

## Generalized Regression for Value

Model Comparison							
Show	Response Distribution	Estimation Method	Validation Method	Nonzero Parameters	AICc	BIC	R-Square
<input checked="" type="checkbox"/>	Normal	Standard Least Squares	None	37	130.44475	189.51217	0.9953923

### Model Launch

Response Distribution  
 ▼

Estimation Method  
 ▼  
 Adaptive

Validation Method  
 ▼  
 Early Stopping

## Standard Least Squares

### Model Summary

Response	Value
Distribution	Normal
Estimation Method	Standard Least Squares
Validation Method	None
Mean Model Link	Identity
Scale Model Link	Identity
<b>Measure</b>	
Number of rows	108
Sum of Frequencies	108
-LogLikelihood	8.1366596
Number of Parameters	37
BIC	189.51217
AICc	130.44475
RSquare	0.9953923

**Generalized Regression for Value****Standard Least Squares****Model Summary****Measure**

RSquare Adj	0.9931524
RASE	0.260905

**Parameter Estimates for Original Predictors**

Term	Estimate	Std Error	Wald ChiSquare	Prob > ChiSquare	Lower 95%	Upper 95%
Intercept	-0.506486	0.1844877	7.5370306	0.0060*	-0.868075	-0.144897
Treatment[Gh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP1-RIP3_5]*Time[24h-72h]	2.6652302	0.7379507	13.044121	0.0003*	1.2188735	4.1115869
Treatment[Gh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP2-RIP3_5]*Time[24h-72h]	4.68575	0.7379507	40.318427	<.0001*	3.2393933	6.1321067
Treatment[Lh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP1-RIP3_5]*Time[24h-72h]	1.0994482	0.7379507	2.219703	0.1363	-0.346909	2.5458049
Treatment[Lh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP2-RIP3_5]*Time[24h-72h]	2.8613131	0.7379507	15.034055	0.0001*	1.4149564	4.3076698
Strain[Brazil-Uganda]*RIP[RIP1-RIP3_5]*Time[24h-72h]	-1.951067	0.5218099	13.980409	0.0002*	-2.973796	-0.928339
Strain[Brazil-Uganda]*RIP[RIP2-RIP3_5]*Time[24h-72h]	-3.270031	0.5218099	39.271655	<.0001*	-4.29276	-2.247303
Treatment[Gh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP1-RIP3_5]	-1.971147	0.5218099	14.269645	0.0002*	-2.993875	-0.948418
Treatment[Gh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP2-RIP3_5]	-4.160043	0.5218099	63.558113	<.0001*	-5.182772	-3.137314
Treatment[Lh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP1-RIP3_5]	-0.878931	0.5218099	2.8371693	0.0921	-1.90166	0.1437973
Treatment[Lh-no_wasp]*Strain[Brazil-Uganda]*RIP[RIP2-RIP3_5]	-2.308038	0.5218099	19.564171	<.0001*	-3.330767	-1.28531
Treatment[Gh-no_wasp]*Strain[Brazil-Uganda]*Time[24h-72h]	-3.397517	0.5218099	42.393432	<.0001*	-4.420245	-2.374788
Treatment[Lh-no_wasp]*Strain[Brazil-Uganda]*Time[24h-72h]	-1.664815	0.5218099	10.179057	0.0014*	-2.687544	-0.642087
Treatment[Gh-no_wasp]*RIP[RIP1-RIP3_5]*Time[24h-72h]	-0.877172	0.5218099	2.8258224	0.0928	-1.899901	0.1455566
Treatment[Gh-no_wasp]*RIP[RIP2-RIP3_5]*Time[24h-72h]	-2.154512	0.5218099	17.047994	<.0001*	-3.177241	-1.131784
Treatment[Lh-no_wasp]*RIP[RIP1-RIP3_5]*Time[24h-72h]	-0.427684	0.5218099	0.6717719	0.4124	-1.450413	0.5950444
Treatment[Lh-no_wasp]*RIP[RIP2-RIP3_5]*Time[24h-72h]	-1.669579	0.5218099	10.237393	0.0014*	-2.692308	-0.646851
Treatment[Gh-no_wasp]	-2.153584	0.260905	68.133231	<.0001*	-2.664948	-1.64222
Treatment[Lh-no_wasp]	-1.169513	0.260905	20.093041	<.0001*	-1.680878	-0.658149
Strain[Brazil-Uganda]	-0.067589	0.260905	0.067111	0.7956	-0.578954	0.4437748
RIP[RIP1-RIP3_5]	-1.342449	0.260905	26.474712	<.0001*	-1.853814	-0.831085
RIP[RIP2-RIP3_5]	5.4237771	0.260905	432.15447	<.0001*	4.9124128	5.9351414
Time[24h-72h]	-1.827899	0.260905	49.083986	<.0001*	-2.339264	-1.316535
Treatment[Gh-no_wasp]*Strain[Brazil-Uganda]	2.8307118	0.3689753	58.856802	<.0001*	2.1075335	3.5538902
Treatment[Lh-no_wasp]*Strain[Brazil-Uganda]	1.2056423	0.3689753	10.676829	0.0011*	0.4824639	1.9288206
Treatment[Gh-no_wasp]*RIP[RIP1-RIP3_5]	0.86877	0.3689753	5.5438954	0.0185*	0.1455917	1.5919484
Treatment[Gh-no_wasp]*RIP[RIP2-RIP3_5]	3.1092383	0.3689753	71.008996	<.0001*	2.38606	3.8324167
Treatment[Lh-no_wasp]*RIP[RIP1-RIP3_5]	0.160114	0.3689753	0.1883058	0.6643	-0.563064	0.8832923



**Generalized Regression for Value****Standard Least Squares****Parameter Estimates for Original Predictors**

Term	Estimate	Std Error	Wald ChiSquare	Prob > ChiSquare	Lower 95%	Upper 95%
Treatment[Lh-no_wasp]*RIP[RIP2-RIP3_5]	2.0243669	0.3689753	30.101201	<.0001*	1.3011886	2.7475453
Treatment[Gh-no_wasp]*Time[24h-72h]	1.053851	0.3689753	8.1576259	0.0043*	0.3306727	1.7770294
Treatment[Lh-no_wasp]*Time[24h-72h]	0.629072	0.3689753	2.9067394	0.0882	-0.094106	1.3522504
Strain[Brazil-Uganda]*RIP[RIP1-RIP3_5]	-0.410005	0.3689753	1.2347637	0.2665	-1.133183	0.3131733
Strain[Brazil-Uganda]*RIP[RIP2-RIP3_5]	1.441441	0.3689753	15.261566	<.0001*	0.7182627	2.1646194
Strain[Brazil-Uganda]*Time[24h-72h]	2.2972192	0.3689753	38.762361	<.0001*	1.5740408	3.0203975
RIP[RIP1-RIP3_5]*Time[24h-72h]	1.3459961	0.3689753	13.307391	0.0003*	0.6228177	2.0691744
RIP[RIP2-RIP3_5]*Time[24h-72h]	2.4779155	0.3689753	45.100184	<.0001*	1.7547371	3.2010938
<b>Normal Distribution</b>			<b>Wald</b>	<b>Prob &gt;</b>		
<b>Parameters</b>	<b>Estimate</b>	<b>Std Error</b>	<b>ChiSquare</b>	<b>ChiSquare</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Scale	0.319542	0.0307479	108	<.0001*	0.2592771	0.3798069

**Effect Tests**

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
RIP	2	2	77.00135	377.06171	<.0001*
Treatment*RIP	4	4	8.2872123	20.290491	<.0001*
Treatment	2	2	6.9740807	34.150814	<.0001*
Treatment*Strain	2	2	6.0536768	29.643762	<.0001*
Time	1	1	5.0118232	49.083986	<.0001*
Treatment*Strain*RIP	4	4	6.5541147	16.047158	<.0001*
RIP*Time	2	2	4.616506	22.606196	<.0001*
Strain*Time	1	1	3.957912	38.762361	<.0001*
Treatment*Strain*Time	2	2	4.3292462	21.199537	<.0001*
Strain*RIP*Time	2	2	4.0598589	19.880396	<.0001*
Treatment*Strain*RIP*Time	4	4	4.2907848	10.505599	<.0001*
Strain*RIP	2	2	2.8368545	13.891564	<.0001*
Treatment*RIP*Time	4	4	1.9990198	4.8944195	0.0015*
Treatment*Time	2	2	0.8433854	4.1299059	0.0200*
Strain	1	1	0.0068525	0.067111	0.7963

