



NVT HARVEST REPORT



REVISED MAY 2024



Central Queensland
Northern Region



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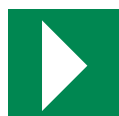
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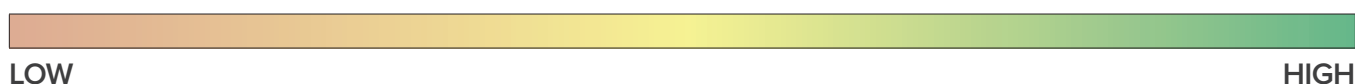
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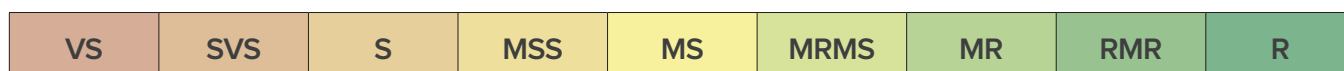
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LEGEND: MEAN VARIETY YIELD PERFORMANCE



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)

The disease ratings in the report are current at the time of publication.

Regularly visit nvt.grdc.com.au/nvt-disease-ratings to find the latest NVT disease ratings.

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

INTRODUCTION

The NVT Harvest Report - Central Queensland provides information to support growers and advisers with decisions on variety selection for **Central Queensland**. 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 2023 and long-term yield performance of varieties of crop species suitable for production in **Central Queensland** together with their quality and disease responses.

The NVT program provides growers and advisers with comparative results on yield performance, quality and disease resistance ratings of commercially available grain varieties that is independent, consistent, timely and robust.

Conducted to a set of predetermined protocols, trials are sown and managed to reflect local best practice such as sowing time, fertiliser application, weed management, pest/disease control and fungicide application. The NVT is not designed to grow varieties to their maximum yield potential.

GRDC recognises that sustaining a project of this nature hinges on the collaboration of growers who willingly provide sites and often lend a hand in trial management on their properties. Equally significant is the partnership with seed companies who supply seed of commercial varieties and experimental lines to the program.

Interpreting long-term yield results

A factor analytic (FA) mixed model approach is used in the multi-environment trial (MET) analysis conducted by GRDC, supported by the Analytics for the Australian Grains Industry (AAGI).

This approach generates long-term MET values for varieties at an individual trial level.

This format provides more detailed results to better understand a variety's performance over several years at the individual trial/environment level, rather than just a single averaged value.

In the *NVT Harvest Report - Central Queensland*, results are presented in year groupings for yield for the past five years and quality for the past two years. Further detailed interrogation of the NVT Online results using the Long Term Yield Reporter will provide more specific performance results on all varieties of each crop species in each NVT location throughout **Central Queensland**.

The results presented in this Harvest Report are based on the default filters in the Long Term Yield Reporter. In some cases, trial results are excluded because they do not meet the default standards for statistical validity. These are listed in the tables as 'Trial results below standard'. Trials below standard can be viewed by reducing the default VAF settings within the [Long Term Yield Reporter](#).

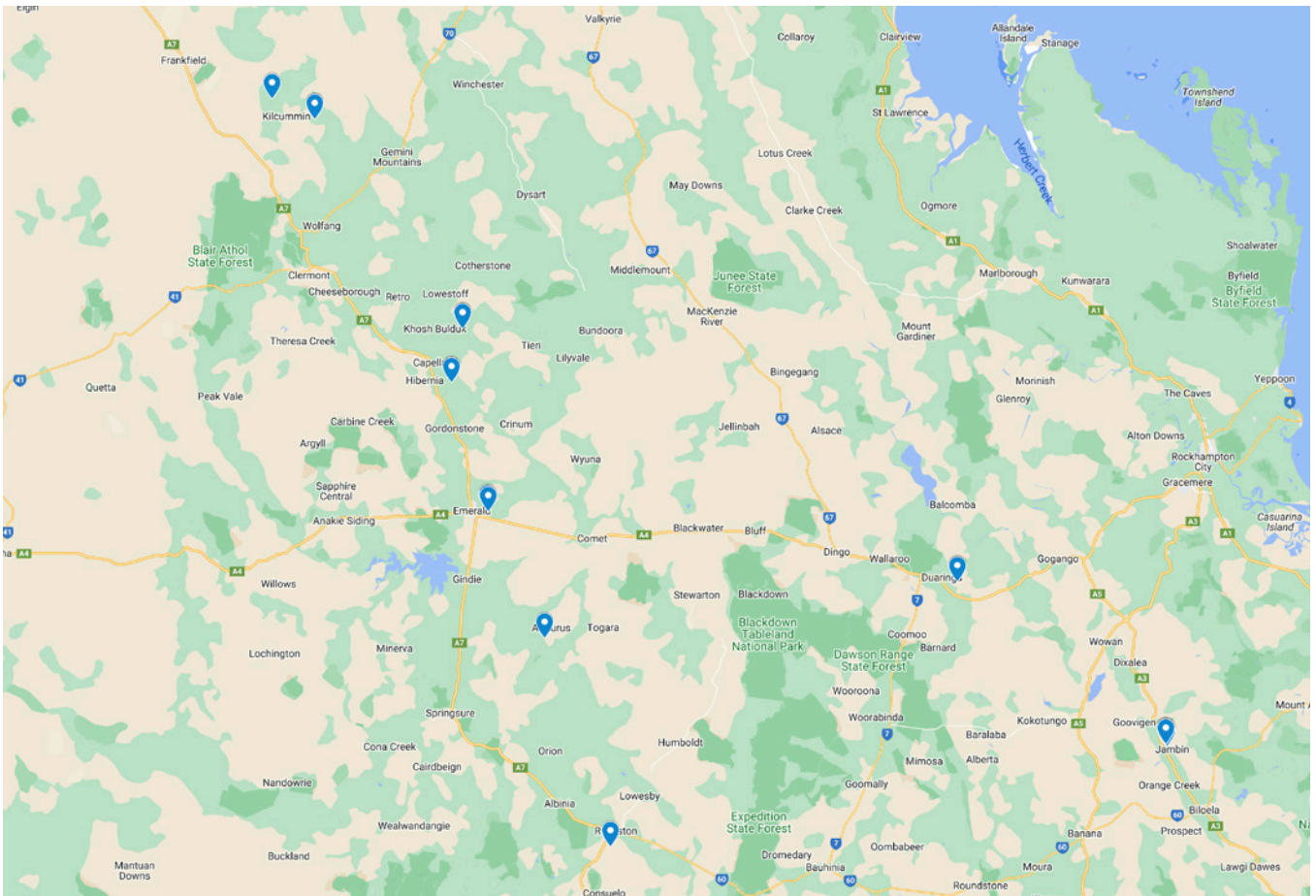
Trials listed as compromised are not suitable for making variety decisions. Results can be found in the [Quarantined trial reports](#).

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

NVT SITE LOCATIONS – Central Queensland

Figure 1: Locality of NVT trial sites in Central Queensland from 2019 to 2023.

SOURCE: NVT Online



See all NVT trial locations and view trial results at nvt.grdc.com.au/trial-results.

WHEAT

New wheat varieties

The following information is for wheat varieties released in the 12 months to the date when the MET analysis was published on NVT online. Please go to nvt.grdc.com.au to find trial results for any new varieties released since the publication of this harvest report.

