

The information, sourced from the NVT website (www.grdc-nvt.com.au) and from internal NSW DPI/DBA trials and laboratory tests, compiled in this document has been provided to Seednet by NSW DPI in good faith and is current as at April 2020. For updated information after this date, please refer to NVT results.

DBA Lillaroi

Durum Wheat

VARIETY SUMMARY

- Early - medium maturity
- Higher grain yield than Jandaroi
- Excellent durum quality with high milling yield and excellent semolina colour
- Low screenings and large grain size



BREEDING

DBA Lillaroi was bred by the Northern Node of Durum Breeding Australia (DBA) at the Tamworth Agricultural Institute, NSW DPI.

Pedigree: 960273/980596, both the parent lines are experimental breeding lines from Tamworth DBA program.



AREA OF ADAPTATION

DBA Lillaroi is adapted to the rainfed durum producing areas of New South Wales and has shown particularly good performance in southeast Queensland. DBA Lillaroi is not recommended for high input irrigation systems without appropriate management.



DISEASE RESISTANCE RATINGS

A new strain of stripe rust with an increased virulence on durum varieties was detected in eastern Australia during 2019. Growers should regularly check their durum crops for stripe rust and if infection is found please send leaf samples to the Australian Cereal Rust Control Program (grdc.com.au/resources-and-publications/groundcover/groundcover-july-august-2018/new-stripe-rust) and consider spraying (see table below for resistance rating).

Other than the new (2019) strain of stripe rust, DBA Lillaroi has good resistance to all three rusts and it has a Crown rot resistance rating of S-VS, which is a small improvement over Jandaroi, Caparoi and EGA Bellaroi that are rated VS.

NSW Disease ratings for DBA Lillaroi compared with DBA Bindaroi, DBA Vittaroi, Caparoi and Jandaroi (NSW DPI 2020)

Variety	Rust Resistance				RLN (P.thorneii) Resistance Tolerance	RLN (P.neglectus) Resistance Tolerance	Yellow Leaf Spot	Septoria tritici	Crown Rot	Common Root Rot	Black- point
	Stem rust	Leaf rust	Stripe rust- current	Stripe Rust - new							
DBA Lillaroi	R-MR	R	R-MR	MS	R-MR / MI-I	MR-MS / -	MR-MS	MR-MS	S-VS	MS-S	MS
DBA Bindaroi	MR-MS	R-MR	R-MR	MS	MR / -	MR-MS / -	MR-MS	MS	S-VS	MS-S	MR-MS
DBA Vittaroi	MR	R	MR	MS	MR / -	MS / -	MR-MS	MS	S-VS	MS-S	MS-S
Caparoi	R-MR	R-MR	MR	-	MR / MI	MS / MI-I	MR	MR-MS	VS	MR-MS	MS-S
Jandaroi	MR	R-MR	MR	MR-MS	MR-MS/MI-I	MR-MS / MI	MR-MS	MR-MS	VS	MR	MS



MATURITY

DBA Lillaroi is an early to medium maturing durum wheat. It has a heading maturity approximately 3 days later than Jandaroi and 3 days earlier than Caparoi.

Suggested sowing time in the northern region is late May to end of June. DBA Lillaroi is also suitable for late sowing (e.g. after a cotton crop). It has performed better than Jandaroi at late sowing times in DPI Agronomy trials.



PLANT TYPE

DBA Lillaroi has strong seedling vigour and erect plant growth. It is of similar height to Caparoi with straw strength slightly less than Caparoi.



GRAIN QUALITY

DBA Lillaroi produces large sized grain and low screenings similar to Jandaroi and is superior to Caparoi and EGA Bellaroi.

DBA Lillaroi possesses significantly higher grain protein than Caparoi but lower than Jandaroi. It readily achieves 13% grain protein and has better semolina colour than Jandaroi, Caparoi and EGA Bellaroi. Its semolina yellow colour is lower than DBA Bindaroi and DBA Vittaroi.

DBA Lillaroi has been classified ADR by Wheat Quality Australia for the Northern and South Eastern zones (Northern and Southern NSW and QLD).



GRAIN YIELD AND QUALITY DATA

DBA Lillaroi has performed consistently better than Jandaroi in trials across northern NSW and Queensland over many years in NVT and has shown superior quality for key traits.

Summary Of 2017-2019 Multi-Environment Analysis Of Northern Durum NVT

(Yield Expressed As Percentage Of Caparoi)

Variety	QLD		QLD Overall	NSW			NSW Overall	OVERALL Northern
	SEQ	SWQ		Nth east	Nth west	Sth west		
DBA Lillaroi	93.6	109.1	101.4	102.0	93.8	97.8	98.2	98.8
DBA Bindaroi	99.9	106.5	103.2	102.6	100.4	101.2	101.4	101.7
DBA Vittaroi	92.0	108.8	100.5	98.5	90.5	96.7	96.0	96.7
Caparoi	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EGA Bellaroi	85.1	112.4	98.8	82.5	74.7	92.4	85.9	88.1
Jandaroi	87.0	75.1	83.0	94.8	83.7	93.5	91.9	91.4

DBA Lillaroi grain and end product quality compared with check varieties in 2012-2014 DBA trials.

(Once off data provided to Wheat Quality Australia by NSW DPI)

Variety	Grain quality						Milling quality			Dough quality	Pasta quality		
	TW	TGW	HVK	GP	WG	SKHI	Ash	SY	b*		Texture	Cooking	Colour
DBA Lillaroi													
DBA Bindaroi													
DBA Vittaroi													
Caparoi													
Jandaroi													

TW = test weight, TGW = 1000 grain weight, HVK = hard vitreous kernels (%), GP = grain protein at 11% mb, WG = wet gluten, SKHI = single kernel hardness index, Ash = semolina ash 14% mb, SY = semolina yield, b* = yellow index, Cooking = cooking time and loss.

Excellent	Good	Fair
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AGRONOMIC GUIDELINES

Sowing

Aim to achieve plant densities of 75-120 plants/m². The lower densities are recommended in areas of lower rainfall.

Seed treatments should be applied to the seed prior to sowing for the control of smuts and other seed-borne diseases. Good paddock selection as well as integrated disease management may help to minimise the impact of crown rot and maximise yield.

Nutrition

Whilst DBA Lillaroi readily achieves 13% grain protein, nitrogen (N) management is still critical to achieving grain protein levels required for high quality durum. The rate of N application will depend on the amount of N already present in the soil and the anticipated level of uptake by the crop.

Weed Control

Controlling weeds in the early stages of crop growth will remove competition and reduce yield loss. A range of pre and post-emergent herbicides are available. DBA Lillaroi has no known sensitivities to herbicides registered for durum wheat.



PLANT BREEDER RIGHTS AND ROYALTIES

DBA Lillaroi is protected by Plant Breeder Rights, any unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Plant Breeder's Rights Act, 1994.

Growers are allowed to retain seed from production of this variety for their own use as seed only.

An End Point Royalty of \$3.63 per tonne (GST inclusive), which includes breeder royalties to support ongoing investment in durum breeding, applies to this variety.

ACKNOWLEDGEMENTS

DBA Lillaroi was bred and developed by DBA North/NSW Department of Primary Industries, Tamworth Agricultural Institute, with support from growers through the GRDC.



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