Supplement of

Differential response of plant transpiration to uptake of rainwater-recharged soil water for dominant tree species in the semiarid Loess Plateau

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Tables and captions

Table S1. Plant height, trunk diameter, and estimated sapwood width for *H. rhamnoides* and *P. tomentosa* in both pure and mixed plantations.

| Plantation type       | No. | Height (m) | Trunk diameter (mm) | Sapwood width (mm) |
|-----------------------|-----|------------|---------------------|--------------------|
| **H. rhamnoides**     |     |            |                     |                    |
| in pure plantation    | 1   | 3.95       | 45                  | 9                  |
|                       | 2   | 4.26       | 53                  | 11                 |
|                       | 3   | 4.05       | 51                  | 10                 |
|                       | 4   | 4.13       | 49                  | 9                  |
|                       | 5   | 3.98       | 50                  | 10                 |
|                       | 6   | 4.1        | 51                  | 11                 |
|                       | 7   | 4.3        | 57                  | 12                 |
|                       | 8   | 3.86       | 44                  | 9                  |
|                       | 9   | 3.92       | 53                  | 11                 |
| **P. tomentosa**      |     |            |                     |                    |
| in pure plantation    | 1   | 4.41       | 58                  | 17                 |
|                       | 2   | 3.9        | 52                  | 9                  |
|                       | 3   | 3.92       | 56                  | 16                 |
|                       | 4   | 4.35       | 56                  | 17                 |
|                       | 5   | 4.59       | 58                  | 16                 |
|                       | 6   | 4.2        | 53                  | 13                 |
|                       | 7   | 4.29       | 54                  | 15                 |
|                       | 8   | 3.86       | 51                  | 9                  |
|                       | 9   | 3.98       | 52                  | 11                 |
| **H. rhamnoides**     |     |            |                     |                    |
| in mixed plantation   | 1   | 4.36       | 52                  | 12                 |
|                       | 2   | 3.9        | 49                  | 11                 |
|                       | 3   | 4.23       | 51                  | 12                 |
|                       | 4   | 4.5        | 56                  | 13                 |
|                       | 5   | 4.73       | 55                  | 14                 |
|                       | 6   | 3.96       | 49                  | 11                 |
|                       | 7   | 4          | 51                  | 12                 |
|                       | 8   | 4.52       | 53                  | 12                 |
|                       | 9   | 4.39       | 52                  | 12                 |
| **P. tomentosa**      |     |            |                     |                    |
| in mixed plantation   | 1   | 4.12       | 53                  | 11                 |
|                       | 2   | 3.75       | 46                  | 9                  |
|                       | 3   | 4.5        | 57                  | 13                 |
|                       | 4   | 4.21       | 53                  | 11                 |
|                       | 5   | 4.2        | 53                  | 11                 |
|                       | 6   | 4.16       | 51                  | 10                 |
|                       | 7   | 3.8        | 45                  | 9                  |
|                       | 8   | 4.95       | 59                  | 13                 |
|                       | 9   | 4.16       | 51                  | 10                 |
The sapwood width was estimated through the equation established through 12 unmonitored individual core samples for specific species with different diameters. The core sample was obtained using an increment borer, and the colour difference between sapwood and heartwood was large. The equation between trunk diameter (mm) and sapwood width (mm) was $y=0.248x-2.296$ $R^2=0.84$ $p<0.01$ for *H. rhamnoides* in pure plantation; $y=0.348x-5.98$ $R^2=0.78$ $P<0.01$ for *H. rhamnoides* in mixed plantation; $y=1.126x-47.66$ $R^2=0.83$ $P<0.01$ for *P. tomentosa* in pure plantation; $y=0.317x-5.71$ $R^2=0.939$ $P<0.01$ for *P. tomentosa* in mixed plantation.
Table S2. Independent-sample *t*-test parameters for predawn ($\Psi_{pd}$), midday ($\Psi_m$), and gradient of leaf water potential ($\Psi_{pd}-\Psi_m$) between the first and second day after each rainfall amount.

