

**Supplementary Material**

**Responses in growth, yield and cob protein content of baby corn (*Zea mays*) to amendment of an acid sulfate soil with lime, organic fertiliser and biochar**

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## Supplementary Tables

**Table S1. Eigenvalue, variance accounted for cumulative variance from a principal component analysis.**

Principal component	Eigenvalue	Variance explained (%)	Cumulative variance explained (%)
PC1	6.39	39.9	39.9
PC2	1.81	11.3	51.3
PC3	1.73	10.8	62.1
PC4	1.23	7.7	69.7
PC5	1.10	6.9	76.6
PC6	0.91	5.7	82.3
PC7	0.68	4.2	86.5
PC8	0.54	3.4	89.8
PC9	0.48	3.0	92.8
PC10	0.32	2.0	94.8
PC11	0.25	1.6	96.4
PC12	0.21	1.3	97.7
PC13	0.18	1.1	98.8
PC14	0.10	0.6	99.4
PC15	0.06	0.4	99.8
PC16	0.03	0.2	100.0

PC, principal component; principal components with eigenvalues > 1 only are relevant, the first five principal components explain almost 71% of the variation in the data.

**Table S2. Changes in soil properties measured at the start of the trial (S) and after harvest (H) of the baby corn, (H - S):  $\Delta$ pH,  $\Delta$  electrical conductivity ( $\Delta$ EC), total organic carbon ( $\Delta$ TOC) and total N ( $\Delta$ TN).**

Means in the same column for each lime treatment followed by different letter (s) are significantly different at  $p < 0.05$ ; differences amongst mean effects of organic fertilizer and lime are indicated with capital letter(s).

Lime (t/ha)	Organic fertiliser (t/ha)	Biochar rate (t/ha)	$\Delta$ pH	$\Delta$ EC	$\Delta$ TC	$\Delta$ TN	
0	0	0	-0.03a	-0.60b	-0.09	-0.002	
		10	-0.22bc	-0.16a	-0.26	-0.014	
		30	-0.12bc	-0.04a	-0.01	-0.003	
		<i>Mean</i>	<i>-0.12</i>	<i>-0.40b</i>	<i>-0.11</i>	<i>-0.006</i>	
	5	0	-0.22bc	-0.45b	-0.12	-0.002	
		10	-0.18bc	-0.30b	-0.16	-0.007	
		30	-0.21bc	-0.31b	0.04	-0.007	
		<i>Mean</i>	<i>-0.20</i>	<i>-0.36b</i>	<i>-0.08</i>	<i>-0.005</i>	
	Mean		<b>-0.16A</b>	<b>-0.04A</b>	<b>-0.09</b>	<b>-0.008</b>	
	2	0	0	-0.18bc	-0.23a	0.15	-0.009
			10	-0.25bc	-0.16a	0.28	-0.004
			30	-0.29c	-0.15a	-0.01	-0.018
<i>Mean</i>			<i>-0.24</i>	<i>-0.20a</i>	<i>0.07</i>	<i>-0.010</i>	
5		0	-0.33bc	-0.18a	-0.25	-0.016	
		10	-0.01a	-0.51b	0.15	-0.006	
		30	0.08a	-0.31b	-0.17	-0.006	
		<i>Mean</i>	<i>-0.14</i>	<i>-0.35ab</i>	<i>-0.09</i>	<i>-0.009</i>	
Mean			<b>-0.18A</b>	<b>-0.33B</b>	<b>0.00</b>	<b>-0.007</b>	