

Figure S1

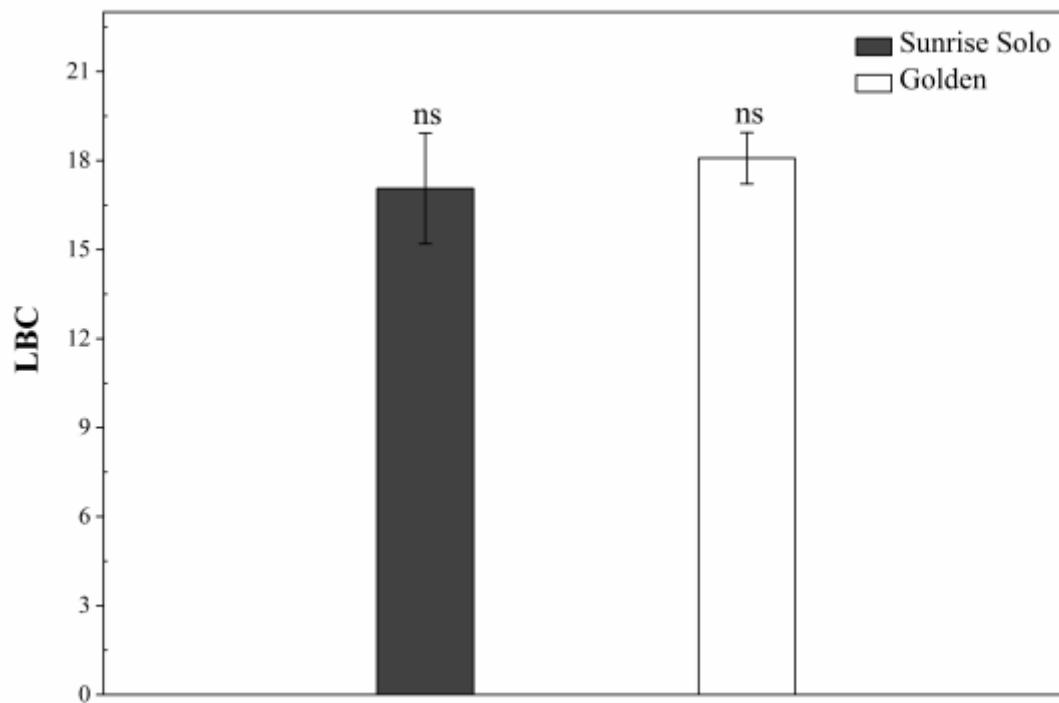


Figure S2

Supplementary tables

Supplementary Table S1. Intrinsic Water Use Efficiency (*iWUE*) and instantaneous Water Use Efficiency (*WUE*) of two *Carica papaya* genotypes – Golden and Sunrise Solo – (n = 12).

| Genotypes | <i>iWUE</i> | <i>R</i> ² | <i>WUE</i> | <i>R</i> ² |
|--------------|-----------------------|-----------------------|----------------------|-----------------------|
| Sunrise Solo | y = 18.2540x + 5.3258 | 0.62 | y = 2.3535x + 2.7905 | 0.70 |
| Golden | y = 10.6837x + 5.2637 | 0.56 | y = 1.6241x + 2.8582 | 0.50 |

Supplementary Table S2. Changes in SPAD readings and in the fluorescence parameters obtained from a JIP Test analysis of two *Carica papaya* genotypes - Golden (G) and Sunrise Solo (SS) (n=4).

