

Table 1 Leaf litter C and N contents (g kg⁻¹) and C:N ratio values for the 400-, 600-, and 800-mm precipitation treatments during decomposition (Original and Final) of *Robinia pseudoacacia* (legume) and *Populus ningshanica* (non-legume) leaf litter.

		<i>R. pseudoacacia</i>		<i>P. ningshanica</i>	
	Precipitation (mm)	Original	Final	Original	Final
C	400	492.0 ±3.0	385.2 ±8.0a	517.0 ±2.0	385.1 ±5.0a
	600	492.0 ±3.0	399.0 ±10.0a	517.0 ±2.0	364.7 ±3.0a
	800	492.0 ±3.0	384.4 ±8.0a	517.0 ±2.0	375.6 ±6.0a
N	400	44.2 ±0.6	37.6 ±0.6a	36.6 ±1.4	23.7 ±2.2a
	600	44.2 ±0.6	37.6 ±0.8a	36.6 ±1.4	25.4 ±1.8a
	800	44.2 ±0.6	35.9 ±1.0a	36.6 ±1.4	29.6 ±1.9a
C:N	400	11.1 ±0.6	10.2 ±0.6a	14.14 ±1.28	16.2 ±1.2a
	600	11.1 ±0.6	10.6 ±0.8a	14.14 ±1.28	14.4 ±1.8ab
	800	11.1 ±0.6	10.7 ±1.0a	14.14 ±1.28	12.7 ±1.2b

Note: Means with different lowercase letters were significantly different ($p < 0.05$) among the 3 precipitation treatments for each variable.

Table 2 Coupling relationship between C and N ($N = a \times C + b$) of litter-treated soil in different layers (0-2, 2-5, 5-10 and 10-15 cm), precipitation regimes (400, 600, and 800 mm) and decomposition times (2, 4, 6, 8, 12, and 16 months) in this study.

	r	R^2	P	RMSE	a	b
Layers						
0–2 cm	0.604**	0.347	<0.001	0.096	0.171	-0.065
2–5 cm	0.188	0.007	0.272	0.101	0.090	0.239
5–10 cm	0.502**	0.230	0.002	0.089	0.170	-0.047
10–15 cm	0.557**	0.289	<0.001	0.084	0.169	-0.035
Precipitation regimes						
400 mm	0.614**	0.363	<0.001	0.050	0.102	0.182
600 mm	0.586**	0.329	<0.001	0.104	0.229	-0.249
800 mm	0.457**	0.192	0.001	0.107	0.145	0.048
Decomposition times						
Control soil	0.533**	0.251	0.007	0.134	0.299	-0.509
2 months	0.882**	0.767	<0.001	0.048	0.276	-0.560
4 months	0.731**	0.514	<0.001	0.042	0.183	-0.041
6 months	0.723**	0.501	<0.001	0.077	0.198	-0.047
8 months	0.675**	0.431	<0.001	0.057	0.095	0.243
12 months	0.857**	0.723	<0.001	0.020	0.104	0.165
16 months	0.753**	0.547	<0.001	0.022	0.107	0.147

r: The correlation coefficient; *:significantly correlated at 0.05 level; **:significantly correlated at 0.01 level. RMSE: root mean square error.