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NVT HARVEST REPORT



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CENTRAL SOUTH AUSTRALIA

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TABLE OF CONTENTS



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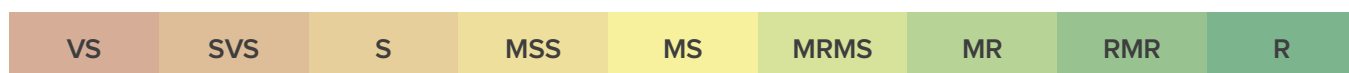
INTRODUCTION	5
WHEAT	7
BARLEY	15
OAT	21
CANOLA	23
CHICKPEA	28
FABA BEAN	30
FIELD PEA	32
LENTIL	34
LUPIN	38
USEFUL LINKS AND FURTHER INFORMATION	40

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

INTRODUCTION

This *NVT Harvest Report* provides information to support growers and advisers with decisions on variety selection for Central South Australia. The information has been generated from the Grains Research and Development Corporation's (GRDC) National Variety Trials (NVT) database. This publication provides a summary of the 2019 and long-term yield performance of varieties of crop species suitable for production in Central South Australia 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.

INTERPRETING LONG-TERM YIELD DATA

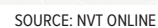
A factor analytic (FA) mixed model approach is used in the multi-environment trial (MET) analysis conducted by GRDC, supported by the Statistics for the Australian Grains Industry (SAGI) program. This approach generates long-term MET values for varieties at an individual trial level.

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 Central South Australia 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 Central South Australia.

NVT SITE LOCATIONS – CENTRAL SOUTH AUSTRALIA 2015–2019

FIGURE 1 Location of NVT trial sites in Central South Australia from 2015–2019.



WHEAT

NEW WHEAT VARIETIES

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

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
Bitalli ^{db}	Australian Grain Technologies	3.50	A 'low-risk' durum variety, combining adaptation to a range of environments and growing conditions, excellent grain quality with low screenings risk and high test weights, while setting a new yield benchmark across all southern Australian durum-growing environments. Early-mid maturity provides good adaptation in tough finishes to the growing season and has an ADR quality classification in the southern region.
Catapult ^{db}	Australian Grain Technologies	3.25	Longer season than Scepter ^{db} , with a mid-late maturity allowing growers to achieve Scepter ^{db} -like yields when sown in late April. Catapult ^{db} has a very flexible sowing window with wide adaptation and is viewed as a great alternative to Trojan ^{db} , Magenta ^{db} , Cutlass ^{db} and Yitpi ^{db} . Catapult ^{db} offers a unique combination of features to growers with Australian Hard quality (WA/SA/VIC/southern NSW).
DBA Artemis ^{db}	University of Adelaide	3.00	Mid-maturity durum wheat but can be up to a week behind development when compared with DBA-Aurora ^{db} . Preferred growing regions are SA and VIC and classified ADR for the southern region. Similar stature and growth habit to DBA-Aurora ^{db} . DBA Artemis ^{db} , when compared with DBA-Aurora ^{db} , has comparable screenings but reduced grain size.
RockStar ^{db}	InterGrain	3.50	High-yielding, mid-late flowering variety with a similar time to flowering as LRPB Trojan ^{db} and Magenta ^{db} . 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 ^{db} 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 ^{db} . RockStar ^{db} is an excellent varietal alternative to LRPB Trojan ^{db} , Magenta ^{db} , Yitpi ^{db} and Cutlass ^{db} .
Westcourt ^{db}	Australian Grain Technologies	3.50	Offers durum growers of northern NSW and Queensland a dominant package of yield, disease resistance and grain quality, and may be viewed as an alternative to all other durum varieties grown in the northern region, including DBA Lillaroi ^{db} . Mid-season maturing variety similar to Caparoi ^{db} and has an ADR quality classification in northern and southern regions.

* 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

WHEAT VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Booleroo Centre main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.68	4.72	1.77		0.49
Vixen ^{db}			108	Trial failed	143
RockStar ^{db}					119
Scepter ^{db}	115	107	106		121
Devil ^{db}			105		123
Catapult ^{db}					112
Beckom ^{db}	106	107	105		104
LRPB Arrow ^{db}	107	103	100		99
Mace ^{db}	110	100	99		113
LRPB Trojan ^{db}	101	108	102		74
Cosmick ^{db}	100	103	104		109
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			102		122
Sheriff CL Plus ^{db}		104			102
Chief CL Plus ^{db}		98	96		89
Sowing date	12 May	30 May	4 May	30 May	15 May
Rainfall J–M (mm)	117	56	62	40	20
Rainfall A–O (mm)	220	323	164	117	123

For more information click this [LINK](#)

TABLE 3 Maitland main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)				5.74	3.96
Vixen ^{db}	No trial	No trial	No trial	113	116
RockStar ^{db}				112	114
Scepter ^{db}				108	111
Beckom ^{db}				109	108
Catapult ^{db}				107	109
LRPB Trojan ^{db}				109	106
LRPB Cobra ^{db}				110	102
Devil ^{db}					109
LRPB Arrow ^{db}				105	105
Cosmick ^{db}				104	104
CLEARFIELD® PLUS					
Razor CL Plus ^{db}				106	107
Sheriff CL Plus ^{db}				105	106
Chief CL Plus ^{db}				95	97
Sowing date				18 May	10 May
Rainfall J–M (mm)				35	n/a
Rainfall A–O (mm)				314	190

n/a = Not available

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 Brentwood main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)				2.41	3.37
RockStar ^{db}	No trial	No trial	No trial		118
LRPB Trojan ^{db}				112	108
Beckom ^{db}				105	111
LRPB Scout ^{db}				104	111
Catapult ^{db}				104	110
Vixen ^{db}				92	118
DS Pascal ^{db}				114	102
Cosmick ^{db}				103	108
Cutlass ^{db}				112	101
Scepter ^{db}				98	108
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}				101	105
Razor CL Plus ^{db}				92	107
Grenade CL Plus ^{db}				95	96
Sowing date				11 May	7 May
Rainfall J–M (mm)				14	5
Rainfall A–O (mm)				285	243

For more information click this [LINK](#)

TABLE 4 Mintaro main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.71		4.79	3.80	4.12
Vixen [Ⓛ]		Trial failed	116	110	110
Scepter [Ⓛ]	108		113	111	110
Corack [Ⓛ]	111		111	105	105
LRPB Havoc [Ⓛ]			111	103	105
Devil [Ⓛ]			110		107
Mace [Ⓛ]	107		109	105	105
RockStar [Ⓛ]				109	108
Catapult [Ⓛ]				108	107
Zen [Ⓛ]	104			106	105
LRPB Arrow [Ⓛ]	105		106	104	104
CLEARFIELD® PLUS					
Razor CL Plus [Ⓛ]			109	104	105
Sheriff CL Plus [Ⓛ]				105	105
Chief CL Plus [Ⓛ]			103	103	102
Sowing date	16 May	19 May	5 Jun	21 May	3 Jun
Rainfall J–M (mm)	87	104	98	31	20
Rainfall A–O (mm)	360	693	321	297	311

For more information click this [LINK](#)

TABLE 5 Paskeville main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.44	6.33	4.10	3.69	2.03
Vixen ^{db}		110	111	117	121
RockStar ^{db}				110	117
Scepter ^{db}	115	100	112	109	110
Devil ^{db}					110
Beckom ^{db}	104	108	104	106	107
Catapult ^{db}				106	109
LRPB Scout ^{db}	94	109	97	104	112
LRPB Arrow ^{db}	108	103	104	104	99
Emu Rock ^{db}	105	102	100	106	110
LRPB Cobra ^{db}	102	116	95	100	89
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			105	109	109
Sheriff CL Plus ^{db}		102		104	102
Grenade CL Plus ^{db}	95	96	96	98	103
Sowing date	14 May	14 May	6 Jun	17 May	18 May
Rainfall J–M (mm)	34	75	79	29	7
Rainfall A–O (mm)	212	416	216	206	184

For more information click this [LINK](#)

