

NVT HARVEST REPORT



REVISED MAY 2023

Eyre Peninsula
Southern Region

**Title:**

NVT Harvest Report – Eyre Peninsula

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COVER: NVT barley and wheat, Lake Grace, WA in 2022.

PHOTO: Isabelle Rogers

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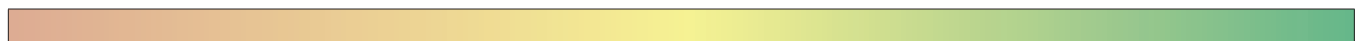
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LEGEND: MEAN VARIETY YIELD PERFORMANCE

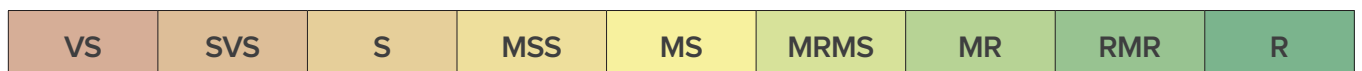


LOW

HIGH

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

DISEASE RATING COLOUR RANGE



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 **Eyre Peninsula**. 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 **Eyre Peninsula** 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 **Eyre Peninsula** 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 **Eyre Peninsula**.

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](#).

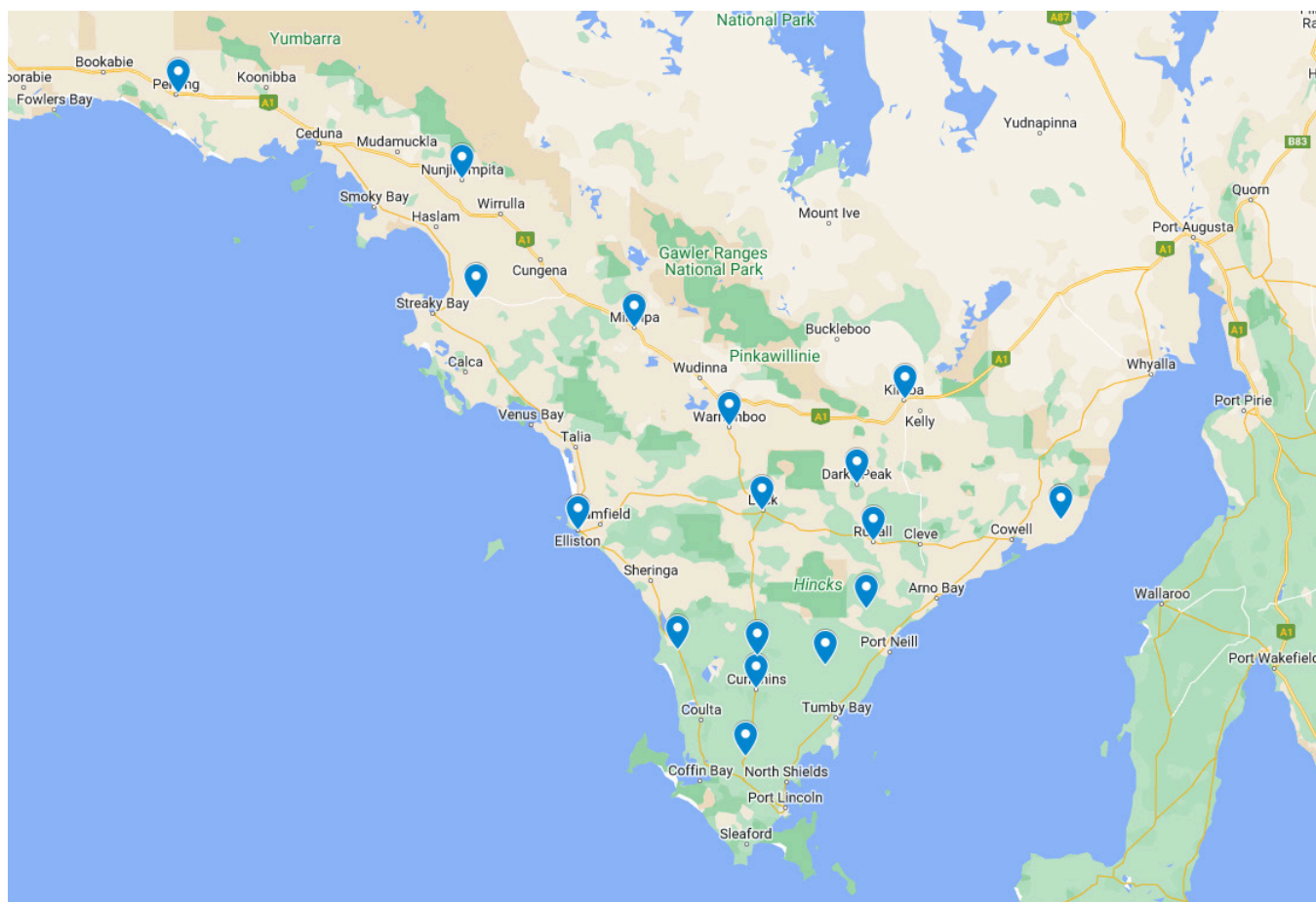
Trials listed as compromised are not suitable for making variety decisions. Results can be found in the [Quarantined trial reports](#).

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

NVT SITE LOCATIONS – Eyre Peninsula

Figure 1: Locality of NVT trial sites in Eyre Peninsula 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 [®] .
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

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 – Eyre Peninsula

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: Cummins main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	5.26	5.80	4.57	5.23	
Vixen ^{db}	109	122	122	105	Trial failed
Kingston ^{db}			116	99	
Devil ^{db}		107	116	107	
Brumby ^{db}				109	
Ballista ^{db}		110	115	104	
RockStar ^{db}	110	105	116	106	
Scepter ^{db}	108	105	115	108	
Boree ^{db}			113	106	
LRPB Arrow ^{db}	103	109		103	
Calibre ^{db}			108	107	
IMI-TOLERANT					
Sunblade CL Plus ^{db}			110	100	
Sheriff CL Plus ^{db}	104	103	107	105	
Chief CL Plus ^{db}	103	97	107	108	
Sowing date	15 May	16 May	5 May	24 May	19 May
Rainfall J–M (mm)	24	3	41	54	147
Rainfall A–O (mm)	328	307	366	327	386

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

Table 2: Kimba main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		0.31	2.22	2.90	5.88
Vixen ^{db}	Compromised trial	143	107	136	113
Ballista ^{db}		137	114	122	110
Calibre ^{db}			118	126	103
RockStar ^{db}		112	114	112	112
Devil ^{db}		119	109	117	106
Brumby ^{db}				115	105
Boree ^{db}			108	117	105
Scepter ^{db}		123	108	120	101
Reilly ^{db}					102
Catapult ^{db}			108	107	110
IMI-TOLERANT					
Sunblade CL Plus ^{db}			109	103	111
Razor CL Plus ^{db}		132	100	121	97
Sheriff CL Plus ^{db}		91	98	106	102
Sowing date	5 May	2 May	4 May	26 May	10 May
Rainfall J–M (mm)	24	8	55	57	235
Rainfall A–O (mm)	121	132	253	226	265

