



GRDC
GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

NVT HARVEST REPORT



APRIL 2020
MALLEE SA-VIC

**Title:**

NVT Harvest Report – Mallee SA-VIC

ISSN: 2652-5690 (online)

Published: April 2020

Authors:

Katherine Hollaway, Astute Ag and
Dr Sue Knights, SE Knights Consulting

Acknowledgements:

We would like to thank all those who provided information and assistance with the development of this Harvest Report.

Copyright:

Copyright © Grains Research and Development Corporation 2020

This book is copyright. Except as permitted under the *Australian Copyright Act 1968* (Commonwealth) and subsequent amendments, no part of this publication may be reproduced, stored or transmitted in any form or by any means, electronic or otherwise, without the specific written permission of the copyright owner.

GRDC contact details:

Ms Maureen Cribb
Integrated Publications Manager
PO Box 5367
KINGSTON ACT 2604

Email: Maureen.Cribb@grdc.com.au

Design and production:

Coretext, www.coretext.com.au

COVER: Canola National Variety Trial.

PHOTO: Neale Sutton

DISCLAIMER: Any recommendations, suggestions or opinions contained in this publication do not necessarily represent the policy or views of the Grains Research and Development Corporation. No person should act on the basis of the contents of this publication without first obtaining specific, independent professional advice.

The Grains Research and Development Corporation will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information in this publication.

TABLE OF CONTENTS



The Harvest Reports for all regions can be downloaded at:
grdc.com.au/harvestreports

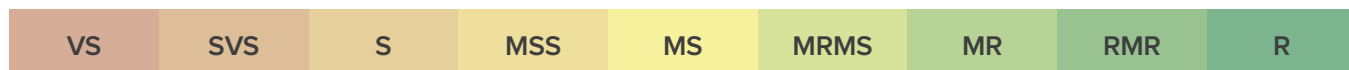
INTRODUCTION	5
WHEAT	7
BARLEY	18
OAT	27
CANOLA	29
CHICKPEA	36
FABA BEAN	39
FIELD PEA	41
LENTIL	43
LUPIN	46
USEFUL LINKS AND FURTHER INFORMATION	48

LEGEND: MEAN VARIETY YIELD PERFORMANCE



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)

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

INTRODUCTION

This *NVT Harvest Report* provides information to support growers and advisers with decisions on variety selection for Mallee SA-VIC. 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 2019 and long-term yield performance of varieties of crop species suitable for production in Mallee SA-VIC together with their quality and disease responses.

The NVT program provides growers and advisers with comparative data 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.

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

INTERPRETING LONG-TERM YIELD DATA

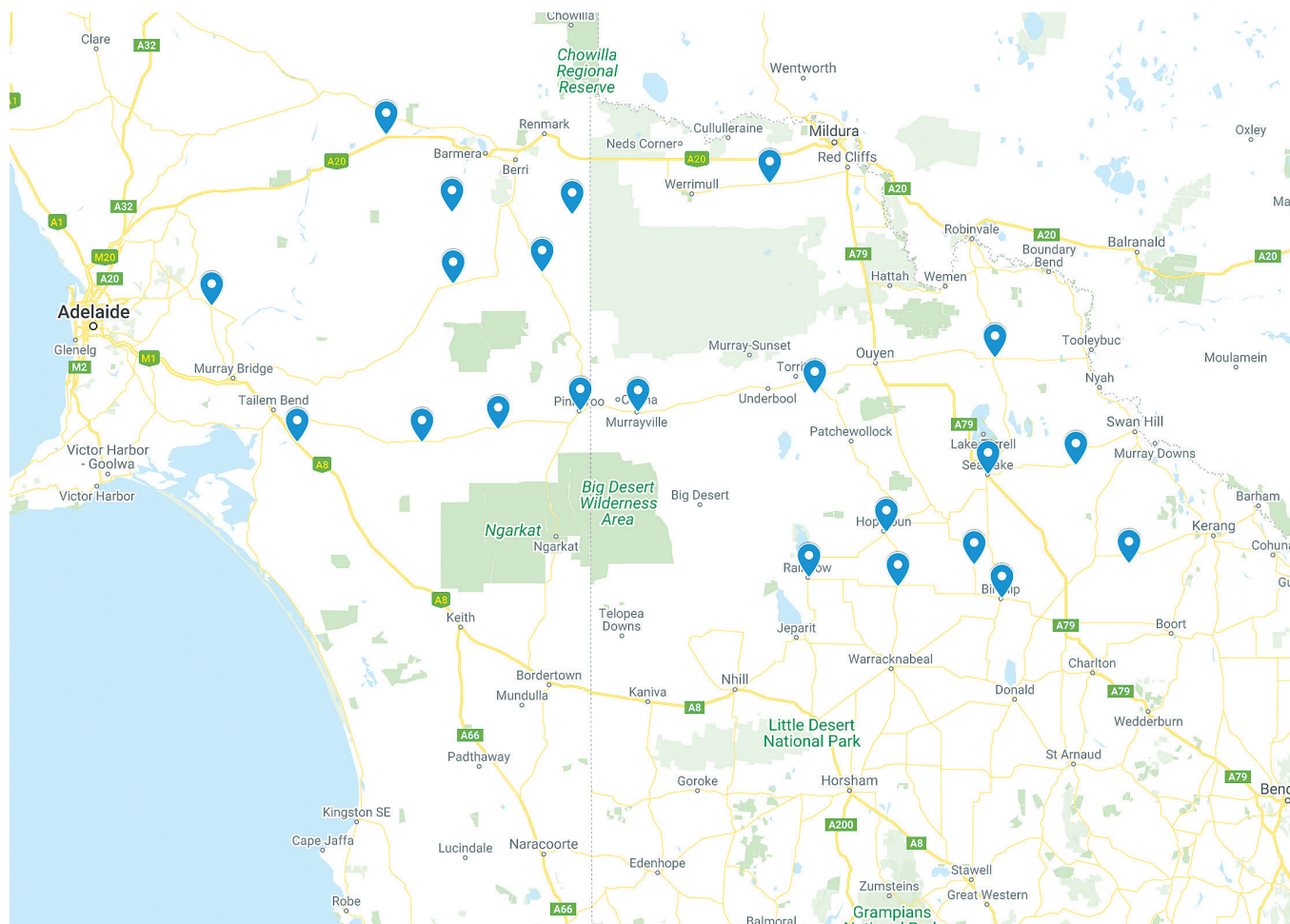
A factor analytic (FA) mixed model approach is used in the multi-environment trial (MET) analysis conducted by GRDC, supported by the Statistics for the Australian Grains Industry (SAGI) program. This approach generates long-term MET values for varieties at an individual trial level.

This format provides more detailed data 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 Mallee SA-VIC Harvest Report, results are presented for yield and quality in year groupings for 2019 and the previous four years. Further detailed interrogation of the NVT Online dataset using the NVT Long Term Yield Reporting Tool will provide more specific performance data on all varieties of each crop species in each NVT location throughout Mallee SA-VIC.

NVT SITE LOCATIONS – MALLEE SA-VIC 2015–2019

FIGURE 1 Location of NVT trial sites in Mallee SA-VIC from 2015–2019.



SOURCE: NVT ONLINE

WHEAT

NEW WHEAT VARIETIES

The following information is for wheat varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
Catapult [®]	Australian Grain Technologies	3.25	Longer season than Scepter [®] , with a mid-late maturity allowing growers to achieve Scepter [®] -like yields when sown in late April. Catapult [®] has a very flexible sowing window with wide adaptation and is viewed as a great alternative to Trojan [®] , Magenta [®] , Cutlass [®] and Yitpi [®] . Catapult [®] offers a unique combination of features to growers with Australian Hard quality (WA/SA/VIC/southern NSW).
RockStar [®]	InterGrain	3.50	High-yielding, mid-late flowering variety with a similar time to flowering as LRPB Trojan [®] and Magenta [®] . It has an AH classification in WA, SA and VIC and has a potential AH classification in southern NSW. The variety provides a large yield improvement within the mid-late flowering variety class. RockStar [®] offers an opportunity to maximise sowing opportunities and spread flowering windows during critical spring stress periods. It has good Stem rust (MR), Yellow leaf spot (MRMS) and Stripe rust (RMR) resistance. It has a good grain size, good test weight and has a moderate plant height similar to Mace [®] . RockStar [®] is an excellent varietal alternative to LRPB Trojan [®] , Magenta [®] , Yitpi [®] and Cutlass [®] .

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

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

WHEAT VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Birchchip main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.16	3.50	4.66	2.02	4.87
Vixen ^{db}		112	108	113	121
RockStar ^{db}					116
Scepter ^{db}	124	101	110	111	115
Catapult ^{db}				108	111
Beckom ^{db}	108	112	106	104	110
Tenfour ^{db}				97	110
LRPB Trojan ^{db}	84	114	107	98	106
LRPB Scout ^{db}	109	116	99	102	104
Cosmick ^{db}	107	110	102	103	104
LRPB Arrow ^{db}	105	101	104	102	106
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			103	106	110
Sheriff CL Plus ^{db}		103		104	107
Elmore CL Plus ^{db}	90	105	94	96	92
Sowing date	20 May	1 May	5 May	16 May	15 May
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)

TABLE 3 Hopetoun main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.12	3.61	4.32		4.67
RockStar ^{db}				Trial failed	113
Vixen ^{db}		111	105		126
Scepter ^{db}	112	105	112		115
Catapult ^{db}					110
Beckom ^{db}	109	110	105		108
LRPB Trojan ^{db}	111	108	108		100
Cobalt ^{db}					100
Cosmick ^{db}	105	110	100		104
LRPB Scout ^{db}	101	114	95		104
LRPB Arrow ^{db}	101	99	104		107
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		103			107
Razor CL Plus ^{db}			101		114
Chief CL Plus ^{db}		87			96
Sowing date	13 May	1 May	9 May	29 May	16 May
Rainfall J–M (mm)	59	39	88	8	16
Rainfall A–O (mm)	127	298	230	120	152

For more information click this [LINK](#)

The performance of varieties not listed within these tables can be found by further interrogation of the NVT website via the links below each table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website links below each table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

TABLE 2 Geranium main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		4.23		2.69	3.45
RockStar ^{db}	Trial failed		Trial failed	111	121
Scepter ^{db}		107		109	116
Catapult ^{db}				107	115
Vixen ^{db}		111		110	107
LRPB Trojan ^{db}		110		104	113
Beckom ^{db}		110		105	110
Cobalt ^{db}				105	116
Cutlass ^{db}		105		101	111
Cosmick ^{db}		106		103	103
LRPB Scout ^{db}		108		102	98
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		105		104	109
Razor CL Plus ^{db}				104	100
Chief CL Plus ^{db}		93		99	105
Sowing date	7 May	24 May	12 May	25 Jun	22 May
Rainfall J–M (mm)	n/a	81	83	16	12
Rainfall A–O (mm)	n/a	333	215	179	226

n/a = Not available

For more information click this [LINK](#)

TABLE 4 Merrineee main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.66		1.09	0.76	
Vixen ^{db}		Trial failed	118	111	Trial failed
Scepter ^{db}	114		113	110	
Catapult ^{db}				109	
Emu Rock ^{db}	112		105	99	
Beckom ^{db}	108		106	106	
Shield ^{db}	108		105	101	
Mace ^{db}	106		106	103	
LRPB Scout ^{db}	109		102	101	
Cosmick ^{db}	106		103	103	
Cobalt ^{db}					
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			109	104	
Sheriff CL Plus ^{db}				105	
Grenade CL Plus ^{db}	100		99	96	
Sowing date	5 May	13 May	11 May	8 Jun	6 May
Rainfall J–M (mm)	59	78	47	11	4
Rainfall A–O (mm)	73	53	122	96	49

For more information click this [LINK](#)

TABLE 5 Nangari main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		3.96			0.53
Vixen ^{db}	Trial failed	112	Trial failed	Trial failed	134
RockStar ^{db}					114
Scepter ^{db}		110			111
Catapult ^{db}					107
Beckom ^{db}		107			104
LRPB Arrow ^{db}		105			98
Mace ^{db}		104			105
Corack ^{db}		104			98
Emu Rock ^{db}		100			126
LRPB Havoc ^{db}		104			96
CLEARFIELD® PLUS					
Razor CL Plus ^{db}					118
Sheriff CL Plus ^{db}		105			100
Chief CL Plus ^{db}		100			84
Sowing date	4 May	31 May	4 May	7 Jun	10 May
Rainfall J–M (mm)	29	62	73	10	5
Rainfall A–O (mm)	147	258	150	91	31

For more information click this [LINK](#)

TABLE 6 Palmer main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		3.98	3.43	0.66	0.95
RockStar ^{db}	Trial failed			116	110
Vixen ^{db}		114	108	134	108
Scepter ^{db}		110	114	120	109
Catapult ^{db}				112	108
Beckom ^{db}		110	106	109	105
LRPB Trojan ^{db}		108	107	98	102
Cobalt ^{db}				101	108
LRPB Arrow ^{db}		104	105	109	102
Mace ^{db}		100	106	112	103
Cosmick ^{db}		105	100	104	102
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		106		108	104
Razor CL Plus ^{db}			103	119	103
Chief CL Plus ^{db}		95	106	97	101
Sowing date	12 May	1 Jun	10 May	11 May	14 May
Rainfall J–M (mm)	44	78	64	25	6
Rainfall A–O (mm)	184	297	242	184	121