TABLE 7 Turretfield main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.33	6.87	3.29	1.50	3.12
Vixen ^{db}			111	134	124
Scepter ^{db}	111	106	112	118	116
Devil ^{db}			109		114
RockStar ^{db}				109	111
LRPB Havoc ^{db}		97	112	117	112
Corack ^{db}	118	97	113	116	112
Catapult ^{db}				108	109
Mace ^{db}	112	99	109	115	111
Beckom ^{db}	101	107	102	104	106
LRPB Arrow ^{db}	106	103	105	106	106
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			107	120	113
Sheriff CL Plus ^{db}		104		105	106
Chief CL Plus ^{db}		95	107	98	101
Sowing date	28 May	3 Jun	15 Jun	25 May	22 May
Rainfall J–M (mm)	64	90	105	31	11
Rainfall A–O (mm)	262	498	327	238	209

For more information click this [LINK](#)

TABLE 6 Spalding main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.83	5.46			3.49
Vixen ^{db}			Trial failed	Trial failed	117
RockStar ^{db}					111
Scepter ^{db}	114	108			113
Catapult ^{db}					108
Devil ^{db}					111
Beckom ^{db}	105	110			106
LRPB Arrow ^{db}	108	104			105
LRPB Trojan ^{db}	101	110			101
Mace ^{db}	111	98			107
Corack ^{db}	117	95			106
CLEARFIELD® PLUS					
Razor CL Plus ^{db}					109
Sheriff CL Plus ^{db}		105			105
Chief CL Plus ^{db}		92			100
Sowing date	12 May	11 May	7 May	16 May	14 May
Rainfall J–M (mm)	58	82	92	25	17
Rainfall A–O (mm)	288	465	257	226	229

For more information click this [LINK](#)

TABLE 8 Urania main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.31	4.86	3.70		
Vixen ^{db}		109	107	No trial	No trial
Scepter ^{db}	109	106	109		
Beckom ^{db}	103	108	103		
LRPB Trojan ^{db}	102	109	102		
LRPB Arrow ^{db}	105	103	103		
Mace ^{db}	107	98	105		
Zen ^{db}	105	100	104		
Corack ^{db}	110	96	104		
LRPB Havoc ^{db}		96	103		
LRPB Cobra ^{db}	104	105	97		
CLEARFIELD® PLUS					
Razor CL Plus ^{db}			103		
Chief CL Plus ^{db}		95	104		
Sowing date	8 May	17 May	2 Jun		
Rainfall J–M (mm)	n/a	76	62		
Rainfall A–O (mm)	n/a	384	240		

n/a = Not available

For more information click this [LINK](#)

TABLE 9 Wokurna main season wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.48	7.20	5.64		3.23
Vixen ^{db}		109	109	Trial failed	117
RockStar ^{db}					113
Scepter ^{db}	114	104	109		116
LRPB Trojan ^{db}	103	112	110		103
Catapult ^{db}					111
Beckom ^{db}	106	109	107		107
LRPB Cobra ^{db}	105	113	107		96
Devil ^{db}					113
LRPB Arrow ^{db}	108	104	105		106
LRPB Havoc ^{db}		97	102		106
CLEARFIELD® PLUS					
Sheriff CL Plus ^{db}		104			107
Razor CL Plus ^{db}			104		108
Chief CL Plus ^{db}		92	100		103
Sowing date	11 May	16 May	5 May	10 May	17 May
Rainfall J–M (mm)	50	69	88	20	n/a
Rainfall A–O (mm)	194	376	228	190	181

n/a = Not available

For more information click this [LINK](#)

TABLE 11 Mintaro durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.12		4.34	2.79	
Saintly ^{db}	112	Trial failed	108	105	Trial failed
DBA Vittaro ^{db}			107	105	
Bitalli ^{db}			103	109	
DBA-Aurora ^{db}	104		100	103	
WID802 ^{db}	99		99	104	
Caparo ^{db}	98		104	96	
Hyperno ^{db}	101		99	97	
DBA Bindaro ^{db}				99	
Westcourt ^{db}				99	
DBA Spes ^{db}			98	100	
Sowing date	16 May	19 May	5 Jun	21 May	3 Jun
Rainfall J–M (mm)	87	104	98	31	20
Rainfall A–O (mm)	360	693	321	297	311

For more information click this [LINK](#)

TABLE 10 Maitland durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)				5.65	3.08
Bitalli ^{db}	No trial	No trial	No trial	109	116
Westcourt ^{db}				104	116
WID802 ^{db}				106	110
DBA-Aurora ^{db}				103	108
Saintly ^{db}				101	105
DBA Vittaro ^{db}				103	99
DBA Spes ^{db}				101	101
DBA Artemis ^{db}				101	101
DBA Bindaro ^{db}				98	95
Hyperno ^{db}				97	96
Sowing date				18 May	10 May
Rainfall J–M (mm)				35	n/a
Rainfall A–O (mm)				314	190

n/a = Not available

For more information click this [LINK](#)

TABLE 12 Paskeville durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.35	6.35	3.62	3.03	2.09
Bitalli ^{db}			105	109	117
WID802 ^{db}	108		102	106	110
DBA Vittaro ^{db}			106	105	105
DBA-Aurora ^{db}	122	103	101	102	106
DBA Artemis ^{db}		106	99	100	100
Westcourt ^{db}				100	105
DBA Spes ^{db}		104	99	101	100
Saintly ^{db}	139	85	103	100	105
Tjilkuri ^{db}	57	104	100	100	95
DBA Bindaro ^{db}				98	96
Sowing date	14 May	14 May	6 Jun	17 May	18 May
Rainfall J–M (mm)	34	75	79	29	7
Rainfall A–O (mm)	212	416	214	206	184

For more information click this [LINK](#)

TABLE 13 Spalding durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.22	5.16			3.26
Bitalli ^{db}			Trial failed	Trial failed	106
DBA-Aurora ^{db}	109	103			102
WID802 ^{db}	103				104
Westcourt ^{db}					102
DBA Vittaro ^{db}					102
DBA Artemis ^{db}		103			100
DBA Spes ^{db}		102			100
Saintly ^{db}	119	93			101
DBA Bindaroi ^{db}					99
Hyperno ^{db}	100	96			98
Sowing date	12 May	11 May	7 May	16 May	14 May
Rainfall J–M (mm)	58	82	92	25	17
Rainfall A–O (mm)	288	465	257	226	229

For more information click this [LINK](#)

TABLE 14 Turretfield durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.62	6.26	2.84	0.88	2.18
Bitalli ^{db}			107	126	121
WID802 ^{db}	101		103	112	112
DBA Vittaro ^{db}			104	118	104
Westcourt ^{db}				90	111
DBA-Aurora ^{db}	110	101	103	108	110
DBA Artemis ^{db}		104	99	97	100
DBA Spes ^{db}		103	99	99	101
Saintly ^{db}	121	89	106	115	109
Hyperno ^{db}	101	97	98	91	94
Tjilkuri ^{db}	79	104	97	94	90
Sowing date	28 May	3 Jun	15 Jun	25 May	22 May
Rainfall J–M (mm)	64	90	105	31	11
Rainfall A–O (mm)	262	498	327	238	209

For more information click this [LINK](#)

TABLE 15 Urania durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.64	4.41	3.12		
Bitalli ^{db}			106	No trial	No trial
WID802 ^{db}	104		104		
DBA Vittaro ^{db}			103		
DBA-Aurora ^{db}	105	103	101		
DBA Artemis ^{db}		104	101		
DBA Spes ^{db}		103	101		
Tjilkuri ^{db}	93	101	101		
Saintly ^{db}	106	91	98		
Hyperno ^{db}	98	96	97		
Caparoi ^{db}	93	88	96		
Sowing date	8 May	17 May	2 Jun		
Rainfall J–M (mm)	n/a	76	62		
Rainfall A–O (mm)	n/a	384	240		

n/a = Not available

For more information click this [LINK](#)