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

Table 3: Minnipa main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.15	1.73	1.70	2.66	4.43
Vixen ^{db}	103	118	104	111	119
RockStar ^{db}	107	110	115	109	115
Ballista ^{db}		115	109	110	115
Calibre ^{db}			112	115	109
Devil ^{db}		105	108	109	109
Brumby ^{db}				110	107
Boree ^{db}			107	108	108
Scepter ^{db}	108	101	106	109	104
Catapult ^{db}	107	103	108	108	103
Reilly ^{db}					106
IMI-TOLERANT					
Sunblade CL Plus ^{db}			107	102	112
Razor CL Plus ^{db}	102	106	96	106	101
Sheriff CL Plus ^{db}	104	98	103	104	102
Sowing date	15 Jun	8 May	12 May	27 May	5 May
Rainfall J–M (mm)	24	5	77	44	89
Rainfall A–O (mm)	186	216	218	210	300

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

Table 4: Mitchellville main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	0.29	1.02	2.02		3.69
Calibre ^{db}			115	Trial failed	111
Reilly ^{db}					117
Ballista ^{db}		117	112		107
RockStar ^{db}	103	95	112		112
Vixen ^{db}	174	137	105		94
EG Titanium			93		126
LRPB Dual ^{db}					113
Catapult ^{db}	102	93	105		105
Emu Rock ^{db}	141	131	91		99
LRPB Trojan ^{db}	64	82	100		113
IMI-TOLERANT					
Sunblade CL Plus ^{db}			108		110
Razor CL Plus ^{db}	151	126	99		91
Valiant ^{db} CL Plus					105
Sowing date	21 May	8 May	11 May	8 Jun	9 May
Rainfall J–M (mm)	43	2	60	45	174
Rainfall A–O (mm)	65	99	215	122	226

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

Table 5: Nunjirkompita main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.30	1.08	0.99	1.23	3.30
RockStar ^{db}	110	109	112	105	115
Calibre ^{db}			107	116	107
Brumby ^{db}				107	109
Ballista ^{db}		116	107	108	108
Devil ^{db}		111	105	106	107
Boree ^{db}			105	106	107
Catapult ^{db}	108	104	106	107	107
Scepter ^{db}	108	113	102	109	104
Vixen ^{db}	102	118	103	107	105
LRPB Trojan ^{db}	105	94	109	95	111
IMI-TOLERANT					
Sunblade CL Plus ^{db}			107	99	108
Sheriff CL Plus ^{db}	106	99	102	101	104
Valiant ^{db} CL Plus				95	106
Sowing date	18 Jun	14 May	18 May	7 Jun	10 May
Rainfall J–M (mm)	29	11	46	44	88
Rainfall A–O (mm)	225	165	256	183	253

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

Table 7: Piednippie main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.81	2.26	0.86	2.61	4.00
Calibre ^{db}			109	117	112
RockStar ^{db}	109	112	107	111	116
Brumby ^{db}				112	114
Devil ^{db}		110	106	110	111
Ballista ^{db}		115	108	109	110
Scepter ^{db}	108	110	107	111	109
Catapult ^{db}	108	108	105	112	109
Vixen ^{db}	102	116	110	110	107
Boree ^{db}			106	110	109
LRPB Trojan ^{db}	104	99	100	102	108
IMI-TOLERANT					
Sheriff CL Plus ^{db}	106	102	103	108	105
Sunblade CL Plus ^{db}			102	100	107
Chief CL Plus ^{db}	110	93	100	107	102
Sowing date	8 May	7 May	18 May	26 May	6 May
Rainfall J–M (mm)	27	7	31	67	144
Rainfall A–O (mm)	200	273	240	289	384

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

Table 6: Penong main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.02	0.43		0.52	2.28
Ballista ^{db}		110	Trial failed	122	111
Calibre ^{db}				125	107
Vixen ^{db}	106	99		141	109
Reilly ^{db}					111
RockStar ^{db}	111	110		100	108
Devil ^{db}		101		112	102
Boree ^{db}				112	102
Brumby ^{db}				104	101
Scepter ^{db}	112	98		117	99
Emu Rock ^{db}	92	99		131	103
IMI-TOLERANT					
Sunblade CL Plus ^{db}				98	110
Razor CL Plus ^{db}	102	97		133	100
LRPB Anvil ^{db}				139	89
Sowing date	20 Jun	3 May	15 May	31 May	29 Apr
Rainfall J–M (mm)	43	6	50	53	5
Rainfall A–O (mm)	194	138	225	167	331

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

Table 8: Rudall main season wheat.

Year	2018	2019	2020	2021	2022	
Mean yield (t/ha)	2.28		1.78	2.64	5.65	
Calibre ^{db}		Compromised trial	111	121	109	
Brumby ^{db}				117	110	
RockStar ^{db}	110		110	113	113	
Ballista ^{db}			109	116	109	
Devil ^{db}			110	115	108	
Vixen ^{db}	117		108	116	105	
Scepter ^{db}	112		111	117	105	
Denison ^{db}				111	110	
Boree ^{db}				109	113	106
Catapult ^{db}	108			106	110	106
IMI-TOLERANT						
Sunblade CL Plus ^{db}			104	104	108	
Sheriff CL Plus ^{db}	103		103	104	102	
Razor CL Plus ^{db}	110		102	108	96	
Sowing date	6 Jun	15 May	11 May	27 May	24 May	
Rainfall J–M (mm)	35	4	33	49	159	
Rainfall A–O (mm)	176	216	264	254	294	

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

WHEAT

BARLEY

OAT

CANOLA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Table 9: Wanilla main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.41		5.53		6.00
Vixen ^{db}	111	Trial failed	118	Compromised trial	107
Kingston ^{db}			118		110
Sunmaster ^{db}					106
Ballista ^{db}			108		106
Devil ^{db}			108		104
RockStar ^{db}	113		106		105
Brumby ^{db}					103
LRPB Arrow ^{db}	105				103
Scepter ^{db}	113				102
Boree ^{db}					107
IMI-TOLERANT					
Sunblade CL Plus ^{db}			106		106
Sheriff CL Plus ^{db}	107		104		100
Chief CL Plus ^{db}	110		104		95
Sowing date	17 May	17 May	12 May	21 Jun	16 May
Rainfall J–M (mm)	22	5	62	55	139
Rainfall A–O (mm)	400	346	397	450	470

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

Table 10: Warrambo main season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.26	1.85	1.04	3.46	5.84
Vixen ^{db}	108	124	147	107	113
Ballista ^{db}		121	127	107	109
Calibre ^{db}			132	110	105
Scepter ^{db}	107	109	126	108	106
Devil ^{db}		110	121	107	107
Brumby ^{db}				109	107
RockStar ^{db}	104	111	111	107	108
Boree ^{db}			121	106	106
Catapult ^{db}	103	104	111	105	102
Mace ^{db}	105	99	124	104	101
IMI-TOLERANT					
Razor CL Plus ^{db}	103	113	132	103	102
LRPB Anvil ^{db}			138	107	99
Sunblade CL Plus ^{db}			100	102	105
Sowing date	30 May	7 May	18 May	27 May	26 May
Rainfall J–M (mm)	33	4	42	42	69
Rainfall A–O (mm)	205	257	223	162	263

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

Table 11: Minnipa early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			2.00	3.82	4.61
Stockade ^{db}	No trial	Trial failed			118
DS Bennett ^{db}			114	100	123
Mowhawk ^{db}					105
Denison ^{db}			102	111	107
Cutlass ^{db}			104	110	106
RockStar ^{db}			97	106	112
Catapult ^{db}			97	106	101
Illabo ^{db}			104	100	101
Longsword ^{db}			106	109	92
LRPB Nighthawk ^{db}					102
IMI-TOLERANT					
Valiant ^{db} CL Plus				109	105
Sheriff CL Plus ^{db}			90	92	93
Sowing date		12 Apr	15 Apr	20 Apr	19 Apr
Rainfall J–M (mm)		5	77	44	89
Rainfall A–O (mm)		216	218	210	300
Irrigation A–O (mm)				20	

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

WHEAT

BARLEY

OAT

CANOLA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Wheat variety quality – Eyre Peninsula

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 Eyre Peninsula 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 eight NVT sites in Eyre Peninsula in 2021.

