		96
Sowing date	16 May	29 May	12 May	23 May	23 May
Rainfall J–M (mm)	24	35	77	58	111
Rainfall A–O (mm)	186	250	288	256	476

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

Table 3: Kaniva main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		5.27	4.99		4.56
RockStar ^{db}	Compromised trial	110	112	Compromised trial	107
Sunmaster ^{db}					117
Ballista ^{db}		110	111		102
Calibre ^{db}			112		97
Brumby ^{db}					102
Beckom ^{db}		103	107		111
EG Jet ^{db}			104		123
Cutlass ^{db}		97	106		118
Denison ^{db}			108		102
LRPB Trojan ^{db}			100		105
IMI-TOLERANT					
Sunblade CL Plus ^{db}		103	109		111
Valiant ^{db} CL Plus			103		112
Elmore CL Plus ^{db}		93	99		107
Sowing date	9 May	23 May	15 May	22 May	21 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Table 4: Keith main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.48		5.06		6.16
RGT Zanzibar	93	<u>Compromised trial</u>	102	<u>Compromised trial</u>	130
RockStar ^{db}	111		109		109
Ballista ^{db}			108		109
Sunmaster ^{db}					118
Vixen ^{db}	114		111		103
Beckom ^{db}	104		106		112
Brumby ^{db}					106
Calibre ^{db}			107		104
EG Jet ^{db}	95		99		117
Scepter ^{db}	111				106
IMI-TOLERANT					
Sunblade CL Plus ^{db}			104		112
Valiant ^{db} CL Plus			100		107
Sheriff CL Plus ^{db}	105		103		94
Sowing date	16 May	16 May	14 May	22 May	20 May
Rainfall J–M (mm)	17	21	74	65	67
Rainfall A–O (mm)	290	296	353	320	410

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

Table 5: Minyip early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		5.04	3.55		5.71
Stockade ^{db}	No trial			Compromised trial	139
LRPB Beaufort ^{db}		109	111		128
RockStar ^{db}		114	113		105
Illabo ^{db}		103	94		118
DS Pascal ^{db}		102	105		109
LRPB Nighthawk ^{db}		99	97		116
Cutlass ^{db}			102		99
EGA Wedgetail ^{db}		91	88		114
Denison ^{db}			105		90
LRPB Bale ^{db}					
IMI-TOLERANT					
Valiant ^{db} CL Plus					98
Sheriff CL Plus ^{db}		97	103		80
Sowing date		16 Apr	21 Apr	23 Apr	21 Apr
Rainfall J–M (mm)		11	133	127	72
Rainfall A–O (mm)		255	292	266	470

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

Table 6: Kaniva durum wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.10	4.29	4.49	3.78	4.93
Patron ^{db}				120	121
Bitallir ^{db}	105	107	112	109	109
DBA-Aurora ^{db}	104	105	113	108	108
DBA Mataroi ^{db}				105	105
DBA Spes ^{db}	103	102	109	106	106
WID802	102	105	108	104	104
DBA-Artemis ^{db}	105	98	104	107	107
DBA Vittaroi ^{db}	98	106	107	101	101
Hyperno ^{db}	103	99	103	104	104
Westcourt ^{db}	104	99	99	103	104
Sowing date	9 May	23 May	15 May	22 May	21 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Wheat variety quality – Wimmera and Upper South-East South Australia

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 Wimmera and Upper South-East South Australia 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 one NVT site in Wimmera and Upper SE SA in 2021.

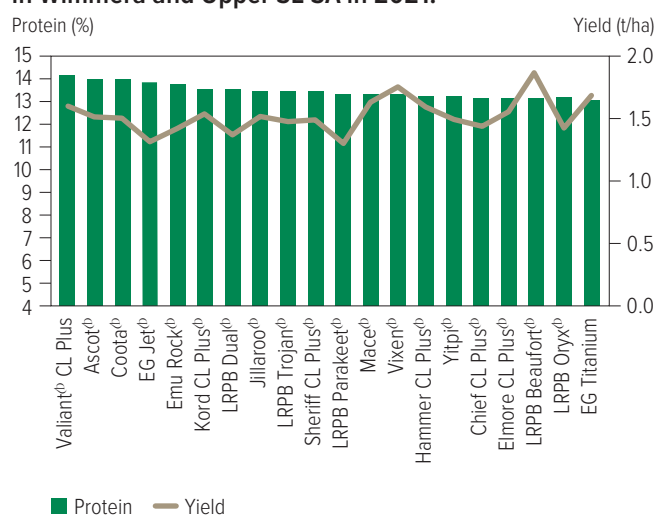


Figure 2: Protein (%) and yield (t/ha) comparisons for main season wheat varieties from four NVT sites in Wimmera and Upper SE SA in 2022.

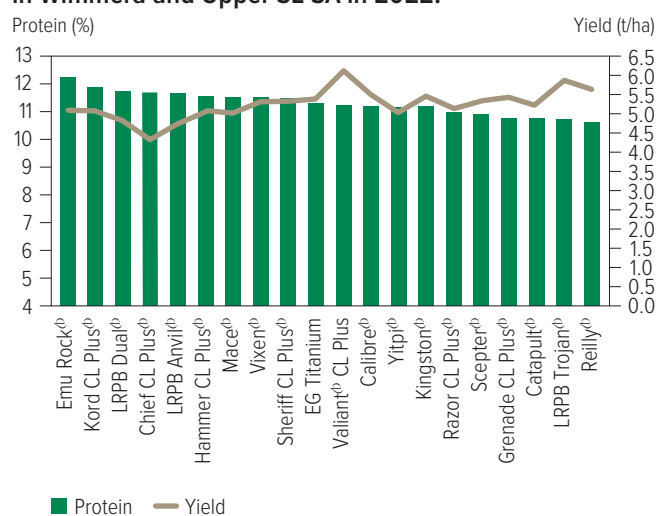
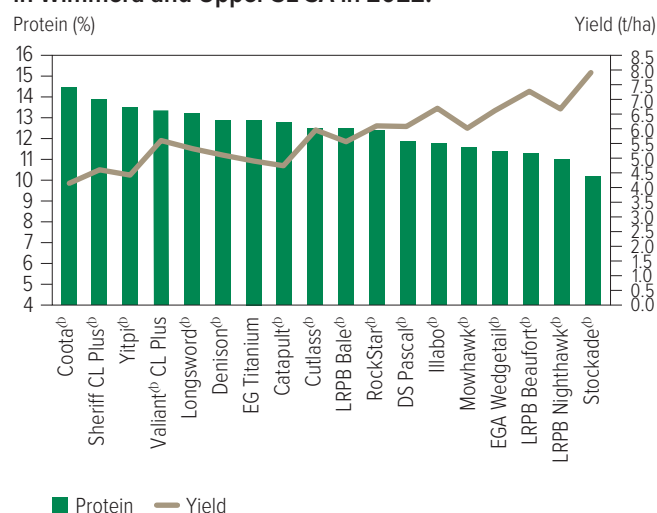


Figure 3: Protein (%) and yield (t/ha) comparisons for early season wheat varieties in Wimmera and Upper SE SA in 2021.



Figure 4: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from one NVT site in Wimmera and Upper SE SA in 2022.



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BARLEY

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CANOLA

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FABA BEAN

FIELD PEA

LENTIL

LUPIN

Figure 5: Protein (%) and yield (t/ha) comparisons for durum wheat varieties from one NVT site in Wimmera and Upper SE SA in 2021.

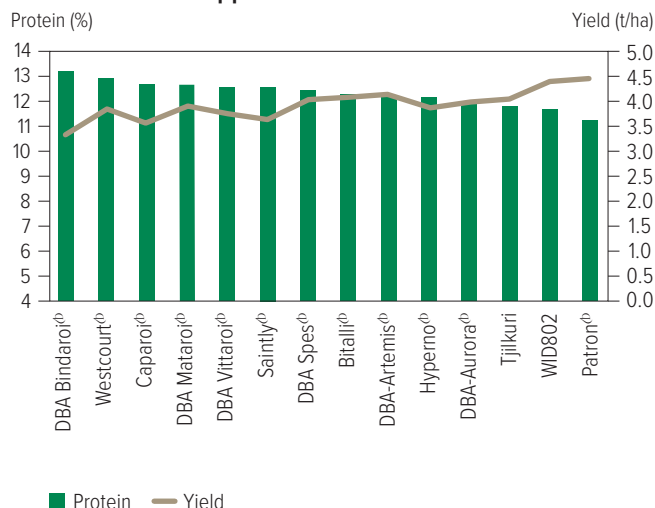
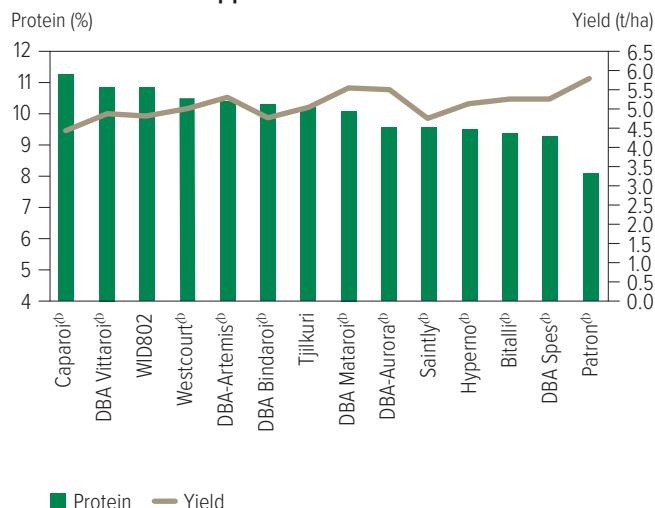


Figure 6: Protein (%) and yield (t/ha) comparisons for durum wheat varieties from one NVT site in Wimmera and Upper SE SA in 2022.



Test weight comparisons

Figure 7: Test weight (kg/hL) comparisons for main season wheat varieties from one NVT site in Wimmera and Upper SE SA in 2021.

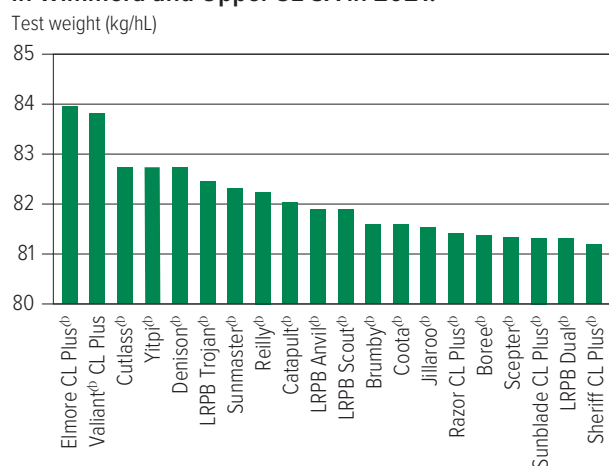


Figure 8: Test weight (kg/hL) comparisons for main season wheat varieties from four NVT sites in Wimmera and Upper SE SA in 2022.

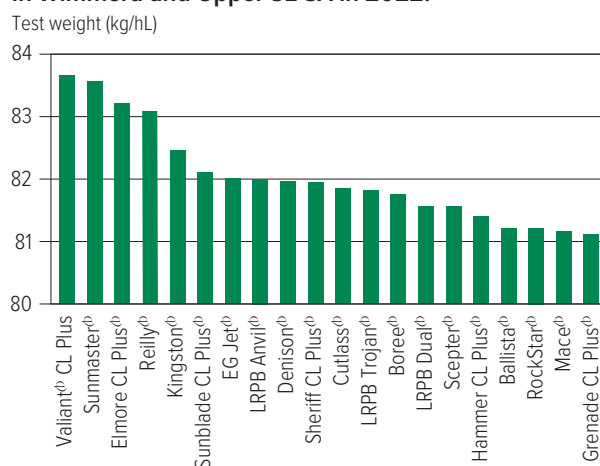


Figure 9: Test weight (kg/hL) comparisons for early season wheat varieties in Wimmera and Upper SE SA in 2021.