Variety	Breeding company	Grain classification	End point royalty* (\$)	Comments supplied by breeding company ¹
Genie [®]	InterGrain	TBC	3.50	Genie [®] is a mid-slow maturing wheat and is an excellent alternative to RockStar [®] in greater than three-tonne-per-hectare yield environments. In these environments, the variety offers medium-high rainfall growers a yield improvement compared with RockStar [®] . Genie [®] , with its slightly later maturity than RockStar [®] and long coleoptile, enables earlier sowing opportunities to be maximised. Genie [®] has an excellent disease resistance package including useful stem rust and stripe rust resistances. It offers good test weight, moderate grain size and has a medium plant height. Preliminary internal data indicates Genie [®] has good sprouting tolerance. Genie [®] has an AH classification in the western and southern zones and an AH classification is expected for the south-eastern and northern zones in 2024.
Leverage [®]	Australian Grain Technologies	APH	4.00	Replacement for EGA Gregory [®] , Coolah [®] and LRPB Flanker [®] . Very high yielding in the early planting window. APH quality classification in the northern zone, with south-eastern zone classification pending. Good resistance to major diseases. Mid-slow maturity, suited to late April/early May planting. Good yellow spot resistance. Good physical grain quality characteristics. Shorter plant type than other EGA Gregory [®] -type varieties.
LRPB Tracer [®]	LongReach Plant Breeders		4.25	Mid-spring maturing variety (similar to LRPB Reliant [®] and Suntop [®]) suitable for main season seeding opportunities across NSW and Queensland. Strong performance in sodic soil yield trials combined with a good disease package for northern production systems and excellent RLN (<i>Pratylenchus thornei</i>) tolerance. Compact canopy (similar plant height to LRPB Lancer [®]) which can aid in stubble management in zero-till farming systems. APH south east (Southern NSW) northern classification (Northern NSW and Queensland) expected prior to sowing in 2024. Marketed by Pacific Seeds.
SEA Peel	Seed Exchange Australia	FEED	2.50	A quick spring variety with yield potential to varieties in this maturity group. Consistently low screenings. Useful levels of resistance to soil-borne pathogens. Strong rust resistance package. Final milling classification anticipated in 2024.
SEA Stockman	Seed Exchange Australia	FEED	3.00	An awnless hay wheat. Its quick maturity relative to other hay wheats allows SEA Stockman to be sown relatively late and harvested early to allow a summer crop. Excellent standability. Good rust resistance package. Large kernel size.
Sundancer [®]	Australian Grain Technologies	APH	4.00	An ideal replacement for LRPB Lancer [®] . Very high yielding, with excellent yield stability. Suits late April, early May planting. Excellent rust resistance. Medium-short plant type with better straw strength than LRPB Lancer [®] . Longer coleoptile than LRPB Lancer [®] and other early season varieties. APH classification for the northern zone, with southern eastern zone pending.

* EPR amount is ex-GST, [®] denotes Plant Breeder's Rights apply. ¹ All data in the table was provided by breeders. Readers should raise any issues with the displayed data directly with the breeder.

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

Wheat variety yield performance – Central Queensland

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period.

The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

Table 1: Capella main season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	4.16	2.42	2.97	4.94	
Rebel Rat		102		106	
SEA Condamine	113	104	103	106	
Borlaug 100 ^{db}				103	
Sunblade CL Plus ^{db*}	109	97	110	103	
Sunmaster ^{db}	106	100	110	103	
Calibre ^{db}			105	105	
Catapult ^{db}			94	110	
LRPB Flanker ^{db}	101	110	88	109	
Scepter ^{db}	102	92	106	102	
Suncentral ^{db}	100	98	108	99	
Coota ^{db}		95	97	103	
RockStar ^{db}			93	109	
LRPB Avenger ^{db}				96	
Boree ^{db}		92	99	106	
LRPB Reliant ^{db}	101	101	92	102	
Sowing date	3 May	17 Apr	20 Apr	5 May	
Rainfall J–M (mm)	188	242	151	98	
Rainfall A–O (mm)	106	63	132	372	

No trial

No 2023 trial cooperators.

* herbicide-tolerant variety. Learn more via the [NVT Long Term Yield Reporter](#)
Table 3: Jambin main season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	3.84	4.47	3.96		
Borlaug 100 ^{db}			113		
SEA Condamine	110	108	109		
Sunmaster ^{db}	101	113	107		
Sunblade CL Plus ^{db*}	105	109	106		
Suncentral ^{db}	96	113	107		
Calibre ^{db}			106		
SEA Peel		107	102		
Jillaroo ^{db}			109		
SEA Stockman		102	106		
Suntop ^{db}	98	106	105		
LRPB Hellfire ^{db}	101	101	107		
Sunprime ^{db}	95	105	107		
Sunchaser ^{db}	92	109	105		
Scepter ^{db}	100	105	101		
Condo ^{db}	92	111	100		
Sowing date	9 May	14 May	1 Jun	14 Jun	
Rainfall J–M (mm)	183	490	183	264	
Rainfall A–O (mm)	179	212	270	391	

Trial failed

No trial

No 2023 trial cooperators.

* herbicide-tolerant variety. Learn more via the [NVT Long Term Yield Reporter](#)
Table 2: Duaringa/Emerald main season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	3.23	4.35	3.41	6.28	4.34
Borlaug 100 ^{db}				111	114
SEA Condamine	111	116	110	107	112
Rebel 65 ^{db}					114
Sunmaster ^{db}	114	103	111	110	103
Sunblade CL Plus ^{db*}	114	102	110	109	103
SEA Peel		104	115		98
Calibre ^{db}			106	106	108
Brumby ^{db}					107
SEA Stockman		100	110		100
Suntop ^{db}	108	98	107	102	98
IGW5485					109
SUN1081A ^{db}				97	108
Jillaroo ^{db}			104	101	107
Sunprime ^{db}	98	95	109	99	100
LRPB Hellfire ^{db}	104	95	106	97	97
Sowing date	10 May	23 Apr	28 Apr	27 May	17 May
Rainfall J–M (mm)	202	519	187	98	275
Rainfall A–O (mm)	55	69	107	370	91

Special thanks to 2023 trial cooperators.

* herbicide-tolerant variety. Learn more via the [NVT Long Term Yield Reporter](#)
Table 4: Kilcummin main season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	1.01	2.23	2.72	4.45	
LRPB Flanker ^{db}	109	103	112	122	
Catapult ^{db}			118	114	
SEA Condamine	114	107	108	110	
RockStar ^{db}			114	113	
LRPB Reliant ^{db}	102	97	106	114	
LRPB Stealth ^{db}				113	
Rebel Rat		107		103	
Coota ^{db}		95	110	105	
Boree ^{db}		94	110	106	
Borlaug 100 ^{db}				103	
Calibre ^{db}			109	102	
LRPB Lancer ^{db}				106	
Jillaroo ^{db}			105	101	
SUN1081A ^{db}				103	
Scepter ^{db}	100	97	104	94	
Sowing date	13 Apr	18 Apr	20 Apr	6 May	
Rainfall J–M (mm)	267	227	224	28	
Rainfall A–O (mm)	51	47	173	450	

No 2023 trial cooperators.

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

WHEAT

BARLEY

CHICKPEA

Table 5: Rolleston/Springsure main season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	4.62	2.54	2.79	6.84	
SEA Condamine	108	102	115	116	
Borlaug 100 ^{db}				118	
Rebel Rat		95		118	
Calibre ^{db}			108	109	
Sunblade CL Plus ^{db*}	106	91	110	111	
Sunmaster ^{db}	104	87	107	110	
Scepter ^{db}	101	99	104	106	
Catapult ^{db}			101	96	No trial
LRPB Avenger ^{db}				108	
Coota ^{db}		114	102	97	
Boree ^{db}		119	97	100	
Suncentral ^{db}	102	83	102	106	
LRPB Flanker ^{db}	97	130	97	93	
Condo ^{db}	100	82	100	106	
LRPB Reliant ^{db}	102	113	100	92	
Sowing date	7 May	16 Apr	5 May	3 May	
Rainfall J–M (mm)	160	316	209	187	
Rainfall A–O (mm)	109	143	95	463	

No 2023 trial cooperator.

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

Table 7: Daringa/Emerald early season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	2.90	4.55	3.14	6.63	4.86
Sundancer ^{db}					107
Leverage ^{db}				115	108
SUN1081A ^{db}				99	107
Jumbuck ^{db}					109
Borlaug 100 ^{db}				106	101
Rebel 65 ^{db}				83	107
Sunflex ^{db}	108	101		108	101
RockStar ^{db}			110		98
Coota ^{db}	103	93	107	106	100
LRPB Stealth ^{db}	107	97	112	98	101
Coolah ^{db}	101	96	108	100	102
LRPB Raider ^{db}		92	108	103	104
Jillaroo ^{db}					100
LRPB Lancer ^{db}	107	97	106	96	97
LRPB Flanker ^{db}	100	102	109	86	102
Sowing date	23 Apr	23 Apr	12 Apr	4 May	27 Apr
Rainfall J–M (mm)	202	519	187	98	275
Rainfall A–O (mm)	55	69	107	370	91

Special thanks to 2023 trial cooperator.