For more information click this [LINK](#)

TABLE 7 Pinnaroo main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.48	4.66			2.14
RockStar ^{db}			Trial failed	Trial failed	115
Catapult ^{db}					110
Scepter ^{db}	111	109			108
LRPB Trojan ^{db}	111	108			110
Vixen ^{db}		112			101
Beckom ^{db}	109	108			107
Cutlass ^{db}	110	102			110
Cobalt ^{db}					111
Cosmick ^{db}	105	103			104
LRPB Arrow ^{db}	102	104			101
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		105			104
Razor CL Plus ^{db}					97
Chief CL Plus ^{db}		97			100
Sowing date	7 May	26 May	8 May	15 May	13 May
Rainfall J–M (mm)	n/a	24	92	6	8
Rainfall A–O (mm)	n/a	326	256	130	157

n/a = Not available

For more information click this [LINK](#)

TABLE 8 Quambatook main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		4.91	4.77	0.63	2.62
Vixen ^{db}	Trial failed	111	107	138	125
RockStar ^{db}					113
Scepter ^{db}		107	112	129	109
Catapult ^{db}				117	107
Beckom ^{db}		107	105	108	108
Tenfour ^{db}				98	107
LRPB Arrow ^{db}		103	105	106	103
Mace ^{db}		101	106	117	102
LRPB Trojan ^{db}		106	106	90	98
Corack ^{db}		99	107	113	100
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			103	120	113
Sheriff CL Plus ^{db}		104		109	103
Chief CL Plus ^{db}		96		102	88
Sowing date	25 May	18 May	2 May	29 May	15 May
Rainfall J–M (mm)	30	84	53	20	34
Rainfall A–O (mm)	151	341	238	134	176

For more information click this [LINK](#)

TABLE 9 Ultima main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.90	3.74	2.58	0.64	
Vixen ^{db}		100	112	122	Trial failed
Scepter ^{db}	116	101	114	116	
Catapult ^{db}				109	
Beckom ^{db}	103	107	106	104	
LRPB Trojan ^{db}	90	111	104	93	
Cobalt ^{db}				110	
Cosmick ^{db}	101	105	100	103	
LRPB Arrow ^{db}	106	100	105	103	
Cutlass ^{db}	86	109	101	92	
LRPB Scout ^{db}	100	107	96	101	
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		102		105	
Razor CL Plus ^{db}			106	111	
Chief CL Plus ^{db}		93		100	
Sowing date	22 May	17 May	9 May	29 May	8 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

TABLE 11 Wanbi main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.65	4.52			0.41
RockStar ^{db}			Trial failed	Trial failed	112
Vixen ^{db}		112			68
Scepter ^{db}	115	112			70
Catapult ^{db}					96
LRPB Trojan ^{db}	102	109			113
Beckom ^{db}	105	108			104
Tenfour ^{db}	111	110			
LRPB Arrow ^{db}	107	105			80
Cobalt ^{db}					97
Cosmick ^{db}	100	103			116
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		107			88
Razor CL Plus ^{db}					73
Chief CL Plus ^{db}		100			70
Sowing date	11 May	31 May	9 May	6 Jun	22 May
Rainfall J–M (mm)	49	41	119	10	7
Rainfall A–O (mm)	128	289	128	99	111

For more information click this [LINK](#)

TABLE 10 Walpeup main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.17	3.60	3.31		2.47
Vixen ^{db}		119	111	Trial failed	122
RockStar ^{db}					112
Scepter ^{db}	111	104	112		114
Catapult ^{db}					109
Beckom ^{db}	108	109	105		106
LRPB Scout ^{db}	106	116	97		103
Cosmick ^{db}	105	110	100		103
Emu Rock ^{db}	103	109	99		107
Tenfour ^{db}					106
Shield ^{db}	102	111	96		103
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			106		111
Sheriff CL Plus ^{db}		101			105
Grenade CL Plus ^{db}	96	101	95		98
Sowing date	7 May	12 May	12 May	7 May	7 May
Rainfall J–M (mm)	68	47	69	7	9
Rainfall A–O (mm)	147	308	214	134	118

For more information click this [LINK](#)

TABLE 12 Wunkar main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.65	3.25		0.99	0.45
RockStar ^{db}			Trial failed	112	118
Scepter ^{db}	115	107		115	118
Catapult ^{db}				110	112
Cobalt ^{db}				109	112
Vixen ^{db}		104		116	131
Beckom ^{db}	110	107		105	106
LRPB Trojan ^{db}	109	110		100	88
Cutlass ^{db}	110	108		98	89
Cosmick ^{db}	106	104		102	108
LRPB Scout ^{db}	102	103		98	109
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		104		106	104
Razor CL Plus ^{db}				108	115
Chief CL Plus ^{db}		98		103	93
Sowing date	4 May	30 May	4 May	7 Jun	12 Jun
Rainfall J–M (mm)	36	64	68	8	2
Rainfall A–O (mm)	132	264	146	97	81

For more information click this [LINK](#)

TABLE 13 Birchip early season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)					4.61
DS Pascal [Ⓛ]	No trial	No trial	No trial	No trial	120
RockStar [Ⓛ]					120
LRPB Nighthawk [Ⓛ]					114
LRPB Beaufort [Ⓛ]					113
Forrest [Ⓛ]					110
DS Bennett [Ⓛ]					109
Illabo [Ⓛ]					107
EGA Wedgetail [Ⓛ]					105
Coolah [Ⓛ]					99
Catapult [Ⓛ]					98
CLEARFIELD® PLUS					
Sheriff CL Plus [Ⓛ]					103
Elmore CL Plus [Ⓛ]					97
Sowing date					16 Apr
Rainfall J–M (mm)					14
Rainfall A–O (mm)					197

For more information click this [LINK](#)

WHEAT VARIETY QUALITY – SOUTH AUSTRALIA AND VICTORIA

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 either higher test weights, or lower grain screenings under a wider range of environments. As Mallee SA-VIC spans both South Australia and Victoria wheat quality data from each state is presented. The following figures show the

grain quality trends as either histograms or box and whisker plots from 2018 and 2019 NVT trials averaged for all trials in each state. Only the varieties evaluated at every site are included. Histograms are used where there were less than 10 sites data for either 2018 or 2019 to enable comparison across years. For the box and whisker plots each figure shows the median value (circle) and variability (lines) of each wheat variety. The range of the lines represent the middle 50 per cent of grain screenings and test weights for each variety. The shorter the lines, the less variable the variety for the depicted trait.

FIGURE 1 Test weight (kg/hl) comparisons for main season wheat varieties from 22 NVT sites in SA 2019.

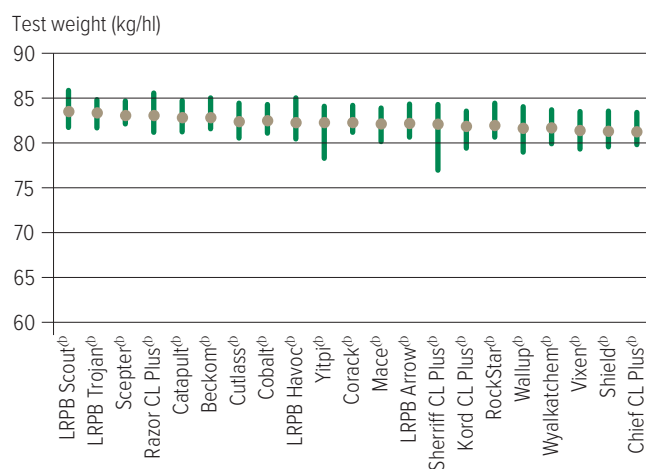


FIGURE 2 Test weight (kg/hl) comparisons for main season wheat varieties from 19 NVT sites in SA 2018.

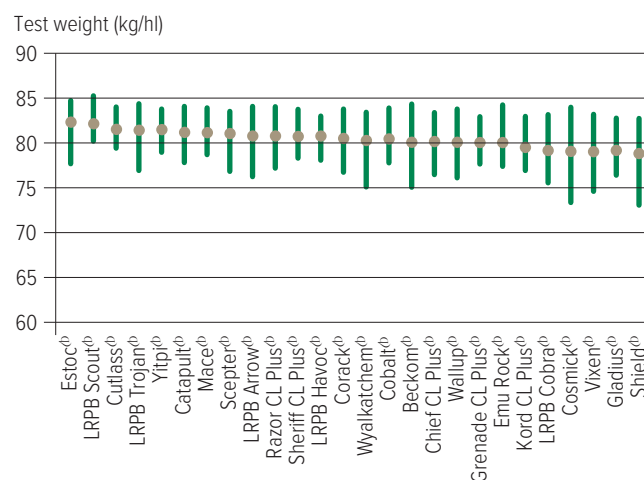


FIGURE 3 Test weight (kg/hl) comparisons for main season wheat varieties from 15 NVT sites in Victoria 2019.

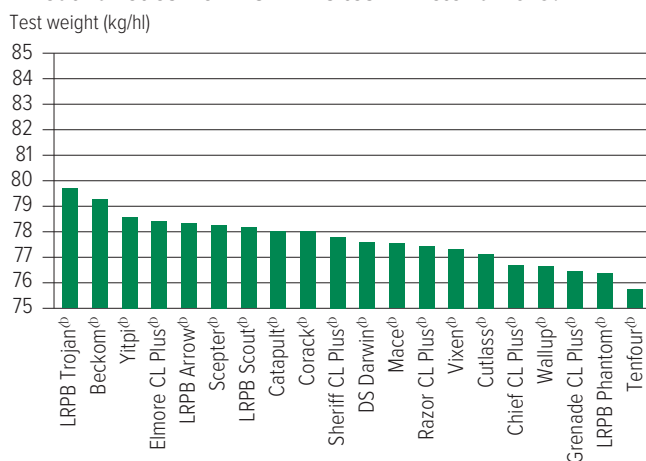


FIGURE 4 Test weight (kg/hl) comparisons for main season wheat varieties from six NVT sites in Victoria 2018.

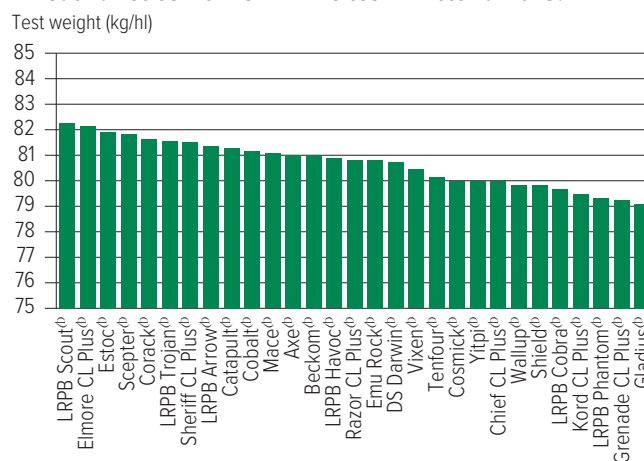


FIGURE 5 Test weight (kg/hl) comparisons for early season wheat varieties from five NVT sites in Victoria 2019.

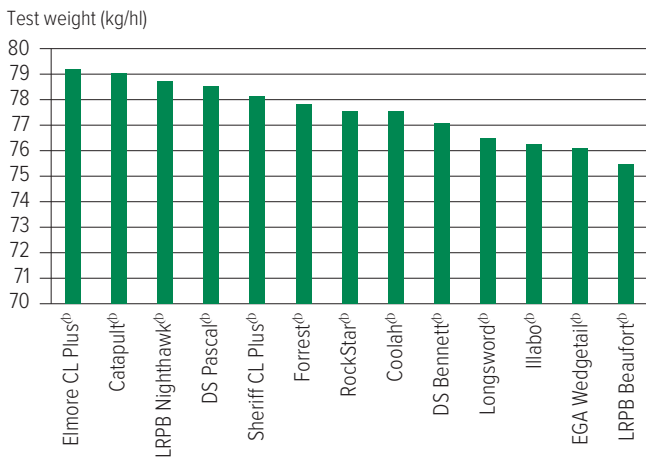


FIGURE 6 Test weight (kg/hl) comparisons for early season wheat varieties from five NVT sites in Victoria 2018.

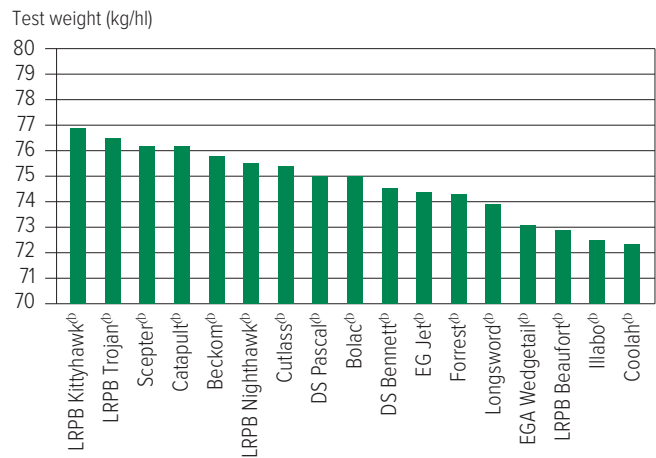


FIGURE 7 Screenings (<2.0mm) comparisons for main season wheat varieties from 22 NVT sites in SA 2019.

