



DURUM BREEDING AUSTRALIA (DBA) VARIETY FACT SHEET: YAWA (D)

Breeders:	Dr Tony Rathjen & Dr David Cooper, Dr Mike Sissons (Quality)
For further information:	Dr Jason A. Able (0459 841 586) jason.able@adelaide.edu.au
Release date:	4 th September 2012
Variety name:	Yawa (D)
Pedigree:	Westonia/Kalka-BT-derivative//Kalka/Tamaroi///RAC875/Kalka//Tamaroi
Breeding:	The origin of Yawa is from the combination of two fixed lines. The first of these is a Westonia/Kalka derivative (that was screened as boron tolerant – BT), which was crossed to a Kalka/Tamaroi line. This fixed line was crossed to the second fixed line (being RAC875/Kalka//Tamaroi).
Breeding program and NVT evaluation:	<p>Evaluation of this line has been staged over several years both within the University of Adelaide breeding program (previously run by Dr Tony Rathjen, prior to Dr Jason Able taking over the leadership) and the National Variety Trials (NVT) that are managed by the Australian Crop Accreditation System (ACAS). Yawa has been evaluated in 40 Advanced Yield Trials (AYT) during the period 2006 - 2010. A total of eight agriculturally and edaphically diverse sites across South Australia were used in the AYT experiments each year. Yawa has also been evaluated in NVT since 2008, predominantly in SA (six sites per year) but also Victoria and NSW.</p> <p>Based on the yield results of this line over several years through these two trial programs mentioned above and, more recently, quality data that has been obtained from San Remo and Dr Mike Sissons, this line has been identified as a variety for release.</p>
Variety attributes:	<p>Yawa is a well adapted, high yielding durum wheat that is suitable for production in most areas of southern Australia.</p> <ul style="list-style-type: none"> • Adaptation & Yield: <p>Yawa has a significant yield advantage over existing durum varieties based on three years of NVT data from SA across six sites (see Table 1). Yawa out-yielded Hyperno by anywhere between approximately 5.4 to 13.3%, and the recently released Tjilkuri by 6.25 to 26.1%; depending upon the region.</p> <ul style="list-style-type: none"> • Grain Quality: <p>Yawa has been classified as APDR by Wheat Quality Australia (South Australia only). Yawa has low levels for sprouting damage, and when compared to Hyperno produces a higher yellow pigmentation which is excellent for semolina and pasta production. The test weight of Yawa is acceptable (see Table 2).</p> <ul style="list-style-type: none"> • Disease Profile: <p>Yawa has a similar disease profile when compared to other durum varieties such as the recently released Tjilkuri. Levels of resistance to leaf, stem and stripe rust are MR-MS (leaf), and R-MR (stem and stripe). Yawa is susceptible to crown rot.</p>

Risk factors:	<p>The following considerations should be taken into account before sowing Yawa:</p> <ul style="list-style-type: none"> • Yawa may have higher levels of screenings than other varieties (see Table 3 for selected NVT trial data results). However the percentage screenings will be somewhat dependent on where it is grown, if it is sown late (e.g. mid-June or later), and if there is a tight finish to the season. If this were to occur than the likely result of higher screenings will be reduced income. • Yawa has only been classified as APDR for South Australia. Growers who choose to grow this variety in other states and deliver within those states will therefore have the grain treated automatically as feed grade. • Yawa may result in lower levels of protein as a consequence of its high yielding performance, so it is important to ensure that growers have suitable strategies in place for nitrogen management.
Sowing time:	Yawa appears well suited to early-sowing (early May) or mid-sowing (late May/early June). Sowing later will increase the likelihood of higher screenings, and subsequently result in quality downgrades.
Herbicide reaction:	Yawa has tolerance to a range of common grass and broadleaf herbicides. Further evaluation for Yawa will be undertaken in 2012-2014.
Seed availability:	Seed is available from the SA Durum Growers Association. For further information or seed, contact: Neville Sharpe on (08) 8338 7339. Yawa is PBR protected.
Disclaimer:	The information in this fact sheet is current as of August 2012. Continuing agronomic, disease, and quality testing will make it necessary for growers to source updated information from time to time.
Acknowledgements:	Thanks to the GRDC for funding Durum Breeding Australia. National variety trial data has been used in compiling this fact sheet and the GRDC is acknowledged for its use. Thanks also to Rob Wheeler and Kenton Porker (New Variety Agronomy Group, SARDI) for providing information on Yawa.

