

Figure S1. Comparison of the physical properties of surface soil (0–20 cm) at the beginning of afforestation (2016) and after two years of afforestation (2018)

Notes: a: Comparison of bulk density values of surface soil (0-20 cm) before and after afforestation; b: Comparison of total porosity of surface soil (0-20 cm) before and after afforestation; c: Comparison of water content of surface soil (0-20 cm) before and after afforestation. I: *P. yunnanensis* × *A. nepalensis* (2:1); II: *P. yunnanensis* × *A. nepalensis* (3:1); III: *P. yunnanensis* × *Q. acutissima* (2:1); IV: *P. yunnanensis* × *Q. acutissima* (3:1); V: *P. yunnanensis* × *C. tetrandra* (2:1); VI: *P. yunnanensis* pure forest. **means the significant correlation at P<0.01, * means the significant correlation at P<0.05.

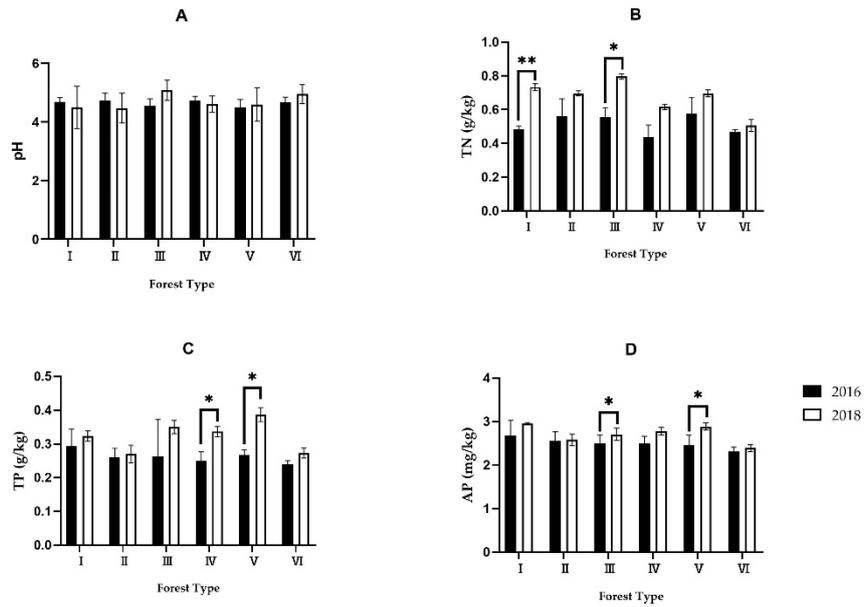


Figure S2. Comparison of the chemical properties of topsoil (0–20 cm) in different forest types at the beginning of afforestation (2016) and after two years of afforestation (2018)

Notes: a: comparison of soil pH of topsoil (0-20cm) in different forest types before and after afforestation; b: comparison of soil total nitrogen of topsoil (0-20cm) in different forest types before and after afforestation; c: comparison of soil total phosphorus of topsoil (0-20cm) in different forest types before and after afforestation; d: comparison of soil available phosphorus of topsoil (0-20cm) in different forest types before and after afforestation. I: *P. yunnanensis* × *A. nepalensis* (2:1); II: *P. yunnanensis* × *A. nepalensis* (3:1); III: *P. yunnanensis* × *Q. acutissima* (2:1); IV: *P. yunnanensis* × *Q. acutissima* (3:1); V: *P. yunnanensis* × *C. tetrandra* (2:1); VI: *P. yunnanensis* pure forest. **means the significant correlation at $P < 0.01$, * means the significant correlation at $P < 0.05$.

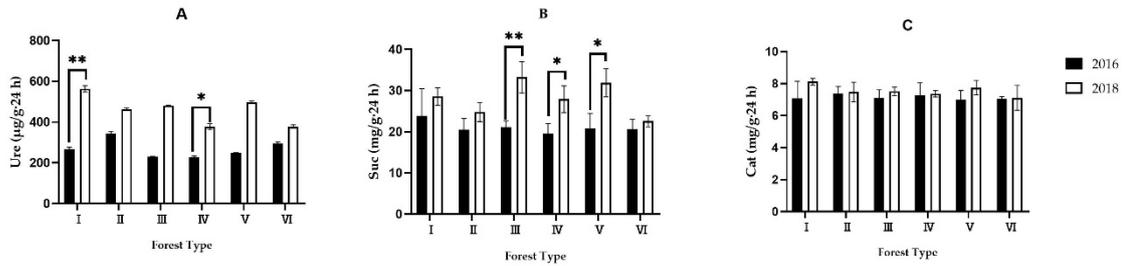


Figure S3. Comparison of the enzyme activities in the surface soil (0–20 cm) of different forest types at the beginning of afforestation (2016) and after two years of afforestation (2018).

Notes: a: comparison of urease activity in surface soil (0-20cm) of different forest types before and after afforestation; b: comparison of sucrase activity in surface soil (0-20cm) of different forest types before and after afforestation; c: comparison of enzyme activities in surface soil (0-20cm) of different forest types before and after afforestation. I: *P. yunnanensis* × *A. nepalensis* (2:1); II: *P. yunnanensis* × *A. nepalensis* (3:1); III: *P. yunnanensis* × *Q. acutissima* (2:1); IV: *P. yunnanensis* × *Q. acutissima* (3:1); V: *P. yunnanensis* × *C. tetrandra* (2:1); VI: *P. yunnanensis* pure forest. **means the significant correlation at P<0.01, * means the significant correlation at P<0.05.