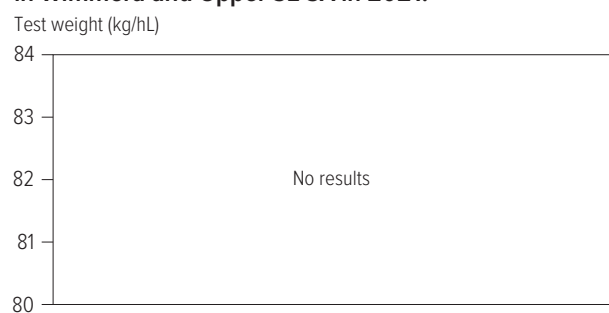
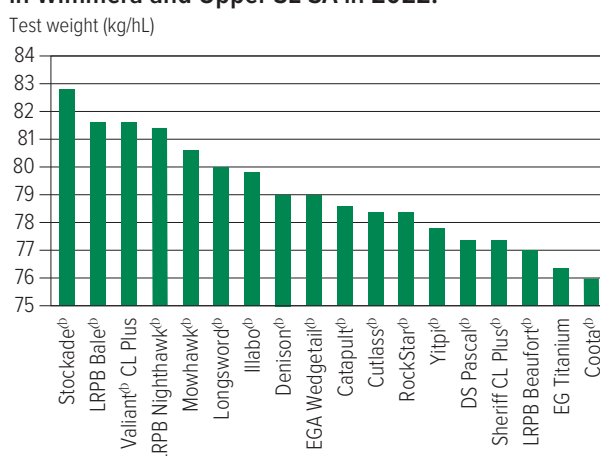


Figure 10: Test weight (kg/hL) comparisons for early season wheat varieties from one NVT site in Wimmera and Upper SE SA in 2022.



WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Figure 11: Test weight (kg/hL) comparisons for durum wheat varieties from one NVT site in Wimmera and Upper SE SA in 2021.

Test weight (kg/hL)

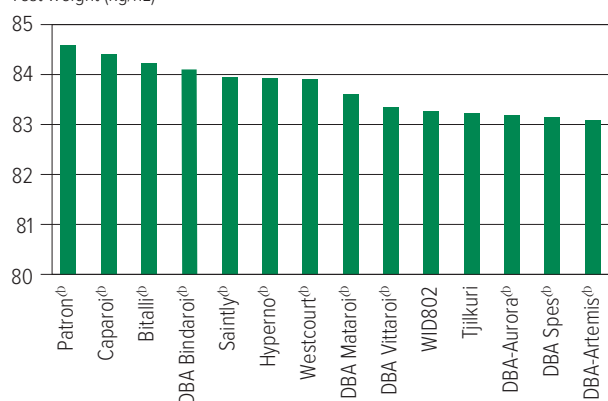
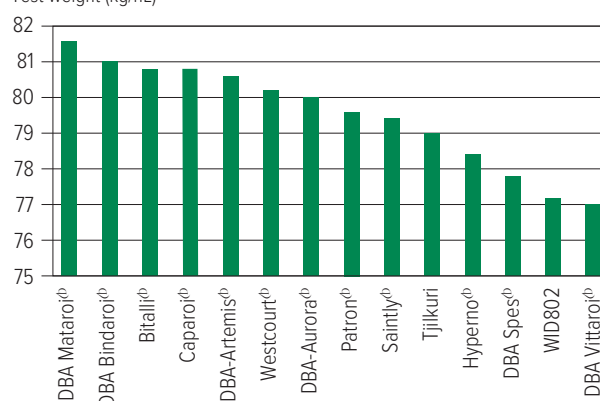


Figure 12: Test weight (kg/hL) comparisons for durum wheat varieties from one NVT site in Wimmera and Upper SE SA in 2022.

Test weight (kg/hL)



Screenings comparisons

Figure 13: Screenings (<2.0mm) comparisons for main season wheat varieties from one NVT site in Wimmera and Upper SE SA in 2021.

Screenings (%<2.0mm)

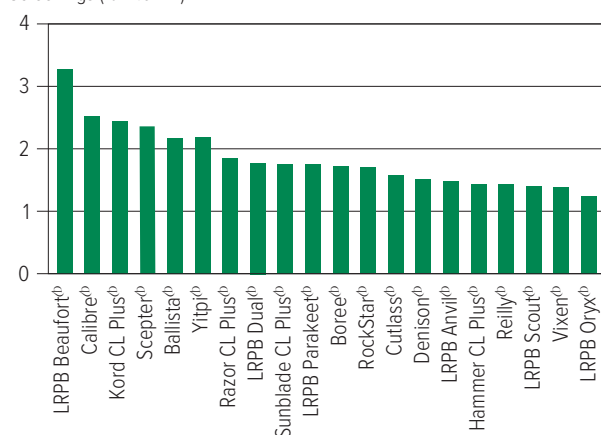


Figure 14: Screenings (<2.0mm) comparisons for main season wheat varieties from four NVT sites in Wimmera and Upper SE SA in 2022.

Screenings (%<2.0mm)

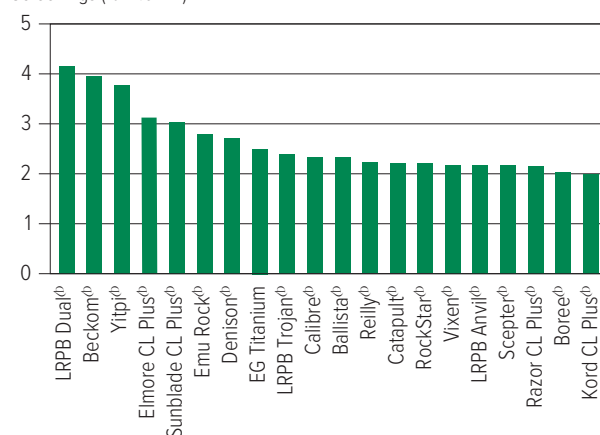


Figure 15: Screenings (<2.0mm) comparisons for early season wheat varieties in Wimmera and Upper SE SA in 2021.

Screenings (%<2.0mm)

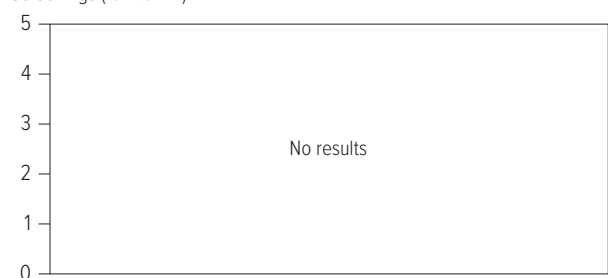
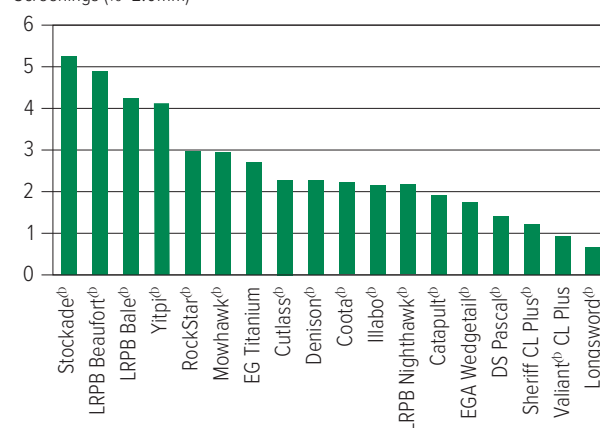


Figure 16: Screenings (<2.0mm) comparisons for early season wheat varieties from one NVT site in Wimmera and Upper SE SA in 2022.

Screenings (%<2.0mm)



WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Figure 17: Screenings (<2.0mm) comparisons for durum wheat varieties from one NVT site in Wimmera and Upper SE SA in 2021.

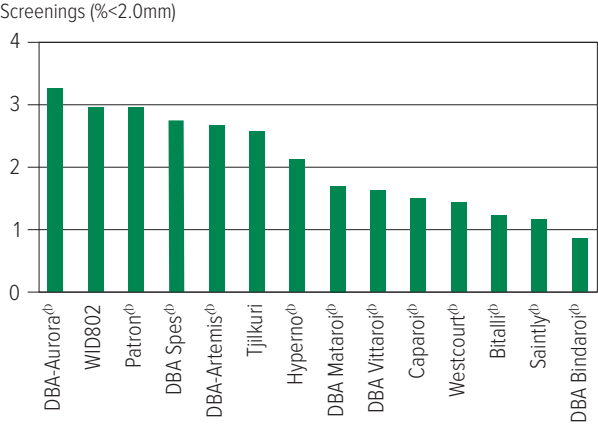
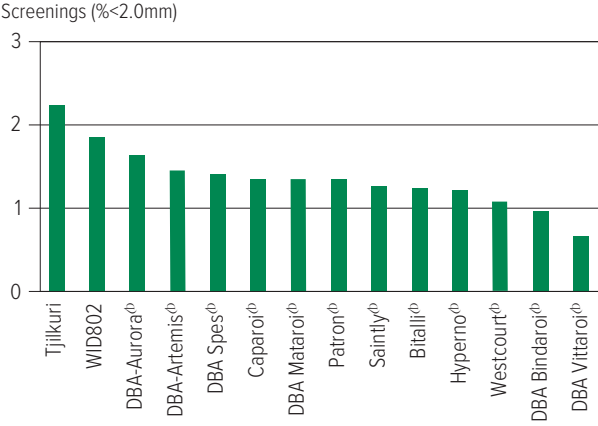


Figure 18: Screenings (<2.0mm) comparisons for durum wheat varieties from one NVT site in Wimmera and Upper SE SA in 2022.



Wheat variety disease ratings – South Australia and Victoria

The following tables contain varietal ratings for the predominant diseases of wheat in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 7: Wheat disease guide for South Australia.

