

Supplementary Material

Tab. S1 - Mineral soil (0 – 10 cm) chemical properties (means with standard deviations in parentheses) as a function of ash treatment in years 3 and 8. pH is in a CaCl₂ solution. N_{kjel} is Kjeldahl nitrogen. P_{Bray} is Bray 2 phosphorus. Ca_e, Mg_e, K_e, Na_e and Acidity_e are respectively exchangeable calcium, magnesium, potassium, sodium and acidity measured from a NH₄Cl–BaCl₂ extraction (Amacher et al. 1990), and CEC_e and BS are effective cation exchange capacity and base saturation, both calculated from the NH₄Cl–BaCl₂ extraction. See “Materials and methods” section for details on analyses. Different letters between treatments represent generalized significant differences between treatments within sampled years which were detected using the Tukey’s HSD test. A significant interaction term (treatment×site) is represented by the * symbol. In such cases, treatment differences within each site were detected using simple main effects testing and for concision, outcomes are summarized in writing in the results section.

Property	Year 3			Year 8		
	Control	Half load	Full load	Control	Half load	Full load
pH	3.81 ± 0.22 ^b	4.19 ± 0.32 ^a	4.03 ± 0.36 ^{ab}	3.63 ± 0.39	3.60 ± 0.34	3.62 ± 0.41
N _{kjel} (%)	0.08 ± 0.03	0.09 ± 0.02	0.08 ± 0.02	n/a	n/a	n/a
P _{bray} (ppm)	17.30 ± 8.56 ^b	15.50 ± 8.06 ^{ab}	22.90 ± 9.95 ^a	25.90 ± 0.39	26.40 ± 0.34	33.50 ± 0.41
Ca _e (cmol _c kg ⁻¹)	0.21 ± 0.11*	0.21 ± 0.07*	0.65 ± 0.52*	0.16 ± 0.10 ^b	0.28 ± 0.18 ^a	0.36 ± 0.33 ^{ab}
Mg _e (cmol _c kg ⁻¹)	0.06 ± 0.02 ^b	0.05 ± 0.02 ^b	0.12 ± 0.06 ^a	0.04 ± 0.02 ^b	0.05 ± 0.02 ^{ab}	0.08 ± 0.04 ^b
K _e (cmol _c kg ⁻¹)	0.08 ± 0.02*	0.11 ± 0.03*	0.12 ± 0.05*	0.10 ± 0.02	0.13 ± 0.06	0.15 ± 0.07
Na _e (cmol _c kg ⁻¹)	0.05 ± 0.01*	0.08 ± 0.04*	0.08 ± 0.03*	0.05 ± 0.01	0.05 ± 0.01	0.05 ± 0.02
Acidity _e (cmol _c kg ⁻¹)	1.98 ± 0.47*	1.30 ± 0.52*	1.75 ± 0.54*	2.13 ± 0.90	1.79 ± 0.55	1.88 ± 0.72