

Supplementary File

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SAS Data

Class Level Information		
Class	Levels	Values
Trt	6	0 50 250 500 750 1000
Season	3	1 2 3

Number of Observations Read	18
Number of Observations Used	13

Dependent Variable: shoot

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	6.65109498	0.95015643	10.76	0.0094
Error	5	0.44138194	0.08827639		
Corrected Total	12	7.09247692			

R-Square	Coeff Var	Root MSE	Shoot Mean
0.937768	14.16902	0.297113	2.096923

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Trt	5	2.47747692	0.49549538	5.61	0.0407
Season	2	4.17361806	2.08680903	23.64	0.0028

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Trt	5	2.83850972	0.56770194	6.43	0.0310
Season	2	4.17361806	2.08680903	23.64	0.0028

t Tests (LSD) for shoot

Note: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	5

Error Mean Square	0.088276
Critical Value of t	2.57058

The GLM Procedure

Class Level Information		
Class	Levels	Values
Trt	6	0 50 250 500 750 1000
Season	3	1 2 3

Number of Observations Read	18
Number of Observations Used	13

Dependent Variable: leaves

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	0.47439359	0.06777051	21.88	0.0018
Error	5	0.01548333	0.00309667		
Corrected Total	12	0.48987692			

R-Square	Coeff Var	Root MSE	Leaves Mean
0.968393	10.84588	0.055648	0.513077

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Trt	5	0.258294	0.051659	16.68	0.0039
Season	2	0.2161	0.10805	34.89	0.0012

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Trt	5	0.220517	0.044103	14.24	0.0056
Season	2	0.2161	0.10805	34.89	0.0012

The GLM Procedure

t Tests (LSD) for leaves

Note: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	5
Error Mean Square	0.003097
Critical Value of t	2.57058

Comparisons significant at the 0.05 level are indicated by ***				
Trt Comparison	Means Difference Between	95% Confidence Limits		
0 - 50	0.19167	0.06108	0.32225	***
0 - 1000	0.22667	0.10987	0.34346	***
0 - 750	0.35667	0.19149	0.52184	***
0 - 500	0.36333	0.24654	0.48013	***
0 - 250	0.39667	0.23149	0.56184	***
50 - 0	-0.19167	-0.32225	-0.06108	***
50 - 1000	0.035	-0.09558	0.16558	
50 - 750	0.165	-0.0102	0.3402	
50 - 500	0.17167	0.04108	0.30225	***
50 - 250	0.205	0.0298	0.3802	***
1000 - 0	-0.22667	-0.34346	-0.10987	***
1000 - 50	-0.035	-0.16558	0.09558	
1000 - 750	0.13	-0.03518	0.29518	
1000 - 500	0.13667	0.01987	0.25346	***
1000 - 250	0.17	0.00482	0.33518	***
750 - 0	-0.35667	-0.52184	-0.19149	***
750 - 50	-0.165	-0.3402	0.0102	
750 - 1000	-0.13	-0.29518	0.03518	
750 - 500	0.00667	-0.15851	0.17184	
750 - 250	0.04	-0.1623	0.2423	
500 - 0	-0.36333	-0.48013	-0.24654	***
500 - 50	-0.17167	-0.30225	-0.04108	***
500 - 1000	-0.13667	-0.25346	-0.01987	***
500 - 750	-0.00667	-0.17184	0.15851	
500 - 250	0.03333	-0.13184	0.19851	
250 - 0	-0.39667	-0.56184	-0.23149	***
250 - 50	-0.205	-0.3802	-0.0298	***
250 - 1000	-0.17	-0.33518	-0.00482	***

250 - 750	-0.04	-0.2423	0.1623	
250 - 500	-0.03333	-0.19851	0.13184	

The GLM Procedure

Class Level Information		
Class	Levels	Values
Trt	6	0 50 250 500 750 1000
Season	3	1 2 3

Number of Observations Read	18
Number of Observations Used	13

Dependent Variable: width

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	0.162279	0.023183	7.81	0.0189
Error	5	0.014844	0.002969		
Corrected Total	12	0.177123			

The GLM Procedure

t Tests (LSD) for width

Note: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	5
Error Mean Square	0.002969
Critical Value of t	2.57058