| Rainfall amount (mm) | df | $\Psi_{pd}$ | $\Psi_m$ | $\Psi_{pd}-\Psi_m$ |
|----------------------|----|-------------|----------|----------------------|
|                      |    | *t* | *p* | *t* | *p* | *t* | *p* |
| H. rhamnoides in pure plantation |
| 3.4                  | 4  | 0.18 | 0.87 | 1.21 | 0.29 | -2.5 | 0.07 |
| 7.9                  | 4  | 0.33 | 0.75 | 0.79 | 0.58 | -8.01 | 0.47 |
| 15.4                 | 4  | 0.85 | 0.44 | 0.27 | 0.8 | 0.21 | 0.85 |
| 24                   | 4  | 0.97 | 0.39 | -0.67 | 0.54 | 2.13 | 0.1 |
| 35.2                 | 4  | -0.09 | 0.93 | -7.1 | 0.52 | 0.28 | 0.79 |
| P. tomentosa in pure plantation |
| 3.4                  | 4  | 0.88 | 0.43 | 0.66 | 0.55 | 0.81 | 0.47 |
| 7.9                  | 4  | 0.34 | 0.08 | 0.75 | 0.49 | -1.8 | 0.14 |
| 15.4                 | 4  | 0.23 | 0.83 | 0.73 | 0.51 | -0.82 | 0.46 |
| 24                   | 4  | -2.08 | 0.11 | 1.14 | 0.32 | -0.85 | 0.45 |
| 35.2                 | 4  | -1.67 | 0.17 | 1.15 | 0.31 | -2.22 | 0.09 |
| H. rhamnoides in mixed plantation |
| 3.4                  | 4  | 2.53 | 0.07 | 1.4 | 0.24 | -0.6 | 0.58 |
| 7.9                  | 4  | 1.24 | 0.28 | 2.02 | 0.11 | -1.87 | 0.14 |
| 15.4                 | 4  | -0.9 | 0.42 | 0.96 | 0.39 | -1.29 | 0.27 |
| 24                   | 4  | 1.74 | 0.16 | 2.04 | 0.11 | -1.22 | 0.29 |
| 35.2                 | 4  | 1.89 | 0.13 | 2.57 | 0.06 | -0.29 | 0.78 |
| P. tomentosa in mixed plantation |
| 3.4                  | 4  | 0.07 | 0.95 | 1.9 | 0.13 | -0.35 | 0.72 |
| 7.9                  | 4  | 0.81 | 0.46 | 0.96 | 0.39 | -0.46 | 0.67 |
| 15.4                 | 4  | 0.7 | 0.52 | 2.12 | 0.1 | -0.53 | 0.62 |
| 24                   | 4  | 1.85 | 0.14 | 0.74 | 0.49 | 0.48 | 0.66 |
| 35.2                 | 4  | 2.23 | 0.09 | 1.21 | 0.3 | 0.55 | 0.61 |
Table S3 The average (mean ± SD) and coefficients of variation (CVs, SD/mean) of soil water $\delta^{18}$O and $\delta$D on the first day after 5 selected rainfall events, and daily soil water content (SW) from DOY 132 to 273 (11 May to 30 September) in *H. rhamnoides* pure plantation, *P. tomentosa* pure plantation, and *H. rhamnoides–P. tomentosa* mixed plantation.

| Soil depth     | Soil water $\delta^{18}$O (%) | Soil water $\delta$D (‰) | SW (m³ m⁻³) |
|----------------|-------------------------------|---------------------------|-------------|
|                | average CV                    | average CV                | average CV  |
| 0–30 cm        | -5.79±1.26 21.6               | -47.56±8.87 18.6          | 0.11±0.02 18.2 |
| 30–100 cm      | -6.80±1.27 18.7               | -56.21±8.46 15.1          | 0.10±0.01 10.0 |
| 100–200 cm     | -9.27±0.79 8.5                | -73.61±4.61 6.3           | 0.088±0.005 5.7 |
| 0–30 cm        | -5.27±1.31 24.9               | -43.73±9.47 21.7          | 0.12±0.02 16.7 |
| 30–100 cm      | -7.05±0.96 13.6               | -57.69±6.69 11.6          | 0.09±0.009 10.0 |
| 100–200 cm     | -9.05±0.63 7.0                | -70.98±3.90 5.5           | 0.085±0.005 5.9 |
| 0–30 cm        | -5.59±1.44 25.8               | -46.15±10.45 22.6         | 0.11±0.019 17.3 |
| 30–100 cm      | -6.55±1.15 17.6               | -54.17±7.99 14.8          | 0.09±0.008 8.9 |
| 100–200 cm     | -9.03±0.59 6.5                | -71.79±3.76 5.2           | 0.089±0.005 5.6 |

