

Supplementary Material

Table S1: Egg hatching, pupal recovery, and adult emergence rates at 25 °C, 34 °C and 35 °C for twenty-seven *Ceratitis capitata* strains.

| Strain | Temperature (°C) | Egg hatching* (%) | Pupal recovery* (%) | Adult emergence* (%) |
|-------------------------|------------------|-------------------|---------------------|----------------------|
| EgII FF21 | 25 | 93.89 | 86.39 | 90.96 |
| | 34 | 67.78 | 52.46 | 92.50 |
| | 35 | 54.78 | 22.52 | 95.50 |
| EgII FF26 | 25 | 98.00 | 89.00 | 87.52 |
| | 34 | 83.67 | 72.64 | 89.76 |
| | 35 | 44.44 | 32.25 | 84.50 |
| Benakeion Volos FF26 | 25 | 87.33 | 86.01 | 93.64 |
| | 34 | 29.89 | 35.32 | 93.68 |
| | 35 | 14.22 | 12.50 | 93.75 |
| Seibersdorf (SEIB) FF26 | 25 | 89.78 | 93.81 | 99.47 |
| | 34 | 67.67 | 79.15 | 98.34 |
| | 35 | 59.22 | 47.09 | 94.82 |
| Argentina FF26 | 25 | 89.67 | 88.85 | 97.21 |
| | 34 | 67.11 | 76.99 | 91.83 |
| | 35 | 43.78 | 49.75 | 97.96 |
| Benakeion TR 34 FF26 | 25 | 93.89 | 86.39 | 90.96 |
| | 34 | 67.78 | 52.46 | 92.50 |
| | 35 | 54.78 | 22.52 | 95.50 |
| Benakeion TR 35 FF26 | 25 | 92.89 | 79.31 | 94.27 |
| | 34 | 62.78 | 48.32 | 90.84 |
| | 35 | 48.56 | 26.32 | 89.57 |
| Benakeion TR 34 S FF26 | 25 | 85.11 | 89.69 | 90.39 |
| | 34 | 55.89 | 71.17 | 98.32 |
| | 35 | 25.89 | 27.04 | 77.78 |
| Benakeion TR 35 S FF26 | 25 | 85.44 | 88.43 | 90.15 |
| | 34 | 61.78 | 65.65 | 95.89 |
| | 35 | 33.00 | 19.87 | 94.92 |
| VIENNA 8 2010 FF26 | 25 | 65.22 | 85.35 | 76.25 |
| | 31 | 44.22 | 66.83 | 72.18 |
| | 32 | 39.56 | 64.33 | 92.14 |
| | 33 | 29.44 | 72.08 | 87.43 |
| | 34 | 21.90 | 59.82 | 89.31 |
| | 35 | 19.89 | 49.72 | 76.40 |
| VIENNA 8 2018 FF26 | 25 | 72.78 | 68.85 | 71.84 |
| | 31 | 43.89 | 48.10 | 78.42 |
| | 32 | 45.33 | 50.49 | 76.70 |
| | 33 | 25.44 | 60.26 | 88.41 |
| | 34 | 21.40 | 50.47 | 79.63 |
| | 35 | 9.33 | 52.38 | 81.82 |
| | 25 | 79.22 | 64.66 | 89.59 |

| | | | | |
|---|----|-------|-------|--------|
| VIENNA 8 2019 FF26 | 31 | 68.33 | 67.32 | 90.34 |
| | 32 | 67.44 | 70.68 | 88.11 |
| | 33 | 56.89 | 66.99 | 91.84 |
| | 34 | 22.00 | 56.36 | 84.68 |
| | 35 | 4.33 | 25.64 | 100.00 |
| VIENNA 8 Sr ² FF26 | 25 | 76.44 | 89.53 | 78.41 |
| | 31 | 58.33 | 72.76 | 78.80 |
| | 32 | 45.00 | 71.85 | 82.82 |
| | 33 | 35.00 | 74.92 | 83.47 |
| | 34 | 16.60 | 73.49 | 89.34 |
| VIENNA 8 Guatemala "El Pino" FF26 | 35 | 13.33 | 56.67 | 77.94 |
| | 25 | 82.56 | 74.56 | 85.02 |
| | 31 | 69.67 | 70.33 | 83.22 |
| | 32 | 73.89 | 66.62 | 87.81 |
| | 33 | 56.22 | 67.39 | 85.34 |
| VIENNA 8 Israel FF26 | 34 | 26.50 | 44.53 | 88.98 |
| | 35 | 12.89 | 24.14 | 89.29 |
| | 25 | 92.00 | 88.53 | 81.31 |
| | 31 | 89.67 | 75.71 | 78.56 |
| | 32 | 88.89 | 80.25 | 75.70 |
| VIENNA 8 Argentina FF26 | 33 | 67.11 | 69.21 | 86.36 |
| | 34 | 37.20 | 76.08 | 89.40 |
| | 35 | 28.44 | 66.02 | 84.62 |
| | 25 | 91.00 | 76.56 | 88.52 |
| | 31 | 86.89 | 74.42 | 87.97 |
| VIENNA 7 2017 FF26 | 32 | 89.89 | 72.81 | 91.51 |
| | 33 | 84.89 | 66.36 | 94.67 |
| | 34 | 68.20 | 52.49 | 91.62 |
| | 35 | 40.22 | 37.85 | 91.24 |
| | 25 | 76.11 | 81.61 | 72.45 |
| VIENNA 7 2018 FF26 | 31 | 46.56 | 69.93 | 78.84 |
| | 32 | 58.00 | 67.05 | 78.29 |
| | 33 | 31.89 | 74.22 | 85.92 |
| | 34 | 19.20 | 60.94 | 90.60 |
| | 35 | 6.67 | 45.00 | 77.78 |
| VIENNA 7 2019 FF26 | 25 | 72.78 | 69.31 | 68.72 |
| | 31 | 60.67 | 58.06 | 77.92 |
| | 32 | 59.56 | 56.53 | 74.59 |
| | 33 | 37.00 | 66.67 | 83.33 |
| | 34 | 25.80 | 54.65 | 80.14 |
| VIENNA 7 2020 FF26 | 35 | 8.56 | 36.36 | 85.71 |
| | 25 | 82.89 | 63.00 | 76.81 |
| | 31 | 72.78 | 56.64 | 87.60 |
| | 32 | 67.89 | 64.48 | 85.53 |
| | 33 | 69.33 | 54.33 | 86.73 |
| VIENNA 7 2020 FF26 | 34 | 26.30 | 64.64 | 91.76 |
| | 35 | 10.44 | 28.72 | 77.78 |
| VIENNA 7 2020 FF26 | 25 | 81.22 | 78.11 | 87.39 |
| | 31 | 60.78 | 57.59 | 85.40 |