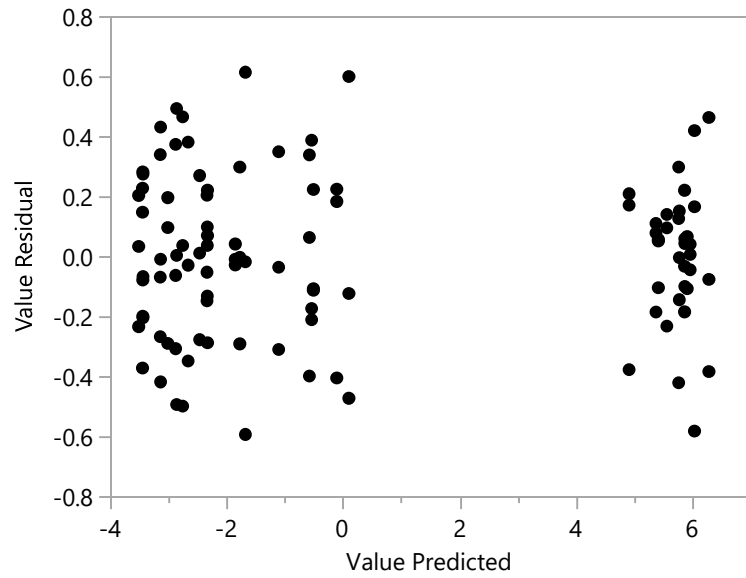


### Generalized Regression for Value

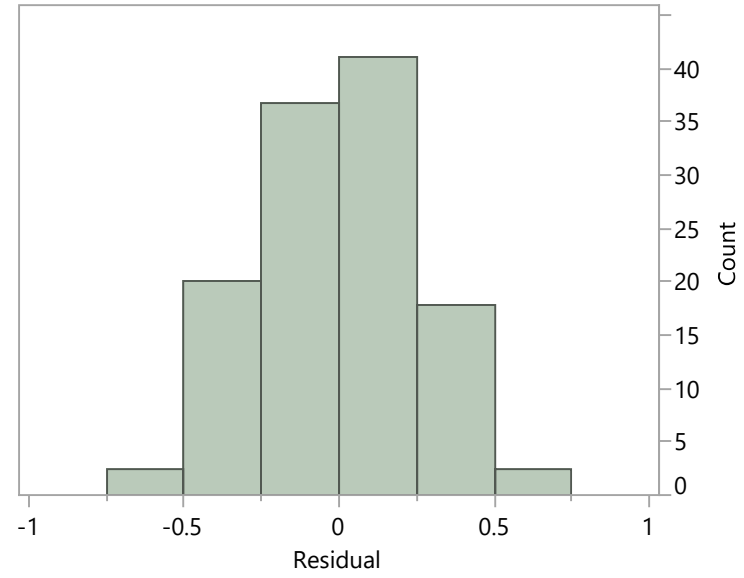
#### Standard Least Squares

#### Diagnostic Bundle

##### Residual by Predicted Plot



##### Histogram of Residuals

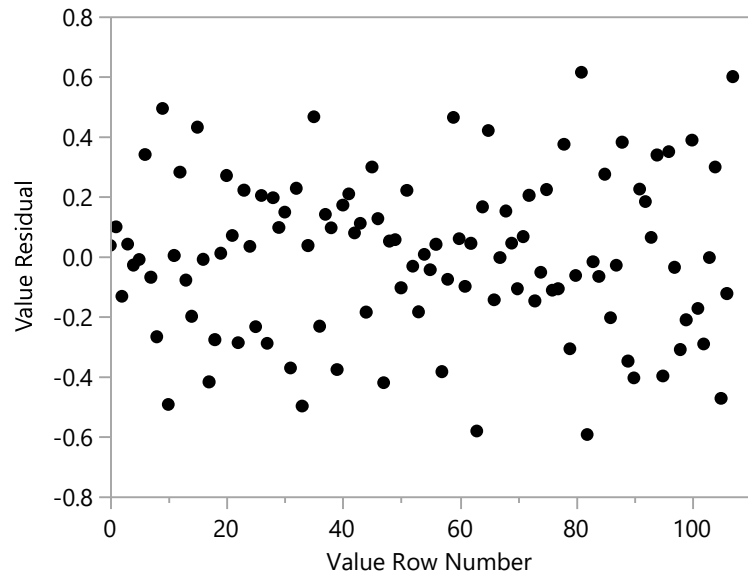


### Generalized Regression for Value

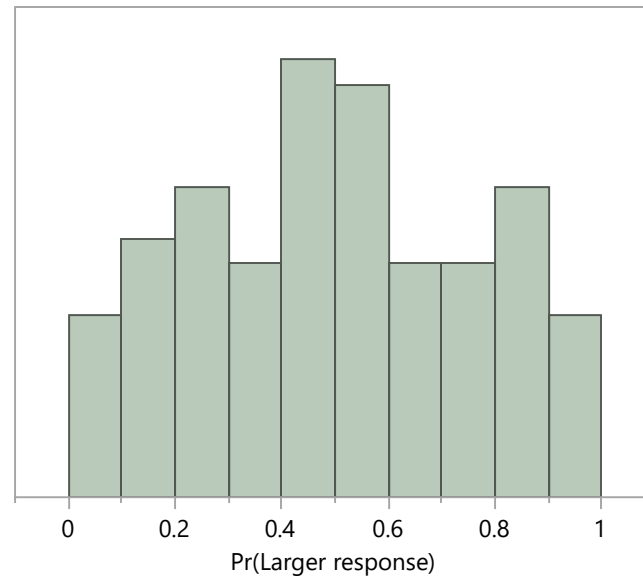
#### Standard Least Squares

#### Diagnostic Bundle

##### Residual by Row Plot



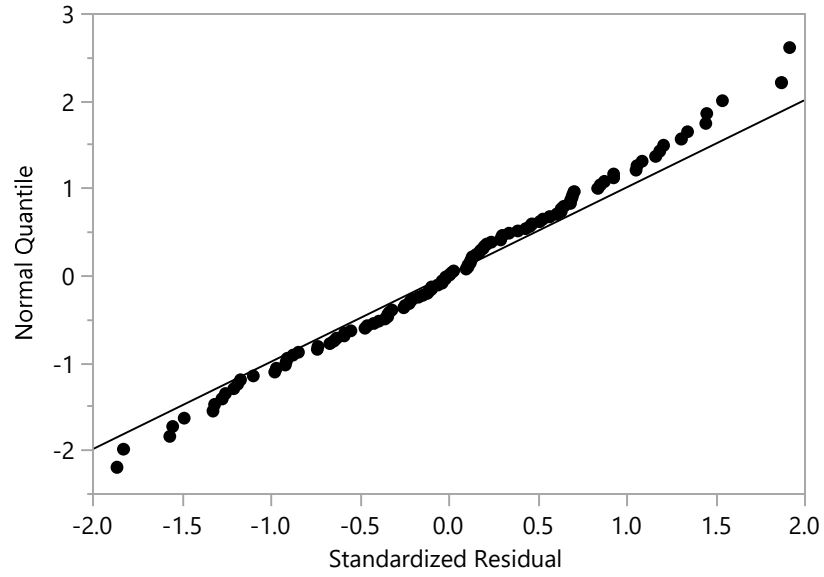
##### Fitted Probability of Observing a Larger Response



**Generalized Regression for Value**

**Standard Least Squares**

**Normal Quantile Plot**





**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Least Squares Means Estimates**

Treatment	Strain	RIP	Time	Estimate	Std Error	DF	Lower 95%	Upper 95%
Gh	Brazil	RIP1	24h	-3.443138	0.18448766	72	-3.810907	-3.075368
Gh	Brazil	RIP1	72h	-2.751779	0.18448766	72	-3.119548	-2.384009
Gh	Brazil	RIP2	24h	5.782242	0.18448766	72	5.414472	6.150011
Gh	Brazil	RIP2	72h	5.917466	0.18448766	72	5.549696	6.285235
Gh	Brazil	RIP3_5	24h	-1.771293	0.18448766	72	-2.139063	-1.403524
Gh	Brazil	RIP3_5	72h	0.103052	0.18448766	72	-0.264717	0.470822
Gh	Uganda	RIP1	24h	-3.438974	0.18448766	72	-3.806743	-3.071204
Gh	Uganda	RIP1	72h	-3.133749	0.18448766	72	-3.501519	-2.765980
Gh	Uganda	RIP2	24h	5.422300	0.18448766	72	5.054531	5.790070
Gh	Uganda	RIP2	72h	5.872945	0.18448766	72	5.505176	6.240715
Gh	Uganda	RIP3_5	24h	-3.434118	0.18448766	72	-3.801888	-3.066349
Gh	Uganda	RIP3_5	72h	-2.660070	0.18448766	72	-3.027839	-2.292301
Lh	Brazil	RIP1	24h	-3.508949	0.18448766	72	-3.876719	-3.141180
Lh	Brazil	RIP1	72h	-3.009218	0.18448766	72	-3.376988	-2.641449
Lh	Brazil	RIP2	24h	5.876795	0.18448766	72	5.509025	6.244564
Lh	Brazil	RIP2	72h	6.043600	0.18448766	72	5.675831	6.411369
Lh	Brazil	RIP3_5	24h	-1.104370	0.18448766	72	-1.472139	-0.736601
Lh	Brazil	RIP3_5	72h	-0.537947	0.18448766	72	-0.905716	-0.170177
Lh	Uganda	RIP1	24h	-3.138850	0.18448766	72	-3.506620	-2.771081
Lh	Uganda	RIP1	72h	-2.858335	0.18448766	72	-3.226104	-2.490565
Lh	Uganda	RIP2	24h	5.381654	0.18448766	72	5.013884	5.749423
Lh	Uganda	RIP2	72h	5.772145	0.18448766	72	5.404375	6.139914
Lh	Uganda	RIP3_5	24h	-2.874826	0.18448766	72	-3.242596	-2.507057
Lh	Uganda	RIP3_5	72h	-1.675999	0.18448766	72	-2.043769	-1.308230
no_wasp	Brazil	RIP1	24h	-2.462281	0.18448766	72	-2.830051	-2.094512
no_wasp	Brazil	RIP1	72h	-2.326530	0.18448766	72	-2.694299	-1.958761
no_wasp	Brazil	RIP2	24h	5.968347	0.18448766	72	5.600577	6.336116
no_wasp	Brazil	RIP2	72h	6.291143	0.18448766	72	5.923373	6.658912
no_wasp	Brazil	RIP3_5	24h	-0.104756	0.18448766	72	-0.472525	0.263014
no_wasp	Brazil	RIP3_5	72h	-0.574076	0.18448766	72	-0.941845	-0.206306
no_wasp	Uganda	RIP1	24h	-2.330839	0.18448766	72	-2.698608	-1.963069
no_wasp	Uganda	RIP1	72h	-1.848935	0.18448766	72	-2.216705	-1.481166

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Least Squares Means Estimates**

Treatment	Strain	RIP	Time	Estimate	Std Error	DF	Lower 95%	Upper 95%
no_wasp	Uganda	RIP2	24h	5.567307	0.18448766	72	5.199538	5.935077
no_wasp	Uganda	RIP2	72h	4.917291	0.18448766	72	4.549522	5.285060
no_wasp	Uganda	RIP3_5	24h	-2.334385	0.18448766	72	-2.702155	-1.966616
no_wasp	Uganda	RIP3_5	72h	-0.506486	0.18448766	72	-0.874255	-0.138717

**Tukey HSD All Pairwise Comparisons**

Quantile = 4.00311, Adjusted DF = 72.0, Adjustment = Tukey

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP1	24h	Gh	Brazil	RIP1	72h	-0.69136	0.2609050	-2.65	0.7424	-1.7358	0.3531
Gh	Brazil	RIP1	24h	Gh	Brazil	RIP2	24h	-9.22538	0.2609050	-35.36	<.0001*	-10.2698	-8.1809
Gh	Brazil	RIP1	24h	Gh	Brazil	RIP2	72h	-9.36060	0.2609050	-35.88	<.0001*	-10.4050	-8.3162
Gh	Brazil	RIP1	24h	Gh	Brazil	RIP3_5	24h	-1.67184	0.2609050	-6.41	<.0001*	-2.7163	-0.6274
Gh	Brazil	RIP1	24h	Gh	Brazil	RIP3_5	72h	-3.54619	0.2609050	-13.59	<.0001*	-4.5906	-2.5018
Gh	Brazil	RIP1	24h	Gh	Uganda	RIP1	24h	-0.00416	0.2609050	-0.02	1.0000	-1.0486	1.0403
Gh	Brazil	RIP1	24h	Gh	Uganda	RIP1	72h	-0.30939	0.2609050	-1.19	1.0000	-1.3538	0.7350
Gh	Brazil	RIP1	24h	Gh	Uganda	RIP2	24h	-8.86544	0.2609050	-33.98	<.0001*	-9.9099	-7.8210
Gh	Brazil	RIP1	24h	Gh	Uganda	RIP2	72h	-9.31608	0.2609050	-35.71	<.0001*	-10.3605	-8.2717
Gh	Brazil	RIP1	24h	Gh	Uganda	RIP3_5	24h	-0.00902	0.2609050	-0.03	1.0000	-1.0535	1.0354
Gh	Brazil	RIP1	24h	Gh	Uganda	RIP3_5	72h	-0.78307	0.2609050	-3.00	0.4842	-1.8275	0.2614
Gh	Brazil	RIP1	24h	Lh	Brazil	RIP1	24h	0.06581	0.2609050	0.25	1.0000	-0.9786	1.1102
Gh	Brazil	RIP1	24h	Lh	Brazil	RIP1	72h	-0.43392	0.2609050	-1.66	0.9993	-1.4784	0.6105
Gh	Brazil	RIP1	24h	Lh	Brazil	RIP2	24h	-9.31993	0.2609050	-35.72	<.0001*	-10.3644	-8.2755
Gh	Brazil	RIP1	24h	Lh	Brazil	RIP2	72h	-9.48674	0.2609050	-36.36	<.0001*	-10.5312	-8.4423
Gh	Brazil	RIP1	24h	Lh	Brazil	RIP3_5	24h	-2.33877	0.2609050	-8.96	<.0001*	-3.3832	-1.2943
Gh	Brazil	RIP1	24h	Lh	Brazil	RIP3_5	72h	-2.90519	0.2609050	-11.14	<.0001*	-3.9496	-1.8608
Gh	Brazil	RIP1	24h	Lh	Uganda	RIP1	24h	-0.30429	0.2609050	-1.17	1.0000	-1.3487	0.7401
Gh	Brazil	RIP1	24h	Lh	Uganda	RIP1	72h	-0.58480	0.2609050	-2.24	0.9420	-1.6292	0.4596
Gh	Brazil	RIP1	24h	Lh	Uganda	RIP2	24h	-8.82479	0.2609050	-33.82	<.0001*	-9.8692	-7.7804
Gh	Brazil	RIP1	24h	Lh	Uganda	RIP2	72h	-9.21528	0.2609050	-35.32	<.0001*	-10.2597	-8.1709
Gh	Brazil	RIP1	24h	Lh	Uganda	RIP3_5	24h	-0.56831	0.2609050	-2.18	0.9580	-1.6127	0.4761
Gh	Brazil	RIP1	24h	Lh	Uganda	RIP3_5	72h	-1.76714	0.2609050	-6.77	<.0001*	-2.8116	-0.7227