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

Table 6: Capella early season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	3.34	2.46	2.27	5.51	
Leverage ^{db}				106	
SUN1081A ^{db}				104	
Rebel 65 ^{db}				116	
LRPB Raider ^{db}		111	100	101	
LRPB Flanker ^{db}	118	104	103	103	
Coolah ^{db}	122	107	102	99	
LRPB Reliant ^{db}	124	97	97	102	
LRPB Stealth ^{db}	120	106	105	97	No trial
Rebel Rat				105	
Sunflex ^{db}	110	109		99	
Coota ^{db}	119	105	102	96	
EGA Gregory ^{db}	119	95		103	
DS Faraday ^{db}	120	92	85	103	
Borlaug 100 ^{db}				106	
LRPB Lancer ^{db}	102	96	103	93	
Sowing date	13 Apr	15 Apr	13 Apr	5 May	
Rainfall J–M (mm)	188	242	151	98	
Rainfall A–O (mm)	106	63	132	372	

No 2023 trial cooperator.

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

Table 8: Jambin early season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	3.14	4.45	4.32	5.74	
Leverage ^{db}				111	
SUN1081A ^{db}				102	
Rebel 65 ^{db}				119	
Rebel Rat				113	
Borlaug 100 ^{db}		115		116	
LRPB Raider ^{db}		108	106	99	
Sunflex ^{db}	109	108		100	
LRPB Flanker ^{db}	113	105	103	99	No trial
Coolah ^{db}	112	105	104	96	
LRPB Stealth ^{db}	108	105	105	92	
Coota ^{db}	106	103	104	93	
LRPB Reliant ^{db}	110	97	104	92	
EGA Gregory ^{db}	107	93		96	
DS Faraday ^{db}	106	89	101	96	
LRPB Lancer ^{db}	91	96	102	87	
Sowing date	24 Apr	27 Apr	27 Apr	28 Apr	
Rainfall J–M (mm)	183	490	183	264	
Rainfall A–O (mm)	179	212	270	391	

No 2023 trial cooperator.

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

WHEAT
BARLEY
CHICKPEA

Table 9: Kilcummin early season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	0.92	2.09	3.02	4.21	
SUN1081A ^{db}				111	
Leverage ^{db}				115	
LRPB Raider ^{db}		112	109	117	
Rebel 65 ^{db}				106	
Coolah ^{db}	129	111	108	107	
LRPB Stealth ^{db}	132	114	109	101	
Coota ^{db}	130	109	106	105	
LRPB Flanker ^{db}	120	111	107	104	No trial
LRPB Reliant ^{db}	129	105	107	105	
Sunflex ^{db}	115	111		103	
EGA Gregory ^{db}	118	96		111	
DS Faraday ^{db}	118	89	98	116	
LRPB Lancer ^{db}	114	103	103	89	
Borlaug 100 ^{db}				91	
Sunmax ^{db}	82	55		118	
Sowing date	13 Apr	18 Apr	20 Apr	13 Apr	
Rainfall J–M (mm)	267	227	224	28	
Rainfall A–O (mm)	51	47	173	450	

No 2023 trial cooperator.

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

Table 10: Rolleston/Springsure early season wheat.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	4.22	2.27	2.66	6.68	
SUN1081A ^{db}				95	
Leverage ^{db}				98	
Rebel Rat				114	
Rebel 65 ^{db}				109	
LRPB Raider ^{db}		134	109	90	
LRPB Flanker ^{db}	113	115	105	97	
Coolah ^{db}	113	120	106	94	
LRPB Stealth ^{db}	114	115	106	95	No trial
LRPB Reliant ^{db}	117	116	104	93	
Sunflex ^{db}	107	112		98	
Coota ^{db}	111	116	105	93	
LRPB Hellfire ^{db}				102	
Borlaug 100 ^{db}				114	
EGA Gregory ^{db}	109	115		92	
DS Faraday ^{db}	108	118	101	90	
Sowing date	17 Apr	16 Apr	21 Apr	3 May	
Rainfall J–M (mm)	160	316	209	187	
Rainfall A–O (mm)	109	143	95	463	

No 2023 trial cooperator.

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

Wheat variety quality – Central Queensland

Grain quality for individual varieties varies from site to site and from year to year. However, long-term and across-site trends highlight varieties that can consistently achieve high protein percentage, high test weight or low grain screenings under a wider range of environments.

The following figures show the grain quality trends as histograms from 2022 and 2023 NVT averaged for trials in the Central Queensland region. Only the varieties evaluated at every site are included. These are plotted in order of performance, up to a maximum of 20.

Protein and yield comparisons

Figure 1: Protein (%) and yield (t/ha) comparisons for main season wheat varieties from four NVT sites in Central Queensland in 2022.

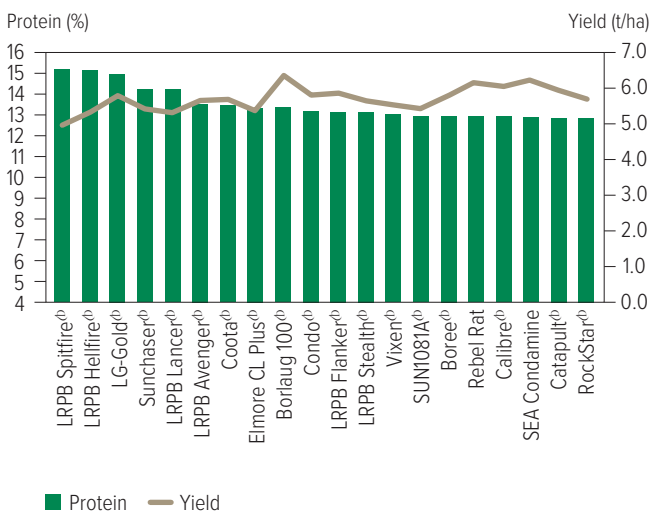


Figure 2: Protein (%) and yield (t/ha) comparisons for main season wheat varieties from one NVT site in Central Queensland in 2023.

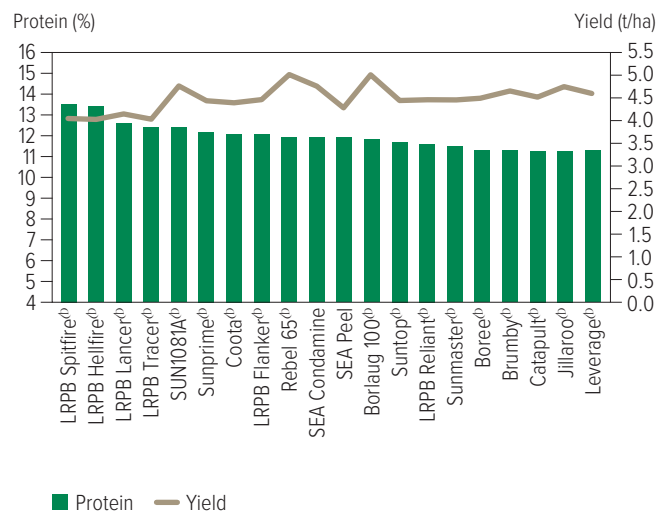


Figure 3: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from five NVT sites in Central Queensland in 2022.

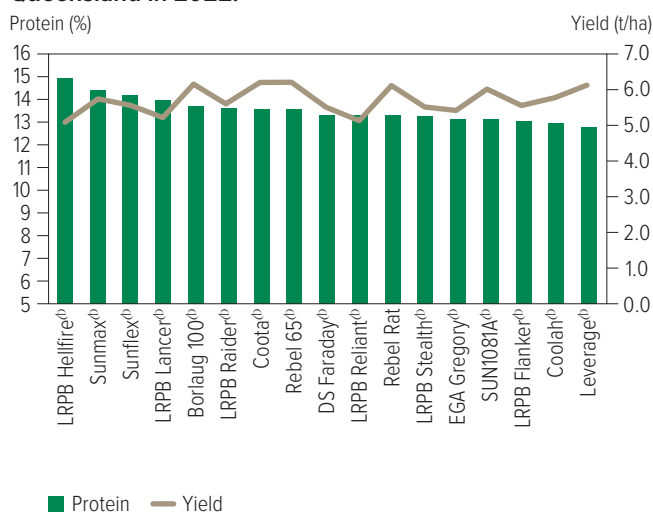
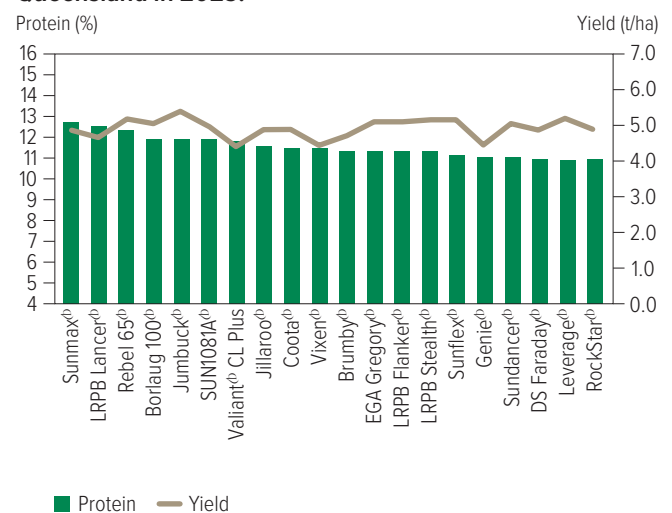


Figure 4: Protein (%) and yield (t/ha) comparisons for early season wheat varieties from one NVT site in Central Queensland in 2023.