TABLE 16 Wokurna durum wheat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.24	6.74	4.38		2.88
Bitalli ^{db}			110	Trial failed	107
WID802 ^{db}	102		109		104
DBA-Aurora ^{db}	105	105	106		102
DBA Artemis ^{db}		106	104		100
DBA Spes ^{db}		104	102		100
Westcourt ^{db}					100
DBA Bindaroi ^{db}					99
DBA Vittaro ^{db}			94		104
Tjilkuri ^{db}	91	100	95		99
Hyperno ^{db}	99	95	97		97
Sowing date	11 May	16 May	5 May	10 May	17 May
Rainfall J–M (mm)	50	69	88	20	n/a
Rainfall A–O (mm)	194	376	228	190	181

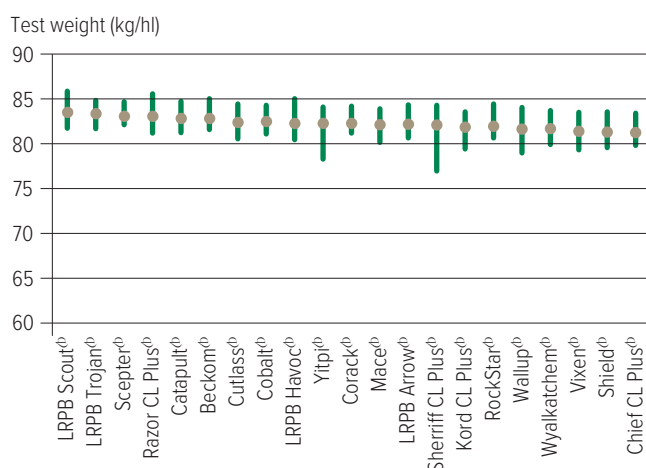
n/a = Not available

For more information click this [LINK](#)

WHEAT VARIETY QUALITY – SOUTH AUSTRALIA

Grain quality for individual varieties varies from site to site and from year to year. However, long-term and across-site trends highlight varieties that can consistently achieve either higher test weights or low grain screenings under a wider range of environments. The following figures show the grain quality trends as either histograms or box and whisker plots from 2018 and 2019 NVT averaged for all trials

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



in South Australia. Only the varieties evaluated at every site are included. Histograms are used where there were fewer than 10 sites of 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 represents 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 2 Test weight (kg/hl) comparisons for main season wheat varieties from 19 NVT sites in SA 2018.

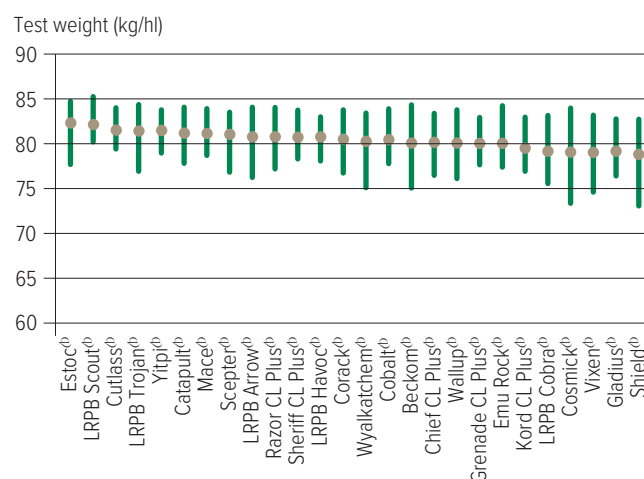


FIGURE 3 Test weight (kg/hl) comparisons for durum wheat varieties from six NVT sites in SA 2019.

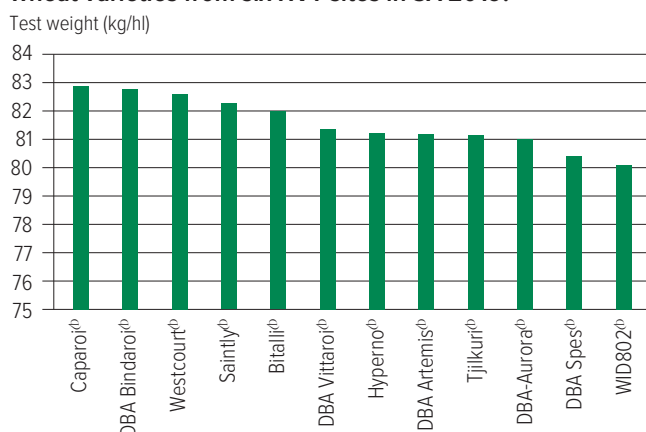


FIGURE 4 Test weight (kg/hl) comparisons for durum wheat varieties from four NVT sites in SA 2018.

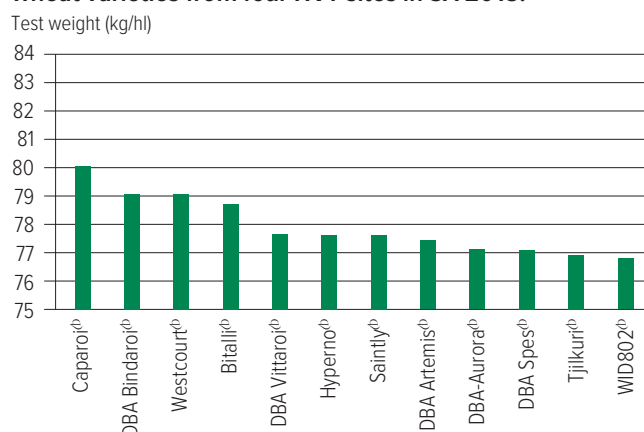


FIGURE 5 Screenings (<2.0mm) comparisons for main season wheat varieties from 22 NVT sites in SA 2019.

Screenings (% <2.0mm sieve)

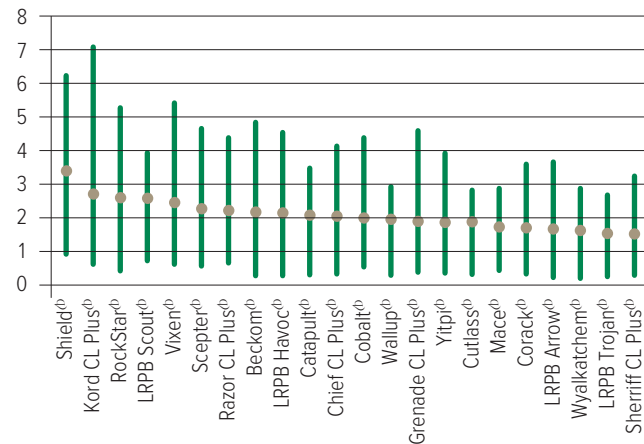


FIGURE 6 Screenings (<2.0mm) comparisons for main season wheat varieties from 19 NVT sites in SA 2018.

Screenings (% <2.0mm sieve)

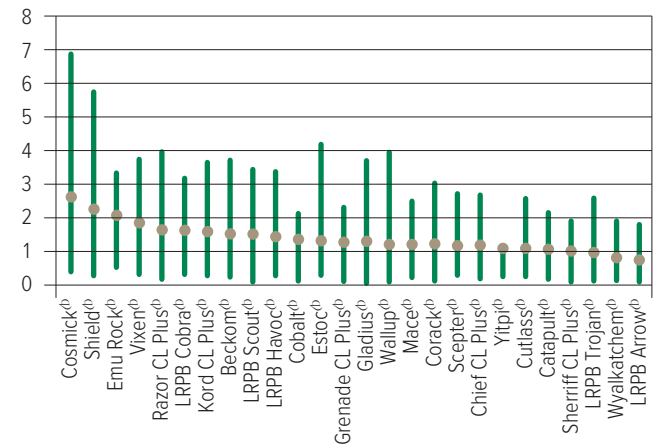


FIGURE 7 Screenings (<2.0mm) comparisons for durum wheat varieties from six NVT sites in SA 2019.