Comparisons significant at the 0.05 level are indicated by ***				
Trt Comparison	Difference Between Means	95% Confidence Limits		
50 - 0	0.01167	-0.11619	0.13953	
50 - 750	0.155	-0.01654	0.32654	
50 - 1000	0.165	0.03714	0.29286	***
50 - 250	0.225	0.05346	0.39654	***
50 - 500	0.26167	0.13381	0.38953	***

0 - 50	-0.01167	-0.13953	0.11619	
0 - 750	0.14333	-0.0184	0.30507	
0 - 1000	0.15333	0.03897	0.2677	***
0 - 250	0.21333	0.0516	0.37507	***
0 - 500	0.25	0.13564	0.36436	***
750 - 50	-0.155	-0.32654	0.01654	
750 - 0	-0.14333	-0.30507	0.0184	
750 - 1000	0.01	-0.15173	0.17173	
750 - 250	0.07	-0.12808	0.26808	
750 - 500	0.10667	-0.05507	0.2684	
1000 - 50	-0.165	-0.29286	-0.03714	***
1000 - 0	-0.15333	-0.2677	-0.03897	***
1000 - 750	-0.01	-0.17173	0.15173	
1000 - 250	0.06	-0.10173	0.22173	
1000 - 500	0.09667	-0.0177	0.21103	
250 - 50	-0.225	-0.39654	-0.05346	***
250 - 0	-0.21333	-0.37507	-0.0516	***
250 - 750	-0.07	-0.26808	0.12808	
250 - 1000	-0.06	-0.22173	0.10173	
250 - 500	0.03667	-0.12507	0.1984	
500 - 50	-0.26167	-0.38953	-0.13381	***
500 - 0	-0.25	-0.36436	-0.13564	***
500 - 750	-0.10667	-0.2684	0.05507	
500 - 1000	-0.09667	-0.21103	0.0177	
500 - 250	-0.03667	-0.1984	0.12507	

Dependent Variable: root

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	5.80946	0.829923	6.51	0.0279
Error	5	0.637571	0.127514		
Corrected Total	12	6.447031			

R-Square	Coeff Var	Root MSE	Root Mean
0.901106	21.48166	0.357091	1.662308

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Trt	5	3.181447	0.636289	4.99	0.0512
Season	2	2.628013	1.314006	10.3	0.0168

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Trt	5	2.785929	0.557186	4.37	0.0657
Season	2	2.628013	1.314006	10.3	0.0168

t Tests (LSD) for root

Note: This test controls the Type I comparisonwise error rate, not the experimentwise error rate

Alpha	0.05
Error Degrees of Freedom	5
Error Mean Square	0.127514
Critical Value of t	2.57058

The GLM Procedure

Class Level Information	
Class	Levels Values
Trt	6 0 50 250 500 750 1000
Season	3 1 2 3

Number of Observations Read	18
Number of Observations Used	13

Comparisons significant at the 0.05 level are indicated by ***				
Trt Comparison	Difference Between Means			95% Confidence Limits
0 - 50	0.0283	-0.8096	0.8663	
0 - 750	0.6433	-0.4166	1.7033	
0 - 1000	0.6533	-0.0962	1.4028	
0 - 250	0.9933	-0.0666	2.0533	
0 - 500	1.2567	0.5072	2.0062	***
50 - 0	-0.0283	-0.8663	0.8096	
50 - 750	0.615	-0.5092	1.7392	
50 - 1000	0.625	-0.213	1.463	

50 - 250	0.965	-0.1592	2.0892	
50 - 500	1.2283	0.3904	2.0663	***
750 - 0	-0.6433	-1.7033	0.4166	
750 - 50	-0.615	-1.7392	0.5092	
750 - 1000	0.01	-1.0499	1.0699	
750 - 250	0.35	-0.9482	1.6482	
750 - 500	0.6133	-0.4466	1.6733	
1000 - 0	-0.6533	-1.4028	0.0962	
1000 - 50	-0.625	-1.463	0.213	
1000 - 750	-0.01	-1.0699	1.0499	
1000 - 250	0.34	-0.7199	1.3999	
1000 - 500	0.6033	-0.1462	1.3528	
250 - 0	-0.9933	-2.0533	0.0666	
250 - 50	-0.965	-2.0892	0.1592	
250 - 750	-0.35	-1.6482	0.9482	
250 - 1000	-0.34	-1.3999	0.7199	
250 - 500	0.2633	-0.7966	1.3233	
500 - 0	-1.2567	-2.0062	-0.5072	***
500 - 50	-1.2283	-2.0663	-0.3904	***
500 - 750	-0.6133	-1.6733	0.4466	
500 - 1000	-0.6033	-1.3528	0.1462	
500 - 250	-0.2633	-1.3233	0.7966	