| | | | | |
|-----------------------|----|-------|-------|--------|
| | 32 | 54.22 | 67.83 | 76.74 |
| | 33 | 29.56 | 81.20 | 95.37 |
| | 34 | 16.80 | 64.88 | 97.25 |
| | 35 | 5.89 | 33.96 | 94.44 |
| wp/tsl FF21 | 25 | 91.33 | 86.25 | 79.13 |
| | 31 | 79.33 | 50.70 | 48.62 |
| | 32 | 28.78 | 50.97 | 57.58 |
| | 33 | 8.89 | 26.25 | 28.57 |
| | 34 | 1.00 | 10.00 | 0.00 |
| | 35 | 1.00 | 0.00 | 0.00 |
| wp/tsl FF26 | 25 | 86.22 | 83.63 | 95.07 |
| | 31 | 74.78 | 69.99 | 63.91 |
| | 32 | 75.44 | 68.48 | 48.17 |
| | 33 | 20.44 | 39.13 | 88.89 |
| | 34 | 2.30 | 26.09 | 50.00 |
| | 35 | 1.22 | 0.00 | 0.00 |
| wp/tsl (EgII) FF21 | 25 | 94.33 | 94.94 | 93.30 |
| | 31 | 75.78 | 75.37 | 51.75 |
| | 32 | 78.44 | 79.32 | 54.64 |
| | 33 | 10.11 | 25.27 | 39.13 |
| | 34 | 1.00 | 0.00 | 0.00 |
| | 35 | 1.00 | 0.00 | 0.00 |
| wp/tsl (EgII) FF26 | 25 | 89.56 | 88.96 | 95.82 |
| | 31 | 80.56 | 76.83 | 72.17 |
| | 32 | 82.00 | 80.35 | 74.03 |
| | 33 | 27.56 | 62.50 | 80.00 |
| | 34 | 1.10 | 18.18 | 50.00 |
| | 35 | 1.56 | 7.14 | 100.00 |
| D53-3-28 FF21 | 25 | 95.78 | 97.33 | 95.47 |
| | 31 | 88.33 | 90.94 | 96.68 |
| | 32 | 88.56 | 88.83 | 96.05 |
| | 33 | 79.56 | 84.08 | 92.19 |
| | 34 | 42.10 | 54.39 | 89.08 |
| | 35 | 17.67 | 32.08 | 90.20 |
| D53-3-28 FF26 | 25 | 96.33 | 93.08 | 95.17 |
| | 31 | 91.56 | 91.99 | 91.42 |
| | 32 | 92.33 | 93.14 | 93.02 |
| | 33 | 82.44 | 73.99 | 89.07 |
| | 34 | 51.70 | 54.35 | 85.77 |
| | 35 | 26.33 | 37.97 | 78.89 |
| D53-1 FF26 | 25 | 95.11 | 94.39 | 89.36 |
| | 31 | 81.33 | 67.21 | 89.43 |
| | 32 | 84.33 | 70.36 | 91.39 |
| | 33 | 17.11 | 23.38 | 58.33 |
| | 34 | 1.00 | 0.00 | 0.00 |
| | 35 | 1.00 | 0.00 | 0.00 |

* The values are presented as mean \pm standard deviation.

Table S2: Pairwise comparisons of egg hatching at 25 °C, 34 °C and 35 °C for twenty-seven *Ceratitis capitata* strains.