Variety	Stem rust	Stripe rust (east coast resistance)	Leaf rust	Septoria tritici blotch	Yellow leaf spot	Powdery mildew	Black point	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot
Anapurna	MSS	RMR	MS	MRMS	MRMS	RMR	MSS	MRMS	MS	S (P)	SVS
Ascot [®]	MRMS	MSS	RMR	S	MRMS	S	S	MR	S	S	S
Ballista [®]	MR	MSS	S	SVS	MS	SVS	MS	MRMS	S	MRMS	S
Beckom [®]	MRMS	MRMS	MSS	S	MSS	MSS	MRMS	R	S	MSS	S
BigRed [®]	S	RMR	MRMS	MR	MR	RMR	MR (P)	S	MS	MS	S (P)
Boree [®]	MR	SVS	S	SVS	MRMS	SVS	S	MSS	S	MSS	S
Brumby [®]	MR	MS	SVS	S	MRMS	R/S	MS (P)	MRMS	MRMS	MS	S
Calibre [®]	MR	S	S	S	MRMS	S	MS (P)	MRMS	S	MSS	S
Catapult [®]	MR	S	S	MSS	MRMS	S	S	R	S	MS	MSS
Chief CL Plus [®]	MR	SVS	MR	S	MRMS	SVS	MS	MS	MRMS	MSS	MSS
Coolah [®]	MR	MSS	RMR	MSS	MSS	S	S	S	S	MS	MSS
Coota [®]	RMR	S	MR	S	MSS	S	MS	MR	MR	MS	MSS
Cutlass [®]	R	MSS	RMR	MSS	MSS	MSS	MS	MR	MSS	MSS	S
Denison [®]	MS	S	S	MSS	MRMS	S	MS	MS	S	S	MSS
Devil [®]	S	SVS	SVS	SVS	MRMS	S	MSS	MSS	MSS	S	MSS
DS Bennett [®]	MS	S	SVS	MSS	MRMS	R	MSS	S	S	S	VS
DS Pascal [®]	MSS	MRMS	MS	MSS	MS	RMR	MS	S	S	S	S
EG Jet [®]	S	MRMS	S	MSS	MRMS	SVS	MS	MRMS	S	S	S
EG Titanium	MS	MR	MS	MSS	MSS	S	MSS	R	MSS	MSS	MSS
EGA Wedgetail [®]	MRMS	MS	MSS	MSS	MSS	MSS	MS	S	S	VS	S
Emu Rock [®]	MS	SVS	SVS	S	MS	MSS	MSS	S	MSS	S	MSS
Grenade CL Plus [®]	MR	MRMS	SVS	S	S	MSS	MSS	R	MSS	S	S
Hammer CL Plus [®]	MR	MS	S	MSS	MRMS	S	MRMS	MRMS	MSS	S	MSS
Illabo [®]	MRMS	MRMS	S	MSS	MS	R	MRMS	MRMS	MSS	MSS	S
Kingston [®]	S	MSS	S	S	MSS	S	S	R	S	MRMS	S
Longsword [®]	MR	R/S	MR#	MS	MRMS	S	MS	MRMS	MRMS	MRMS	MSS
LRPB Anvil [®]	MR	S	SVS	VS	MSS	VS	S (P)	MRMS	MSS	S	MSS
LRPB Bale [®]	MRMS	MRMS	MSS	MSS	SVS	MSS	MSS (P)	R	S	S	S
LRPB Beaufort [®]	SVS	RMR	MSS	S	MRMS	RMR	MRMS	MS	MS	MSS	S
LRPB Cobra [®]	MR	S	MR#	MSS	MRMS	MSS	MSS	MS	MSS	MSS	S
LRPB Dual [®]	MRMS	MS	MSS	MSS	S	S	S (P)	R	MSS	MSS	S
LRPB Impala [®]	MR	MRMS	SVS	SVS	MSS	R	MS	MSS	SVS	S	MSS
LRPB Kittyhawk [®]	MRMS (S)	MR	MR	MRMS	MRMS	MS	MRMS	S	S	S	SVS
LRPB Nighthawk [®]	RMR	MRMS	MSS	MS	MS	SVS	MS	MS	MSS	MS	MSS
LRPB Oryx [®]	MR	MS	RMR#	SVS	MSS	RMR	MS	S	MSS	MSS	MSS
LRPB Parakeet [®]	MR	MR	R	SVS	MSS	SVS	MS	MS	MRMS	S	MSS
LRPB Scotch [®]	MSS	MRMS (P)	MR (P)	S (P)	MRMS	MR	MS (P)	MS	MS	S	S
LRPB Trojan [®]	MRMS	S	MR#	S	MSS	S	MS	MS	MSS	MSS	MS
Mace [®]	MRMS	SVS	S	SVS	MRMS	MSS	MRMS	MRMS	MS	MS	S
Manning [®]	MR	RMR	MSS	MRMS/S	MRMS	MS	S	S	MSS	S	VS
Mowhawk [®]	RMR (P)	MRMS (P)	MR (P)	MSS (P)	MRMS (P)	MR					

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Table 7: Wheat disease guide for South Australia (continued).

Variety	Stem rust	Stripe rust (east coast resistance)	Leaf rust	Septoria tritici blotch	Yellow leaf spot	Powdery mildew	Black point	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot
Razor CL Plus ^{db}	MRMS	MS	S	SVS	MSS	S	MS	MR	S	MS	S
Reilly ^{db}	MR	MS	MSS	S	S	S	MSS (P)	R	MS	MSS	S
RGT Accroc ^{db}	MS	RMR	SVS	MS	MRMS	MSS	MRMS	S	S	MSS	SVS
RGT Calabro	MS	RMR	MSS	MRMS	MR	RMR	MS	S	S	MS	SVS
RGT Cesario ^{db}	R	RMR	RMR	MRMS	MR	RMR		MSS (P)	MRMS	MSS	VS
RGT Ivory	SVS	MR	MR#	MRMS	MR	RMR	MS	S	MSS	MRMS	SVS
RGT Waugh ^{db}	MS	RMR	S	MRMS	MRMS	R	MRMS (P)	MS	MS	MSS	S
RGT Zanzibar	VS	MRMS	SVS	MSS	MS	MR	MRMS	MSS	S	MS (P)	S
RockStar ^{db}	MRMS	S	S	S	MRMS	SVS	MSS	MSS	MRMS	MS	S
Scepter ^{db}	MRMS	MSS	MSS	S	MRMS	SVS	MS	MRMS	S	MSS	MSS
Severn ^{db}	MS	RMR	MRMS	MSS	MRMS	RMR	MR	MSS (P)	S	MRMS	S
Sheriff CL Plus ^{db}	MS	S	SVS	S	MRMS	SVS	MS	MS	MRMS	MRMS	S
SQP Revenue ^{db}	RMR	RMR	VS	MSS	MRMS	R	MS	S	S	S	S
Stockade ^{db}	MS	MR	MR (P)	MS	MRMS	SVS	MRMS (P)	MRMS	S	MSS	S
Sunblade CL Plus ^{db}	MS	MRMS	MSS	S	MSS	SVS	MRMS	MSS	MSS	MRMS	S
Sunflex ^{db}	MR	MRMS	RMR/S	SVS	MS	S	MSS	MS	S	MSS	MSS
Sunmaster ^{db}	MS	MRMS	RMR#	S	MSS	S	MR	MSS	MRMS	MS	S
Valiant ^{db} CL Plus	MR	MSS	S	MSS	MRMS	VS	MS (P)	MSS (P)	S	S (P)	S
Vixen ^{db}	MRMS	SVS	SVS	S	MRMS	SVS	MSS	MSS	MRMS	MS	S
Willaura ^{db}	MR	S	MRMS	S	MS	S	MRMS (P)	MS	MS	MS	S
Yitpi ^{db}	S	MS	S	S	SVS	MS	MS	MR	MSS	S	S
DURUM											
Bitalli ^{db}	RMR	MRMS	MR	MSS	MRMS	S	MS	MSS	MSS	RMR	SVS
Caparoi ^{db}	MR	MS	RMR	MRMS/S	MR	S	MSS	MRMS (P)	MS	MR	VS
DBA Bindaroi ^{db}	MR	MS	MR	MS	MRMS	SVS	MRMS	MS	MRMS	MR	SVS
DBA Mataroi ^{db}	MR	MS	MR	MSS	MRMS	S	MS	MRMS	MS	RMR	SVS
DBA Spes ^{db}	R	MS	RMR	S	MRMS	S	MS	MS	MRMS	RMR	VS
DBA Vittaroi ^{db}	MR	MS	RMR	MSS	MRMS	MRMS	MSS	S	MS	MR	SVS
DBA-Artemis ^{db}	MR	MRMS	RMR	MRMS/S	MRMS	SVS	MS	MS	MS	MR	VS
Patron ^{db}	RMR	MRMS	MR (P)	MRMS	MRMS	SVS	S (P)	S	MS	MR	SVS (P)
Westcourt ^{db}	RMR	MR	RMR	S	MRMS	S	MSS	MSS	MS	MR	VS

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, (P) = provisional rating, / indicates pathotype differences, # warning, may be more susceptible to alternate pathotypes, () show outlier.

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Table 8: Wheat disease guide for Victoria.

Variety	Stem rust	Stripe rust (east coast resistance)	Leaf rust	Yellow leaf spot	Septoria tritici blotch	Powdery mildew	CCN	RLN resistance (<i>Pratylenchus naglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot	Black tip (Black point)
Anapurna	MSS	RMR	MS	MRMS	MRMS	RMR	MRMS	MS	S (P)	SVS	MSS
Ascot ^{db}	MRMS	MSS	RMR	MRMS	S	S	MR	S	S	S	S
Ballista ^{db}	MR	MSS	S	MS	SVS	SVS	MRMS	S	MRMS	S	MS
Beckom ^{db}	MRMS	MRMS	MSS	MSS	S	MSS	R	S	MSS	S	MRMS
BigRed ^{db}	S	RMR	MRMS	MR	MR	RMR	S	MS	MS	S (P)	MR (P)
Boree ^{db}	MR	SVS	S	MRMS	SVS	SVS	MSS	S	MSS	S	S
Brumby ^{db}	MR	MS	SVS	MRMS	S	R/S	MRMS	MRMS	MS	S	MS (P)
Calibre ^{db}	MR	S	S	MRMS	S	S	MRMS	S	MSS	S	MS (P)
Catapult ^{db}	MR	S	S	MRMS	MSS	S	R	S	MS	MSS	S
Chief CL Plus ^{db}	MR	SVS	MR	MRMS	S	SVS	MS	MRMS	MSS	MSS	MS
Coolah ^{db}	MR	MSS	RMR	MSS	MSS	S	S	S	MS	MSS	S
Coota ^{db}	RMR	S	MR	MSS	S	S	MR	MR	MS	MSS	MS
Cutlass ^{db}	R	MSS	RMR	MSS	MSS	MSS	MR	MSS	MSS	S	MS
Denison ^{db}	MS	S	S	MRMS	MSS	S	MS	S	S	MSS	MS
DS Bennett ^{db}	MS	S	SVS	MRMS	MSS	R	S	S	S	VS	MSS
DS Pascal ^{db}	MSS	MRMS	MS	MS	MSS	RMR	S	S	S	S	MS
EG Jet ^{db}	S	MRMS	S	MRMS	MSS	SVS	MRMS	S	S	S	MS
EG Titanium	MS	MR	MS	MSS	MSS	S	R	MSS	MSS	MSS	MSS
EGA Gregory ^{db}	MR	MS	RMR#	S	MSS	RMR	S	S	MSS	S	MSS
EGA Wedgetail ^{db}	MRMS	MS	MSS	MSS	MSS	MRMS	S	S	VS	S	MS
Emu Rock ^{db}	MS	SVS	SVS	MS	S	MSS	S	MSS	S	MSS	MSS
Grenade CL Plus ^{db}	MR	MRMS	SVS	S	S	MSS	R	MSS	S	S	MSS
Hammer CL Plus ^{db}	MR	MS	S	MRMS	MSS	S	MRMS	MSS	S	MSS	MRMS
Illabo ^{db}	MRMS	MRMS	S	MS	MSS	R	MRMS	MSS	MSS	S	MRMS
Jillaroo ^{db}	MS	MSS	S	MRMS	S	SVS	MS	S	MS (P)	S	MSS (P)
Kingston ^{db}	S	MSS	S	MSS	S	S	R	S	MRMS	S	S
Longsword ^{db}	MR	R/S	MR#	MRMS	MS	S	MRMS	MRMS	MRMS	MSS	MS
LRPB Anvil ^{db}	MR	S	SVS	MSS	VS	VS	MRMS	MSS	S	MSS	S (P)
LRPB Bale ^{db}	MRMS	MRMS	MSS	SVS	MSS	MSS	R	S	S	S	MSS (P)
LRPB Beaufort ^{db}	SVS	RMR	MSS	MRMS	S	RMR	MS	MS	MSS	S	MRMS
LRPB Cobra ^{db}	MR	S	MR#	MRMS	MSS	MSS	MS	MSS	MSS	S	MSS
LRPB Dual ^{db}	MRMS	MS	MSS	S	MSS	S	R	MSS	MSS	S	S (P)
LRPB Kittyhawk ^{db}	MRMS (S)	MR	MR	MRMS	MRMS	MS	S	S	S	SVS	MRMS
LRPB Nighthawk ^{db}	RMR	MRMS	MSS	MS	MS	SVS	MS	MSS	MS	MSS	MS
LRPB Oryx ^{db}	MR	MS	RMR#	MSS	SVS		S	MSS	MSS	MSS	MS
LRPB Parakeet ^{db}	MR	MR	R	MSS	SVS	SVS	MS	MRMS	S	MSS	MS
LRPB Scotch ^{db}	MSS	MRMS (P)	MR (P)	MRMS	S (P)	MR	MS	MS	S	S	MS (P)
LRPB Trojan ^{db}	MRMS	S	MR#	MSS	S	S	MS	MSS	MSS	MS	MS
Mace ^{db}	MRMS	SVS	S	MRMS	SVS	MSS	MRMS	MS	MS	S	MRMS
Manning ^{db}	MR	RMR	MSS	MRMS	MRMS/S	MS	S	MSS	S	VS	S
Mowhawk ^{db}	RMR (P)	MRMS (P)	MR (P)	MRMS (P)	MSS (P)	MR					
Razor CL Plus ^{db}	MRMS	MS	S	MSS	SVS	S	MR	S	MS	S	MS
Reilly ^{db}	MR	MS	MSS	S	S	S	R	MS	MSS	S	MSS (P)
RGT Accroc ^{db}	MS	RMR	SVS	MRMS	MS	MSS	S	S	MSS	SVS	MRMS
RGT Calabro	MS	RMR	MSS	MR	MRMS	RMR	S	S	MS	SVS	MS
RGT Cesario ^{db}	R	RMR	RMR	MR	MRMS	RMR	MSS (P)	MRMS	MSS	VS	
RGT Ivory	SVS	MR	MR#	MR	MRMS	RMR	S	MSS	MRMS	SVS	MS
RGT Waugh ^{db}	MS	RMR	S	MRMS	MRMS	R	MS	MS	MSS	S	MRMS (P)
RGT Zanzibar	VS	MRMS	SVS	MS	MSS	MR	MSS	S	MS (P)	S	MRMS

