

Comparison of durum varieties

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Key findings

- The average grain yield for all durum varieties was 4.08 t/ha and the highest yielding variety was Yawa, closely followed by Tjilkuri.
- Grain protein levels were low however, test weight values were high and no varieties exceeded 5% screenings at Hart in 2016.

Why do the trial?

To compare the performance of new durum varieties and lines against current industry standards.

How was it done?

Plot size	1.75 m x 10 m	Fertiliser	DAP (18:20) + Zn 2% @ 100 kg/ha
Seeding date	10 th May 2016		UAN (42:0) @ 87 L/ha, 4 th July

The trial was a randomised complete block design with three replicates and seven varieties. Fungicides and herbicides were applied as necessary to keep the crop canopy free of disease and weeds.

All plots were assessed for grain yield, protein, test weight and screenings with a 2.0 mm screen.

Results and discussion

Durum grain yields ranged from 3.48 t/ha to 4.72 t/ha, with a site average yield of 4.08 t/ha (Table 1). This season the highest yielding variety was Yawa, closely followed by Tjilkuri. Long-term yields for durum varieties shows Yawa, Hyperno and DBA-Aurora are consistently high yielding at Hart.

Grain protein levels were low, with majority of varieties falling below 10% and into the feed grade. All varieties were well above the minimum test weight value of 76 kg/hL (minimum required for maximum grade), averaging 81 kg/hL. Screening levels across the trial were low and no varieties exceeded 5%.

Table 1. Grain yield (t/ha), protein (%), test weight (kg/hL) and screenings (%) for durum varieties at Hart, 2016. Average grain yield (% of trial average) of Hart durum variety trials (2012-2016) and number of trials.

Variety	Grain yield	% of	Protein	% of	Test Weight	% of	Screenings	% of	Mean yield	No. of trials
	t/ha	site average	%	site average	kg/hL	site average	%	site average	%	
Caparoi	3.60	88	10.6	116	81.3	100	0.7	123	95	5
Tamaroi	4.01	98	9.4	103	80.9	100	0.7	122	92	5
Saintly	3.48	85	9.7	106	81.4	100	0.6	110	99	5
Hyperno	4.13	101	8.2	89	81.8	101	0.3	57	102	5
DBA-Aurora	4.16	102	8.6	94	80.5	99	0.7	119	102	3
Tjilkuri	4.47	109	9.0	98	81.2	100	0.4	78	97	5
Yawa	4.72	116	8.6	94	80.9	100	0.5	91	105	5
Site Average	4.08	100	9.1	100	81.1	100	0.6	100		
LSD (P≤0.05)	0.22		0.8		0.7		0.4			