

Table S1. Total content of elements in soil fertilized with sewage sludge (SL) with different rates of biochar (BC) (mean,  $\pm$ SD, n=3)

(mg g <sup>-1</sup> DW)	Type of fertilization				
	C	SL	SL+2.5%BC	SL+5%BC	SL+10%BC
Zn	19.4 $\pm$ 0.3	20.1 $\pm$ 0.3	19.0 $\pm$ 0.2	17.8 $\pm$ 0.2	21.4 $\pm$ 0.2
Cu	2.4 $\pm$ 49.4	2.8 $\pm$ 0.6	2.2 $\pm$ 36.7	2.4 $\pm$ 33.7	2.7 $\pm$ 13.3
Sr	11.2 $\pm$ 0.5	12.2 $\pm$ 1.7	11.5 $\pm$ 0.9	10.1 $\pm$ 1.5	12.3 $\pm$ 0.6
Mn	216.9 $\pm$ 5.7	221.9 $\pm$ 5.8	202.4 $\pm$ 5.8	178.4 $\pm$ 4.9	196.5 $\pm$ 3.9
Cd	0.83 $\pm$ 0.5	0.65 $\pm$ 0.4	0.62 $\pm$ 0.5	0.63 $\pm$ 0.4	0.65 $\pm$ 0.9
Ba	35.2 $\pm$ 2.6	36.5 $\pm$ 2.4	31.2 $\pm$ 0.2	26.8 $\pm$ 0.8	33.8 $\pm$ 0.7
Ni	4.14 $\pm$ 0.2	4.11 $\pm$ 0.3	3.80 $\pm$ 0.1	3.62 $\pm$ 0.4	4.22 $\pm$ 0.2
Pb	13.8 $\pm$ 1.8	12.2 $\pm$ 1.4	11.2 $\pm$ 1.4	10.7 $\pm$ 0.5	11.9 $\pm$ 0.6
Al	904.6 $\pm$ 0.2	804.6 $\pm$ 0.2	878.9 $\pm$ 0.3	860.5 $\pm$ 0.1	882.6 $\pm$ 0.1
Cr	13.5 $\pm$ 25.7	17.0 $\pm$ 0.9	12.8 $\pm$ 38.5	11.6 $\pm$ 35.3	15.4 $\pm$ 15.7
Fe	3947.4 $\pm$ 3.0	3808.9 $\pm$ 2.5	3597.4 $\pm$ 1.7	3394.5 $\pm$ 1.6	3836.5 $\pm$ 1.4
Co	2.34 $\pm$ 0.4	2.27 $\pm$ 0.3	2.16 $\pm$ 0.5	2.01 $\pm$ 1.2	2.27 $\pm$ 0.5

C = podzolic soil without amendments (control); SL - 11 t dry weight (DW) of sewage sludge (SL) ha<sup>-1</sup>; SL+2.5%BC - 11 t DW of SL ha<sup>-1</sup> + 2.5% BC; SL+5%BC - 11 t DW of SL ha<sup>-1</sup> + 5% BC; SL+10%BC - 11 t DW of SL ha<sup>-1</sup> + 10% BC

Table S2. Total content of elements in grain of spring wheat fertilized with sewage sludge (SL) with different rates of biochar (BC) (mean,  $\pm$ SD, n=3)

(mg/g DW)	Type of fertilization				
	C	SL	SL+2.5%BC	SL+5%BC	SL+10%BC
Zn	31.5 $\pm$ 0.2	35.5 $\pm$ 0.2	41.3 $\pm$ 0.4	39.2 $\pm$ 0.5	41.2 $\pm$ 0.4
Cu	3.8 $\pm$ 5.5	3.9 $\pm$ 5.1	4.4 $\pm$ 0.6	4.7 $\pm$ 7.9	4.4 $\pm$ 7.0
Sr	2.4 $\pm$ 2.1	2.5 $\pm$ 1.5	3.3 $\pm$ 0.6	2.3 $\pm$ 2.4	2.7 $\pm$ 1.9
Mn	44.1 $\pm$ 2.1	43.7 $\pm$ 1.6	45.1 $\pm$ 1.0	44.0 $\pm$ 2.6	44.1 $\pm$ 2.1
Cd	0.16 $\pm$ 0.8	0.14 $\pm$ 0.2	0.13 $\pm$ 1.7	0.08 $\pm$ 2.7	0.07 $\pm$ 0.8
Ba	3.0 $\pm$ 5.1	3.7 $\pm$ 4.4	4.0 $\pm$ 0.5	3.0 $\pm$ 2.3	3.1 $\pm$ 2.0
Ni	0.55 $\pm$ 1.2	0.48 $\pm$ 1.3	0.45 $\pm$ 1.5	0.22 $\pm$ 1.7	0.17 $\pm$ 2.4
Pb	1.3 $\pm$ 0.6	0.8 $\pm$ 2.5	0.7 $\pm$ 1.1	0.2 $\pm$ 7.6	1.1 $\pm$ 4.7
Al	47.9 $\pm$ 0.4	31.7 $\pm$ 0.4	25.0 $\pm$ 0.2	17.7 $\pm$ 0.4	21.1 $\pm$ 0.5
Cr	0.33 $\pm$ 2.7	0.31 $\pm$ 4.5	0.30 $\pm$ 2.5	0.39 $\pm$ 6.2	0.79 $\pm$ 7.8
Fe	65.3 $\pm$ 3.4	55.2 $\pm$ 1.0	57.7 $\pm$ 0.4	56.8 $\pm$ 2.0	73.4 $\pm$ 1.1
Co	0.03 $\pm$ 11.1	0.03 $\pm$ 22.5	0.01 $\pm$ 61.4	N/A	0.09 $\pm$ 4.6

C = podzolic soil without amendments (control); SL - 11 t dry weight (DW) of sewage sludge (SL)ha<sup>-1</sup>; SL+2.5%BC - 11 t DW of SL ha<sup>-1</sup> + 2.5% BC; SL+5%BC - 11 t DW of SL ha<sup>-1</sup> + 5% BC; SL+10%BC - 11 t DW of SL ha<sup>-1</sup> + 10% BC