WHEAT
BARLEY
CHICKPEA

Test weight comparisons

Figure 5: Test weight (kg/hL) comparisons for main season wheat varieties from four NVT sites in Central Queensland in 2022.

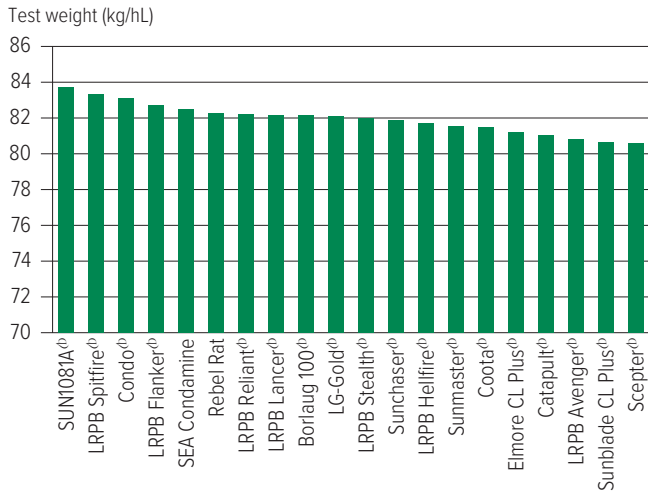


Figure 6: Test weight (kg/hL) comparisons for main season wheat varieties from one NVT site in Central Queensland in 2023.

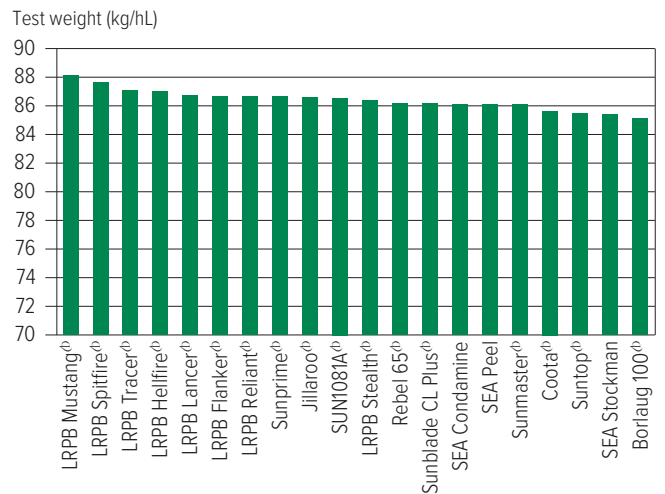
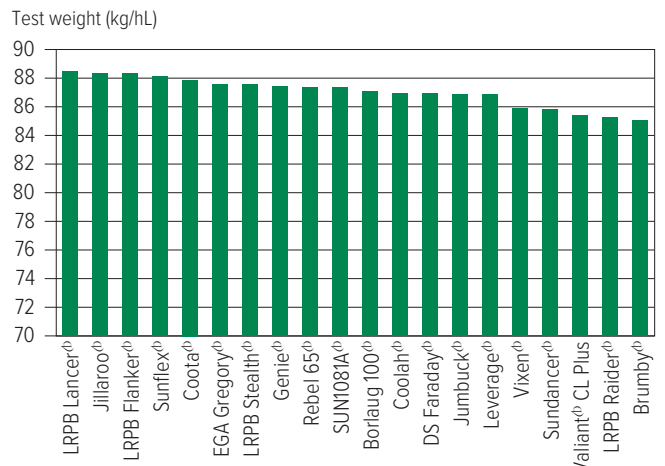


Figure 7: Test weight (kg/hL) comparisons for early season wheat varieties from five NVT sites in Central Queensland in 2022.



Figure 8: Test weight (kg/hL) comparisons for early season wheat varieties from one NVT site in Central Queensland in 2023.



Screenings comparisons

Figure 9: Screenings (<2.0mm) comparisons for main season wheat varieties from four NVT sites in Central Queensland in 2022.

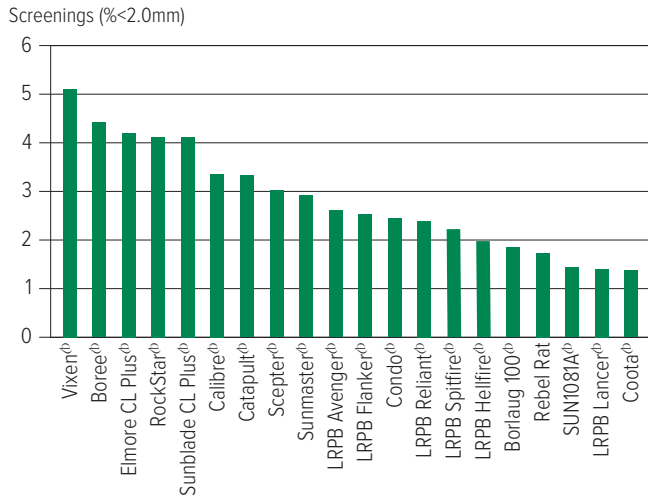


Figure 11: Screenings (<2.0mm) comparisons for early season wheat varieties from five NVT sites in Central Queensland in 2022.

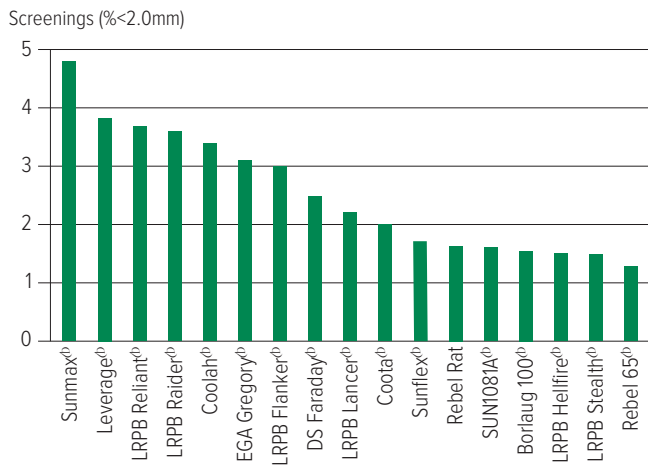


Figure 10: Screenings (<2.0mm) comparisons for main season wheat varieties from one NVT site in Central Queensland in 2023.

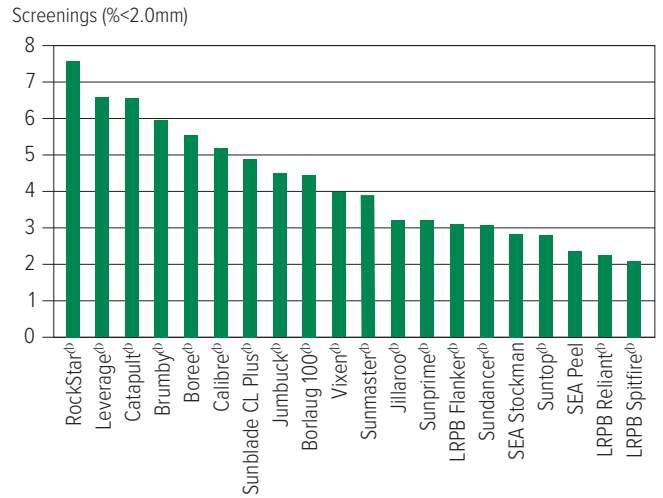
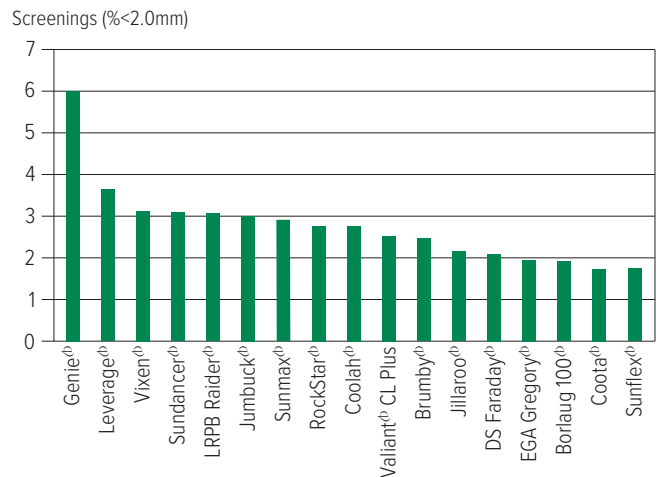


Figure 12: Screenings (<2.0mm) comparisons for early season wheat varieties from one NVT site in Central Queensland in 2023.