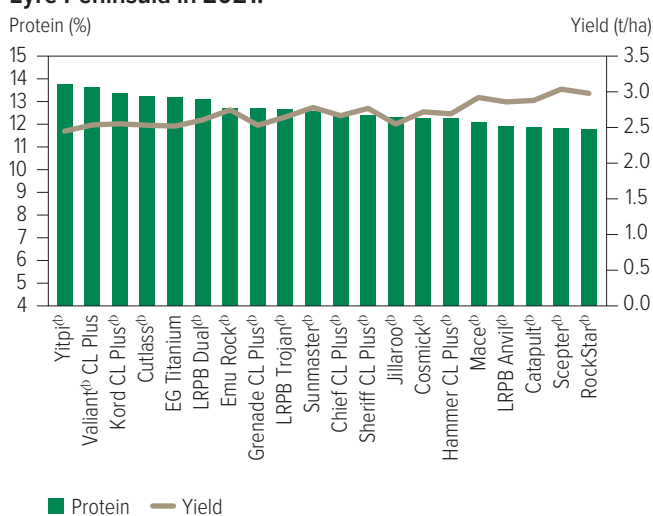


Figure 2: Protein (%) and yield (t/ha) comparisons for main season wheat varieties from nine NVT sites in Eyre Peninsula in 2022.

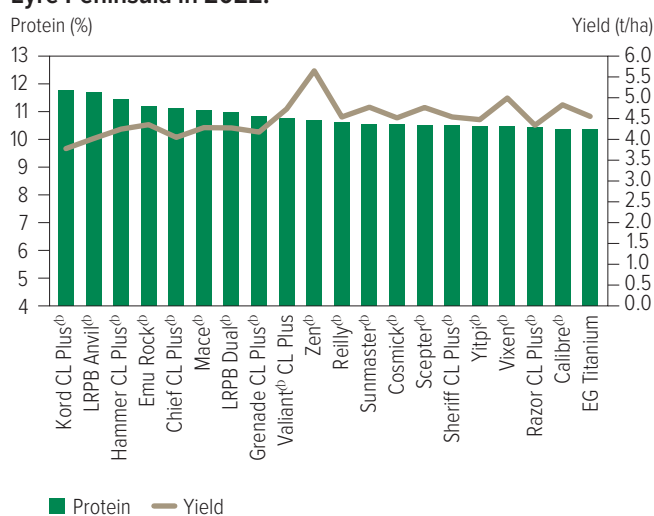


Figure 3: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from one NVT site in Eyre Peninsula in 2021.

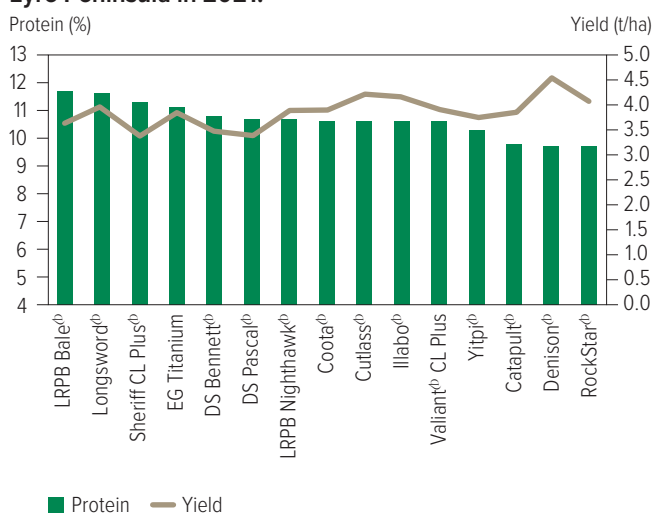
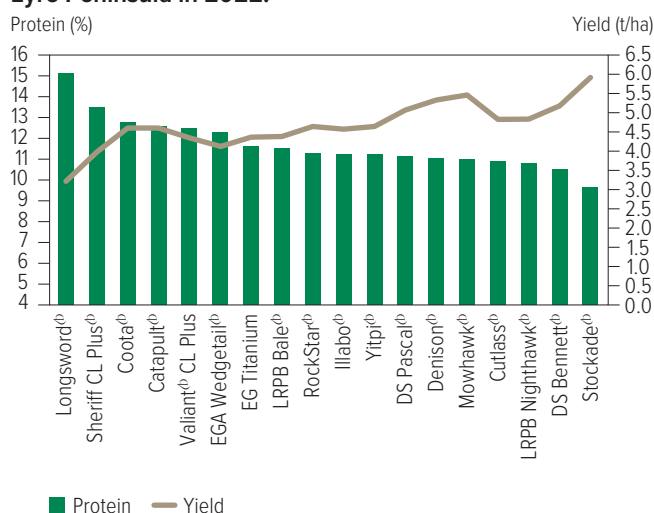


Figure 4: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from one NVT site in Eyre Peninsula in 2022.



WHEAT

BARLEY

OAT

CANOLA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Test weight comparisons

Figure 5: Test weight (kg/hL) comparisons for main season wheat varieties from eight NVT sites in Eyre Peninsula in 2021.

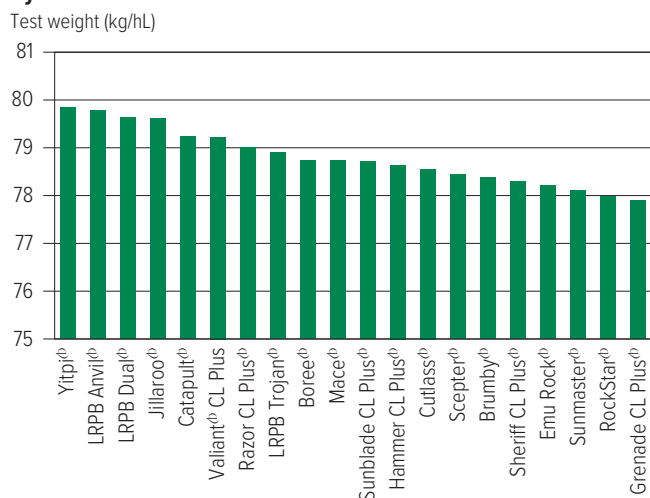


Figure 7: Test weight (kg/hL) comparisons for early season wheat varieties from one NVT site in Eyre Peninsula in 2021.