TABLE 1. A SUMMARY OF THE NATIONAL VARIETY TRIAL (NVT) DATA FROM SIX SITES WITHIN SOUTH AUSTRALIA FOR 2008-2010. YIELD DATA FOR EACH VARIETY IS EXPRESSED AS A PERCENTAGE AVERAGE OF THE SITE MEAN ACROSS THREE YEARS. NOT ALL VARIETIES AND BREEDER'S LINES THAT WERE IN THE NVT ARE SHOWN HERE. EXPRESSED AS A % INCREASE (IN ITALICS), YAWA (HIGHLIGHTED) HAS OUT-YIELDED EVERY VARIETY LISTED ACROSS ALL SIX SITES OVER THE THREE YEAR PERIOD, EXCEPT SAINTLY AT TURRETFIELD.

	PASKEVILLE	WOKURNA	URANIA	SPALDING	MINTARO	TURRETFIELD
CAPAROI	97.3 (20.6)	104.7 (12.1)	99 (14.5)	97 (36.1)	98.7 (27.0)	100 (13.7)
HYPERNO	111.3 (5.4)	104 (12.8)	106.3 (6.6)	120.7 (9.4)	110.7 (13.3)	106.7 (6.6)
KALKA	96.3 (21.8)	105.3 (11.4)	94.3 (20.1)	104 (26.9)	103.7 (20.9)	99.7 (14.1)
SAINTLY	96.3 (21.8)	102.3 (14.7)	100 (13.3)	103.7 (27.8)	113.3 (10.6)	114.3 (-0.6)
TAMAROI	98.7 (18.8)	96 (22.2)	102.3 (10.8)	87.3 (51.1)	99.3 (26.2)	99.7 (14.1)
TJILKURI	107.7 (8.9)	109 (7.6)	106.7 (6.3)	104.7 (26.1)	101 (24.1)	103 (10.4)
YAWA	117.3	117.3	113.3	132	125.3	113.7

TABLE 2. SUMMARY OF THE NATIONAL VARIETY TRIAL (NVT) THOUSAND GRAIN WEIGHT (TGW – G/1000 SEEDS) AND HECTOLITRE WEIGHT (HLW – KG/HECTOLITRE) FOR THE PERIOD 2008 TO 2010 (AVERAGE ACROSS THE THREE YEARS IS PRESENTED).

	MID-NORTH MINTARO		MID-NORTH SPALDING		MID-NORTH TURRETFIELD		YORKE P. PASKEVILLE		YORKE P. WOKURNA		YORKE P. URANIA	
	TGW	HLW	TGW	HLW	TGW	HLW	TGW	HLW	TGW	HLW	TGW	HLW
CAPAROI	40.51	78.90	47.25	79.53	40.51	79.22	48.59	81.47	45.37	78.34	44.89	80.87
HYPERNO	38.60	78.13	43.70	77.33	38.60	77.73	45.7	79.10	42.27	76.40	36.69	78.07
KALKA	37.55	79.30	43.46	79.17	37.55	79.23	45.09	81.23	41.63	77.87	40.56	80.60
SAINTLY	36.70	77.47	39.39	77.07	36.70	77.27	44.73	79.20	41.14	77.10	37.95	78.34
TAMAROI	44.81	78.63	49.12	78.17	44.81	78.40	50.97	80.07	47.7	77.90	44.95	79.10
TJILKURI	38.34	77.03	42.72	77.70	38.34	77.37	42.83	78.13	39.92	75.43	38.74	77.90
YAWA	32.68	77.50	38.25	77.73	32.68	77.62	39.79	78.67	35.45	76.50	34.51	78.44

TABLE 3. SUMMARY OF THE NATIONAL VARIETY TRIAL (NVT) % SCREENINGS DATA (2.0 MM SIEVE) FOR THE PERIOD 2008 TO 2010 (AVERAGE ACROSS THE THREE YEARS IS PRESENTED). YAWA IS HIGHLIGHTED AND SHOWS VARIATION ACROSS SITES AND WITHIN REGIONS (AS IS THE CASE FOR THE MAJORITY OF VARIETIES LISTED).

	MID-NORTH MINTARO	MID-NORTH SPALDING	MID-NORTH TURRETFIELD	YORKE P PASKEVILLE	YORKE P WOKURNA	YORKE P URANIA
CAPAROI	0.84	0.90	1.36	1.01	1.96	1.29
HYPERNO	1.52	1.32	4.85	2.14	3.02	5.19
KALKA	1.06	0.91	2.61	0.78	2.64	1.77
SAINTLY	1.91	2.68	1.63	1.26	2.90	3.58
TAMAROI	1.55	1.21	2.27	1.55	1.95	2.17
TJILKURI	1.11	0.90	3.31	1.90	2.98	2.20
YAWA	2.66	1.48	6.83	3.31	5.05	5.68