Supplementary Material

**Table S1.** Nymphaldevelopment duration (D) of the wheat aphid, *S. miscanthi*, at 17, 22 and 27°C; ANOVA results for the six populations data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TEMP (°C)** | **Populations** | **Development time**  **(Mean ± SE)** | ***F df=5, 354*** | ***P*** |
|  | SZ | 13.89 ± 0.32a |  |  |
|  | WH | 13.51 ± 0.36a |  |  |
| 17 | KM | 12.67 ± 0.28b | 18.729 | ＜ 0.001 |
|  | TA | 11.44 ± 0.22c |  |  |
|  | LF | 11.06 ± 0.13c |  |  |
|  | YC | 11.61 ± 0.25c |  |  |
|  | SZ | 12.28 ± 0.34ab |  |  |
|  | WH | 12.33 ± 0.20a |  |  |
| 22 | KM | 11.39 ± 0.23b | 2.405 | 0.042 |
|  | TA | 11.22 ± 0.34b |  |  |
|  | LF | 11.44 ± 0.32b |  |  |
|  | YC | 11.27 ± 0.35b |  |  |
|  | SZ | 12.28 ± 0.34a |  |  |
|  | WH | 12.5 ± 0.30a |  |  |
| 27 | KM | 11.33 ± 0.11b | 37.434 | ＜ 0.001 |
|  | TA | 10.06 ± 0.01c |  |  |
|  | LF | 9.83 ± 0.90c |  |  |
|  | YC | 9.72 ± 0.11c |  |  |

**Table S2.** Adult longevity (day) of wheat aphid, *S. miscanthi*, at 17, 22 and 27°C; ANOVA results for the six populations data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TEMP (°C)** | **Populations** | **Adult longevity (Mean ± SE)** | ***F df=5, 354*** | ***P*** |
|  | SZ | 10.78 ± 0.37b |  |  |
|  | WH | 11.11 ± 0.48b |  |  |
| 17 | KM | 10.06 ± 0.71b | 15.827 | ＜ 0.001 |
|  | TA | 15.05 ± 0.39a |  |  |
|  | LF | 15.01 ± 0.64a |  |  |
|  | YC | 13.83 ± 0.70a |  |  |
|  | SZ | 11.94 ± 0.30c |  |  |
|  | WH | 12.06 ± 0.27c |  |  |
| 22 | KM | 12.83 ± 0.33bc | 8.552 | ＜ 0.001 |
|  | TA | 14.89 ± 0.48a |  |  |
|  | LF | 13.33 ± 0.50b |  |  |
|  | YC | 14.56 ± 0.57b |  |  |
|  | SZ | 6.67 ± 0.68b |  |  |
|  | WH | 4.06 ± 0.66b |  |  |
| 27 | KM | 5.67 ± 0.44bc | 48.38 | ＜ 0.001 |
|  | TA | 11.94 ± 0.50a |  |  |
|  | LF | 12.44 ± 0.59a |  |  |
|  | YC | 13.28 ± 0.54a |  |  |

**Table S3.** Longevity of wheat aphid, *S. miscanthi*, at 17, 22 and 27°C; ANOVA results for the six populations data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TEMP (°C)** | **Populations** | **Longevity (Mean ± SE)** | ***F df=5, 354*** | ***P*** |
|  | SZ | 24.72 ± 0.14b |  |  |
|  | WH | 24.61 ± 0.20b |  |  |
| 17 | KM | 22.83 ± 0.68c | 6.609 | ＜ 0.001 |
|  | TA | 26.44 ± 0.35a |  |  |
|  | LF | 26.06 ± 0.67ab |  |  |
|  | YC | 25.44 ± 0.64ab |  |  |
|  | SZ | 23.89 ± 0.24b |  |  |
|  | WH | 24.39 ± 0.23b |  |  |
| 22 | KM | 24.11 ± 0.25b | 7.161 | ＜ 0.001 |
|  | TA | 26.22 ± 0.35a |  |  |
|  | LF | 24.78 ± 0.45b |  |  |
|  | YC | 25.83 ± 0.51b |  |  |
|  | SZ | 18.94 ± 0.47b |  |  |
|  | WH | 16.56 ± 0.58c |  |  |
| 27 | KM | 17.02 ± 0.40c | 31.442 | ＜ 0.001 |
|  | TA | 22.01 ± 0.49a |  |  |
|  | LF | 22.28 ± 0.55a |  |  |
|  | YC | 23.03 ± 0.53a |  |  |

**Table S4.** Fecundity of wheat aphid, *S. miscanthi*, at 17, 22 and 27°C; ANOVA results for the six populations data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TEMP (°C)** | **Populations** | **Offspring Per adult (Mean ± SE)** | ***F df=5, 354*** | ***P*** |
|  | SZ | 38.72 ± 2.96a |  |  |
|  | WH | 41.06 ± 2.07a |  |  |
| 17 | KM | 38.28 ± 3.22a | 0.908 | 0.479 |
|  | TA | 36.33 ± 1.81a |  |  |
|  | LF | 34.67 ± 2.05a |  |  |
|  | YC | 36.94 ± 2.10a |  |  |
|  | SZ | 35.00 ± 1.58a |  |  |
|  | WH | 31.94 ± 1.84ab |  |  |
| 22 | KM | 35.28 ± 2.29a | 5.037 | ＜ 0.001 |
|  | TA | 27.44 ± 1.50bc |  |  |
|  | LF | 25.44 ± 1.43b |  |  |
|  | YC | 29.17 ± 2.01bc |  |  |
|  | SZ | 16.67 ± 2.04c |  |  |
|  | WH | 11.11 ± 1.43d |  |  |
| 27 | KM | 15.72 ± 1.52c | 24.083 | ＜ 0.001 |
|  | TA | 23.28 ± 1.28b |  |  |
|  | LF | 26.22 ± 1.16b |  |  |
|  | YC | 33.06 ± 2.14a |  |  |

**Figure S1.** Nymphal development duration among different populations.

**Figure S2.** Adult longevity among different populations.



**Figure S3.** Longevity of *S. miscanthi* among different populations.



**Figure S4.** Fecundity of *S. miscanthi* among different populations.