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Table 8: Wheat disease guide for Victoria (continued).

Variety	Stem rust	Stripe rust (east coast resistance)	Leaf rust	Yellow leaf spot	Septoria tritici blotch	Powdery mildew	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot	Black tip (Black point)
RockStar ^{db}	MRMS	S	S	MRMS	S	SVS	MSS	MRMS	MS	S	MSS
Scepter ^{db}	MRMS	MSS	MSS	MRMS	S	SVS	MRMS	S	MSS	MSS	MS
Severn ^{db}	MS	RMR	MRMS	MRMS	MSS	RMR	MSS (P)	S	MRMS	S	MR
Sheriff CL Plus ^{db}	MS	S	SVS	MRMS	S	SVS	MS	MRMS	MRMS	S	MS
SQP Revenue ^{db}	RMR	RMR	VS	MRMS	MSS	R	S	S	S	S	MS
Stockade ^{db}	MS	MR	MR (P)	MRMS	MS	SVS	MRMS	S	MSS	S	MRMS (P)
Sunblade CL Plus ^{db}	MS	MRMS	MSS	MSS	S	SVS	MSS	MSS	MRMS	S	MRMS
Sunflex ^{db}	MR	MRMS	RMR/S	MS	SVS	S	MS	S	MSS	MSS	MSS
Sunmaster ^{db}	MS	MRMS	RMR#	MSS	S	S	MSS	MRMS	MS	S	MR
Valiant ^{db} CL Plus	MR	MSS	S	MRMS	MSS	VS	MSS (P)	S	S (P)	S	MS (P)
Vixen ^{db}	MRMS	SVS	SVS	MRMS	S	SVS	MSS	MRMS	MS	S	MSS
Willaura ^{db}	MR	S	MRMS	MS	S	S	MS	MS	MS	S	MRMS (P)
Yitpi ^{db}	S	MS	S	SVS	S	MS	MR	MSS	S	S	MS
DURUM											
Bitalli ^{db}	RMR	MRMS	MR	MRMS	MSS	S	MSS	MSS	RMR	SVS	MS
Caparoi ^{db}	MR	MS	RMR	MR	MRMS/S	MSS	MRMS (P)	MS	MR	VS	MSS
DBA Bindaroi ^{db}	MR	MS	MR	MRMS	MS	MSS (P)	MS	MRMS	MR	SVS	MRMS
DBA Mataroi ^{db}	MR	MS	MR	MRMS	MSS	S	MRMS	MS	RMR	SVS	MS
DBA Spes ^{db}	R	MS	RMR	MRMS	S	S	MS	MRMS	RMR	VS	MS
DBA Vittaroi ^{db}	MR	MS	RMR	MRMS	MSS	MRMS	S	MS	MR	SVS	MSS
DBA-Artemis ^{db}	MR	MRMS	RMR	MRMS	MRMS/S	SVS	MS	MS	MR	VS	MS
Patron ^{db}	RMR	MRMS	MR (P)	MRMS	MRMS	SVS	S	MS	MR	SVS (P)	S (P)
Westcourt ^{db}	RMR	MR	RMR	MRMS	S	S	MSS	MS	MR	VS	MSS

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, (P) = provisional rating, / indicates pathotype differences, # warning, may be more susceptible to alternate pathotypes, () show outlier.

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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 [#]	End point royalty* (\$)	Comments supplied by variety owner
Combat [Ⓛ]	InterGrain	Feed	3.50	Mid-maturity suited to all regions. Semi-prostrate growth habit that will provide more weed competition than Rosalind [Ⓛ] . A potential variety replacement for Rosalind [Ⓛ] with a more competitive plant type.
Fandaga [Ⓛ]	AGF Seeds	Feed	None provided.	Slower maturity than RGT Planet [Ⓛ] .
Titan AX [Ⓛ]	Australian Grain Technologies	Under malt evaluation	4.55	The world's first CoAXium [®] barley variety. Mid-season maturity, slightly later than Compass [Ⓛ] , similar to RGT Planet [Ⓛ] . Agronomically similar to Compass [Ⓛ] .
Zena [Ⓛ] CL	InterGrain	Under malt evaluation	4.25	Zena [Ⓛ] CL is an imidazolinone-tolerant barley variety best-suited to medium-high rainfall environments.

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

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Refer to the latest *Crop Sowing Guide* for further information at grdc.com.au/nvt-crop-sowing-guides

Barley variety yield performance – Wimmera and Upper South-East South Australia

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: Brim main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.77	3.70	3.04	1.38	6.45
Cyclops ^{db}			108	109	105
Combat ^{db}				107	106
Leabrook ^{db}	109	113	107	112	99
Beast ^{db}		116	106	108	98
Rosalind ^{db}	104	110	101	101	107
Minotaur ^{db}			105	108	108
Fandaga ^{db}				104	106
Yeti ^{db}		108	103	107	102
Laperouse ^{db}	100	107	106	108	101
Fathom ^{db}	108	113	102	101	98
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Titan AX ^{db}					98
Zena ^{db} CL				102	107
Maximus ^{db} CL	102	109	100	99	102
Commodus ^{db} CL			104	107	94
Sowing date	11 May	21 May	8 May	20 May	13 May
Rainfall J–M (mm)	9	19	101	33	119
Rainfall A–O (mm)	136	188	252	214	396

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

Table 3: Kaniva main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	6.12	6.36	5.79		5.11
Combat ^{db}				Compromised trial	109
RGT Planet ^{db}	115	112	110		115
Fandaga ^{db}					111
Minotaur ^{db}			108		111
Bottler ^{db}	107	101	103		108
Cyclops ^{db}			106		105
Rosalind ^{db}	96	107	100		105
Leabrook ^{db}	100	98	102		100
Kiwi ^{db}	103	97	99		101
Commander ^{db}	103	96	103		95
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Zena ^{db} CL					110
Titan AX ^{db}					98
Commodus ^{db} CL			96		92
Maximus ^{db} CL	81	98	91		94
Sowing date	9 May	23 May	15 May	22 May	21 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Table 2: Horsham main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.82	6.73	5.43		7.98
RGT Planet ^{db}	100	115	106	Compromised trial	120
Combat ^{db}					111
Fandaga ^{db}					119
Minotaur ^{db}			105		107
Rosalind ^{db}	110	105	100		108
Cyclops ^{db}			105		100
Bottler ^{db}	97	104	102		109
Leabrook ^{db}	118	93	105		100
Kiwi ^{db}	91	101	98		103
Fathom ^{db}	111	96	100		95
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Zena ^{db} CL					119
Titan AX ^{db}					94
Commodus ^{db} CL			101		92
Maximus ^{db} CL	106	94	93		89
Sowing date	16 May	29 May	11 May	23 May	23 May
Rainfall J–M (mm)	24	35	77	58	111
Rainfall A–O (mm)	186	250	288	256	476

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

Table 4: Keith main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.61	4.96	6.40		6.10
Minotaur [Ⓛ]			107	Compromised trial	108
Cyclops [Ⓛ]			106		100
Combat [Ⓛ]					106
Rosalind [Ⓛ]	105	118	106		105
Fandaga [Ⓛ]					113
RGT Planet [Ⓛ]	101	99	112		116
Yeti [Ⓛ]		119	98		98
Leabrook [Ⓛ]	107	113	100		97
Beast [Ⓛ]		119	98		92
Laperouse [Ⓛ]	109	111	98		96
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Zena [Ⓛ] CL					112
Titan AX [Ⓛ]					93
Maximus [Ⓛ] CL	105	120	96		92
Spartacus [Ⓛ] CL	102	115	96		90
Sowing date	16 May	17 May	13 May	22 May	20 May
Rainfall J–M (mm)	17	21	74	65	67
Rainfall A–O (mm)	290	296	353	320	410

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

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Barley variety quality – Wimmera and Upper South-East South Australia

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 Wimmera and Upper South-East South Australia 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 one NVT site in Wimmera and Upper SE SA in 2021.

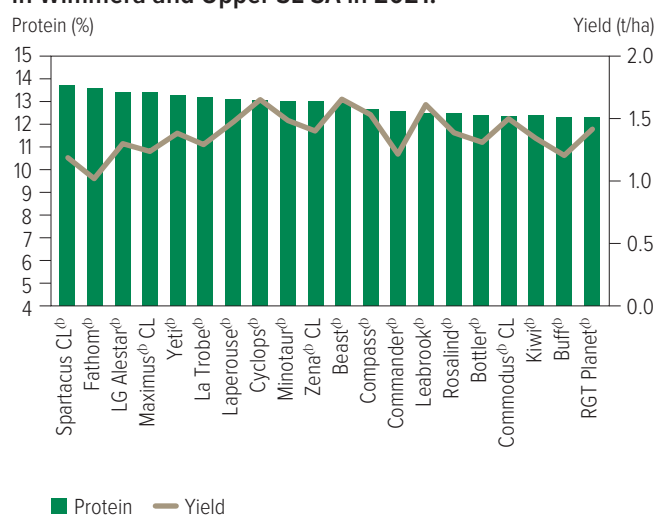
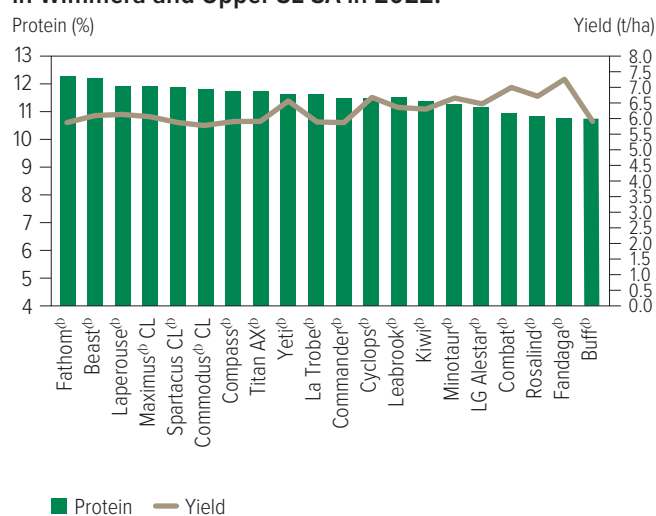


Figure 2: Protein (%) and yield (t/ha) comparisons for main season barley varieties from four NVT sites in Wimmera and Upper SE SA in 2022.



