

Table S1. Soil quality classification [35]

Soil quality	Very high	High	Moderate	Low	Very low
Scale	0.80 – 1.00	0.60 – 0.79	0.40 – 0.59	0.20 – 0.39	0.00 – 0.19
Class	1	2	3	4	5

Table S2. Descriptive statistics of indicators according to the type of soil and treatment

Indicator		N-NH ₄ ⁺			N-NO ₂ ⁻			
Soil	Max	Min	Mean	SD	Max	Min	Mean	SD
CS	143.47	0.89	18.16	36.67	42.79	0.19	6.09	12.78
NCS	71.33	0.66	10.89	17.78	41.65	0.13	3.70	10.28
CSC	10.75	0.19	3.43	3.88	0.87	0.14	0.37	0.27
NCSC	21.39	0.66	6.41	8.04	0.60	0.14	0.35	0.16
Indicator		N-NO ₃ ⁻			NI			
Soil	Max	Min	Mean	SD	Max	Min	Mean	SD
CS	119.19	2.48	38.47	27.37	67.99	0.01	67.99	0.01
NCS	70.71	5.65	24.38	21.44	13.24	0.03	13.24	0.03
CSC	5.28	2.23	3.16	0.93	3.73	0.04	3.73	0.04
NCSC	7.37	3.29	5.00	1.26	4.57	0.10	4.57	0.10
Indicator		N _{min}			C-CO ₂			
Soil	Max	Min	Mean	SD	Max	Min	Mean	SD
CS	364.50	31.04	71.13	62.16	1403.56	0.00	440.45	377.35
NCS	231.87	8.71	43.99	39.15	1626.15	0.00	414.03	435.38
CSC	25.75	4.12	8.28	6.03	646.48	0.00	206.26	222.66
NCSC	48.01	5.18	14.05	12.12	490.30	0.00	197.03	184.53
Indicator		MBC			FDA			
Soil	Max	Min	Mean	SD	Max	Min	Mean	SD
CS	46.86	7.26	23.03	10.75	25.46	13.26	21.13	4.06
NCS	40.45	11.77	26.92	7.37	25.25	9.75	18.50	4.97
CSC	17.01	5.48	8.50	4.71	7.44	4.51	5.94	0.98
NCSC	16.62	10.28	11.64	2.11	15.37	8.15	10.87	2.58
Indicator		N-NH ₄ ⁺			N-NO ₂ ⁻			
Treatment	Max	Min	Mean	SD	Max	Min	Mean	SD
HD	143.47	2.12	25.39	44.74	42.79	0.53	9.62	17.10
AD	71.33	1.43	12.43	21.75	33.95	0.19	4.36	10.27
LD	20.23	0.66	5.75	6.93	41.65	0.13	0.70	0.72
UT	21.39	0.19	4.92	6.61	0.87	0.14	0.36	0.22
Indicator		N-NO ₃ ⁻			NI			
Treatment	Max	Min	Mean	SD	Max	Min	Mean	SD
HD	70.71	2.48	37.26	22.62	67.99	0.03	6.97	17.85
AD	119.19	4.32	35.41	33.05	16.31	0.01	2.19	5.08
LD	63.43	5.65	21.61	18.88	3.36	0.02	0.60	0.93
UT	7.37	2.23	4.08	1.40	4.57	0.04	1.25	1.48
Indicator		N _{min}			C-CO ₂			
Treatment	Max	Min	Mean	SD	Max	Min	Mean	SD
HD	364.50	38.52	84.40	66.08	1626.15	0.00	546.67	466.98
AD	211.07	23.05	57.94	40.29	1403.56	0.00	428.21	433.99
LD	65.18	8.71	30.34	18.52	1036.65	0.00	306.84	315.49
UT	48.01	4.12	11.16	9.32	646.48	0.00	201.64	207.72
Indicator		MBC			FDA			
Treatment	Max	Min	Mean	SD	Max	Min	Mean	SD
HD	35.21	7.26	18.66	8.58	25.29	13.19	21.52	4.29
AD	40.45	18.22	28.35	6.57	25.46	12.24	20.34	4.31