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP1	24h	no_wasp	Brazil	RIP1	24h	-0.98086	0.2609050	-3.76	0.0979	-2.0253	0.0636
Gh	Brazil	RIP1	24h	no_wasp	Brazil	RIP1	72h	-1.11661	0.2609050	-4.28	0.0217*	-2.1610	-0.0722
Gh	Brazil	RIP1	24h	no_wasp	Brazil	RIP2	24h	-9.41148	0.2609050	-36.07	<.0001*	-10.4559	-8.3671
Gh	Brazil	RIP1	24h	no_wasp	Brazil	RIP2	72h	-9.73428	0.2609050	-37.31	<.0001*	-10.7787	-8.6898
Gh	Brazil	RIP1	24h	no_wasp	Brazil	RIP3_5	24h	-3.33838	0.2609050	-12.80	<.0001*	-4.3828	-2.2940
Gh	Brazil	RIP1	24h	no_wasp	Brazil	RIP3_5	72h	-2.86906	0.2609050	-11.00	<.0001*	-3.9135	-1.8246
Gh	Brazil	RIP1	24h	no_wasp	Uganda	RIP1	24h	-1.11230	0.2609050	-4.26	0.0229*	-2.1567	-0.0679
Gh	Brazil	RIP1	24h	no_wasp	Uganda	RIP1	72h	-1.59420	0.2609050	-6.11	<.0001*	-2.6386	-0.5498
Gh	Brazil	RIP1	24h	no_wasp	Uganda	RIP2	24h	-9.01044	0.2609050	-34.54	<.0001*	-10.0549	-7.9660
Gh	Brazil	RIP1	24h	no_wasp	Uganda	RIP2	72h	-8.36043	0.2609050	-32.04	<.0001*	-9.4049	-7.3160
Gh	Brazil	RIP1	24h	no_wasp	Uganda	RIP3_5	24h	-1.10875	0.2609050	-4.25	0.0239*	-2.1532	-0.0643
Gh	Brazil	RIP1	24h	no_wasp	Uganda	RIP3_5	72h	-2.93665	0.2609050	-11.26	<.0001*	-3.9811	-1.8922
Gh	Brazil	RIP1	72h	Gh	Brazil	RIP2	24h	-8.53402	0.2609050	-32.71	<.0001*	-9.5785	-7.4896
Gh	Brazil	RIP1	72h	Gh	Brazil	RIP2	72h	-8.66924	0.2609050	-33.23	<.0001*	-9.7137	-7.6248
Gh	Brazil	RIP1	72h	Gh	Brazil	RIP3_5	24h	-0.98049	0.2609050	-3.76	0.0982	-2.0249	0.0639
Gh	Brazil	RIP1	72h	Gh	Brazil	RIP3_5	72h	-2.85483	0.2609050	-10.94	<.0001*	-3.8993	-1.8104
Gh	Brazil	RIP1	72h	Gh	Uganda	RIP1	24h	0.68719	0.2609050	2.63	0.7531	-0.3572	1.7316
Gh	Brazil	RIP1	72h	Gh	Uganda	RIP1	72h	0.38197	0.2609050	1.46	0.9999	-0.6625	1.4264
Gh	Brazil	RIP1	72h	Gh	Uganda	RIP2	24h	-8.17408	0.2609050	-31.33	<.0001*	-9.2185	-7.1296
Gh	Brazil	RIP1	72h	Gh	Uganda	RIP2	72h	-8.62472	0.2609050	-33.06	<.0001*	-9.6692	-7.5803
Gh	Brazil	RIP1	72h	Gh	Uganda	RIP3_5	24h	0.68234	0.2609050	2.62	0.7653	-0.3621	1.7268
Gh	Brazil	RIP1	72h	Gh	Uganda	RIP3_5	72h	-0.09171	0.2609050	-0.35	1.0000	-1.1361	0.9527
Gh	Brazil	RIP1	72h	Lh	Brazil	RIP1	24h	0.75717	0.2609050	2.90	0.5585	-0.2873	1.8016
Gh	Brazil	RIP1	72h	Lh	Brazil	RIP1	72h	0.25744	0.2609050	0.99	1.0000	-0.7870	1.3019
Gh	Brazil	RIP1	72h	Lh	Brazil	RIP2	24h	-8.62857	0.2609050	-33.07	<.0001*	-9.6730	-7.5841
Gh	Brazil	RIP1	72h	Lh	Brazil	RIP2	72h	-8.79538	0.2609050	-33.71	<.0001*	-9.8398	-7.7509
Gh	Brazil	RIP1	72h	Lh	Brazil	RIP3_5	24h	-1.64741	0.2609050	-6.31	<.0001*	-2.6918	-0.6030
Gh	Brazil	RIP1	72h	Lh	Brazil	RIP3_5	72h	-2.21383	0.2609050	-8.49	<.0001*	-3.2583	-1.1694
Gh	Brazil	RIP1	72h	Lh	Uganda	RIP1	24h	0.38707	0.2609050	1.48	0.9999	-0.6574	1.4315
Gh	Brazil	RIP1	72h	Lh	Uganda	RIP1	72h	0.10656	0.2609050	0.41	1.0000	-0.9379	1.1510
Gh	Brazil	RIP1	72h	Lh	Uganda	RIP2	24h	-8.13343	0.2609050	-31.17	<.0001*	-9.1779	-7.0890

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP1	72h	Lh	Uganda	RIP2	72h	-8.52392	0.2609050	-32.67	<.0001*	-9.5684	-7.4795
Gh	Brazil	RIP1	72h	Lh	Uganda	RIP3_5	24h	0.12305	0.2609050	0.47	1.0000	-0.9214	1.1675
Gh	Brazil	RIP1	72h	Lh	Uganda	RIP3_5	72h	-1.07578	0.2609050	-4.12	0.0351*	-2.1202	-0.0313
Gh	Brazil	RIP1	72h	no_wasp	Brazil	RIP1	24h	-0.28950	0.2609050	-1.11	1.0000	-1.3339	0.7549
Gh	Brazil	RIP1	72h	no_wasp	Brazil	RIP1	72h	-0.42525	0.2609050	-1.63	0.9995	-1.4697	0.6192
Gh	Brazil	RIP1	72h	no_wasp	Brazil	RIP2	24h	-8.72013	0.2609050	-33.42	<.0001*	-9.7646	-7.6757
Gh	Brazil	RIP1	72h	no_wasp	Brazil	RIP2	72h	-9.04292	0.2609050	-34.66	<.0001*	-10.0874	-7.9985
Gh	Brazil	RIP1	72h	no_wasp	Brazil	RIP3_5	24h	-2.64702	0.2609050	-10.15	<.0001*	-3.6915	-1.6026
Gh	Brazil	RIP1	72h	no_wasp	Brazil	RIP3_5	72h	-2.17770	0.2609050	-8.35	<.0001*	-3.2221	-1.1333
Gh	Brazil	RIP1	72h	no_wasp	Uganda	RIP1	24h	-0.42094	0.2609050	-1.61	0.9996	-1.4654	0.6235
Gh	Brazil	RIP1	72h	no_wasp	Uganda	RIP1	72h	-0.90284	0.2609050	-3.46	0.2029	-1.9473	0.1416
Gh	Brazil	RIP1	72h	no_wasp	Uganda	RIP2	24h	-8.31909	0.2609050	-31.89	<.0001*	-9.3635	-7.2747
Gh	Brazil	RIP1	72h	no_wasp	Uganda	RIP2	72h	-7.66907	0.2609050	-29.39	<.0001*	-8.7135	-6.6246
Gh	Brazil	RIP1	72h	no_wasp	Uganda	RIP3_5	24h	-0.41739	0.2609050	-1.60	0.9996	-1.4618	0.6270
Gh	Brazil	RIP1	72h	no_wasp	Uganda	RIP3_5	72h	-2.24529	0.2609050	-8.61	<.0001*	-3.2897	-1.2009
Gh	Brazil	RIP2	24h	Gh	Brazil	RIP2	72h	-0.13522	0.2609050	-0.52	1.0000	-1.1797	0.9092
Gh	Brazil	RIP2	24h	Gh	Brazil	RIP3_5	24h	7.55354	0.2609050	28.95	<.0001*	6.5091	8.5980
Gh	Brazil	RIP2	24h	Gh	Brazil	RIP3_5	72h	5.67919	0.2609050	21.77	<.0001*	4.6348	6.7236
Gh	Brazil	RIP2	24h	Gh	Uganda	RIP1	24h	9.22122	0.2609050	35.34	<.0001*	8.1768	10.2656
Gh	Brazil	RIP2	24h	Gh	Uganda	RIP1	72h	8.91599	0.2609050	34.17	<.0001*	7.8716	9.9604
Gh	Brazil	RIP2	24h	Gh	Uganda	RIP2	24h	0.35994	0.2609050	1.38	1.0000	-0.6845	1.4044
Gh	Brazil	RIP2	24h	Gh	Uganda	RIP2	72h	-0.09070	0.2609050	-0.35	1.0000	-1.1351	0.9537
Gh	Brazil	RIP2	24h	Gh	Uganda	RIP3_5	24h	9.21636	0.2609050	35.32	<.0001*	8.1719	10.2608
Gh	Brazil	RIP2	24h	Gh	Uganda	RIP3_5	72h	8.44231	0.2609050	32.36	<.0001*	7.3979	9.4867
Gh	Brazil	RIP2	24h	Lh	Brazil	RIP1	24h	9.29119	0.2609050	35.61	<.0001*	8.2468	10.3356
Gh	Brazil	RIP2	24h	Lh	Brazil	RIP1	72h	8.79146	0.2609050	33.70	<.0001*	7.7470	9.8359
Gh	Brazil	RIP2	24h	Lh	Brazil	RIP2	24h	-0.09455	0.2609050	-0.36	1.0000	-1.1390	0.9499
Gh	Brazil	RIP2	24h	Lh	Brazil	RIP2	72h	-0.26136	0.2609050	-1.00	1.0000	-1.3058	0.7831
Gh	Brazil	RIP2	24h	Lh	Brazil	RIP3_5	24h	6.88661	0.2609050	26.40	<.0001*	5.8422	7.9310
Gh	Brazil	RIP2	24h	Lh	Brazil	RIP3_5	72h	6.32019	0.2609050	24.22	<.0001*	5.2758	7.3646
Gh	Brazil	RIP2	24h	Lh	Uganda	RIP1	24h	8.92109	0.2609050	34.19	<.0001*	7.8767	9.9655