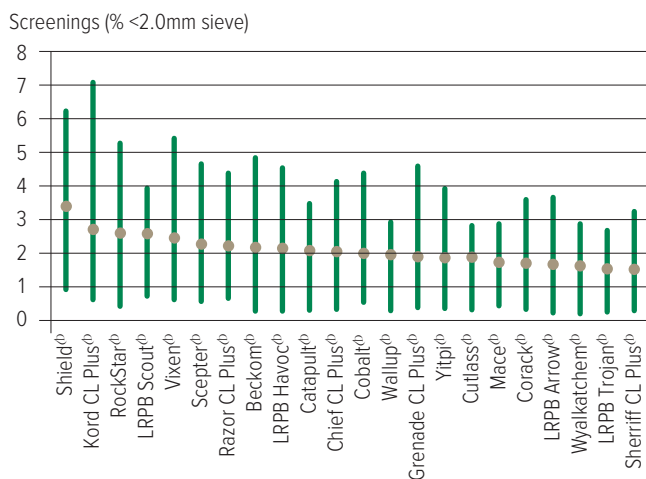


FIGURE 8 Screenings (<2.0mm) comparisons for main season wheat varieties from 19 NVT sites in SA 2018.

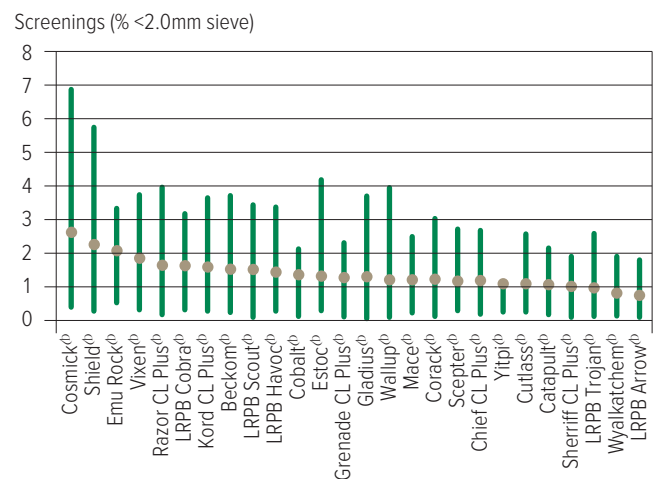


FIGURE 9 Screenings (<2.0mm) comparisons for main season wheat varieties from 15 NVT sites in Victoria 2019.

Screenings (% <2.0mm sieve)

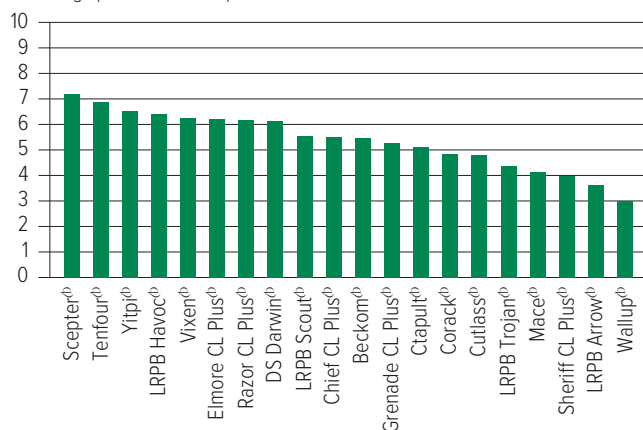


FIGURE 10 Screenings (<2.0mm) comparisons for main season wheat varieties from six NVT sites in Victoria 2018.

Screenings (% <2.0mm sieve)

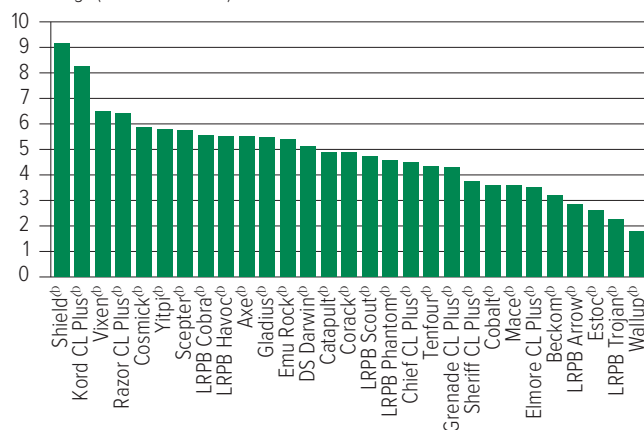


FIGURE 11 Screenings (<2.0mm) comparisons for early season wheat varieties from five NVT sites in Victoria 2019.

Screenings (% <2.0mm sieve)

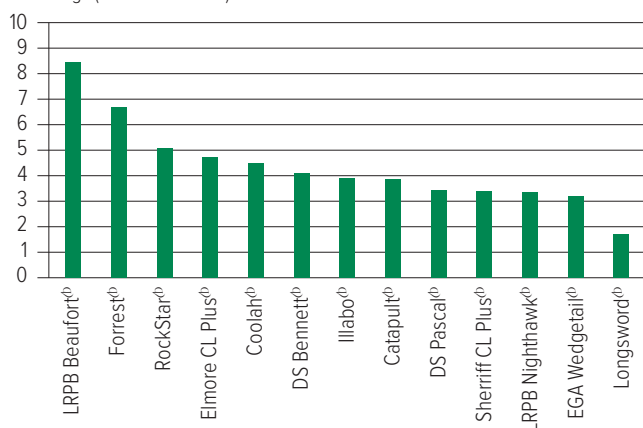
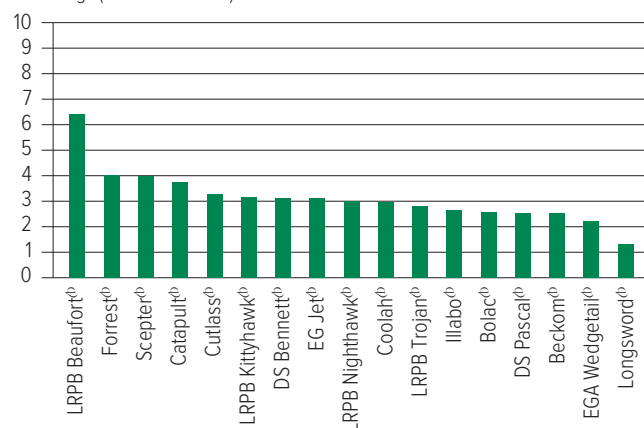


FIGURE 12 Screenings (<2.0mm) comparisons for early season wheat varieties from five NVT sites in Victoria 2018.

Screenings (% <2.0mm sieve)



WHEAT VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following two tables contain varietal ratings for the predominant diseases of wheat in Mallee SA-VIC. As regionally specific differences in varietal reactions to some diseases can occur, varietal responses for both South Australia and Victoria are provided.

These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to Mallee SA-VIC growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 14 Wheat disease guide for South Australia.

Variety	Stem rust	Stripe rust	Leaf rust	Septoria tritici blotch	Yellow leaf spot	Powdery mildew	CCN
Beckom ^{db}	MRMS	MRMS	MSS	S	MSS		R
Catapult ^{db}	MR	MRMS	S	MSS	MRMS	S	R
Chief CL Plus ^{db}	MR	S	MR	MSS	MRMS	SVS	MS
Cobalt ^{db}	S	RMR	MS	S	MS		MSS
Cutlass ^{db}	R	MS	R	MSS	MSS		MR
DS Bennett ^{db}	MRMS	S	SVS	MSS	MRMS	R	S
Emu Rock ^{db}	MS	MSS	SVS	SVS	MRMS		S
Grenade CL Plus ^{db}	MR	MRMS	S	S	S		R
Illabo ^{db}	MRMS	MR ^p	S	MSS	MS	R	MRMS
Longsword ^{db}	MR	MR	MSS	MSS	MRMS	MSS	MRMS
LRPB Arrow ^{db}	S	S	SVS	S	MRMS	S	MS
LRPB Cobra ^{db}	MR [^]	MSS	MR/S	MSS	MRMS		MS
LRPB Havoc ^{db}	S	MR	MSS	S	MRMS		S
LRPB Impala ^{db}	MR	MR	SVS	SVS	MSS		MSS
LRPB Kittyhawk ^{db}		RMR		MRMS	MRMS		S
LRPB Nighthawk ^{db}	RMR	RMR	MSS	MSS	MS	S	MS
LRPB Trojan ^{db}	MRMS	MSS	MR/MS	MS	MSS	S	MS
Manning ^{db}	MR	RMR	MSS	MRMS	MR		S
Razor CL Plus ^{db}	MRMS	MS	S	SVS	MSS	MSS	MR
RGT Accroc	MS	R	SVS	MRMS	MR		S
RGT Calabro	MS	RMR	MSS	MRMS	MR		S
Scepter ^{db}	MRMS	MSS	MSS	S	MRMS	SVS	MRMS
Sheriff CL Plus ^{db}	MS	MSS	SVS	S	MRMS	SVS	MS
Tenfour ^{db}	SVS	SVS	MSS	S	MRMS		MS
Vixen ^{db}	MRMS	MRMS	SVS	S	MRMS	S	MSS
DURUM							
Bitalli ^{db}	MR	MS	MR	MRMS	MRMS	S	S
DBA Artemis ^{db}	MR [^]	MS	RMR	MRMS	MRMS	MSS	MS
DBA-Aurora ^{db}	RMR	MRMS	R	MR	MRMS	S	MSS
DBA Spes ^{db}	R	MS	R	MRMS/SVS	MRMS	MSS	MS
DBA Vittaroi ^{db}	MR	MS	MR	MS	MRMS		S
Westcourt ^{db}	RMR	MR	RMR	MS	MRMS	MSS	MSS

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, ^p = provisional rating, / indicates pathotype differences,

[^] line contains a few susceptible off types.

TABLE 15 Wheat disease guide for Victoria.

Variety	Stem rust	Stripe rust	Leaf rust	Yellow leaf spot	Septoria tritici blotch	Powdery mildew	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot	Common root rot	Flag smut
Beckom ^{db}	MRMS	MRMS	MSS	MSS	S		R	S	MSS	S	MSS	MRMS
Catapult ^{db}	MR	MRMS	S	MRMS	MSS	S	R	S	MS	Sp	MS	MS/RMR
Chief CL Plus ^{db}	MR	S	MR	MRMS	MSS	SVS	MS	MRMS	MSS	MSS	MS	SVS
Cobalt ^{db}	S	RMR	MS	MS	S		MSS	S	S	S	MSS	RMR
Condo ^{db}	MR	MSS	MSS	MS	S		MR	S	MS	S	MSS	MSS
Coolah ^{db}	MR	RMR	RMR/MS	MSS	MSS		S	S	MS	MSS	S	R
Corack ^{db}	MR	MS	SVS	MRMS	S	VS	RMR	MSS	MSS	S	MS	S
Cosmick ^{db}	MS	MSS	SVS	MRMS	S		S	S	MSS	S	MSS	SVS
Cutlass ^{db}	R	MS	R	MSS	MSS		MR	MSS	MSS	S	MS	MSS
DS Bennett ^{db}	MRMS	S	SVS	MRMS	MSS	R	S	S	S	VS	S	SVS
DS Darwin ^{db}	MRMS	MRMS	MSS	S	S		MSS	S	S	S	MSS	MR
DS Pascal ^{db}	MSS	RMR	MS	MRMS	MSS		S	S	S	S	MS	S
EGA Gregory ^{db}	MR	MR	RMR/MS	S	MSS		S	S	MSS	S	MSS	MSS
EGA Wedgetail ^{db}	MRMS	MS	MSS	MSS	MSS		S	SVS	VS	S		
Elmore CL Plus ^{db}	MR	MRMS	RMR	S	MSS		S	S	S	S	S	MSS
Emu Rock ^{db}	MS	MSS	SVS	MRMS	SVS		S	MSS	S	MSS	MS	MS/MR
Grenade CL Plus ^{db}	MR	MRMS	S	S	S		R	MSS	S	S	MS	MR
Hatchet CL Plus ^{db}	MS	MSS	SVS	S	SVS		MR	MSS	MSS	S	MS	RMR
Illabo ^{db}	MRMS	MRp	S	MS	MSS	R	MRMS	S	S	Sp	MSS	R
Kiora	MR	RMR	MRMS	MSS	MSS		MS	S	MRMS	S	MS	MRMS
Longsword ^{db}	MR	MR	MSS	MRMS	MSS	MSS	MRMS	MRMS	MR	MSS	MS	MRMS
LRPB Arrow ^{db}	S	S	SVS	MRMS	S	S	MS	MRMS	MS	MSS	MS	MS
LRPB Cobra ^{db}	MR ^a	MSS	MR/S	MRMS	MSS		MS	MSS	MSS	S	MS	S
LRPB Hellfire ^{db}	MR	MR	MSS	MS	S	MSS	MRMS	S	MSS	MSSp	MSS	MS/RMR
LRPB Impala ^{db}	MR	MR	SVS	MSS	SVS		MSS	SVS	S	MSS	MSS	S
LRPB Kittyhawk ^{db}		RMR		MRMS	MRMS		S	S	S	SVS	S	RMR
LRPB Lancer ^{db}	R	MR	RMR/MS	MRMS	MS		S	S	MS	MSS	S	MSS
LRPB Nighthawk ^{db}	RMR	RMR	MSS	MS	MSS	S	MS	S	MS	MSSp	MSS	MSS
LRPB Parakeet ^{db}	MR	RMR	R	MSS	S	S	MS	MRMS	S	MSS	MS	MSS
Mace ^{db}	MRMS	SVS	MSS	MRMS	S	MSS	MRMS	MS	MS	S	MS	S
Manning ^{db}	MR	RMR	MSS	MR	MRMS		S	MSS	S	VS	SVS	R
Mitch ^{db}	MRMS	MR	MSS	MSS	S		S	S	S	MS	MS	S
Razor CL Plus ^{db}	MRMS	MS	S	MSS	SVS	MSS	MR	S	MRMS	S	MSS	RMR
RGT Accroc	MS	R	SVS	MR	MRMS		S	S	MSS	SVS		SVS
RGT Calabro	MS	RMR	MSS	MR	MRMS		S	S	MSp	SVS	MSS	RMR

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, p = provisional rating, / indicates pathotype differences, ^a line contains a few susceptible off types.