LD	46.86	11.77	27.92	9.79	24.64	9.75	17.58	5.14
UT	17.01	5.48	10.07	3.67	15.37	4.51	8.40	3.26

CS, contaminated soil; NCS, non-contaminated soil; CSC, contaminated soil control; NCSC, non-contaminated soil control; HD, high dose of BS (C/N = 8); AD, medium dose of BS (C/N = 10); LD, low dose of BS (C/N = 12); UT, control (soil without addition of BS); Max; maximum value; Min, minimum value; SD, standard deviation; N-NH₄⁺ (mg N-NH₄⁺ kg⁻¹ dry soil); N-NO₂⁻ (mg N-NO₂⁻ kg⁻¹ dry soil); N-NO₃⁻ (mg N-NO₃⁻ kg⁻¹ dry soil); NI, nitrification index; N_{min} (mg N kg⁻¹ dry soil); C-CO₂ (mg C-CO₂ kg⁻¹ dry soil); MBC (mg C_{mic}-CO₂ kg⁻¹ dry soil); FDA (μg fluorescein kg⁻¹ dry soil h⁻¹).

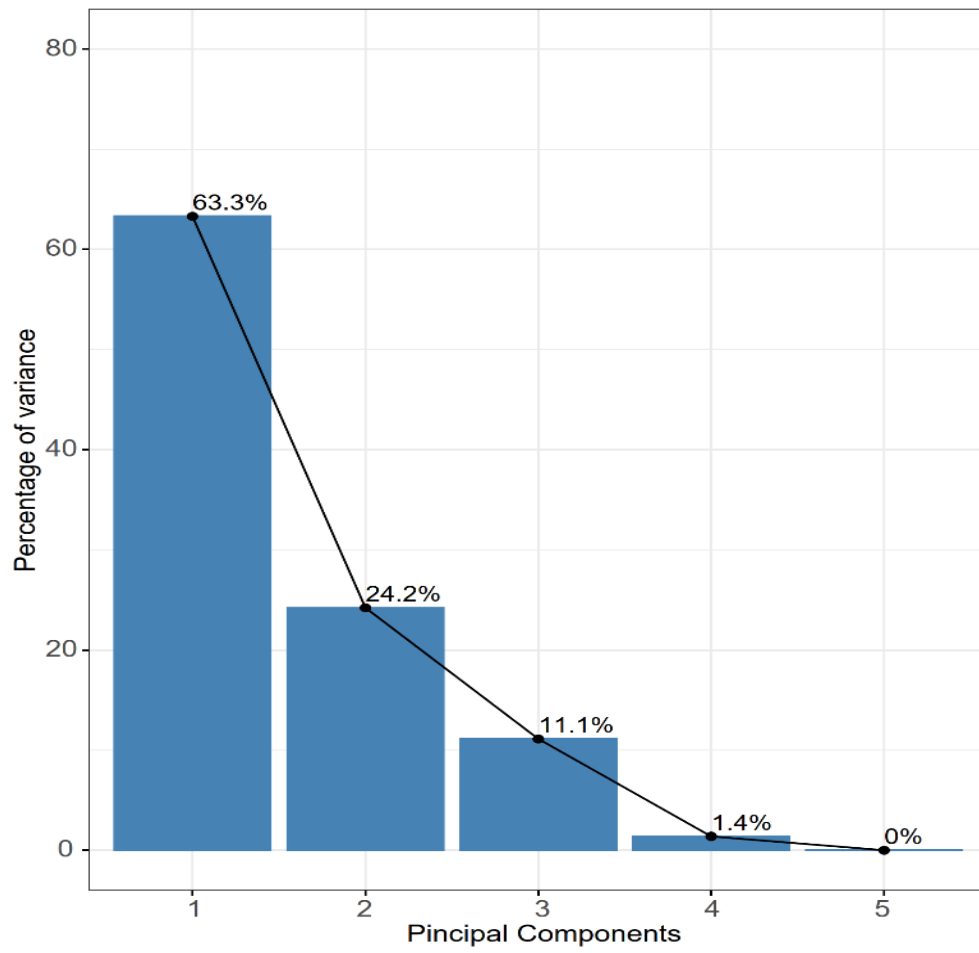


Figure S1. Proportion of PC variability.