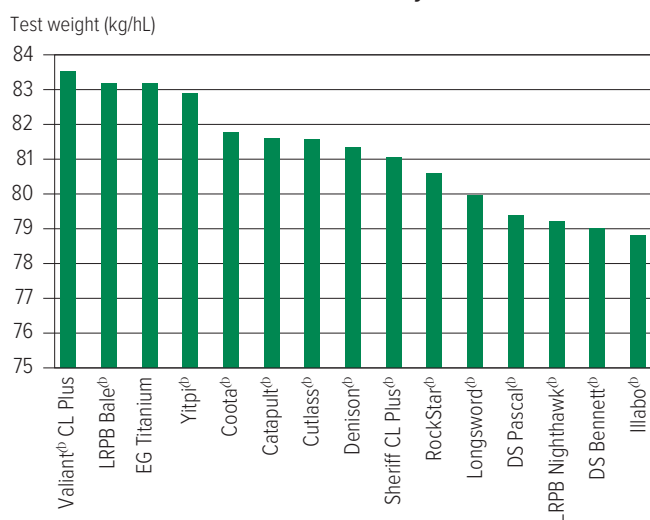


Figure 6: Test weight (kg/hL) comparisons for main season wheat varieties from nine NVT sites in Eyre Peninsula in 2022.

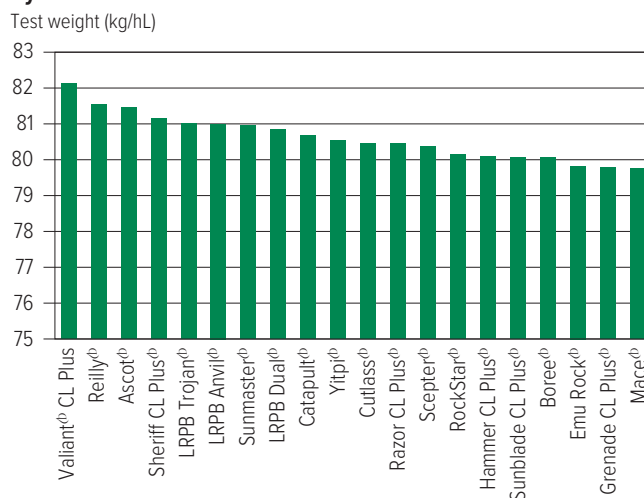
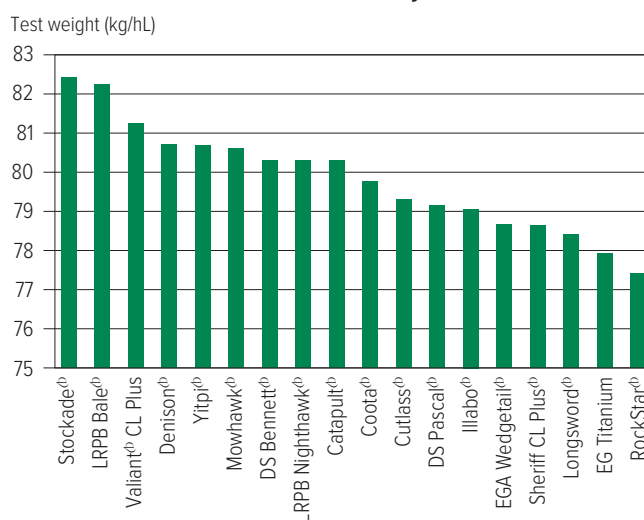


Figure 8: Test weight (kg/hL) comparisons for early season wheat varieties from one NVT site in Eyre Peninsula in 2022.



WHEAT

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LUPIN

Screenings comparisons

Figure 9: Screenings (<2.0mm) comparisons for main season wheat varieties for eight NVT sites in Eyre Peninsula in 2021.

Screenings (%<2.0mm)

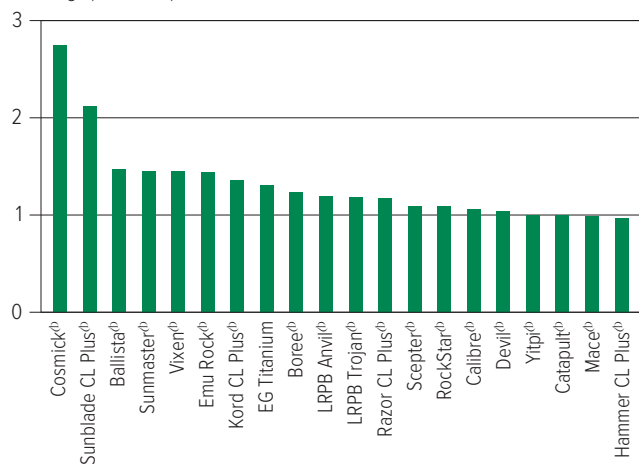


Figure 10: Screenings (<2.0mm) comparisons for main season wheat varieties from nine NVT sites in Eyre Peninsula in 2022.

Screenings (%<2.0mm)

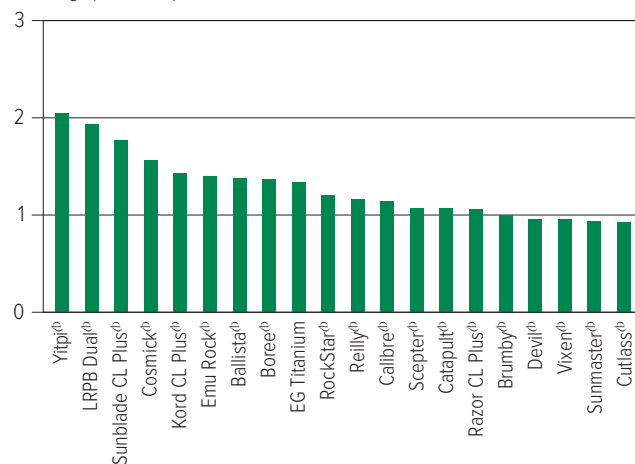


Figure 11: Screenings (<2.0mm) comparisons for early season wheat varieties from one NVT site in Eyre Peninsula in 2021.

Screenings (%<2.0mm)

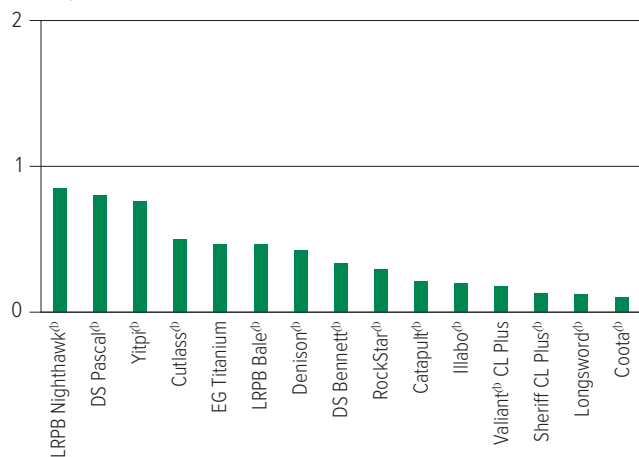
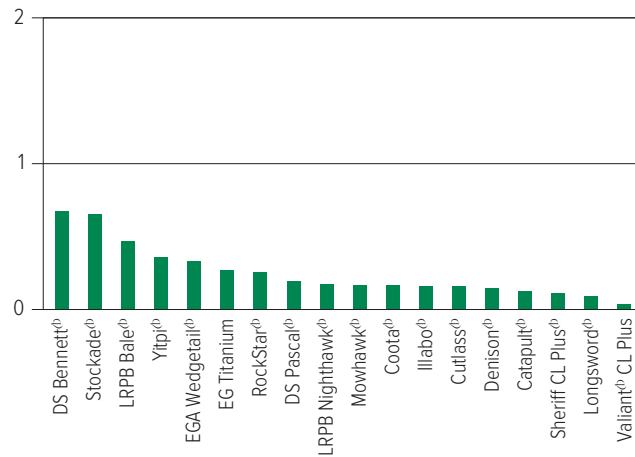


Figure 12: Screenings (<2.0mm) comparisons for early season wheat varieties from one NVT site in Eyre Peninsula in 2022.

