

DBA Vittaroi

Durum Wheat

VARIETY SUMMARY

- Early to medium maturity
- Higher grain yield than EGA Bellaroi under irrigation
- Excellent tolerance to lodging under high input irrigated agronomy
- Grain, semolina and pasta making quality are superior to EGA Bellaroi
- Low screenings similar to Jandaroi and superior to EGA Bellaroi
- Good resistance to all three rusts

BREEDING

DBA Vittaroi was bred by the NSW DPI under Durum Breeding Australia (DBA) at the Tamworth Agricultural Institute. DBA Vittaroi was trialled as breeder code 280913.

Pedigree: 200856 x 980990.

AREA OF ADAPTATION

DBA Vittaroi is adapted to the irrigated durum producing areas of New South Wales and Queensland.

DISEASE RESISTANCE RATINGS

Disease ratings for DBA Vittaroi compared with Caparoi and Jandaroi (Source: acasnvt.com.au, 6 August, 2017).

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

MATURITY

DBA Vittaroi is an early-mid maturing durum. It has a heading maturity approximately 7 days earlier than EGA Bellaroi.

Suggested sowing time is mid/late May to end of June.

PLANT TYPE

DBA Vittaroi produces vigorous seedlings and has erect plant growth. It is shorter in stature than both EGA Bellaroi and Caparoi with superior straw strength.

GRAIN QUALITY

DBA Vittaroi produces larger grain than EGA Bellaroi and Caparoi and has shown consistently lower screenings than Caparoi and EGA Bellaroi.

DBA Vittaroi shows slightly lower grain protein compared with EGA Bellaroi but it readily achieves 13% grain protein and has better semolina yellowness than Caparoi and EGA Bellaroi.

DBA Vittaroi also represents an improvement over EGA Bellaroi for dough quality and semolina ash.

DBA Vittaroi has been classified ADR by Wheat Quality Australia for northern and southern NSW and QLD.

An application to Wheat Quality Australia is being prepared for Victoria and South Australia.

GRAIN YIELD AND QUALITY DATA

DBA Vittaroi has performed better than EGA Bellaroi and Caparoi in irrigated trials in NSW including NVT, NSW DPI and GRDC agronomy and DBA trials. Compared with EGA Bellaroi and Caparoi it has shown superior or similar quality for key traits. Yield performance of Vittaroi in 2016 was not consistent over the previous two years most likely due to excessively wet conditions and frost at some sites, and therefore, results are presented separately.

Yield performance (2014-2015) of DBA Vittaroi compared with northern durum varieties in DBA, NSW DPI and GRDC agronomy and NVT irrigated trials (yield expressed as a percentage of EGA Bellaroi).

VARIETY	2014 DBA IRRIGATED TRIALS					2015 DBA IRRIGATED TRIALS					2015 AGRONOMY TRIALS			2015 NVT
	Hillston	Breeza	Spridge	Overall	Lodging	Hillston	Breeza	Spridge	Overall	Lodging	Hillston	Colly	Leeton	Yenda
DBA Vittaroi	104	105	104	104	0.0	110	99	95	102	3.6	115	109	104	108
EGA Bellaroi	100	100	100	100	0.7	100	100	100	100	6.1	100	100	100	100
Caparoi	100	106	105	103	1.7	101	108	96	101	6.8	-	-	-	108
Site Mean*	8.21	4.77	7.15			6.71	4.34	5.27			5.79	8.62	9.60	5.27

SPRIDGE = Spring Ridge, COLLY – Coleambally, * t/ha

Yield performance of DBA Vittaroi in 2016 compared with northern durum varieties in DBA, NSW DPI and GRDC agronomy trials and NVT irrigated trials (yield expressed as a percentage of EGA Bellaroi).

NB. These results should be treated with caution due to the very unusual season and suspected frost in some trial sites.

VARIETY	2016 DBA IRRIGATED TRIALS					2016 VSAP TRIALS			2016 NVT
	Hillston	Breeza	Spridge	Overall	Lodging	Hillston	Colly	Finley	Yenda
DBA Vittaroi	86	96	87	89	3.6	82	80	42	90
EGA Bellaroi	100	100	100	100	6.1	100	100	100	100
Caparoi	65	88	70	72	6.8	-	-	-	76
Site mean (t/ha)	6.76	4.34	4.95			9.01	9.67	8.92	4.35

DBA Bindaroi quality compared with check durum varieties in 2012-2014 DBA trials.

VARIETY	Grain Quality						Milling Quality			Dough Quality	Pasta Quality		
	TW	TGW	HVK	GP	WG	SKHI	Ash	SY	b*		Texture	Cooking	Colour
DBA Vittaroi	Blue	Green	Yellow	Blue	Green	Green	Green	Green	Blue	Green	Green	Green	Blue
EGA Bellaroi	Blue	Green	Yellow	Blue	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Blue
Caparoi	Blue	Green	Yellow	Blue	Green	Green	Green	Green	Green	Green	Green	Green	Blue
Jandaroi	Blue	Green	Yellow	Blue	Green	Green	Green	Green	Yellow	Green	Green	Green	Blue

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% m, 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 150-200 plants/m². These higher densities are essential for high yields under irrigation and high nutrition.

Seed treatments should be applied to the seed prior to sowing for the control of smuts and other seed-borne diseases. Crown rot is not likely to be a serious issue under irrigated conditions but good paddock selection as well as integrated disease management may help to minimise any impact of crown rot and maximise yield.

Nutrition

Whilst DBA Vittaroi readily achieves 13% grain protein, nitrogen management is still critical to achieving target grain protein levels required for premium durum grades.

Weed Control

DBA Vittaroi has no known sensitivities to herbicides registered for durum wheat.

PLANT BREEDER RIGHTS AND END POINT ROYALTIES

DBA Vittaroi 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, applies to this variety.

ACKNOWLEDGEMENTS

DBA Vittaroi was bred by the NSW Department of Primary Industries at the Tamworth Agricultural Institute, with support from growers through the Grains Research and Development Corporation under Durum Breeding Australia.



Department of Primary Industries



For more information call **Seednet** on **1300 799 246** or visit **www.seednet.com.au**

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