

Table 1: Overview on the ANOVA - results performed for the factors mineral type and mineral concentrations as well as possible interactions of mineral type and concentration; statistics were performed using SPSS 12 and significant results are printed in bold; n.d. = not determined

	mineral type (kaolinite or smectite)		mineral concentration (10 or 15 % clay)		interaction mineral type and mineral concentration	
	F	P	F	P	F	P
IM12 BF ₄ 1000 mg/kg dw soil	0.035	0.856	43.863	< 0.0001	20.63	0.001
IM12 BF ₄ 500 mg/kg dw soil	210.885	< 0.0001	5.750	0.037	25.418	0.001
IM12 BF ₄ 100 mg/kg dw soil	56.008	< 0.0001	0.364	0.559	3.228	0.103
IM14 BF ₄ 1000 mg/kg dw soil	3.751	0.082	4.477	0.06	0.53	0.483
IM14 BF ₄ 500 mg/kg dw soil	9.826	0.011	0.727	0.414	25.591	< 0.0001
IM14 BF ₄ 100 mg/kg dw soil	2.887	0.12	13.704	0.004	2.722	0.130
IM18 BF ₄ 1000 mg/kg dw soil	362.173	< 0.0001	6.065	0.039	n.d.	
IM18 BF ₄ 500 mg/kg dw soil	298.585	< 0.0001	0.021	0.888		
IM18 BF ₄ 100 mg/kg dw soil	0.937	0.361	0.321	0.592		

Table 2: Overview on the ANOVA - results using the Bonferroni multiple comparisons (SPSS Version 12), comparison of the different clay mixture ratios for IM14 BF₄ in the growth inhibition assay with *Triticum aestivum*; total clay concentration of 10%; k = kaolinite, s = smectite; significant results are printed in bold.

	100 mg IM14 BF ₄ /kg dw soil	500 mg IM14 BF ₄ /kg dw soil	1000 mg IM14 BF ₄ /kg dw soil
Lufa versus 30 % K / 70 % S	0.264	0.02	0.134
Lufa versus 50 % K / 50 % S	0.354	0.003	0.011
Lufa versus 30 % K / 70 % S	1.000	0.129	0.028
30 % K / 70 % S versus 50 % K / 50 % S	1.000	1.000	0.736
30 % K / 70 % S versus 70 % K / 30 % S	1.000	1.000	1.000
50 % K / 50 % S versus 70 % K / 30 % S	1.000	0.167	1.000

Table 3: Overview on the ANOVA - results using the Bonferroni multiple comparisons (SPSS Version 12), comparison of the different clay mixture ratios for IM18 BF₄ in the growth inhibition assay with *Triticum aestivum*; total clay concentration of 10%; k = kaolinite, s = smectite; significant results are printed in bold.

	100 mg IM18 BF ₄ /kg dw soil	500 mg IM18 BF ₄ /kg dw soil	1000 mg IM18 BF ₄ /kg dw soil
Lufa versus 30 % K / 70 % S	> 0.0001	> 0.0001	0.601
Lufa versus 50 % K / 50 % S	> 0.0001	> 0.0001	1.000
Lufa versus 30 % K / 70 % S	> 0.0001	0.156	1.000
30 % K / 70 % S versus 50 % K / 50 % S	0.001	> 0.0001	0.239
30 % K / 70 % S versus 70 % K / 30 % S	0.228	> 0.0001	0.199
50 % K / 50 % S versus 70 % K / 30 % S	> 0.0001	> 0.0001	1.000

Table 4: Overview on the ANOVA - results using the Bonferroni multiple comparisons (SPSS Version 12), comparison of the different soil types for IM14 BF₄ in the growth inhibition assay with *Lepidium sativum*; significant results are printed in bold.

	100 mg IM14 BF ₄ /kg dw soil	500 mg IM14 BF ₄ /kg dw soil	1000 mg IM14 BF ₄ /kg dw soil
Lufa versus 5 % Corg	1.000	0.001	0.017
Lufa versus 10 % Corg	1.000	> 0.0001	0.002
5 % Corg versus 10 % Corg	1.000	0.581	0.273

Table 5: Overview on the ANOVA - results using the Bonferroni multiple comparisons (SPSS Version 12), comparison of the different soil types for IM18 BF₄ in the growth inhibition assay with *Lepidium sativum*; significant results are printed in bold.

	100 mg IM18 BF ₄ /kg dw soil	500 mg IM18 BF ₄ /kg dw soil	1000 mg IM18 BF ₄ /kg dw soil
Lufa versus 5 % Corg	> 0.0001	0.018	> 0.0001
Lufa versus 10 % Corg	> 0.0001	> 0.0001	> 0.0001
5 % Corg versus 10 % Corg	0.005	0.006	> 0.0001

Table 6: Overview on the ANOVA - results using the Bonferroni multiple comparisons (SPSS Version 12), comparison of the different soil types for IM14 BF₄ in the growth inhibition assay with *Triticium aestivum*; significant results are printed in bold.

	100 mg IM14 BF ₄ /kg dw soil	500 mg IM14 BF ₄ /kg dw soil	1000 mg IM14 BF ₄ /kg dw soil
Lufa versus 5 % Corg	0.055	0.002	0.001
Lufa versus 10 % Corg	> 0.0001	> 0.0001	> 0.0001
5 % Corg versus 10 % Corg	> 0.0001	0.004	0.029

Table 7: Overview on the ANOVA - results using the Bonferroni multiple comparisons (SPSS Version 12), comparison of the different soil types for IM18 BF₄ in the growth inhibition assay with *Triticium aestivum*; significant results are printed in bold.

	100 mg IM18 BF ₄ /kg dw soil	500 mg IM18 BF ₄ /kg dw soil	1000 mg IM18 BF ₄ /kg dw soil
Lufa versus 5 % Corg	> 0.0001	0.001	0.011
Lufa versus 10 % Corg	> 0.0001	> 0.0001	> 0.0001
5 % Corg versus 10 % Corg	0.111	> 0.0001	0.001

Table 8: Overview on the calculated ratio relating the influence of the soil parameters clay and organic matter on the toxic effects to the observed growth inhibition in the reference soil Lufa 2.2 expressed in [% growth inhibition] in comparison to Lufa 2.2

		Lufa with 10 % clay (+kaolinite)	Lufa with 15 % clay (+kaolinite)	Lufa with 10 % clay (+smectite)	Lufa with 15 % clay (+smectite)	Lufa with 5 % Corg	Lufa with 5 % Corg
IM14 BF ₄	1000 mg/kg dw soil	83	89	88	99	52	28
	500 mg/kg dw soil	73	85	85	31	50	10
	100 mg/kg dw soil	43	110	43	43	67	-19
IM18 BF ₄	1000 mg/kg dw soil	108	102	68	n.d.	91	78
	500 mg/kg dw soil	105	105	12	n.d.	79	46
	100 mg/kg dw soil	22	17	14	n.d.	2	19