WHEAT

BARLEY

CHICKPEA

Wheat variety disease ratings – Queensland

The following tables contain varietal ratings for the predominant diseases of wheat in Queensland. These ratings are updated annually by crop pathologists and were released in March 2024.

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

Table 11: Wheat disease guide for Queensland.

Variety	Leaf rust	Stem rust	Stripe rust (east coast resistance)	Black point	Crown rot	Powdery mildew	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN tolerance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	RLN tolerance (<i>Pratylenchus thornei</i>)	Yellow leaf spot
Boree ^{db}	S	MR	SVS	S	S	VS	S	I	MSS	MII	MRMS
Borlaug 100 ^{db}	MR	MR	SVS	MSS	MSS		S	T	MS	TMT	MRMS
Brumby ^{db}	SVS	MR	MS	MSS	S	MR/S	MRMS	TMT	MS (P)	MI	MRMS
Calibre ^{db}	S	MR	S	MSS	S	MSS	S	MT	MSS	MII	MRMS
Catapult ^{db}	S	MR	S	S	MSS	S	S	MII	MS	MT	MRMS
Condo ^{db}	S	MR	MRMS/MS	MS	S	MRMS	S	MT	MS	TMT	MS
Coolah ^{db}	RMR	MR	MSS	S	MSS	S	S	MT	MS	MT	MSS
Coota ^{db}	MR	RMR	S	MS	MSS	S	MR	MI	MS	MTMI	MSS
Cutlass ^{db}	RMR	R	MSS	MS	S	MSS	MSS	MT	MSS	MI	MSS
Denison ^{db}	S	MS	S	MS	MSS	S	S	MII	S	MI	MRMS
DS Faraday ^{db}	RMR	RMR	MRMS	MSS	MSS	R (P)	S	MTMI	MSS	MT	MSS
DS Tull ^{db}	MSS	MR	MS	MRMS	S		MSS	MT	MSS	MTMI	S
EG Jet ^{db}	S	S	MRMS	MS	S	MSS	S	MI	S	I	MRMS
EG Titanium	MS	MS	MR	MSS	MSS	S	MSS	MTMI	MSS	MTMI	MSS
EGA Gregory ^{db}	MR	MR	MS	MSS	S	MR	S	MT	MSS	MT	S
Genie ^{db}	S (P)	MS (P)	MRMS (P)			SVS (P)					MRMS (P)
Hyperno ^{db}	RMR	RMR	MR	MS	SVS	MR	MS	MTMI	RMR	TMT	MRMS
Jillaroo ^{db}	S	MS	MSS	MS	S	S	S	I	MS (P)	MII	MS
Jumbuck ^{db}	RMR (P)	MRMS (P)	MR (P)			MS (P)					MS (P)
Leverage ^{db}	RMR#	MR	MRMS	MSS (P)	S	S	S		MS	MT	MRMS
LRPB Avenger ^{db}	S	MS	S	MRMS	S	SVS	MSS	MI	MRMS	MI	MS
LRPB Flanker ^{db}	RMR	MR	MRMS	MS	MSS	MRMS	S	MT	MSS	MT	MSS
LRPB Hellfire ^{db}	MSS	MR	MR	S	MSS	SVS	MSS	MTMI	MSS	MI	MSS
LRPB Impala ^{db}	SVS	MR	MRMS	MS	MSS	R	SVS	MTMI	S	MII	MSS
LRPB Lancer ^{db}	RMR	R	RMR	MRMS	MSS	R	S	MTMI	MS	TMT	MS
LRPB Mustang ^{db}	MSS	MRMS	MR	MS	MSS	MSS	S	MI	MSS	MTMI	MSS
LRPB Nighthawk ^{db}	MSS	RMR	MR	MS	MSS	SVS	MSS	IVI	MS	MI	MS
LRPB Oryx ^{db}	RMR#	MR	MS	MS	MSS	MR	MSS	MII	MSS	IVI	MSS
LRPB Raider ^{db}	RMR	RMR	MR	MSS	S	MSS	MSS	MTMI	MS	TMT	MSS
LRPB Reliant ^{db}	RMR	R	MR	MS	MS	RMR	SVS	MTMI	MSS	TMT	S
LRPB Spitfire ^{db}	S	MR	MRMS	MSS	MS	MRMS	MSS	MI	MS	MTMI	S
LRPB Stealth ^{db}	RMR#	R	RMR	MRMS	MSS	MRMS	MSS	MTMI	S	MTMI	MS
LRPB Tracer ^{db}	MR# (P)	MS (P)	MR (P)			MSS (P)					S (P)
Rebel 65 ^{db}	MRMS	MSS	MS	MSS	S		S	TMT	MRMS	TMT	MSS
Rebel Rat	MRMS#	MRMS	MS	MSS	MSS	VS	S	T	MSS	MT	MRMS
RGT Zanzibar	SVS	VS	MR	MRMS	S	RMR	S	IVI	MS (P)	MI	MS
RockStar ^{db}	S	MRMS	S	MSS	S	SVS	MRMS	I	MS	MI	MRMS
Scepter ^{db}	MSS	MRMS	MSS	MS	MSS	SVS	S	MTMI	MSS	MT	MRMS
SEA Condamine	RMR	MRMS	MSS	MRMS	MSS		S	MT	MS	MT	MSS
SEA Peel	RMR	MR#	MR	MSS (P)	MSS	MSS	MSS		MRMS	MI	MS
SEA Stockman	MR	MS	MRMS	MSS (P)	S	SVS	MSS		S	MTMI	MSS
Severn ^{db}	MRMS	MS	RMR	MR	S	R	S		MRMS		MRMS
SUN1081A ^{db}	MR#	MRMS	MR		MS	S	S		MRMS	TMT	MRMS
Sunblade CL Plus ^{db}	MSS	MS	MRMS	MRMS	S	S	MSS	MI	MRMS	MT	MSS
Suncentral ^{db}	RMR	MRMS		MRMS	MSS	SVS	MRMS	MI	MRMS	MT	MSS
Sunchaser ^{db}	R	MR		MRMS	MSS	VS	MSS	MTMI	MSS	MT	MS

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Continued on next page

Table 11: Wheat disease guide for Queensland (continued).

