

Table S3 Fixed effects for canopy temperature. F values for fixed effects from an analysis of variance (ANOVA) for the TM-1×NM24106 recombinant inbred line (RIL) population, its two parents, and commercial check varieties for canopy temperature collected from 2010-12 at the Maricopa Agricultural Center located in Maricopa, AZ.

| Year | DOY ^a | Source | | | | | | |
|------|------------------|------------------|------------|-------------------|-----------------------------|--------------|------------------------|---------------------------------|
| | | TOD ^b | Genotype | Irrigation Regime | Genotype* Irrigation Regime | TOD*Genotype | TOD* Irrigation Regime | TOD*Genotype* Irrigation Regime |
| 2010 | 217 | 82.84 *** | 5.28 **** | 15.46 * | 1.55 ** | 4.76 **** | 11.26 * | 1.73 ** |
| | 224 | 89.31 **** | 3.13 **** | 27.99 ** | 1.40 * | 3.82 **** | 6.05 * | 1.67 **** |
| | 231 | 470.40 **** | 3.43 **** | 5.75 * | 1.17 NS | 2.24 **** | 3.61 * | 1.15 NS |
| 2011 | 188 | 1009.00 **** | 4.37 **** | 0.08 NS | 0.68 NS | 3.01 **** | 1.53 NS | 0.7 NS |
| | 195 | 4.34 **** | 73.76 **** | 0.80 NS | 8.21 **** | 0.28 NS | 0.84 NS | 0.00 NS |
| | 202 | 208.00 **** | 3.04 **** | 53.97 **** | 0.82 NS | 3.44 **** | 14.55 *** | 1.38 NS |
| | 216 | 357.40 **** | 4.58 **** | 29.04 **** | 0.81 NS | 4.51 **** | 0.20 NS | 0.90 NS |
| | 223 | 574.50 **** | 8.01 **** | 49.21 **** | 1.09 NS | 5.74 **** | 2.08 NS | 0.99 NS |
| | 230 | 147.00 **** | 7.79 **** | 36.68 ** | 1.32 NS | 6.46 **** | 3.32 NS | 1.44 ** |
| | 237 | 59.88 *** | 4.98 **** | 24.30 ** | 1.41 * | 4.56 **** | 2.65 NS | 1.79 **** |
| | 244 | 104.60 **** | 4.52 **** | 54.46 ** | 1.45 * | 3.73 **** | 4.28 NS | 1.36 ** |
| 2012 | 251 | 231.60 **** | 4.68 **** | 53.43 ** | 1.44 * | 4.65 **** | 7.62 * | 1.51 *** |
| | 201 | 64.75 **** | 2.25 **** | 105.00 **** | 1.38 * | 2.68 **** | 4.95 * | 1.57 **** |
| | 208 | 12.26 * | 4.03 **** | 12.68 * | 1.73 *** | 2.09 **** | 1.03 NS | 0.98 NS |
| | 215 | 7.01 NS | 4.51 **** | 6.65 NS | 1.58 ** | 2.20 **** | 0.50 NS | 0.99 NS |
| | 222 | 218.60 **** | 2.84 **** | 210.40 **** | 1.16 NS | 4.07 **** | 26.31 *** | 1.92 **** |
| | 243 | 145.30 **** | 4.29 **** | 56.47 **** | 1.21 NS | 4.25 **** | 8.96 ** | 1.60 **** |
| | 250 | 205.10 **** | 2.28 **** | 150.40 **** | 1.20 NS | 3.22 **** | 22.57 *** | 1.65 **** |
| | 258 | 296.60 **** | 2.95 **** | 7.29 * | 0.94 NS | 3.42 **** | 3.67 NS | 1.18 NS |

a. DOY, day of year – Julian calendar.

b. TOD, time of day within the day of year – MST.

NS Not Significant at the < 0.05 level.

* Significant at the < 0.05 level.

** Significant at the < 0.01 level.

*** Significant at the < 0.001 level.

**** Significant at the < 0.0001 level.