Test weight comparisons

Figure 3: Test weight (kg/hL) comparisons for main season barley varieties from one NVT site in Wimmera and Upper SE SA in 2021.

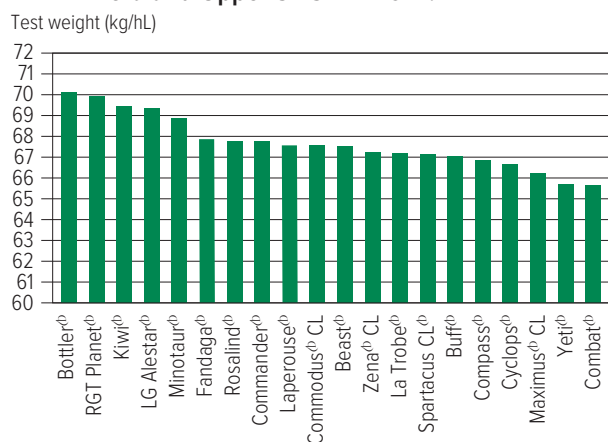
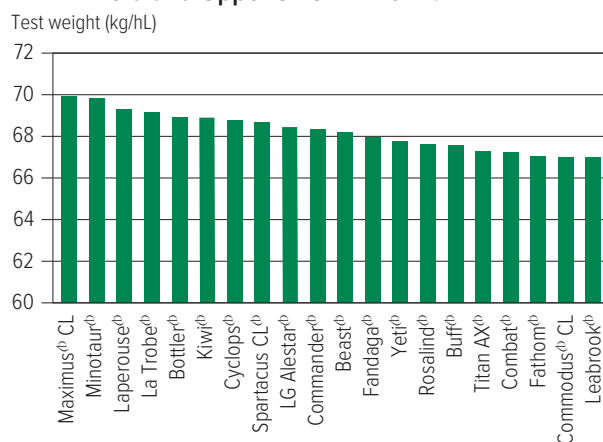


Figure 4: Test weight (kg/hL) comparisons for main season barley varieties from four NVT sites in Wimmera and Upper SE SA in 2022.



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Screenings comparisons

Figure 5: Screenings (<2.2mm) comparisons for main season barley varieties from one NVT site in Wimmera and Upper SE SA in 2021.

Screenings (%<2.2mm)

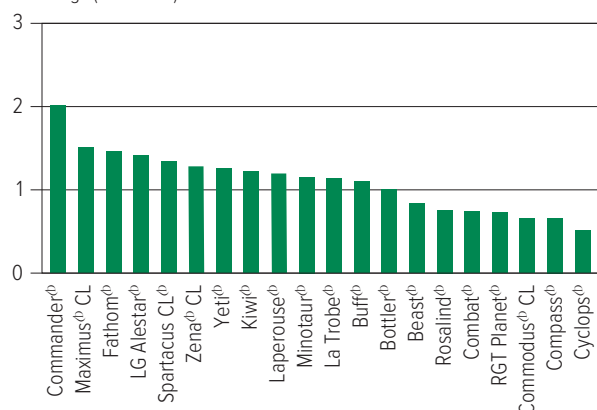
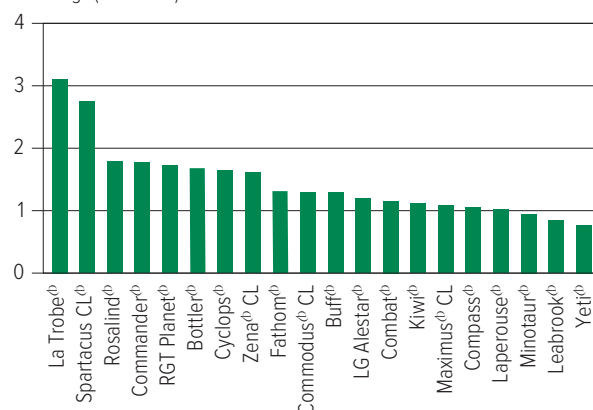


Figure 6: Screenings (<2.2mm) comparisons for main season barley varieties from four NVT sites in Wimmera and Upper SE SA in 2022.

Screenings (%<2.2mm)



Retention comparisons

Figure 7: Retention (>2.5mm) comparisons for main season barley varieties from one NVT site in Wimmera and Upper SE SA in 2021.

Retention (%>2.5mm)

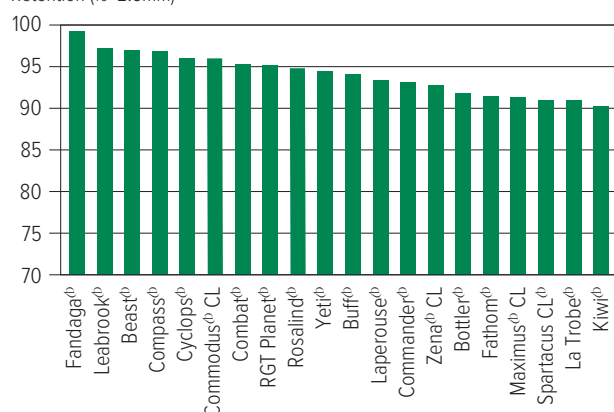
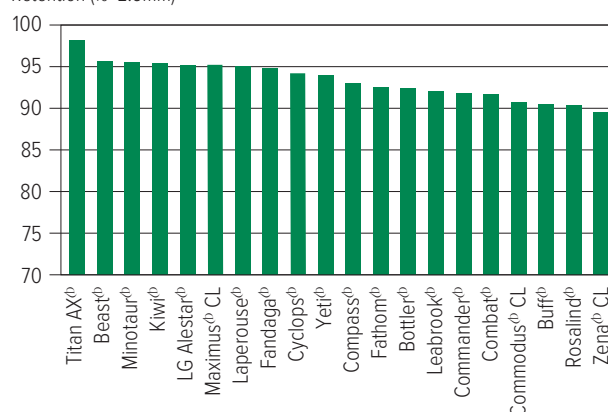


Figure 8: Retention (>2.5mm) comparisons for main season barley varieties from four NVT sites in Wimmera and Upper SE SA in 2022.

Retention (%>2.5mm)



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Barley variety disease ratings – South Australia and Victoria

The following tables contain varietal ratings for the predominant diseases of barley in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023.

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

Table 5: Barley disease guide for South Australia.

Variety	CCN	Leaf rust	Net form net blotch	Spot form net blotch	Leaf scald	Powdery mildew	Black point	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot	Ramularia
Bass ^{db}	S	SVS	MS-SVS	MSS	MSS	S	MRMS	MS	MRMS	MSS	VS (P)
Beast ^{db}	MR	MS-SVS	MR-S	MS	SVS	S	MSS	MRMS	MRMS	S	SVS (P)
Bottler ^{db}		MS	R-MS	MSS	SVS	RMR	MRMS	MS	RMR	SVS	SVS (P)
Buff ^{db}		SVS	MR-MS	MSS	MS-VS	S	MS	MRMS	MS	S	SVS (P)
Combat ^{db}	MRMS	MSS	MR-MSS	RMR	S	MS	MSS (P)	MR	MS	S (P)	SVS (P)
Commander ^{db}	R	S	S-VS	MSS	SVS	MSS	MSS	MRMS	MRMS	S	SVS (P)
Commodus ^{db} CL	R	S	MR-MSS	MSS	MSS-SVS	MS	MS	MRMS	MRMS	S (P)	SVS (P)
Compass ^{db}	R	VS	MRMS-S	MS	MSS-SVS	MSS	MSS	MRMS	MR	S	SVS (P)
Cyclops ^{db}	S	VS	MR-MS	MS	S	S	MS	MRMS	MRMS	S (P)	SVS (P)
Fandaga ^{db}	R	MSS	MR-VS	S	SVS	R	MRMS (P)	MR	MR	MSS (P)	VS (P)
Fathom ^{db}	R	MRMS-S	MSS-SVS	RMR	R-S	MRMS	MSS	MRMS	MR	SVS	SVS (P)
Kiwi ^{db}	S	RMR-MS	R-MRMS	MSS	SVS	RMR	MS	MRMS	RMR	S	VS (P)
La Trobe ^{db}	R	S	MS-S	S	R-SVS	MSS	MSS	MRMS	MRMS	S	SVS (P)
Laperouse ^{db}	S	SVS	MR-MS	MRMS	SVS	MSS	MSS	MR	MR	S	VS (P)
Leabrook ^{db}	RMR	SVS	MR-MSS	MS	MRMS-SVS	S	MS	MRMS	RMR	S	VS (P)
LG Alestar ^{db}	R^ (P)	MS	MR-S	S	SVS	MR	MRMS	MR	MR	S	SVS (P)
Maximus ^{db} CL	R	S	MR-MS	MS	R-SVS	MS	MSS	MRMS	MR	S	VS (P)
Minotaur ^{db}	R	S-VS	MR-MS	S	VS	S	MS	MRMS	MR	MS	SVS (P)
RGT Planet ^{db}	R (P)	MRMS-MS	MRMS-SVS	SVS	R-SVS	RMR	MRMS	MRMS	MR	MSS	VS (P)
Rosalind ^{db}	R	MR-MS	R-MRMS	S	MR-S	MSS	MS	MRMS	MR	MSS	VS (P)
SakuraStar	R	S	S	MRMS	MS-SVS	MSS	MS	MR	MR	S	VS (P)
Scope CL ^{db}	S	MS-SVS	R-MR	MSS	MRMS-SVS	MRMS	MS	MRMS	MRMS	S	SVS (P)
Spartacus CL ^{db}	R	S	MS-VS	S	R-SVS	MSS	MSS	MRMS	MRMS	S	VS (P)
Titan AX ^{db}	MR (P)	SVS	MRMS-MSS	MS	VS	MS	MSS (P)	R	MR	MSS (P)	VS (P)
Topstart	S	MRMS	MRMS-SVS	S-SVS	S	RMR	MRMS	RMR	RMR	MSS	VS (P)
Urambie		S	R-MR	S	R-S	MS	MRMS	MRMS	MR	MSS	VS (P)
Westminster ^{db}		MRMS	R-S	S	R-S	RMR	MRMS	MRMS	MS	S	VS (P)
Yeti ^{db}	RMR	MSS-VS	MR-MS	MS-MSS	VS	MSS	MSS	MR	MR	S	VS (P)
Zena ^{db} CL	R	MS	MR-MSS	S	R-S	R	MRMS (P)	MRMS	MR	MSS (P)	VS (P)

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

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

- hyphen indicates a range, ^ line contains a few susceptible off types.

