**Supplementary Table 1: Component scores (Trait contributions to Principal components)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **PC 1** | **PC 2** | **PC 3** | **PC 4** |
| DF | **0.762** | 0.085 | 0.372 | 0.194 |
| DM | **0.775** | -0.065 | **0.429** | 0.184 |
| PH | 0.359 | 0.137 | **0.686** | -0.311 |
| NOP | -0.690 | **0.420** | **0.365** | 0.005 |
| PL | -0.137 | -0.088 | 0.130 | **0.921** |
| SPP | -0.570 | **0.290** | 0.263 | 0.092 |
| 100SW | -0.388 | -0.691 | 0.222 | -0.081 |
| SL | -0.239 | -0.643 | 0.331 | -0.276 |
| SB | -0.393 | -0.691 | 0.101 | 0.215 |
| SYPP | -0.790 | **0.398** | 0.301 | 0.013 |

**Trait legend:** DF= days to flowering; DM=days to maturity; PH= plant height; PL= pod length; NOP= pods per plant; PL= pod length, SPP= seeds per pod; SL = seed length; SB= seed breadth; 100-SW= 100 seed weight; SYPP= seed yield per plant