***Legends to Supplementary Tables and Figure***

Table S1. Range of variation in agronomic traits of *Miscanthus* accessions.

Table S2. Summary of correlation analyses among 5 agronomic traits, estimated biomass yield and collection site latitude of *Miscanthus sinensis and M. sacchariflorus* accessions.

Figure S1. Distribution of collected *Miscanthus* accessions studied in this study.

Figure S2. Plant height (A), stem diameter (B), number of stems (C) and estimated biomass yield (D) of *Miscanthus* accessions.

Table S1. Range of variation in agronomic traits of *Miscanthus* accessions.

|  |  |  |  |
| --- | --- | --- | --- |
|  | *M. sacchariflorus* (n = 42) | *M. sinensis* (n = 22) | *M.* x *giganteus*(n = 2) |
| Min. | Max. | Range | Mean±S.E. | C.V. | Min. | Max. | Range | Mean±S.E. | C.V. |
| Plant height (cm) | 180.0 | 290.0 | 110.0 | 222.7±6.7 | 0.14 | 140.0 | 300.0 | 160.0 | 220.2±5.4 | 0.15 | 370.0 - 390.0 |
| No. of stem(stems no. plant-1) | 58.0 | 160.0 | 102.0 | 96.1±6.3 | 0.31 | 13.0 | 152.0 | 139.0 | 74.7±4.6 | 0.33 | 40.0 |
| Stemdiameter (mm) | 3.4 | 6.9 | 3.5 | 4.8±0.2 | 0.18 | 3.5 | 8.5 | 5.0 | 5.7±0.2 | 0.20 | 8.0 - 9.1 |
| Stem dryweight (g) | 5.3 | 27.4 | 22.1 | 12.3±1.3 | 0.50 | 6.1 | 46.5 | 40.4 | 20.2±1.6 | 0.51 | 73.3 - 74.2 |
| Heading date (Julian date) | 188.0 | 262.0 | 74.0 | 240.9±4.9 | 0.10 | 186.0 | 274.0 | 88.0 | 246.2±3.2 | 0.10 | 263.0 |
| Estimated yield (ton ha-1) | 4.3 | 24.7 | 20.4 | 15.2±1.5 | 0.45 | 6.3 | 38.4 | 32.1 | 20.3±1.5 | 0.47 | 39.0 - 39.5 |

Table S2. Summary of correlation analyses among 5 agronomic traits, estimated biomass yield and collection site latitude of *Miscanthus sinensis and M. sacchariflorus* accessions.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Latitude | Plant height | No. of stem | Stem diameter | Stem dry weight | Heading date |
| *M. sinensis* (n = 42 ) |  |  |  |
| Plant height | -0.164 | 1 |  |  |  |  |
| No. of stem | 0.056 | 0.026 | 1 |  |  |  |
| Stem diameter | -0.454\*\* | 0.342\* | -0.191 | 1 |  |  |
| Stem dry weight | -0.469\*\* | 0.253 | -0.276 | 0.880\*\*\* | 1 |  |
| Heading date | -0.900\*\* | 0.189 | 0.022 | 0.504\*\* | 0.474\*\* | 1 |
| Estimated yield | -0.429\*\* | 0.299 | 0.251 | 0.782\*\*\* | 0.842\*\*\* | 0.472\*\* |
| *M. sacchariflorus* (n = 22) |  |  |  |
| Plant height | -0.046 | 1 |  |  |  |  |
| No. of stem | 0.127 | -0.085 | 1 |  |  |  |
| Stem diameter | -0.598\*\* | 0.490\* | -0.335 | 1 |  |  |
| Stem dry weight | -0.388 | 0.600\*\* | -0.079 | 0.524\* | 1 |  |
| Heading date | -0.785\*\*\* | -0.064 | -0.146 | 0.307 | 0.337 | 1 |
| Estimated yield | -0.382 | 0.495\* | 0.410 | 0.400 | 0.808\*\*\* | 0.287 |
| Pooled (n = 66, including 2 *M.* x *giganteus*) |  |  |  |
| Plant height | -0.177 | 1 |  |  |  |  |
| No. of stem | 0.162 | -0.134 | 1 |  |  |  |
| Stem diameter | -0.495\*\*\* | 0.510\*\*\* | -0.385\*\* | 1 |  |  |
| Stem dry weight | -0.393\*\* | 0.575\*\*\* | -0.420\*\*\* | 0.863\*\*\* | 1 |  |
| Heading date | -0.914\*\*\* | 0.243\* | -0.119 | 0.503\*\*\* | 0.411\*\* | 1 |
| Estimated yield | -0.425\*\*\* | 0.465\*\*\* | 0.063 | 0.780\*\*\* | 0.817\*\*\* | 0.450\*\*\* |



Figure S1. Distribution of collected *Miscanthus* accessions studied in this study.

Figure S2. Plant height (A), stem diameter (B), number of stems (C) and estimated biomass yield (D) of *Miscanthus* accessions.