TABLE 15 Wheat disease guide for Victoria (continued).

Variety	Stem rust	Stripe rust	Leaf rust	Yellow leaf spot	Septoria tritici blotch	Powdery mildew	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	Crown rot	Common root rot	Flag smut
RGT Zanzibar	VS	R	SVS	MS	S		MSS	S	MS _p	S	S	SVS
RockStar ^{db}	MR	MRMS	S	MRMS	MSS	S	MSS	MRMS	MRMS	Sp	MS	VS
Scepter ^{db}	MRMS	MSS	MSS	MRMS	S	SVS	MRMS	S	MSS	MSS	MS	MSS
SF Adagio	SVS	RMR	S	MR	MRMS		S	MS	MSS	SVS	MSS	MS
SF Scenario	MSS	R	MSS	MS	MRMS		S	S	S	SVS	MS	RMR
Sheriff CL Plus ^{db}	MS	MSS	SVS	MRMS	S	SVS	MS	MRMS	MRMS	S	MS	S
SQP Revenue ^{db}	RMR [^]	R	VS	MRMS	MSS		S	S	S	S	SVS	S
Sunlamb ^{db}	RMR	MRMS	MS	MRMS	MR		MR	MSS	MSS	S	MS	S
Suntop ^{db}	MRMS	MRMS	MR	MSS	MSS		S	S	MRMS	MSS	MS	R
Tenfour ^{db}	SVS	SVS	MSS	MRMS	S		MS	S	S	MSS	MS	MR
Vixen ^{db}	MRMS	MRMS	SVS	MRMS	S	S	MSS	MRMS	MS	S	MS	SVS
Yitpi ^{db}	S	MS	S	SVS	MSS		MR	MSS	S	S	MS	MR
DURUM												
Bitalli ^{db}	MR	MS	MR	MRMS	MRMS	S	S	MSS	RMR	SVSp	MS	R
DBA-Aurora ^{db}	RMR	MRMS	R	MRMS	MR	S	MSS	MRMS	RMR	VS	MSS	
DBA Spes ^{db}	R	MS	R	MRMS	MRMS/SVS	MSS	MS	MRMS	RMR	VS	MS	R
DBA Vittaroi ^{db}	MR	MS	MR	MRMS	MS		S	MS	MR	SVS	MSS	R
Westcourt ^{db}	RMR	MR	RMR	MRMS	MS	MSS	MSS	MS	MR	SVSp	MS	R

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, *p* = provisional rating, / indicates pathotype differences,

[^] line contains a few susceptible off types.

BARLEY

NEW BARLEY VARIETIES

The following information is for barley varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
Leabrook [♢]	University of Adelaide	3.80	Mid-early maturing, medium-tall variety under malting evaluation. Bred for yield and grain size improvement over Compass [♢] .
Maximus CL [♢]	InterGrain	n/a	Exceptionally high yielding, early to mid-flowering, potential malt, imidazoline-tolerant barley. Seed available 2021.

n/a not available, * EPR amount is ex-GST, [♢] denotes Plant Breeder's Rights apply.

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

BARLEY VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Birchchip main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.23	5.48	5.18	3.45	5.29
RGT Planet ^{db}		122	113	110	125
Rosalind ^{db}	157	106	108	110	120
Buff ^{db}				118	112
La Trobe ^{db}	148	98	101	110	109
Fathom ^{db}	136	105	104	111	100
Hindmarsh ^{db}	155	96	100	108	107
Banks ^{db}	126	103	103	105	101
Leabrook ^{db}	147	98	102	107	97
Keel	130				101
LG Maltstar ^{db}				97	100
CLEARFIELD®					
Maximus CL ^{db}				105	106
Spartacus CL ^{db}	154	94	99	105	106
Scope CL ^{db}	111	96	95	100	94
Sowing date	20 May	1 May	5 May	16 May	15 May
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)

TABLE 3 Lameroo main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.61	5.31	3.64	0.90	3.79
Rosalind ^{db}	125	112	112	113	116
Leabrook ^{db}	117	105	111	126	111
RGT Planet ^{db}		120	101	98	111
Compass ^{db}	122	99	104	135	111
Fathom ^{db}	115	102	103	123	113
Hindmarsh ^{db}	124	100	105	115	110
Buff ^{db}				112	107
Banks ^{db}	108	104	102	119	108
La Trobe ^{db}	121	100	103	111	109
Keel	119	90	103	105	105
CLEARFIELD®					
Maximus CL ^{db}				118	110
Spartacus CL ^{db}	125	98	108	113	109
Scope CL ^{db}	102	93	89	111	99
Sowing date	22 May	27 May	15 May	15 May	21 May
Rainfall J–M (mm)	71	50	66	10	8
Rainfall A–O (mm)	175	370	222	129	197

For more information click this [LINK](#)

The performance of varieties not listed within these tables can be found by further interrogation of the NVT website via the links below each table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website links below each table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

TABLE 2 Cooke Plains main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)			3.66	3.16	
RGT Planet ^{db}			109	109	
Leabrook ^{db}			108	108	
Buff ^{db}				113	
Banks ^{db}			105	106	
Compass ^{db}			104	107	
Fathom ^{db}			102	108	
Rosalind ^{db}			105	104	
Commander ^{db}			100	104	
Oxford			105	98	
Fleet Australia ^{db}			94	106	
CLEARFIELD®					
Maximus CL ^{db}				98	
Scope CL ^{db}			96	99	
Spartacus CL ^{db}			96	97	
Sowing date	22 May	23 May	11 May	14 May	17 May
Rainfall J–M (mm)	4	88	91	6	14
Rainfall A–O (mm)	199	406	262	193	241

For more information click this [LINK](#)

TABLE 4 Manangatang main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.39	4.78		3.16	2.52
Fathom ^{db}	119	107		120	117
Leabrook ^{db}	121	100		120	119
Rosalind ^{db}	130	107		118	97
Compass ^{db}	128	93		123	118
RGT Planet ^{db}		112		106	101
Banks ^{db}	114	100		112	113
Hindmarsh ^{db}	125	100		116	95
Buff ^{db}				116	102
La Trobe ^{db}	123	103		114	93
Keel	112				89
CLEARFIELD®					
Maximus CL ^{db}				116	94
Spartacus CL ^{db}	123	101		114	92
Scope CL ^{db}	105	92		103	102
Sowing date	4 May	1 May	2 May	11 May	8 May
Rainfall J–M (mm)	19	73	85	9	18
Rainfall A–O (mm)	113	294	209	122	133

For more information click this [LINK](#)

TABLE 5 Murrayville main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.13	3.31		1.22	2.80
RGT Planet ^{db}		124	Trial failed	110	102
Fathom ^{db}	119	99		119	120
Leabrook ^{db}	109	92		117	123
Banks ^{db}	110	101		112	113
Rosalind ^{db}	112	98		129	105
Compass ^{db}	115	82		123	119
LG Maltstar ^{db}				90	104
Bass ^{db}	101	102		103	110
Buff ^{db}				113	98
La Trobe ^{db}	113	87		123	97
CLEARFIELD®					
Maximus CL ^{db}				128	99
Spartacus CL ^{db}	109	83		125	100
Scope CL ^{db}	109	92		105	97
Sowing date	8 May	12 May	13 May	29 May	7 May
Rainfall J–M (mm)	52	61	80	7	33
Rainfall A–O (mm)	141	317	202	113	156

For more information click this [LINK](#)

TABLE 6 Paruna main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.56	5.77			1.76
Leabrook ^{db}	121	104	Trial failed	Trial failed	139
Rosalind ^{db}	119	110			118
Compass ^{db}	119	100			138
Fathom ^{db}	120	100			134
RGT Planet ^{db}		114			94
Banks ^{db}	112	103			121
Hindmarsh ^{db}	112	101			115
La Trobe ^{db}	109	101			110
Buff ^{db}					99
Bass ^{db}	109	96			115
CLEARFIELD®					
Maximus CL ^{db}					117
Spartacus CL ^{db}	115	100			117
Scope CL ^{db}	96	95			98
Sowing date	8 May	31 May	8 May	7 Jun	13 May
Rainfall J–M (mm)	46	29	77	11	16
Rainfall A–O (mm)	181	314	168	110	126

For more information click this [LINK](#)

TABLE 7 Rainbow main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.99	5.99	3.12	1.13	3.66
Rosalind ^{db}	126	107	111	113	120
RGT Planet ^{db}		119	119	108	106
Fathom ^{db}	111	103	109	116	118
Leabrook ^{db}	122	102	107	109	115
Buff ^{db}				117	108
Banks ^{db}	111	103	106	106	109
Compass ^{db}	125	94	102	111	116
La Trobe ^{db}	116	96	103	115	115
Hindmarsh ^{db}	120	95	101	114	116
Keel	107				115
CLEARFIELD®					
Maximus CL ^{db}				111	117
Spartacus CL ^{db}	121	95	99	111	117
Scope CL ^{db}	99	92	94	102	99
Sowing date	18 May	11 May	10 May	11 May	16 May
Rainfall J–M (mm)	67	56	75	19	22
Rainfall A–O (mm)	157	307	214	143	199

For more information click this [LINK](#)

TABLE 8 Ultima main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.88	4.27		0.43	
Buff ^{db}			Trial failed	110	Trial failed
RGT Planet ^{db}		123		117	
Rosalind ^{db}	144	110		146	
La Trobe ^{db}	133	102		149	
Hindmarsh ^{db}	135	101		145	
Compass ^{db}	138	101		117	
Banks ^{db}	122	104		110	
Leabrook ^{db}	128	101		109	
Fathom ^{db}	129	95		143	
Commander ^{db}	84	100		78	
CLEARFIELD®					
Maximus CL ^{db}				145	
Spartacus CL ^{db}	130	94		148	
Scope CL ^{db}	109	99		108	
Sowing date	22 May	17 May	9 May	29 May	8 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

TABLE 9 Walpeup main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.90	4.54	3.58	2.24	2.26
Leabrook ^{db}	118	103	110	124	129
Compass ^{db}	119	102	109	122	130
Fathom ^{db}	114	97	108	116	135
Buff ^{db}				100	99
Rosalind ^{db}	121	95	113	97	124
Banks ^{db}	109	103	107	112	116
Hindmarsh ^{db}	117	94	107	98	121
RGT Planet ^{db}		110	110	92	99
La Trobe ^{db}	115	94	107	94	119
Commander ^{db}	97	108	99	111	98
CLEARFIELD®					
Maximus CL ^{db}				97	122
Spartacus CL ^{db}	117	87	106	97	124
Scope CL ^{db}	99	100	98	98	99
Sowing date	7 May	12 May	12 May	7 May	8 May
Rainfall J–M (mm)	68	47	69	7	9
Rainfall A–O (mm)	147	308	214	134	118

For more information click this [LINK](#)

BARLEY VARIETY QUALITY – SOUTH AUSTRALIA AND VICTORIA

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 either higher test weights, lower grain screenings or higher retention under a wider

range of environments. As Mallee SA-VIC spans both South Australia and Victoria barley quality data from each state is presented. Each figure shows the median value (circle) and variability (lines) of each barley variety. The range of the lines represents the middle 50 per cent of grain screenings, test weights and retention for each variety. The shorter the lines, the less variable the variety for the depicted trait.

FIGURE 1 Test weight (kg/hl) comparisons for main season barley varieties from 15 NVT sites in SA 2019.