| Strain | Temperature [°C] pairwise comparisons | Estimate | Standard Error | df | z ratio | p value |
|--------------------------------------|---|----------|-------------------|-----|---------|---------|
| EgII_FF21 | 25 - 34 | 0.326 | 0.0724 | Inf | 4.503 | <.0001 |
| | 25 - 35 | 0.539 | 0.0929 | Inf | 5.801 | <.0001 |
| | 34 - 35 | 0.213 | 0.1123 | Inf | 1.897 | 0.0579 |
| EgII_FF26 | 25 - 34 | 0.158 | 0.0507 | Inf | 3.121 | 0.0018 |
| | 25 - 35 | 0.791 | 0.123 | Inf | 6.43 | <.0001 |
| | 34 - 35 | 0.633 | 0.1312 | Inf | 4.823 | <.0001 |
| Benakeion Volos FF26 | 25 - 34 | 2.783 | 0.124 | Inf | 22.468 | <.0001 |
| | 25 - 35 | 3.728 | 0.138 | Inf | 26.936 | <.0001 |
| | 34 - 35 | 0.944 | 0.12 | Inf | 7.867 | <.0001 |
| Seibersdorf (SEIB) FF26 | 25 - 34 | 0.283 | 0.0356 | Inf | 7.95 | <.0001 |
| | 25 - 35 | 0.416 | 0.0414 | Inf | 10.046 | <.0001 |
| | 34 - 35 | 0.133 | 0.0499 | Inf | 2.67 | 0.0076 |
| Argentina FF26 | 25 - 34 | 0.29 | 0.0565 | Inf | 5.126 | <.0001 |
| | 25 - 35 | 0.717 | 0.0859 | Inf | 8.342 | <.0001 |
| | 34 - 35 | 0.427 | 0.0968 | Inf | 4.415 | <.0001 |
| Benakeion TR 34 FF26 | 25 - 34 | 0.326 | 0.0724 | Inf | 4.503 | <.0001 |
| | 25 - 35 | 0.539 | 0.0929 | Inf | 5.801 | <.0001 |
| | 34 - 35 | 0.213 | 0.1123 | Inf | 1.897 | 0.0579 |
| Benakeion TR 35 FF26 | 25 - 34 | 0.392 | 0.072 | Inf | 5.442 | <.0001 |
| | 25 - 35 | 0.649 | 0.0938 | Inf | 6.917 | <.0001 |
| | 34 - 35 | 0.257 | 0.1131 | Inf | 2.271 | 0.0231 |
| Benakeion TR 34 S FF26 | 25 - 34 | 0.421 | 0.0546 | Inf | 7.703 | <.0001 |
| | 25 - 35 | 1.19 | 0.0969 | Inf | 12.281 | <.0001 |
| | 34 - 35 | 0.77 | 0.1063 | Inf | 7.242 | <.0001 |
| Benakeion TR 35 S FF26 | 25 - 34 | 0.324 | 0.0559 | Inf | 5.807 | <.0001 |
| | 25 - 35 | 0.951 | 0.0933 | Inf | 10.2 | <.0001 |
| | 34 - 35 | 0.627 | 0.1023 | Inf | 6.127 | <.0001 |
| VIENNA 8 2010 FF26 | 25 - 34 | 1.9605 | 0.108 | Inf | 18.185 | <.0001 |
| | 25 - 35 | 2.0221 | 0.109 | Inf | 18.558 | <.0001 |
| | 34 - 35 | 0.0616 | 0.117 | Inf | 0.526 | 0.5986 |
| VIENNA 8 2018 FF26 | 25 - 34 | 1.222 | 0.129 | Inf | 9.468 | <.0001 |
| | 25 - 35 | 2.066 | 0.205 | Inf | 10.062 | <.0001 |
| | 34 - 35 | 0.844 | 0.236 | Inf | 3.575 | 0.0004 |
| VIENNA 8 2019 FF26 | 25 - 34 | 1.18 | 0.106 | Inf | 11.103 | <.0001 |
| | 25 - 35 | 2.96 | 0.281 | Inf | 10.522 | <.0001 |
| | 34 - 35 | 1.78 | 0.298 | Inf | 5.974 | <.0001 |
| VIENNA 8 Sr ² FF26 | 25 - 34 | 1.428 | 0.231 | Inf | 6.192 | <.0001 |
| | 25 - 35 | 1.746 | 0.276 | Inf | 6.334 | <.0001 |
| | 34 - 35 | 0.318 | 0.35 | Inf | 0.911 | 0.3625 |
| VIENNA 8 Guatemala "El Pino" FF26 | 25 - 34 | 1.1 | 0.108 | Inf | 10.17 | <.0001 |
| | 25 - 35 | 1.86 | 0.169 | Inf | 10.988 | <.0001 |
| | 34 - 35 | 0.76 | 0.196 | Inf | 3.874 | 0.0001 |

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|-------------------------|---------|--------|--------|-----|--------|--------|
| VIENNA 8 Israel FF26 | 25 - 34 | 0.853 | 0.0591 | Inf | 14.423 | <.0001 |
| | 25 - 35 | 1.174 | 0.0745 | Inf | 15.747 | <.0001 |
| | 34 - 35 | 0.321 | 0.0932 | Inf | 3.449 | 0.0006 |
| VIENNA 8 Argentina FF26 | 25 - 34 | 0.234 | 0.0475 | Inf | 4.935 | <.0001 |
| | 25 - 35 | 0.816 | 0.0855 | Inf | 9.544 | <.0001 |
| | 34 - 35 | 0.582 | 0.093 | Inf | 6.258 | <.0001 |
| VIENNA 7 2017 FF26 | 25 - 34 | 1.28 | 0.16 | Inf | 7.986 | <.0001 |
| | 25 - 35 | 2.47 | 0.307 | Inf | 8.044 | <.0001 |
| | 34 - 35 | 1.19 | 0.34 | Inf | 3.502 | 0.0005 |
| VIENNA 7 2018 FF26 | 25 - 34 | 0.996 | 0.132 | Inf | 7.557 | <.0001 |
| | 25 - 35 | 2.167 | 0.253 | Inf | 8.577 | <.0001 |
| | 34 - 35 | 1.171 | 0.277 | Inf | 4.222 | <.0001 |
| VIENNA 7 2019 FF26 | 25 - 34 | 1.08 | 0.122 | Inf | 8.842 | <.0001 |
| | 25 - 35 | 2.1 | 0.222 | Inf | 9.482 | <.0001 |
| | 34 - 35 | 1.02 | 0.249 | Inf | 4.108 | <.0001 |
| VIENNA 7 2020 FF26 | 25 - 34 | 1.53 | 0.111 | Inf | 13.781 | <.0001 |
| | 25 - 35 | 2.62 | 0.202 | Inf | 13.015 | <.0001 |
| | 34 - 35 | 1.09 | 0.228 | Inf | 4.797 | <.0001 |
| wp/tsl FF21 | 25 - 34 | 42.2 | 61.06 | Inf | 2.583 | 0.0098 |
| | 25 - 35 | 42.2 | 61.06 | Inf | 2.583 | 0.0098 |
| | 34 - 35 | 1 | 1.18 | Inf | 0 | 1 |
| wp/tsl FF26 | 25 - 34 | 25 | 31.96 | Inf | 2.522 | 0.0117 |
| | 25 - 35 | 25 | 31.96 | Inf | 2.522 | 0.0117 |
| | 34 - 35 | 1 | 1.18 | Inf | 0 | 1 |
| wp/tsl (EgII) FF21 | 25 - 34 | 56.255 | 84.191 | Inf | 2.693 | 0.0071 |
| | 25 - 35 | 42.154 | 61.06 | Inf | 2.583 | 0.0098 |
| | 34 - 35 | 0.749 | 0.927 | Inf | -0.233 | 0.8156 |
| wp/tsl (EgII) FF26 | 25 - 34 | 34.3 | 47.06 | Inf | 2.577 | 0.01 |
| | 25 - 35 | 34.3 | 47.06 | Inf | 2.577 | 0.01 |
| | 34 - 35 | 1 | 1.18 | Inf | 0 | 1 |
| D53-3-28 FF21 | 25 - 34 | 26.51 | 47.38 | Inf | 1.834 | 0.0667 |
| | 25 - 35 | 105.72 | 198.1 | Inf | 2.487 | 0.0129 |
| | 34 - 35 | 3.99 | 4.39 | Inf | 1.257 | 0.2088 |
| D53-3-28 FF26 | 25 - 34 | 20.87 | 38.59 | Inf | 1.643 | 0.1004 |
| | 25 - 35 | 69.14 | 130.18 | Inf | 2.25 | 0.0245 |
| | 34 - 35 | 3.31 | 3.35 | Inf | 1.186 | 0.2356 |
| D53-1 FF26 | 25 - 34 | 77.8 | 136.66 | Inf | 2.48 | 0.0132 |
| | 25 - 35 | 77.8 | 136.66 | Inf | 2.48 | 0.0132 |
| | 34 - 35 | 1 | 1.18 | Inf | 0 | 1 |

