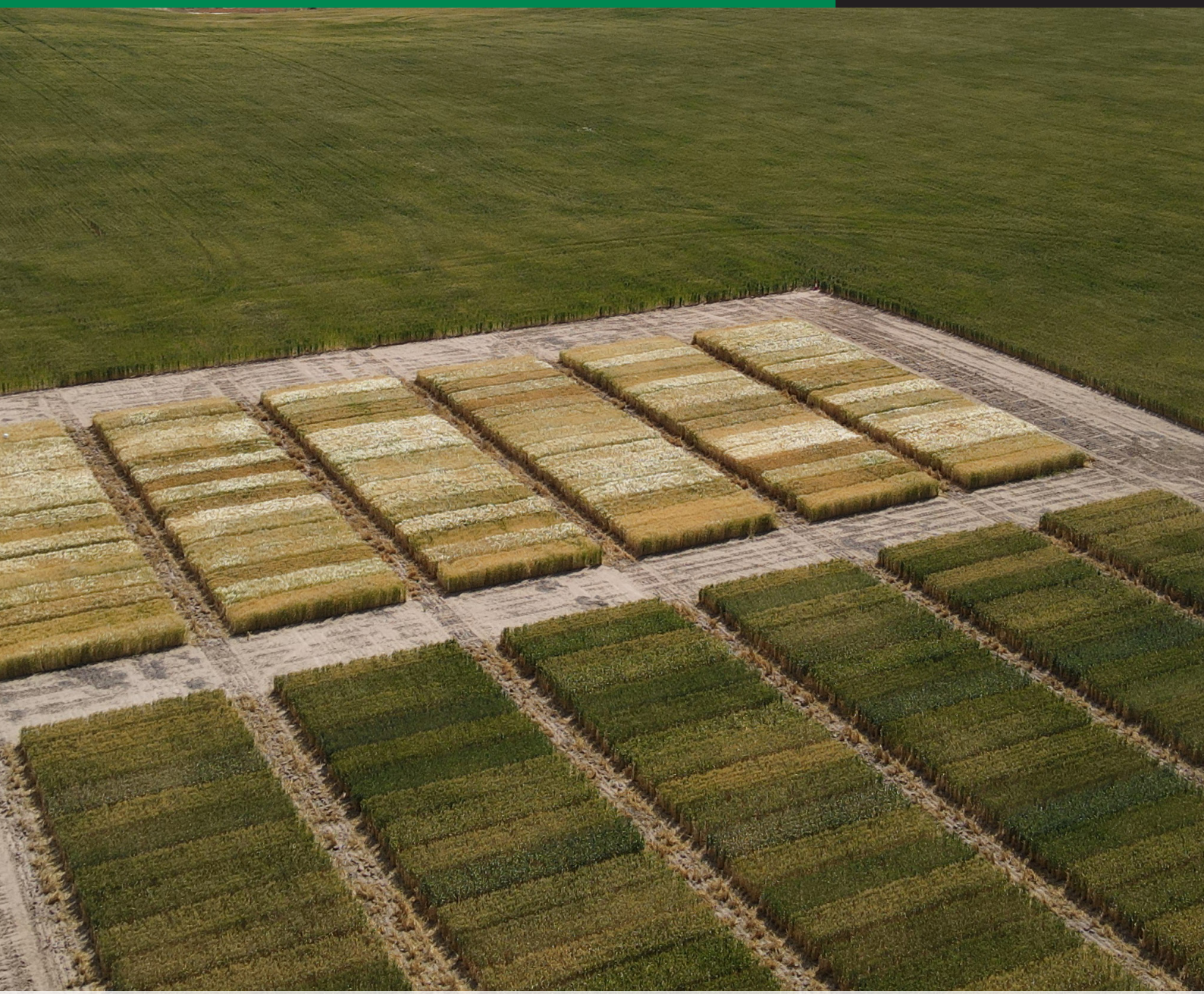
NVT HARVEST REPORT

GRDC NATIONAL VARIETY TRIALS™

REVISED APRIL 2023



High rainfall South Australia, Victoria and Tasmania

Southern Region

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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

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 **High rainfall South Australia, Victoria and Tasmania**. 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 **High rainfall South Australia, Victoria and Tasmania** 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 **High rainfall South Australia, Victoria and Tasmania** 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 **High rainfall South Australia, Victoria and Tasmania**.

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.

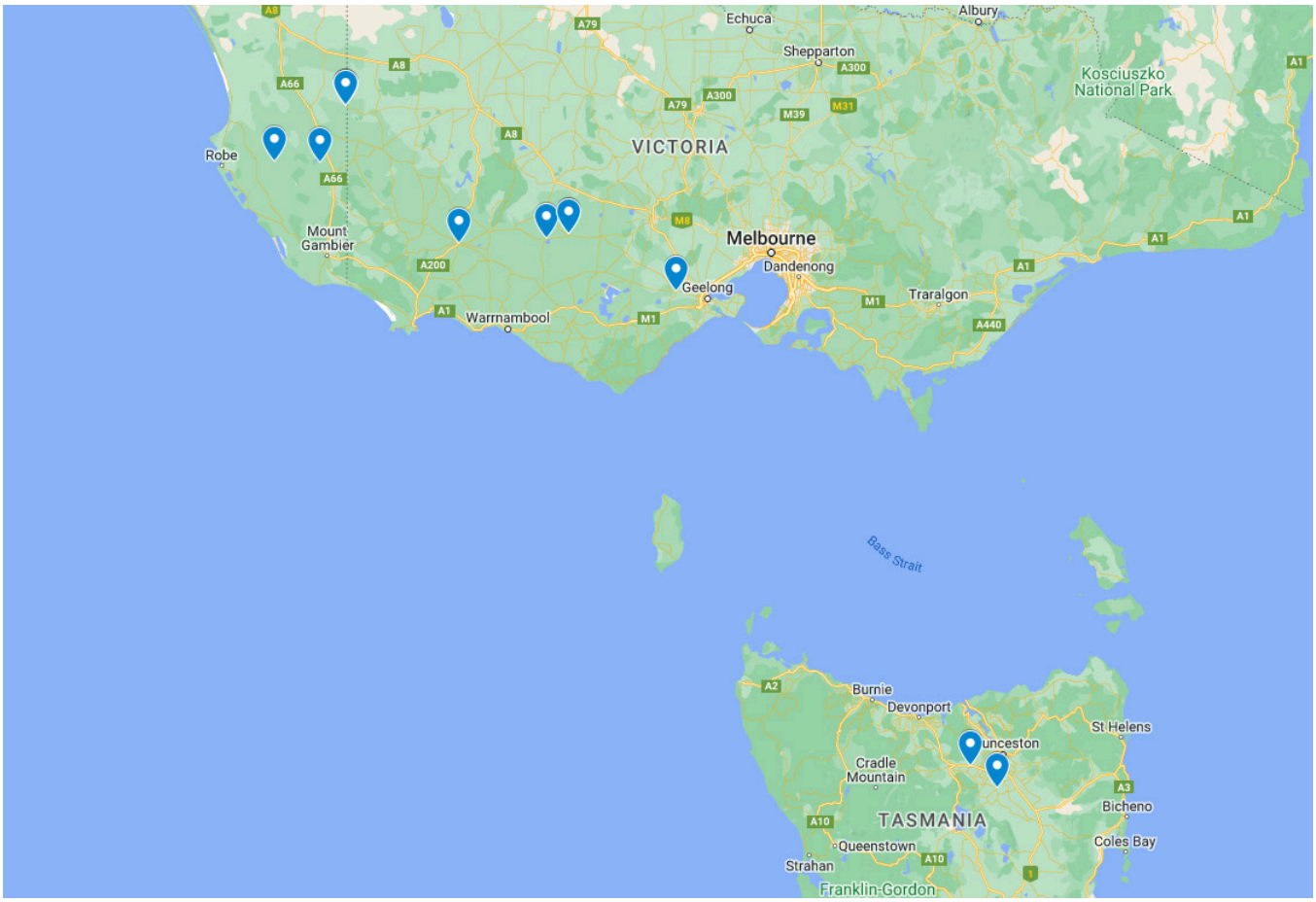
Trials listed as compromised are not suitable for making variety decisions. Results can be found in the Quarantined trial reports.

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

NVT SITE LOCATIONS – High rainfall South Australia, Victoria and Tasmania

Figure 1: Locality of NVT trial sites in High rainfall South Australia, Victoria and Tasmania 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
LRPB Scotch(Φ)	LongReach Plant Breeders Pty Ltd	Milling	None provided.	Mid-slow spring maturing suited for high-yielding soft wheat production systems. Medium-short height with good straw strength well-suited for irrigated production.
Mowhawk(Φ)	LongReach Plant Breeders Pty Ltd	Milling	4.00	A quick winter variety with similar growth habit and maturity to Longsword(Φ). Mowhawk(Φ) has broad general adaption and is ideally suited to higher-production areas and early break scenarios. Mowhawk(Φ) is quicker to heading and higher-yielding than the current benchmark winter variety, Illabo(Φ).
RGT Waugh(Φ)	RAGT	Feed	None provided.	An awned, white-grained winter wheat. Mid-slow maturing variety for medium to high-rainfall zones and irrigation. Suitable for dual-purpose applications when early sowing is possible. Excellent standability.
Stockade(Φ)	LongReach Plant Breeders Pty Ltd	Milling	None provided.	Very slow spring maturity similar to RGT Accroc(Φ). 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(Φ) and LRPB Beaufort(Φ) feed wheats.
Willaura(Φ)	Australian Grain Technologies	Milling	3.50	A slow to very slow spring maturity type with a compact canopy.

* EPR amount is ex-GST, (Φ) denotes Plant Breeder's Rights apply.

