

Article

Mesocosm Experiments at a Tunnelling Construction Site for Assessing Re-Use of Spoil Material as a By-Product

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Supplementary materials

Table S1. Maximum Water Holding Capacity (WHC_{max}) and moisture of soils ($\pm$ e.s.) in the various mesocosms. P1, P2, P3 and P4: foaming agent products. SIL: sandy-silty-clay soil; MON: gravel in a sandy-silty soil. L: lime.

	WHC _{max} (%)	Soil moisture (%)
SIL	33.5 $\pm$ 1.2	14.48 $\pm$ 1.3
SIL+L	36.1 $\pm$ 1.5	15.49 $\pm$ 0.9
SIL+P3	31.4 $\pm$ 1.8	13.81 $\pm$ 1.0
SL+P1	30.8 $\pm$ 2.1	18.50 $\pm$ 1.1
SIL+P3+P4	32.0 $\pm$ 1.4	17.72 $\pm$ 1.2
SIL+P2	31.4 $\pm$ 1.5	14.61 $\pm$ 1.5
SIL+P3+L	35.9 $\pm$ 1.8	15.99 $\pm$ 1.7
MON	13.8 $\pm$ 1.2	5.92 $\pm$ 2.0
MON+P3	12.1 $\pm$ 1.4	6.64 $\pm$ 2.1
MON+P1	9.2 $\pm$ 2.0	7.18 $\pm$ 2.5
MON+P2	10.7 $\pm$ 1.9	6.21 $\pm$ 2.0

Table S2. pH values of soil and water extracts for each condition and sampling time. P1, P2, P3 and P4: foaming agent products. SIL: sandy-silty-clay soil; MON: gravel in a sandy-silty soil. L: lime.

	0 days		7 days		14 days		28 days	
	soil	water extracts	soil	water extracts	soil	water extracts	soil	water extracts
SIL	7.26	7.70	7.60	7.87	7.65	7.34	7.70	7.05
SIL+L	11.11	10.95	11.13	11.07	11.36	11.00	11.59	10.92
SIL+P1	7.03	7.50	7.92	7.84	8.72	7.10	9.52	7.10
SIL+P2	8.11	7.58	7.15	7.45	7.55	7.02	7.94	7.05
SIL+P3	7.98	7.20	7.44	7.91	7.67	7.15	7.90	7.00
SIL+P3+P4	7.80	7.05	7.60	7.59	7.72	7.10	7.84	7.06
SIL+P3+L	11.44	11.25	11.29	10.81	11.47	11.05	11.64	9.02
MON	7.40	8.71	7.54	8.66	7.67	7.85	7.79	7.14
MON+P1	7.21	6.94	7.15	8.43	7.38	6.84	7.61	6.98
MON+P2	7.16	6.96	7.30	7.91	7.56	6.83	7.81	7.02
MON+P3	7.11	7.01	7.19	7.49	7.40	7.07	7.60	7.01

Table S3. *Lepidium sativum* Growth index (GrI %) and standard errors (s.e.) at 21 days of *L. sativum* plants grown in SIL or MON soils collected from mesocosms at 0, 7, 14 and 28 days. P1, P2, P3 and P4: foaming agent products. SIL: sandy-silty-clay soil; MON: gravel in a sandy-silty soil. L: lime.

	0 days		7 days		14 days		28 days	
	GrI (%)	s.e.	GrI (%)	s.e.	GrI (%)	s.e.	GrI (%)	s.e.
SIL	2.09	1.47	2.30	1.68	3.47	1.91	6.98	2.41
SIL+L	0	0	1.11	0.24	1.10	0.55	2.69	0.13
SIL+P1	5.59	3.91	6.75	0.14	5.80	1.18	9.64	1.63
SIL+P2	13.82	1.26	5.09	1.28	3.35	1.76	6.89	0.69
SIL+P3	4.80	0.23	5.76	1.12	5.15	2.59	6.54	0.09
SIL+P3+P4	13.93	1.83	4.13	1.06	3.32	1.68	11.30	0.78
SIL+P3+L	0	0	0.99	0.85	1.48	0.95	1.22	0.59
MON	1.71	0.86	2.02	0.16	2.25	1.17	5.32	0.19
MON+P1	0	0	0.45	0.14	0.44	0.26	0.50	0.50
MON+P2	0.04	0.04	0	0	0	0	0	0
MON+P3	0	0	0	0	0	0	0	0

