

TABLE S2 Heritability estimates in the epiRILs and natural accessions

| trait name | Population | <i>n</i> | H^2 | (s.e) | χ^2 | df | <i>P</i> value |
|-------------------------------|------------|----------|----------|--------|----------|----|----------------|
| flowering time | epiRILs | 5567 | 0.2997 | 0.0109 | 1225.14 | 1 | < 0.0001 |
| | accessions | 356 | 0.8602 | 0.0142 | 610.91 | 1 | < 0.0001 |
| fruit size (main stem) | epiRILs | 1317 | < 0.0001 | 0.0054 | 0 | 1 | 0.99804 |
| | accessions | 86 | 0.6017 | 0.0790 | 48.54 | 1 | < 0.0001 |
| height from soil to 1st fruit | epiRILs | 4535 | 0.1571 | 0.0112 | 408.38 | 1 | < 0.0001 |
| | accessions | 292 | 0.4164 | 0.0430 | 118.42 | 1 | < 0.0001 |
| maximal height | epiRILs | 4543 | 0.0628 | 0.0102 | 138.96 | 1 | < 0.0001 |
| | accessions | 293 | 0.4032 | 0.0428 | 113.56 | 1 | < 0.0001 |
| height of main stem | epiRILs | 4561 | 0.0393 | 0.0091 | 87 | 1 | < 0.0001 |
| | accessions | 292 | 0.3593 | 0.0447 | 95.89 | 1 | < 0.0001 |
| fruit size (primary branch) | epiRILs | 1326 | 0.0392 | 0.0060 | 16.49 | 1 | < 0.0001 |
| | accessions | 86 | 0.1858 | 0.0861 | 9.15 | 1 | 0.00249 |
| # of fruits (main stem) | epiRILs | 1330 | < 0.0001 | 0.0050 | 0 | 1 | 0.99633 |
| | accessions | 88 | 0.1394 | 0.0807 | 6.52 | 1 | 0.01067 |
| dry biomass | epiRILs | 4586 | 0.0184 | 0.0083 | 39.18 | 1 | < 0.0001 |
| | accessions | 294 | 0.0075 | 0.0229 | 1.09 | 1 | 0.29624 |
| rosette diameter | epiRILs | 2789 | 0.0160 | 0.0116 | * | * | * |
| | accessions | 177 | 0.0069 | 0.0378 | * | * | * |
| # of fruits (primary branch) | epiRILs | 1333 | < 0.0001 | 0.0030 | 0 | 1 | 0.99817 |
| | accessions | 87 | < 0.0001 | 0.0262 | 0 | 1 | 0.99991 |

* No values available because H^2 were based on average estimates in this case (see Supporting Methods). However, 95% confidence ($\pm 1.96 \times$ s.e.) intervals include zero suggesting non-significance.

Provided are the broad-sense heritability estimates (H^2) for the epiRILs and natural accessions. Estimates were obtained from a random effects model as described in the Supporting Methods. * No values available because H^2 were based on average estimates in this case (see Supporting methods). However, 95% confidence ($\pm 1.96 \times$ s.e.) intervals include zero suggesting non-significance.