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP2	24h	Lh	Uganda	RIP1	72h	8.64058	0.2609050	33.12	<.0001*	7.5961	9.6850
Gh	Brazil	RIP2	24h	Lh	Uganda	RIP2	24h	0.40059	0.2609050	1.54	0.9998	-0.6438	1.4450
Gh	Brazil	RIP2	24h	Lh	Uganda	RIP2	72h	0.01010	0.2609050	0.04	1.0000	-1.0343	1.0545
Gh	Brazil	RIP2	24h	Lh	Uganda	RIP3_5	24h	8.65707	0.2609050	33.18	<.0001*	7.6126	9.7015
Gh	Brazil	RIP2	24h	Lh	Uganda	RIP3_5	72h	7.45824	0.2609050	28.59	<.0001*	6.4138	8.5027
Gh	Brazil	RIP2	24h	no_wasp	Brazil	RIP1	24h	8.24452	0.2609050	31.60	<.0001*	7.2001	9.2890
Gh	Brazil	RIP2	24h	no_wasp	Brazil	RIP1	72h	8.10877	0.2609050	31.08	<.0001*	7.0643	9.1532
Gh	Brazil	RIP2	24h	no_wasp	Brazil	RIP2	24h	-0.18610	0.2609050	-0.71	1.0000	-1.2305	0.8583
Gh	Brazil	RIP2	24h	no_wasp	Brazil	RIP2	72h	-0.50890	0.2609050	-1.95	0.9900	-1.5533	0.5355
Gh	Brazil	RIP2	24h	no_wasp	Brazil	RIP3_5	24h	5.88700	0.2609050	22.56	<.0001*	4.8426	6.9314
Gh	Brazil	RIP2	24h	no_wasp	Brazil	RIP3_5	72h	6.35632	0.2609050	24.36	<.0001*	5.3119	7.4007
Gh	Brazil	RIP2	24h	no_wasp	Uganda	RIP1	24h	8.11308	0.2609050	31.10	<.0001*	7.0686	9.1575
Gh	Brazil	RIP2	24h	no_wasp	Uganda	RIP1	72h	7.63118	0.2609050	29.25	<.0001*	6.5867	8.6756
Gh	Brazil	RIP2	24h	no_wasp	Uganda	RIP2	24h	0.21493	0.2609050	0.82	1.0000	-0.8295	1.2594
Gh	Brazil	RIP2	24h	no_wasp	Uganda	RIP2	72h	0.86495	0.2609050	3.32	0.2767	-0.1795	1.9094
Gh	Brazil	RIP2	24h	no_wasp	Uganda	RIP3_5	24h	8.11663	0.2609050	31.11	<.0001*	7.0722	9.1611
Gh	Brazil	RIP2	24h	no_wasp	Uganda	RIP3_5	72h	6.28873	0.2609050	24.10	<.0001*	5.2443	7.3332
Gh	Brazil	RIP2	72h	Gh	Brazil	RIP3_5	24h	7.68876	0.2609050	29.47	<.0001*	6.6443	8.7332
Gh	Brazil	RIP2	72h	Gh	Brazil	RIP3_5	72h	5.81441	0.2609050	22.29	<.0001*	4.7700	6.8588
Gh	Brazil	RIP2	72h	Gh	Uganda	RIP1	24h	9.35644	0.2609050	35.86	<.0001*	8.3120	10.4009
Gh	Brazil	RIP2	72h	Gh	Uganda	RIP1	72h	9.05122	0.2609050	34.69	<.0001*	8.0068	10.0956
Gh	Brazil	RIP2	72h	Gh	Uganda	RIP2	24h	0.49517	0.2609050	1.90	0.9933	-0.5493	1.5396
Gh	Brazil	RIP2	72h	Gh	Uganda	RIP2	72h	0.04452	0.2609050	0.17	1.0000	-0.9999	1.0890
Gh	Brazil	RIP2	72h	Gh	Uganda	RIP3_5	24h	9.35158	0.2609050	35.84	<.0001*	8.3072	10.3960
Gh	Brazil	RIP2	72h	Gh	Uganda	RIP3_5	72h	8.57754	0.2609050	32.88	<.0001*	7.5331	9.6220
Gh	Brazil	RIP2	72h	Lh	Brazil	RIP1	24h	9.42641	0.2609050	36.13	<.0001*	8.3820	10.4708
Gh	Brazil	RIP2	72h	Lh	Brazil	RIP1	72h	8.92668	0.2609050	34.21	<.0001*	7.8823	9.9711
Gh	Brazil	RIP2	72h	Lh	Brazil	RIP2	24h	0.04067	0.2609050	0.16	1.0000	-1.0038	1.0851
Gh	Brazil	RIP2	72h	Lh	Brazil	RIP2	72h	-0.12613	0.2609050	-0.48	1.0000	-1.1706	0.9183
Gh	Brazil	RIP2	72h	Lh	Brazil	RIP3_5	24h	7.02184	0.2609050	26.91	<.0001*	5.9774	8.0663
Gh	Brazil	RIP2	72h	Lh	Brazil	RIP3_5	72h	6.45541	0.2609050	24.74	<.0001*	5.4110	7.4998

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP2	72h	Lh	Uganda	RIP1	24h	9.05632	0.2609050	34.71	<.0001*	8.0119	10.1007
Gh	Brazil	RIP2	72h	Lh	Uganda	RIP1	72h	8.77580	0.2609050	33.64	<.0001*	7.7314	9.8202
Gh	Brazil	RIP2	72h	Lh	Uganda	RIP2	24h	0.53581	0.2609050	2.05	0.9798	-0.5086	1.5802
Gh	Brazil	RIP2	72h	Lh	Uganda	RIP2	72h	0.14532	0.2609050	0.56	1.0000	-0.8991	1.1898
Gh	Brazil	RIP2	72h	Lh	Uganda	RIP3_5	24h	8.79229	0.2609050	33.70	<.0001*	7.7479	9.8367
Gh	Brazil	RIP2	72h	Lh	Uganda	RIP3_5	72h	7.59347	0.2609050	29.10	<.0001*	6.5490	8.6379
Gh	Brazil	RIP2	72h	no_wasp	Brazil	RIP1	24h	8.37975	0.2609050	32.12	<.0001*	7.3353	9.4242
Gh	Brazil	RIP2	72h	no_wasp	Brazil	RIP1	72h	8.24400	0.2609050	31.60	<.0001*	7.1996	9.2884
Gh	Brazil	RIP2	72h	no_wasp	Brazil	RIP2	24h	-0.05088	0.2609050	-0.20	1.0000	-1.0953	0.9935
Gh	Brazil	RIP2	72h	no_wasp	Brazil	RIP2	72h	-0.37368	0.2609050	-1.43	1.0000	-1.4181	0.6708
Gh	Brazil	RIP2	72h	no_wasp	Brazil	RIP3_5	24h	6.02222	0.2609050	23.08	<.0001*	4.9778	7.0667
Gh	Brazil	RIP2	72h	no_wasp	Brazil	RIP3_5	72h	6.49154	0.2609050	24.88	<.0001*	5.4471	7.5360
Gh	Brazil	RIP2	72h	no_wasp	Uganda	RIP1	24h	8.24830	0.2609050	31.61	<.0001*	7.2039	9.2927
Gh	Brazil	RIP2	72h	no_wasp	Uganda	RIP1	72h	7.76640	0.2609050	29.77	<.0001*	6.7220	8.8108
Gh	Brazil	RIP2	72h	no_wasp	Uganda	RIP2	24h	0.35016	0.2609050	1.34	1.0000	-0.6943	1.3946
Gh	Brazil	RIP2	72h	no_wasp	Uganda	RIP2	72h	1.00017	0.2609050	3.83	0.0804	-0.0443	2.0446
Gh	Brazil	RIP2	72h	no_wasp	Uganda	RIP3_5	24h	8.25185	0.2609050	31.63	<.0001*	7.2074	9.2963
Gh	Brazil	RIP2	72h	no_wasp	Uganda	RIP3_5	72h	6.42395	0.2609050	24.62	<.0001*	5.3795	7.4684
Gh	Brazil	RIP3_5	24h	Gh	Brazil	RIP3_5	72h	-1.87435	0.2609050	-7.18	<.0001*	-2.9188	-0.8299
Gh	Brazil	RIP3_5	24h	Gh	Uganda	RIP1	24h	1.66768	0.2609050	6.39	<.0001*	0.6232	2.7121
Gh	Brazil	RIP3_5	24h	Gh	Uganda	RIP1	72h	1.36246	0.2609050	5.22	0.0008*	0.3180	2.4069
Gh	Brazil	RIP3_5	24h	Gh	Uganda	RIP2	24h	-7.19359	0.2609050	-27.57	<.0001*	-8.2380	-6.1492
Gh	Brazil	RIP3_5	24h	Gh	Uganda	RIP2	72h	-7.64424	0.2609050	-29.30	<.0001*	-8.6887	-6.5998
Gh	Brazil	RIP3_5	24h	Gh	Uganda	RIP3_5	24h	1.66282	0.2609050	6.37	<.0001*	0.6184	2.7073
Gh	Brazil	RIP3_5	24h	Gh	Uganda	RIP3_5	72h	0.88878	0.2609050	3.41	0.2285	-0.1557	1.9332
Gh	Brazil	RIP3_5	24h	Lh	Brazil	RIP1	24h	1.73766	0.2609050	6.66	<.0001*	0.6932	2.7821
Gh	Brazil	RIP3_5	24h	Lh	Brazil	RIP1	72h	1.23792	0.2609050	4.74	0.0047*	0.1935	2.2824
Gh	Brazil	RIP3_5	24h	Lh	Brazil	RIP2	24h	-7.64809	0.2609050	-29.31	<.0001*	-8.6925	-6.6037
Gh	Brazil	RIP3_5	24h	Lh	Brazil	RIP2	72h	-7.81489	0.2609050	-29.95	<.0001*	-8.8593	-6.7705
Gh	Brazil	RIP3_5	24h	Lh	Brazil	RIP3_5	24h	-0.66692	0.2609050	-2.56	0.8023	-1.7114	0.3775
Gh	Brazil	RIP3_5	24h	Lh	Brazil	RIP3_5	72h	-1.23335	0.2609050	-4.73	0.0049*	-2.2778	-0.1889

