**Supplementary Table 1.** Comparison of parental source and quality traits

|  |  |  |  |
| --- | --- | --- | --- |
| Variety | Source | Protein content（%） | Oil content  （%） |
| Kenfen14 | Suinong 10 × Changnong 5 | 39.69 | 20.34 |
| Kenfen15 | Suinong 14 × Kenjiao 9307 | 38.68 | 22.76 |
| Heinong 48 | Ha 90-6719 × Sui 90-5888 | 44.71 | 19.05 |
| Kenfen19 | Hefeng 25 × (Kefeng 4 ×Gong8861-0) | 42.52 | 19.26 |