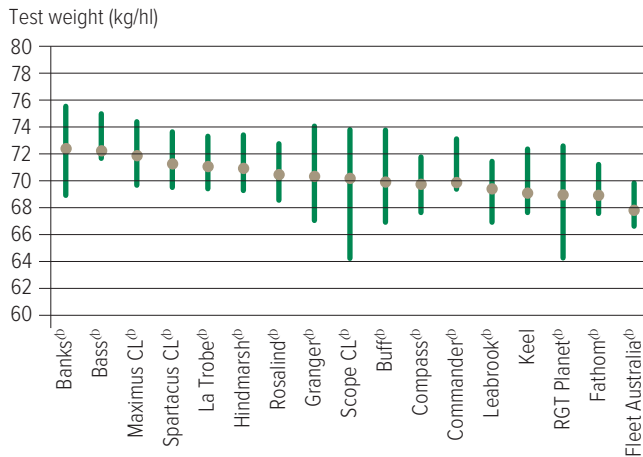


FIGURE 2 Test weight (kg/hl) comparisons for main season barley varieties from 16 NVT sites in SA 2018.

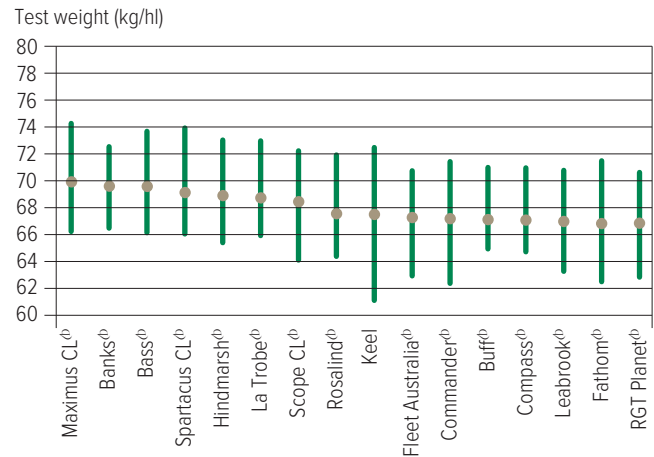


FIGURE 3 Test weight (kg/hl) comparisons for main season barley varieties from 11 NVT sites in Victoria 2019.

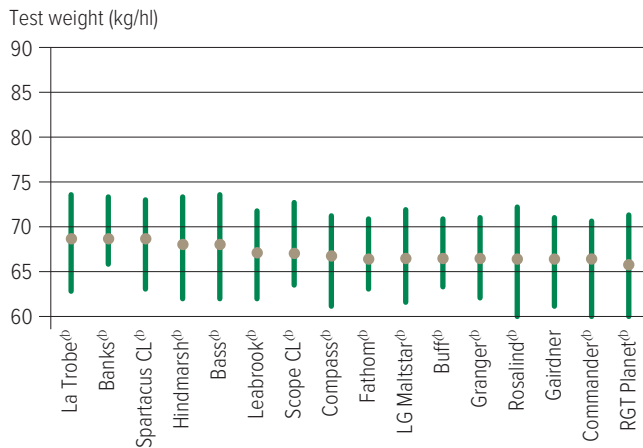


FIGURE 4 Test weight (kg/hl) comparisons for main season barley varieties from 10 NVT sites in Victoria 2018.

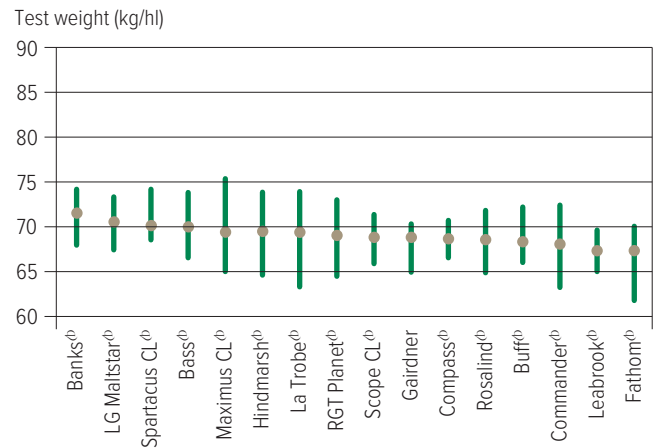


FIGURE 5 Screenings (<2.2mm) comparisons for main season barley varieties from 15 NVT sites in SA 2019.

Screenings (% <2.2mm sieve)

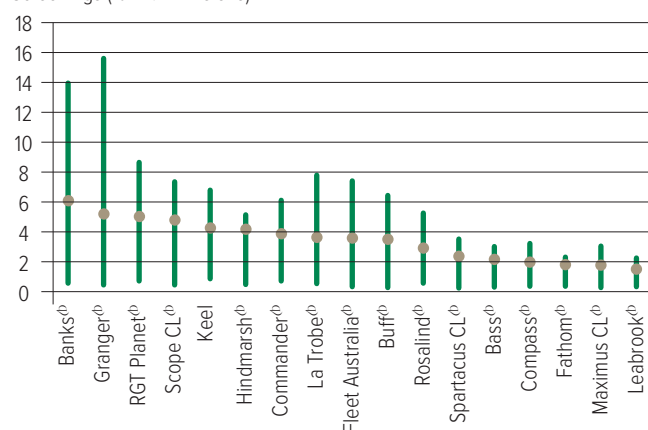


FIGURE 6 Screenings (<2.2mm) comparisons for main season barley varieties from 16 NVT sites in SA 2018.

Screenings (% <2.2mm sieve)

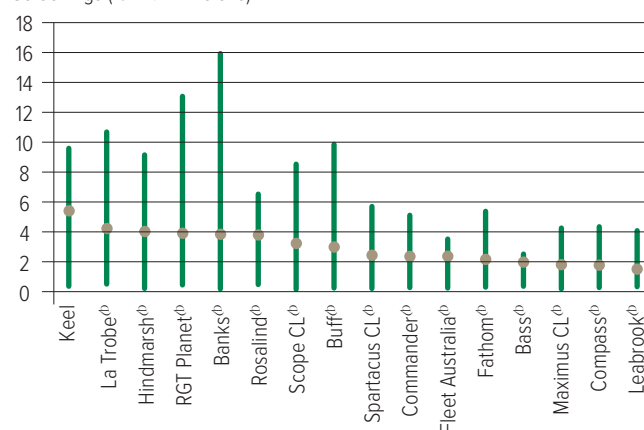


FIGURE 7 Screenings (<2.2mm) comparisons for main season barley varieties from 11 NVT sites in Victoria 2019.

Screenings (% <2.2mm sieve)

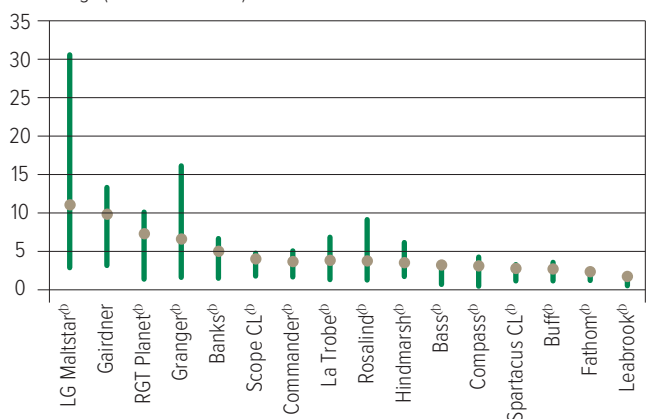


FIGURE 8 Screenings (<2.2mm) comparisons for main season barley varieties from 10 NVT sites in Victoria 2018.

Screenings (% <2.2mm sieve)

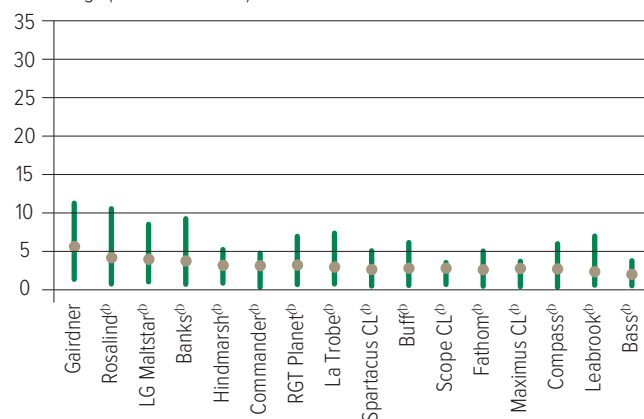


FIGURE 9 Retention (>2.5mm) comparisons for main season barley varieties from 15 NVT sites in SA 2019.

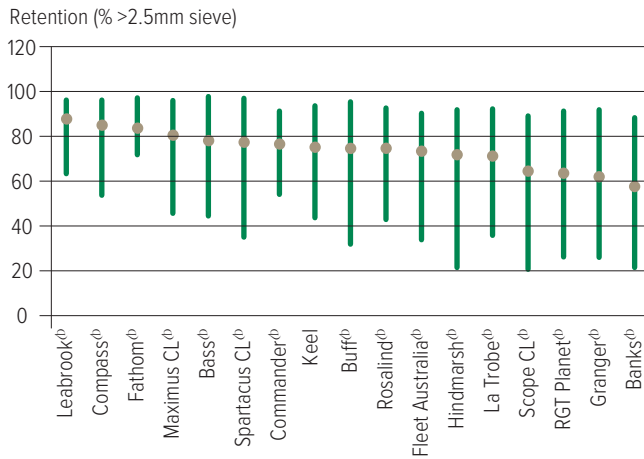


FIGURE 10 Retention (>2.5mm) comparisons for main season barley varieties from 16 NVT sites in SA 2018.

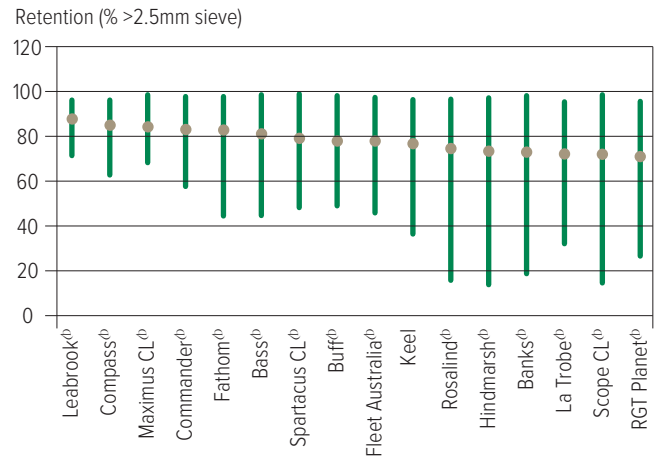


FIGURE 11 Retention (>2.5mm) comparisons for main season barley varieties from 11 NVT sites in Victoria 2019.

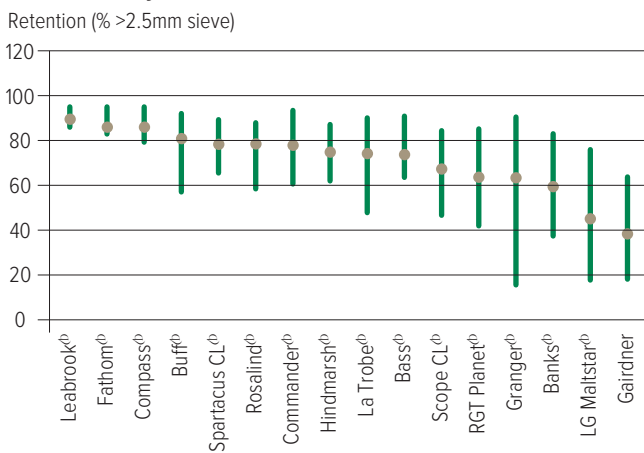
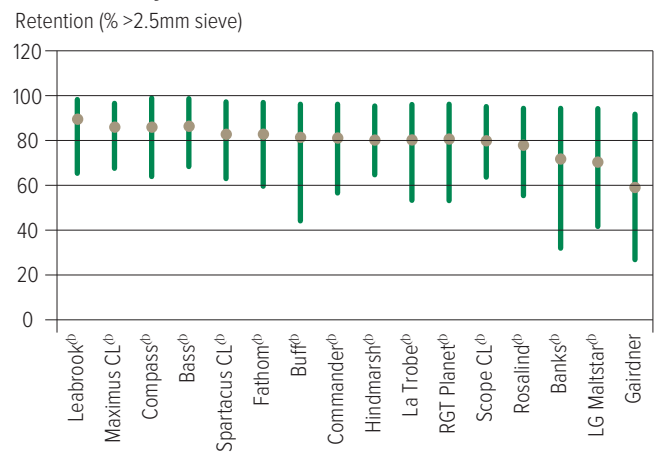


FIGURE 12 Retention (>2.5mm) comparisons for main season barley varieties from 10 NVT sites in Victoria 2018.



BARLEY VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following two tables contain varietal ratings for the predominant diseases of barley in Mallee SA-VIC. As regionally specific differences in varietal reactions to some diseases can occur, varietal responses for both South Australia and Victoria are provided.