* Inf = Infinite degrees of freedom. Z test used for pairwise comparison is not affected by the number of observations.

Table S3: Pairwise comparisons of pupal recovery at 25 °C, 34 °C and 35 °C for twenty-seven *Ceratitis capitata* strains.

| Strain | Temperature [°C] pairwise comparisons | Estimate | Standard Error | df | z ratio | p value |
|---|--|----------|-------------------|-----|---------|---------|
| EgII_FF21 | 25 - 34 | 0.499 | 0.121 | Inf | 4.13 | <.0001 |
| | 25 - 35 | 1.345 | 0.25 | Inf | 5.378 | <.0001 |
| | 34 - 35 | 0.846 | 0.272 | Inf | 3.112 | 0.0019 |
| EgII_FF26 | 25 - 34 | 0.203 | 0.0632 | Inf | 3.215 | 0.0013 |
| | 25 - 35 | 1.015 | 0.1833 | Inf | 5.537 | <.0001 |
| | 34 - 35 | 0.812 | 0.1894 | Inf | 4.288 | <.0001 |
| Benakeion Volos FF26 | 25 - 34 | 0.89 | 0.123 | Inf | 7.209 | <.0001 |
| | 25 - 35 | 1.93 | 0.345 | Inf | 5.585 | <.0001 |
| | 34 - 35 | 1.04 | 0.366 | Inf | 2.841 | 0.0045 |
| Seibersdorf (SEIB) FF26 | 25 - 34 | 0.17 | 0.0467 | Inf | 3.639 | 0.0003 |
| | 25 - 35 | 0.689 | 0.0964 | Inf | 7.149 | <.0001 |
| | 34 - 35 | 0.519 | 0.1038 | Inf | 5 | <.0001 |
| Argentina FF26 | 25 - 34 | 0.153 | 0.0615 | Inf | 2.487 | 0.0129 |
| | 25 - 35 | 0.59 | 0.1268 | Inf | 4.65 | <.0001 |
| | 34 - 35 | 0.437 | 0.1348 | Inf | 3.239 | 0.0012 |
| Benakeion TR 34 FF26 | 25 - 34 | 0.511 | 0.123 | Inf | 4.164 | <.0001 |
| | 25 - 35 | 1.345 | 0.251 | Inf | 5.35 | <.0001 |
| | 34 - 35 | 0.833 | 0.274 | Inf | 3.043 | 0.0023 |
| Benakeion TR 35 FF26 | 25 - 34 | 1.411 | 0.285 | Inf | 4.95 | <.0001 |
| | 25 - 35 | 2.373 | 0.328 | Inf | 7.227 | <.0001 |
| | 34 - 35 | 0.962 | 0.327 | Inf | 2.946 | 0.0032 |
| Benakeion TR 34 S FF26 | 25 - 34 | 0.231 | 0.0595 | Inf | 3.885 | 0.0001 |
| | 25 - 35 | 1.199 | 0.2086 | Inf | 5.749 | <.0001 |
| | 34 - 35 | 0.968 | 0.2143 | Inf | 4.516 | <.0001 |
| Benakeion TR 35 S FF26 | 25 - 34 | 0.298 | 0.0609 | Inf | 4.888 | <.0001 |
| | 25 - 35 | 1.493 | 0.2144 | Inf | 6.965 | <.0001 |
| | 34 - 35 | 1.195 | 0.2203 | Inf | 5.426 | <.0001 |
| VIENNA 8 2010 FF26 | 25 - 34 | 0.342 | 0.0986 | Inf | 3.467 | 0.0005 |
| | 25 - 35 | 0.54 | 0.1242 | Inf | 4.351 | <.0001 |
| | 34 - 35 | 0.199 | 0.1537 | Inf | 1.292 | 0.1965 |
| VIENNA 8 2018 FF26 | 25 - 34 | 0.379 | 0.155 | Inf | 2.441 | 0.0147 |
| | 25 - 35 | 0.261 | 0.205 | Inf | 1.274 | 0.2026 |
| | 34 - 35 | -0.117 | 0.247 | Inf | -0.474 | 0.6354 |
| VIENNA 8 2019 FF26 | 25 - 34 | 0.338 | 0.157 | Inf | 2.147 | 0.0318 |
| | 25 - 35 | 1.597 | 0.378 | Inf | 4.221 | <.0001 |
| | 34 - 35 | 1.26 | 0.394 | Inf | 3.193 | 0.0014 |
| VIENNA 8 Sr ² FF26 | 25 - 34 | 0.191 | 0.0684 | Inf | 2.8 | 0.0051 |
| | 25 - 35 | 0.457 | 0.1151 | Inf | 3.973 | 0.0001 |
| | 34 - 35 | 0.266 | 0.1313 | Inf | 2.026 | 0.0427 |
| VIENNA 8 Guatemala "El Pino" FF26 | 25 - 34 | 1.237 | 0.153 | Inf | 8.099 | <.0001 |
| | 25 - 35 | 2.221 | 0.233 | Inf | 9.54 | <.0001 |
| | 34 - 35 | 0.983 | 0.252 | Inf | 3.909 | 0.0001 |
| | 25 - 34 | 0.146 | 0.0481 | Inf | 3.036 | 0.0024 |