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Table 6: Barley disease guide for Victoria.

Variety	Leaf scald	Spot form net blotch	Net form net blotch	Powdery mildew	Leaf rust	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Ramularia
Banks ^{db}	SVS	S	MR	MRMS	SVS	S	MS	MR	VS (P)
Beast ^{db}	SVS	MS	MR#	S	S	MR	MRMS	MRMS	SVS (P)
Bottler ^{db}	SVS	MSS	MR	RMR	MR		MS	RMR	SVS (P)
Buff ^{db}	SVS	MSS	MS	S	SVS		MRMS	MS	SVS (P)
Combat ^{db}	S	RMR	MR (P)	MS	S	MRMS	MR	MS	SVS (P)
Commander ^{db}	SVS	MSS	MS	MSS	SVS	R	MRMS	MRMS	SVS (P)
Commodus ^{db} CL	SVS	MSS	MRMS	MS	S	R	MRMS	MRMS	SVS (P)
Compass ^{db}	SVS	MS	MS	MSS	SVS	R	MRMS	MR	SVS (P)
Cyclops ^{db}	S	MS	MRMS	S	SVS	S	MRMS	MRMS	SVS (P)
Fandaga ^{db}	SVS	S	MRMS	R	MSS	R	MR	MR	VS (P)
Fathom ^{db}	S	RMR	MS	MRMS	MS	R	MRMS	MR	SVS (P)
Kiwi ^{db}	SVS	MSS	MRMS	RMR	MS	S	MRMS	RMR	VS (P)
La Trobe ^{db}	SVS	S	MR	MSS	S	R	MRMS	MRMS	SVS (P)
Laperouse ^{db}	VS	MRMS	MR	MSS	SVS	S	MR	MR	VS (P)
Leabrook ^{db}	SVS	MS	MR	S	SVS	RMR	MRMS	RMR	VS (P)
LG Alestar ^{db}	SVS	S	S	MR	MRMS	R [^] (P)	MR	MR	SVS (P)
Maximus ^{db} CL	SVS	MS	MRMS	MS	S	R	MRMS	MR	VS (P)
Minotaur ^{db}	VS	S	MRMS	S	SVS	R	MRMS	MR	SVS (P)
RGT Planet ^{db}	SVS	SVS	SVS	RMR	MR	R (P)	MRMS	MR	VS (P)
Rosalind ^{db}	S	S	MR	MSS	MRMS	R	MRMS	MR	VS (P)
SakuraStar	SVS	MS	MS	MSS	S	R	MR	MR	VS (P)
Scope CL ^{db}	SVS	MSS	MR	MRMS	S	S	MRMS	MRMS	SVS (P)
Spartacus CL ^{db}	SVS	S	S	MSS	S	R	MRMS	MRMS	VS (P)
Titan AX ^{db}	VS	MS	MS	MS	S	MR (P)	R	MR	VS (P)
Topstart	SVS	S	MS	RMR	MRMS	S	RMR	RMR	VS (P)
Urambie	MS	S	MR	MS	S		MRMS	MR	VS (P)
Westminster ^{db}	SVS	S	MRMS	RMR	MR		MRMS	MS	VS (P)
Yeti ^{db}	VS	MSS	MR	MSS	S	RMR	MR	MR	VS (P)
Zena ^{db} CL	S (P)	S	S	R	MSS	R	MRMS	MR	VS (P)

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

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warning, may be more susceptible to alternate pathotypes, ^ line contains a few susceptible off types.

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New oat varieties

The following information is for oat 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
Koala [Ⓛ]	National Oat Breeding Program	Grain	None provided.	High-yielding, tall dwarf variety with similar height to Bannister [Ⓛ] and taller than Mitika [Ⓛ] , Bilby [Ⓛ] or Kowari [Ⓛ] . Koala [Ⓛ] has a mid-season maturity that can be seven days later to head compared with Bannister [Ⓛ] and Williams [Ⓛ] . Early vigour is similar to Bannister [Ⓛ] and slightly slower than Bilby [Ⓛ] and Yallara [Ⓛ] . Commercialised by Seednet.

* EPR amount is ex-GST, [Ⓛ] 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

Oat variety yield performance – Wimmera and Upper South-East South Australia

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: Bordertown oat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.10	5.07	5.26	4.81	3.04
Bannister [Ⓛ]	105	107	112	107	104
Koala [Ⓛ]	105	106	114	102	109
Williams [Ⓛ]	95	105	108	101	99
Bilby [Ⓛ]	99	101	101	102	101
Kowari [Ⓛ]	96	96	93	96	99
Possum	97	95	92	93	101
Mitika [Ⓛ]	92	93	88	90	97
Yallara [Ⓛ]	96	90	85	89	86
Koorabup [Ⓛ]	91	88	84	83	87
Durack [Ⓛ]	90	87	79	85	90
Sowing date	6 Jun	24 May	19 May	28 May	28 May
Rainfall J–M (mm)	21	18	90	40	37
Rainfall A–O (mm)	351	346	343	362	375

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

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Oat variety disease ratings – South Australia and Victoria

The following tables contain varietal ratings for the predominant diseases of oat in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023.

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

Table 2: Oat disease guide for South Australia.

Variety	Stem rust (east)	Leaf rust (crown rust)	Barley yellow dwarf virus (BYDV)	CCN	Stem nematode resistance	Stem nematode tolerance	Septoria	Bacterial blight	Red leather leaf
Bannister ^{db}	S	MSS	MS	MR	MRMS	MT	MSS	S	S
Bilby ^{db}	S	MS	S	S	S	MI	S	SVS	MS
Durack ^{db}	S	MSS	S	MRMS	S	MI (P)	S	S	SVS
Echidna	MS	SVS	MSS	MS	MRMS	MT (P)	SVS	S	S
Koala ^{db}	MSS	MSS	MSS	R	S	MT (P)	MSS	S	S
Koorabup ^{db}	S	MSS	MSS	MRMS	S	I	MRMS#	SVS	SVS
Kowari ^{db}	S	S	S	S	S	I	S	S	S
Mitika ^{db}	S	MSS	SVS	VS	S	MI (P)	SVS	S	SVS
Mulgara ^{db}	MRMS	MR	MS	R	MR	MT (P)	S/MRMS	MSS	SVS
Possum	SVS	MSS	S	MSS	MS	MT (P)	S	SVS	SVS
Tungoo ^{db}	MS	MR	MSS	MR	R	MT (P)	MRMS#	S	MRMS
Williams ^{db}	S	MRMS	MSS	S	S	MI (P)	MSS	MSS	MS
Wintaroo ^{db}	MSS	MSS	MS	R	MR	MT (P)	MSS	S	S
Yallara ^{db}	MSS	S	MSS	R	MS	MI (P)	MSS	S	VS

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,

(P) = provisional rating, / indicates pathotype differences, # warning, may be more susceptible to alternate pathotypes.

Table 3: Oat disease guide for Victoria.

Variety	Stem rust	Leaf rust (crown rust)	CCN	Barley yellow dwarf virus (BYDV)	Septoria blotch	Bacterial blight	Red leather leaf
Bannister ^{db}	S	MSS	MR	MS	MSS	S	MSS
Bilby ^{db}	S	MS	S	S	S	SVS	MS
Durack ^{db}	S	MSS	MRMS	S	S	S	SVS
Echidna	MS	SVS	MS	MSS	SVS	S	S
Koala ^{db}	MSS	MSS	R	MSS	MSS	S	S
Koorabup ^{db}	S	MSS	MRMS	MSS	MRMS#	SVS	SVS
Kowari ^{db}	S	S	S	S	S	S	S
Mitika ^{db}	S	MSS	VS	SVS	SVS	S	SVS
Mulgara ^{db}	MRMS	MR	R	MS	S/MRMS	MSS	SVS
Possum	SVS	MSS	MSS	S	S	SVS	SVS
Tungoo ^{db}	MS	MR	MR	MSS	MRMS#	S	MRMS
Williams ^{db}	S	MRMS	S	MSS	MSS	MSS	MS
Wintaroo ^{db}	MSS	MSS	R	MS	MSS	S	S
Yallara ^{db}	MSS	S	R	MSS	MSS	S	SVS

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/ indicates pathotype differences, # warning, may be more susceptible to alternate pathotypes.

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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 [Ⓛ]	Australian Grain Technologies	10.00	Triazine-tolerant, open-pollinated variety suitable to low rainfall environments. Very quick to flower.
DG Hotham TF	Nutrien Ag Solutions Ltd	-	Mid-maturing glyphosate tolerant Truflex [®] hybrid. Medium to tall plant height. Suited to medium to high-rainfall zones.
DG Torrens TT [Ⓛ]	Nutrien Ag Solutions Ltd	5.00	Early-mid maturing, open-pollinated, triazine-tolerant variety. Short-medium plant height. Suited to low-medium rainfall zones.
Hyola [®] Solstice CL	Pacific Seeds	-	Mid-maturity Clearfield [®] tolerant hybrid. Suitable for medium and high-rainfall zones, dryland and irrigation. Medium height, vigorous early growth and even flowering.
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 [®] Eagle TF	Nuseed Pty Ltd	-	A mid-maturity TruFlex [®] hybrid that performs well in mid to high-rainfall zones. Nuseed [®] Eagle TF gives growers confidence with extremely good early vigour and biomass, increasing integrated weed management options.
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.
PY520TC	Pioneer Hi-Bred Aust Pty Ltd	-	A mid-maturity hybrid suited to medium-long season environments. Triazine-tolerant and Clearfield [®] -tolerant variety.
Renegade TT [Ⓛ]	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.
VICTORY [®] V55-04TF	Cargill	-	First release TruFlex [®] high stability oil hybrid in Australia. Mid-maturity variety. Preferred growing regions Victoria, South Australia and southern NSW. Medium height, replacing VICTORY [®] V5003RR. Marketed by AWB under contract.

* EPR amount is ex-GST, [Ⓛ] denotes Plant Breeder's Rights apply.

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Canola variety yield performance – Wimmera and Upper South-East South Australia

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.

Canola trials are identified as low-med rainfall (formerly early) and med-high rainfall (formerly mid) to reflect the most suitable environments for the listed varieties.