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

Wheat variety yield performance – High rainfall South Australia, Victoria and Tasmania

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: Conmurra early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	7.49	8.02	6.30		5.29
BigRed[Φ]				Compromised trial	138
RGT Waugh[Φ]			113		142
RGT Accroc[Φ]	118	117	110		129
RGT Calabro	114	119	109		131
RGT Cesario[Φ]			111		127
LRPB Beaufort[Φ]	114	116	115		121
RGT Zanzibar	113	111	118		123
Stockade[Φ]					116
EG Jet[Φ]		112	109		117
Manning[Φ]	108	114	97		119
IMI-TOLERANT					
Valiant[Φ] CL Plus			106		103
Sheriff CL Plus[Φ]		95	102		88
Sowing date	**20 Apr**	**17 Apr**	**28 Apr**	**17 Apr**	**20 Apr**
Rainfall J–M (mm)	**31**	**53**	**61**	**83**	**35**
Rainfall A–O (mm)	**571**	**429**	**385**	**405**	**451**

Special thanks to 2022 trial cooperator, Brad Hocking.
Learn more via the NVT Long Term Yield Reporter

Table 2: Hamilton early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.81	6.10	7.85	4.91	4.34
LRPB Beaufort[Φ]	116	116	113	123	117
RockStar[Φ]		117	108	113	115
BigRed[Φ]				122	117
Willaura[Φ]				135	101
Stockade[Φ]				125	111
RGT Zanzibar	114	114	112	104	119
RGT Cesario[Φ]			112	117	114
RGT Accroc[Φ]	106	106	111	119	113
Sunflex[Φ]	108	109	104		105
RGT Calabro	103	103	109	114	113
IMI-TOLERANT					
Valiant[Φ] CL Plus			105	115	107
Sheriff CL Plus[Φ]		105	98	97	100
Sowing date	**9 May**	**16 May**	**14 May**	**7 May**	**2 May**
Rainfall J–M (mm)	**39**	**33**	**85**	**107**	**80**
Rainfall A–O (mm)	**328**	**422**	**509**	**419**	**521**

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

Table 3: Inverleigh early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	5.20	6.65	5.27	6.83	5.35
RGT Waugh[Φ]			108	121	145
RGT Calabro	112	120	97	117	129
BigRed[Φ]				123	132
RockStar[Φ]		119	125	113	101
EG Jet[Φ]	112	118	109	111	116
LRPB Beaufort[Φ]	108	114	106	120	112
RGT Zanzibar	103	112	108	115	121
RGT Accroc[Φ]	106	113	92	118	124
DS Pascal[Φ]	111	114	109	107	109
RGT Cesario[Φ]			93	117	121
IMI-TOLERANT					
Valiant[Φ] CL Plus			109	109	97
Sheriff CL Plus[Φ]		101	115	97	87
Sowing date	**3 May**	**4 May**	**8 May**	**29 Apr**	**4 May**
Rainfall J–M (mm)	**59**	**47**	**112**	**94**	**133**
Rainfall A–O (mm)	**228**	**320**	**327**	**332**	**333**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 4: Streatham early season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	5.22	5.10		7.00	5.69
RGT Waugh[Φ]				121	145
BigRed[Φ]				129	145
LRPB Beaufort[Φ]	110	111		127	122
RGT Accroc[Φ]	110	98	Compromised trial	125	135
RGT Calabro	111	101		121	136
Stockade[Φ]				128	120
RGT Cesario[Φ]				122	131
Manning[Φ]	112	93		121	128
Mowhawk[Φ]					113
RockStar[Φ]		126		116	101
IMI-TOLERANT					
Valiant[Φ] CL Plus				116	103
Sheriff CL Plus[Φ]		113		96	83
Sowing date	**8 May**	**15 May**	**28 Apr**	**1 May**	**10 May**
Rainfall J–M (mm)	**26**	**31**	**80**	**174**	**95**
Rainfall A–O (mm)	**199**	**402**	**385**	**409**	**461**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 5: Conmurra long season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			**6.07**		**5.72**
RGT Calabro	No trial	No trial	121	No trial	126
RGT Waugh◊					132
LRPB Beaufort◊			122		121
Anapurna			110		128
RGT Accroc◊			116		120
RGT Cesario◊					122
BigRed◊					127
RGT Zanzibar			114		111
Stockade◊					109
Manning◊			107		105
IMI-TOLERANT					
Valiant◊ CL Plus					88
Sowing date			**16 Apr**		**20 Apr**
Rainfall J–M (mm)			**61**		**35**
Rainfall A–O (mm)			**385**		**451**

Special thanks to 2022 trial cooperator, Brad Hocking.
Learn more via the NVT Long Term Yield Reporter

Table 6: Cressy/Evandale/Westbury long season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	**10.79**	**11.43**	**10.64**	**10.97**	**10.06**
RGT Accroc◊	122	114	112	121	116
RGT Cesario◊			116	124	120
BigRed◊				121	125
Anapurna		105	111	115	124
RGT Waugh◊			114	118	118
RGT Calabro	103	104	115	119	113
Stockade◊					111
Manning◊	103	106	107	116	94
SQP Revenue◊	107	107	103	106	100
DS Bennett◊	113	113	97	102	91
IMI-TOLERANT					
Valiant◊ CL Plus				88	93
Sowing date	**15 May**	**20 May**	**14 Apr**	**24 Apr**	**27 Apr**
Rainfall J–M (mm)	**173**	**114**	**170**	**159**	**85**
Rainfall A–O (mm)	**374**	**325**	**369**	**512**	**452**
Irrigation A–O (mm)			**83**		

Special thanks to 2022 trial cooperator, Stuart Coles.
Learn more via the NVT Long Term Yield Reporter

Table 7: Hamilton long season wheat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	**5.10**	**6.05**	**7.94**	**4.72**	
RGT Accroc◊	112	117	116	133	Trial failed
RGT Cesario◊			116	126	
BigRed◊				120	
Anapurna		108	117	115	
RGT Calabro	107	115	105	115	
Stockade◊				114	
LRPB Beaufort◊	120	113	104	99	
SQP Revenue◊	103	112	104	115	
DS Bennett◊	104	107	102	123	
RGT Waugh◊			107	110	
IMI-TOLERANT					
Valiant◊ CL Plus				92	
Sowing date	**23 Apr**	**9 May**	**19 Apr**	**15 Apr**	**18 Apr**
Rainfall J–M (mm)	**39**	**33**	**85**	**107**	**80**
Rainfall A–O (mm)	**328**	**422**	**509**	**419**	**521**

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

Wheat variety quality – High rainfall South Australia, Victoria and Tasmania

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 High rainfall South Australia, Victoria and Tasmania 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 early season wheat varieties from three NVT sites in High Rainfall Zone in 2021.

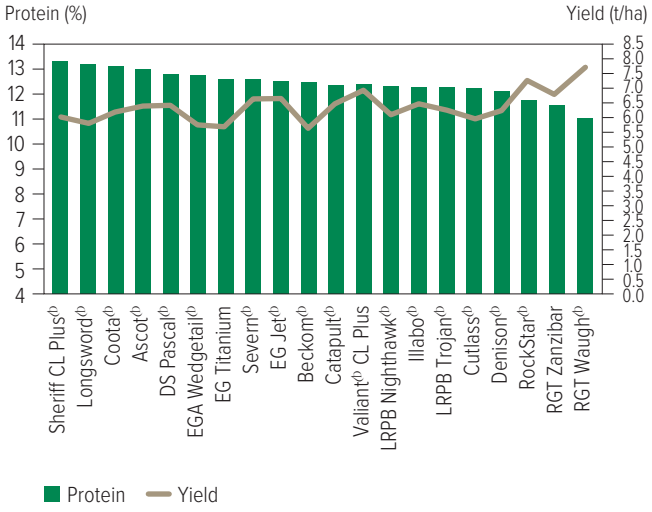


Figure 2: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from four NVT sites in High Rainfall Zone in 2022.

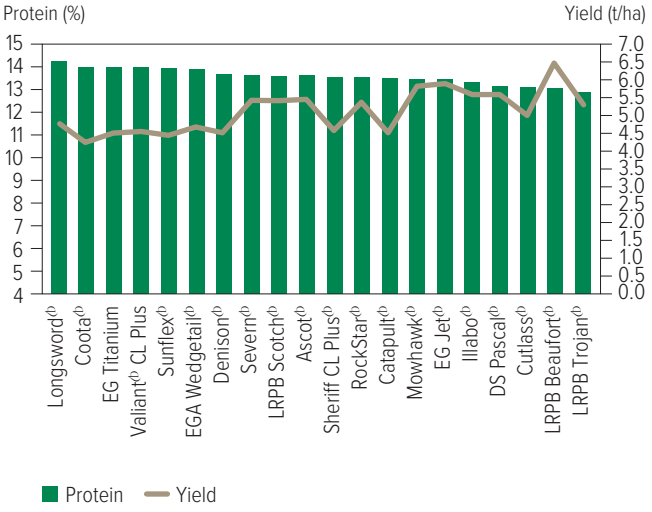


Figure 3: Protein (%) and yield (t/ha) comparisons for long season wheat varieties from two NVT sites in High Rainfall Zone in 2021.

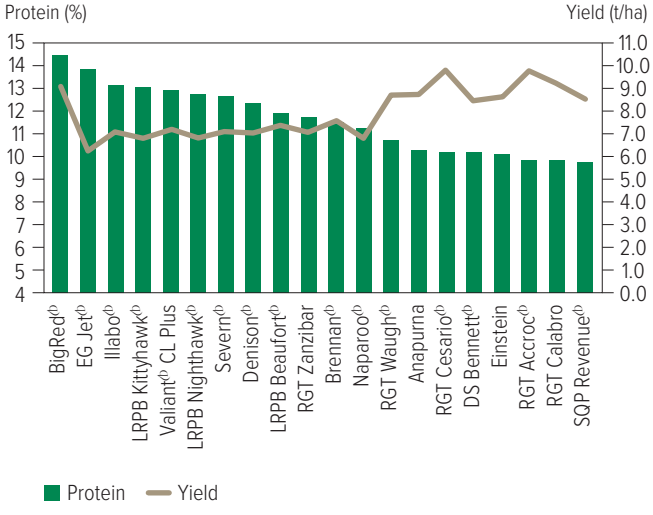
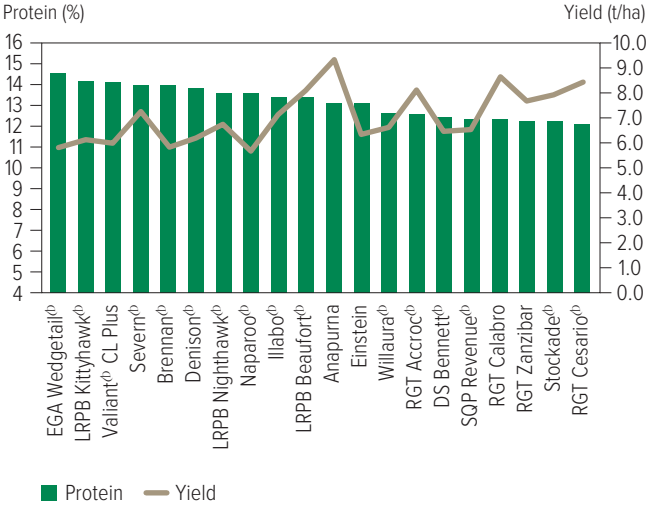


Figure 4: Protein (%) and yield (t/ha) comparisons for long season wheat varieties from three NVT sites in High Rainfall Zone in 2022.



Test weight comparisons

Figure 5: Test weight (kg/hL) comparisons for early season wheat varieties from three NVT sites in High Rainfall Zone in 2021.