Screenings (% <2.0mm sieve)

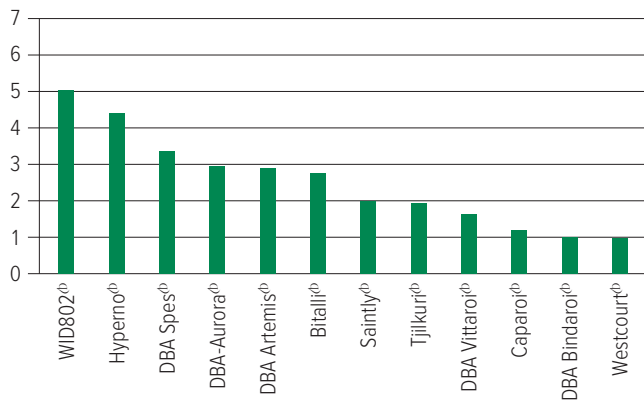
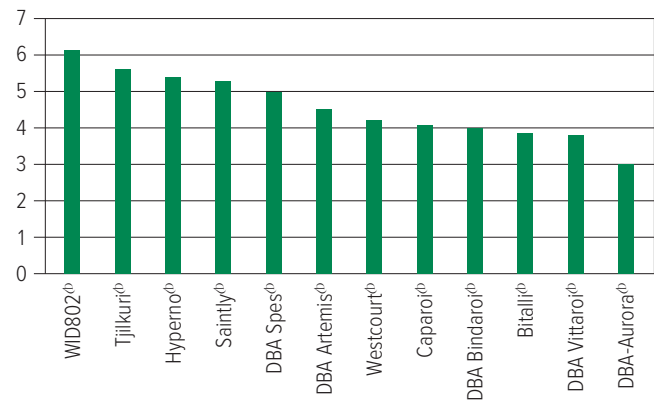


FIGURE 8 Screenings (<2.0mm) comparisons for durum wheat varieties from four NVT sites in SA 2018.

Screenings (% <2.0mm sieve)



WHEAT VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

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

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

TABLE 17 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.

BARLEY

NEW BARLEY VARIETIES

The following information is for barley varieties released during 2019 and since the 2020 South Australian Crop Sowing Guide was 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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

BARLEY VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Arthurton main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.64	7.31	5.45		
RGT Planet ^{db}		118	107		
Rosalind ^{db}	115	103	106		
Fathom ^{db}	110	105	105		
LG Maltstar ^{db}	96	111	101		
Bottler ^{db}			102		
Leabrook ^{db}	113	98	104		
Explorer ^{db}	105	104	101		
Banks ^{db}	103	102	103		
Fleet Australia ^{db}	107	101	101		
Topstart	92	107	98		
CLEARFIELD®					
Spartacus CL ^{db}	114	92	101		
Scope CL ^{db}	92	93	97		
Sowing date	25 May	20 May	7 Jun		
Rainfall J–M (mm)	59	85	82		
Rainfall A–O (mm)	287	541	282		

For more information click this [LINK](#)

TABLE 3 Bute main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	4.74	6.39	5.92	4.51	4.38
RGT Planet ^{db}		117	112	104	104
Rosalind ^{db}	115	101	106	110	107
Fathom ^{db}	109	103	102	107	103
Leabrook ^{db}	116	96	102	108	102
Banks ^{db}	106	102	102	104	101
Bottler ^{db}			104		101
La Trobe ^{db}	110	93	99	106	105
Hindmarsh ^{db}	112	91	98	107	104
Buff ^{db}				104	103
Fleet Australia ^{db}	103	100	99	102	101
CLEARFIELD®					
Spartacus CL ^{db}	113	91	98	107	105
Maximus CL ^{db}				108	105
Scope CL ^{db}	96	95	94	98	99
Sowing date	11 May	20 May	11 May	24 May	17 May
Rainfall J–M (mm)	61	107	89	28	6
Rainfall A–O (mm)	207	433	209	210	213

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 Brentwood main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.23	5.83	4.80		4.29
RGT Planet ^{db}		114	112		114
Rosalind ^{db}	117	109	103		106
Fathom ^{db}	114	103	106		110
Leabrook ^{db}	120	101	103		105
Banks ^{db}	105	103	105		106
Buff ^{db}					104
Fleet Australia ^{db}	109	98	103		105
Compass ^{db}	117	97	102		101
Bottler ^{db}			103		104
La Trobe ^{db}	112	100	100		101
CLEARFIELD®					
Spartacus CL ^{db}	119	99	95		98
Maximus CL ^{db}					97
Scope CL ^{db}	93	95	100		97
Sowing date	21 May	1 Jun	31 May	11 May	7 May
Rainfall J–M (mm)	36	61	75	14	5
Rainfall A–O (mm)	220	305	326	285	243

For more information click this [LINK](#)

TABLE 4 Crystal Brook main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	3.45	5.49	4.08		2.91
Rosalind ^{db}	119	107	112		120
RGT Planet ^{db}		126	103		104
Fathom ^{db}	108	101	111		125
Keel	110	96	110		119
Banks ^{db}	104	101	105		113
La Trobe ^{db}	111	93	109		114
Leabrook ^{db}	106	92	110		120
Hindmarsh ^{db}	111	90	109		116
Bass ^{db}	98	103	100		108
Explorer ^{db}	106	109	100		84
CLEARFIELD®					
Spartacus CL ^{db}	113	92	111		118
Maximus CL ^{db}					117
Scope CL ^{db}	96	90	97		101
Sowing date	13 May	23 May	17 May	23 May	15 May
Rainfall J–M (mm)	50	87	65	21	16
Rainfall A–O (mm)	244	401	185	145	172

For more information click this [LINK](#)

TABLE 5 Maitland main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)				7.07	
RGT Planet ^(b)	No trial	No trial	No trial	115	Trial failed
Rosalind ^(b)				108	
LG Maltstar ^(b)				105	
Explorer ^(b)				105	
Charger				103	
Fathom ^(b)				103	
Topstart				102	
Banks ^(b)				102	
Oxford				101	
LG Alestar ^(b)				101	
CLEARFIELD®					
Maximus CL ^(b)				98	
Spartacus CL ^(b)				98	
Scope CL ^(b)				96	
Sowing date				18 May	21 May
Rainfall J–M (mm)				35	9
Rainfall A–O (mm)				314	290

For more information click this [LINK](#)

TABLE 7 Salters Springs main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	4.12	6.80	5.64	2.62	4.58
Rosalind ^{db}	117	109	104	122	120
RGT Planet ^{db}		118	116	94	104
Leabrook ^{db}	114	101	100	129	115
Fathom ^{db}	107	101	102	131	110
Hindmarsh ^{db}	112	98	94	125	115
La Trobe ^{db}	110	99	96	123	113
Compass ^{db}	111	95	94	132	114
Banks ^{db}	104	103	103	113	106
Buff ^{db}				113	107
Explorer ^{db}	105	108	104	89	103
CLEARFIELD®					
Spartacus CL ^{db}	115	97	93	125	117
Maximus CL ^{db}				124	117
Scope CL ^{db}	93	93	95	100	96
Sowing date	26 May	24 May	16 May	25 May	22 May
Rainfall J–M (mm)	68	127	103	31	17
Rainfall A–O (mm)	313	558	319	262	271

For more information click this [LINK](#)

TABLE 6 Port Clinton main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.92	6.71	2.89	3.56	2.66
Fathom ^{db}	116	107	122	113	126
Rosalind ^{db}	119	111	111	110	120
Leabrook ^{db}	119	105	111	107	123
Keel	115	106	115	107	116
Hindmarsh ^{db}	116	105	111	107	116
La Trobe ^{db}	114	105	113	108	114
Compass ^{db}	117	102	110	106	123
Fleet Australia ^{db}	109	104	121	110	109
Banks ^{db}	107	103	107	105	113
RGT Planet ^{db}		107	107	109	104
CLEARFIELD®					
Spartacus CL ^{db}	119	107	109	106	117
Maximus CL ^{db}				105	116
Scope CL ^{db}	95	95	100	99	100
Sowing date	18 May	14 May	23 Jun	22 May	10 May
Rainfall J–M (mm)	48	92	72	28	n/a
Rainfall A–O (mm)	244	384	195	202	174

n/a = Not available

For more information click this [LINK](#)