These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to Mallee SA-VIC growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 10 Barley disease guide for South Australia.

Variety	CCN	Leaf rust	Net form net blotch	Spot form net blotch	Leaf scald	Powdery mildew	Blackpoint
LG Alestar [Ⓛ]	R [^]	R-MS	MR-S	MSS	MS-SVS	RMR	MRMS
Banks [Ⓛ]	S	MR-S	R-MRMS	MRMS-S	R-SVS	MR-MS	MS
Buloke [Ⓛ]	S		MR		MRMS-S	RMR	MS
Commander [Ⓛ]	R	MS-S	MS-VS	MSS	MR-SVS	MRMS	MSS
Compass [Ⓛ]	R	SVS	MR-MSS	MRMS-MSS	MR-SVS	MRMS-S	MSS
Fathom [Ⓛ]	R	MRMS-S	MS-VS	RMR	R-S	MRMS	MSS
Flinders [Ⓛ]	S	MRMS-S	MRMS	MRMS-S	MR-SVS	RMR	MRMS
Granger [Ⓛ]	R	MR-MS	R-MSS	MS-S	MRMS-SVS	R	MS
Hindmarsh [Ⓛ]	R	MRMS-S	MR-MS	S	R-SVS	MR-SVS	MSS
Keel	R	VS	S	MR	R-SVS	SVS	MSS
Leabrook [Ⓛ]	MRMS	MS-SVS	MR-MS	MR-MS	R-SVS	MR-MS	MSS
Maritime [Ⓛ]	R		R-VS		MR-SVS	S	MSS
Maximus CL [Ⓛ]	R	MS-S	RMR-MRMS	MRMS-MS	R-MRMS	MR-S	MSS
Oxford	S	R-MS	MR-VS	MS-S	MS-SVS	R	MR
RGT Planet [Ⓛ]	R _p	MR-MS	MR-SVS	S-SVS	R-SVS	R	MRMS
Rosalind [Ⓛ]	R	MR-MS	MR	MS-S	MR-S	MRMS-S	MSS
Schooner	VS	S-VS	MR	MS	MS-S	SVS	MS
Scope CL [Ⓛ]	S	MS-SVS	MR	MS-S	MRMS-SVS	RMR	MS
Spartacus CL [Ⓛ]	R	MR-S	MSS-SVS	S	R-SVS	MR-SVS	MSS
Westminster [Ⓛ]		R-MRMS	R-S	S	R-S	R	MRMS

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, *p* = provisional rating,

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

TABLE 11 Barley disease guide for Victoria.

Variety	Leaf scald	Spot form net blotch	Net form net blotch	Powdery mildew	Leaf rust	CCN	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)
LG Alestar ^{db}	S	S	S	RMR	MS	R [^]	MR	MR
Banks ^{db}	SVS	S	MRMS	MRMS	S	S	MRMS	MR
Bottler ^{db}	SVS	S	MS	R	MS		MS	RMR
Buff ^{db}	SVS	S	MS	S	SVS		MRMS	MRMS
Commander ^{db}	SVS	MSS	MS#	MRMS	S	R	MRMS	MRMS
Compass ^{db}	SVS	MS	MSS	MRMS	SVS	R	MRMS	MR
Fairview ^{db}	SVS	S	SVS	R	S		MR	MR
Fathom ^{db}	S	RMR	MS	MRMS	S	R	MRMS	MR
Gairdner	SVS	S	MRMS#	SVS	S	S	MRMS	MSS
Granger ^{db}	SVS	S	MSS	RMR	MS	R	MRMS	MRMS
Hindmarsh ^{db}	SVS	SVS	MS	SVS	S	R	MRMS	MRMS
La Trobe ^{db}	SVS	S	MS	MS#	S	R	MRMS	MRMS
Leabrook ^{db}	SVS	MS	MR _p	MRMS	SVS	MRMS	MR	RMR
Maximus CL ^{db}	MRMS	MS	MRMS	S	S	R	MRMS	MRMS
Oxford	SVS	S	VS	R	MS	S	MR	MR
RGT Planet ^{db}	SVS	S	SVS	R	MS	R _p	MRMS	MR
Rosalind ^{db}	S	S	MR	SVS	MR	R	MRMS	MR
Scope CL ^{db}	S	MSS	MR#	RMR	S	S	MRMS	MRMS
Shepherd ^{db}	VS	SVS	MSS	S	MRMS		MRMS	MSS
Spartacus CL ^{db}	SVS	SVS	MSS	SVS	S	R	MRMS	MRMS
Westminster ^{db}	MRMS	S	MR#	R	MRMS		MRMS	MS

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, _p = provisional rating, # may be more susceptible to new pathotypes, ^ line contains a few susceptible off types.

OAT

NEW OAT VARIETIES

The following information is for oat varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
Bilby ^{db}	National Oat Breeding Program	2.50	High grain yield potentials and high β -glucan content with bright plump grain and high groat per cent leading to higher milling yield for processing.
Koorabup ^{db}	National Oat Breeding Program	2.00	Has the best Septoria resistance of any current hay or milling variety. It has excellent colour and good stem diameter for hay production.

* EPR amount is ex-GST, ^{db} denotes Plant Breeder's Rights apply.

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

OAT VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following table contains yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Waikerie oat.					
Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		2.98	1.55		0.65
Bannister ^{db}	Trial failed	107	108	Trial failed	104
Williams ^{db}		114	101		85
Bilby ^{db}		102	110		118
Kowari ^{db}		105	105		116
Mitika ^{db}		108	101		106
Durack ^{db}		107	93		108
Possum		102	103		104
Koorabup ^{db}		109	78		114
Wombat		99	102		84
Yallara ^{db}		96	87		111
Sowing date	1 May	30 May	3 May	6 Jun	14 May
Rainfall J–M (mm)	n/a	70	75	17	10
Rainfall A–O (mm)	n/a	250	140	71	91

n/a = Not available

For more information click this [LINK](#)

The performance of varieties not listed within this table can be found by further interrogation of the NVT website via the link below the table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website link below the table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

OAT VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following table contains 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 2020. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 2 Oat disease guide for South Australia and Victoria.

Variety	Stem rust	Leaf (crown) rust	Barley yellow dwarf virus (BYDV)	Septoria blotch	Bacterial blight	Red leather leaf
Bannister ^{db}	S	S	MRMS	MSS	S	MSS
Bilby ^{db}	S	MR	MRMS _p	SVS	S	MS
Durack ^{db}	S	MSS	MSS	S	S	S
Koorabup ^{db}	S	MSS	MSS _p	MRMS-SVS _p	MSS	SVS
Kowari ^{db}	S	S	MSS	S	MSS	MS
Mitika ^{db}	S	S	S	SVS	MSS _p	S
Williams ^{db}	S	MRMS	MRMS	MS	MSS	MS
Wombat	S	SVS	MRMS	MR-MSS _p	S	S
Yallara ^{db}	S	MSS	MSS	MR-S _p	MSS	SVS

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

- hyphen indicates a range of reactions.

CANOLA

NEW CANOLA VARIETIES

The following information is for canola varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
HyTTec® Trident	Nuseed Pty Ltd	10.00	Early maturity hybrid canola with medium-tall plant height. Suited to low-medium rainfall areas.

* EPR amount is ex-GST, ^{dh} denotes Plant Breeder's Rights apply.

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

CANOLA VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Birchip early season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		2.55	1.96	1.67	2.47
Saintly CL	Trial failed		108		103
Pioneer® 44Y90 CL		109	107	107	103
Pioneer® 43Y92 CL		106	107	105	99
Hyola® 575CL		90	94	90	90
VICTORY® V7002CL			95	93	88
Sowing date	30 Apr	1 May	3 May	7 May	30 Apr
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)

TABLE 2 Hopetoun early season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.44	2.77	1.49	0.71	1.78
Saintly CL	118		101		102
Pioneer® 44Y90 CL	114	110	102	114	103
Pioneer® 43Y92 CL		109	99	101	98
VICTORY® V7002CL			94	83	87
Hyola® 575CL	84	90	92	58	87
Sowing date	30 Apr	1 May	27 Apr	4 May	26 Apr
Rainfall J–M (mm)	59	39	88	8	16
Rainfall A–O (mm)	127	298	230	120	152

For more information click this [LINK](#)

TABLE 3 Lameroo early season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.48	1.44	1.31	0.52	0.97
Saintly CL	121		116	110	107
Pioneer® 43Y92 CL		100	112	125	105
Pioneer® 44Y90 CL	119	106	111	113	106
Hyola® 575CL	93	86	95	108	94
Sowing date	1 May	26 May	8 May	7 May	11 May
Rainfall J–M (mm)	56	47	81	8	2
Rainfall A–O (mm)	186	338	258	157	166

For more information click this [LINK](#)

TABLE 4 Ultima early season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		2.84	0.88		0.30
Saintly CL	Trial failed		116	Trial failed	82
Pioneer® 44Y90 CL		105	113		91
Pioneer® 43Y92 CL		104	113		67
Hyola® 575CL		94	91		59
VICTORY® V7002CL			88		61
Sowing date	1 May	1 May	24 Apr	29 May	1 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

TABLE 5 Birchchip early season RR canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		2.55	1.96	1.67	2.47
Pioneer® 43Y29 RR	Trial failed		111		115
InVigor® R 4022P					113
Pioneer® 44Y27 RR		109	107	110	106
InVigor® R 3520		97	100	105	104
DG 408RR		99	103	104	99
Hyola® 410XX					93
Hyola® 404RR		88	96	94	92
Sowing date	30 Apr	1 May	3 May	7 May	30 Apr
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)**TABLE 6 Hopetoun early season RR canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.44	2.77	1.49		1.78
Pioneer® 43Y29 RR			106	Trial failed	114
InVigor® R 4022P					116
Pioneer® 44Y27 RR		111	106		108
InVigor® R 3520		99	106		108
DG 408RR		102	101		100
Hyola® 410XX					91
Hyola® 404RR	84	90	95		90
Sowing date	30 Apr	1 May	27 Apr	4 May	26 Apr
Rainfall J–M (mm)	59	39	88	8	16
Rainfall A–O (mm)	127	298	230	120	152

For more information click this [LINK](#)**TABLE 7 Ultima early season RR canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		2.84	0.88		0.30
Pioneer® 43Y29 RR	Trial failed			Trial failed	123
InVigor® R 4022P					149
Pioneer® 44Y27 (RR)		105	112		116
InVigor® R 3520		98	97		137
DG 408RR		99	104		94
Hyola® 410XX					58
Hyola® 404RR		92	91		72
Sowing date	1 May	1 May	24 Apr	29 May	1 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

TABLE 8 Birchchip early season TT canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)			1.96	1.67	2.47
InVigor® T 4510	Trial failed	Trial failed	111	112	108
HyTTec® Trophy			109	111	107
InVigor® T 3510				110	107
Pioneer® 44T02 TT			105	107	103
Hyola® 350TT			105	108	102
HyTTec® Trident				110	97
Hyola® 550TT					97
SF Spark TT				102	100
BASF 3000 TR			96	98	96
ATR Bonito ^{db}			98	94	94
Sowing date	30 Apr	1 May	3 May	7 May	30 Apr
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)**TABLE 9 Hopetoun early season TT canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.44		1.49		1.78
InVigor® T 4510		Trial failed	106	Trial failed	110
InVigor® T 3510					109
HyTTec® Trophy			105		108
Pioneer® 44T02 TT	107		105		106
Hyola® 350TT			105		104
HyTTec® Trident					100
Hyola® 550TT					99
SF Spark TT					100
BASF 3000 TR	85		100		98
ATR Stingray ^{db}	94		95		95
Sowing date	30 Apr	1 May	27 Apr	4 May	26 Apr
Rainfall J–M (mm)	59	39	88	8	16
Rainfall A–O (mm)	127	298	230	120	152

For more information click this [LINK](#)**TABLE 10 Lamerloo early season TT canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.48	1.44	1.31	0.52	0.97
InVigor® T 4510		115	115	107	109
HyTTec® Trophy			113	108	108
InVigor® T 3510				100	107
HyTTec® Trident				160	103
Pioneer® 44T02 TT	113	101	102	112	104
Hyola® 550TT					102
Hyola® 350TT			99	124	103
SF Spark TT					100
ATR Bonito ^{db}	100	93	101	107	97
Sowing date	1 May	26 May	8 May	7 May	11 May
Rainfall J–M (mm)	56	47	81	8	2
Rainfall A–O (mm)	186	338	258	157	166

For more information click this [LINK](#)**TABLE 11 Ultima early season TT canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		2.84	0.88		0.30
InVigor® T 4510	Trial failed	109	119	Trial failed	110
HyTTec® Trophy			116		109
InVigor® T 3510					114
Pioneer® 44T02 TT		101	106		113
Hyola® 350TT			105		110
SF Spark TT					101
Hyola® 550TT					85
ATR Stingray ^{db}		99	94		88
HyTTec® Trident					84
ATR Bonito ^{db}		98	98		63
Sowing date	1 May	1 May	24 Apr	29 May	1 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

CANOLA VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following two tables contain varietal ratings for the predominant diseases of canola in Mallee SA-VIC. As regionally specific differences in varietal reactions to some diseases can occur, varietal responses for both South Australia and Victoria are provided.