There are 45, 30, and 30 data for the average water $\delta^{18}$O and $\delta$D of shallow, middle, and deep soil layer calculation in each plantation, respectively. The absolute value was used for CVs of soil water $\delta^{18}$O and $\delta$D calculation.
Table S4. Repeated ANOVA (ANOVAR) parameters for the relative response of normalized sap flow (SF_R) and rainwater-recharged soil water uptake proportion (RUP) after rainfall pulses of *H. rhamnoides* and *P. tomentosa* (n = 30).

| Variation source       | df | SF_R    |       | RUP    |       |
|------------------------|----|---------|-------|--------|-------|
|                        |    | $F$     | $p$   | $F$    | $p$   |
| **Pure plantation**    |    | **SF_R**|       | **RUP**|       |
| Rainfall               | 4  | 97.91   | <0.001| 385.02 | <0.01 |
| Species                | 1  | 121.13  | <0.001| 21.02  | <0.05 |
| Rainfall × Species     | 4  | 27.35   | <0.001| 0.83   | 0.52  |
| **Mixed plantation**   |    | **SF_R**|       | **RUP**|       |
| Rainfall               | 4  | 489.9   | <0.001| 17696.38| <0.01 |
| Species                | 1  | 70.38   | <0.001| 4089.12| <0.01 |
| Rainfall × Species     | 4  | 249.17  | <0.001| 1776.62| <0.01 |
| **H. rhamnoides**      |    | **SF_R**|       | **RUP**|       |
| Plantation type        | 1  | 337.09  | <0.001| 360.16 | <0.01 |
| Rainfall × Plantation type | 4  | 215.43  | <0.001| 17.62  | <0.01 |
| **P. tomentosa**       |    | **SF_R**|       | **RUP**|       |
| Plantation type        | 1  | 32.36   | <0.01 | 54.83  | <0.01 |
| Rainfall × Plantation type | 4  | 19.12   | <0.001| 208.06 | <0.01 |

$df$ = degree of freedom. Plantation type = pure and mixed plantation for each species. Pure and Mixed plantation indicate the result of SF_R and RUP for both species in different plantation types, respectively; *H. rhamnoides* and *P. tomentosa* indicate the mixed afforestation effect on SF_R and RUP for these species.
Table S5. Repeated ANOVA (ANOVAR) parameters for water uptake proportion from shallow (0–30 cm), middle (30–100 cm), and deep (100–200 cm) soil layer for *H. rhamnoides* and *P. tomentosa* (n = 30).

| Variation source | df  | 0–30 cm | 30–100 cm | 100–200 cm |
|------------------|-----|---------|-----------|------------|
|                  | F   | p       | F         | p          | F          | p          |
| Pure plantation  |     |         |           |            |            |
| Rainfall         | 4   | 153.45  | <0.01     | 145.04     | <0.01      | 176.79     | <0.01     |
| Species          | 1   | 8.69    | <0.05     | 10.56      | <0.05      | 11.08      | <0.05     |
| Rainfall × Species | 4 | 129.89  | <0.01     | 112.46     | <0.01      | 4.99       | <0.01     |
| Mixed plantation |     |         |           |            |            |
| Rainfall         | 4   | 1.5     | 0.41      | 2.3        | 0.11       | 18.34      | <0.01     |
| Species          | 1   | 2.2     | 0.21      | 1.48       | 0.29       | 3.9        | 0.12      |
| Rainfall × Species | 4 | 0.9     | 0.48      | 2.41       | 0.09       | 1.9        | 0.16      |
| Rainfall         | 4   | 2.05    | 0.14      | 1.51       | 0.25       | 85.46      | <0.01     |
| Plantation type  | 1   | 1.07    | 0.36      | 1.32       | 0.32       | 10.08      | <0.05     |
| Rainfall × Plantation type | 4 | 0.62   | 0.66     | 1.39     | 0.28     | 5.59       | <0.01     |
| H. rhamnoides    |     |         |           |            |            |
| Rainfall         | 4   | 14.72   | <0.01     | 71.59      | <0.01      | 19.46      | <0.01     |
| Plantation type  | 1   | 4.1     | 0.12      | 5.68       | 0.08       | 123.27     | <0.01     |
| Rainfall × Plantation type | 4 | 9.55 | <0.01   | 85.29     | <0.01     | 9.35       | <0.01     |
| P. tomentosa     |     |         |           |            |            |