TABLE 8 Turretfield main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.44	7.75	5.01	2.43	3.53
Rosalind ^{db}	117	106	112	115	120
Leabrook ^{db}	127	100	114	115	120
Compass ^{db}	127	96	115	116	122
Fathom ^{db}	116	101	106	117	121
Hindmarsh ^{db}	120	98	111	114	118
La Trobe ^{db}	115	99	109	113	117
Buff ^{db}				110	111
Banks ^{db}	107	102	105	108	110
Keel	120	95	101	111	115
RGT Planet ^{db}		114	100	104	102
CLEARFIELD®					
Maximus CL ^{db}				113	119
Spartacus CL ^{db}	125	97	110	113	119
Scope ^{db} CL ^{db}	94	96	98	100	100
Sowing date	28 May	3 Jun	15 Jun	25 May	22 May
Rainfall J–M (mm)	64	90	105	31	11
Rainfall A–O (mm)	262	498	327	238	209

For more information click this [LINK](#)

TABLE 9 Warooka main season barley.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.73	5.58	4.36		
RGT Planet ^{db}		113	118	No trial	No trial
Explorer ^{db}	103	105	110		
Rosalind ^{db}	102	104	104		
Fleet Australia ^{db}	121	100	100		
Bottler ^{db}			106		
LG Maltstar ^{db}	94	105	102		
Oxford	89		105		
Charger	86	101	110		
Commander ^{db}	117	99	99		
Fathom ^{db}	112	102	97		
CLEARFIELD®					
Spartacus CL ^{db}	113	95	93		
Scope CL ^{db}	91	96	99		
Sowing date	21 May	1 Jun	1 Jun		
Rainfall J–M (mm)	25	89	59		
Rainfall A–O (mm)	243	389	370		

For more information click this [LINK](#)

BARLEY VARIETY QUALITY – SOUTH AUSTRALIA

Grain quality for individual varieties varies from site to site and from year to year. However, long-term and across-site trends highlight varieties that can consistently achieve higher test weights, low grain screenings or high retentions under a wider range of environments. The following figures show the grain

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

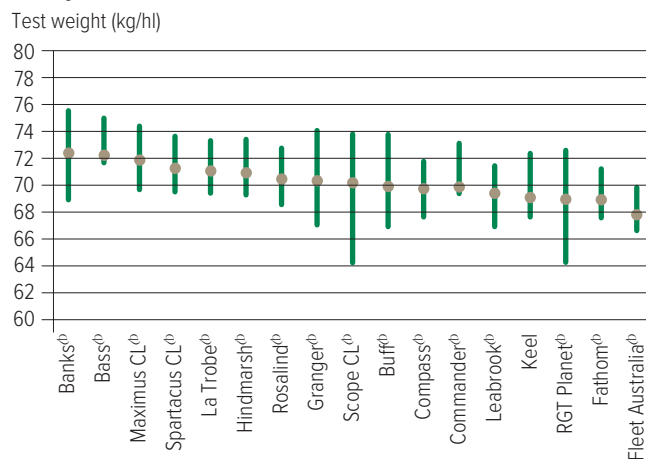


FIGURE 3 Screenings (<2.2mm) comparisons for main season barley varieties from 15 NVT sites in SA 2019.

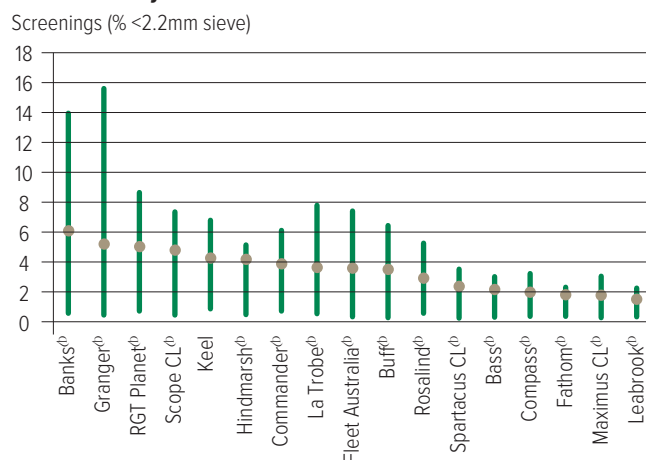
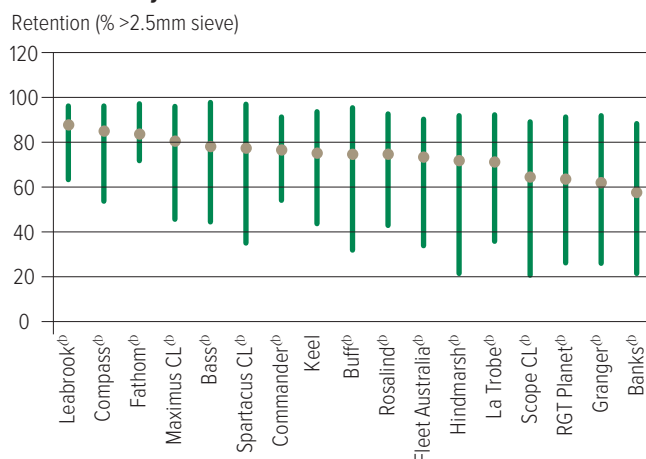


FIGURE 5 Retention (>2.5mm) comparisons for main season barley varieties from 15 NVT sites in SA 2019.



quality trends as box and whisker plots from 2018 and 2019 NVT averaged for all trials in South Australia. Only the varieties evaluated at every site are included. 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 and test weights for each variety. The shorter the lines, the less variable the variety for the depicted trait.

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

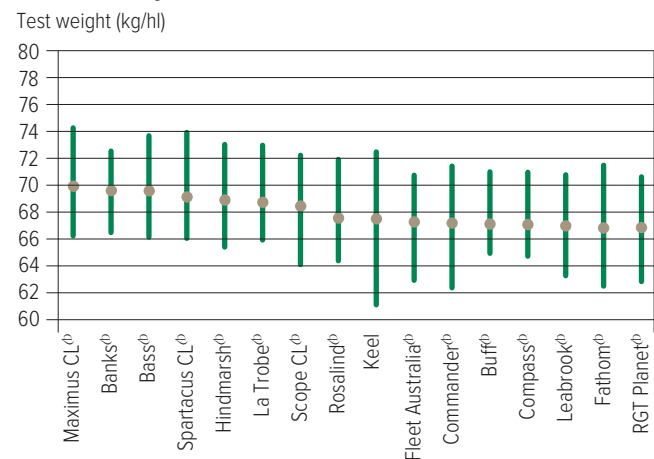


FIGURE 4 Screenings (<2.2mm) comparisons for main season barley varieties from 16 NVT sites in SA 2018.

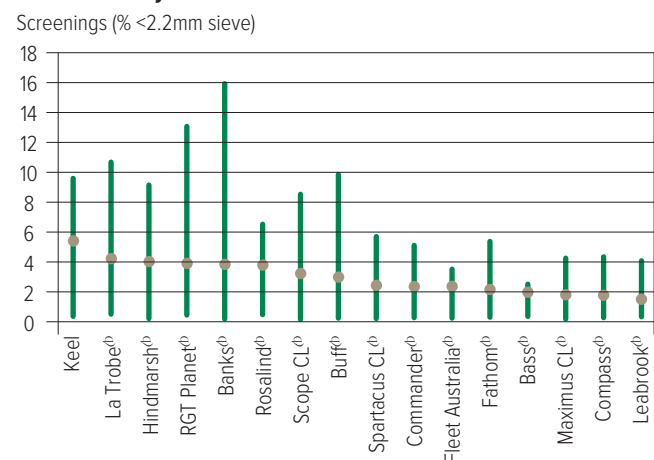
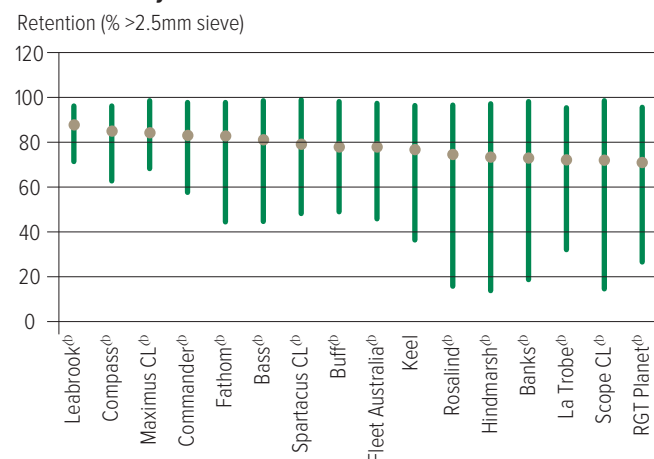


FIGURE 6 Retention (>2.5mm) comparisons for main season barley varieties from 16 NVT sites in SA 2018.



