

Accessory Publication

Table S1. Species, accession or variety, and the origin of *Aegilops* species and four bread wheat cultivars used in identifying drought tolerant lines at the reproductive stage

Seed source: Wheat Genetic and Genomic Resources Center (WGGRC), Kansas State

Universtiy, Manhattan, Kansas, USA

Taxonomy: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxgenform.pl?language=en>

Species	Accession/Variety	Origin	
<i>Aegilops markgrafii</i> (Greuter) K. Hammer	TA 2170	Syria	
	TA 1906	Turkey	
<i>Aegilops geniculata</i> Roth	TA 2899	Israel	
	TA 1813	Italy	
	TA 1819	Japan	
	TA 2061, TA 10009, TA 10024	Morocco	
	TA 1814	Romania	
	TA 1802, TA 1808	Turkey	
	TA 10437	Unknown	
<i>Aegilops longissima</i> Schweinf. & Muschl.	TA 1910, TA 1912, TA 1917	Israel	
	TA 1921	Jordan	
	TA 1913	Turkey	
<i>Aegilops searsii</i> Feldman & Kislev ex K. Hammer	TA 1837, TA 1925	Jordan	
<i>Aegilops speltoides</i> Tausch	var. <i>ligustica</i> (Savign.) Fiori	TA 1790, TA 1796	Iraq
		TA 2342	Israel
		TA 1772, TA 2097	Turkey
	var. <i>speltoides</i>	TA 1789	Iraq
		TA 1783, TA 2348	Israel

	TA 1905	Italy
	TA 1793	Syria
	TA 1787, TA 2149	Turkey
<i>Triticum aestivum</i> L.	'Dharwar Dry'	India
	'Sitta'	Mexico
	'Halberd'	Australia
	'Pavon 76'	Mexico

Table S2. Degrees of freedom (df) and F-values for physiological, growth, and yield components of five *Aegilops* species, and accessions within each species

A/S = Accessions within over all species, A/S₁ = Accessions within *A. markgrafii*, A/S₂ = Accessions within *A. geniculata*, A/S₃ = Accessions within *A. longissima*, A/S₄ = Accessions within *A. searsii*, A/S₅ = accessions within *A. speltoides*. ^{NS}, nonsignificant, **P* < 0.05, ***P* < 0.01 and ****P* < 0.001

Effects	Drought (D)	Species (S)	D × S	A/S	D × A/S	A/S ₁	A/S ₂	A/S ₃	A/S ₄	A/S ₅
df	1	8	8	26	26	1	9	4	1	11
Traits	F-values									
Plant height (cm)	0.0 ^{NS}	359.3 ^{***}	0.3 ^{NS}	11.7 ^{***}	0.3 ^{NS}	1.3 ^{NS}	24.4 ^{***}	9.4 ^{***}	16.2 [*]	9.1 ^{***}
Tiller number (plant ⁻¹)	0.7 ^{NS}	193.4 ^{***}	0.2 ^{NS}	16.2 ^{***}	0.3 ^{NS}	40.5 ^{***}	4.7 ^{***}	18.7 ^{***}	0.6 ^{NS}	18.3 ^{***}
Fertile tiller number (plant ⁻¹)	1.1 ^{NS}	198.7 ^{***}	0.2 ^{NS}	32.2 ^{***}	0.7 ^{NS}	1.1 ^{NS}	20.9 ^{***}	4.1 [*]	0.5 ^{NS}	38.4 ^{***}
Spike length (mm)	0.1 ^{NS}	343.9 ^{***}	0.5 ^{NS}	17.6 ^{***}	0.9 ^{NS}	64.4 ^{***}	4.9 ^{***}	11.1 ^{***}	8.1 ^{***}	35.1 ^{***}
Spikelet number (spike ⁻¹)	0.5 ^{NS}	552.6 ^{***}	0.8 ^{NS}	10.2 ^{***}	0.5 ^{NS}	48.0 ^{**}	1.7 ^{NS}	5.8 ^{**}	24.0 ^{**}	11.9 ^{***}
Vegetative biomass (g plant ⁻¹)	1.5 ^{NS}	93.4 ^{***}	0.4 ^{NS}	9.8 ^{***}	0.5 ^{NS}	0.0 ^{NS}	25.0 ^{***}	19.4 ^{***}	12.3 [*]	8.7 ^{***}
Leaf chlorophyll content (SPAD units)	479.1 ^{***}	124.5 ^{***}	18.6 ^{***}	22.2 ^{***}	7.9 ^{***}	18.1 ^{***}	6.7 ^{***}	4.1 ^{**}	0.9 ^{NS}	8.7 ^{***}
Grain number (spike ⁻¹)	289.8 ^{***}	245.3 ^{***}	17.0 ^{***}	3.0 ^{***}	2.5 ^{***}	10.3 [*]	12.1 ^{***}	2.1 ^{NS}	3.8 ^{NS}	3.6 ^{***}
Individual grain weight (mg)	1006.0 ^{***}	465.1 ^{***}	143.1 ^{***}	5.3 ^{***}	3.0 ^{***}	284.2 ^{***}	7.7 ^{***}	2.6 ^{NS}	0.0 ^{NS}	9.4 ^{***}
Grain yield (g plant ⁻¹)	619.0 ^{***}	92.6 ^{***}	36.2 ^{***}	3.4 ^{***}	1.8 [*]	114.6 ^{***}	18.7 ^{***}	2.5 ^{NS}	0.9 ^{NS}	10.2 ^{***}