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP3_5	24h	Lh	Uganda	RIP1	24h	1.36756	0.2609050	5.24	0.0008*	0.3231	2.4120
Gh	Brazil	RIP3_5	24h	Lh	Uganda	RIP1	72h	1.08704	0.2609050	4.17	0.0308*	0.0426	2.1315
Gh	Brazil	RIP3_5	24h	Lh	Uganda	RIP2	24h	-7.15295	0.2609050	-27.42	<.0001*	-8.1974	-6.1085
Gh	Brazil	RIP3_5	24h	Lh	Uganda	RIP2	72h	-7.54344	0.2609050	-28.91	<.0001*	-8.5879	-6.4990
Gh	Brazil	RIP3_5	24h	Lh	Uganda	RIP3_5	24h	1.10353	0.2609050	4.23	0.0254*	0.0591	2.1480
Gh	Brazil	RIP3_5	24h	Lh	Uganda	RIP3_5	72h	-0.09529	0.2609050	-0.37	1.0000	-1.1397	0.9491
Gh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP1	24h	0.69099	0.2609050	2.65	0.7434	-0.3534	1.7354
Gh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP1	72h	0.55524	0.2609050	2.13	0.9682	-0.4892	1.5997
Gh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP2	24h	-7.73964	0.2609050	-29.66	<.0001*	-8.7841	-6.6952
Gh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP2	72h	-8.06244	0.2609050	-30.90	<.0001*	-9.1069	-7.0180
Gh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP3_5	24h	-1.66654	0.2609050	-6.39	<.0001*	-2.7110	-0.6221
Gh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP3_5	72h	-1.19722	0.2609050	-4.59	0.0079*	-2.2416	-0.1528
Gh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP1	24h	0.55955	0.2609050	2.14	0.9651	-0.4849	1.6040
Gh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP1	72h	0.07764	0.2609050	0.30	1.0000	-0.9668	1.1221
Gh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP2	24h	-7.33860	0.2609050	-28.13	<.0001*	-8.3830	-6.2942
Gh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP2	72h	-6.68858	0.2609050	-25.64	<.0001*	-7.7330	-5.6442
Gh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP3_5	24h	0.56309	0.2609050	2.16	0.9624	-0.4813	1.6075
Gh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP3_5	72h	-1.26481	0.2609050	-4.85	0.0032*	-2.3092	-0.2204
Gh	Brazil	RIP3_5	72h	Gh	Uganda	RIP1	24h	3.54203	0.2609050	13.58	<.0001*	2.4976	4.5865
Gh	Brazil	RIP3_5	72h	Gh	Uganda	RIP1	72h	3.23680	0.2609050	12.41	<.0001*	2.1924	4.2812
Gh	Brazil	RIP3_5	72h	Gh	Uganda	RIP2	24h	-5.31925	0.2609050	-20.39	<.0001*	-6.3637	-4.2748
Gh	Brazil	RIP3_5	72h	Gh	Uganda	RIP2	72h	-5.76989	0.2609050	-22.11	<.0001*	-6.8143	-4.7255
Gh	Brazil	RIP3_5	72h	Gh	Uganda	RIP3_5	24h	3.53717	0.2609050	13.56	<.0001*	2.4927	4.5816
Gh	Brazil	RIP3_5	72h	Gh	Uganda	RIP3_5	72h	2.76312	0.2609050	10.59	<.0001*	1.7187	3.8076
Gh	Brazil	RIP3_5	72h	Lh	Brazil	RIP1	24h	3.61200	0.2609050	13.84	<.0001*	2.5676	4.6564
Gh	Brazil	RIP3_5	72h	Lh	Brazil	RIP1	72h	3.11227	0.2609050	11.93	<.0001*	2.0678	4.1567
Gh	Brazil	RIP3_5	72h	Lh	Brazil	RIP2	24h	-5.77374	0.2609050	-22.13	<.0001*	-6.8182	-4.7293
Gh	Brazil	RIP3_5	72h	Lh	Brazil	RIP2	72h	-5.94055	0.2609050	-22.77	<.0001*	-6.9850	-4.8961
Gh	Brazil	RIP3_5	72h	Lh	Brazil	RIP3_5	24h	1.20742	0.2609050	4.63	0.0070*	0.1630	2.2519
Gh	Brazil	RIP3_5	72h	Lh	Brazil	RIP3_5	72h	0.64100	0.2609050	2.46	0.8573	-0.4034	1.6854
Gh	Brazil	RIP3_5	72h	Lh	Uganda	RIP1	24h	3.24190	0.2609050	12.43	<.0001*	2.1975	4.2863

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Brazil	RIP3_5	72h	Lh	Uganda	RIP1	72h	2.96139	0.2609050	11.35	<.0001*	1.9170	4.0058
Gh	Brazil	RIP3_5	72h	Lh	Uganda	RIP2	24h	-5.27860	0.2609050	-20.23	<.0001*	-6.3230	-4.2342
Gh	Brazil	RIP3_5	72h	Lh	Uganda	RIP2	72h	-5.66909	0.2609050	-21.73	<.0001*	-6.7135	-4.6247
Gh	Brazil	RIP3_5	72h	Lh	Uganda	RIP3_5	24h	2.97788	0.2609050	11.41	<.0001*	1.9334	4.0223
Gh	Brazil	RIP3_5	72h	Lh	Uganda	RIP3_5	72h	1.77905	0.2609050	6.82	<.0001*	0.7346	2.8235
Gh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP1	24h	2.56533	0.2609050	9.83	<.0001*	1.5209	3.6098
Gh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP1	72h	2.42958	0.2609050	9.31	<.0001*	1.3852	3.4740
Gh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP2	24h	-5.86529	0.2609050	-22.48	<.0001*	-6.9097	-4.8209
Gh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP2	72h	-6.18809	0.2609050	-23.72	<.0001*	-7.2325	-5.1437
Gh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP3_5	24h	0.20781	0.2609050	0.80	1.0000	-0.8366	1.2522
Gh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP3_5	72h	0.67713	0.2609050	2.60	0.7781	-0.3673	1.7216
Gh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP1	24h	2.43389	0.2609050	9.33	<.0001*	1.3895	3.4783
Gh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP1	72h	1.95199	0.2609050	7.48	<.0001*	0.9076	2.9964
Gh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP2	24h	-5.46426	0.2609050	-20.94	<.0001*	-6.5087	-4.4198
Gh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP2	72h	-4.81424	0.2609050	-18.45	<.0001*	-5.8587	-3.7698
Gh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP3_5	24h	2.43744	0.2609050	9.34	<.0001*	1.3930	3.4819
Gh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP3_5	72h	0.60954	0.2609050	2.34	0.9107	-0.4349	1.6540
Gh	Uganda	RIP1	24h	Gh	Uganda	RIP1	72h	-0.30522	0.2609050	-1.17	1.0000	-1.3497	0.7392
Gh	Uganda	RIP1	24h	Gh	Uganda	RIP2	24h	-8.86127	0.2609050	-33.96	<.0001*	-9.9057	-7.8168
Gh	Uganda	RIP1	24h	Gh	Uganda	RIP2	72h	-9.31192	0.2609050	-35.69	<.0001*	-10.3563	-8.2675
Gh	Uganda	RIP1	24h	Gh	Uganda	RIP3_5	24h	-0.00486	0.2609050	-0.02	1.0000	-1.0493	1.0396
Gh	Uganda	RIP1	24h	Gh	Uganda	RIP3_5	72h	-0.77890	0.2609050	-2.99	0.4960	-1.8233	0.2655
Gh	Uganda	RIP1	24h	Lh	Brazil	RIP1	24h	0.06998	0.2609050	0.27	1.0000	-0.9745	1.1144
Gh	Uganda	RIP1	24h	Lh	Brazil	RIP1	72h	-0.42976	0.2609050	-1.65	0.9994	-1.4742	0.6147
Gh	Uganda	RIP1	24h	Lh	Brazil	RIP2	24h	-9.31577	0.2609050	-35.71	<.0001*	-10.3602	-8.2713
Gh	Uganda	RIP1	24h	Lh	Brazil	RIP2	72h	-9.48257	0.2609050	-36.34	<.0001*	-10.5270	-8.4381
Gh	Uganda	RIP1	24h	Lh	Brazil	RIP3_5	24h	-2.33460	0.2609050	-8.95	<.0001*	-3.3790	-1.2902
Gh	Uganda	RIP1	24h	Lh	Brazil	RIP3_5	72h	-2.90103	0.2609050	-11.12	<.0001*	-3.9455	-1.8566
Gh	Uganda	RIP1	24h	Lh	Uganda	RIP1	24h	-0.30012	0.2609050	-1.15	1.0000	-1.3446	0.7443
Gh	Uganda	RIP1	24h	Lh	Uganda	RIP1	72h	-0.58064	0.2609050	-2.23	0.9464	-1.6251	0.4638
Gh	Uganda	RIP1	24h	Lh	Uganda	RIP2	24h	-8.82063	0.2609050	-33.81	<.0001*	-9.8651	-7.7762



**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Uganda	RIP1	24h	Lh	Uganda	RIP2	72h	-9.21112	0.2609050	-35.30	<.0001*	-10.2555	-8.1667
Gh	Uganda	RIP1	24h	Lh	Uganda	RIP3_5	24h	-0.56415	0.2609050	-2.16	0.9615	-1.6086	0.4803
Gh	Uganda	RIP1	24h	Lh	Uganda	RIP3_5	72h	-1.76297	0.2609050	-6.76	<.0001*	-2.8074	-0.7185
Gh	Uganda	RIP1	24h	no_wasp	Brazil	RIP1	24h	-0.97669	0.2609050	-3.74	0.1020	-2.0211	0.0677
Gh	Uganda	RIP1	24h	no_wasp	Brazil	RIP1	72h	-1.11244	0.2609050	-4.26	0.0228*	-2.1569	-0.0680
Gh	Uganda	RIP1	24h	no_wasp	Brazil	RIP2	24h	-9.40732	0.2609050	-36.06	<.0001*	-10.4518	-8.3629
Gh	Uganda	RIP1	24h	no_wasp	Brazil	RIP2	72h	-9.73012	0.2609050	-37.29	<.0001*	-10.7745	-8.6857
Gh	Uganda	RIP1	24h	no_wasp	Brazil	RIP3_5	24h	-3.33422	0.2609050	-12.78	<.0001*	-4.3786	-2.2898
Gh	Uganda	RIP1	24h	no_wasp	Brazil	RIP3_5	72h	-2.86490	0.2609050	-10.98	<.0001*	-3.9093	-1.8205
Gh	Uganda	RIP1	24h	no_wasp	Uganda	RIP1	24h	-1.10813	0.2609050	-4.25	0.0240*	-2.1526	-0.0637
Gh	Uganda	RIP1	24h	no_wasp	Uganda	RIP1	72h	-1.59004	0.2609050	-6.09	<.0001*	-2.6345	-0.5456
Gh	Uganda	RIP1	24h	no_wasp	Uganda	RIP2	24h	-9.00628	0.2609050	-34.52	<.0001*	-10.0507	-7.9618
Gh	Uganda	RIP1	24h	no_wasp	Uganda	RIP2	72h	-8.35626	0.2609050	-32.03	<.0001*	-9.4007	-7.3118
Gh	Uganda	RIP1	24h	no_wasp	Uganda	RIP3_5	24h	-1.10459	0.2609050	-4.23	0.0251*	-2.1490	-0.0602
Gh	Uganda	RIP1	24h	no_wasp	Uganda	RIP3_5	72h	-2.93249	0.2609050	-11.24	<.0001*	-3.9769	-1.8881
Gh	Uganda	RIP1	72h	Gh	Uganda	RIP2	24h	-8.55605	0.2609050	-32.79	<.0001*	-9.6005	-7.5116
Gh	Uganda	RIP1	72h	Gh	Uganda	RIP2	72h	-9.00669	0.2609050	-34.52	<.0001*	-10.0511	-7.9623
Gh	Uganda	RIP1	72h	Gh	Uganda	RIP3_5	24h	0.30037	0.2609050	1.15	1.0000	-0.7441	1.3448
Gh	Uganda	RIP1	72h	Gh	Uganda	RIP3_5	72h	-0.47368	0.2609050	-1.82	0.9967	-1.5181	0.5708
Gh	Uganda	RIP1	72h	Lh	Brazil	RIP1	24h	0.37520	0.2609050	1.44	1.0000	-0.6692	1.4196
Gh	Uganda	RIP1	72h	Lh	Brazil	RIP1	72h	-0.12453	0.2609050	-0.48	1.0000	-1.1690	0.9199
Gh	Uganda	RIP1	72h	Lh	Brazil	RIP2	24h	-9.01054	0.2609050	-34.54	<.0001*	-10.0550	-7.9661
Gh	Uganda	RIP1	72h	Lh	Brazil	RIP2	72h	-9.17735	0.2609050	-35.18	<.0001*	-10.2218	-8.1329
Gh	Uganda	RIP1	72h	Lh	Brazil	RIP3_5	24h	-2.02938	0.2609050	-7.78	<.0001*	-3.0738	-0.9849
Gh	Uganda	RIP1	72h	Lh	Brazil	RIP3_5	72h	-2.59580	0.2609050	-9.95	<.0001*	-3.6402	-1.5514
Gh	Uganda	RIP1	72h	Lh	Uganda	RIP1	24h	0.00510	0.2609050	0.02	1.0000	-1.0393	1.0495
Gh	Uganda	RIP1	72h	Lh	Uganda	RIP1	72h	-0.27541	0.2609050	-1.06	1.0000	-1.3198	0.7690
Gh	Uganda	RIP1	72h	Lh	Uganda	RIP2	24h	-8.51540	0.2609050	-32.64	<.0001*	-9.5598	-7.4710
Gh	Uganda	RIP1	72h	Lh	Uganda	RIP2	72h	-8.90589	0.2609050	-34.13	<.0001*	-9.9503	-7.8615
Gh	Uganda	RIP1	72h	Lh	Uganda	RIP3_5	24h	-0.25892	0.2609050	-0.99	1.0000	-1.3034	0.7855
Gh	Uganda	RIP1	72h	Lh	Uganda	RIP3_5	72h	-1.45775	0.2609050	-5.59	0.0002*	-2.5022	-0.4133

