**Table S6.** Summary of published QTLs or genes for productivity and drought-related traits, mapped to chromosome 7AS in durum and bread wheat: GY, grain yield; Sp/P, spikes per plant; TGW, thousand grain weight; DP–H, days from planting to heading; WW, well-watered; WL, water-limited.

|  |  |  |
| --- | --- | --- |
| **Plant Material, Environment** | **Mapped traits** | **Reference** |
|  | **GY** | **Sp/P** | **TGW** | **DP-H** | **Other traits** |  |
| **Durum wheat:** |  |  |  |  |   |   |
| RIL (Kofa x Svevo), 6 env |  |  |  |  |  Culm length | Maccaferri *et al.,* 2008 |
| RIL (Langdon x wild emmer acc. G18-16), WW & WL | + |  |  |  | Total DM, flag-leaf rolling & length | Peleg *et al.,* 2009b |
| F2 (Aiganfanmai x Langdon), WW |  |  |  |  | Culm length | Peng *et al.,* 2011 |
| 189 elite durum wheat accessions |  |  |  | + |  | Maccaferri *et al.,* 2011 |
| **Bread wheat:** |  |  |  |  |   |   |
| RILs (Songlen x Condor\*4/3Ag14), WW |  |  |  |  | Osmoregulation (K accumulation)  | Morgan and Tan, 1996 |
| BC2F3 (Prinz x W-7984), 4 env |  | + | + |  |  | Huang et al., 2003 |
| RIL (Rye Selection111 × Chinese Spring), 6 env |  |  | + |  |   | Kumar *et al.,* 2006 |
| DH (Chinese Spring × SQ1), 13 env | + | + | + |  |   | Quarrie *et al.,* 2006 |
| RILs (WL711 x PH132 & Opata85 x W7984), 6 env | + | + |  |  |   | Kumar *et al.,* 2007 |
| DH population (Hanxuan x Lumai 14), WW & WL |  |  |  |  | Remobilization efficiency of stem carbohydrates | Yang *et al.,* 2007 |
| DHs (Cranbrook x Halberd, Sunco x Tasman, CD87 x Katepwa), 5 env |  |  |  |  | Carbon isotope discrimination | Rebetzke *et al.,* 2008 |
| DHs (Avalon x Cadenza, Charger x Badger, Spark x Rialto, Savannah x Rialto), 13 env |  |  |  | + |   | Griffiths *et al.,* 2009 |
| RIL (Seri x Babax), WL & heat |  |  |  |  | Canopy temperature | Pinto *et al.,* 2010  |
| DHs (Cranbrook × Halberd & Excalibur × Kukri),hydroponics & field |  |  |  |  | Na+ exclusion | Shavrukov *et al.,* 2011 |
| DH (RAC875 x Kukri), heat, WW & WL | + |  | + | + | Glaucousness, G/m2, NDVI | Bennett *et al.,* 2012 |
| DH (Opata x SH223), WW & WL |  |  |  |  | Chlorophyll content | Ilyas *et al.,* 2014 |
| DH (Cr x Ha, Cd x Ka), WW |  | + |  |  |  | Borràs-Gelonch et al., 2012  |
| 3 RIL pop (Weimai 8 x Luohan 2/Yannong 19/ Jimai 20), 4 env |  |  | + |  | Kernel length | Cui *et al.,* 2014 |
| DH (Excalibur x Kukri) WL | + |  |  |  | TCA organic acids, Glaucousness, grains per spike, harvest index | Hill *et al.,* 2013 |
| RIL (ND3331 X Tibetan semi-wild wheat acc. Zang 1817), WW |  | + |  |  | Spike length, grains per spike | Liu *et al.,* 2014 |
| RIL (Ventnor X Karl 92), WW & heat |  |  |  |  | Membrane damage & chlorophyll content | Talukder *et al.,* 2014 |
| DH (CD87/Katepwa),WW |  |  |  | + | Oil concentration | Moore *et al.,* 2015 |

**References for Table 6 (additional references in main text)**

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