BARLEY VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

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

These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to South Australian 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 ^{db}	R [^]	R-MS	MR-S	MSS	MS-SVS	RMR	MRMS
Banks ^{db}	S	MR-S	R-MRMS	MRMS-S	R-SVS	MR-MS	MS
Buloke ^{db}	S		MR		MRMS-S	RMR	MS
Commander ^{db}	R	MS-S	MS-VS	MSS	MR-SVS	MRMS	MSS
Compass ^{db}	R	SVS	MR-MSS	MRMS-MSS	MR-SVS	MRMS-S	MSS
Fathom ^{db}	R	MRMS-S	MS-VS	RMR	R-S	MRMS	MSS
Flinders ^{db}	S	MRMS-S	MRMS	MRMS-S	MR-SVS	RMR	MRMS
Granger ^{db}	R	MR-MS	R-MSS	MS-S	MRMS-SVS	R	MS
Hindmarsh ^{db}	R	MRMS-S	MR-MS	S	R-SVS	MR-SVS	MSS
Keel	R	VS	S	MR	R-SVS	SVS	MSS
Leabrook ^{db}	MRMS	MS-SVS	MR-MS	MR-MS	R-SVS	MR-MS	MSS
Maritime ^{db}	R		R-VS		MR-SVS	S	MSS
Maximus CL ^{db}	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 ^{db}	R ^p	MR-MS	MR-SVS	S-SVS	R-SVS	R	MRMS
Rosalind ^{db}	R	MR-MS	MR	MS-S	MR-S	MRMS-S	MSS
Schooner	VS	S-VS	MR	MS	MS-S	SVS	MS
Scope CL ^{db}	S	MS-SVS	MR	MS-S	MRMS-SVS	RMR	MS
Spartacus CL ^{db}	R	MR-S	MSS-SVS	S	R-SVS	MR-SVS	MSS
Westminster ^{db}		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.

OAT

NEW OAT VARIETIES

The following information is for oat varieties released during 2019 and since the 2020 South Australian Crop Sowing Guide was 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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

OAT VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Crystal Brook oat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.90	4.95	2.95		2.13
Bannister ^{db}	108	123	114	Trial failed	104
Bilby ^{db}	107	113	118		122
Kowari ^{db}	106	107	111		119
Mitika ^{db}	106	106	105		109
Possum	102	103	106		107
Williams ^{db}	105	115	86		99
Wombat	100	110	107		83
Durack ^{db}	101	90	83		112
Koorabup ^{db}	102	85	69		88
Yallara ^{db}	95	79	78		96
Sowing date	13 May	23 May	17 May	23 May	15 May
Rainfall J–M (mm)	50	87	65	21	16
Rainfall A–O (mm)	244	401	185	145	172

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 Paskeville oat.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.80	4.87	3.64	3.10	2.18
Bannister ^{db}	105	143	104	113	107
Bilby ^{db}	123	123	102	114	116
Williams ^{db}	90	129	106	101	111
Kowari ^{db}	127	115	98	107	112
Mitika ^{db}	127	116	94	100	105
Possum	116	107	98	102	105
Wombat	91	117	101	100	90
Durack ^{db}	110	85	96	93	106
Koorabup ^{db}	75	81	92	84	76
Yallara ^{db}	74	62	99	91	89
Sowing date	14 May	14 May	6 Jun	17 May	18 May
Rainfall J–M (mm)	34	75	79	29	7
Rainfall A–O (mm)	212	416	216	206	184

For more information click this [LINK](#)

OAT VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

The following table contains varietal ratings for the predominant diseases of oat in South Australia. These

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

TABLE 3 Oat disease guide for South Australia.

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
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 was published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
HyITec® Trident	Nuseed Pty Ltd	10.00	Early maturity hybrid canola with medium-tall plant height. Suited to low-medium rainfall areas.
HyITec® Trifecta	Nuseed Pty Ltd	10.00	Not supplied
VICTORY® V75-03CL	Cargill	n/a	Mid-maturing specialty hybrid.

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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

CANOLA VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Arthurton mid season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.42	2.75	3.10		1.22
Pioneer® 45Y93 CL			107	Trial failed	111
Pioneer® 44Y90 CL	107		106		111
Saintly CL	107	112	102		113
Pioneer® 45Y91 CL		103	102		104
VICTORY® V75-03CL					95
VICTORY® V7002CL			97		95
Hyola® 575CL	94	89	94		91
Sowing date	3 May	13 May	29 May	9 May	6 May
Rainfall J–M (mm)	53	85	82	24	4
Rainfall A–O (mm)	238	541	229	277	196

For more information click this [LINK](#)

TABLE 3 Spalding mid season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.80	2.92	1.97		1.59
Saintly CL	114	113	109	Trial failed	115
Pioneer® 44Y90 CL	113	113	109		111
Pioneer® 45Y93 CL			107		109
Pioneer® 45Y91 CL		105	101		103
VICTORY® V75-03CL					94
VICTORY® V7002CL			93		94
Hyola® 575CL	89	89	89		91
Sowing date	28 Apr	12 May	1 May	6 May	14 May
Rainfall J–M (mm)	60	82	81	20	22
Rainfall A–O (mm)	325	465	278	217	252

For more information click this [LINK](#)

TABLE 5 Minlaton early season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.68	2.69	2.75	1.34	1.78
Pioneer® 44Y90 CL	113	100	106	111	103
Pioneer® 43Y92 CL		93	107	114	102
VICTORY® V7002CL			98	102	100
Hyola® 575CL	96	84	97	94	93
Sowing date	1 May	18 May	30 May	11 May	8 May
Rainfall J–M (mm)	50	77	85	14	5
Rainfall A–O (mm)	267	387	361	285	243

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 Riverton mid season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.74	2.52	2.60		1.56
Pioneer® 45Y93 CL			109	Trial failed	113
Saintly CL	130	109	105		116
Pioneer® 44Y90 CL	118	113	108		112
Pioneer® 45Y91 CL		108	103		107
VICTORY® V7002CL			96		97
VICTORY® V75-03CL					94
Hyola® 575CL	90	90	93		93
Sowing date	22 Apr	13 May	2 May	8 May	13 May
Rainfall J–M (mm)	57	69	115	33	19
Rainfall A–O (mm)	327	600	328	249	267

For more information click this [LINK](#)

TABLE 4 Turretfield mid season CL canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.73	2.94	2.45	1.34	1.53
Saintly CL	116	112	108		114
Pioneer® 44Y90 CL	112	110	108	107	111
Pioneer® 45Y93 CL			110		108
Pioneer® 45Y91 CL		105	104		103
VICTORY® V7002CL					95
VICTORY® V75-03CL					94
Hyola® 575CL	91	94	94	91	91
Sowing date	23 Apr	24 May	3 May	7 May	13 May
Rainfall J–M (mm)	48	84	94	24	9
Rainfall A–O (mm)	234	448	318	201	224

For more information click this [LINK](#)

TABLE 6 Arthurton mid season TT canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.42	2.75	3.10		1.22
HyTTec® Trifecta				Trial failed	123
HyTTec® Trident					119
HyTTec® Trophy			112		117
InVigor® T 4510		119	108		117
Hyola® 550TT					110
Hyola® 350TT			104		111
DG 670TT		109	106		109
SF Turbine TT	105	109	104		108
SF Spark TT					103
Pioneer® 45T03 TT					101
Sowing date	3 May	13 May	29 May	9 May	6 May
Rainfall J–M (mm)	53	85	82	24	4
Rainfall A–O (mm)	238	541	229	277	196