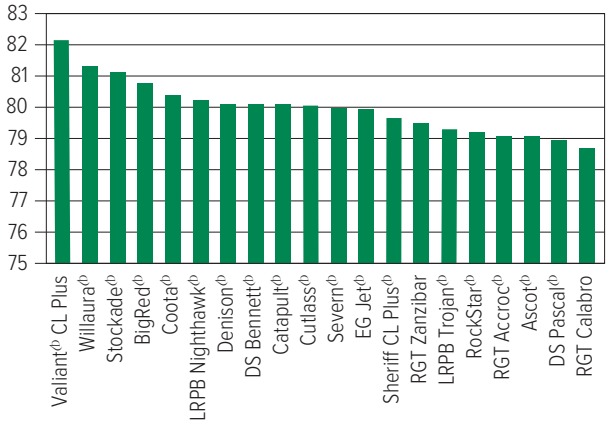


Figure 6: Test weight (kg/hL) comparisons for early season wheat varieties from four NVT sites in High Rainfall Zone in 2022.

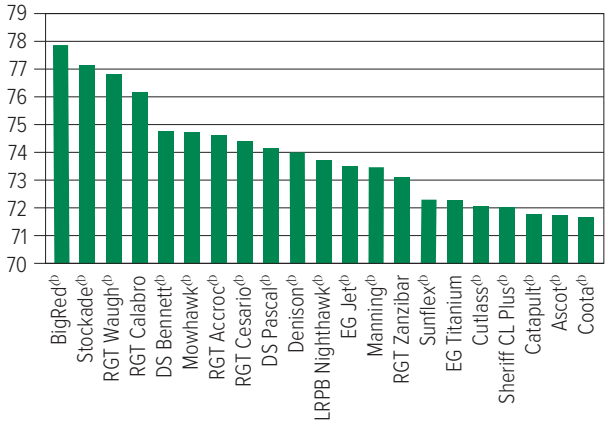


Figure 7: Test weight (kg/hL) comparisons for long season wheat varieties from two NVT sites in High Rainfall Zone in 2021.

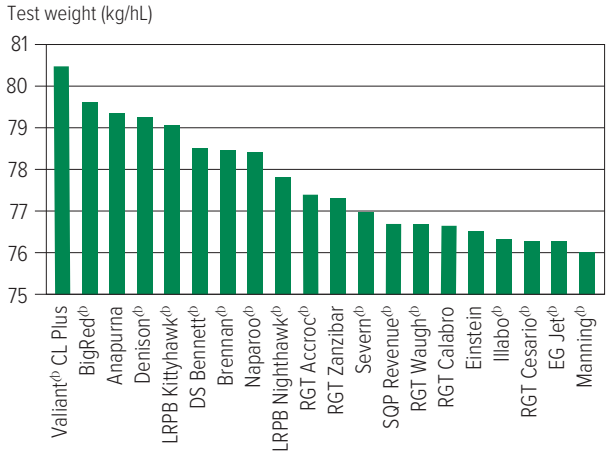
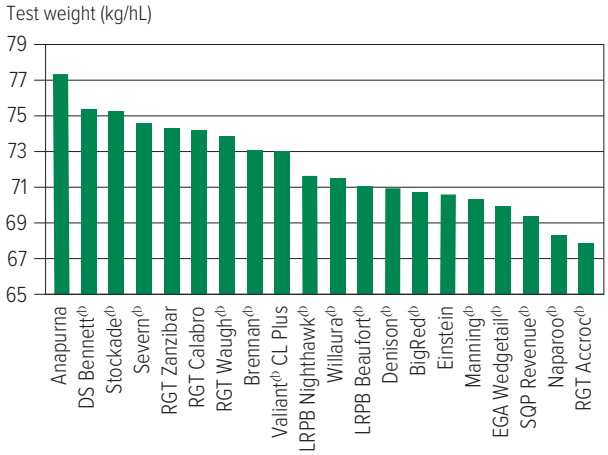


Figure 8: Test weight (kg/hL) comparisons for long season wheat varieties from three NVT sites in High Rainfall Zone in 2022.



Screenings comparisons

Figure 9: Screenings (<2.0mm) comparisons for early season wheat varieties from three NVT sites in High Rainfall Zone in 2021.

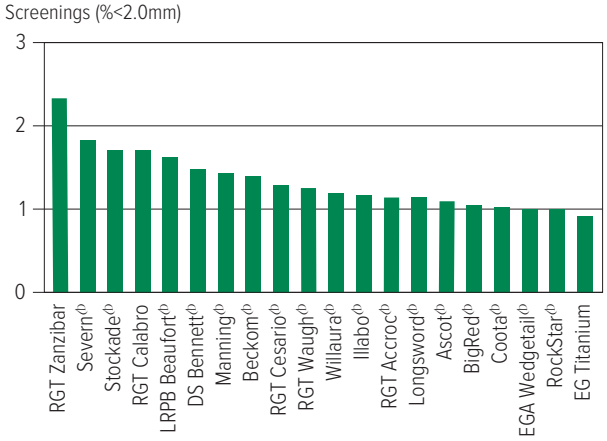


Figure 10: Screenings (<2.0mm) comparisons for early season wheat varieties from four NVT sites in High Rainfall Zone in 2022.

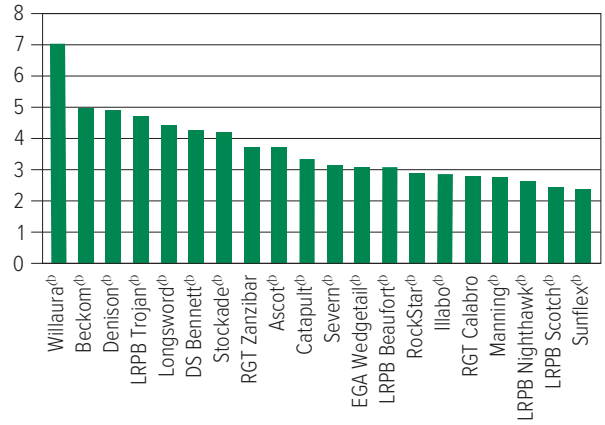


Figure 11: Screenings (<2.0mm) comparisons for long season wheat varieties from two NVT sites in High Rainfall Zone in 2021.

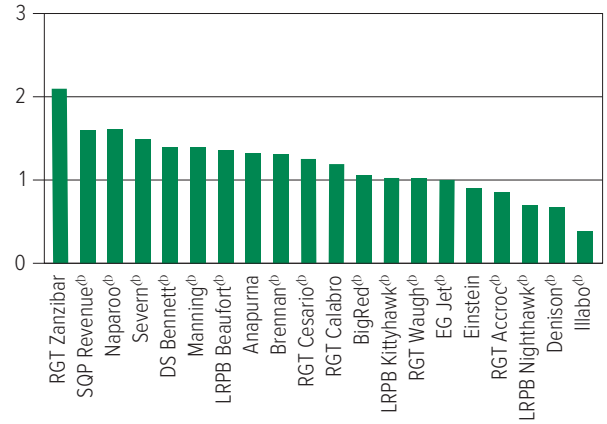
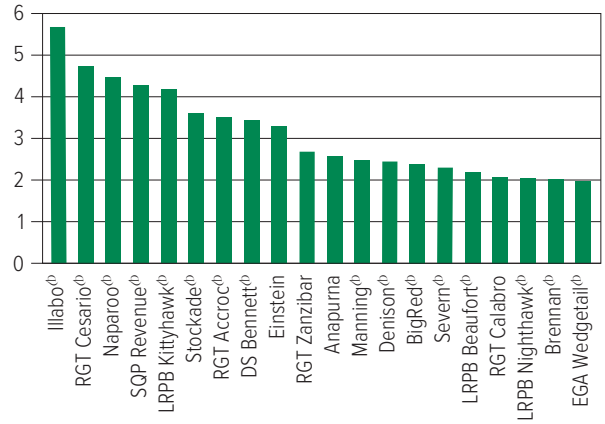


Figure 12: Screenings (<2.0mm) comparisons for long season wheat varieties from three NVT sites in High Rainfall Zone in 2022.



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, Victorian and Tasmanian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 8: 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 (*Pratylenchus neglectus*)	RLN resistance (*Pratylenchus thornei*)	Crown rot
Anapurna	MSS	RMR	MS	MRMS	MRMS	RMR	MSS	MRMS	MS	S (P)	SVS
Ascot(Þ)	MRMS	MSS	RMR	S	MRMS	S	S	MR	S	S	S
Ballista(Þ)	MR	MSS	S	SVS	MS	SVS	MS	MRMS	S	MRMS	S
Beckom(Þ)	MRMS	MRMS	MSS	S	MSS	MSS	MRMS	R	S	MSS	S
BigRed(Þ)	S	RMR	MRMS	MR	MR	RMR	MR (P)	S	MS	MS	S (P)
Boree(Þ)	MR	SVS	S	SVS	MRMS	SVS	S	MSS	S	MSS	S
Brumby(Þ)	MR	MS	SVS	S	MRMS	R/S	MS (P)	MRMS	MRMS	MS	S
Calibre(Þ)	MR	S	S	S	MRMS	S	MS (P)	MRMS	S	MSS	S
Catapult(Þ)	MR	S	S	MSS	MRMS	S	S	R	S	MS	MSS
Chief CL Plus(Þ)	MR	SVS	MR	S	MRMS	SVS	MS	MS	MRMS	MSS	MSS
Coolah(Þ)	MR	MSS	RMR	MSS	MSS	S	S	S	S	MS	MSS
Coota(Þ)	RMR	S	MR	S	MSS	S	MS	MR	MR	MS	MSS
Cutlass(Þ)	R	MSS	RMR	MSS	MSS	MSS	MS	MR	MSS	MSS	S
Denison(Þ)	MS	S	S	MSS	MRMS	S	MS	MS	S	S	MSS
Devil(Þ)	S	SVS	SVS	SVS	MRMS	S	MSS	MSS	MSS	S	MSS
DS Bennett(Þ)	MS	S	SVS	MSS	MRMS	R	MSS	S	S	S	VS
DS Pascal(Þ)	MSS	MRMS	MS	MSS	MS	RMR	MS	S	S	S	S
EG Jet(Þ)	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(Þ)	MRMS	MS	MSS	MSS	MSS	MSS	MS	S	S	VS	S
Emu Rock(Þ)	MS	SVS	SVS	S	MS	MSS	MSS	S	MSS	S	MSS
Grenade CL Plus(Þ)	MR	MRMS	SVS	S	S	MSS	MSS	R	MSS	S	S
Hammer CL Plus(Þ)	MR	MS	S	MSS	MRMS	S	MRMS	MRMS	MSS	S	MSS
Illabo(Þ)	MRMS	MRMS	S	MSS	MS	R	MRMS	MRMS	MSS	MSS	S
Kingston(Þ)	S	MSS	S	S	MSS	S	S	R	S	MRMS	S
Longsword(Þ)	MR	R/S	MR#	MS	MRMS	S	MS	MRMS	MRMS	MRMS	MSS
LRPB Anvil(Þ)	MR	S	SVS	VS	MSS	VS	S (P)	MRMS	MSS	S	MSS
LRPB Bale(Þ)	MRMS	MRMS	MSS	MSS	SVS	MSS	MSS (P)	R	S	S	S
LRPB Beaufort(Þ)	SVS	RMR	MSS	S	MRMS	RMR	MRMS	MS	MS	MSS	S
LRPB Cobra(Þ)	MR	S	MR#	MSS	MRMS	MSS	MSS	MS	MSS	MSS	S
LRPB Dual(Þ)	MRMS	MS	MSS	MSS	S	S	S (P)	R	MSS	MSS	S
LRPB Impala(Þ)	MR	MRMS	SVS	SVS	MSS	R	MS	MSS	SVS	S	MSS
LRPB Kittyhawk(Þ)	MRMS (S)	MR	MR	MRMS	MRMS	MS	MRMS	S	S	S	SVS
LRPB Nighthawk(Þ)	RMR	MRMS	MSS	MS	MS	SVS	MS	MS	MSS	MS	MSS
LRPB Oryx(Þ)	MR	MS	RMR#	SVS	MSS	RMR	MS	S	MSS	MSS	MSS
LRPB Parakeet(Þ)	MR	MR	R	SVS	MSS	SVS	MS	MS	MRMS	S	MSS
LRPB Scotch(Þ)	MSS	MRMS (P)	MR (P)	S (P)	MRMS	MR	MS (P)	MS	MS	S	S
LRPB Trojan(Þ)	MRMS	S	MR#	S	MSS	S	MS	MS	MSS	MSS	MS
Mace(Þ)	MRMS	SVS	S	SVS	MRMS	MSS	MRMS	MRMS	MS	MS	S
Manning(Þ)	MR	RMR	MSS	MRMS/S	MRMS	MS	S	S	MSS	S	VS