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Uganda	RIP1	72h	no_wasp	Brazil	RIP1	24h	-0.67147	0.2609050	-2.57	0.7917	-1.7159	0.3730
Gh	Uganda	RIP1	72h	no_wasp	Brazil	RIP1	72h	-0.80722	0.2609050	-3.09	0.4175	-1.8517	0.2372
Gh	Uganda	RIP1	72h	no_wasp	Brazil	RIP2	24h	-9.10210	0.2609050	-34.89	<.0001*	-10.1465	-8.0577
Gh	Uganda	RIP1	72h	no_wasp	Brazil	RIP2	72h	-9.42489	0.2609050	-36.12	<.0001*	-10.4693	-8.3805
Gh	Uganda	RIP1	72h	no_wasp	Brazil	RIP3_5	24h	-3.02899	0.2609050	-11.61	<.0001*	-4.0734	-1.9846
Gh	Uganda	RIP1	72h	no_wasp	Brazil	RIP3_5	72h	-2.55967	0.2609050	-9.81	<.0001*	-3.6041	-1.5152
Gh	Uganda	RIP1	72h	no_wasp	Uganda	RIP1	24h	-0.80291	0.2609050	-3.08	0.4291	-1.8473	0.2415
Gh	Uganda	RIP1	72h	no_wasp	Uganda	RIP1	72h	-1.28481	0.2609050	-4.92	0.0025*	-2.3292	-0.2404
Gh	Uganda	RIP1	72h	no_wasp	Uganda	RIP2	24h	-8.70106	0.2609050	-33.35	<.0001*	-9.7455	-7.6566
Gh	Uganda	RIP1	72h	no_wasp	Uganda	RIP2	72h	-8.05104	0.2609050	-30.86	<.0001*	-9.0955	-7.0066
Gh	Uganda	RIP1	72h	no_wasp	Uganda	RIP3_5	24h	-0.79936	0.2609050	-3.06	0.4388	-1.8438	0.2451
Gh	Uganda	RIP1	72h	no_wasp	Uganda	RIP3_5	72h	-2.62726	0.2609050	-10.07	<.0001*	-3.6717	-1.5828
Gh	Uganda	RIP2	24h	Gh	Uganda	RIP2	72h	-0.45064	0.2609050	-1.73	0.9985	-1.4951	0.5938
Gh	Uganda	RIP2	24h	Gh	Uganda	RIP3_5	24h	8.85642	0.2609050	33.94	<.0001*	7.8120	9.9008
Gh	Uganda	RIP2	24h	Gh	Uganda	RIP3_5	72h	8.08237	0.2609050	30.98	<.0001*	7.0379	9.1268
Gh	Uganda	RIP2	24h	Lh	Brazil	RIP1	24h	8.93125	0.2609050	34.23	<.0001*	7.8868	9.9757
Gh	Uganda	RIP2	24h	Lh	Brazil	RIP1	72h	8.43152	0.2609050	32.32	<.0001*	7.3871	9.4759
Gh	Uganda	RIP2	24h	Lh	Brazil	RIP2	24h	-0.45449	0.2609050	-1.74	0.9983	-1.4989	0.5899
Gh	Uganda	RIP2	24h	Lh	Brazil	RIP2	72h	-0.62130	0.2609050	-2.38	0.8925	-1.6657	0.4231
Gh	Uganda	RIP2	24h	Lh	Brazil	RIP3_5	24h	6.52667	0.2609050	25.02	<.0001*	5.4822	7.5711
Gh	Uganda	RIP2	24h	Lh	Brazil	RIP3_5	72h	5.96025	0.2609050	22.84	<.0001*	4.9158	7.0047
Gh	Uganda	RIP2	24h	Lh	Uganda	RIP1	24h	8.56115	0.2609050	32.81	<.0001*	7.5167	9.6056
Gh	Uganda	RIP2	24h	Lh	Uganda	RIP1	72h	8.28064	0.2609050	31.74	<.0001*	7.2362	9.3251
Gh	Uganda	RIP2	24h	Lh	Uganda	RIP2	24h	0.04065	0.2609050	0.16	1.0000	-1.0038	1.0851
Gh	Uganda	RIP2	24h	Lh	Uganda	RIP2	72h	-0.34984	0.2609050	-1.34	1.0000	-1.3943	0.6946
Gh	Uganda	RIP2	24h	Lh	Uganda	RIP3_5	24h	8.29713	0.2609050	31.80	<.0001*	7.2527	9.3416
Gh	Uganda	RIP2	24h	Lh	Uganda	RIP3_5	72h	7.09830	0.2609050	27.21	<.0001*	6.0539	8.1427
Gh	Uganda	RIP2	24h	no_wasp	Brazil	RIP1	24h	7.88458	0.2609050	30.22	<.0001*	6.8402	8.9290
Gh	Uganda	RIP2	24h	no_wasp	Brazil	RIP1	72h	7.74883	0.2609050	29.70	<.0001*	6.7044	8.7933
Gh	Uganda	RIP2	24h	no_wasp	Brazil	RIP2	24h	-0.54605	0.2609050	-2.09	0.9742	-1.5905	0.4984
Gh	Uganda	RIP2	24h	no_wasp	Brazil	RIP2	72h	-0.86884	0.2609050	-3.33	0.2684	-1.9133	0.1756

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Uganda	RIP2	24h	no_wasp	Brazil	RIP3_5	24h	5.52706	0.2609050	21.18	<.0001*	4.4826	6.5715
Gh	Uganda	RIP2	24h	no_wasp	Brazil	RIP3_5	72h	5.99638	0.2609050	22.98	<.0001*	4.9519	7.0408
Gh	Uganda	RIP2	24h	no_wasp	Uganda	RIP1	24h	7.75314	0.2609050	29.72	<.0001*	6.7087	8.7976
Gh	Uganda	RIP2	24h	no_wasp	Uganda	RIP1	72h	7.27124	0.2609050	27.87	<.0001*	6.2268	8.3157
Gh	Uganda	RIP2	24h	no_wasp	Uganda	RIP2	24h	-0.14501	0.2609050	-0.56	1.0000	-1.1894	0.8994
Gh	Uganda	RIP2	24h	no_wasp	Uganda	RIP2	72h	0.50501	0.2609050	1.94	0.9911	-0.5394	1.5494
Gh	Uganda	RIP2	24h	no_wasp	Uganda	RIP3_5	24h	7.75669	0.2609050	29.73	<.0001*	6.7123	8.8011
Gh	Uganda	RIP2	24h	no_wasp	Uganda	RIP3_5	72h	5.92879	0.2609050	22.72	<.0001*	4.8844	6.9732
Gh	Uganda	RIP2	72h	Gh	Uganda	RIP3_5	24h	9.30706	0.2609050	35.67	<.0001*	8.2626	10.3515
Gh	Uganda	RIP2	72h	Gh	Uganda	RIP3_5	72h	8.53302	0.2609050	32.71	<.0001*	7.4886	9.5774
Gh	Uganda	RIP2	72h	Lh	Brazil	RIP1	24h	9.38189	0.2609050	35.96	<.0001*	8.3375	10.4263
Gh	Uganda	RIP2	72h	Lh	Brazil	RIP1	72h	8.88216	0.2609050	34.04	<.0001*	7.8377	9.9266
Gh	Uganda	RIP2	72h	Lh	Brazil	RIP2	24h	-0.00385	0.2609050	-0.01	1.0000	-1.0483	1.0406
Gh	Uganda	RIP2	72h	Lh	Brazil	RIP2	72h	-0.17065	0.2609050	-0.65	1.0000	-1.2151	0.8738
Gh	Uganda	RIP2	72h	Lh	Brazil	RIP3_5	24h	6.97732	0.2609050	26.74	<.0001*	5.9329	8.0217
Gh	Uganda	RIP2	72h	Lh	Brazil	RIP3_5	72h	6.41089	0.2609050	24.57	<.0001*	5.3665	7.4553
Gh	Uganda	RIP2	72h	Lh	Uganda	RIP1	24h	9.01180	0.2609050	34.54	<.0001*	7.9674	10.0562
Gh	Uganda	RIP2	72h	Lh	Uganda	RIP1	72h	8.73128	0.2609050	33.47	<.0001*	7.6868	9.7757
Gh	Uganda	RIP2	72h	Lh	Uganda	RIP2	24h	0.49129	0.2609050	1.88	0.9941	-0.5531	1.5357
Gh	Uganda	RIP2	72h	Lh	Uganda	RIP2	72h	0.10080	0.2609050	0.39	1.0000	-0.9436	1.1452
Gh	Uganda	RIP2	72h	Lh	Uganda	RIP3_5	24h	8.74777	0.2609050	33.53	<.0001*	7.7033	9.7922
Gh	Uganda	RIP2	72h	Lh	Uganda	RIP3_5	72h	7.54894	0.2609050	28.93	<.0001*	6.5045	8.5934
Gh	Uganda	RIP2	72h	no_wasp	Brazil	RIP1	24h	8.33523	0.2609050	31.95	<.0001*	7.2908	9.3797
Gh	Uganda	RIP2	72h	no_wasp	Brazil	RIP1	72h	8.19948	0.2609050	31.43	<.0001*	7.1550	9.2439
Gh	Uganda	RIP2	72h	no_wasp	Brazil	RIP2	24h	-0.09540	0.2609050	-0.37	1.0000	-1.1398	0.9490
Gh	Uganda	RIP2	72h	no_wasp	Brazil	RIP2	72h	-0.41820	0.2609050	-1.60	0.9996	-1.4626	0.6262
Gh	Uganda	RIP2	72h	no_wasp	Brazil	RIP3_5	24h	5.97770	0.2609050	22.91	<.0001*	4.9333	7.0221
Gh	Uganda	RIP2	72h	no_wasp	Brazil	RIP3_5	72h	6.44702	0.2609050	24.71	<.0001*	5.4026	7.4915
Gh	Uganda	RIP2	72h	no_wasp	Uganda	RIP1	24h	8.20378	0.2609050	31.44	<.0001*	7.1594	9.2482
Gh	Uganda	RIP2	72h	no_wasp	Uganda	RIP1	72h	7.72188	0.2609050	29.60	<.0001*	6.6774	8.7663
Gh	Uganda	RIP2	72h	no_wasp	Uganda	RIP2	24h	0.30564	0.2609050	1.17	1.0000	-0.7388	1.3501