Screenings (%<2.0mm)



WHEAT

BARLEY

OAT

CANOLA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

Wheat variety disease ratings – South Australia

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

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

Table 12: 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 12: 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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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 – Eyre Peninsula

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: Cummins main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	6.69		4.12	5.25	
Cyclops ^{db}		Compromised trial	125	111	Trial failed
Combat ^{db}				108	
Minotaur ^{db}			128	105	
Rosalind ^{db}	107		120	109	
RGT Planet ^{db}	110		115	101	
Laperouse ^{db}	101		115	104	
La Trobe ^{db}	101		105	110	
Yeti ^{db}			113	105	
Fandaga ^{db}				102	
Fathom ^{db}	102			91	
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Maximus ^{db} CL	99		123	110	
Spartacus CL ^{db}	98		112	109	
Zena ^{db} CL				103	
Sowing date	15 May	16 May	5 May	24 May	19 May
Rainfall J–M (mm)	24	3	41	54	147
Rainfall A–O (mm)	328	307	366	327	386

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

Table 3: Elliston main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.18	3.64	2.20	4.33	6.81
Cyclops ^{db}			109	112	106
Rosalind ^{db}	104	107	116	105	113
Minotaur ^{db}			105	108	112
Yeti ^{db}		106	116	111	103
Combat ^{db}					108
Beast ^{db}		112	119	109	95
Leabrook ^{db}	115	112	114	107	96
RGT Planet ^{db}	94	102	99	96	116
Laperouse ^{db}	108	106	104	111	98
Fathom ^{db}	111	108	111	103	96
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Zena ^{db} CL					115
Maximus ^{db} CL	105	103	113	110	102
Titan AX ^{db}				109	93
Spartacus CL ^{db}	105	101	111	106	99
Sowing date	9 May	14 May	12 May	28 May	11 May
Rainfall J–M (mm)	29	3	19	64	60
Rainfall A–O (mm)	250	282	310	269	398

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

Table 2: Darke Peak main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.33	1.42	1.82	2.23	7.13
Cyclops ^{db}			121	127	103
Beast ^{db}		140	133	137	99
Leabrook ^{db}	119	131	129	134	104
Yeti ^{db}		134	134	136	99
Laperouse ^{db}	126	133	124	133	98
Compass ^{db}	118	131	128	134	99
Minotaur ^{db}			115	116	107
Combat ^{db}					111
Rosalind ^{db}	116	117	113	108	103
Fathom ^{db}	121	121	109	111	97
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Titan AX ^{db}				134	102
Commodus ^{db} CL			125	130	98
Maximus ^{db} CL	127	134	122	124	91
Spartacus CL ^{db}	121	125	113	114	89
Sowing date	26 Jun	16 May	19 May	1 Jun	26 May
Rainfall J–M (mm)	38	6	89	51	215
Rainfall A–O (mm)	190	190	273	227	315

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

Table 4: Minnipa main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.30	1.90	2.19	3.05	4.58
Cyclops ^{db}			106	110	111
Yeti ^{db}		123	107	117	104
Beast ^{db}		128	111	118	94
Minotaur ^{db}			104	107	118
Leabrook ^{db}	119	121	110	114	100
Rosalind ^{db}	111	121	107	114	103
Laperouse ^{db}	115	112	103	107	109
Compass ^{db}	124	121	109	114	90
Combat ^{db}					111
Fathom ^{db}	124	117	106	108	89
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Titan AX ^{db}				109	101
Maximus ^{db} CL	122	121	103	114	98
Zena ^{db} CL					101
Commodus ^{db} CL			107	112	90
Sowing date	15 Jun	8 May	12 May	27 May	5 May
Rainfall J–M (mm)	24	5	77	44	89
Rainfall A–O (mm)	186	216	218	210	300

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

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Table 5: Piednippie main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.49	2.89		3.14	4.93
Combat ^{db}			Compromised trial		112
Cyclops ^{db}				114	107
Rosalind ^{db}	102	108		109	109
Minotaur ^{db}				109	113
RGT Planet ^{db}	101	98		100	118
Leabrook ^{db}	109	111		111	95
Beast ^{db}		114		112	92
Fathom ^{db}	108	112		106	93
Yeti ^{db}		105		110	99
Laperouse ^{db}	102	101		109	99
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Zena ^{db} CL					110
Titan AX ^{db}				111	94
Maximus ^{db} CL	97	105		108	97
Commodus ^{db} CL				107	86
Sowing date	8 May	7 May	18 May	26 May	6 May
Rainfall J–M (mm)	27	7	31	67	144
Rainfall A–O (mm)	200	273	240	289	384

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

Table 6: Wanilla main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	5.27		4.52	5.43	5.86
Minotaur [Ⓛ]		Trial failed	120	106	110
Cyclops [Ⓛ]			116	107	108
Rosalind [Ⓛ]	109		113	106	107
RGT Planet [Ⓛ]	104		108	110	111
Combat [Ⓛ]				115	111
Fandaga [Ⓛ]				106	109
Yeti [Ⓛ]			113	96	102
Laperouse [Ⓛ]	104		113	99	101
Bottler [Ⓛ]			101	99	104
La Trobe [Ⓛ]	101			100	103
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Maximus [Ⓛ] CL	107		117	99	99
Zena [Ⓛ] CL				103	108
Spartacus CL [Ⓛ]	104		108	99	96
Titan AX [Ⓛ]					100
Sowing date	17 May	16 May	12 May	24 May	16 May
Rainfall J–M (mm)	22	5	62	55	139
Rainfall A–O (mm)	400	346	397	450	470

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

Table 7: Wharminda main season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		1.10	1.39		5.72
Leabrook ^{db}	Compromised trial	138	116	Compromised trial	101
Beast ^{db}		151	113		99
Fandaga ^{db}					110
Rosalind ^{db}		122	94		107
Cyclops ^{db}			106		106
Compass ^{db}		149	116		96
Yeti ^{db}		131	113		99
Combat ^{db}					111
Minotaur ^{db}			104		107
Fathom ^{db}			134		100
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Zena ^{db} CL					109
Titan AX ^{db}					100
Commodus ^{db} CL			115		95
Maximus ^{db} CL		127	102		98
Sowing date	11 May	16 May	19 Jun	28 May	13 May
Rainfall J–M (mm)	30	5	40	53	141
Rainfall A–O (mm)	192	180	247	228	282

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

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Barley variety quality – Eyre Peninsula

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 Eyre Peninsula 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 six NVT sites in Eyre Peninsula in 2021.