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|----------------------------|---------|---------|--------|-----|--------|--------|
| VIENNA 8 Israel FF26 | 25 - 35 | 0.293 | 0.0699 | Inf | 4.195 | <.0001 |
| | 34 - 35 | 0.147 | 0.0806 | Inf | 1.826 | 0.0679 |
| VIENNA 8 Argentina FF26 | 25 - 34 | 1.047 | 0.169 | Inf | 6.199 | <.0001 |
| | 25 - 35 | 1.68 | 0.202 | Inf | 8.324 | <.0001 |
| | 34 - 35 | 0.632 | 0.198 | Inf | 3.185 | 0.0014 |
| VIENNA 7 2017 | 25 - 34 | 1.032 | 0.178 | Inf | 5.787 | <.0001 |
| | 25 - 35 | 1.628 | 0.281 | Inf | 5.791 | <.0001 |
| | 34 - 35 | 0.596 | 0.302 | Inf | 1.973 | 0.0485 |
| VIENNA 7 2018 | 25 - 34 | 0.217 | 0.0956 | Inf | 2.27 | 0.0232 |
| | 25 - 35 | 0.655 | 0.2376 | Inf | 2.758 | 0.0058 |
| | 34 - 35 | 0.438 | 0.2499 | Inf | 1.753 | 0.0797 |
| VIENNA 7 2019 | 25 - 34 | -0.0644 | 0.101 | Inf | -0.636 | 0.5251 |
| | 25 - 35 | 0.7276 | 0.311 | Inf | 2.338 | 0.0194 |
| | 34 - 35 | 0.792 | 0.318 | Inf | 2.49 | 0.0128 |
| VIENNA 7 2020 FF26 | 25 - 34 | 0.14 | 0.0818 | Inf | 1.708 | 0.0876 |
| | 25 - 35 | 0.833 | 0.272 | Inf | 3.062 | 0.0022 |
| | 34 - 35 | 0.693 | 0.2813 | Inf | 2.464 | 0.0137 |
| wp/tsl FF21 | 25 - 34 | 14.8 | 17.99 | Inf | 2.22 | 0.0264 |
| | 25 - 35 | 14.8 | 17.99 | Inf | 2.22 | 0.0264 |
| | 34 - 35 | 1 | 1.03 | Inf | 0 | 1 |
| wp/tsl FF26 | 25 - 34 | 11.9 | 13.73 | Inf | 2.139 | 0.0325 |
| | 25 - 35 | 11.9 | 13.73 | Inf | 2.139 | 0.0325 |
| | 34 - 35 | 1 | 1.03 | Inf | 0 | 1 |
| wp/tsl (EgII) FF21 | 25 - 34 | 44.4 | 75.15 | Inf | 2.239 | 0.0252 |
| | 25 - 35 | 44.4 | 75.15 | Inf | 2.239 | 0.0252 |
| | 34 - 35 | 1 | 1.03 | Inf | 0 | 1 |
| wp/tsl (EgII) FF26 | 25 - 34 | 18.9 | 24.4 | Inf | 2.278 | 0.0227 |
| | 25 - 35 | 18.9 | 24.4 | Inf | 2.278 | 0.0227 |
| | 34 - 35 | 1 | 1.03 | Inf | 0 | 1 |
| D53-3-28 FF21 | 25 - 34 | 29.86 | 64.79 | Inf | 1.566 | 0.1174 |
| | 25 - 35 | 77.34 | 168.89 | Inf | 1.991 | 0.0465 |
| | 34 - 35 | 2.59 | 2.54 | Inf | 0.971 | 0.3314 |
| D53-3-28 FF26 | 25 - 34 | 10.66 | 15.45 | Inf | 1.631 | 0.1028 |
| | 25 - 35 | 20.73 | 30.22 | Inf | 2.079 | 0.0376 |
| | 34 - 35 | 1.95 | 1.86 | Inf | 0.694 | 0.4876 |
| D53-1 FF26 | 25 - 34 | 39.5 | 64.25 | Inf | 2.263 | 0.0236 |
| | 25 - 35 | 39.5 | 64.25 | Inf | 2.263 | 0.0236 |
| | 34 - 35 | 1 | 1.03 | Inf | 0 | 1 |

* Inf = Infinite degrees of freedom. Z test used for pairwise comparison is not affected by the number of observations.

Table S4: Pairwise comparisons of adult recovery at 25 °C, 34 °C and 35 °C for twenty-seven *Ceratitis capitata* strains.