These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to Mallee SA-VIC growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 12 Canola disease guide for South Australia.

Variety	2020 autumn Blackleg rating				Type
	Bare	Jockey®	ILeVO®	Saltro®	
CONVENTIONAL VARIETIES					
AV-Garnet [Ⓓ]	MS				Open pollinated
Nuseed® Diamond	MR	R	R	R	Hybrid
Nuseed® Quartz	R				Hybrid
VICTORY® V3002	R-MR	R	R	R	High stability oil, hybrid
TRIAZINE-TOLERANT VARIETIES					
ATR Bonito [Ⓓ]	MS	R-MR	R	R	Open pollinated
ATR Mako [Ⓓ]	MR	R-MR	R	R	Open pollinated
ATR Stingray [Ⓓ]	MR	R	R	R	Open pollinated
ATR Wahoo [Ⓓ]	MS				Open pollinated
DG 670TT	MR		R	R	Hybrid
Hyola® 350TT	R	R	R	R	Hybrid
Hyola® 550TT	R			R	Hybrid
Hyola® 559TT	R			R	Hybrid
Hyola® 650TT	R	R	R	R	Hybrid
HyTtec® Trident	R				Hybrid
HyTtec® Trifecta	R				Hybrid
HyTtec® Trophy	R				Hybrid
InVigor® T 3510	MR-MS	MR	R		Hybrid
InVigor® T 4510	MR	R	R	R	Hybrid
Pioneer® 44T02 TT	R		R		Hybrid
Pioneer® 45T03 TT	R		R		Hybrid
SF Ignite TT	MR	R	R	R	Hybrid
SF Spark TT	R	R	R	R	Hybrid
SF Turbine TT	MR-MS	R	R	R	Hybrid
CLEARFIELD® SYSTEM VARIETIES					
Banker CL	MR	R		R	Hybrid
Hyola® 575CL	R	R	R	R	Hybrid
Hyola® 970CL	R	R	R	R	Winter, hybrid
Phoenix CL	R				Winter, hybrid
Pioneer® 43Y92 CL	R		R		Hybrid
Pioneer® 44Y90 CL	R	R	R	R	Hybrid
Pioneer® 45Y91 CL	R-MR	R	R	R	Hybrid
Pioneer® 45Y93 CL	R		R	R	Hybrid
Saintly CL	MR	R		R	Hybrid
SF Edimax CL	R-MR				Winter, hybrid
VICTORY® V7001CL	R-MR	R	R	R	High stability oil, hybrid
VICTORY® V7002CL	R-MR	R	R	R	High stability oil, hybrid
VICTORY® V75-03CL	R-MR	R	R	R	High stability oil, hybrid
CLEARFIELD® AND TRIAZINE-TOLERANT VARIETIES					
Hyola® 580CT	R	R	R	R	Hybrid

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, - hyphen indicates a range of reactions.

Note: Cultivars with higher Blackleg ratings may be a result of screening cultivars in recent years that have been less conducive to fungal pathogens, such as Blackleg. If sowing crops in May/June into cold and wet conditions, Blackleg severity may be higher than observed in recent times.

TABLE 13 Canola disease guide for Victoria.

Variety	2020 autumn Blackleg rating				Type
	Bare	Jockey®	ILeVO®	Saltro®	
CONVENTIONAL VARIETIES					
AV-Garnet ^{db}	MS				Open pollinated
Nuseed® Diamond	MR	R	R	R	Hybrid
Nuseed® Quartz	R				Hybrid
VICTORY® V3002	R-MR	R	R	R	High stability oil, hybrid
TRIAZINE-TOLERANT VARIETIES					
ATR Bonito ^{db}	MS	R-MR	R	R	Open pollinated
ATR Mako ^{db}	MR	R-MR	R	R	Open pollinated
ATR Stingray ^{db}	MR	R	R	R	Open pollinated
ATR Wahoo ^{db}	MS				Open pollinated
DG 670TT	MR		R	R	Hybrid
Hyola® 350TT	R	R	R	R	Hybrid
Hyola® 550TT	R			R	Hybrid
Hyola® 559TT	R			R	Hybrid
Hyola® 650TT	R	R	R	R	Hybrid
HyTTec® Trident	R				Hybrid
HyTTec® Trifecta	R				Hybrid
HyTTec® Trophy	R				Hybrid
InVigor® T 3510	MR-MS	MR	R		Hybrid
InVigor® T 4510	MR	R	R	R	Hybrid
Monola® 416TT	R-MR				High stability oil, open pollinated
Pioneer® 44T02 TT	R		R		Hybrid
Pioneer® 45T03 TT	R		R		Hybrid
SF Ignite TT	MR	R	R	R	Hybrid
SF Spark TT	R	R	R	R	Hybrid
SF Turbine TT	MR-MS	R	R	R	Hybrid
CLEARFIELD® SYSTEM VARIETIES					
Banker CL	MR	R		R	Hybrid
Hyola® 575CL	R	R	R	R	Hybrid
Hyola® 970CL	R	R	R	R	Winter, hybrid
Phoenix CL	R				Winter, hybrid
Pioneer® 43Y92 CL	R		R		Hybrid
Pioneer® 44Y90 CL	R	R	R	R	Hybrid
Pioneer® 45Y91 CL	R-MR	R	R	R	Hybrid
Pioneer® 45Y93 CL	R		R	R	Hybrid
Saintly CL	MR	R		R	Hybrid
SF Edimax CL	R-MR				Winter, hybrid
VICTORY® V7001CL	R-MR	R	R	R	High stability oil, hybrid
VICTORY® V7002CL	R-MR	R	R	R	High stability oil, hybrid
VICTORY® V75-03CL	R-MR	R	R	R	High stability oil, hybrid
CLEARFIELD® AND TRIAZINE-TOLERANT VARIETIES					
Hyola® 580CT	R	R	R	R	Hybrid

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, - hyphen indicates a range of reactions.

Note: Cultivars with higher Blackleg ratings may be a result of screening cultivars in recent years that have been less conducive to fungal pathogens, such as Blackleg.

If sowing crops in May/June into cold and wet conditions, Blackleg severity may be higher than observed in recent times.

TABLE 13 Canola disease guide for Victoria (continued).

Variety	2020 autumn Blackleg rating				Type
	Bare	Jockey®	ILeVO®	Saltro®	
ROUNDUP READY® VARIETIES					
DG 408RR	MR-MS		R	R	Hybrid
Hyola® 404RR	R-MR			R	Hybrid
InVigor® R 3520	R-MR	R	R		Hybrid
InVigor® R 5520P	MR	R	R		Hybrid
Nuseed® GT-53	R				Hybrid
Pioneer® 43Y23 RR	R-MR				Hybrid
Pioneer® 43Y29 RR	R-MR		R	R	Hybrid
Pioneer® 44Y27 RR	R-MR		R		Hybrid
VICTORY® V5003RR	R-MR	R	R	R	High stability oil, hybrid
ROUNDUP READY® AND TRIAZINE-TOLERANT VARIETIES					
BASF 3000 TR	MS-S	MR	R	R	Hybrid
TRUFLEX® HYBRID VARIETIES					
Hyola® 410XX	R-MR			R	Hybrid
InVigor® R 4022P	MR		R		Hybrid
Xseed™ Raptor	R				Hybrid
TRUFLEX® AND CLEARFIELD® VARIETIES					
Hyola® 540XC	R				Hybrid
TRUFLEX® AND TRIAZINE-TOLERANT VARIETIES					
Hyola® 530XT	MR				Hybrid

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, - hyphen indicates a range of reactions.

Note: Cultivars with higher Blackleg ratings may be a result of screening cultivars in recent years that have been less conducive to fungal pathogens, such as Blackleg.

If sowing crops in May/June into cold and wet conditions, Blackleg severity may be higher than observed in recent times.

CHICKPEA

NEW CHICKPEA VARIETIES

The following information is for chickpea varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
PBA Royal [‡]	National Chickpea Initiative	6.50	Early-mid flowering kabuli chickpea with high proportion of 8mm size grain. Bred as an improvement over Genesis™ 090.

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

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

CHICKPEA VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Birchip desi chickpea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		1.51	1.53	0.67	1.54
PBA Striker ^{db}	Trial failed	121	95	100	112
Neelam ^{db}		128	108	91	96
Ambar ^{db}		136	96	68	107
PBA Slasher ^{db}		112	106	100	99
PBA Maiden ^{db}		113	100	92	103
Sowing date	21 May	20 May	8 May	14 May	14 May
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)

TABLE 3 Birchip kabuli chickpea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)		1.51	1.53	0.67	1.49
Genesis™ 090	Trial failed	109	106	110	104
PBA Royal ^{db}		113	107	89	104
PBA Monarch ^{db}		114	93	98	99
Almaz ^{db}		111	99	79	97
Genesis™ Kalkee		80	96	96	91
Sowing date	21 May	20 May	8 May	14 May	14 May
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)

The performance of varieties not listed within these tables can be found by further interrogation of the NVT website via the links below each table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website links below each table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

TABLE 2 Rainbow desi chickpea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.40	1.51	1.57	0.39	1.36
PBA Striker ^{db}	126	115	106	110	109
Ambar ^{db}	75	133	102	98	101
Neelam ^{db}	92	126	105	99	100
PBA Slasher ^{db}	101	109	105	101	101
PBA Maiden ^{db}	98	103	99	97	105
Sowing date	18 May	11 May	10 May	11 May	17 May
Rainfall J–M (mm)	67	56	75	19	22
Rainfall A–O (mm)	157	307	214	143	199

For more information click this [LINK](#)

TABLE 4 Rainbow kabuli chickpea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.40	1.51	1.57	0.39	1.36
Genesis™ 090	115	112	112	109	100
PBA Monarch ^{db}	119	110	100	105	107
PBA Royal ^{db}	80	109	104	96	98
Almaz ^{db}	71	110	100	95	97
Genesis™ Kalkee	82	89	96	97	93
Sowing date	18 May	11 May	10 May	11 May	17 May
Rainfall J–M (mm)	67	56	75	19	22
Rainfall A–O (mm)	157	307	214	143	199

For more information click this [LINK](#)

CHICKPEA VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following table contains varietal ratings for the predominant diseases of chickpea in South

Australia and Victoria. These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 5 Chickpea disease guide for South Australia and Victoria.

Variety	Ascochyta blight (Pathogen group 1)	Ascochyta blight (Pathogen group 2)	Botrytis grey mould	RLN (<i>Pratylenchus neglectus</i>)	RLN (<i>Pratylenchus thornei</i>)	RLN (<i>Pratylenchus thornei</i>)
				Resistance	Resistance	Tolerance
DESI CHICKPEA						
Ambar [Ⓢ]	S		S	MRMS	MS	
Neelam [Ⓢ]	S	S	S	MRMS	MS	MI
PBA Maiden [Ⓢ]	S	MS	S	MRMS	MRMS	IVI
PBA Slasher [Ⓢ]	S	MS	S	MRMS	MRMS	MTMI
PBA Striker [Ⓢ]	S	S	S	MRMS	MRMS	
KABULI CHICKPEA						
Almaz [Ⓢ]	S	MS	S	MRMS	S	VI
PBA Royal [Ⓢ]	MS	MR	S	MR	MS _p	MTMI
Genesis™ 090	MS	R/MR	S	MRMS	MS	MI
Genesis™ Kalkee	MS	MS	S	MRMS	MS	
PBA Monarch [Ⓢ]	S	MS	S	MRMS	MS	MII

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.

FABA BEAN

NEW FABA BEAN VARIETIES

The following information is for faba bean varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
PBA Amberley [‡]	National Faba Bean Initiative	3.50	High rainfall southern region variety, first to be bred with resistance (MR) to Chocolate spot. Highest level of disease resistance of all current varieties.

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

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

FABA BEAN VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following table contains yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Lamerloo faba bean.					
Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.86	3.68	2.03		0.94
PBA Bendoc [Ⓛ]		100	104	No trial	100
PBA Samira [Ⓛ]	98	102	99		104
PBA Marne [Ⓛ]	108	95	104		90
PBA Amberley [Ⓛ]	99	100	94		100
Fiesta VF	94	95	103		92
Farah [Ⓛ]	91	96	99		94
PBA Zahra [Ⓛ]	73	101	96		93
Nura [Ⓛ]	86	93	92		88
PBA Rana [Ⓛ]	80	90	86		90
Sowing date	6 May	27 May	5 May		11 May
Rainfall J–M (mm)	67	86	66		2
Rainfall A–O (mm)	173	336	222		166

For more information click this [LINK](#)

The performance of varieties not listed within this table can be found by further interrogation of the NVT website via the link below the table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website link below the table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

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 2020. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 2 Faba bean disease guide for South Australia and Victoria.