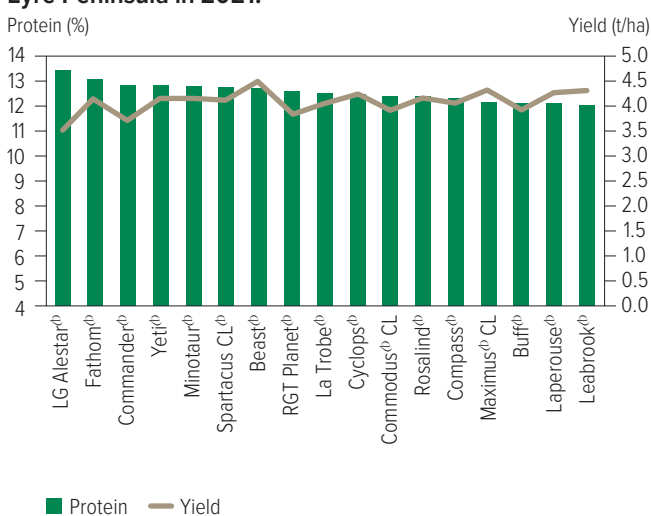
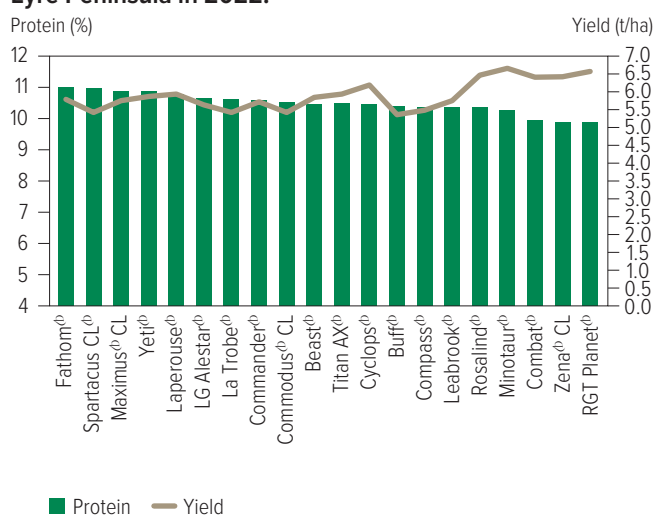


Figure 2: Protein (%) and yield (t/ha) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2022.



Test weight comparisons

Figure 3: Test weight (kg/hL) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2021.

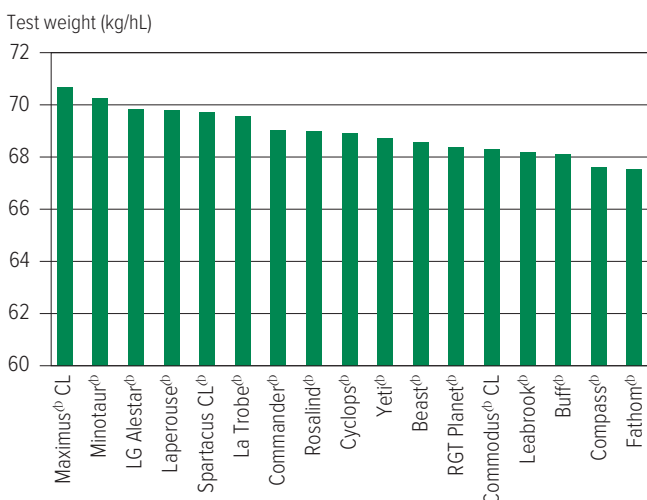
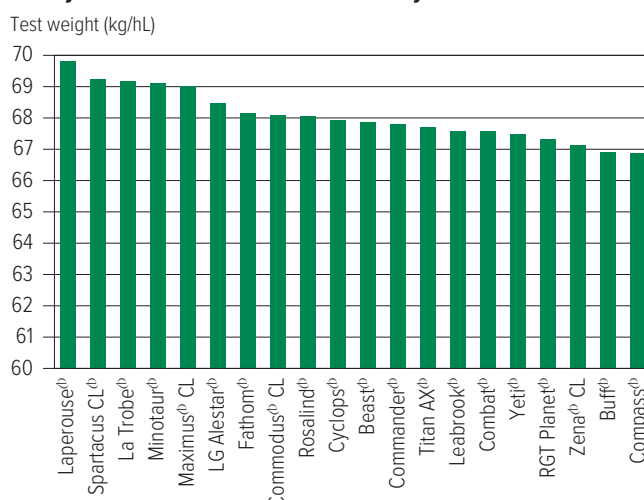


Figure 4: Test weight (kg/hL) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2022.



Screenings comparisons

Figure 5: Screenings (<2.2mm) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2021.

Screenings (%<2.2mm)

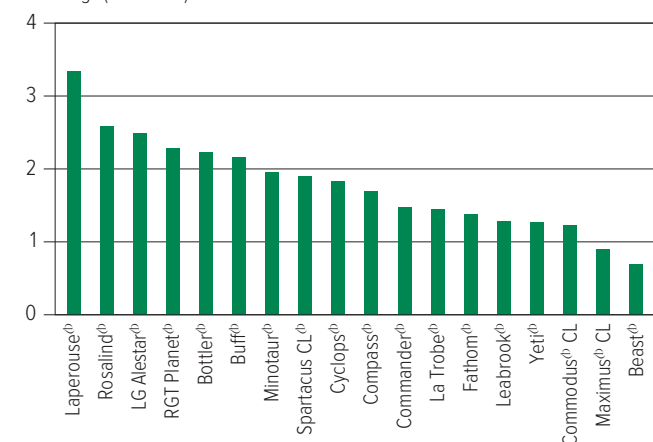
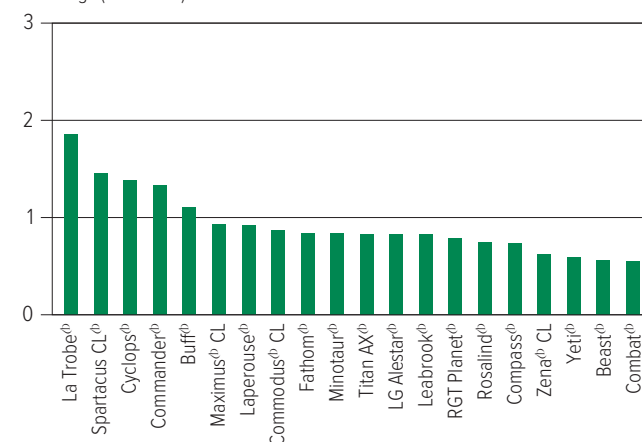


Figure 6: Screenings (<2.2mm) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2022.

Screenings (%<2.2mm)



Retention comparisons

Figure 7: Retention (>2.5mm) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2021.

Retention (%>2.5mm)

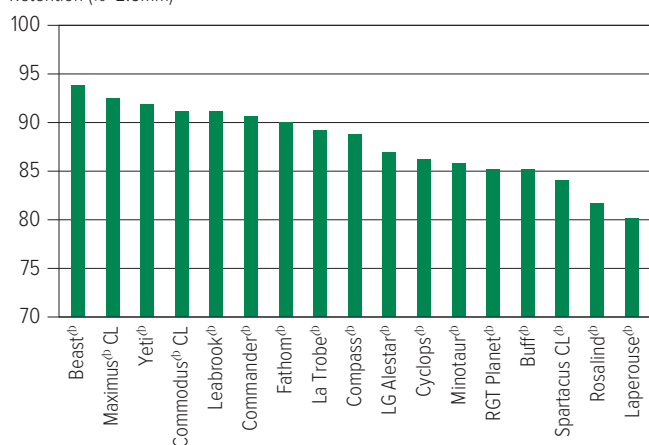
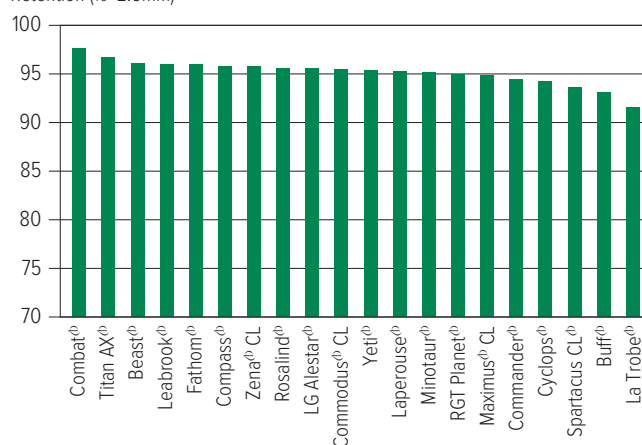


Figure 8: Retention (>2.5mm) comparisons for main season barley varieties from six NVT sites in Eyre Peninsula in 2022.