| Genotype | 08:00 | 12:00 | 16:00 |
|--------------------------------------|------------------------|------------------------|------------------------|
| ABS/RC | | | |
| SS | 1.40 ± 0.05 Aa | 1.57 ± 0.06 Aa | 1.29 ± 0.05 Aa |
| G | 1.43 ± 0.19 Aa | 1.68 ± 0.16 Aa | 1.41 ± 0.11 Aa |
| TR_o/RC | | | |
| SS | 1.07 ± 0.02 Aa | 1.10 ± 0.03 Aa | 0.97 ± 0.02 Aa |
| G | 0.94 ± 0.06 Ba | 1.01 ± 0.04 Aa | 0.93 ± 0.04 Aa |
| ET_o/RC | | | |
| SS | 0.65 ± 0.01 Aa | 0.68 ± 0.02 Aa | 0.57 ± 0.01 Ab |
| G | 0.38 ± 0.03 Ba | 0.32 ± 0.03 Ba | 0.31 ± 0.03 Ba |
| DI_o/RC | | | |
| SS | 0.33 ± 0.02 Aa | 0.47 ± 0.04 Aa | 0.32 ± 0.03 Aa |
| G | 0.48 ± 0.03 Aa | 0.67 ± 0.12 Aa | 0.48 ± 0.07 Aa |
| ET_o/TR_o | | | |
| SS | 0.60 ± 0.01 Aa | 0.61 ± 0.01 Aa | 0.59 ± 0.01 Aa |
| G | 0.41 ± 0.55 Ba | 0.32 ± 0.30 Ba | 0.34 ± 1.58 Ba |
| ET_o/ABS | | | |
| SS | 0.46 ± 0.01 Aa | 0.43 ± 0.01 Aa | 0.44 ± 0.02 Aa |
| G | 0.28 ± 0.78 Ba | 0.20 ± 0.20 Ba | 0.22 ± 0.35 Ba |
| ABS/CS_o | | | |
| SS | 5900 ± 250 Ab | 7107 ± 249 Aa | 6556 ± 338 Aab |
| G | 5800 ± 122 Ab | 6785 ± 387 Aa | 6359 ± 189 Aab |
| TR_o/CS_o | | | |
| SS | 4504 ± 149 Aa | 4991 ± 129 Aa | 4920 ± 175 Aa |
| G | 3931 ± 172 Ba | 4132 ± 263 Ba | 4204 ± 42 Ba |
| ET_o/CS_o | | | |
| SS | 2730 ± 69 Aa | 3088 ± 60 Aa | 2898 ± 67 Aa |
| G | 1641 ± 212 Ba | 1340 ± 175 Ba | 1439 ± 149 Ba |
| RC/CS_o | | | |
| SS | 4198 ± 86 Ab | 4520 ± 187 Aab | 5061 ± 75 Aa |
| G | 4233 ± 373 Aa | 4115 ± 328 Aa | 4534 ± 183 Aa |
| Área | | | |
| SS | 4.50x105 ± 0.23x105 Aa | 5.86x105 ± 1.13x105 Aa | 5.46x105 ± 0.41x105 Aa |
| G | 2.99x105 ± 0.61x105 Aa | 2.13x105 ± 0.66x105 Ba | 2.63x105 ± 0.33x105 Ba |
| F_v/F_m | | | |
| SS | 0.78 ± 0.01 Aa | 0.72 ± 0.02 Aa | 0.76 ± 0.02 Aa |
| G | 0.69 ± 0.03 Ba | 0.63 ± 0.03 Ba | 0.68 ± 0.02 Ba |
| PI | | | |
| SS | 3.42 ± 0.39 Aa | 2.34 ± 0.33 Aa | 3.41 ± 0.64 Aa |
| G | 1.28 ± 0.36 Ba | 0.55 ± 0.21 Ba | 0.79 ± 0.20 Ba |
| SPAD | | | |
| SS | 53.00 ± 0.7 Aa | 53.80 ± 0.9 Aa | 53.30 ± 0.9 Aa |
| G | 34.50 ± 0.8 Ba | 35.70 ± 0.6 Ba | 33.80 ± 0.8 Ba |

Each value represents the mean ± SE (n=4); different letters indicate significant differences among measurement times within each

genotype (a, bB) or between genotypes within each measurement time (A, B), by Tukey's test at 5% probability.