Variety	Ascochyta blight	Cercospora leaf spot	Chocolate spot (botrytis)	RLN (<i>Pratylenchus neglectus</i>)	RLN (<i>Pratylenchus thornei</i>)
				Resistance	Resistance
PBA Amberley [Ⓛ]	RMR	S	MR _p	MR	MS _p
Farah [Ⓛ]	S	S	S	MR	MS
Fiesta VF	S	S	S	MR	MS
Nura [Ⓛ]	RMR	S	MS	MR	MS
PBA Bendoc [Ⓛ]	MR	S	MS	MR	MRMS _p
PBA Marne [Ⓛ]	MRMS	S	S	MR	MS _p
PBA Rana [Ⓛ]	MRMS	S	MS	MR	MS
PBA Samira [Ⓛ]	RMR	S	MS	MR	MRMS
PBA Zahra [Ⓛ]	MRMS	S	MS	MR	MS

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

FIELD PEA

FIELD PEA VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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 performance of varieties not listed within these tables can be found by further interrogation of the NVT website via the links below each table.

TABLE 1 Birchip field pea.					
Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.39	3.25	2.67	1.57	2.83
PBA Butler ^{db}	83	117	110	103	110
PBA Pearl ^{db}	168	100	97	95	100
PBA Percy ^{db}	181	98	95	107	81
PBA Gunyah ^{db}	95	87	98	99	97
Kaspa ^{db}	71	84	99	98	96
PBA Oura ^{db}	153	87	90	96	89
PBA Wharton ^{db}	108	77	90	95	94
Sowing date	21 May	20 May	8 May	14 May	14 May
Rainfall J–M (mm)	65	69	52	7	14
Rainfall A–O (mm)	131	396	215	138	197

For more information click this [LINK](#)

TABLE 3 Rainbow field pea.					
Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.37	3.12	1.19		2.63
PBA Pearl ^{db}	214	122	122	Trial failed	101
PBA Butler ^{db}	60	113	110		109
PBA Percy ^{db}	171	108	107		97
PBA Oura ^{db}	183	101	104		94
PBA Gunyah ^{db}	89	88	91		102
PBA Wharton ^{db}	145	84	88		92
Kaspa ^{db}	44	81	85		104
Sowing date	18 May	11 May	10 May	11 May	17 May
Rainfall J–M (mm)	67	56	75	19	22
Rainfall A–O (mm)	157	307	214	143	199

For more information click this [LINK](#)

Error bars, normally used to compare data, can be viewed within the graph option also found via the website links below each table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

TABLE 2 Lameroo field pea.					
Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.13	2.85	1.08	1.11	0.21
PBA Pearl ^{db}	110	113	120	138	159
PBA Butler ^{db}	92	113	105	101	136
PBA Oura ^{db}	105	97	101	117	101
PBA Percy ^{db}	96	96	90	111	88
PBA Wharton ^{db}	113	88	100	97	62
PBA Gunyah ^{db}	97	98	93	85	78
Kaspa ^{db}	87	98	83	71	71
Sowing date	22 May	27 May	26 May	15 May	21 May
Rainfall J–M (mm)	67	86	66	8	2
Rainfall A–O (mm)	163	336	222	153	166

For more information click this [LINK](#)

TABLE 4 Ultima field pea.					
Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.49	2.82	1.05	0.45	0.76
PBA Butler ^{db}	95	120	97	97	105
PBA Pearl ^{db}	118	103	81	135	128
PBA Percy ^{db}	131	90	91	125	87
PBA Oura ^{db}	118	84	89	118	106
PBA Gunyah ^{db}	108	84	102	87	98
PBA Wharton ^{db}	103	77	106	100	101
Kaspa ^{db}	107	78	100	70	93
Sowing date	21 May	17 May	9 May	21 May	8 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

FIELD PEA VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following table contains varietal ratings for the predominant diseases of field pea in South Australia

and Victoria. These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 5 Field pea disease guide for South Australia and Victoria.

Variety	Blackspot (<i>Ascochyta</i> blight)	Bacterial blight	Downy mildew	Powdery mildew	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)
Kaspa [Ⓛ]	MS	S	S	S	MR	MRMS
PBA Butler [Ⓛ]	MS	MS	S	S	MR	MRMS
PBA Gunyah [Ⓛ]	MS	S	S	S	MR	MRMS
PBA Oura [Ⓛ]	MS	MS	S	S	MR	MRMS
PBA Pearl [Ⓛ]	MS	MS	S	S	MR	MRMS
PBA Percy [Ⓛ]	MS	MRMS	S	S	MR	RMR
PBA Twilight [Ⓛ]	MS	S	S	S	MR	MRMS
PBA Wharton [Ⓛ]	MS	S	S	R	MR	MRMS

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

LENTIL

NEW LENTIL VARIETIES

The following information is for lentil varieties released during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
PBA HighlandXT ^{db}	National Lentil Initiative	5.40	Not supplied

* EPR amount is ex-GST, ^{db} denotes Plant Breeder's Rights apply.

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

LENTIL VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Birchip lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.28		1.98	0.91	2.32
PBA Jumbo2 [Ⓛ]	103	No trial	120	101	105
PBA Ace [Ⓛ]	107		111	110	106
PBA HighlandXT [Ⓛ]			108	88	108
PBA Bolt [Ⓛ]	116		106	103	103
PBA Hallmark XT [Ⓛ]	96		85	96	108
PBA Hurricane XT [Ⓛ]	90		82	102	102
PBA Blitz [Ⓛ]	118				93
Nipper [Ⓛ]	53				86
Sowing date	21 May		8 May	14 May	14 May
Rainfall J–M (mm)	65		52	7	14
Rainfall A–O (mm)	131		215	138	197

For more information click this [LINK](#)

TABLE 3 Rainbow lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.22	2.97	1.26	0.42	1.65
PBA Jumbo2 [Ⓛ]	99	115	119	99	114
PBA HighlandXT [Ⓛ]		106	103	107	100
PBA Hallmark XT [Ⓛ]	104	108	102	105	98
PBA Hurricane XT [Ⓛ]	95	103	94	103	95
PBA Bolt [Ⓛ]	130	94	100	105	95
PBA Ace [Ⓛ]	81	82	121	102	102
PBA Blitz [Ⓛ]	98				102
Nipper [Ⓛ]	16				91
Sowing date	18 May	11 May	10 May	11 May	17 May
Rainfall J–M (mm)	67	56	75	19	22
Rainfall A–O (mm)	157	307	214	143	199

For more information click this [LINK](#)

The performance of varieties not listed within these tables can be found by further interrogation of the NVT website via the links below each table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website links below each table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

TABLE 2 Lameroo lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.70			0.73	0.35
PBA HighlandXT [Ⓛ]		No trial	No trial	121	110
PBA Hallmark XT [Ⓛ]	97			122	138
PBA Bolt [Ⓛ]	120			114	94
PBA Hurricane XT [Ⓛ]	94			115	121
PBA Jumbo2 [Ⓛ]	98			93	105
PBA Ace [Ⓛ]	80				114
PBA Blitz [Ⓛ]	105			68	92
Nipper [Ⓛ]	45			76	128
Sowing date	22 May			15 May	21 May
Rainfall J–M (mm)	67			8	2
Rainfall A–O (mm)	173			153	166

For more information click this [LINK](#)

TABLE 4 Ultima lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.12	2.14	0.68	0.36	
PBA Jumbo2 [Ⓛ]	125	118	116	100	Trial failed
PBA HighlandXT [Ⓛ]		111	111	103	
PBA Flash [Ⓛ]	100	109	105	106	
PBA Bolt [Ⓛ]	110	100	102	106	
PBA Jumbo [Ⓛ]	75	101	109	84	
PBA Ace [Ⓛ]	103	90	119	82	
PBA Hallmark XT [Ⓛ]	105	88	97	95	
PBA Hurricane XT [Ⓛ]	88	85	88	100	
Nugget	61	82	98	81	
Sowing date	21 May	17 May	9 May	21 May	8 May
Rainfall J–M (mm)	25	46	61	22	18
Rainfall A–O (mm)	170	348	229	120	161

For more information click this [LINK](#)

LENTIL VARIETY DISEASE RATINGS – SOUTH AUSTRALIA AND VICTORIA

The following table contains varietal ratings for the predominant diseases of lentil in South Australia

and Victoria. These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 5 Lentil disease guide for South Australia and Victoria.

Variety	Ascochyta blight (Pathotype 1 Nipper virulent)	Ascochyta blight (Pathotype 2 Hurricane virulent)	Botrytis grey mould	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)
Nipper ^{db}	MRMS	MR	RMR	RMR	MR
PBA Ace ^{db}	R	R	MRMS	MR	MRMS
PBA Blitz ^{db}	MRMS	MR	MR	MR	MRMS
PBA Bolt ^{db}	MR	MRMS	S	MR	MR
PBA Hallmark XT ^{db}	RMR	MRMS	RMR	MR _p	MRMS _p
PBA HighlandXT ^{db}	MR	MR	MRMS	MR _p	MRMS _p
PBA Hurricane XT ^{db}	RMR	MRMS	MRMS	MRMS	MRMS
PBA Jumbo2 ^{db}	R	R	RMR	MR	MRMS

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 during 2019 and since the *2020 South Australian Crop Sowing Guide* and the *2020 Victorian Crop Sowing Guide* were published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
Coyote [Ⓛ]	National Lupin Initiative	3.00	A very widely adapted variety with a maturity similar to Jurien [Ⓛ] offering high and stable yields in all lupin growing areas, particularly WA.

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

Refer to *2020 South Australian Crop Sowing Guide* for further information at grdc.com.au/NVT-south-australian-crop-sowing-guide

Refer to the *2020 Victorian Crop Sowing Guide* for further information at grdc.com.au/NVT-Victorian-Winter-Crop-Summary

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

LUPIN VARIETY YIELD PERFORMANCE – MALLEE SA-VIC

The following tables contain yield results from the top-performing varieties within each NVT location in Mallee SA-VIC for the past five seasons. Data is 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.

TABLE 1 Hopetoun narrow-leaf lupin.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.62		1.06		1.82
Coyote ^{db}	131	Trial failed	123	Trial failed	
PBA Bateman ^{db}	123				119
PBA Gunyidi ^{db}	110		104		110
Quilinoch ^{db}	112		103		108
Jenabillup ^{db}	98		99		107
Mandelup ^{db}	109		94		101
PBA Jurien ^{db}	116		79		104
Wonga	86		78		90
Sowing date	29 Apr	1 May	9 May	4 May	26 Apr
Rainfall J–M (mm)	59	39	88	8	27
Rainfall A–O (mm)	127	298	230	120	135

For more information click this [LINK](#)

The performance of varieties not listed within these tables can be found by further interrogation of the NVT website via the links below each table.

Error bars, normally used to compare data, can be viewed within the graph option also found via the website links below each table.

Rainfall is provided for January to March (J–M) and April to October (A–O).

TABLE 2 Walpeup narrow-leaf lupin.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.21	1.69		0.90	1.01
Coyote ^{db}	107	115	Trial failed	118	
PBA Bateman ^{db}	102	111		102	116
Quilinoch ^{db}	98	94		101	128
PBA Gunyidi ^{db}	97	101			120
PBA Jurien ^{db}	96	95			112
Mandelup ^{db}	100	99			101
PBA Barlock ^{db}	95	91			111
Wonga	93	85		92	112
Sowing date	24 May	12 May	12 May	7 May	8 May
Rainfall J–M (mm)	68	47	69	7	9
Rainfall A–O (mm)	147	308	214	134	112

For more information click this [LINK](#)

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 2020. Selected varieties of most relevance to South Australian and Victorian growers are listed in alphabetical order and disease ratings are colour-coded to match resistance and susceptibility ratings.

TABLE 3 Lupin disease guide for South Australia and Victoria.

Variety	Anthraxnose resistance	Brown leaf spot	Phomopsis stem infection	Phomopsis pod infection	Pleiochaeta root rot
Coyote ^{db}	MRMS _p	MS _p	MR _p	MRMS _p	MRMS _p
Jenabillup ^{db}	MS	MRMS	MS	MR	MRMS _p
Mandelup ^{db}	MR	MS	RMR	MRMS	MRMS _p
PBA Barlock ^{db}	RMR	MS	MR	MR	MRMS _p
PBA Bateman ^{db}	MRMS	MS	RMR	MS	MRMS _p
PBA Gunyidi ^{db}	MR	MS	RMR	MRMS	MRMS _p
PBA Jurien ^{db}	RMR	MS	RMR	MR	MR _p
Wonga	RMR	MS	MR	MR	MRMS _p

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

USEFUL LINKS AND FURTHER INFORMATION

NVT Harvest Reports for all regions

grdc.com.au/harvestreports

Variety Central

varietycentral.com.au

NVT Overview Podcast (1 November 2018)

grdc.com.au/news-and-media/audio/podcast/nvt-overview

NVT Overview Video (29 October 2019)

youtu.be/ThGjxFXR_ug

NVT Southern Region (29 October 2019)

youtu.be/uagizCbCalg

How to navigate NVT's website (10 February 2019)

youtu.be/GbasB-xUIQA

How to interpret NVT data (long term yield results) using the NVT website (10 February 2019)

youtu.be/eS4UbszsEAg