**Table S1.** Summary of Illumina sequencing data of parental and breeding lines.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample** | **Raw bases****(bp)** | **Clean bases****(bp)** | **Effective rate****(%)** | **Mapped reads** | **Total reads** | **Mapping rate****(%)** | **Average depth** **(X)** |
| BC2F5-6-5-4-1-1-21 | 780798816 | 780614496 | 99.98 | 5111369 | 5279436 | 96.82 | 10.94 |
| BC2F5-1-13-2-2-1-1\_ | 750375648 | 750196800 | 99.98 | 4916881 | 5072452 | 96.93 | 10.76 |
| BC3F4-2-10-3-205-1-1 | 720080640 | 719939520 | 99.98 | 4720823 | 4878776 | 96.76 | 9.87 |
| BC3F4-1-1-3-25-2-2 | 847694592 | 847495872 | 99.98 | 5603852 | 5778332 | 96.98 | 11.82 |
| BC2F5-8-6-3-2-1-1 | 858983616 | 858831264 | 99.98 | 5630174 | 5819002 | 96.75 | 11.89 |
| BC2F5-2-6-10-5-1-1 | 704488032 | 704315520 | 99.98 | 4658303 | 4805946 | 96.93 | 9.78 |
| BC3F4-1-1-3-25-3-2 | 921270816 | 921054816 | 99.98 | 6075245 | 6273160 | 96.85 | 12.07 |
| BC3F4-1-1-3-25-1-1 | 727348032 | 727206912 | 99.98 | 4791747 | 4950666 | 96.79 | 10.9 |
| BC3F4-1-12-2-0-1-1 | 744457536 | 744274944 | 99.98 | 4902437 | 5055936 | 96.96 | 10.34 |
| BC3F4-2-10-3-205-3-1 | 699511968 | 699408288 | 99.99 | 4590948 | 4737220 | 96.91 | 10.52 |
| M9962 | 812889504 | 812726784 | 99.98 | 5362977 | 5540014 | 96.8 | 11.18 |
| PSL2 | 755618976 | 755472672 | 99.98 | 4976063 | 5136342 | 96.88 | 10.31 |