Variety	Leaf rust	Stem rust	Stripe rust (east coast resistance)	Black point	Crown rot	Powdery mildew	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN tolerance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	RLN tolerance (<i>Pratylenchus thornei</i>)	Yellow leaf spot
Sundancer ^{db}	RMR	MR	MR	MSS (P)	MSS	S	MSS		MS	MT	MS
Sunflex ^{db}	RMR#	MR	MRMS	MSS	MSS	S	S	MI	MSS	MI	MS
Sunmaster ^{db}	RMR	MS	MRMS	MR	MSS	MSS	MRMS	MTMI	MS	TMT	MSS
Sunmax ^{db}	MS	MRMS	RMR	MRMS	MSS	S	S	MT	MS	MI	MSS
Sunprime ^{db}	MR#	MS	MS	MSS	MSS		S	MTMI	S	MTMI	MSS
Suntop ^{db}	MR	MRMS	MRMS	MSS	MSS	S	S	MT	MRMS	TMT	MSS
Valiant ^{db} CL Plus	S	MR	S	MS (P)	MSS	VS	S	MII	S (P)	IVI	MRMS
Vixen ^{db}	SVS	MRMS	SVS	MSS	S	SVS	MRMS	I	MS	I	MRMS
Willaura ^{db}	MRMS	MR	S	MRMS	S	SVS	MSS	MII	MRMS	MTMI	MS
DURUM											
Caparoi ^{db}	RMR	MR	MS	MSS	VS	S	MS	MI	MR	MT	MR
DBA Bindaroi ^{db}	MR	MR	MS	MRMS	SVS	MSS	MRMS	MI	MR	MTMI	MS
DBA Lillaroi ^{db}	RMR	RMR	MS	MS	SVS	MSS	MRMS	MI	RMR	MT	MRMS
DBA Mataroi ^{db}	MR	MRMS	MS	MS	SVS	S	MS	MT	RMR	MI	MRMS
DBA Spes	RMR	R	MS	MS	VS	MSS	MRMS	MTMI	RMR	MI	MRMS
DBA Vittaroi ^{db}	RMR	MR	MS	MSS	SVS	MS	MS	I	MR	MI	MRMS
DBA-Artemis ^{db}	RMR	MR	MRMS	MS	SVS	S	MS	MII	MR	MTMI	MRMS
DBA-Aurora ^{db}	RMR	RMR	MRMS	MS	SVS	MSS	MRMS	MI	RMR	MT	MRMS
Jandaroi ^{db}	MR	MRMS	MRMS	MS	VS	MSS	MS	MII	MRMS	MTMI	MRMS
Patron ^{db}	MR#	RMR	MRMS	MSS	SVS	MSS	MRMS	T	MR	MT	MRMS
Westcourt ^{db}	RMR	RMR	MR	MSS	VS	S	MS	MI	MR	MT	MRMS

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

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

T = tolerant, MT = moderately tolerant, MI = moderately intolerant, I = intolerant, VI = very intolerant,

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

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New barley varieties

The following information is for barley varieties released in the 12 months to the date when the MET analysis was published on NVT online. Please go to nvt.grdc.com.au to find trial results for any new varieties released since the publication of this harvest report.

Variety	Breeding company	Grain classification	End point royalty* (\$)	Comments supplied by breeding company ¹
Neo [®] CL	InterGrain	Under malt evaluation	4.25	Neo [®] CL is a mid-maturing, imidazolinone-tolerant spring barley, ideally suited to medium-high rainfall environments. Neo [®] CL provides an outstanding disease resistance profile with excellent resistance to cereal cyst nematode, powdery mildew and the spot form of net blotch, and useful resistance to the net form of net blotch and leaf scald. Neo [®] CL has a semi-prostrate early growth habit, medium plant height, good tolerance to lodging, good grain retention and tolerance to head loss, and very good levels of grain plumpness. Neo [®] CL has been accepted into Grains Australia's malting accreditation program with earliest potential final accreditation in March 2025.
Spinnaker [®]	Secobra Recherches		TBC	Released under code name SCA21-Y003.

* EPR amount is ex-GST, [®] denotes Plant Breeder's Rights apply. ¹ All data in the table was provided by breeders. Readers should raise any issues with the displayed data directly with the breeder.

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

Barley variety yield performance – Central Queensland

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period. The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

Table 1: Emerald/Springsure main season barley.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	3.76	2.85	3.36	4.64	4.89
Titan AX ^{db} *				97	111
Combat ^{db}			120	104	106
Neo ^{db} CL*					107
Leabrook ^{db}	126	107	116	101	102
Yeti ^{db}	126	110	113	101	99
RGT Planet ^{db}	107	109	111	112	104
Beast ^{db}	123	103	115	95	96
Spinnaker ^{db}				116	99
Fandaga ^{db}					103
Commodus ^{db} CL*		98	108	92	99
Compass ^{db}	123	96	110	91	95
Zena ^{db} CL*			101	111	99
Laperouse ^{db}	107	101	98	100	98
Commander ^{db}	105	95	99	95	104
Rosalind ^{db}	105	95	102	105	92
Sowing date	17 Apr	16 Apr	22 Apr	4 May	27 Apr
Rainfall J–M (mm)	160	316	187	98	275
Rainfall A–O (mm)	109	143	107	370	91

Special thanks to 2023 trial cooperator.

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

Table 2: Jambin main season barley.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	3.20			3.66	
Beast ^{db}	115			102	
Leabrook ^{db}	113			103	
Combat ^{db}				100	
Titan AX ^{db} *				99	
Yeti ^{db}	109			105	
RGT Planet ^{db}	109			105	
Compass ^{db}	110			102	
Spinnaker ^{db}				108	
Rosalind ^{db}	101			108	
Commodus ^{db} CL*				100	
Zena ^{db} CL*				106	
Laperouse ^{db}	95			104	
La Trobe ^{db}	97			100	
Alestar ^{db}				105	
Commander ^{db}	98			97	
Sowing date	24 Apr	27 Apr	27 Apr	28 Apr	
Rainfall J–M (mm)	183	490	183	264	
Rainfall A–O (mm)	179	212	270	391	

No 2023 trial cooperator.

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

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Barley variety quality – Central Queensland

Grain quality for individual varieties varies from site to site and from year to year. However, long-term and across-site trends highlight varieties that can consistently achieve high protein percentage, high test weight or low grain screenings under a wider range of environments.

The following figures show the grain quality trends as histograms from 2022 and 2023 NVT averaged for trials in the Central Queensland region. Only the varieties evaluated at every site are included. These are plotted in order of performance, up to a maximum of 20.

Protein and yield comparisons

Figure 1: Protein (%) and yield (t/ha) comparisons for main season barley varieties from two NVT sites in Central Queensland in 2022.

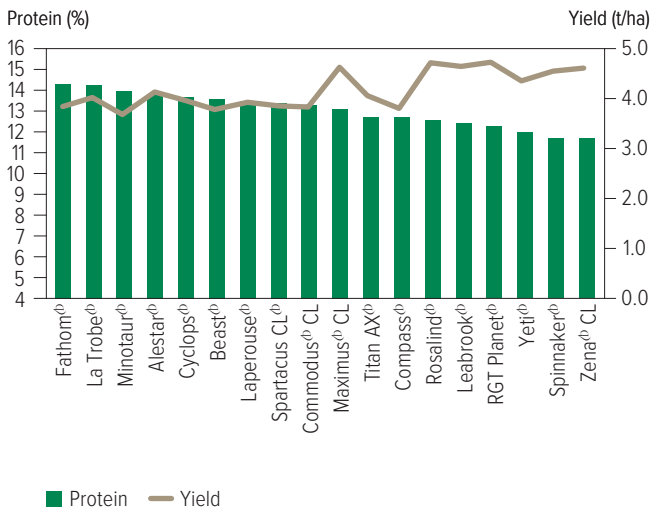
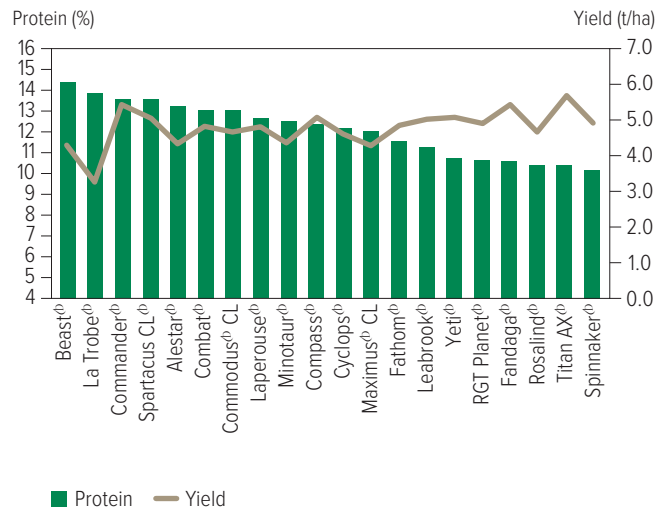


Figure 2: Protein (%) and yield (t/ha) comparisons for main season barley varieties from one NVT site in Central Queensland in 2023.



Test weight comparisons

Figure 3: Test weight (kg/hL) comparisons for main season barley varieties from two NVT sites in Central Queensland in 2022.

