

S2 Table. Analysis of variance (ANOVA) of the three traits across 15 high-dense plant environments.

| Trait ^a | Source ^b | DF ^c | Sum of Square | Mean Square | F Value | Pr > F |
|--------------------|---------------------|-----------------|---------------|-------------|---------|--------|
| ETF | Env | 14 | 54836.49 | 3916.89 | 1026.87 | <.0001 |
| | Block(Env) | 15 | 142.42 | 9.49 | 2.49 | 0.0012 |
| | Geno | 145 | 103276.38 | 712.25 | 186.73 | <.0001 |
| | Geno*Env | 2030 | 37853.08 | 18.65 | 4.89 | <.0001 |
| FTM | Env | 14 | 111049.33 | 7932.10 | 1038.52 | <.0001 |
| | Block(Env) | 15 | 813.75 | 54.25 | 7.10 | <.0001 |
| | Geno | 145 | 207108.83 | 1428.34 | 187.01 | <.0001 |
| | Geno*Env | 2025 | 83471.99 | 41.22 | 5.40 | <.0001 |
| ETM | Env | 14 | 69621.33 | 4972.95 | 870.14 | <.0001 |
| | Block(Env) | 15 | 509.80 | 33.99 | 5.95 | <.0001 |
| | Geno | 145 | 418779.88 | 2888.14 | 505.35 | <.0001 |
| | Geno*Env | 2025 | 65530.49 | 32.36 | 5.66 | <.0001 |

^a ETF, number of days to flowering; FTM, number of days from flowering to maturity; and ETM, number of days to maturity; ^b Block(Env) means the block nested within environments; Env means environment; Geno means genotype; and Geno*Env means genotype by environment interaction; ^c degree of freedom.