

Table S1 Soil amendment parameters.

	pH _{H2O}	CaCO ₃ g kg ⁻¹	C %	N %	P ₂ O ₅ g kg ⁻¹	CEC cmol ⁺ kg ⁻¹	EC μS cm ⁻¹	As mg kg ⁻¹	Cd mg kg ⁻¹	Pb mg kg ⁻¹	Zn mg kg ⁻¹	Suppliers
C6	8.6	60	18.4	1.5	4.82	35.85	1,620	2.94	0.30	20.5	229	Agriopale, France
C8	8.3	57	18.4	1.6	7.10	36.94	2,100	2.79	0.32	22.7	338	
Z	8.1	2	<1	0.1	0.19	9.99	114.5	26.0	0.10	47.7	54.5	Chabasite France
OF	5.9	74	33.9	4.9	20.51	24.72	12,270	1.24	0.91	19.9	171	Plein Champ, France
ML	8.5	279	11.9	<0.2	0.08	3.46	980	2.23	0.47	155	64	DCM, France
HL	12.2	91	4.9	<0.2	0	44.31	8,240	0.65	0.25	3.5	34	Carmeuse, Belgium
DE	8.9	417	0.28	0.04	0.05	9.29	837	<1	0.055	<2	11	Bio-Control Professionnels
PS	7.4	24	25.1	0.9	0.39	37.89	953	3.84	0.11	5.4	26	Fertiligène
BM	6.0	31	33.2	7.0	39.56	26.67	3,180	<0.15	<0.1	<2	138	Agro-Sens
CH	6.6	18	40.3	13.6	14.40	14.82	1,819	<0.15	<0.1	<2	96	Solabiol

CEC: cation exchange capacity; P₂O₅: available phosphorus; EC: electric conductivity; N: total nitrogen; C: organic carbon; C6: young compost (6 months); C8: mature compost (8 months); Z: zeolite; OF: organic fertilizer; ML: magnesium lime; HL: hydrated lime; DE: diatomaceous earth; PS: potting soil; BM: bone meal; CH: crushed horn

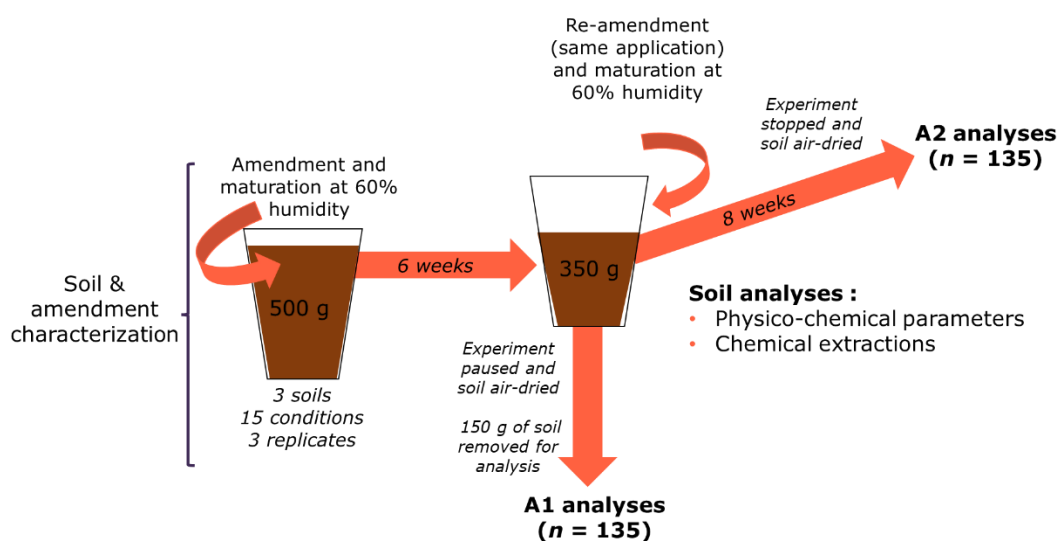


Figure S1 Experimental design – Description of the different steps and conditions of the experiment.

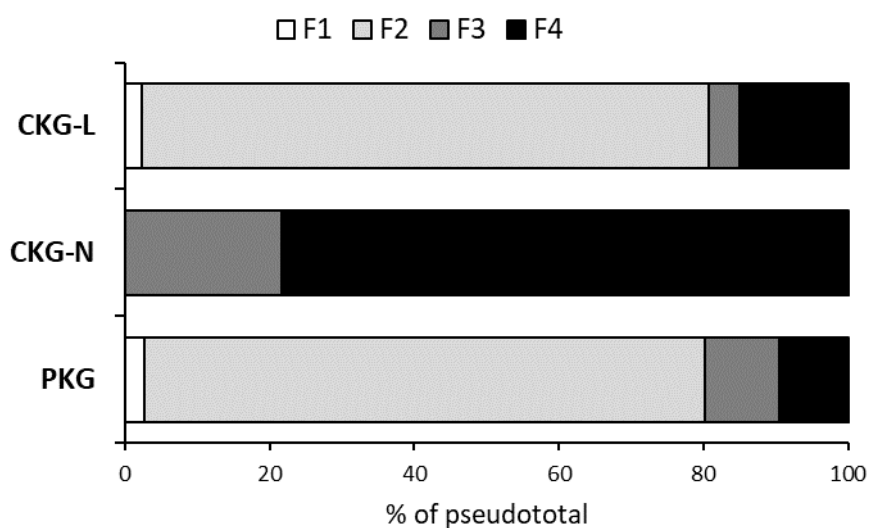


Figure S2 Fractionation of Pb in the three soils studied (PKG, CKG-N and CKG-L); F1: exchangeable, water- and acid-soluble fraction, F2: reducible fraction, F3: oxidizable fraction, F4: residual fraction.