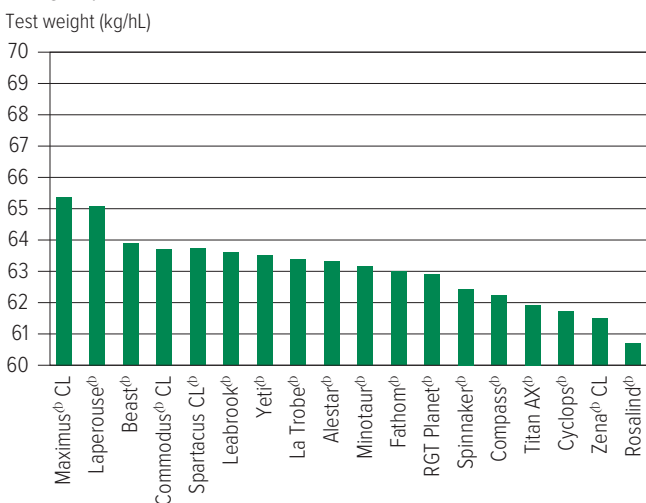
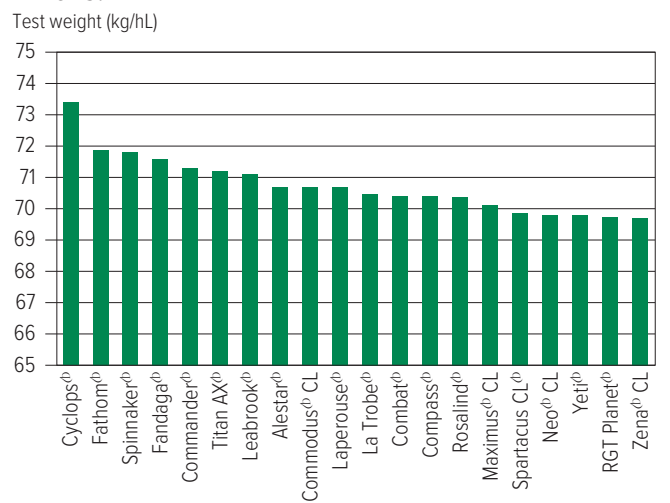


Figure 4: Test weight (kg/hL) comparisons for main season barley varieties from one NVT site in Central Queensland in 2023.



Screenings comparisons

Figure 5: Screenings (<2.2mm) comparisons for main season barley varieties from two NVT sites in Central Queensland in 2022.

Screenings (%<2.2mm)

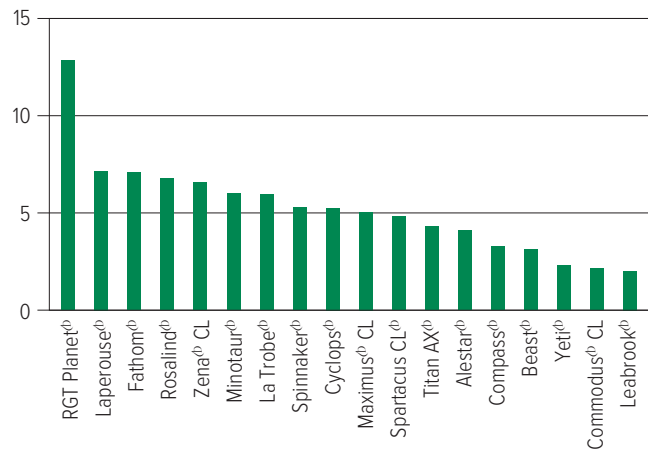
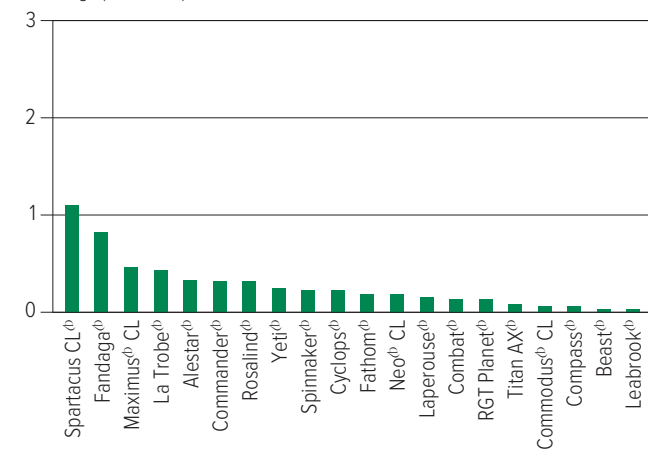


Figure 6: Screenings (<2.2mm) comparisons for main season barley varieties from one NVT site in Central Queensland in 2023.

Screenings (%<2.2mm)



Retention comparisons

Figure 7: Retention (>2.5mm) comparisons for main season barley varieties from two NVT sites in Central Queensland in 2022.

Retention (%>2.5mm)

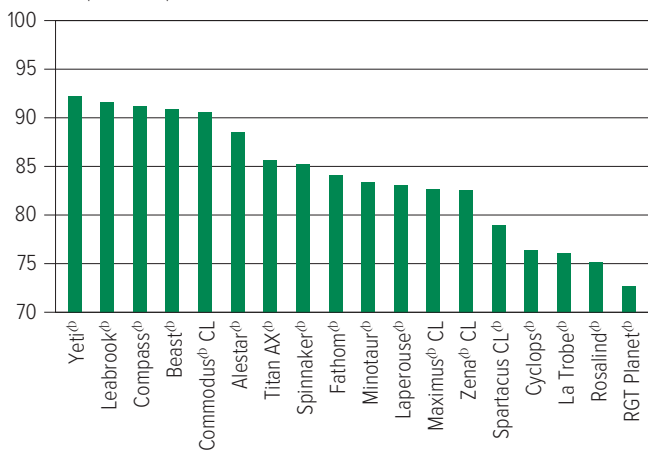
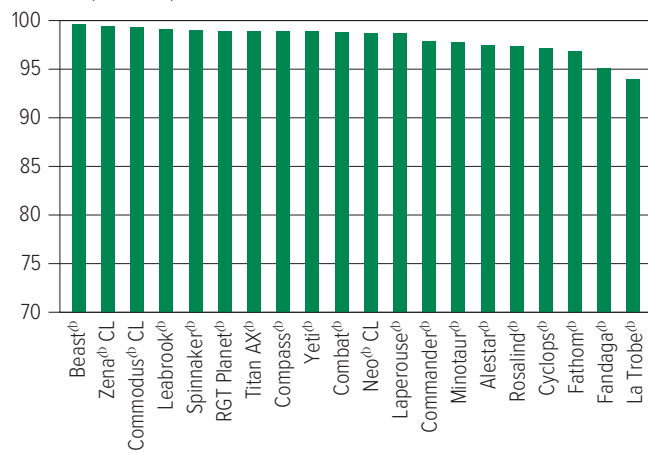


Figure 8: Retention (>2.5mm) comparisons for main season barley varieties from one NVT site in Central Queensland in 2023.

Retention (%>2.5mm)



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Barley variety disease ratings – Queensland

The following tables contain varietal ratings for the predominant diseases of barley in Queensland. These ratings are updated annually by crop pathologists and were released in March 2024.

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

Table 3: Barley disease guide for Queensland.