Retention (%>2.5mm)



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Barley variety disease ratings – South Australia

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

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

Table 8: 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-SVS	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, S = susceptible, VS = very susceptible, (P) = provisional rating.

- hyphen indicates a range, ^ 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 – Eyre Peninsula

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: Nunjikompita oat.					
Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			1.06		2.56
Koala ^{db}	No trial	No trial	101	Compromised trial	141
Bannister ^{db}			100		121
Williams ^{db}			101		111
Koorabup ^{db}			100		99
Yallara ^{db}			99		97
Possum			100		92
Bilby ^{db}			100		91
Kowari ^{db}			100		81
Mitika ^{db}			100		79
Durack ^{db}			100		71
Sowing date			19 May	7 Jun	10 May
Rainfall J–M (mm)			46	44	88
Rainfall A–O (mm)			256	183	253

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

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Oat variety disease ratings – South Australia

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

Selected varieties of most relevance to South Australian 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.

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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 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® Regiment XC	Pacific Seeds	-	Mid-maturity dual-herbicide stacked TruFlex® and Clearfield® hybrid. Suitable for medium and high-rainfall zones, dryland and irrigation. Medium height, vigorous early growth and even flowering.
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.
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® 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.

* 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

Canola variety yield performance – Eyre Peninsula

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: Yeelanna med-high rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)				1.94	
Nuseed® Emu TF	No trial	No trial	No trial	121	Compromised trial
Pioneer® 44Y27 RR				120	
Nuseed® Condor TF				114	
Nuseed® Raptor TF				114	
Pioneer® 44Y30 RR				114	
Hyola® Regiment XC				113	
InVigor® R 4520P				112	
InVigor® R 4022P				109	
Pioneer® 45Y28 RR				104	
Hyola® 410XX				99	
Sowing date				24 May	2 May
Rainfall J–M (mm)				62	173
Rainfall A–O (mm)				339	382

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

Table 2: Lock low-med rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)					4.21
InVigor® R 4520P	No trial	No trial	No trial	Compromised trial	117
Nuseed® Hunter TF					111
Pioneer® 44Y27 RR					108
InVigor® R 4022P					107
Nuseed® Raptor TF					103
Pioneer® 44Y30 RR					102
Nuseed® Emu TF					96
DG Lofty TF					95
Hyola® Battalion XC					92
Hyola® Garrison XC					91
Sowing date				24 May	6 May
Rainfall J–M (mm)				45	116
Rainfall A–O (mm)				233	331

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

Table 3: Mt Hope med-high rainfall IML.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			2.13	2.02	2.86
Pioneer® 44Y94 CL	No trial	No trial	115	116	121
Pioneer® 45Y95 CL				110	115
Pioneer® 44Y90 CL			108		
Pioneer® 45Y93 CL			110		
Hyola® Solstice CL				111	93
Pioneer® 45Y91 CL			103		
Hyola® Equinox CL			100	107	89
Sowing date			3 May	24 May	2 May
Rainfall J–M (mm)			23	64	110
Rainfall A–O (mm)			327	435	395

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

Table 4: Yeelanna med-high rainfall IML.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.51	2.68	1.71	1.83	
Hyola® Solstice CL				121	Compromised trial
Pioneer® 45Y95 CL	111	113		114	
Pioneer® 44Y94 CL		109	112	120	
Hyola® Equinox CL			110	114	
Pioneer® 45Y93 CL	109	109	105		
Pioneer® 44Y90 CL	103	104	104		
Saintly CL	96	103			
Pioneer® 45Y91 CL	102		98		
VICTORY® V75-03CL	97	91			
Hyola® 575CL	97	92			
Sowing date	8 May	7 May	4 May	24 May	2 May
Rainfall J–M (mm)	28	6	41	62	173
Rainfall A–O (mm)	346	346	330	339	382

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

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Table 5: Lock low-med rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.44	1.34	1.39		4.48
Pioneer® 44Y94 CL				Compromised trial	111
Pioneer® 45Y95 CL	113				
Pioneer® 44Y90 CL	104	111	105		
Hyola® 575CL	94	108			
Saintly CL		82			
Pioneer® 43Y92 CL	102	93	92		96
Hyola® Equinox CL					86
VICTORY® V7002CL	99	71			
Sowing date	30 May	7 May	30 Apr	24 May	6 May
Rainfall J–M (mm)	31	3	45	45	116
Rainfall A–O (mm)	241	198	252	233	331

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

Table 6: Minnipa low-med rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	0.92	1.07		1.42	1.53
Pioneer® 45Y95 CL	111		Trial results below standard		
Pioneer® 44Y94 CL					113
Pioneer® 44Y90 CL	103	107			
Pioneer® 43Y92 CL	100	102		105	98
Hyola® 575CL	86	95			
Saintly CL		103			
Hyola® Equinox CL					92
VICTORY® V7002CL	107	97			
Sowing date	29 May	2 May	8 May	24 May	22 Apr
Rainfall J–M (mm)	24	5	77	44	89
Rainfall A–O (mm)	186	216	218	210	300

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

Table 7: Mt Hope med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			2.04	1.80	2.65
InVigor® LT 4530P	No trial	No trial			119
Renegade TT [®]				95	125
InVigor® T 4510			119	115	115
RGT Capacity™ TT				104	117
Hyola® Blazer TT			113	114	119
InVigor® T 4511				117	112
HyTTec® Trophy			108	120	113
HyTTec® Trifecta			111	116	113
PY520TC				108	115
InVigor® T 6010			124	93	112
Sowing date			3 May	24 May	2 May
Rainfall J–M (mm)			23	64	110
Rainfall A–O (mm)			327	435	395

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

Table 8: Yeelanna med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.22	2.35	1.77	2.18	
HyTTec® Trifecta	116	118	117	118	Compromised trial
Hyola® Blazer TT			114	114	
HyTTec® Trophy	110	111	113	120	
InVigor® T 4511				117	
InVigor® T 4510	103	109	114	116	
PY520TC				108	
InVigor® LT 4530P				109	
RGT Capacity™ TT				105	
Hyola® Enforcer CT		106	107	109	
InVigor® T 6010		113	111	95	
Sowing date	8 May	6 May	4 May	24 May	2 May
Rainfall J–M (mm)	28	6	41	62	173
Rainfall A–O (mm)	346	346	330	339	382

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

Table 9: Lock low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.28	1.23	1.21		3.81
HyTTec® Trident	121	96	130	Compromised trial	110
InVigor® LT 4530P					113
InVigor® T 4510	111	110	118		112
HyTTec® Trophy	111	108	117		109
HyTTec® Velocity					108
Renegade TT [®]					107
InVigor® T 4511					104
RGT Capacity™ TT					99
SF Spark TT		95	105		101
Bandit TT [®]					98
Sowing date	30 May	7 May	30 Apr	24 May	6 May
Rainfall J–M (mm)	31	3	45	45	116
Rainfall A–O (mm)	241	198	252	233	331

