**Table S1.** The average and range values of morphological traits of K/Z RIL population

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Traits | Treatments | Kaybonnet | ZHE733 | K/Z RIL Population | |
| **Average** | **Range** |
| Plant height (cm) | WW | 98 | 51 | 60.03 | 28 - 98 |
| DS | 84 | 31 | 29.99 | 10 - 73 |
| Tiller number | WW | 5 | 8 | 8.11 | 3 - 22 |
| DS | 4 | 7 | 6.98 | 2 - 19 |
| Heading day (day) | - | 91 | 71 | 87 | 65 - 109 |
| Flag leaf width (cm) | DS | 1.7 | 1.3 | 1.2 | 0.7 - 2 |
| Leaf rolling score | DS | 2 | 4 | 2.8 | 1 - 4 |