**Supplementary File 3: Tables S3-S5**

**Table S3** Descriptive statistics of the tree height at eight time points in the randomized complete block experiment derived from the F1 progeny of *Populus deltoides* × *Populus simonii*.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Mean (cm) | SD (cm) | Min (cm) | Max (cm) | CV (%) | Mean of Increment (cm) | SD of Increment (cm) | CV of Increment (%)  | Heritability (%) |
| 08/06/2017 (T1) | 34.59 | 11.04 | 6.50 | 83.20 | 31.91 | - | - | - | 54.72 |
| 23/06/2017 (T2) | 57.40 | 17.55 | 11.90 | 129.50 | 30.58 | 22.80 | 7.83 | 34.32 | 54.02 |
| 06/07/2017 (T3) | 80.77 | 22.84 | 20.50 | 167.00 | 28.27 | 23.37 | 6.92 | 29.60 | 54.40 |
| 16/07/2017 (T4) | 99.30 | 26.37 | 31.00 | 195.00 | 26.55 | 18.53 | 5.72 | 30.84 | 54.95 |
| 27/07/2017 (T5) | 120.21 | 30.02 | 35.00 | 234.00 | 24.98 | 20.91 | 7.77 | 37.16 | 55.17 |
| 14/08/2017 (T6) | 154.20 | 34.81 | 45.00 | 258.00 | 22.58 | 34.00 | 11.36 | 33.42 | 52.10 |
| 02/09/2017 (T7) | 202.59 | 43.71 | 54.00 | 327.00 | 21.57 | 48.39 | 14.90 | 30.78 | 48.32 |
| 14/10/2017 (T8) | 219.05 | 48.09 | 56.00 | 347.00 | 21.96 | 16.45 | 10.50 | 63.83 | 46.74 |

**Table S4** Phenotypic (upper triangle) and genetic (lower triangle) correlation coefficients of tree height between any two time points measured in the randomized complete block experiment derived from the F1 progeny of *Populus deltoides* × *Populus simonii*.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | T1 | T2 | T3 | T4 | T5 | T6 | T7 | T8 |
| T1 |  | 0.951 | 0.902 | 0.857 | 0.807 | 0.714 | 0.590 | 0.541 |
| T2 | 0.973 |  | 0.975 | 0.944 | 0.899 | 0.807 | 0.676 | 0.627 |
| T3 | 0.930 | 0.982 |  | 0.983 | 0.950 | 0.867 | 0.742 | 0.694 |
| T4 | 0.886 | 0.954 | 0.989 |  | 0.970 | 0.891 | 0.773 | 0.727 |
| T5 | 0.851 | 0.924 | 0.967 | 0.986 |  | 0.949 | 0.856 | 0.809 |
| T6 | 0.780 | 0.859 | 0.920 | 0.944 | 0.969 |  | 0.953 | 0.917 |
| T7 | 0.674 | 0.762 | 0.839 | 0.874 | 0.906 | 0.970 |  | 0.978 |
| T8 | 0.582 | 0.679 | 0.763 | 0.801 | 0.831 | 0.914 | 0.973 |  |

Note: T1, T2, …, T8 represent the measurement dates as indicated in Table S2; \*\* indicates the p-value < 0.01.

**Table S5** Multivariate analysis of variance for the tree height in the randomized complete block experiment derived from the F1 progeny of *Populus deltoides* × *Populus simonii*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Source | Wilks' Lambda | F Statistics | Hypothesis df | Error df | *P* value |
| Block | 0.352 | 97.731 | 16 | 2282 | 0.000 |
| Clone | 0.011 | 5.029 | 1368 | 9139.085 | 0.000 |
| Block × Clone | 0.011 | 2.551 | 2736 | 9146.346 | 0.000 |