

Dataset S3

Error: sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Genotype	1	45376	45376	24.78	1.04E-05
arsenic	1	38180	38180	20.851	3.98E-05
Genotype:arsenic	1	3850	3850	2.103	0.154
Residuals	44	80570	1831		

Error: Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
week	5	1701445	340289	819.931	2.00E-16
Genotype:week	5	18080	3616	8.713	1.48E-07
arsenic:week	5	11113	2223	5.355	0.000115
Genotype:arsenic:week	5	671	134	0.323	0.898617
Residuals	220	91305	415		

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

Error:Sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
genotype	1	1409	1409	0.187	0.668
arsenic	1	6	6	0.001	0.977
genotype:arsenic	1	9614	9614	1.276	0.265
Residuals	44	331546	7535		

Error:Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
week	5	750776	150155	39.164	<2e-16	***
genotype:week	5	10727	2145	0.56	0.7309	
arsenic:week	5	41722	8344	2.176	0.0578	.
genotype:arsenic:week	5	1073	215	0.056	0.998	
Residuals	220	843493	3834			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
genotype	1	800	800	9.953	0.00289 **
arsenic	1	4505	4505	56.023	2.24E-09 ***
genotype:arsenic	1	369	369	4.583	0.03787 *
Residuals	44	3538	80		

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

Error:Sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Soil	2	961	481	12.364	1.67E-05	***
Genotype	1	1083	1083	27.855	8.11E-07	***
Arsenic	1	12766	12766	328.438	<	2.00E-16 ***
Week	2	2572	1286	33.092	1.17E-11	***
Soil:Genotype	2	85	43	1.094	0.339	
Soil:Arsenic	2	1580	790	20.321	4.37E-08	***
Genotype:Arsenic	1	230	230	5.905	0.017	*
Soil:Week	2	192	96	2.464	0.0904	.
Genotype:Week	2	51	26	0.66	0.5193	
Arsenic:Week	1	46	46	1.181	0.28	
Soil:Genotype:Arsenic	2	59	30	0.765	0.4681	
Soil:Arsenic:Week	1	1	1	0.014	0.9075	
Residuals	96	3731	39			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Error:Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Week	2	30740	15370	1150.881	<	2.00E-16 ***
Soil:Week	4	1155	289	21.626	1.94E-14	***
Genotype:Week	2	111	55	4.145	0.0175	*
Arsenic:Week	2	1950	975	72.992	<	2.00E-16 ***
Soil:Genotype:Week	4	45	11	0.842	0.5002	
Soil:Arsenic:Week	4	564	141	10.556	1.16E-07	***
Genotype:Arsenic:Week	2	9	4	0.322	0.7252	
Soil:Genotype:Arsenic:Week	4	16	4	0.3	0.8775	
Residuals	170	2270	13			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Soil	2	4.02	2.01	26.526	1.38E-09	***
Genotype	1	0.201	0.201	2.65	0.1074	
Arsenic	1	18.315	18.315	241.717	<	2.00E-16 ***
Soil:Genotype	2	0.083	0.042	0.548	0.5803	
Soil:Arsenic	2	2.311	1.156	15.25	2.39E-06	***
Genotype:Arsenic	1	0.34	0.34	4.491	0.0371	*
Soil:Genotype:Arsenic	2	0.015	0.007	0.099	0.9061	
Residuals	81	6.138	0.076			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: untransformed

Error:Sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Genotype	2	24521	12260	3.754	0.0298	*
Arsenic	1	88534	88534	27.107	3.07E-06	***
Genotype:Arsenic	2	10584	5292	1.62	0.2073	
Residuals	54	176367	3266			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Error:Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Week	2	151319	75659	273.403	<2e-16	***
Genotype:Week	4	443	111	0.4	0.8083	
Arsenic:Week	2	1847	924	3.337	0.0392	*
Genotype:Arsenic:Week	4	2463	616	2.225	0.071	.
Residuals	108	29887	277			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Data transformation: rank

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Genotype	2	0.909	0.454	2.684	0.0794 .
Arsenic	1	15.081	15.081	89.078	3.85E-12 ***
Genotype:Arsenic	2	0.484	0.242	1.431	0.25
Residuals	44	7.449	0.169		

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: untransformed

Error:Sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Genotype	2	6537	3269	5.424	0.00714	**
Arsenic	1	69227	69227	114.877	5.55E-15	***
Genotype:Arsenic	2	3751	1875	3.112	0.05258	.
Residuals	54	32542	603			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Error:Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Week	2	337188	168594	669.28	<	2.00E-16 ***
Genotype:Week	4	1280	320	1.27	0.286	
Arsenic:Week	2	8202	4101	16.28	6.61E-07	***
Genotype:Arsenic:Week	4	30	7	0.03	0.998	
Residuals	108	27206	252			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Data transformation: rank



	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Genotype	2	0.097	0.0485	5.165	0.00899	**
Arsenic	1	2.9347	2.9347	312.543	<	2.00E-16 ***
Genotype:Arsenic	2	0.0788	0.0394	4.194	0.02049	*
Residuals	52	0.4883	0.0094			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: untransformed

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
genotype	1	410	410	9.353	0.00363	**
arsenic_conc	1	8736	8736	199.33	< 2.00E-16	***
genotype:arsenic_conc	1	463	463	10.573	0.0021	**
Residuals	48	2104	44			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
genotype	1	0.13	0.13	4.418	0.0406	*
arsenic_conc	1	92.94	92.94	3087.608	<2e-16	***
genotype:arsenic_conc	1	0.04	0.04	1.381	0.2455	
Residuals	50	1.51	0.03			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Data transformation: log

Error:Sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Genotype	1	575069	575069	9.724	0.002208	**
Field	1	848625	848625	14.35	0.000225	***
Genotype:Field	1	7303	7303	0.123	0.725803	
Residuals	140	8279213	59137			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Error:Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Week	3	4724539	1574846	476.655	<	2.00E-16 ***
Genotype:Week	3	76293	25431	7.697	5.12E-05	***
Field:Week	3	18905	6302	1.907	0.128	
Genotype:Field:Week	3	7551	2517	0.762	0.516	
Residuals	420	1387662	3304			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Genotype	1	53.43	53.43	33.88	1.81E-07	***
Field	1	11.26	11.26	7.138	0.00946	**
Genotype:Field	1	1.07	1.07	0.682	0.41199	
Residuals	67	105.66	1.58			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: rank

Error:Sample\_ID

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Conditioning	1	1263	1263	8.332	0.00663	**
Arsenic	1	10519	10519	69.38	8.04E-10	***
Conditioning:Arsenic	1	493	493	3.249	0.0801	.
Residuals	35	5307	152			

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Error:Within

Week	2	27535	13768	485.729	<	2.00E-16	***
Conditioning:Week	2	340	170	6.001	0.00393		**
Arsenic:Week	2	3749	1874	66.129	<	2.00E-16	***
Conditioning:Arsenic:Week	2	55	28	0.975	0.38233		
Residuals	70	1984	28				

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 '' 1

Data transformation: untransformed

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Conditioning	1	1.294	1.294	7.756	0.00858 **
Arsenic	1	12.375	12.375	74.195	3.61E-10 ***
Conditioning:Arsenic	1	0.415	0.415	2.491	0.1235
Residuals	35	5.838	0.167		

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Data transformation: untransformed