Table 1: Horsham med-high rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.64	2.42	2.74
InVigor® R 4520P	No trial	No trial	109	110	113
Pioneer® 44Y30 RR			106	111	109
Nuseed® Hunter TF				113	104
Nuseed® Eagle TF				106	108
Pioneer® 45Y28 RR			105	104	109
Nuseed® Condor TF			106	109	102
InVigor® R 4022P			102	106	101
Nuseed® Raptor TF			102	107	96
DG Hotham TF				91	105
DG Bindo TF				95	99
Sowing date			22 Apr	11 May	22 Apr
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

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

Table 2: Kaniva med-high rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.05	2.00	3.28	3.53	2.83
Nuseed® Eagle TF					104
Nuseed® Condor TF		108	108	107	99
Pioneer® 45Y28 RR	105		107	106	106
Nuseed® Hunter TF					102
InVigor® R 4520P		108	106	100	107
Pioneer® 44Y30 RR			106	101	108
Nuseed® Raptor TF		103	105	106	100
DG Hotham TF				102	106
InVigor® R 4022P		102	100	96	100
DG Bindo TF				101	102
Sowing date	10 May	7 May	4 May	15 May	10 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Table 3: Keith low-med rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)				2.03	2.99
Pioneer® 44Y30 RR	No trial	No trial	No trial	105	110
Nuseed® Hunter TF					106
Nuseed® Raptor TF				103	106
Hyola® Garrison XC					103
InVigor® R 4520P				100	103
Pioneer® 44Y27 RR				101	102
Hyola® 410XX				100	100
InVigor® R 4022P				99	98
Hyola® Battalion XC				99	96
DG Lofty TF				97	94
Sowing date				17 May	11 May
Rainfall J–M (mm)				65	67
Rainfall A–O (mm)				320	410

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

Table 4: Horsham med-high rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.63	2.27	3.03
Pioneer® 44Y94 CL	No trial	No trial	111	117	117
Pioneer® 45Y95 CL				113	118
Pioneer® 45Y93 CL			110		
Pioneer® 44Y90 CL			105		
Pioneer® 43Y92 CL					101
PY520TC					102
Hyola® Solstice CL				110	90
Hyola® Equinox CL			98	105	
VICTORY® V75-03CL			92	90	
VICTORY® V7002CL			89	86	
Sowing date			23 Apr	11 May	22 Apr
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

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

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Table 5: Kaniva med-high rainfall IML.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.14	2.05	3.40	3.09	2.32
Pioneer® 45Y95 CL	109	110		110	116
Pioneer® 44Y94 CL		106	111	108	121
Pioneer® 45Y93 CL	103	106	108		
Pioneer® 44Y90 CL	100	102	104		
Hyola® Solstice CL				104	82
PY520TC					104
Pioneer® 43Y92 CL	99	100			105
Hyola® Equinox CL			101	99	
VICTORY® V75-03CL	95	94	93	97	
VICTORY® V7002CL	93	92	89	92	
Sowing date	10 May	7 May	4 May	15 May	10 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Table 7: Keith low-med rainfall IML.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.53	3.02	3.14	2.05	2.78
Pioneer® 44Y94 CL				105	111
Pioneer® 45Y95 CL	108				
Hyola® Equinox CL					105
Pioneer® 44Y90 CL	102	102	104		
Hyola® 575CL	94	93			
Pioneer® 43Y92 CL	100	97	101	101	102
Hyola® Solstice CL				101	
VICTORY® V7002CL	97	98	88	95	
Sowing date	16 May	7 May	28 Apr	17 May	11 May
Rainfall J–M (mm)	17	21	74	65	67
Rainfall A–O (mm)	290	296	353	320	410

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

Table 9: Kaniva med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.82	1.81	3.09	2.81	2.20
HyTTec® Trifecta			116	113	111
Hyola® Blazer TT			115	112	119
PY520TC					119
HyTTec® Trophy	110	109	112	109	112
HyTTec® Trident	113	107	113	111	103
SF Dynatron TT™		109	110	106	117
RGT Baseline TT				108	116
InVigor® T 4511				106	107
RGT Capacity™ TT		107	107	103	110
InVigor® T 6010		109	106	103	107
Sowing date	10 May	7 May	4 May	15 May	10 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Table 6: Minimay med-high rainfall IML.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.37	2.75	
Pioneer® 45Y95 CL				105	
Pioneer® 44Y94 CL			110	105	
Pioneer® 45Y93 CL			111		
Hyola® Solstice CL				106	
Pioneer® 44Y90 CL	No trial	No trial	105		
Pioneer® 45Y91 CL			102		
Hyola® Equinox CL			96	103	
VICTORY® V75-03CL			94	100	
VICTORY® V7002CL			90	96	
Sowing date			27 Apr	28 Apr	22 Apr
Rainfall J–M (mm)			74	62	131
Rainfall A–O (mm)			398	374	503

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

Table 8: Horsham med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.19	2.23	2.75
Hyola® Blazer TT			115	115	122
HyTTec® Trifecta			115	117	115
PY520TC				110	121
SF Dynatron TT™			112	112	118
HyTTec® Trophy			111	117	110
RGT Baseline TT	No trial	No trial		99	124
RGT Capacity™ TT			109	107	114
InVigor® T 6010			109	100	118
InVigor® T 4510			108	114	106
InVigor® T 4511				114	106
Sowing date			23 Apr	11 May	22 Apr
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

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

Table 10: Minimay med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.00	2.56	
Hyola® Blazer TT			115	107	
HyTTec® Trifecta			114	108	
HyTTec® Trident			105	115	
PY520TC				105	
HyTTec® Trophy			109	108	
RGT Baseline TT	No trial	No trial		100	
SF Dynatron TT™			111	101	
InVigor® T 4511				105	
DG BIDGEE TT [®]				101	
InVigor® T 4510			105	102	
Sowing date			27 Apr	28 Apr	22 Apr
Rainfall J–M (mm)			74	62	131
Rainfall A–O (mm)			398	374	503

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

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Table 11: Keith low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.44	2.39	2.88	1.99	2.96
HyTTec® Trident	130	118	114	107	110
SF Dynatron TT™		109	114	106	111
Hyola® Blazer TT			117	107	115
HyTTec® Trifecta					111
HyTTec® Trophy	115	108	112	105	109
InVigor® T 4510	113	111	108	103	104
InVigor® T 4511				104	106
RGT Baseline TT					112
Hyola® Enforcer CT		100	107	104	107
InVigor® LT 4530P				102	103
Sowing date	16 May	7 May	28 Apr	17 May	11 May
Rainfall J–M (mm)	17	21	74	65	67
Rainfall A–O (mm)	290	296	353	320	410

Special thanks to 2022 trial cooperator, Andrew McLean.

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 12: 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 [Ⓓ]	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 [Ⓓ]	R	R	R	Open pollinated
InVigor® T 4511	R	R		Hybrid
DG MURRAY TT [Ⓓ]	R			Open pollinated
DG Torrens TT [Ⓓ]	R		R	Open pollinated
Monola® H421TT	RMR			High stability oil, hybrid
Monola® 420TT	RMR			High stability oil, open pollinated
ATR-Bluefin [Ⓓ]	RMR			Open pollinated
InVigor® T 4510	MR	R	R	Hybrid
SF Spark TT	MR	R	R	Hybrid
HyTTec® Velocity	MR			Hybrid
Renegade TT [Ⓓ]	MR	R	R	Open pollinated
Monola® 422TT	MR			High stability oil, open pollinated
ATR-Stingray [Ⓓ]	MRMS	R	R	Open pollinated
RGT Baseline™ TT	MRMS	R	R	Hybrid
ATR-Swordfish [Ⓓ]	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 [Ⓓ]	MRMS	R	R	Open pollinated
AFP Cutubury [Ⓓ]	MS	RMR	RMR	Open pollinated
ATR-Bonito [Ⓓ]	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 12: 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 variety yield performance – Wimmera and Upper South-East South Australia

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: Horsham desi chickpea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			1.57		
PBA Striker ^{db}	No trial	No trial	112	Compromised trial	Trial results below standard
PBA Slasher ^{db}			109		
CBA Captain ^{db}			108		
PBA Maiden ^{db}			107		
Neelam ^{db}			103		
Sowing date			25 May	31 May	24 May
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

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

Table 2: Kaniva desi chickpea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.20	1.48	1.60		1.50
PBA Slasher ^{db}	96	105	108	Trial failed	102
Ambar ^{db}	108	105			
PBA Striker ^{db}	91	105	111		103
CBA Captain ^{db}	103	101	100		99
Neelam ^{db}	98	101	103		102
PBA Maiden ^{db}	83	100	110		99
PBA Seamer ^{db}					103
Sowing date	5 Jun	30 May	29 May	31 May	25 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

Special thanks to 2022 trial cooperator, Alwyn Dyer.
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

Table 3: Horsham kabuli chickpea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			1.67		
Genesis™ 090	No trial	No trial	99	Compromised trial	Trial results below standard
PBA Royal ^{db}			99		
PBA Magnus ^{db}			98		
PBA Monarch ^{db}			98		
Almaz ^{db}			89		
Genesis™ Kalkee			81		
Sowing date			25 May	31 May	24 May
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

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

Table 4: Kaniva kabuli chickpea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.10	1.36	1.81		1.20
Genesis™ 090	113	105	99	Trial failed	111
PBA Royal ^{db}	100	100	100		107
Genesis™ 079	98				
PBA Monarch ^{db}	87	99	104		92
Almaz ^{db}	95	94	95		89
Genesis™ Kalkee	92	90	94		98
PBA Magnus ^{db}	96	91	94		84
Sowing date	5 Jun	30 May	19 Jun	31 May	25 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Chickpea variety disease ratings – South Australia and Victoria

The following table contains varietal ratings for the predominant diseases of chickpea in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 5: Chickpea disease guide for South Australia and Victoria.

Variety	Ascochyta blight (pathogen group 1 – south)	Phytophthora root rot	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)
DESI				
CBA Captain ^{db}	S	S	MR	MS
Neelam ^{db}	S		MRMS	MS
PBA Maiden ^{db}	S		MRMS	MRMS
PBA Seamer ^{db}	S	S	MRMS	MRMS
PBA Slasher ^{db}	S		MRMS	MRMS
PBA Striker ^{db}	S		MRMS	MRMS
KABULI				
Almaz ^{db}	S		MRMS	S
Genesis™ 090	MS		MRMS	MSS
Genesis™ Kalkee	S		MRMS	MS
PBA Magnus ^{db}	S		MR	MSS
PBA Monarch ^{db}	S		MRMS	MS
PBA Royal ^{db}	MS		MR	MS

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

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

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Faba bean variety yield performance – Wimmera and Upper South-East South Australia

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: Kaniva faba bean.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.55	2.60	5.63	1.89	3.72
PBA Samira [Ⓛ]	100	97	103	98	104
PBA Zahra [Ⓛ]	103	96	100	94	104
PBA Amberley [Ⓛ]	97	95	101	99	102
PBA Bendoc [Ⓛ]	104	103	98	97	80
Fiesta VF	94	91	98	99	93
Farah [Ⓛ]	96	93	98	98	90
PBA Marne [Ⓛ]	94	92	87	99	100
Nura [Ⓛ]	97	95	97	98	74
PBA Rana [Ⓛ]	89	79		96	78
Sowing date	26 Apr	7 May	5 May	24 May	8 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

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

Table 2: Minimay faba bean.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.27	3.58	
PBA Samira [Ⓛ]	No trial	No trial	103	100	Trial failed
PBA Amberley [Ⓛ]			102	100	
PBA Rana [Ⓛ]				92	
PBA Zahra [Ⓛ]			95	104	
Fiesta VF			98	99	
Farah [Ⓛ]			98	98	
PBA Bendoc [Ⓛ]			94	97	
Nura [Ⓛ]			96	94	
PBA Marne [Ⓛ]			82	105	
Sowing date			27 Apr	29 Apr	6 May
Rainfall J–M (mm)			74	62	131
Rainfall A–O (mm)			398	374	503

Special thanks to 2022 trial cooperator, Dale Hage.
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

Table 3: Mundulla/Wolseley faba bean.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.38	2.97	4.42	4.14	
PBA Samira ^{db}	100	100	104	100	Compromised trial
PBA Amberley ^{db}	98	97	105	99	
PBA Rana ^{db}	92	82		88	
PBA Zahra ^{db}	98	105	90	100	
Farah ^{db}	96	94	103	95	
Fiesta VF	94	93	106	94	
PBA Bendoc ^{db}	100	101	92	97	
Nura ^{db}	96	92	103	92	
PBA Marne ^{db}	89	97	88	94	
Sowing date	15 May	15 May	6 May	5 May	12 May
Rainfall J–M (mm)	24	16	90	40	28
Rainfall A–O (mm)	322	288	343	362	374

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

Table 4: Wonwondah faba bean.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.25	2.76	4.41	2.88	
PBA Bendoc ^{db}	98	110	117	91	Trial failed
Nura ^{db}	93	101	119	87	
PBA Samira ^{db}	94	95	101	102	
Farah ^{db}	93	94	106	94	
PBA Zahra ^{db}	92	97	100	101	
PBA Amberley ^{db}	94	92	99	101	
Fiesta VF	92	90	102	95	
PBA Rana ^{db}	73	77		90	
PBA Marne ^{db}	103	94	83	95	
Sowing date	27 Apr	6 May	4 May	13 May	6 May
Rainfall J–M (mm)	30	3	95	80	111
Rainfall A–O (mm)	220	256	300	287	476

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

Faba bean variety disease ratings – South Australia and Victoria

The following table contains varietal ratings for the predominant diseases of faba bean in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 5: Faba bean disease guide for South Australia and Victoria.

