

# Supplementary material

**Table S1.** The plots general characteristics of Shaanxi province.

Site	Species	Plot Number	Density of Trees (trees·1000 m <sup>-2</sup> )	Breast Diameter (cm)	Tree Height (m)
NSX	QW	8	746 (150~900)	12.60 ± 0.50	13.80 ± 0.50
	RP	5	855 (166~1917)	12.80 ± 0.30	10.50 ± 0.30
MSX	QW	7	776 (233~1550)	13.50 ± 0.30	15.20 ± 0.30
	RP	7	1163 (550~1860)	13.20 ± 0.20	11.60 ± 0.10
SSX	QW	8	975 (300~2333)	12.90 ± 0.50	10.40 ± 0.20
	RP	4	1050 (617~1300)	13.10 ± 0.40	14.70 ± 0.30

Note: QW is *Q. wutaishanica* forest, RP is *R. pseudoacacia* forest; NSX: Northern Shaanxi Plateau, MSX: Guanzhong Plain, SSX: Southern Shaanxi Mountain.

**Table S2.** Allometric growth equation for two tree species.

	QW[1]	RP[2]
$W_S$	$0.0974DBH^{2.1176}$	$0.18DBH^{2.1318}$
$W_B$	$0.014DBH^{3.095}$	$0.03743DBH^{2.2434}$
$W_L$	$0.017DBH^{2.321}$	$0.008883DBH^{2.3462}$
$W_R$	$0.0265DBH^{2.3865}$	$0.0178DBH^{2.645}$
$W_T$	$W_S+W_B+W_L+W_R$	

Note:  $W_S$ ,  $W_B$ ,  $W_L$ ,  $W_R$  and  $W_T$  were the total biomass (kg) of trunk, branch, leaf, root and tree, respectively. DBH: Diameter at breast height of tree.

## References

1. Zhang, B.L. Study on biomass and productivity of *Quercus lidotungensis* stands in Ziwuling forest region of Shaanxi province. *Journal of Northwest Forestry University* **1990**, 1, 1–7, (In Chinese).
2. Zhang, B.L. Biomass and production of *Robinia pseudoacacia* plantation in hongxing tree farm of Changwu county, Shaanxi province. *Shaanxi Forest Science & Technology* **1992**, 3, 13–17, (In Chinese).