*df* = degree of freedom. Plantation type = pure and mixed plantation for each species. Pure and Mixed plantation indicate the result of water sources from different soil layers for both species in different plantation types, respectively; *H. rhamnoides* and *P. tomentosa* indicate the mixed afforestation effect on water sources from different soil layers for these species.
Table S6. Repeated ANOVA (ANOVAR) parameters for predawn ($\Psi_{pd}$), midday leaf water potential ($\Psi_{m}$), and leaf water potential gradient ($\Psi_{pd}-\Psi_{m}$) for *H. rhamnoides* and *P. tomentosa* (n = 30).

| Variation source | df | $\Psi_{pd}$ | $\Psi_{m}$ | $\Psi_{pd}-\Psi_{m}$ |
|------------------|----|------------|------------|----------------------|
|                  |    | F        | p        | F        | p        | F        | p        |
| Pure plantation  |    |          |          |          |          |          |          |
| Rainfall         | 4  | 4.02     | <0.05    | 24.44    | <0.01    | 47.88    | <0.01    |
| Species          | 1  | 182.74   | <0.01    | 4.9      | <0.05    | 969.97   | <0.01    |
| Rainfall × Species | 4  | 3.24     | <0.05    | 2.08     | 0.13     | 18.68    | <0.01    |
| Mixed plantation |    |          |          |          |          |          |          |
| Rainfall         | 4  | 0.66     | 0.63     | 25.54    | <0.01    | 82.49    | <0.01    |
| Species          | 1  | 0.12     | 0.75     | 127.3    | <0.01    | 3420.1   | <0.01    |
| Rainfall × Species | 4  | 1.8      | 0.18     | 3.7      | <0.05    | 35.92    | <0.01    |
| H. rhamnoides    |    |          |          |          |          |          |          |
| Rainfall × Plantation type | 4  | 1.69     | 0.202    | 3.32     | <0.05    | 6.66     | <0.01    |
| Plantation type  | 1  | 27.05    | <0.01    | 496.66   | <0.01    | 1278.96  | <0.01    |
| Rainfall         | 4  | 30.78    | <0.01    | 12.39    | <0.01    | 7.38     | <0.01    |
| Plantation type  | 1  | 792.77   | <0.01    | 2.97     | 0.16     | 634.12   | <0.01    |
| P. tomentosa     |    |          |          |          |          |          |          |
| Rainfall × Plantation type | 4  | 3.8      | <0.05    | 0.09     | 0.98     | 3.83     | <0.05    |

$df$ = degree of freedom. Plantation type = pure and mixed plantation for each species. Pure and Mixed plantation indicate the result of leaf water potential for both species in different plantation types, respectively; *H. rhamnoides* and *P. tomentosa* indicate the mixed afforestation effect on leaf water potential for these species.
Table S7. The linear regression relationship between relative response of normalized sap flow (SF<sub>R</sub>) and reference evapotranspiration (ET<sub>0</sub>), net radiation (R<sub>n</sub>), and vapor pressure deficit (VPD), and between SF<sub>R</sub> and relative response of ET<sub>0</sub>, R<sub>n</sub>, and VPD from DOY 132 to 273 and from DOY 203 to 273.