For more information click this [LINK](#)**TABLE 7 Riverton mid season TT canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.74	2.52	2.60		1.56
HyTTec® Trifecta				Trial failed	119
InVigor® T 4510		118	111		116
HyTTec® Trophy			114		112
HyTTec® Trident					108
DG 670TT		116	108		111
SF Ignite TT		117	109		108
Hyola® 350TT					109
Hyola® 550TT					106
SF Turbine TT	112	108	105		107
SF Spark TT					103
Sowing date	22 Apr	13 May	2 May	8 May	13 May
Rainfall J–M (mm)	57	69	115	33	19
Rainfall A–O (mm)	327	600	328	249	267

For more information click this [LINK](#)**TABLE 8 Spalding mid season TT canola.**

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.80	2.92	1.97		1.59
HyTTec® Trident				Trial failed	122
HyTTec® Trophy			121		118
InVigor® T 4510		120	117		118
Hyola® 550TT					113
Hyola® 350TT			112		113
SF Turbine TT	109	109	109		109
DG 670TT		112			107
Hyola® 559TT	108	106	113		107
SF Ignite TT		111			105
SF Spark TT					104
Sowing date	28 Apr	12 May	1 May	6 May	14 May
Rainfall J–M (mm)	60	82	81	20	22
Rainfall A–O (mm)	325	465	278	217	252

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

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.73	2.94	2.45	1.34	1.53
HyTTec® Trifecta				120	122
HyTTec® Trident			112	128	120
InVigor® T 4510		114	112	113	117
HyTTec® Trophy			112	118	117
Hyola® 350TT		107		111	112
Hyola® 550TT				114	112
DG 670TT		110	109	103	107
SF Turbine TT	109	106	105	108	108
SF Ignite TT		108	108	101	104
Hyola® 559TT	106	100	101	113	107
Sowing date	23 Apr	24 May	3 May	7 May	13 May
Rainfall J–M (mm)	48	84	94	24	9
Rainfall A–O (mm)	234	448	318	201	224

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

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.68	2.69	2.75	1.34	1.78
HyTTec® Trident				124	112
InVigor® T 4510		107	109	115	106
Hyola® 550TT					109
HyTTec® Trophy			108	113	106
Hyola® 350TT			104	112	108
InVigor® T 3510				110	104
Pioneer® 44T02 TT	107	109	104	109	106
SF Spark TT					102
ATR Bonito ^{db}	101	86	99	98	95
ATR Stingray ^{db}	93	90	96	90	93
Sowing date	1 May	18 May	30 May	11 May	8 May
Rainfall J–M (mm)	50	77	85	14	5
Rainfall A–O (mm)	267	387	361	285	243

For more information click this [LINK](#)

TABLE 11 Arthurton mid season conventional canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.42	2.75	3.10		1.22
Nuseed® Quartz		115	108	Trial failed	111
Nuseed® Diamond	103	107	98		108
AV-Garnet [®]	93	86	95		89
Sowing date	3 May	13 May	29 May	9 May	6 May
Rainfall J–M (mm)	53	85	82	24	4
Rainfall A–O (mm)	238	541	229	277	196

For more information click this [LINK](#)

TABLE 12 Spalding mid season conventional canola.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.80	2.92	1.97		1.59
Nuseed® Quartz		114	116	Trial failed	112
Nuseed® Diamond	108	107	106		111
AV-Garnet [®]	86	87	86		87
Sowing date	28 Apr	12 May	1 May	6 May	14 May
Rainfall J–M (mm)	60	82	81	20	22
Rainfall A–O (mm)	325	465	278	217	252

For more information click this [LINK](#)

CANOLA VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

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

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

TABLE 13 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.

CHICKPEA

NEW CHICKPEA VARIETIES

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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

CHICKPEA VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Minlaton desi chickpea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.70	2.94	3.11	1.88	0.99
PBA Striker ^{db}	108	105	104	107	119
PBA Maiden ^{db}	105	107	103	108	107
Neelam ^{db}	104	107	102	102	104
PBA Slasher ^{db}	105	104	101	103	109
Ambar ^{db}	102	104	100	98	110
Sowing date	22 May	1 Jun	30 May	23 May	8 May
Rainfall J–M (mm)	50	77	85	14	5
Rainfall A–O (mm)	267	387	361	285	243

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 Minlaton kabuli chickpea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.70	2.94	3.11	1.88	0.99
PBA Monarch ^{db}	102	103	104	105	101
PBA Royal ^{db}	104	103	99	101	115
Genesis™ 090	105	99	100	98	119
Almaz ^{db}	99	100	98	96	107
Genesis™ Kalkee	92	91	95	89	93
Sowing date	22 May	1 Jun	30 May	23 May	8 May
Rainfall J–M (mm)	50	77	85	14	5
Rainfall A–O (mm)	267	387	361	285	243

For more information click this [LINK](#)

CHICKPEA VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

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

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

TABLE 3 Chickpea disease guide for South Australia.

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

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, *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* was 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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

FABA BEAN VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Laura faba bean.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.13	6.06	0.75	2.04	1.44
PBA Zahra ^{db}	106	101	114	105	100
Fiesta VF	101	98	114	100	106
PBA Marne ^{db}	99	101	109	99	100
PBA Samira ^{db}	99	99	96	101	102
PBA Bendoc ^{db}		96	99	103	115
Farah ^{db}	99	98	111	98	100
PBA Amberley ^{db}	86	97	100	99	101
Nura ^{db}	88	96	120	93	93
PBA Rana ^{db}	83	93	122	87	85
Sowing date	13 May	4 May	19 May	29 May	28 May
Rainfall J–M (mm)	49	99	67	23	23
Rainfall A–O (mm)	331	461	220	206	231

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 Tarlee faba bean.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.94	1.59	4.17	1.55	2.38
PBA Marne ^{db}	125	114	93	106	100
PBA Zahra ^{db}	83	111	102	92	106
PBA Samira ^{db}	91	92	103	99	101
PBA Amberley ^{db}	96	86	98	104	103
Farah ^{db}	88	99	93	94	96
Nura ^{db}	92	104	88	96	95
Fiesta VF	86	92	90	95	98
PBA Bendoc ^{db}		66	92	104	103
PBA Rana ^{db}	80	105	85	89	87
Sowing date	4 May	7 May	10 May	14 May	4 May
Rainfall J–M (mm)	75	120	84	30	10
Rainfall A–O (mm)	322	517	313	211	247

For more information click this [LINK](#)

FABA BEAN VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

The following table contains varietal ratings for the predominant diseases of faba bean in South Australia.

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

TABLE 3 Faba bean disease guide for South Australia.

Variety	Ascochyta blight	Cercospora leaf spot	Chocolate spot (botrytis)	RLN (<i>Pratylenchus neglectus</i>)	RLN (<i>Pratylenchus thornei</i>)
				Resistance	Resistance
PBA Amberley ^{db}	RMR	S	MR _p	MR	MS _p
Farah ^{db}	S	S	S	MR	MS
Fiesta VF	S	S	S	MR	MS
Nura ^{db}	RMR	S	MS	MR	MS
PBA Bendoc ^{db}	MR	S	MS	MR	MRMS _p
PBA Marne ^{db}	MRMS	S	S	MR	MS _p
PBA Rana ^{db}	MRMS	S	MS	MR	MS
PBA Samira ^{db}	RMR	S	MS	MR	MRMS
PBA Zahra ^{db}	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 – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Laura field pea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.65	3.34	1.24	2.18	1.51
PBA Pearl ^{db}	117	102	117	115	103
PBA Percy ^{db}	98	121	105	86	112
PBA Oura ^{db}	102	105	109	101	106
PBA Wharton ^{db}	96	98	109	103	104
PBA Butler ^{db}	105	96	94	102	95
PBA Gunyah ^{db}	91	91	96	93	101
Kaspa ^{db}	83	81	85	85	97
Sowing date	27 May	30 May	19 May	29 May	28 May
Rainfall J–M (mm)	49	99	67	23	23
Rainfall A–O (mm)	331	461	220	206	231

For more information click this [LINK](#)

TABLE 3 Riverton field pea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.37	3.09	3.25	2.42	2.36
PBA Butler ^{db}	102	107	106	101	100
PBA Pearl ^{db}	97	103	98	93	111
PBA Gunyah ^{db}	99	98	98	97	97
PBA Wharton ^{db}	103	90	98	99	101
PBA Percy ^{db}	82	111	89	100	105
PBA Oura ^{db}	92	99	91	94	105
Kaspa ^{db}	97	98	97	94	92
Sowing date	29 May	2 Jun	8 Jun	6 Jun	5 Jun
Rainfall J–M (mm)	61	69	115	28	15
Rainfall A–O (mm)	342	600	328	248	313

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).