| Strain | Temperature [°C] pairwise comparisons | Estimate | Standard Error | df | z ratio | p value |
|---|--|----------|-------------------|-------|---------|---------|
| EgII_FF21 | 25 - 34 | -0.204 | 0.488 | Inf | -0.418 | 0.6762 |
| | 25 - 35 | -0.745 | 0.933 | Inf | -0.799 | 0.4246 |
| | 34 - 35 | -0.542 | 0.99 | Inf | -0.547 | 0.5844 |
| EgII_FF26 | 25 - 34 | -0.224 | 0.569 | Inf | -0.393 | 0.6943 |
| | 25 - 35 | 0.252 | 0.853 | Inf | 0.295 | 0.7679 |
| | 34 - 35 | 0.475 | 0.901 | Inf | 0.528 | 0.5977 |
| Benakeion Volos | 25 - 34 | -0.00761 | 0.679 | Inf | -0.011 | 0.9911 |
| | 25 - 35 | -0.01878 | 1.575 | Inf | -0.012 | 0.9905 |
| | 34 - 35 | -0.01117 | 1.681 | Inf | -0.007 | 0.9947 |
| Seibersdorf (SEIB) FF26 | 25 - 34 | 1.16 | 1.137 | Inf | 1.018 | 0.3087 |
| | 25 - 35 | 2.33 | 1.066 | Inf | 2.188 | 0.0286 |
| | 34 - 35 | 1.17 | 0.843 | Inf | 1.393 | 0.1637 |
| Argentina FF26 | 25 - 34 | 0.912 | 0.627 | Inf | 1.454 | 0.1461 |
| | 25 - 35 | -0.54 | 1.29 | Inf | -0.419 | 0.6753 |
| | 34 - 35 | -1.452 | 1.262 | Inf | -1.15 | 0.25 |
| Benakeion TR 34 FF26 | 25 - 34 | -0.19 | 0.487 | Inf | -0.391 | 0.6961 |
| | 25 - 35 | -0.745 | 0.931 | Inf | -0.801 | 0.4234 |
| | 34 - 35 | -0.555 | 0.988 | Inf | -0.562 | 0.574 |
| Benakeion TR 35 FF26 | 25 - 34 | 0.506 | 0.381 | Inf | 1.328 | 0.1843 |
| | 25 - 35 | 0.65 | 0.494 | Inf | 1.317 | 0.1879 |
| | 34 - 35 | 0.145 | 0.526 | Inf | 0.275 | 0.7831 |
| Benakeion TR 34 S FF26 | 25 - 34 | -1.83 | 0.971 | Inf | -1.885 | 0.0594 |
| | 25 - 35 | 0.989 | 0.741 | Inf | 1.334 | 0.1822 |
| | 34 - 35 | 2.819 | 1.15 | Inf | 2.452 | 0.0142 |
| Benakeion TR 35 S FF26 | 25 - 34 | -0.936 | 1.05 | Inf | -0.894 | 0.3713 |
| | 25 - 35 | -0.713 | 2.16 | Inf | -0.329 | 0.7418 |
| | 34 - 35 | 0.223 | 2.32 | Inf | 0.096 | 0.9232 |
| VIENNA 8 2010 FF26 | 25 - 34 | -0.88387 | 0.479 | Inf - | 1.845 | 0.065 |
| | 25 - 35 | -0.00869 | 0.415 | Inf | -0.021 | 0.9833 |
| | 34 - 35 | 0.87519 | 0.591 | Inf | 1.48 | 0.1389 |
| VIENNA 8 2018 FF26 | 25 - 34 | -0.054 | 0.11 | Inf | -0.49 | 0.6242 |
| | 25 - 35 | -0.1301 | 0.128 | Inf | -1.015 | 0.3103 |
| | 34 - 35 | -0.0761 | 0.154 | Inf | -0.494 | 0.6215 |
| VIENNA 8 2019 FF26 | 25 - 34 | 0.443 | 0.434 | Inf | 1.019 | 0.308 |
| | 25 - 35 | -16.675 | 3492.268 | Inf | -0.005 | 0.9962 |
| | 34 - 35 | -17.117 | 3492.268 | Inf | -0.005 | 0.9961 |
| VIENNA 8 Sr ² FF26 | 25 - 34 | -0.8367 | 0.384 | Inf | -2.181 | 0.0292 |
| | 25 - 35 | 0.0274 | 0.383 | Inf | 0.072 | 0.9428 |
| | 34 - 35 | 0.8642 | 0.514 | Inf | 1.682 | 0.0926 |
| VIENNA 8 Guatemala "El Pino" FF26 | 25 - 34 | -0.404 | 0.385 | Inf | -1.049 | 0.2942 |
| | 25 - 35 | -0.3842 | 0.732 | Inf | -0.525 | 0.5996 |
| | 34 - 35 | 0.0198 | 0.803 | Inf | 0.025 | 0.9803 |
| | 25 - 34 | -0.686 | 0.366 | Inf | -1.875 | 0.0608 |

| | | | | | | |
|----------------------------|---------|---------|---------|-----|--------|--------|
| VIENNA 8 Israel FF26 | 25 - 35 | -0.234 | 0.387 | Inf | -0.607 | 0.5441 |
| | 34 - 35 | 0.452 | 0.484 | Inf | 0.934 | 0.3503 |
| VIENNA 8 Argentina FF26 | 25 - 34 | -0.0407 | 0.0467 | Inf | -0.871 | 0.3835 |
| | 25 - 35 | -0.0303 | 0.0663 | Inf | -0.457 | 0.6474 |
| | 34 - 35 | 0.0104 | 0.0676 | Inf | 0.154 | 0.8776 |
| VIENNA 7 2017 FF26 | 25 - 34 | -1.299 | 0.331 | Inf | -3.928 | 0.0001 |
| | 25 - 35 | -0.286 | 0.472 | Inf | -0.605 | 0.5452 |
| | 34 - 35 | 1.013 | 0.561 | Inf | 1.806 | 0.071 |
| VIENNA 7 2018 FF26 | 25 - 34 | -0.553 | 0.242 | Inf | -2.288 | 0.0221 |
| | 25 - 35 | -0.781 | 0.516 | Inf | -1.514 | 0.1301 |
| | 34 - 35 | -0.228 | 0.551 | Inf | -0.414 | 0.6789 |
| VIENNA 7 2019 FF26 | 25 - 34 | -1.2133 | 0.356 | Inf | -3.411 | 0.0006 |
| | 25 - 35 | 0.0989 | 0.534 | Inf | 0.185 | 0.8531 |
| | 34 - 35 | 1.3122 | 0.615 | Inf | 2.134 | 0.0328 |
| VIENNA 7 2020 FF26 | 25 - 34 | -1.619 | 0.842 | Inf | -1.924 | 0.0544 |
| | 25 - 35 | -0.897 | 1.457 | Inf | -0.616 | 0.538 |
| | 34 - 35 | 0.722 | 1.664 | Inf | 0.434 | 0.6643 |
| wp/tsl FF21 | 25 - 34 | NA | | | | |
| | 25 - 35 | | | | | |
| | 34 - 35 | | | | | |
| wp/tsl FF26 | 25 - 34 | 2.96 | 1.93 | Inf | 1.533 | 0.1254 |
| | 25 - 35 | NA | | | | |
| | 34 - 35 | | | | | |
| wp/tsl (EgII) FF21 | 25 - 34 | NA | | | | |
| | 25 - 35 | | | | | |
| | 34 - 35 | | | | | |
| wp/tsl (EgII) FF26 | 25 - 34 | 3.13 | 2.98 | Inf | 1.051 | 0.2935 |
| | 25 - 35 | -13.43 | 5013.62 | Inf | -0.003 | 0.9979 |
| | 34 - 35 | -16.57 | 5013.62 | Inf | -0.003 | 0.9974 |
| D53-3-28 FF21 | 25 - 34 | 0.0693 | 0.0367 | Inf | 1.886 | 0.0593 |
| | 25 - 35 | 0.0568 | 0.0706 | Inf | 0.805 | 0.4208 |
| | 34 - 35 | -0.0124 | 0.0779 | Inf | -0.159 | 0.8734 |
| D53-3-28 FF26 | 25 - 34 | 0.0988 | 0.0393 | Inf | 2.516 | 0.0119 |
| | 25 - 35 | 0.19 | 0.0847 | Inf | 2.244 | 0.0248 |
| | 34 - 35 | 0.0911 | 0.0918 | Inf | 0.993 | 0.3208 |
| D53-1 FF26 | 25 - 34 | NA | | | | |
| | 25 - 35 | | | | | |
| | 34 - 35 | | | | | |