Table 8: 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 (*Pratylenchus neglectus*)	RLN resistance (*Pratylenchus thornei*)	Crown rot
Mowhawk(b)	RMR (P)	MRMS (P)	MR (P)	MSS (P)	MRMS (P)	MR					
Razor CL Plus(b)	MRMS	MS	S	SVS	MSS	S	MS	MR	S	MS	S
Reilly(b)	MR	MS	MSS	S	S	S	MSS (P)	R	MS	MSS	S
RGT Accroc(b)	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(b)	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(b)	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(b)	MRMS	S	S	S	MRMS	SVS	MSS	MSS	MRMS	MS	S
Scepter(b)	MRMS	MSS	MSS	S	MRMS	SVS	MS	MRMS	S	MSS	MSS
Severn(b)	MS	RMR	MRMS	MSS	MRMS	RMR	MR	MSS (P)	S	MRMS	S
Sheriff CL Plus(b)	MS	S	SVS	S	MRMS	SVS	MS	MS	MRMS	MRMS	S
SQP Revenue(b)	RMR	RMR	VS	MSS	MRMS	R	MS	S	S	S	S
Stockade(b)	MS	MR	MR (P)	MS	MRMS	SVS	MRMS (P)	MRMS	S	MSS	S
Sunblade CL Plus(b)	MS	MRMS	MSS	S	MSS	SVS	MRMS	MSS	MSS	MRMS	S
Sunflex(b)	MR	MRMS	RMR/S	SVS	MS	S	MSS	MS	S	MSS	MSS
Sunmaster(b)	MS	MRMS	RMR#	S	MSS	S	MR	MSS	MRMS	MS	S
Valiant(b) CL Plus	MR	MSS	S	MSS	MRMS	VS	MS (P)	MSS (P)	S	S (P)	S
Vixen(b)	MRMS	SVS	SVS	S	MRMS	SVS	MSS	MSS	MRMS	MS	S
Willaura(b)	MR	S	MRMS	S	MS	S	MRMS (P)	MS	MS	MS	S
Yitpi(b)	S	MS	S	S	SVS	MS	MS	MR	MSS	S	S
DURUM											
Bitalli(b)	RMR	MRMS	MR	MSS	MRMS	S	MS	MSS	MSS	RMR	SVS
Caparoi(b)	MR	MS	RMR	MRMS/S	MR	S	MSS	MRMS (P)	MS	MR	VS
DBA Bindaroi(b)	MR	MS	MR	MS	MRMS	SVS	MRMS	MS	MRMS	MR	SVS
DBA Mataroi(b)	MR	MS	MR	MSS	MRMS	S	MS	MRMS	MS	RMR	SVS
DBA Spes(b)	R	MS	RMR	S	MRMS	S	MS	MS	MRMS	RMR	VS
DBA Vittaroi(b)	MR	MS	RMR	MSS	MRMS	MRMS	MSS	S	MS	MR	SVS
DBA-Artemis(b)	MR	MRMS	RMR	MRMS/S	MRMS	SVS	MS	MS	MS	MR	VS
Patron(b)	RMR	MRMS	MR (P)	MRMS	MRMS	SVS	S (P)	S	MS	MR	SVS (P)
Westcourt(b)	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.

Table 9: 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 (*Pratylenchus neglectus*)	RLN resistance (*Pratylenchus thornei*)	Crown rot	Black tip (Black point)
Anapurna	MSS	RMR	MS	MRMS	MRMS	RMR	MRMS	MS	S (P)	SVS	MSS
Ascot(b)	MRMS	MSS	RMR	MRMS	S	S	MR	S	S	S	S
Ballista(b)	MR	MSS	S	MS	SVS	SVS	MRMS	S	MRMS	S	MS
Beckom(b)	MRMS	MRMS	MSS	MSS	S	MSS	R	S	MSS	S	MRMS
BigRed(b)	S	RMR	MRMS	MR	MR	RMR	S	MS	MS	S (P)	MR (P)
Boree(b)	MR	SVS	S	MRMS	SVS	SVS	MSS	S	MSS	S	S
Brumby(b)	MR	MS	SVS	MRMS	S	R/S	MRMS	MRMS	MS	S	MS (P)
Calibre(b)	MR	S	S	MRMS	S	S	MRMS	S	MSS	S	MS (P)
Catapult(b)	MR	S	S	MRMS	MSS	S	R	S	MS	MSS	S
Chief CL Plus(b)	MR	SVS	MR	MRMS	S	SVS	MS	MRMS	MSS	MSS	MS
Coolah(b)	MR	MSS	RMR	MSS	MSS	S	S	S	MS	MSS	S
Coota(b)	RMR	S	MR	MSS	S	S	MR	MR	MS	MSS	MS
Cutlass(b)	R	MSS	RMR	MSS	MSS	MSS	MR	MSS	MSS	S	MS
Denison(b)	MS	S	S	MRMS	MSS	S	MS	S	S	MSS	MS
DS Bennett(b)	MS	S	SVS	MRMS	MSS	R	S	S	S	VS	MSS
DS Pascal(b)	MSS	MRMS	MS	MS	MSS	RMR	S	S	S	S	MS
EG Jet(b)	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(b)	MR	MS	RMR#	S	MSS	RMR	S	S	MSS	S	MSS
EGA Wedgetail(b)	MRMS	MS	MSS	MSS	MSS	MRMS	S	S	VS	S	MS
Emu Rock(b)	MS	SVS	SVS	MS	S	MSS	S	MSS	S	MSS	MSS
Grenade CL Plus(b)	MR	MRMS	SVS	S	S	MSS	R	MSS	S	S	MSS
Hammer CL Plus(b)	MR	MS	S	MRMS	MSS	S	MRMS	MSS	S	MSS	MRMS
Illabo(b)	MRMS	MRMS	S	MS	MSS	R	MRMS	MSS	MSS	S	MRMS
Jillaroo(b)	MS	MSS	S	MRMS	S	SVS	MS	S	MS (P)	S	MSS (P)
Kingston(b)	S	MSS	S	MSS	S	S	R	S	MRMS	S	S
Longsword(b)	MR	R/S	MR#	MRMS	MS	S	MRMS	MRMS	MRMS	MSS	MS
LRPB Anvil(b)	MR	S	SVS	MSS	VS	VS	MRMS	MSS	S	MSS	S (P)
LRPB Bale(b)	MRMS	MRMS	MSS	SVS	MSS	MSS	R	S	S	S	MSS (P)
LRPB Beaufort(b)	SVS	RMR	MSS	MRMS	S	RMR	MS	MS	MSS	S	MRMS
LRPB Cobra(b)	MR	S	MR#	MRMS	MSS	MSS	MS	MSS	MSS	S	MSS
LRPB Dual(b)	MRMS	MS	MSS	S	MSS	S	R	MSS	MSS	S	S (P)
LRPB Kittyhawk(b)	MRMS (S)	MR	MR	MRMS	MRMS	MS	S	S	S	SVS	MRMS
LRPB Nighthawk(b)	RMR	MRMS	MSS	MS	MS	SVS	MS	MSS	MS	MSS	MS
LRPB Oryx(b)	MR	MS	RMR#	MSS	SVS		S	MSS	MSS	MSS	MS
LRPB Parakeet(b)	MR	MR	R	MSS	SVS	SVS	MS	MRMS	S	MSS	MS
LRPB Scotch(b)	MSS	MRMS (P)	MR (P)	MRMS	S (P)	MR	MS	MS	S	S	MS (P)
LRPB Trojan(b)	MRMS	S	MR#	MSS	S	S	MS	MSS	MSS	MS	MS
Mace(b)	MRMS	SVS	S	MRMS	SVS	MSS	MRMS	MS	MS	S	MRMS
Manning(b)	MR	RMR	MSS	MRMS	MRMS/S	MS	S	MSS	S	VS	S
Mowhawk(b)	RMR (P)	MRMS (P)	MR (P)	MRMS (P)	MSS (P)	MR					
Razor CL Plus(b)	MRMS	MS	S	MSS	SVS	S	MR	S	MS	S	MS
Reilly(b)	MR	MS	MSS	S	S	S	R	MS	MSS	S	MSS (P)
RGT Accroc(b)	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(b)	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(b)	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