| Period       | Independent factors | H. rhamnoides in pure plantation | H. rhamnoides in mixed plantation | P. tomentosa in pure plantation | P. tomentosa in mixed plantation |
|--------------|---------------------|----------------------------------|----------------------------------|---------------------------------|----------------------------------|
|              |                     | R<sup>2</sup>  p                | R<sup>2</sup>  p                | R<sup>2</sup>  p                | R<sup>2</sup>  p                |
| DOY          | ET<sub>0</sub>      | 0.18  0.47                       | 0.11  0.59                       | 0.44  0.22                       | 0.39  0.26                       |
|              | VPD                 | 0.09  0.62                       | 0.02  0.83                       | 0.26  0.38                       | 0.22  0.43                       |
| 132–273      | R<sub>n</sub>       | 0.06  0.68                       | 0.04  0.74                       | 0.04  0.75                       | 0.03  0.8                         |
|              | Relative response of ET<sub>0</sub> | 0.35  0.32                       | 0.61  0.12                       | 0.12  0.56                       | 0.25  0.4                         |
|              | Relative response of VPD | 0.3  0.34                        | 0.48  0.2                        | 0.06  0.7                        | 0.12  0.57                        |
|              | Relative response of R<sub>n</sub> | 0.08  0.74                       | 0.02  0.84                       | 0.1  0.61                        | 0.07  0.66                        |
|              | ET<sub>0</sub>      | 0.15  0.75                       | 0.25  0.67                       | 0.009  0.98                      | 0.003  0.97                      |
|              | VPD                 | 0.14  0.76                       | 0.24  0.67                       | 0.008  0.99                      | 0.002  0.97                      |
| DOY          | R<sub>n</sub>       | 0.31  0.63                       | 0.44  0.54                       | 0.04  0.87                       | 0.06  0.84                       |
| 203–273      | Relative response of ET<sub>0</sub> | 0.06  0.84                       | 0.01  0.93                       | 0.35  0.59                       | 0.31  0.63                       |
|              | Relative response of VPD | 0.79  0.3                        | 0.67  0.39                       | 0.29  0.64                       | 0.34  0.6                         |
|              | Relative response of R<sub>n</sub> | 0.03  0.9                        | 0.09  0.81                       | 0.05  0.86                       | 0.03  0.89                       |

The regression equation is y=ax+b for all equations. Relative responses of R<sub>n</sub>, VPD, and ET<sub>0</sub> are respectively calculated as for SF<sub>R</sub> in Eq. (4), corresponding to before and the first day after rainfall event parameters for R<sub>n</sub>, VPD, and ET<sub>0</sub>. 

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Table S8. Parameters of allometric equation and average (mean ± SD) estimated biomass of leaf, branches, wood, and roots of *H. rhamnoides* and *P. tomentosa* in pure and mixed plantations (n=6).

| Species       | $a$    | $b$    | Biomass in pure plantation | Biomass in mixed plantation |
|---------------|--------|--------|-----------------------------|-----------------------------|
| *H. rhamnoides* |        |        |                             |                             |
| leaf          | 0.017  | 0.541  | 0.51 ± 0.02                 | 0.55 ± 0.04                 |
| branches      | 0.013  | 0.042  | 0.16 ± 0.05                 | 0.14 ± 0.01                 |
| wood          | 0.036  | 0.721  | 2.4 ± 0.09                  | 2.6 ± 0.07                  |
| roots         | 0.019  | 0.732  | 1.51 ± 0.06                 | 1.79 ± 0.04                 |
| total biomass |        |        | 4.58 ± 1.01                 | 5.08 ± 1.13                 |

| *P. tomentosa* |        |        |                             |                             |
| leaf          | 0.052  | 0.621  | 1.21 ± 0.05                 | 1.58 ± 0.09                 |
| branches      | 0.025  | 0.81   | 1.35 ± 0.04                 | 1.32 ± 0.06                 |
| wood          | 0.0492 | 0.832  | 4.22 ± 0.11                 | 4.73 ± 0.13                 |
| roots         | 0.031  | 0.791  | 2.02 ± 0.06                 | 2.75 ± 0.1                  |
| total biomass |        |        | 8.8 ± 1.39                  | 10.38 ± 1.55                |

The allometric equation is $Y=aD^2H^b$, $Y$ is biomass (kg), $D$ is trunk diameter measured at 1.3 m above the ground (cm), $H$ is tree height (m). Six standard individuals of *H. rhamnoides* and *P. tomentosa* in pure and mixed plantations were selected for average $Y$ calculation.
**Figure Legends**

**Figure S1.** The geographic location of (a) study area and (b) plantation sites in the Loess Plateau of China, and (c) monthly average (mean ± SD) rainfall amount and air temperature (Ta) during 2000-2017, and monthly rainfall amount and average Ta in 2018. Plantation types including *H. rhamnoides* pure plantation, *P. tomentosa* pure plantation, and mixed plantation. Three adjacent plots were selected (16 m × 10 m) for each plantation type, and the schematic diagram of these plantation types is in (b). The China basic map can be obtained from http://map.geoq.cn/arcgis/rest/services/ChinaOnlineCommunityENG/MapServer.

**Figure S2.** Independent-sample *t*-test for diurnal variation of average (mean ± SD) sap flow between the first and second day after rainfall amount of (a) 24 and (b) 35.2 mm for *P. tomentosa* in pure plantation. Error bars indicate the standard deviation (n = 3).