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Uganda	RIP2	72h	no_wasp	Uganda	RIP2	72h	0.95565	0.2609050	3.66	0.1254	-0.0888	2.0001
Gh	Uganda	RIP2	72h	no_wasp	Uganda	RIP3_5	24h	8.20733	0.2609050	31.46	<.0001*	7.1629	9.2518
Gh	Uganda	RIP2	72h	no_wasp	Uganda	RIP3_5	72h	6.37943	0.2609050	24.45	<.0001*	5.3350	7.4239
Gh	Uganda	RIP3_5	24h	Gh	Uganda	RIP3_5	72h	-0.77405	0.2609050	-2.97	0.5099	-1.8185	0.2704
Gh	Uganda	RIP3_5	24h	Lh	Brazil	RIP1	24h	0.07483	0.2609050	0.29	1.0000	-0.9696	1.1193
Gh	Uganda	RIP3_5	24h	Lh	Brazil	RIP1	72h	-0.42490	0.2609050	-1.63	0.9995	-1.4693	0.6195
Gh	Uganda	RIP3_5	24h	Lh	Brazil	RIP2	24h	-9.31091	0.2609050	-35.69	<.0001*	-10.3553	-8.2665
Gh	Uganda	RIP3_5	24h	Lh	Brazil	RIP2	72h	-9.47772	0.2609050	-36.33	<.0001*	-10.5221	-8.4333
Gh	Uganda	RIP3_5	24h	Lh	Brazil	RIP3_5	24h	-2.32975	0.2609050	-8.93	<.0001*	-3.3742	-1.2853
Gh	Uganda	RIP3_5	24h	Lh	Brazil	RIP3_5	72h	-2.89617	0.2609050	-11.10	<.0001*	-3.9406	-1.8517
Gh	Uganda	RIP3_5	24h	Lh	Uganda	RIP1	24h	-0.29527	0.2609050	-1.13	1.0000	-1.3397	0.7492
Gh	Uganda	RIP3_5	24h	Lh	Uganda	RIP1	72h	-0.57578	0.2609050	-2.21	0.9512	-1.6202	0.4686
Gh	Uganda	RIP3_5	24h	Lh	Uganda	RIP2	24h	-8.81577	0.2609050	-33.79	<.0001*	-9.8602	-7.7713
Gh	Uganda	RIP3_5	24h	Lh	Uganda	RIP2	72h	-9.20626	0.2609050	-35.29	<.0001*	-10.2507	-8.1618
Gh	Uganda	RIP3_5	24h	Lh	Uganda	RIP3_5	24h	-0.55929	0.2609050	-2.14	0.9653	-1.6037	0.4851
Gh	Uganda	RIP3_5	24h	Lh	Uganda	RIP3_5	72h	-1.75812	0.2609050	-6.74	<.0001*	-2.8025	-0.7137
Gh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP1	24h	-0.97184	0.2609050	-3.72	0.1071	-2.0163	0.0726
Gh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP1	72h	-1.10759	0.2609050	-4.25	0.0242*	-2.1520	-0.0632
Gh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP2	24h	-9.40246	0.2609050	-36.04	<.0001*	-10.4469	-8.3580
Gh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP2	72h	-9.72526	0.2609050	-37.28	<.0001*	-10.7697	-8.6808
Gh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP3_5	24h	-3.32936	0.2609050	-12.76	<.0001*	-4.3738	-2.2849
Gh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP3_5	72h	-2.86004	0.2609050	-10.96	<.0001*	-3.9045	-1.8156
Gh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP1	24h	-1.10328	0.2609050	-4.23	0.0255*	-2.1477	-0.0588
Gh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP1	72h	-1.58518	0.2609050	-6.08	<.0001*	-2.6296	-0.5408
Gh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP2	24h	-9.00143	0.2609050	-34.50	<.0001*	-10.0459	-7.9570
Gh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP2	72h	-8.35141	0.2609050	-32.01	<.0001*	-9.3958	-7.3070
Gh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP3_5	24h	-1.09973	0.2609050	-4.22	0.0266*	-2.1442	-0.0553
Gh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP3_5	72h	-2.92763	0.2609050	-11.22	<.0001*	-3.9721	-1.8832
Gh	Uganda	RIP3_5	72h	Lh	Brazil	RIP1	24h	0.84888	0.2609050	3.25	0.3127	-0.1956	1.8933
Gh	Uganda	RIP3_5	72h	Lh	Brazil	RIP1	72h	0.34915	0.2609050	1.34	1.0000	-0.6953	1.3936
Gh	Uganda	RIP3_5	72h	Lh	Brazil	RIP2	24h	-8.53686	0.2609050	-32.72	<.0001*	-9.5813	-7.4924

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Gh	Uganda	RIP3_5	72h	Lh	Brazil	RIP2	72h	-8.70367	0.2609050	-33.36	<.0001*	-9.7481	-7.6592
Gh	Uganda	RIP3_5	72h	Lh	Brazil	RIP3_5	24h	-1.55570	0.2609050	-5.96	<.0001*	-2.6001	-0.5113
Gh	Uganda	RIP3_5	72h	Lh	Brazil	RIP3_5	72h	-2.12212	0.2609050	-8.13	<.0001*	-3.1666	-1.0777
Gh	Uganda	RIP3_5	72h	Lh	Uganda	RIP1	24h	0.47878	0.2609050	1.84	0.9960	-0.5657	1.5232
Gh	Uganda	RIP3_5	72h	Lh	Uganda	RIP1	72h	0.19826	0.2609050	0.76	1.0000	-0.8462	1.2427
Gh	Uganda	RIP3_5	72h	Lh	Uganda	RIP2	24h	-8.04172	0.2609050	-30.82	<.0001*	-9.0862	-6.9973
Gh	Uganda	RIP3_5	72h	Lh	Uganda	RIP2	72h	-8.43221	0.2609050	-32.32	<.0001*	-9.4766	-7.3878
Gh	Uganda	RIP3_5	72h	Lh	Uganda	RIP3_5	24h	0.21476	0.2609050	0.82	1.0000	-0.8297	1.2592
Gh	Uganda	RIP3_5	72h	Lh	Uganda	RIP3_5	72h	-0.98407	0.2609050	-3.77	0.0948	-2.0285	0.0604
Gh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP1	24h	-0.19779	0.2609050	-0.76	1.0000	-1.2422	0.8466
Gh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP1	72h	-0.33354	0.2609050	-1.28	1.0000	-1.3780	0.7109
Gh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP2	24h	-8.62842	0.2609050	-33.07	<.0001*	-9.6728	-7.5840
Gh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP2	72h	-8.95121	0.2609050	-34.31	<.0001*	-9.9956	-7.9068
Gh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP3_5	24h	-2.55531	0.2609050	-9.79	<.0001*	-3.5997	-1.5109
Gh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP3_5	72h	-2.08599	0.2609050	-8.00	<.0001*	-3.1304	-1.0416
Gh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP1	24h	-0.32923	0.2609050	-1.26	1.0000	-1.3737	0.7152
Gh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP1	72h	-0.81113	0.2609050	-3.11	0.4070	-1.8556	0.2333
Gh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP2	24h	-8.22738	0.2609050	-31.53	<.0001*	-9.2718	-7.1829
Gh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP2	72h	-7.57736	0.2609050	-29.04	<.0001*	-8.6218	-6.5329
Gh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP3_5	24h	-0.32568	0.2609050	-1.25	1.0000	-1.3701	0.7187
Gh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP3_5	72h	-2.15358	0.2609050	-8.25	<.0001*	-3.1980	-1.1092
Lh	Brazil	RIP1	24h	Lh	Brazil	RIP1	72h	-0.49973	0.2609050	-1.92	0.9923	-1.5442	0.5447
Lh	Brazil	RIP1	24h	Lh	Brazil	RIP2	24h	-9.38574	0.2609050	-35.97	<.0001*	-10.4302	-8.3413
Lh	Brazil	RIP1	24h	Lh	Brazil	RIP2	72h	-9.55255	0.2609050	-36.61	<.0001*	-10.5970	-8.5081
Lh	Brazil	RIP1	24h	Lh	Brazil	RIP3_5	24h	-2.40458	0.2609050	-9.22	<.0001*	-3.4490	-1.3601
Lh	Brazil	RIP1	24h	Lh	Brazil	RIP3_5	72h	-2.97100	0.2609050	-11.39	<.0001*	-4.0154	-1.9266
Lh	Brazil	RIP1	24h	Lh	Uganda	RIP1	24h	-0.37010	0.2609050	-1.42	1.0000	-1.4145	0.6743
Lh	Brazil	RIP1	24h	Lh	Uganda	RIP1	72h	-0.65061	0.2609050	-2.49	0.8380	-1.6950	0.3938
Lh	Brazil	RIP1	24h	Lh	Uganda	RIP2	24h	-8.89060	0.2609050	-34.08	<.0001*	-9.9350	-7.8462
Lh	Brazil	RIP1	24h	Lh	Uganda	RIP2	72h	-9.28109	0.2609050	-35.57	<.0001*	-10.3255	-8.2367
Lh	Brazil	RIP1	24h	Lh	Uganda	RIP3_5	24h	-0.63412	0.2609050	-2.43	0.8703	-1.6786	0.4103

## Generalized Regression for Value

## Standard Least Squares

## Multiple Comparisons for Treatment\*Strain\*RIP\*Time

## Tukey HSD All Pairwise Comparisons

## All Pairwise Differences

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Brazil	RIP1	24h	Lh	Uganda	RIP3_5	72h	-1.83295	0.2609050	-7.03	<.0001*	-2.8774	-0.7885
Lh	Brazil	RIP1	24h	no_wasp	Brazil	RIP1	24h	-1.04667	0.2609050	-4.01	0.0488*	-2.0911	-0.0022
Lh	Brazil	RIP1	24h	no_wasp	Brazil	RIP1	72h	-1.18242	0.2609050	-4.53	0.0096*	-2.2269	-0.1380
Lh	Brazil	RIP1	24h	no_wasp	Brazil	RIP2	24h	-9.47730	0.2609050	-36.32	<.0001*	-10.5217	-8.4329
Lh	Brazil	RIP1	24h	no_wasp	Brazil	RIP2	72h	-9.80009	0.2609050	-37.56	<.0001*	-10.8445	-8.7557
Lh	Brazil	RIP1	24h	no_wasp	Brazil	RIP3_5	24h	-3.40419	0.2609050	-13.05	<.0001*	-4.4486	-2.3598
Lh	Brazil	RIP1	24h	no_wasp	Brazil	RIP3_5	72h	-2.93487	0.2609050	-11.25	<.0001*	-3.9793	-1.8904
Lh	Brazil	RIP1	24h	no_wasp	Uganda	RIP1	24h	-1.17811	0.2609050	-4.52	0.0101*	-2.2225	-0.1337
Lh	Brazil	RIP1	24h	no_wasp	Uganda	RIP1	72h	-1.66001	0.2609050	-6.36	<.0001*	-2.7044	-0.6156
Lh	Brazil	RIP1	24h	no_wasp	Uganda	RIP2	24h	-9.07626	0.2609050	-34.79	<.0001*	-10.1207	-8.0318
Lh	Brazil	RIP1	24h	no_wasp	Uganda	RIP2	72h	-8.42624	0.2609050	-32.30	<.0001*	-9.4707	-7.3818
Lh	Brazil	RIP1	24h	no_wasp	Uganda	RIP3_5	24h	-1.17456	0.2609050	-4.50	0.0106*	-2.2190	-0.1301
Lh	Brazil	RIP1	24h	no_wasp	Uganda	RIP3_5	72h	-3.00246	0.2609050	-11.51	<.0001*	-4.0469	-1.9580
Lh	Brazil	RIP1	72h	Lh	Brazil	RIP2	24h	-8.88601	0.2609050	-34.06	<.0001*	-9.9304	-7.8416
Lh	Brazil	RIP1	72h	Lh	Brazil	RIP2	72h	-9.05282	0.2609050	-34.70	<.0001*	-10.0972	-8.0084
Lh	Brazil	RIP1	72h	Lh	Brazil	RIP3_5	24h	-1.90485	0.2609050	-7.30	<.0001*	-2.9493	-0.8604
Lh	Brazil	RIP1	72h	Lh	Brazil	RIP3_5	72h	-2.47127	0.2609050	-9.47	<.0001*	-3.5157	-1.4268
Lh	Brazil	RIP1	72h	Lh	Uganda	RIP1	24h	0.12963	0.2609050	0.50	1.0000	-0.9148	1.1741
Lh	Brazil	RIP1	72h	Lh	Uganda	RIP1	72h	-0.15088	0.2609050	-0.58	1.0000	-1.1953	0.8935
Lh	Brazil	RIP1	72h	Lh	Uganda	RIP2	24h	-8.39087	0.2609050	-32.16	<.0001*	-9.4353	-7.3464
Lh	Brazil	RIP1	72h	Lh	Uganda	RIP2	72h	-8.78136	0.2609050	-33.66	<.0001*	-9.8258	-7.7369
Lh	Brazil	RIP1	72h	Lh	Uganda	RIP3_5	24h	-0.13439	0.2609050	-0.52	1.0000	-1.1788	0.9100
Lh	Brazil	RIP1	72h	Lh	Uganda	RIP3_5	72h	-1.33322	0.2609050	-5.11	0.0013*	-2.3777	-0.2888
Lh	Brazil	RIP1	72h	no_wasp	Brazil	RIP1	24h	-0.54694	0.2609050	-2.10	0.9736	-1.5914	0.4975
Lh	Brazil	RIP1	72h	no_wasp	Brazil	RIP1	72h	-0.68269	0.2609050	-2.62	0.7644	-1.7271	0.3617
Lh	Brazil	RIP1	72h	no_wasp	Brazil	RIP2	24h	-8.97757	0.2609050	-34.41	<.0001*	-10.0220	-7.9331
Lh	Brazil	RIP1	72h	no_wasp	Brazil	RIP2	72h	-9.30036	0.2609050	-35.65	<.0001*	-10.3448	-8.2559
Lh	Brazil	RIP1	72h	no_wasp	Brazil	RIP3_5	24h	-2.90446	0.2609050	-11.13	<.0001*	-3.9489	-1.8600
Lh	Brazil	RIP1	72h	no_wasp	Brazil	RIP3_5	72h	-2.43514	0.2609050	-9.33	<.0001*	-3.4796	-1.3907
Lh	Brazil	RIP1	72h	no_wasp	Uganda	RIP1	24h	-0.67838	0.2609050	-2.60	0.7751	-1.7228	0.3661
Lh	Brazil	RIP1	72h	no_wasp	Uganda	RIP1	72h	-1.16028	0.2609050	-4.45	0.0127*	-2.2047	-0.1159