Variety	Leaf rust	Black point	Crown rot	Net form net blotch	Spot form net blotch	Powdery mildew	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN tolerance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	RLN tolerance (<i>Pratylenchus thornei</i>)	Ramularia
Alestar ^{db}	MS	MRMS	S	MSS	S	MR	MR	I	MR	MTMI	SVS
Banks ^{db}	S	MS	MSS	MRMS	MSS	MS	MS	MII	MR	TMT	VS
Bass ^{db}	SVS	MRMS	MSS	MSS	MSS	S	MS	I	MRMS	MTMI	VS
Beast ^{db}	S	MSS	S	MRMS	MS	S	MRMS	MI	MRMS	TMT	SVS
Bottler ^{db}	MS	MRMS	SVS	MS	MSS	RMR	MS	MT	RMR	MI	SVS
Buff ^{db}	S-SVS	MS	S	MS	MSS	S	MRMS	MT	MS	MI	SVS
Combat ^{db}	MS	MSS	S	MRMS	RMR	MS	MRMS		MS	TMT	SVS
Commander ^{db}	S-SVS	MSS	S	MS-S	MSS	MSS	MRMS	MTMI	MRMS	MT	SVS
Commodus ^{db} CL	S	MS	S	MRMS	MRMS	MSS	MRMS	TMT	MRMS	MTMI	SVS
Compass ^{db}	SVS	MSS	MSS	MS	MS	S	MRMS	TMT	MR	TMT	SVS
Cyclops ^{db}	S	MSS	MSS	MRMS	MS	SVS	MRMS	MI	MRMS	MI	SVS
Fairview ^{db}	S	MS	MSS	SVS	S	R	MR		MR	MI	SVS
Fandaga ^{db}	MSS	MRMS	MSS	MS	MSS	R	MR		MR	TMT	VS
Fathom ^{db}	MS	MSS	SVS	MS	MRMS	MRMS	MRMS	T	MR	MT	SVS
Flinders ^{db}	MSS	MRMS	MSS	MRMS	MSS	RMR	MRMS		MR	MTMI	SVS
Keel	S	MSS	S	S	MR	S	MS		MRMS	MII	SVS
Kiwi	MS	MS	MSS	MRMS	MSS	RMR	MRMS	MI	RMR	MTMI	VS
La Trobe ^{db}	MS-S	MSS	S	MS	S	MSS	MRMS	MT	MRMS	MT	SVS
Laperouse ^{db}	SVS	MSS	S	MRMS	MR	MSS	MRMS	MI	MR	MTMI	VS
Leabrook ^{db}	SVS	MS	S	MS	MRMS	S	MRMS	MT	RMR	TMT	VS
Litmus ^{db}	S	MS	S	MS	S	MS	MS	MTMI	MRMS	IVI	VS
Maximus ^{db} CL	S	MSS	S	MRMS	MRMS	S	MRMS	MT	MRMS	MI	VS
Minotaur ^{db}	SVS	MRMS	MSS	MRMS	S	S	MRMS	MI	MRMS	TMT	SVS
Neo ^{db} CL	S (P)	MRMS (P)		MRMS-S (P)	RMR (P)	RMR (P)	RMR (P)		MR (P)		SVS (P)
RGT Planet ^{db}	MRMS	MRMS	MSS	MRMS-S	S	RMR	MRMS	MT	MR	MI	SVS
Rosalind ^{db}	MRMS	MS	S	MRMS	MS	MSS	MRMS	MT	MRMS	TMT	VS
SakuraStar	MSS	MS	S	MS	MR	MSS	MR	MT	MR	MTMI	SVS
Scope CL ^{db}	S	MS	S	MS	MS	MRMS	MRMS	MI	MRMS	MI	SVS
Spartacus CL ^{db}	MSS	MSS	S	MS	S	MSS	MRMS	MII	MRMS	MI	VS
Spinnaker ^{db}	MSS	MRMS	S	S	MS	RMR	MR		MS	MTMI	VS
Titan AX ^{db}	S	MSS	S	MRMS	MRMS	MSS	MR		MR	TMT	VS
Topstart	MRMS	MRMS	MSS	MS	S	RMR	RMR	I	RMR	MI	SVS
Urambie	S	MRMS	MSS	MRMS	S	MS	MRMS	IVI	MR	I	VS
Westminster ^{db}	MRMS	MRMS	MSS	MRMS	S	RMR	MRMS	IVI	MS	I	SVS
Yeti ^{db}	S	MSS	S	MS	MRMS	S	MR	TMT	MR	MT	VS
Zena ^{db} CL	MSS	MRMS (P)	S	MS	S	RMR	MRMS		MR	MT	VS

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

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, T = tolerant, MT = moderately tolerant, MI = moderately intolerant, I = intolerant, VI = very intolerant, (P) = provisional rating, - hyphen indicates a range.

CHICKPEA

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Chickpea variety yield performance – Central Queensland

Yield results are presented from the top-performing varieties within each NVT location in the region for the past five seasons. Results are presented (as a percentage) for each variety relative to the mean trial yield for the location within each year. Varieties are listed in descending order of average yield over the period. The Long Term Yield Reporter provides additional information on varieties not listed and can be viewed as a table or chart with error bars. Rainfall is provided for January to March (J–M) and April to October (A–O) and, where relevant, irrigation from April to October.

Table 1: Emerald/Springsure desi chickpea.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	2.25	2.44	2.38	3.45	2.81
PBA Drummond ^{db}	106	102	100	117	101
PBA Pistol ^{db}	102	100	102	111	100
PBA Seamer ^{db}	103	102	106	105	100
CBA Captain ^{db}	97	100	102	97	
Kyabra ^{db}	102	96	92	90	
PBA HatTrick ^{db}	95	96	95	82	96
Sowing date	7 May	1 May	11 May	27 May	18 May
Rainfall J–M (mm)	160	316	187	98	275
Rainfall A–O (mm)	109	143	107	514	91

Special thanks to 2023 trial cooperator.
Learn more via the [NVT Long Term Yield Reporter](#)

Table 2: Jambin desi chickpea.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)		3.04	2.45		
PBA Drummond ^{db}		107	112		
PBA Pistol ^{db}		102	106		
PBA Seamer ^{db}		102	104		
CBA Captain ^{db}		97	98		
Kyabra ^{db}		101	92		
PBA HatTrick ^{db}		95	86		
Sowing date	9 May	14 May	10 May	14 Jun	
Rainfall J–M (mm)	183	490	183	264	
Rainfall A–O (mm)	179	212	270	391	

No 2023 trial cooperator.
Learn more via the [NVT Long Term Yield Reporter](#)

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

Table 3: Kilcummin desi chickpea.

Year	2019	2020	2021	2022	2023
Mean yield (t/ha)	1.62	1.88	2.16	3.91	
PBA Drummond ^{db}	106	103	107	102	No trial
PBA Pistol ^{db}	107	100	99	105	
PBA Seamer ^{db}	111	103	92	102	
CBA Captain ^{db}	99	99	97	102	
Kyabra ^{db}	95	100	106	89	
PBA HatTrick ^{db}	92	97	97	95	
Sowing date	2 May	30 Apr	29 Apr	6 May	
Rainfall J–M (mm)	267	227	224	28	
Rainfall A–O (mm)	51	47	173	450	

Special thanks to 2023 trial cooperator.
Learn more via the [NVT Long Term Yield Reporter](#)

Chickpea variety disease ratings – Queensland

The following table contains varietal ratings for the predominant diseases of chickpea in Queensland. These ratings are updated annually by crop pathologists and were released in March 2024.

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

Table 4: Chickpea disease guide for Queensland.

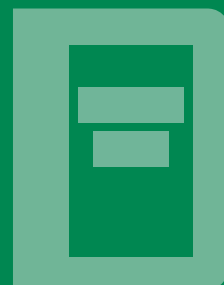
Variety	Ascochyta blight (pathogen group 2 – north)	2022-23 Phytophthora root rot	RLN resistance (<i>Pratylenchus neglectus</i>)	RLN tolerance (<i>Pratylenchus neglectus</i>)	RLN resistance (<i>Pratylenchus thornei</i>)	RLN tolerance (<i>Pratylenchus thornei</i>)
DESI						
CBA Captain ^{db}	MS	S	MR	MT	MS	MT
Genesis™ 836	S		MR	MII	MS	MT
Kyabra ^{db}	VS	VS	MRMS	MT	S	MT
Neelam ^{db}	S		MRMS	MI	MS	MTMI
PBA Boundary ^{db}	S	VS	RMR	MI	MRMS	MT
PBA Drummond ^{db}	VS	VS	MR	TMT	MRMS	MT
PBA HatTrick ^{db}	S	S	MRMS	MT	MRMS	MTMI
PBA Maiden ^{db}	S		MRMS	MI	MRMS	MII
PBA Pistol ^{db}	VS		RMR	T	MRMS	MII
PBA Seamer ^{db}	MS	S	MRMS	MI	MRMS	MTMI
PBA Slasher ^{db}	S		MRMS	MI	MRMS	MT
PBA Striker ^{db}	S		MRMS	MI	MRMS	TMT
KABULI						
Almaz ^{db}	MS		MRMS	MII	S	IVI
Genesis™ 090	MS		MRMS	IVI	MS	MII
Genesis™ Kalkee	S		MRMS	VI	MS	MI
PBA Magnus ^{db}	MS		MR	MII	MSS	I
PBA Monarch ^{db}	MS		MRMS	I	MS	MII
PBA Royal ^{db}	MS		MR	VI	MS	MII

Learn more via the [NVT Disease Ratings](#).
R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible, T = tolerant, MT = moderately tolerant, MI = moderately intolerant, I = intolerant, VI = very intolerant.

NVT tools



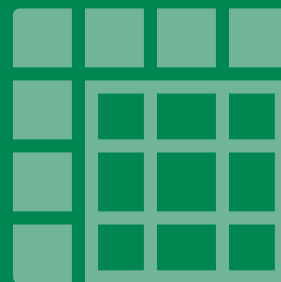
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