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

Table 10: Minnipa low-med rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	0.93	1.09		1.10	1.56
HyTTec® Trident	118		Trial failed	117	105
InVigor® T 4511				112	102
HyTTec® Trophy	106	103		112	107
InVigor® LT 4530P					108
InVigor® T 4510	111	107		104	106
Hyola® Enforcer CT		105			100
HyTTec® Velocity					101
RGT Capacity™ TT					103
Bandit TT [®]				98	96
SF Spark TT		99			98
Sowing date	29 May	2 May	8 May	24 May	22 Apr
Rainfall J–M (mm)	24	5	77	44	89
Rainfall A–O (mm)	186	216	218	210	300

Special thanks to 2022 trial cooperator, Minnipa Agricultural Centre SARDI.
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 11: 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 11: 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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Faba bean variety yield performance – Eyre Peninsula

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: Yeelanna faba bean.					
Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.75	4.22	4.56
PBA Zahra [Ⓟ]	No trial	No trial	101	109	100
PBA Bendoc [Ⓟ]			109	108	89
PBA Samira [Ⓟ]			101	99	101
PBA Amberley [Ⓟ]			99	97	101
Farah [Ⓟ]			101	98	95
Nura [Ⓟ]			107	99	86
PBA Marne [Ⓟ]			85	100	103
Fiesta VF			98	95	96
PBA Rana [Ⓟ]				87	86
Sowing date			5 May	31 May	17 May
Rainfall J–M (mm)			25	62	173
Rainfall A–O (mm)			349	339	382

Special thanks to 2022 trial cooperator, Jordan Wilksch.
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

Faba bean variety disease ratings – South Australia

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

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

Table 2: Faba bean disease guide for South Australia.

Variety	Ascochyta blight	Cercospora leaf spot	Chocolate spot (Botrytis)	RLN resistance (<i>Pratylenchus thornei</i>)	Leaf rust
Farah [Ⓛ]	S	S	S	MS	VS
Fiesta VF	S	S	S	MS	VS
Nura [Ⓛ]	MR (P)	S	MS	MS	VS
PBA Amberley [Ⓛ]	MR	S	MRMS	MS	VS
PBA Bendoc [Ⓛ]	MR	S	S	MRMS	VS
PBA Marne [Ⓛ]	MS (P)	S	MS (P)	MS	MRMS
PBA Rana [Ⓛ]	MRMS	S	MS	MS	VS
PBA Samira [Ⓛ]	MR (P)	S	MS	MRMS	S
PBA Zahra [Ⓛ]	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 – Eyre Peninsula

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: Minnipa field pea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			1.29	2.12	2.64
PBA Pearl	No trial	No trial	112	106	122
PBA Butler [†]				111	109
PBA Noosa [†]			106	101	112
PBA Taylor [†]			105	105	109
PBA Oura [†]			102	96	100
PBA Wharton [†]			103	95	100
PBA Percy			101	98	98
PBA Gunyah [†]				101	96
Kaspa [†]			88	108	92
GIA Ourstar ^{†*}			94	84	82
Sowing date			6 May	4 Jun	11 May
Rainfall J–M (mm)			77	44	89
Rainfall A–O (mm)			218	210	300

Special thanks to 2022 trial cooperator, Minnipa Agricultural Centre SARDI.

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

Table 2: Rudall field pea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	1.49	0.82	1.73	2.06	2.38
PBA Pearl	107	143	111	122	125
PBA Butler [†]	102	103		111	111
PBA Noosa [†]	105	130	99	105	108
PBA Taylor [†]	102	102	115	103	104
PBA Percy	99	106	94	106	105
PBA Oura [†]	100	108	93	100	101
PBA Wharton [†]	100	99	98	94	95
PBA Gunyah [†]	99	95		96	95
Kaspa [†]	97	77	104	97	95
GIA Ourstar ^{†*}			69	85	85
Sowing date	30 May	17 May	19 May	31 May	24 May
Rainfall J–M (mm)	35	3	45	53	203
Rainfall A–O (mm)	176	213	252	225	274

Special thanks to 2022 trial cooperator, Basil Heath.

* herbicide-tolerant variety. 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: Yeelanna field pea.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.97	3.50	2.96	3.72	3.38
PBA Pearl	109	100	108	103	119
PBA Butler [Ⓛ]	107	98		100	109
PBA Percy	101	105	104	100	106
PBA Taylor [Ⓛ]	105	99	101	101	102
PBA Oura [Ⓛ]	99	101	100	101	100
PBA Noosa [Ⓛ]	100	94	98	103	103
PBA Wharton [Ⓛ]	98	100	96	101	94
Kaspa [Ⓛ]	99	95	100	97	98
PBA Gunyah [Ⓛ]	97	95		99	97
GIA Ourstar ^{Ⓛ*}			93	99	88
Sowing date	14 May	27 May	19 May	2 Jun	17 May
Rainfall J–M (mm)	28	6	25	62	173
Rainfall A–O (mm)	346	346	349	339	382

Special thanks to 2022 trial cooperator, Jordan Wilksch.

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

Field pea variety disease ratings – South Australia

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

Selected varieties of most relevance to South Australian 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.

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 – Eyre Peninsula

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: Yeelanna lentil.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.14		1.80	3.17	1.78
GIA Thunder ^{db*}		Compromised trial	133	123	138
PBA Kelpie XT ^{db*}	114		104	103	124
GIA Lightning ^{db*}			120	115	104
PBA HighlandXT ^{db*}	101		107	106	105
PBA Hurricane XT ^{db*}	100		112	106	100
PBA Hallmark XT ^{db*}	99		114	107	96
GIA Leader ^{db*}			110	105	93
PBA Jumbo2 ^{db}	99		84	95	106
GIA Sire ^{db*}				92	71
PBA Blitz ^{db}	102		71		94
Sowing date	14 May	27 May	19 May	2 Jun	17 May
Rainfall J–M (mm)	28	6	25	62	173
Rainfall A–O (mm)	346	346	349	339	382

Special thanks to 2022 trial cooperator, Jordan Wilksch.

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

Lentil variety disease ratings – South Australia

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

Selected varieties of most relevance to South 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 South Australia.

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

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: Ungarra narrow-leaf lupin.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.08	1.51	2.02		3.20
Coyote ^{db}	105		97	Compromised trial	106
Lawler ^{db}			96		105
PBA Bateman ^{db}	101	91	104		105
PBA Gunyidi ^{db}		97	107		100
PBA Jurien ^{db}		75	101		110
Mandelup ^{db}		88	98		104
Jenabillup ^{db}	95	83	105		99
PBA Barlock ^{db}		72	100		105
Wonga	84	76	95		92
Jindalee		83	80		79
Sowing date	11 May	13 May	5 May	24 May	3 May
Rainfall J–M (mm)	26	4	39	51	131
Rainfall A–O (mm)	269	260	330	318	364

Special thanks to 2022 trial cooperator, Anthony Fatchen.

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

Lupin variety disease ratings – South Australia

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

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

Table 2: Lupin disease guide for South Australia.

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
Quilinoock	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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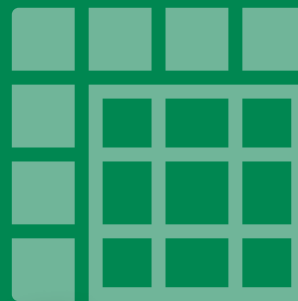
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