Table 9: 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 (*Pratylenchus neglectus*)	RLN resistance (*Pratylenchus thornei*)	Crown rot	Black tip (Black point)
RockStar[Ф]	MRMS	S	S	MRMS	S	SVS	MSS	MRMS	MS	S	MSS
Scepter[Ф]	MRMS	MSS	MSS	MRMS	S	SVS	MRMS	S	MSS	MSS	MS
Severn[Ф]	MS	RMR	MRMS	MRMS	MSS	RMR	MSS (P)	S	MRMS	S	MR
Sheriff CL Plus[Ф]	MS	S	SVS	MRMS	S	SVS	MS	MRMS	MRMS	S	MS
SQP Revenue[Ф]	RMR	RMR	VS	MRMS	MSS	R	S	S	S	S	MS
Stockade[Ф]	MS	MR	MR (P)	MRMS	MS	SVS	MRMS	S	MSS	S	MRMS (P)
Sunblade CL Plus[Ф]	MS	MRMS	MSS	MSS	S	SVS	MSS	MSS	MRMS	S	MRMS
Sunflex[Ф]	MR	MRMS	RMR/S	MS	SVS	S	MS	S	MSS	MSS	MSS
Sunmaster[Ф]	MS	MRMS	RMR#	MSS	S	S	MSS	MRMS	MS	S	MR
Valiant[Ф] CL Plus	MR	MSS	S	MRMS	MSS	VS	MSS (P)	S	S (P)	S	MS (P)
Vixen[Ф]	MRMS	SVS	SVS	MRMS	S	SVS	MSS	MRMS	MS	S	MSS
Willaura[Ф]	MR	S	MRMS	MS	S	S	MS	MS	MS	S	MRMS (P)
Yitpi[Ф]	S	MS	S	SVS	S	MS	MR	MSS	S	S	MS
DURUM											
Bitalli[Ф]	RMR	MRMS	MR	MRMS	MSS	S	MSS	MSS	RMR	SVS	MS
Caparoi[Ф]	MR	MS	RMR	MR	MRMS/S	MSS	MRMS (P)	MS	MR	VS	MSS
DBA Bindaroi[Ф]	MR	MS	MR	MRMS	MS	MSS (P)	MS	MRMS	MR	SVS	MRMS
DBA Mataroi[Ф]	MR	MS	MR	MRMS	MSS	S	MRMS	MS	RMR	SVS	MS
DBA Spes[Ф]	R	MS	RMR	MRMS	S	S	MS	MRMS	RMR	VS	MS
DBA Vittaroi[Ф]	MR	MS	RMR	MRMS	MSS	MRMS	S	MS	MR	SVS	MSS
DBA-Artemis[Ф]	MR	MRMS	RMR	MRMS	MRMS/S	SVS	MS	MS	MR	VS	MS
Patron[Ф]	RMR	MRMS	MR (P)	MRMS	MRMS	SVS	S	MS	MR	SVS (P)	S (P)
Westcourt[Ф]	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.

BARLEY

New barley varieties

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

Variety	Variety owner	Grain classification#	End point royalty* ($)	Comments supplied by variety owner
Fandaga(Φ)	AGF Seeds	Feed	None provided.	Slower maturity than RGT Planet(Φ).
Titan AX(Φ)	Australian Grain Technologies	Under malt evaluation	4.55	The world's first CoAXium® barley variety. Mid-season maturity, slightly later than Compass(Φ), similar to RGT Planet(Φ). Agronomically similar to Compass(Φ).
Zena(Φ) CL	InterGrain	Under malt evaluation	4.25	Zena(Φ) CL is an imidazolinone-tolerant barley variety best-suited to medium-high rainfall environments.

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

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

Barley variety yield performance – High rainfall South Australia, Victoria and Tasmania

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: Conmurra long season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			5.26		5.54
Cyclops[Ф]	No trial	No trial	127	No trial	125
Rosalind[Ф]			119		130
Leabrook[Ф]			114		126
Yeti[Ф]			111		112
Minotaur[Ф]			113		107
RGT Planet[Ф]			114		103
Compass[Ф]			104		109
Laperouse[Ф]			106		103
Commander[Ф]			97		96
Kiwi[Ф]			97		96
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Spartacus CL[Ф]			108		114
Titan AX[Ф]					107
Maximus[Ф] CL			104		103
Zena[Ф] CL					103
Sowing date			**16 Apr**		**19 May**
Rainfall J–M (mm)			**61**		**35**
Rainfall A–O (mm)			**385**		**451**

Special thanks to 2022 trial cooperator, Brad Hocking.
Learn more via the NVT Long Term Yield Reporter

Table 2: Cressy/Westbury long season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			10.05	9.83	8.50
Rosalind[Ф]	No trial	No trial	114	109	119
RGT Planet[Ф]			112	112	105
Leabrook[Ф]			106	105	114
Fandaga[Ф]				101	100
Topstart			109	105	100
Cyclops[Ф]			108	102	104
Compass[Ф]			104	98	105
LG Alestar[Ф]			99	102	96
Yeti[Ф]			101	94	102
Urambie			88	103	100
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Maximus[Ф] CL			107	95	107
Zena[Ф] CL					102
Titan AX[Ф]					97
Spartacus CL[Ф]			97	88	101
Sowing date			**4 May**	**12 May**	**11 May**
Rainfall J–M (mm)			**170**	**159**	**85**
Rainfall A–O (mm)			**369**	**512**	**452**
Irrigation A–O (mm)			**83**		

Special thanks to 2022 trial cooperator, Stuart Coles.
Learn more via the NVT Long Term Yield Reporter

Table 3: Hamilton long season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	5.04	5.84	5.84		5.18
RGT Planet[Ф]	107	113	129	Compromised trial	121
Fandaga[Ф]					111
Topstart	108	112	112		108
Cyclops[Ф]			110		111
Bottler[Ф]	102	108	106		104
LG Alestar[Ф]	101	104	111		107
Laperouse[Ф]	107	105	100		98
Rosalind[Ф]	104	105	99		100
Yeti[Ф]		102	101		100
Leabrook[Ф]	100	102	97		97
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Maximus[Ф] CL		111	102		99
Zena[Ф] CL					105
Spartacus CL[Ф]	105	102	95		93
Titan AX[Ф]					98
Sowing date	**9 May**	**16 May**	**14 May**	**7 May**	**2 May**
Rainfall J–M (mm)	**39**	**33**	**85**	**107**	**80**
Rainfall A–O (mm)	**328**	**422**	**509**	**419**	**521**

Special thanks to 2022 trial cooperator, Brent Herrmann.
Learn more via the NVT Long Term Yield Reporter

Table 4: Inverleigh long season barley.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		5.77	6.21	8.40	6.40
Rosalind[Ф]	Trial results below standard	97	114	106	117
Cyclops[Ф]			106	105	107
Leabrook[Ф]		99	108	101	113
RGT Planet[Ф]		124	106	103	84
Fandaga[Ф]				113	98
Bottler[Ф]		98	108	104	96
Compass[Ф]		90	104	103	112
Yeti[Ф]		105	99	100	100
Minotaur[Ф]			97	103	106
Topstart		105	102	103	84
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Titan AX[Ф]					111
Zena[Ф] CL					93
Maximus[Ф] CL		104	102	102	96
Spartacus CL[Ф]		103	96	97	100
Sowing date	**15 May**	**19 May**	**11 May**	**5 May**	**3 May**
Rainfall J–M (mm)	**59**	**47**	**112**	**94**	**133**
Rainfall A–O (mm)	**228**	**320**	**327**	**332**	**333**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 5: Streatham long season barley.					
Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	4.20	5.33	7.13	9.25	6.78
Rosalind(Φ)	103	96	113	101	124
Cyclops(Φ)			112	110	110
RGT Planet(Φ)	98	112	106	117	93
Leabrook(Φ)	105	96	107	99	118
Fandaga(Φ)				101	99
Bottler(Φ)	98	106	101	104	96
Yeti(Φ)		96	103	96	106
Compass(Φ)	100	94	104	94	112
Minotaur(Φ)			104	107	98
Laperouse(Φ)	116	94	100	91	104
HERBICIDE TOLERANT (GROUP 1 AND IMIDAZOLINONE)					
Titan AX(Φ)					104
Maximus(Φ) CL		94	102	90	107
Zena(Φ) CL					98
Spartacus CL(Φ)	121	91	99	88	109
Sowing date	**16 May**	**22 May**	**15 May**	**8 May**	**11 May**
Rainfall J–M (mm)	**26**	**31**	**80**	**174**	**95**
Rainfall A–O (mm)	**199**	**402**	**385**	**409**	**461**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Barley variety quality – High rainfall South Australia, Victoria and Tasmania

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 High rainfall South Australia, Victoria and Tasmania 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 long season barley varieties from three NVT sites in High Rainfall Zone in 2021.

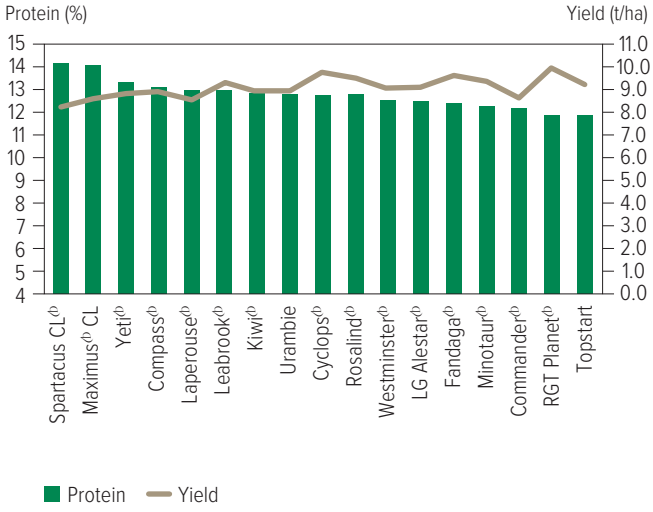
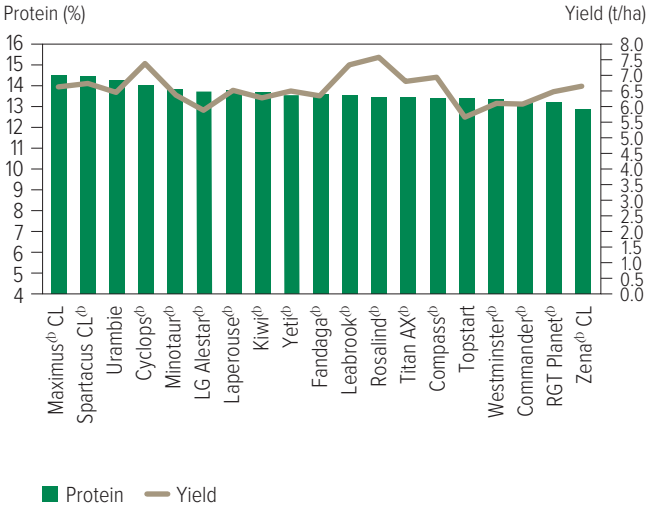


Figure 2: Protein (%) and yield (t/ha) comparisons for long season barley varieties from five NVT sites in High Rainfall Zone in 2022.



Test weight comparisons

Figure 3: Test weight (kg/hL) comparisons for long season barley varieties from three NVT sites in High Rainfall Zone in 2021.

