

Supplementary Materials for Comparison of movement of alkalinity from surface applied biochar, wood ash and dolomitic lime in acid sandy loam soil by Ailsa G. Hardie, Ruben de Bod, Pieter J. Raath

Table S1 Pearson correlation coefficients between soil pH and exchangeable basic cations concentrations in the dolomitic lime and control treatments at all soil depth intervals. Values in bold are significant at $p < 0.05$.

	pH (KCl)	Ca (mg kg ⁻¹)	Mg (mg kg ⁻¹)	K (mg kg ⁻¹)	Na (mg kg ⁻¹)
pH (KCl)		0.545	0.216	-0.005	-0.451
Ca (mg kg ⁻¹)	0.545		0.272	0.153	-0.147
Mg (mg kg ⁻¹)	0.216	0.272		-0.470	-0.209
K (mg kg ⁻¹)	-0.005	0.153	-0.470		0.222
Na (mg kg ⁻¹)	-0.451	-0.147	-0.209	0.222	

Table S2 Pearson correlation coefficients between soil pH and exchangeable basic cations concentrations in the wood ash and control treatments at all soil depth intervals. Values in bold are significant at $p < 0.05$.

	pH (KCl)	Ca (mg kg ⁻¹)	Mg (mg kg ⁻¹)	K (mg kg ⁻¹)	Na (mg kg ⁻¹)
pH (KCl)		0.632	0.750	0.650	-0.004
Ca (mg kg ⁻¹)	0.632		0.705	0.476	0.083
Mg (mg kg ⁻¹)	0.750	0.705		0.800	0.252
K (mg kg ⁻¹)	0.650	0.476	0.800		0.481
Na (mg kg ⁻¹)	-0.004	0.083	0.252	0.481	

Table S3 Pearson correlation coefficients between soil pH and exchangeable basic cations concentrations in the biochar and control treatments at all soil depth intervals. Values in bold are significant at $p < 0.05$.

	pH (KCl)	Ca (mg kg ⁻¹)	Mg (mg kg ⁻¹)	K (mg kg ⁻¹)	Na (mg kg ⁻¹)
pH (KCl)		-0.515	0.310	0.705	0.577
Ca (mg kg ⁻¹)	-0.515		0.050	-0.402	-0.381
Mg (mg kg ⁻¹)	0.310	0.050		0.528	0.549
K (mg kg ⁻¹)	0.705	-0.402	0.528		0.868
Na (mg kg ⁻¹)	0.577	-0.381	0.549	0.868	