Table S2. Pearson’s correlation coefficient of grain size and shape-related traits in the durum panel in two environments and the BLUP data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Traits** | | | **E1** | **E2** | **BLUP** |
| **AS** | **vs** | **PL** | 0.890\*\*\* | 0.940\*\*\* | 0.927\*\*\* |
| **AS** | **vs** | **L** | 0.783\*\*\* | 0.875\*\*\* | 0.856\*\*\* |
| **AS** | **vs** | **W** | 0.701\*\*\* | 0.710\*\*\* | 0.614\*\*\* |
| **AS** | **vs** | **LWR** | 0.046 | 0.311\*\*\* | 0.323\*\*\* |
| **AS** | **vs** | **CS** | -0.041 | -0.256\*\* | -0.304\*\*\* |
| **AS** | **vs** | **TGW** | 0.656\*\*\* | 0.836\*\*\* | 0.108 |
| **PL** | **vs** | **L** | 0.975\*\*\* | 0.982\*\*\* | 0.983\*\*\* |
| **PL** | **vs** | **W** | 0.314\*\*\* | 0.451\*\*\* | 0.288\*\*\* |
| **PL** | **vs** | **LWR** | 0.486\*\*\* | 0.604\*\*\* | 0.647\*\*\* |
| **PL** | **vs** | **CS** | -0.487\*\*\* | -0.564\*\*\* | -0.634\*\*\* |
| **PL** | **vs** | **TGW** | 0.507\*\*\* | 0.726\*\*\* | 0.059 |
| **L** | **vs** | **W** | 0.128 | 0.312\*\*\* | 0.141 |
| **L** | **vs** | **LWR** | 0.645\*\*\* | 0.721\*\*\* | 0.757\*\*\* |
| **L** | **vs** | **CS** | -0.636\*\*\* | -0.665\*\*\* | -0.736\*\*\* |
| **L** | **vs** | **TGW** | 0.405\*\*\* | 0.644\*\*\* | 0.041 |
| **W** | **vs** | **LWR** | -0.670\*\*\* | -0.430\*\*\* | -0.537\*\*\* |
| **W** | **vs** | **CS** | 0.649\*\*\* | 0.436\*\*\* | 0.520\*\*\* |
| **W** | **vs** | **TGW** | 0.592\*\*\* | 0.734\*\*\* | 0.123 |
| **LWR** | **vs** | **CS** | -0.976\*\*\* | -0.949\*\*\* | -0.970\*\*\* |
| **LWR** | **vs** | **TGW** | -0.154 | 0.067 | -0.047 |
| **CS** | **vs** | **TGW** | 0.150 | -0.064 | 0.059 |

\* p < .05, \*\* p < .01, \*\*\* p < .001 AS: Area size, PL: Perimeter length, L: Grain length, W: Grain width, LWR: Length-width ratio, CS: Circularity, TGW: Thousand grain weight