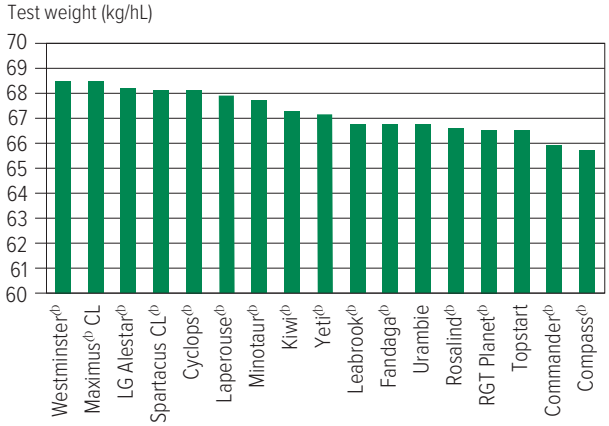
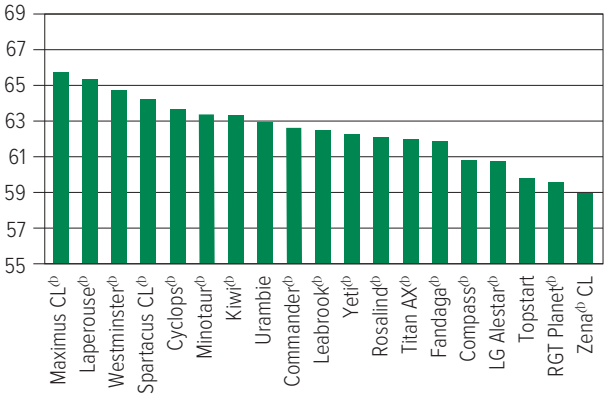


Figure 4: Test weight (kg/hL) comparisons for long season barley varieties from five NVT sites in High Rainfall Zone in 2022.



Screenings comparisons

Figure 5: Screenings (<2.2mm) comparisons for long season barley varieties from three NVT sites in High Rainfall Zone in 2021.

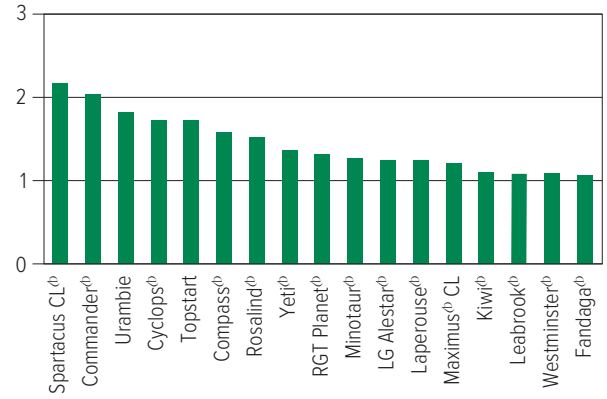
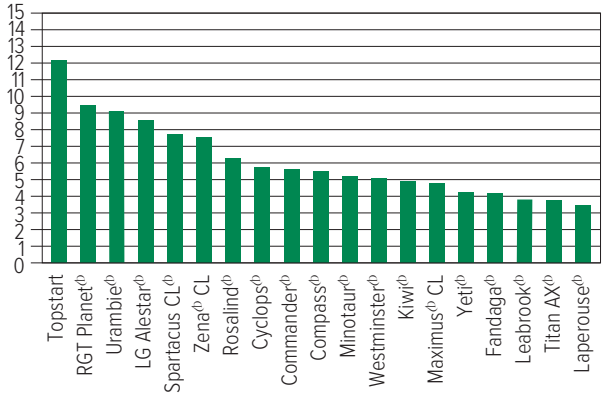


Figure 6: Screenings (<2.2mm) comparisons for long season barley varieties from five NVT sites in High Rainfall Zone in 2022.



Retention comparisons

Figure 7: Retention (>2.5mm) comparisons for long season barley varieties from three NVT sites in High Rainfall Zone in 2021.

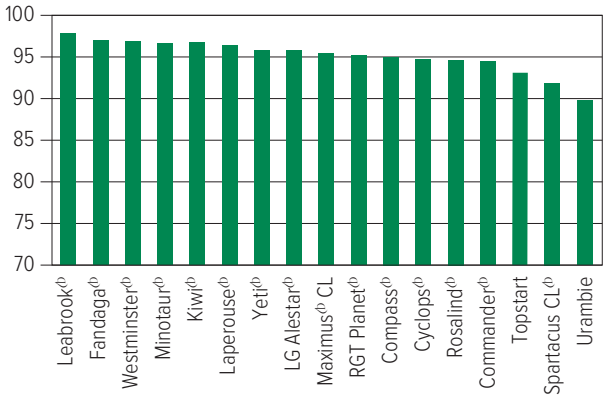
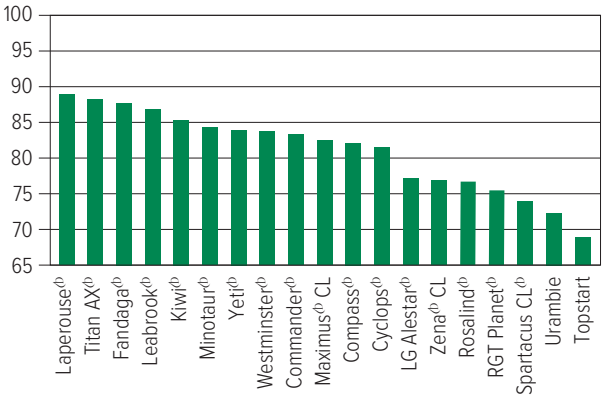


Figure 8: Retention (>2.5mm) comparisons for long season barley varieties from five NVT sites in High Rainfall Zone in 2022.



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, Victorian and Tasmanian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 6: 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 (*Pratylenchus neglectus*)	RLN resistance (*Pratylenchus thornei*)	Crown rot	Ramularia
Bass(ф)	S	SVS	MS-SVS	MSS	MSS	S	MRMS	MS	MRMS	MSS	VS (P)
Beast(ф)	MR	MS-SVS	MR-S	MS	SVS	S	MSS	MRMS	MRMS	S	SVS (P)
Bottler(ф)		MS	R-MS	MSS	SVS	RMR	MRMS	MS	RMR	SVS	SVS (P)
Buff(ф)		SVS	MR-MS	MSS	MS-VS	S	MS	MRMS	MS	S	SVS (P)
Combat(ф)	MRMS	MSS	MR-MSS	RMR	S	MS	MSS (P)	MR	MS	S (P)	SVS (P)
Commander(ф)	R	S	S-VS	MSS	SVS	MSS	MSS	MRMS	MRMS	S	SVS (P)
Commodus(ф) CL	R	S	MR-MSS	MSS	MSS-SVS	MS	MS	MRMS	MRMS	S (P)	SVS (P)
Compass(ф)	R	VS	MRMS-S	MS	MSS-SVS	MSS	MSS	MRMS	MR	S	SVS (P)
Cyclops(ф)	S	VS	MR-MS	MS	S	S	MS	MRMS	MRMS	S (P)	SVS (P)
Fandaga(ф)	R	MSS	MR-VS	S	SVS	R	MRMS (P)	MR	MR	MSS (P)	VS (P)
Fathom(ф)	R	MRMS-S	MSS-SVS	RMR	R-S	MRMS	MSS	MRMS	MR	SVS	SVS (P)
Kiwi(ф)	S	RMR-MS	R-MRMS	MSS	SVS	RMR	MS	MRMS	RMR	S	VS (P)
La Trobe(ф)	R	S	MS-S	S	R-SVS	MSS	MSS	MRMS	MRMS	S	SVS (P)
Laperouse(ф)	S	SVS	MR-MS	MRMS	SVS	MSS	MSS	MR	MR	S	VS (P)
Leabrook(ф)	RMR	SVS	MR-MSS	MS	MRMS-SVS	S	MS	MRMS	RMR	S	VS (P)
LG Alestar(ф)	R^ (P)	MS	MR-S	S	SVS	MR	MRMS	MR	MR	S	SVS (P)
Maximus(ф) CL	R	S	MR-MS	MS	R-SVS	MS	MSS	MRMS	MR	S	VS (P)
Minotaur(ф)	R	S-VS	MR-MS	S	VS	S	MS	MRMS	MR	MS	SVS (P)
RGT Planet(ф)	R (P)	MRMS-MS	MRMS-SVS	SVS	R-SVS	RMR	MRMS	MRMS	MR	MSS	VS (P)
Rosalind(ф)	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(ф)	S	MS-SVS	R-MR	MSS	MRMS-SVS	MRMS	MS	MRMS	MRMS	S	SVS (P)
Spartacus CL(ф)	R	S	MS-VS	S	R-SVS	MSS	MSS	MRMS	MRMS	S	VS (P)
Titan AX(ф)	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(ф)		MRMS	R-S	S	R-S	RMR	MRMS	MRMS	MS	S	VS (P)
Yeti(ф)	RMR	MSS-VS	MR-MS	MS-MSS	VS	MSS	MSS	MR	MR	S	VS (P)
Zena(ф) 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.

Table 7: Barley disease guide for Victoria.

Variety	Leaf scald	Spot form net blotch	Net form net blotch	Powdery mildew	Leaf rust	CCN	RLN resistance (*Pratylenchus neglectus*)	RLN resistance (*Pratylenchus thornei*)	Ramularia
Banks[Φ]	SVS	S	MR	MRMS	SVS	S	MS	MR	VS (P)
Beast[Φ]	SVS	MS	MR#	S	S	MR	MRMS	MRMS	SVS (P)
Bottler[Φ]	SVS	MSS	MR	RMR	MR		MS	RMR	SVS (P)
Buff[Φ]	SVS	MSS	MS	S	SVS		MRMS	MS	SVS (P)
Combat[Φ]	S	RMR	MR (P)	MS	S	MRMS	MR	MS	SVS (P)
Commander[Φ]	SVS	MSS	MS	MSS	SVS	R	MRMS	MRMS	SVS (P)
Commodus[Φ] CL	SVS	MSS	MRMS	MS	S	R	MRMS	MRMS	SVS (P)
Compass[Φ]	SVS	MS	MS	MSS	SVS	R	MRMS	MR	SVS (P)
Cyclops[Φ]	S	MS	MRMS	S	SVS	S	MRMS	MRMS	SVS (P)
Fandaga[Φ]	SVS	S	MRMS	R	MSS	R	MR	MR	VS (P)
Fathom[Φ]	S	RMR	MS	MRMS	MS	R	MRMS	MR	SVS (P)
Kiwi[Φ]	SVS	MSS	MRMS	RMR	MS	S	MRMS	RMR	VS (P)
La Trobe[Φ]	SVS	S	MR	MSS	S	R	MRMS	MRMS	SVS (P)
Laperouse[Φ]	VS	MRMS	MR	MSS	SVS	S	MR	MR	VS (P)
Leabrook[Φ]	SVS	MS	MR	S	SVS	RMR	MRMS	RMR	VS (P)
LG Alestar[Φ]	SVS	S	S	MR	MRMS	R^ (P)	MR	MR	SVS (P)
Maximus[Φ] CL	SVS	MS	MRMS	MS	S	R	MRMS	MR	VS (P)
Minotaur[Φ]	VS	S	MRMS	S	SVS	R	MRMS	MR	SVS (P)
RGT Planet[Φ]	SVS	SVS	SVS	RMR	MR	R (P)	MRMS	MR	VS (P)
Rosalind[Φ]	S	S	MR	MSS	MRMS	R	MRMS	MR	VS (P)
SakuraStar	SVS	MS	MS	MSS	S	R	MR	MR	VS (P)
Scope CL[Φ]	SVS	MSS	MR	MRMS	S	S	MRMS	MRMS	SVS (P)
Spartacus CL[Φ]	SVS	S	S	MSS	S	R	MRMS	MRMS	VS (P)
Titan AX[Φ]	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[Φ]	SVS	S	MRMS	RMR	MR		MRMS	MS	VS (P)
Yeti[Φ]	VS	MSS	MR	MSS	S	RMR	MR	MR	VS (P)
Zena[Φ] CL	S (P)	S	S	R	MSS	R	MRMS	MR	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, # warning, may be more susceptible to alternate pathotypes, ^ line contains a few susceptible off types.