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

TABLE 2 Minlaton field pea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.16	4.06	3.85	2.82	2.45
PBA Butler ^{db}	105	107	107	103	107
PBA Pearl ^{db}	105	100	97	100	105
PBA Gunyah ^{db}	98	98	98	99	101
Kaspa ^{db}	95	100	97	97	102
PBA Percy ^{db}	91	108	85	100	104
PBA Oura ^{db}	95	97	90	97	98
PBA Wharton ^{db}	98	89	97	98	92
Sowing date	22 May	1 Jun	30 May	23 May	8 May
Rainfall J–M (mm)	50	77	85	14	5
Rainfall A–O (mm)	267	387	361	285	243

For more information click this [LINK](#)

TABLE 4 Willamulka field pea.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	0.96	4.48	3.15	1.49	1.38
PBA Butler ^{db}	106	114	106	104	106
PBA Pearl ^{db}	104	112	102	101	103
PBA Percy ^{db}	95	104	85	98	104
PBA Oura ^{db}	95	98	92	98	97
PBA Gunyah ^{db}	98	94	93	102	94
Kaspa ^{db}	96	93	89	103	91
PBA Wharton ^{db}	96	83	97	98	92
Sowing date	18 May	20 May	11 May	17 May	18 May
Rainfall J–M (mm)	45	119	93	26	5
Rainfall A–O (mm)	202	405	175	177	212

For more information click this [LINK](#)

FIELD PEA VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

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

These ratings are updated annually by crop pathologists and were released in March 2020. Selected varieties of most relevance to South Australian 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.

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

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* was published.

Variety	Breeding company	End Point Royalty* (\$)	Comments supplied by breeding company
PBA HighlandXT [Ⓛ]	National Lentil Initiative	5.40	Not supplied

* 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

WHEAT

BARLEY

OAT

CANOLA

CHICKPEA

FABA BEAN

FIELD PEA

LENTIL

LUPIN

LENTIL VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following tables contain yield results from the top-performing varieties within each NVT location in Central South Australia 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 Laura lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.59	3.21	0.86	1.68	1.47
PBA Jumbo2 ^{db}	108	103	115	112	113
PBA HighlandXT ^{db}		98	102	100	114
PBA Ace ^{db}	105	91			87
PBA Bolt ^{db}	102	99	98	99	101
PBA Hallmark XT ^{db}	100	96	103	106	91
PBA Blitz ^{db}	99	88	93	91	122
PBA Hurricane XT ^{db}	96	98	96	100	88
Nipper ^{db}	82	92	81	86	77
Sowing date	27 May	30 May	19 May	29 May	28 May
Rainfall J–M (mm)	49	99	67	23	23
Rainfall A–O (mm)	331	461	220	206	231

For more information click this [LINK](#)

TABLE 3 Minlaton lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.83	3.61	3.12	2.08	1.33
PBA Jumbo2 ^{db}	109	106	109	106	105
PBA Ace ^{db}	98	88			107
PBA Bolt ^{db}	101	97	99	99	102
PBA HighlandXT ^{db}		97	93	96	95
PBA Hurricane XT ^{db}	95	96	95	95	98
PBA Hallmark XT ^{db}	99	93	93	93	95
PBA Blitz ^{db}	104	91	84	92	77
Nipper ^{db}	81	93	83	87	80
Sowing date	22 May	1 Jun	30 May	23 May	8 May
Rainfall J–M (mm)	50	77	85	14	5
Rainfall A–O (mm)	267	387	361	285	243

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 Maitland lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.09	4.39	3.63	3.28	2.45
PBA Jumbo2 ^{db}	111	106	107	107	103
PBA Blitz ^{db}	111	99	101	98	94
PBA HighlandXT ^{db}		97	99	101	100
PBA Bolt ^{db}	98	97	97	99	101
PBA Ace ^{db}	105	94			83
PBA Hurricane XT ^{db}	92	94	96	95	92
PBA Hallmark XT ^{db}	95	92	97	94	86
Nipper ^{db}	86	93	95	88	82
Sowing date	18 May	18 May	2 Jun	22 May	21 May
Rainfall J–M (mm)	33	73	104	82	8
Rainfall A–O (mm)	301	523	321	232	267

For more information click this [LINK](#)

TABLE 4 Riverton lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	2.71	2.29		2.59	2.37
PBA Jumbo2 ^{db}	105	112	Trial failed	107	109
PBA Ace ^{db}	96	138			91
PBA HighlandXT ^{db}		90		101	104
PBA Bolt ^{db}	102	99		100	99
PBA Hallmark XT ^{db}	97	102		100	92
PBA Hurricane XT ^{db}	97	98		99	92
PBA Blitz ^{db}	96	81		90	105
Nipper ^{db}	85	83		87	84
Sowing date	29 May	2 Jun	8 Jun	6 Jun	5 Jun
Rainfall J–M (mm)	61	69	115	28	15
Rainfall A–O (mm)	342	600	328	248	313

For more information click this [LINK](#)

TABLE 5 Willamulka lentil.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.55	3.83	2.74	1.17	1.35
PBA Jumbo2 [Ⓛ]	108	114	103	100	91
PBA HighlandXT [Ⓛ]		101	111	110	100
PBA Blitz [Ⓛ]	106	112	103	96	90
PBA Bolt [Ⓛ]	101	93	103	106	103
PBA Hallmark XT [Ⓛ]	95	95	105	100	99
PBA Hurricane XT [Ⓛ]	93	92	100	99	103
PBA Ace [Ⓛ]	105	93			88
Nipper [Ⓛ]	83	96	91	82	102
Sowing date	18 May	20 May	11 May	17 May	18 May
Rainfall J–M (mm)	45	119	93	26	5
Rainfall A–O (mm)	202	405	175	177	212

For more information click this [LINK](#)

LENTIL VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

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

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

TABLE 6 Lentil disease guide for South Australia.

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 was 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

- WHEAT
- BARLEY
- OAT
- CANOLA
- CHICKPEA
- FABA BEAN
- FIELD PEA
- LENTIL
- LUPIN

LUPIN VARIETY YIELD PERFORMANCE – CENTRAL SOUTH AUSTRALIA

The following table contains yield results from the top-performing varieties within each NVT location in Central South Australia 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 Spalding narrow-leaf lupin.

Year	2015	2016	2017	2018	2019
Mean yield (t/ha)	1.22	2.83	1.96	1.49	1.47
Coyote ^{db}	111	117	105	109	
PBA Bateman ^{db}	109	110		103	134
PBA Gunyidi ^{db}	104	103	98		122
Mandelup ^{db}	100	100	98		117
PBA Jurien ^{db}	103	110	92		123
PBA Barlock ^{db}	98	98	92		119
Jenabillup ^{db}	98	87	94	91	126
Jindalee	91	76	87		94
Sowing date	6 May	4 May	22 May	6 May	14 May
Rainfall J–M (mm)	61	62	87	20	8
Rainfall A–O (mm)	348	432	255	217	267

For more information click this [LINK](#)

LUPIN VARIETY DISEASE RATINGS – SOUTH AUSTRALIA

The following table contains varietal ratings for the predominant diseases of lupin in South Australia. These ratings are updated annually by crop

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

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

TABLE 2 Lupin disease guide for South Australia.

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

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