Corrected Total	12	131.9277			
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R-Square	Coeff Var	Root MSE	Rate Mean
0.899659	-32.0982	1.627131	-5.06923

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Trt	5	73.00769	14.60154	5.52	0.0421
Season	2	45.68222	22.84111	8.63	0.0239

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Trt	5	50.40722	10.08144	3.81	0.0843
Season	2	45.68222	22.84111	8.63	0.0239

The GLM Procedure

t Tests (LSD) for rate

Note: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	5
Error Mean Square	2.647556
Critical Value of t	2.57058

The GLM Procedure

Class Level Information		
Class	Levels	Values
Trt	6	0 50 250 500 750 1000
Season	3	1 2 3

Number of Observations Read	18
Number of Observations Used	13

Dependent Variable: rate

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	118.6899	16.9557	6.4	0.0288
Error	5	13.23778	2.647556		

Comparisons significant at the 0.05 level are indicated by ***				
Trt Comparison	Difference Between Means			95% Confidence Limits
0 - 50	2.567	-1.252	6.385	
0 - 1000	4.233	0.818	7.648	***
0 - 500	5.133	1.718	8.548	***
0 - 250	6.567	1.737	11.396	***
0 - 750	7.467	2.637	12.296	***
50 - 0	-2.567	-6.385	1.252	
50 - 1000	1.667	-2.152	5.485	
50 - 500	2.567	-1.252	6.385	
50 - 250	4	-1.123	9.123	
50 - 750	4.9	-0.223	10.023	

1000 - 0	-4.233	-7.648	-0.818	***
1000 - 50	-1.667	-5.485	2.152	
1000 - 500	0.9	-2.515	4.315	
1000 - 250	2.333	-2.496	7.163	
1000 - 750	3.233	-1.596	8.063	
500 - 0	-5.133	-8.548	-1.718	***
500 - 50	-2.567	-6.385	1.252	
500 - 1000	-0.9	-4.315	2.515	
500 - 250	1.433	-3.396	6.263	
500 - 750	2.333	-2.496	7.163	
250 - 0	-6.567	-11.396	-1.737	***
250 - 50	-4	-9.123	1.123	
250 - 1000	-2.333	-7.163	2.496	
250 - 500	-1.433	-6.263	3.396	
250 - 750	0.9	-5.015	6.815	
750 - 0	-7.467	-12.296	-2.637	***
750 - 50	-4.9	-10.023	0.223	
750 - 1000	-3.233	-8.063	1.596	
750 - 500	-2.333	-7.163	2.496	
750 - 250	-0.9	-6.815	5.015	

10	1	500	1	-0.00000816
11	1	500	2	0.00000278
12	1	500	3	-0.00000816
13	1	750	1	-0.0000384
14	1	750	2	-0.0000195
15	1	750	3	-0.000108253
16	1	1000	1	-0.000108253
17	1	1000	2	-0.0000547
18	1	1000	3	-0.0000384
19	2	0	1	0.00000886
20	2	0	2	0.00000886
21	2	0	3	0.00000886
22	2	50	1	0.0000182
23	2	50	2	0.000012
24	2	50	3	0.0000125
25	2	250	1	0.0000078
26	2	250	2	0.00000848
27	2	250	3	0.0000092
28	2	500	1	0.00000835

The SAS System				
Obs	Bacteria	Treatments	Replication	Inhibition
1	1	0	1	0.00000886
2	1	0	2	0.0000204
3	1	0	3	0.00000886
4	1	50	1	0.0000123
5	1	50	2	0.0000219
6	1	50	3	0.0000123
7	1	250	1	0.00000884
8	1	250	2	0.00000846
9	1	250	3	0.00000884

Obs	Bacteria	Treatments	Replication	Inhibition
29	2	500	2	-0.00007460
30	2	500	3	-0.00008860
31	2	750	1	-0.00028300
32	2	750	2	-0.000093100
33	2	750	3	-0.000123415
34	2	1000	1	-0.000032600
35	2	1000	2	-0.000042100
36	2	1000	3	-0.000034800