* Inf = Infinite degrees of freedom. Z test used for pairwise comparison is not affected by the number of observations.

Table S5: Temperature pairwise comparisons of egg hatching at 25 °C, 31 °C, 32 °C, 33 °C, 34 °C and 35 °C for GSS and *tsl* mutant *Ceratitidis capitata* strains.

| Strain | Temperature [°C] pairwise comparisons | Estimate | Standard Error | df | z ratio | p value |
|--------------------------------------|--|----------|-------------------|-----|---------|---------|
| VIENNA 8 2010 FF26 | 25 - 31 | 0.3886 | 0.0568 | Inf | 6.847 | <.0001 |
| | 31 - 32 | 0.1115 | 0.0708 | Inf | 1.576 | 0.115 |
| | 32 - 33 | 0.2952 | 0.0839 | Inf | 3.517 | 0.0004 |
| | 33 - 34 | 0.3433 | 0.1053 | Inf | 3.259 | 0.0011 |
| | 34 - 35 | 0.0491 | 0.1184 | Inf | 0.414 | 0.6787 |
| VIENNA 8 2018 FF26 | 25 - 31 | 0.5057 | 0.0847 | Inf | 5.97 | <.0001 |
| | 31 - 32 | -0.0324 | 0.1039 | Inf | -0.312 | 0.7552 |
| | 32 - 33 | 0.5775 | 0.134 | Inf | 4.309 | <.0001 |
| | 33 - 34 | 0.171 | 0.1692 | Inf | 1.011 | 0.3122 |
| | 34 - 35 | 0.8319 | 0.241 | Inf | 3.451 | 0.0006 |
| VIENNA 8 2019 FF26 | 25 - 31 | 0.1479 | 0.0512 | Inf | 2.888 | 0.0039 |
| | 31 - 32 | 0.0131 | 0.0585 | Inf | 0.224 | 0.8228 |
| | 32 - 33 | 0.1702 | 0.0669 | Inf | 2.543 | 0.011 |
| | 33 - 34 | 0.8493 | 0.1182 | Inf | 7.186 | <.0001 |
| | 34 - 35 | 1.7255 | 0.3016 | Inf | 5.721 | <.0001 |
| VIENNA 8 Sr ² FF26 | 25 - 31 | 0.27 | 0.0907 | Inf | 2.98 | 0.0029 |
| | 31 - 32 | 0.26 | 0.1249 | Inf | 2.078 | 0.0377 |
| | 32 - 33 | 0.251 | 0.1575 | Inf | 1.596 | 0.1105 |
| | 33 - 34 | 0.647 | 0.2254 | Inf | 2.868 | 0.0041 |
| | 34 - 35 | 0.318 | 0.297 | Inf | 1.072 | 0.2836 |
| VIENNA 8 Guatemala "El Pino" FF26 | 25 - 31 | 0.1697 | 0.0541 | Inf | 3.138 | 0.0017 |
| | 31 - 32 | -0.0588 | 0.0597 | Inf | -0.985 | 0.3246 |
| | 32 - 33 | 0.2733 | 0.0716 | Inf | 3.818 | 0.0001 |
| | 33 - 34 | 0.7131 | 0.1242 | Inf | 5.743 | <.0001 |
| | 34 - 35 | 0.7598 | 0.2061 | Inf | 3.687 | 0.0002 |
| VIENNA 8 Israel FF26 | 25 - 31 | 0.02569 | 0.0187 | Inf | 1.377 | 0.1684 |
| | 31 - 32 | 0.00871 | 0.0203 | Inf | 0.428 | 0.6683 |
| | 32 - 33 | 0.28104 | 0.0325 | Inf | 8.638 | <.0001 |
| | 33 - 34 | 0.53711 | 0.0592 | Inf | 9.066 | <.0001 |
| | 34 - 35 | 0.32129 | 0.0836 | Inf | 3.841 | 0.0001 |
| VIENNA 8 Argentina FF26 | 25 - 31 | 0.0462 | 0.028 | Inf | 1.652 | 0.0984 |
| | 31 - 32 | -0.0339 | 0.0287 | Inf | -1.182 | 0.2374 |
| | 32 - 33 | 0.0572 | 0.0302 | Inf | 1.897 | 0.0578 |
| | 33 - 34 | 0.1647 | 0.0421 | Inf | 3.907 | 0.0001 |
| | 34 - 35 | 0.5822 | 0.0766 | Inf | 7.596 | <.0001 |
| VIENNA 7 2017 FF26 | 25 - 31 | 0.492 | 0.0788 | Inf | 6.237 | <.0001 |
| | 31 - 32 | -0.22 | 0.0892 | Inf | -2.464 | 0.0137 |
| | 32 - 33 | 0.598 | 0.1102 | Inf | 5.426 | <.0001 |
| | 33 - 34 | 0.407 | 0.1576 | Inf | 2.583 | 0.0098 |
| | 34 - 35 | 1.158 | 0.2743 | Inf | 4.221 | <.0001 |
| VIENNA 7 2018 FF26 | 25 - 31 | 0.182 | 0.059 | Inf | 3.086 | 0.002 |
| | 31 - 32 | 0.0185 | 0.0672 | Inf | 0.275 | 0.7833 |
| | 32 - 33 | 0.476 | 0.09 | Inf | 5.287 | <.0001 |