OAT

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

* EPR amount is ex-GST, (Ф) denotes Plant Breeder's Rights apply.

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

Oat variety yield performance – High rainfall South Australia, Victoria and Tasmania

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: Frances oat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.30	5.06	4.89	4.98	2.73
Koala[Φ]	134	104	113	114	90
Williams[Φ]	144	103	113	108	93
Bannister[Φ]	126	103	112	110	94
Bilby[Φ]	102	102	105	100	103
Kowari[Φ]	86	100	96	94	106
Possum	83	99	94	95	105
Mitika[Φ]	85	98	92	91	106
Koorabup[Φ]	90	88	73	90	92
Durack[Φ]	65	92	76	83	105
Yallara[Φ]	80	87	71	89	93
Sowing date	**24 May**	**31 May**	**27 May**	**29 May**	**25 May**
Rainfall J–M (mm)	**40**	**22**	**81**	**40**	**98**
Rainfall A–O (mm)	**403**	**294**	**401**	**339**	**428**

Special thanks to 2022 trial cooperator, Tara Hindson.
Learn more via the NVT Long Term Yield Reporter

Table 2: Hamilton oat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)		5.58	4.70	4.46	
Koala[Φ]	Compromised trial	121	98	129	Trial failed
Bannister[Φ]		116	103	123	
Williams[Φ]		112	86	134	
Echidna		110	102	115	
Bilby[Φ]		102	108	102	
Kowari[Φ]		92	102	88	
Mitika[Φ]		86	93	86	
Durack[Φ]		70	79	68	
Yallara[Φ]		73	62	79	
Koorabup[Φ]		74	54	86	
Sowing date	**9 May**	**16 May**	**14 May**	**7 May**	**2 May**
Rainfall J–M (mm)	**39**	**33**	**85**	**107**	**80**
Rainfall A–O (mm)	**328**	**422**	**509**	**419**	**521**

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

Table 3: Streatham oat.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	3.86	4.35	5.07	6.68	5.93
Koala[Φ]	109	110	109	113	132
Williams[Φ]	93	116	112	109	119
Echidna	103	103	105	113	123
Bannister[Φ]	102	111	110	108	118
Bilby[Φ]	97	103	104	103	101
Kowari[Φ]	97	95	96	97	91
Mitika[Φ]	96	92	92	96	88
Koorabup[Φ]	97	88	81	84	78
Yallara[Φ]	97	87	81	80	70
Durack[Φ]	95	82	81	84	68
Sowing date	**16 May**	**23 May**	**18 May**	**8 May**	**11 May**
Rainfall J–M (mm)	**26**	**31**	**80**	**174**	**95**
Rainfall A–O (mm)	**199**	**402**	**385**	**409**	**461**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

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, Victorian and Tasmanian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 4: 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(P)	S	MSS	MS	MR	MRMS	MT	MSS	S	S
Bilby(P)	S	MS	S	S	S	MI	S	SVS	MS
Durack(P)	S	MSS	S	MRMS	S	MI (P)	S	S	SVS
Echidna	MS	SVS	MSS	MS	MRMS	MT (P)	SVS	S	S
Koala(P)	MSS	MSS	MSS	R	S	MT (P)	MSS	S	S
Koorabup(P)	S	MSS	MSS	MRMS	S	I	MRMS#	SVS	SVS
Kowari(P)	S	S	S	S	S	I	S	S	S
Mitika(P)	S	MSS	SVS	VS	S	MI (P)	SVS	S	SVS
Mulgara(P)	MRMS	MR	MS	R	MR	MT (P)	S/MRMS	MSS	SVS
Possum	SVS	MSS	S	MSS	MS	MT (P)	S	SVS	SVS
Tungoo(P)	MS	MR	MSS	MR	R	MT (P)	MRMS#	S	MRMS
Williams(P)	S	MRMS	MSS	S	S	MI (P)	MSS	MSS	MS
Wintaroo(P)	MSS	MSS	MS	R	MR	MT (P)	MSS	S	S
Yallara(P)	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 5: 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(P)	S	MSS	MR	MS	MSS	S	MSS
Bilby(P)	S	MS	S	S	S	SVS	MS
Durack(P)	S	MSS	MRMS	S	S	S	SVS
Echidna	MS	SVS	MS	MSS	SVS	S	S
Koala(P)	MSS	MSS	R	MSS	MSS	S	S
Koorabup(P)	S	MSS	MRMS	MSS	MRMS#	SVS	SVS
Kowari(P)	S	S	S	S	S	S	S
Mitika(P)	S	MSS	VS	SVS	SVS	S	SVS
Mulgara(P)	MRMS	MR	R	MS	S/MRMS	MSS	SVS
Possum	SVS	MSS	MSS	S	S	SVS	SVS
Tungoo(P)	MS	MR	MR	MSS	MRMS#	S	MRMS
Williams(P)	S	MRMS	S	MSS	MSS	MSS	MS
Wintaroo(P)	MSS	MSS	R	MS	MSS	S	S
Yallara(P)	MSS	S	R	MSS	MSS	S	SVS

Learn more via the NVT Disease Ratings.

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible,
/ indicates pathotype differences, # warning, may be more susceptible to alternate pathotypes.

CANOLA

New canola varieties

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

Variety	Variety owner	End point royalty* ($)	Comments supplied by variety owner
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(Φ)	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.
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(Φ)	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, (Φ) denotes Plant Breeder's Rights apply.

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

Canola variety yield performance – High rainfall South Australia and Victoria

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: Hamilton med-high rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.77	2.87	3.53	4.18	3.34
Nuseed® Eagle TF				111	117
Pioneer® 45Y28 RR	106		106	110	117
Nuseed® Condor TF		107	102	109	115
InVigor® R 4520P		108	108	105	104
Nuseed® Hunter TF					111
Pioneer® 44Y30 RR			106	104	109
Hyola® Regiment XC					109
DG Hotham TF					108
DG Bindo TF					102
InVigor® R 4022P		100	100	95	
Sowing date	**29 Apr**	**9 May**	**16 Apr**	**14 Apr**	**29 Apr**
Rainfall J–M (mm)	**37**	**33**	**97**	**107**	**80**
Rainfall A–O (mm)	**378**	**422**	**570**	**419**	**521**

Special thanks to 2022 trial cooperator, Don Robertson.
Learn more via the NVT Long Term Yield Reporter

Table 2: Inverleigh med-high rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.74		3.96	4.18	4.28
InVigor® R 4520P		Trial failed	112	102	111
Pioneer® 44Y30 RR			111	101	110
Nuseed® Eagle TF				114	103
Nuseed® Hunter TF					106
Pioneer® 45Y28 RR	103		106	113	103
Nuseed® Condor TF			98	114	100
InVigor® R 4022P			103	91	
Hyola® Regiment XC					93
DG Hotham TF					99
DG Bindo TF					98
Sowing date	**19 Apr**	**2 May**	**21 Apr**	**19 Apr**	**13 May**
Rainfall J–M (mm)	**59**	**47**	**112**	**94**	**133**
Rainfall A–O (mm)	**228**	**320**	**327**	**332**	**333**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 3: Lake Bolac/Streatham med-high rainfall GLY.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.44	2.96		4.55	4.23
Nuseed® Eagle TF			Compromised trial	111	109
Pioneer® 45Y28 RR	107			112	109
InVigor® R 4520P		111		104	109
Pioneer® 44Y30 RR				107	108
Nuseed® Condor TF		105		107	105
Nuseed® Hunter TF					106
DG Hotham TF				108	104
Hyola® Regiment XC					99
DG Bindo TF				103	100
InVigor® R 4022P		100		95	
Sowing date	**25 Apr**	**1 May**	**14 Apr**	**27 Apr**	**23 Apr**
Rainfall J–M (mm)	**30**	**31**	**108**	**174**	**95**
Rainfall A–O (mm)	**268**	**402**	**403**	**409**	**461**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 4: Frances med-high rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			3.45	3.66	2.19
Pioneer® 45Y95 CL	Trial failed	Trial failed		114	121
Pioneer® 45Y93 CL				109	123
Pioneer® 44Y94 CL				113	116
Hyola® Solstice CL				105	94
VICTORY® V75-03CL			87	94	
Hyola® Equinox CL			87	98	85
VICTORY® V7002CL			81		
Sowing date	**18 May**	**14 May**	**30 Apr**	**30 Apr**	**3 May**
Rainfall J–M (mm)	**40**	**22**	**81**	**40**	**98**
Rainfall A–O (mm)	**403**	**294**	**401**	**339**	**428**

Special thanks to 2022 trial cooperator, Andrew Shepherd.
Learn more via the NVT Long Term Yield Reporter

Table 5: Hamilton med-high rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.63	2.65	3.58	4.05	3.00
Pioneer® 45Y95 CL	114	116		118	131
Pioneer® 44Y94 CL			112		132
Pioneer® 45Y93 CL		114	114	116	123
PY520TC					111
Pioneer® 45Y91 CL	102	103	104		
Hyola® Solstice CL					99
Saintly CL	101	100			
Hyola® 575CL	94	94			
Hyola® Equinox CL			90	94	
VICTORY® V75-03CL	92	92	93		
Sowing date	**29 Apr**	**9 May**	**16 Apr**	**14 Apr**	**29 Apr**
Rainfall J–M (mm)	**37**	**33**	**97**	**107**	**80**
Rainfall A–O (mm)	**378**	**422**	**570**	**419**	**521**