Variety	Ascochyta blight	Cercospora leaf spot	Chocolate spot (Botrytis)	RLN resistance (<i>Pratylenchus thornei</i>)	Leaf rust
Farah ^{db}	S	S	S	MS	VS
Fiesta VF	S	S	S	MS	VS
Nura ^{db}	MR (P)	S	MS	MS	VS
PBA Amberley ^{db}	MR	S	MRMS	MS	VS
PBA Bendoc ^{db}	MR	S	S	MRMS	VS
PBA Marne ^{db}	MS (P)	S	MS (P)	MS	MRMS
PBA Rana ^{db}	MRMS	S	MS	MS	VS
PBA Samira ^{db}	MR (P)	S	MS	MRMS	S
PBA Zahra ^{db}	MRMS	S	MS	MRMS	S

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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Field pea variety yield performance – Wimmera and Upper South-East South Australia

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: Horsham field pea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.08		2.32
PBA Pearl	No trial	No trial	115	Compromised trial	125
PBA Butler ^{db}					115
PBA Percy			104		112
PBA Noosa ^{db}			106		104
Kaspa ^{db}			95		109
PBA Oura ^{db}			102		99
PBA Gunyah ^{db}					101
PBA Taylor ^{db}			100		94
GIA Ourstar ^{db*}			95		89
PBA Wharton ^{db}			97		84
Sowing date			25 May	31 May	24 May
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

Special thanks to 2022 trial cooperator, Peter Blair.

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

Table 2: Kaniva field pea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.11	1.75	4.27		
PBA Pearl	89	149	109	Trial failed	Compromised trial
PBA Butler ^{db}	102	107			
PBA Taylor ^{db}	115	84	108		
PBA Percy	86	145	96		
PBA Oura ^{db}	95	112	97		
PBA Wharton ^{db}	110	80	99		
PBA Noosa ^{db}	97	89	104		
Kaspa ^{db}	98	77	102		
GIA Ourstar ^{db*}			82		
GIA Kastar ^{db*}			82		
Sowing date	5 Jun	30 May	29 May	31 May	25 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

Special thanks to 2022 trial cooperator, Alwyn Dyer.

* 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

Table 3: Mundulla field pea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.83	1.98	3.53		
PBA Butler [Ⓛ]	105	117		Compromised trial	Compromised trial
PBA Pearl	98	121	114		
PBA Taylor [Ⓛ]	110	110	108		
PBA Noosa [Ⓛ]	94	107	109		
Kaspa [Ⓛ]	99	103	104		
PBA Wharton [Ⓛ]	103	95	97		
PBA Oura [Ⓛ]	97	96	97		
PBA Percy	96	98	95		
GIA Ourstar ^{Ⓛ*}			80		
GIA Kastar ^{Ⓛ*}			76		
Sowing date	16 May	31 May	27 May	1 Jun	28 May
Rainfall J–M (mm)	21	18	90	40	28
Rainfall A–O (mm)	351	346	343	362	374

Special thanks to 2022 trial cooperator, Ryan Smart.

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

Field pea variety disease ratings – South Australia and Victoria

The following table contains varietal ratings for the predominant diseases of field pea in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 4: Field pea disease guide for South Australia and Victoria.

Variety	Bacterial blight	Downy mildew	Powdery mildew	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)
GIA Kastar [Ⓛ]	S	S	RMR	MR	MS
GIA Ourstar [Ⓛ]	S (P)	S	S	MRMS	MSS
Kaspa [Ⓛ]	S	S	S	RMR	MRMS
PBA Butler [Ⓛ]	MS	S	S	RMR	MRMS
PBA Gunyah [Ⓛ]	S	S	S	RMR	MRMS
PBA Noosa [Ⓛ]	S	MS	S	MR	MRMS
PBA Oura [Ⓛ]	MS	S	S	MR	MRMS
PBA Pearl	MS	S	S	MR	MRMS
PBA Percy	MRMS	S	S	RMR	RMR
PBA Taylor [Ⓛ]	S	S	S	RMR	MRMS
PBA Twilight [Ⓛ]	S	S	S	MR	MRMS
PBA Wharton [Ⓛ]	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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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 [®]	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 [®] 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 [®] . This variety has imidazolinone and soil residue sulfonylurea herbicide tolerance similar to existing XT varieties. GIA Leader [®] 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 [®]	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 [®] 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 [®] 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 [®] has the same Ascochyta blight disease rating as GIA Thunder [®] but is more susceptible to BGM. GIA Lightning [®] is not well suited to soil types or regions prone to BGM.
GIA Metro [®]	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 [®] is a large, lens-shaped red lentil with a grey seed coat.
GIA Sire [®]	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 [®] 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 [®] 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 [®] is available only under small, scale-controlled release.
GIA Thunder [®]	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 [®] is a mid-flowering and mid-maturing variety, with better vegetative frost tolerance than PBA HighlandXT [®] , PBA Hallmark XT [®] , PBA Hurricane XT [®] and GIA Lightning [®] . GIA Thunder [®] has similar Group 2 (imidazolinone and soil residue sulfonylurea) herbicide tolerance to existing XT varieties. GIA Thunder [®] has the same Ascochyta blight disease rating as PBA Hurricane XT [®] and GIA Lightning [®] 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 [®] .

* EPR amount is ex-GST, [®] 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[®] lentil is in the same small round lentil market class as PBA Hurricane XT[®]; 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

Lentil variety yield performance – Wimmera and Upper South-East South Australia

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: Horsham lentil.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			2.16		
PBA Jumbo2 ^{db}	No trial	No trial	120	Compromised trial	Compromised trial
PBA Ace ^{db}			108		
GIA Thunder ^{db*}			105		
PBA Bolt ^{db}			101		
PBA HighlandXT ^{db*}			100		
GIA Lightning ^{db*}			100		
PBA Kelpie XT ^{db*}			98		
PBA Blitz ^{db}			97		
GIA Leader ^{db*}			96		
PBA Hurricane XT ^{db*}			95		
Sowing date			25 May	31 May	24 May
Rainfall J–M (mm)			77	58	111
Rainfall A–O (mm)			288	256	476

Special thanks to 2022 trial cooperator, Peter Blair.

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

Table 2: Kaniva lentil.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.70	2.31	2.84		2.27
GIA Thunder ^{db*}			107	Trial failed	126
PBA Jumbo2 ^{db}	99	97	111		133
GIA Leader ^{db*}		101	95		102
PBA Kelpie XT ^{db*}	95	102	105		99
PBA Hurricane XT ^{db*}	103	103	97		95
GIA Lightning ^{db*}			101		80
PBA Hallmark XT ^{db*}	104	102	94		94
PBA HighlandXT ^{db*}	100	105	102		85
PBA Ace ^{db}	102	98	99		90
PBA Blitz ^{db}		91	100		93
Sowing date	5 Jun	30 May	29 May	31 May	24 May
Rainfall J–M (mm)	18	16	59	46	37
Rainfall A–O (mm)	295	271	350	323	375

Special thanks to 2022 trial cooperator, Alwyn Dyer.

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

Table 3: Mundulla lentil.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.15	2.28	2.64		2.86
GIA Thunder ^{db*}			110	Compromised trial	123
PBA Jumbo2 ^{db}	113	109	114		116
GIA Lightning ^{db*}			102		99
PBA Ace ^{db}		98	101		94
PBA HighlandXT ^{db*}	107	96	102		96
PBA Kelpie XT ^{db*}	98	98	103		100
GIA Leader ^{db*}		102	96		102
PBA Hurricane XT ^{db*}	99	100	97		100
PBA Hallmark XT ^{db*}	96	100	94		99
PBA Bolt ^{db}	104	90	98		82
Sowing date	16 May	31 May	27 May	1 Jun	28 May
Rainfall J–M (mm)	21	18	90	40	28
Rainfall A–O (mm)	351	346	343	362	374

Special thanks to 2022 trial cooperator, Ryan Smart.

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

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Lentil variety disease ratings – South Australia and Victoria

The following table contains varietal ratings for the predominant diseases of lentil in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 4: Lentil disease guide for South Australia and Victoria.

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

Lupin variety yield performance – Wimmera and Upper South-East South Australia

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: Keith narrow-leaf lupin.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.39	1.48	2.70		1.97
PBA Jurien ^{db}		74	98	Trial failed	131
PBA Barlock ^{db}		72	94		137
PBA Bateman ^{db}	119	92	102		119
Jenabillup ^{db}	98	88	99		139
PBA Gunyidi ^{db}		101	104		123
Mandelup ^{db}		85	96		108
Coyote ^{db}	125		101		82
Lawler ^{db}			99		83
Wonga	95	78	86		128
Jindalee		78	70		90
Sowing date	25 May	18 May	11 May	7 May	20 May
Rainfall J–M (mm)	17	21	74	65	67
Rainfall A–O (mm)	290	296	353	320	410

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

Table 2: Mundulla narrow-leaf lupin.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		3.13	3.40	1.32	1.63
PBA Gunyidi ^{db}	Trial failed	108	104	104	119
Jenabillup ^{db}		108	96	105	126
PBA Bateman ^{db}		101	100	104	118
PBA Jurien ^{db}		94	91	106	126
PBA Barlock ^{db}		97	87	105	125
Mandelup ^{db}		94	93	101	106
Coyote ^{db}			101	99	92
Lawler ^{db}			98	99	91
Wonga		101	81	98	105
Jindalee		93	68	86	59
Sowing date	7 Jun	10 May	6 May	6 May	13 May
Rainfall J–M (mm)	21	18	90	40	28
Rainfall A–O (mm)	351	346	343	362	374

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

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Lupin variety disease ratings – South Australia and Victoria

The following table contains varietal ratings for the predominant diseases of lupin in South Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2023. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 3: Lupin disease guide for South Australia and Victoria.

Variety	Anthrachnose resistance	Cucumber mosaic virus (CMV)	Phomopsis pod infection	Phomopsis stem infection
Coyote ^{db}	MRMS	MRMS	MRMS	S
Jenabillup ^{db}	MS	MRMS	MR	MS
Jindalee	MRMS	S	MR	RMR
Lawler ^{db}	MR	MRMS	MS	MR
Mandelup ^{db}	MRMS	MRMS	S	RMR
PBA Barlock ^{db}	RMR	MR	MR	MR
PBA Bateman ^{db}	MRMS	MR	MS	RMR
PBA Gunyidi ^{db}	MRMS	MRMS	MRMS	RMR
PBA Jurien ^{db}	RMR	MS	MR	RMR
Quillinock	VS	MS	S	S
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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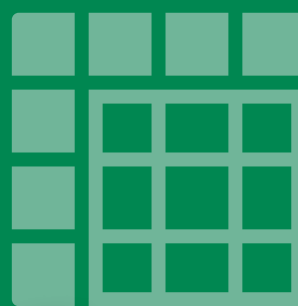
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