1 Supplementary Material

 $MBC (mg kg^{-1})$

2

Treatments CT LN HN Р 4.94±0.04 a 4.58±0.07 b 4.46±0.12 b < 0.01 pН SOC $(g kg^{-1})$ 58.0 ±3.2 a 51.0±3.1 b 57.5±5.1 a 0.06 $TN (g kg^{-1})$ 3.85±0.27 b 4.44±0.18 a 4.65±0.26 a < 0.01 SOC: TN 13.3±0.8 a 13.0±1.3 a 12.5±0.5 a 0.58 Mineral N (mg kg⁻¹) 56.2±5.6 b 70.8±8.4 a 76.8±7.2 a < 0.01

1429±146 b

1314±75 b

< 0.01

3 Table S1 Effects of N addition on physiochemical characteristics of soils.

1790±67 a

CT: control (+0 kg N ha⁻¹ yr⁻¹); LN: low-nitrogen addition (+40 kg N ha⁻¹ yr⁻¹); HN: 4 high-nitrogen addition (+80 kg N ha⁻¹ yr⁻¹); SOC: soil organic carbon; TN: total 5 6 nitrogen; SOC: TN: ratio of soil organic carbon to total nitrogen; Mineral N: mineral 7 nitrogen; MBC: microbial biomass carbon. P represents the main effect of N addition. 8 One-way analysis of variance was performed to determine the effects of N addition on 9 physiochemical characteristics of soils (P < 0.05). Different letters in the same row 10 indicate significant differences among the different N addition treatments, as 11 determined using the least significant difference test (P < 0.05). Values are presented 12 as mean \pm standard deviation (n = 4).

13