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

Table 6: Inverleigh med-high rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.77	3.90	3.68	4.11	4.40
Pioneer® 45Y95 CL	114	109		119	110
Pioneer® 44Y94 CL		109	122	111	115
Pioneer® 45Y93 CL		109	119	116	109
Pioneer® 45Y91 CL	102	102	104		
PY520TC					101
Saintly CL	106	103			
Hyola® Solstice CL					93
Hyola® 575CL	90	96			
Hyola® Equinox CL			78	99	
VICTORY® V75-03CL		94	89	94	
Sowing date	**19 Apr**	**2 May**	**21 Apr**	**19 Apr**	**13 May**
Rainfall J–M (mm)	**59**	**47**	**112**	**94**	**133**
Rainfall A–O (mm)	**228**	**320**	**327**	**332**	**333**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 7: Lake Bolac/Streatham med-high rainfall IMI.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.78	2.93		4.63	4.32
Pioneer® 45Y95 CL	114	115	Compromised trial	119	118
Pioneer® 45Y93 CL		116		117	118
Pioneer® 44Y94 CL		110		121	118
Pioneer® 45Y91 CL	103	106			
PY520TC					104
Saintly CL	101	101			
Hyola® Solstice CL					95
Hyola® 575CL	93	95			
VICTORY® V75-03CL	92	92		92	
Hyola® Equinox CL				85	
Sowing date	**25 Apr**	**1 May**	**15 Apr**	**27 Apr**	**23 Apr**
Rainfall J–M (mm)	**30**	**31**	**108**	**174**	**95**
Rainfall A–O (mm)	**268**	**402**	**403**	**409**	**461**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 8: Frances med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			2.94	3.43	2.35
Hyola® Blazer TT	Trial failed	Trial failed	127	117	121
PY520TC				115	121
RGT Baseline TT				110	124
HyTTec® Trifecta			121	117	117
SF Dynatron TT™			123	110	114
HyTTec® Trophy			115	114	111
DG BIDGEE TT$^{\phi}$					117
InVigor® T 6010			121	103	113
InVigor® T 4511				109	105
InVigor® T 4510			111	107	103
Sowing date	**18 May**	**14 May**	**30 Apr**	**30 Apr**	**3 May**
Rainfall J–M (mm)	**40**	**22**	**81**	**40**	**98**
Rainfall A–O (mm)	**403**	**294**	**401**	**339**	**428**

Special thanks to 2022 trial cooperator, Andrew Shepherd.
Learn more via the NVT Long Term Yield Reporter

Table 9: Hamilton med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.52	2.60	2.83	3.56	2.80
Hyola® Blazer TT			117	122	137
HyTTec® Trifecta	116	117	113	121	133
PY520TC				120	133
RGT Baseline TT				120	123
SF Dynatron TT™				114	124
HyTTec® Trophy	110	111	109	114	129
DG BIDGEE TT$^{\phi}$					113
InVigor® T 6010		112	112	112	107
DG Torrens TT$^{\phi}$			104		95
InVigor® LT 4530P			102	97	92
Sowing date	**29 Apr**	**9 May**	**16 Apr**	**14 Apr**	**29 Apr**
Rainfall J–M (mm)	**37**	**33**	**97**	**107**	**80**
Rainfall A–O (mm)	**378**	**422**	**570**	**419**	**521**

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

Table 10: Inverleigh med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	2.57	3.46	3.54	3.97	3.79
Hyola® Blazer TT			120	121	114
PY520TC				119	112
HyTTec® Trifecta	121	108	111	123	109
RGT Baseline TT				120	108
SF Dynatron TT™				111	114
InVigor® T 6010		109	111	112	106
HyTTec® Trophy	111	106	111	114	110
DG BIDGEE TT$^{\phi}$					100
InVigor® LT 4530P			106	93	108
DG Torrens TT$^{\phi}$			99		96
Sowing date	**19 Apr**	**2 May**	**21 Apr**	**19 Apr**	**13 May**
Rainfall J–M (mm)	**59**	**47**	**112**	**94**	**133**
Rainfall A–O (mm)	**228**	**320**	**327**	**332**	**333**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

Table 11: Lake Bolac/Streatham med-high rainfall TT.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)	**2.56**	**2.68**		**3.87**	**3.65**
Hyola® Blazer TT			Compromised trial	126	124
PY520TC				124	122
RGT Baseline TT				119	121
HyTTec® Trifecta	118	116		120	119
SF Dynatron TT™				118	118
HyTTec® Trophy	110	109		118	115
InVigor® T 6010		117		107	113
DG BIDGEE TT(ϕ)					112
DG Torrens TT(ϕ)					102
InVigor® LT 4530P				96	101
Sowing date	**25 Apr**	**1 May**	**14 Apr**	**27 Apr**	**23 Apr**
Rainfall J–M (mm)	**30**	**31**	**108**	**174**	**95**
Rainfall A–O (mm)	**268**	**402**	**403**	**409**	**461**

Special thanks to 2022 trial cooperator, Southern Farming Systems.
Learn more via the NVT Long Term Yield Reporter

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(Φ)	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(Φ)	R	R	R	Open pollinated
InVigor® T 4511	R	R		Hybrid
DG MURRAY TT(Φ)	R			Open pollinated
DG Torrens TT(Φ)	R		R	Open pollinated
Monola® H421TT	RMR			High stability oil, hybrid
Monola® 420TT	RMR			High stability oil, open pollinated
ATR-Bluefin(Φ)	RMR			Open pollinated
InVigor® T 4510	MR	R	R	Hybrid
SF Spark TT	MR	R	R	Hybrid
HyTTec® Velocity	MR			Hybrid
Renegade TT(Φ)	MR	R	R	Open pollinated
Monola® 422TT	MR			High stability oil, open pollinated
ATR-Stingray(Φ)	MRMS	R	R	Open pollinated
RGT Baseline™ TT	MRMS	R	R	Hybrid
ATR-Swordfish(Φ)	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(Φ)	MRMS	R	R	Open pollinated
AFP Cutubury(Φ)	MS	RMR	RMR	Open pollinated
ATR-Bonito(Φ)	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.

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.

FABA BEAN

Faba bean variety yield performance – High rainfall South Australia and Victoria

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: Bool Lagoon faba bean.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			4.17	4.59	4.63
PBA Samira^{Ф}	No trial	No trial	102	101	104
PBA Zahra^{Ф}			91	104	107
PBA Amberley^{Ф}			102	99	101
Fiesta VF			101	97	94
Farah^{Ф}			100	98	93
PBA Rana^{Ф}				97	83
PBA Bendoc^{Ф}			93	103	89
PBA Marne^{Ф}			90	93	99
Nura^{Ф}			99	99	81
Sowing date			**29 May**	**12 May**	**27 May**
Rainfall J–M (mm)			**66**	**59**	**72**
Rainfall A–O (mm)			**452**	**412**	**418**

Special thanks to 2022 trial cooperator, Andrew MacLeod.
Learn more via the NVT Long Term Yield Reporter

Table 2: Lake Bolac/Streatham faba bean.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			4.09	6.27	3.38
PBA Samira^{Ф}	No trial	No trial	106	101	105
PBA Amberley^{Ф}			105	99	106
Fiesta VF			100	94	95
PBA Zahra^{Ф}			92	99	94
PBA Rana^{Ф}				86	79
Farah^{Ф}			99	94	88
PBA Marne^{Ф}			77	94	103
Nura^{Ф}			97	89	64
PBA Bendoc^{Ф}			90	93	64
Sowing date			**27 Apr**	**18 Apr**	**18 Apr**
Rainfall J–M (mm)			**108**	**140**	**95**
Rainfall A–O (mm)			**403**	**461**	**461**

Special thanks to 2022 trial cooperator - permission to publish was not received
Learn more via the NVT Long Term Yield Reporter

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

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, Victorian and Tasmanian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and tolerance ratings.

Table 3: Faba bean disease guide for South Australia and Victoria.

Variety	Ascochyta blight	Cercospora leaf spot	Chocolate spot (Botrytis)	RLN resistance (*Pratylenchus thornei*)	Leaf rust
Farah(ф)	S	S	S	MS	VS
Fiesta VF	S	S	S	MS	VS
Nura(ф)	MR (P)	S	MS	MS	VS
PBA Amberley(ф)	MR	S	MRMS	MS	VS
PBA Bendoc(ф)	MR	S	S	MRMS	VS
PBA Marne(ф)	MS (P)	S	MS (P)	MS	MRMS
PBA Rana(ф)	MRMS	S	MS	MS	VS
PBA Samira(ф)	MR (P)	S	MS	MRMS	S
PBA Zahra(ф)	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.

LUPIN

New lupin varieties

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

Variety	Variety owner	End point royalty* ($)	Comments supplied by variety owner
Lawler(ф)	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, (ф) denotes Plant Breeder's Rights apply.

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

Lupin variety yield performance – High rainfall South Australia and Victoria

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: Frances narrow-leaf lupin.

Year	2018	2019	2020	2021	2022
Mean yield (t/ha)			**2.49**	**2.00**	**2.62**
Jenabillup[Φ]	Trial failed	Trial failed	97	103	129
PBA Gunyidi[Φ]			104	103	117
PBA Barlock[Φ]			91	105	124
PBA Jurien[Φ]			94	108	118
PBA Bateman[Φ]			100	105	112
Wonga			85	93	123
Mandelup[Φ]			94	102	103
Coyote[Φ]			101	102	84
Lawler[Φ]			98	101	85
Jindalee			73	77	99
Sowing date	**28 May**	**28 May**	**28 May**	**30 May**	**27 May**
Rainfall J–M (mm)	**40**	**22**	**81**	**40**	**98**
Rainfall A–O (mm)	**403**	**294**	**401**	**339**	**428**

Special thanks to 2022 trial cooperator, Sean Harvey.
Learn more via the NVT Long Term Yield Reporter

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, Victorian and Tasmanian 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 and Victoria.

Variety	Anthracnose resistance	Cucumber mosaic virus (CMV)	Phomopsis pod infection	Phomopsis stem infection
Coyote[Φ]	MRMS	MRMS	MRMS	S
Jenabillup[Φ]	MS	MRMS	MR	MS
Jindalee	MRMS	S	MR	RMR
Lawler[Φ]	MR	MRMS	MS	MR
Mandelup[Φ]	MRMS	MRMS	S	RMR
PBA Barlock[Φ]	RMR	MR	MR	MR
PBA Bateman[Φ]	MRMS	MR	MS	RMR
PBA Gunyidi[Φ]	MRMS	MRMS	MRMS	RMR
PBA Jurien[Φ]	RMR	MS	MR	RMR
Quilinock	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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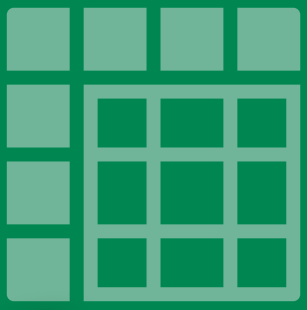

NVT Disease Ratings

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