| | | | | | | |
|--------------------|---------|----------|--------|-----|--------|--------|
| | 33 - 34 | 0.3192 | 0.1227 | Inf | 2.602 | 0.0093 |
| | 34 - 35 | 1.1451 | 0.2136 | Inf | 5.361 | <.0001 |
| VIENNA 7 2019 FF26 | 25 - 31 | 0.1301 | 0.0466 | Inf | 2.794 | 0.0052 |
| | 31 - 32 | 0.0695 | 0.0562 | Inf | 1.237 | 0.2162 |
| | 32 - 33 | -0.0211 | 0.0585 | Inf | -0.36 | 0.7187 |
| | 33 - 34 | 0.9028 | 0.1058 | Inf | 8.531 | <.0001 |
| | 34 - 35 | 0.9901 | 0.2039 | Inf | 4.857 | <.0001 |
| VIENNA 7 2020 FF26 | 25 - 31 | 0.29 | 0.0537 | Inf | 5.397 | <.0001 |
| | 31 - 32 | 0.114 | 0.07 | Inf | 1.63 | 0.1032 |
| | 32 - 33 | 0.607 | 0.1031 | Inf | 5.886 | <.0001 |
| | 33 - 34 | 0.573 | 0.1559 | Inf | 3.674 | 0.0002 |
| | 34 - 35 | 1.04 | 0.2629 | Inf | 3.958 | 0.0001 |
| wp/tsl FF21 | 25 - 31 | 0.141 | 0.0351 | Inf | 4.016 | 0.0001 |
| | 31 - 32 | 1.014 | 0.0973 | Inf | 10.421 | <.0001 |
| | 32 - 33 | 1.175 | 0.2099 | Inf | 5.598 | <.0001 |
| | 33 - 34 | 2.185 | 0.615 | Inf | 3.553 | 0.0004 |
| | 34 - 35 | 0 | 0.8279 | Inf | 0 | 1 |
| wp/tsl FF26 | 25 - 31 | 0.14241 | 0.0296 | Inf | 4.814 | <.0001 |
| | 31 - 32 | -0.00888 | 0.0342 | Inf | -0.26 | 0.795 |
| | 32 - 33 | 1.30568 | 0.0862 | Inf | 15.155 | <.0001 |
| | 33 - 34 | 2.12389 | 0.2777 | Inf | 7.649 | <.0001 |
| | 34 - 35 | 0.69315 | 0.461 | Inf | 1.504 | 0.1327 |
| wp/tsl (EgII) FF21 | 25 - 31 | 0.1867 | 0.0548 | Inf | 3.407 | 0.0007 |
| | 31 - 32 | -0.0346 | 0.0656 | Inf | -0.527 | 0.5982 |
| | 32 - 33 | 2.0488 | 0.2577 | Inf | 7.95 | <.0001 |
| | 33 - 34 | 2.3136 | 0.8842 | Inf | 2.617 | 0.0089 |
| | 34 - 35 | 0 | 1.1978 | Inf | 0 | 1 |
| wp/tsl (EgII) FF26 | 25 - 31 | 0.1059 | 0.0228 | Inf | 4.643 | <.0001 |
| | 31 - 32 | -0.0178 | 0.0259 | Inf | -0.687 | 0.4923 |
| | 32 - 33 | 1.0905 | 0.0643 | Inf | 16.948 | <.0001 |
| | 33 - 34 | 3.2108 | 0.3649 | Inf | 8.799 | <.0001 |
| | 34 - 35 | -0.3365 | 0.4705 | Inf | -0.715 | 0.4745 |
| D53-3-28 FF21 | 25 - 31 | 0.08091 | 0.0305 | Inf | 2.651 | 0.008 |
| | 31 - 32 | -0.00251 | 0.0372 | Inf | -0.068 | 0.9461 |
| | 32 - 33 | 0.10717 | 0.0452 | Inf | 2.371 | 0.0177 |
| | 33 - 34 | 0.5454 | 0.0868 | Inf | 6.281 | <.0001 |
| | 34 - 35 | 0.95937 | 0.1756 | Inf | 5.464 | <.0001 |
| D53-3-28 FF26 | 25 - 31 | 0.04856 | 0.0337 | Inf | 1.44 | 0.1498 |
| | 31 - 32 | -0.00846 | 0.0387 | Inf | -0.218 | 0.8272 |
| | 32 - 33 | 0.11328 | 0.0503 | Inf | 2.25 | 0.0245 |
| | 33 - 34 | 0.41903 | 0.0952 | Inf | 4.404 | <.0001 |
| | 34 - 35 | 0.72226 | 0.1766 | Inf | 4.089 | <.0001 |
| D53-1 FF26 | 25 - 31 | 0.1565 | 0.0267 | Inf | 5.858 | <.0001 |
| | 31 - 32 | -0.0362 | 0.0325 | Inf | -1.115 | 0.2648 |
| | 32 - 33 | 1.595 | 0.113 | Inf | 14.11 | <.0001 |
| | 33 - 34 | 2.8397 | 0.5136 | Inf | 5.529 | <.0001 |
| | 34 - 35 | 0 | 0.7092 | Inf | 0 | 1 |

* Inf = Infinite degrees of freedom. Z test used for pairwise comparison is not affected by the number of observations.