

Table S1. Total organic carbon (TOC) contents of the investigated afforested and the arable soils along with the OC-based contents of vanillyl (V), syringyl (S) and cinnamyl (C) units of lignin as determined by the CuO oxidation method and OC-based lignin contents as determined by spectrophotometric methods (ABSL). Stand labels: PJ = white poplar and common walnut; PJC = PJ intercropped with common hazel; PJA = PJ intercropped with Italian alder; PJE = PJ intercropped with autumn olive; AL = agricultural land. Values are mean and standard deviation of three samples. Superscript letters indicate significant differences within means in the column according to One-way ANOVA at $p \leq 0.05$ and Tukey test.

Stands	TOC	V	S	C	VSC	ABSL
	mg g ⁻¹	mg g ⁻¹ OC	mg g ⁻¹ OC	mg g ⁻¹ OC	mg g ⁻¹ OC	mg g ⁻¹ OC
AL	8.3 ± 0.24 ^c	6.3 ± 0.32 ^c	8.2 ± 0.42 ^c	2.87 ± 0.12 ^a	17.4 ± 0.80 ^b	350.8 ± 53.64 ^b
PJ	16.8 ± 0.69 ^{ab}	10.4 ± 0.57 ^a	10.1 ± 0.76 ^a	3.49 ± 0.42 ^a	24.0 ± 1.44 ^a	350.1 ± 39.19 ^b
PJC	17.1 ± 1.18 ^{ab}	8.2 ± 0.78 ^{bc}	8.9 ± 0.84 ^{ab}	1.99 ± 0.22 ^b	19.1 ± 1.77 ^b	377.2 ± 36.46 ^b
PJA	18.9 ± 1.23 ^a	7.4 ± 0.33 ^{bc}	7.2 ± 0.54 ^b	2.53 ± 0.33 ^{ab}	17.1 ± 1.13 ^b	612.6 ± 48.06 ^a
PJE	13.5 ± 0.72 ^b	9.5 ± 0.49 ^{ab}	9.2 ± 0.45 ^{ab}	2.30 ± 0.18 ^{ab}	20.9 ± 0.81 ^{ab}	448.6 ± 35.61 ^{ab}