**Figure S3.** The linear regression relationship between δ¹⁸O and δD for soil water at three soil layers (0–30, 30–100, and 100–200 cm) in (a) *H. rhamnoides* pure plantation, (b) *P. tomentosa* pure plantation, and (c) Mixed plantation. The local meteoric water line (LMWL) is plotted in each panel for reference.

**Figure S4.** Variation in rainfall amount, net radiation (*Rₙ*), and vapor pressure deficit (VPD) from DOY 132 to 273 (11 May to 30 September). Arrows indicate dates of sample collection at the first day after rainfall events: DOY 157 (6 June), DOY 194 (12 July), DOY 204 (23 July), DOY 249 (6 September), and DOY 266 (23 September).

**Figure S5.** Independent-sample *t*-test for diurnal variation of average (mean ± SD) sap flow before and after 5 rainfall events for *H. rhamnoides* in pure (a–e) and mixed plantation (f–j). Before and after rainfall indicated the value in the day before and first day after a rainfall event. Error bars indicate the standard deviation (n = 3).
**Figure S6.** Independent-sample *t*-test for diurnal variation of average (mean ± SD) sap flow before and after 5 rainfall events for *P. tomentosa* in pure (a–e) and mixed plantation (f–j). Before and after rainfall indicated the value in the day before and first day after a rainfall event. Error bars indicate the standard deviation (n = 3).

**Figure S7.** Variation in average (mean ± SD) δ¹⁸O and δD of rainwater, stem water, and soil water at seven soil depths for *H. rhamnoides* in (a–e) pure and (k–o) mixed plantations and for *P. tomentosa* in (f–j) pure and (k–o) mixed plantations after five rainfall events. Error bars indicate the standard deviation (n = 3). Date of stem and soil sample collection is followed the corresponding rainfall amount value. The average rainwater δ¹⁸O and δD for each rainfall event is calculated with 3 rainwater subsamples, which is divided from one rainwater sample.

**Figure S8.** Relationship between rainfall amount and (a) relative response of normalized sap flow (SF₉) and (b) rainwater-recharged soil water uptake proportion (RUP) for *H. rhamnoides* in both plantation types, and these corresponding relationships for *P. tomentosa* (c–d) in both plantation types (n=3).
Figure S1.
Figure S2.
Figure S3.
Figure S4.
Figure S5.

(a) *H. rhamnoides* in pure plantation

(b) 7.9 mm

(c) 15.4 mm

(d) 24 mm

(e) 35.2 mm

(f) *H. rhamnoides* in mixed plantation

(g) 7.9 mm

(h) 15.4 mm

(i) 24 mm

(j) 35.2 mm

3.4 mm

4.5 mm

3.0 mm

5.0 mm

Time (LT)

00:00 04:00 08:00 12:00 16:00 20:00

Sap flow (ml m$^{-2}$ s$^{-1}$)

0 5 10 15 20 25 30 35 40

$r = 0.26$ $P = 0.8$

$r = -0.59$ $P = 0.56$

$r = -2.01$ $P = 0.04$

$r = -2.09$ $P = 0.04$

$r = -2.97$ $P = 0.004$

$r = -0.11$ $P = 0.91$

$r = -2.05$ $P = 0.04$

$r = -2.73$ $P = 0.008$

$r = -2.86$ $P = 0.005$

$r = -4.59$ $P = 0.002$

- before rainfall
- after rainfall
Figure S6.
Figure S7.
Figure S8.

(a) *H. rhamnoides* in pure plantation
- $y=3.09x+3.95$ $R^2=0.81$ $p<0.05$
- *H. rhamnoides* in mixed plantation
- $y=6.23x-17.95$ $R^2=0.98$ $p<0.01$

(b) $y=0.55x+4.71$ $R^2=0.86$ $p<0.05$
- $y=0.67x+7.68$ $R^2=0.96$ $p<0.01$

(c) *P. tomentosa* in pure plantation
- $y=-0.16x^2+3.63x-1.7$ $R^2=0.91$ $p=0.09$
- *P. tomentosa* in mixed plantation
- $y=-0.17x^2+8.99x-31.66$ $R^2=0.94$ $p=0.11$

(d) $y=-0.02x^2+1.35x-1.47$ $R^2=0.86$ $p=0.14$
- $y=-0.03x^2+1.53x+1.26$ $R^2=0.96$ $p<0.05$