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Brazil	RIP1	72h	no_wasp	Uganda	RIP2	24h	-8.57653	0.2609050	-32.87	<.0001*	-9.6210	-7.5321
Lh	Brazil	RIP1	72h	no_wasp	Uganda	RIP2	72h	-7.92651	0.2609050	-30.38	<.0001*	-8.9709	-6.8821
Lh	Brazil	RIP1	72h	no_wasp	Uganda	RIP3_5	24h	-0.67483	0.2609050	-2.59	0.7837	-1.7193	0.3696
Lh	Brazil	RIP1	72h	no_wasp	Uganda	RIP3_5	72h	-2.50273	0.2609050	-9.59	<.0001*	-3.5472	-1.4583
Lh	Brazil	RIP2	24h	Lh	Brazil	RIP2	72h	-0.16681	0.2609050	-0.64	1.0000	-1.2112	0.8776
Lh	Brazil	RIP2	24h	Lh	Brazil	RIP3_5	24h	6.98116	0.2609050	26.76	<.0001*	5.9367	8.0256
Lh	Brazil	RIP2	24h	Lh	Brazil	RIP3_5	72h	6.41474	0.2609050	24.59	<.0001*	5.3703	7.4592
Lh	Brazil	RIP2	24h	Lh	Uganda	RIP1	24h	9.01564	0.2609050	34.56	<.0001*	7.9712	10.0601
Lh	Brazil	RIP2	24h	Lh	Uganda	RIP1	72h	8.73513	0.2609050	33.48	<.0001*	7.6907	9.7796
Lh	Brazil	RIP2	24h	Lh	Uganda	RIP2	24h	0.49514	0.2609050	1.90	0.9933	-0.5493	1.5396
Lh	Brazil	RIP2	24h	Lh	Uganda	RIP2	72h	0.10465	0.2609050	0.40	1.0000	-0.9398	1.1491
Lh	Brazil	RIP2	24h	Lh	Uganda	RIP3_5	24h	8.75162	0.2609050	33.54	<.0001*	7.7072	9.7961
Lh	Brazil	RIP2	24h	Lh	Uganda	RIP3_5	72h	7.55279	0.2609050	28.95	<.0001*	6.5084	8.5972
Lh	Brazil	RIP2	24h	no_wasp	Brazil	RIP1	24h	8.33908	0.2609050	31.96	<.0001*	7.2946	9.3835
Lh	Brazil	RIP2	24h	no_wasp	Brazil	RIP1	72h	8.20332	0.2609050	31.44	<.0001*	7.1589	9.2478
Lh	Brazil	RIP2	24h	no_wasp	Brazil	RIP2	24h	-0.09155	0.2609050	-0.35	1.0000	-1.1360	0.9529
Lh	Brazil	RIP2	24h	no_wasp	Brazil	RIP2	72h	-0.41435	0.2609050	-1.59	0.9997	-1.4588	0.6301
Lh	Brazil	RIP2	24h	no_wasp	Brazil	RIP3_5	24h	5.98155	0.2609050	22.93	<.0001*	4.9371	7.0260
Lh	Brazil	RIP2	24h	no_wasp	Brazil	RIP3_5	72h	6.45087	0.2609050	24.72	<.0001*	5.4064	7.4953
Lh	Brazil	RIP2	24h	no_wasp	Uganda	RIP1	24h	8.20763	0.2609050	31.46	<.0001*	7.1632	9.2521
Lh	Brazil	RIP2	24h	no_wasp	Uganda	RIP1	72h	7.72573	0.2609050	29.61	<.0001*	6.6813	8.7702
Lh	Brazil	RIP2	24h	no_wasp	Uganda	RIP2	24h	0.30949	0.2609050	1.19	1.0000	-0.7349	1.3539
Lh	Brazil	RIP2	24h	no_wasp	Uganda	RIP2	72h	0.95950	0.2609050	3.68	0.1208	-0.0849	2.0039
Lh	Brazil	RIP2	24h	no_wasp	Uganda	RIP3_5	24h	8.21118	0.2609050	31.47	<.0001*	7.1667	9.2556
Lh	Brazil	RIP2	24h	no_wasp	Uganda	RIP3_5	72h	6.38328	0.2609050	24.47	<.0001*	5.3388	7.4277
Lh	Brazil	RIP2	72h	Lh	Brazil	RIP3_5	24h	7.14797	0.2609050	27.40	<.0001*	6.1035	8.1924
Lh	Brazil	RIP2	72h	Lh	Brazil	RIP3_5	72h	6.58155	0.2609050	25.23	<.0001*	5.5371	7.6260
Lh	Brazil	RIP2	72h	Lh	Uganda	RIP1	24h	9.18245	0.2609050	35.19	<.0001*	8.1380	10.2269
Lh	Brazil	RIP2	72h	Lh	Uganda	RIP1	72h	8.90193	0.2609050	34.12	<.0001*	7.8575	9.9464
Lh	Brazil	RIP2	72h	Lh	Uganda	RIP2	24h	0.66195	0.2609050	2.54	0.8135	-0.3825	1.7064
Lh	Brazil	RIP2	72h	Lh	Uganda	RIP2	72h	0.27146	0.2609050	1.04	1.0000	-0.7730	1.3159

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Brazil	RIP2	72h	Lh	Uganda	RIP3_5	24h	8.91843	0.2609050	34.18	<.0001*	7.8740	9.9629
Lh	Brazil	RIP2	72h	Lh	Uganda	RIP3_5	72h	7.71960	0.2609050	29.59	<.0001*	6.6752	8.7640
Lh	Brazil	RIP2	72h	no_wasp	Brazil	RIP1	24h	8.50588	0.2609050	32.60	<.0001*	7.4615	9.5503
Lh	Brazil	RIP2	72h	no_wasp	Brazil	RIP1	72h	8.37013	0.2609050	32.08	<.0001*	7.3257	9.4146
Lh	Brazil	RIP2	72h	no_wasp	Brazil	RIP2	24h	0.07525	0.2609050	0.29	1.0000	-0.9692	1.1197
Lh	Brazil	RIP2	72h	no_wasp	Brazil	RIP2	72h	-0.24754	0.2609050	-0.95	1.0000	-1.2920	0.7969
Lh	Brazil	RIP2	72h	no_wasp	Brazil	RIP3_5	24h	6.14836	0.2609050	23.57	<.0001*	5.1039	7.1928
Lh	Brazil	RIP2	72h	no_wasp	Brazil	RIP3_5	72h	6.61768	0.2609050	25.36	<.0001*	5.5732	7.6621
Lh	Brazil	RIP2	72h	no_wasp	Uganda	RIP1	24h	8.37444	0.2609050	32.10	<.0001*	7.3300	9.4189
Lh	Brazil	RIP2	72h	no_wasp	Uganda	RIP1	72h	7.89254	0.2609050	30.25	<.0001*	6.8481	8.9370
Lh	Brazil	RIP2	72h	no_wasp	Uganda	RIP2	24h	0.47629	0.2609050	1.83	0.9963	-0.5681	1.5207
Lh	Brazil	RIP2	72h	no_wasp	Uganda	RIP2	72h	1.12631	0.2609050	4.32	0.0193*	0.0819	2.1707
Lh	Brazil	RIP2	72h	no_wasp	Uganda	RIP3_5	24h	8.37799	0.2609050	32.11	<.0001*	7.3336	9.4224
Lh	Brazil	RIP2	72h	no_wasp	Uganda	RIP3_5	72h	6.55009	0.2609050	25.11	<.0001*	5.5057	7.5945
Lh	Brazil	RIP3_5	24h	Lh	Brazil	RIP3_5	72h	-0.56642	0.2609050	-2.17	0.9596	-1.6109	0.4780
Lh	Brazil	RIP3_5	24h	Lh	Uganda	RIP1	24h	2.03448	0.2609050	7.80	<.0001*	0.9900	3.0789
Lh	Brazil	RIP3_5	24h	Lh	Uganda	RIP1	72h	1.75396	0.2609050	6.72	<.0001*	0.7095	2.7984
Lh	Brazil	RIP3_5	24h	Lh	Uganda	RIP2	24h	-6.48602	0.2609050	-24.86	<.0001*	-7.5305	-5.4416
Lh	Brazil	RIP3_5	24h	Lh	Uganda	RIP2	72h	-6.87651	0.2609050	-26.36	<.0001*	-7.9209	-5.8321
Lh	Brazil	RIP3_5	24h	Lh	Uganda	RIP3_5	24h	1.77046	0.2609050	6.79	<.0001*	0.7260	2.8149
Lh	Brazil	RIP3_5	24h	Lh	Uganda	RIP3_5	72h	0.57163	0.2609050	2.19	0.9551	-0.4728	1.6161
Lh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP1	24h	1.35791	0.2609050	5.20	0.0009*	0.3135	2.4023
Lh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP1	72h	1.22216	0.2609050	4.68	0.0057*	0.1777	2.2666
Lh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP2	24h	-7.07272	0.2609050	-27.11	<.0001*	-8.1171	-6.0283
Lh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP2	72h	-7.39551	0.2609050	-28.35	<.0001*	-8.4399	-6.3511
Lh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP3_5	24h	-0.99961	0.2609050	-3.83	0.0808	-2.0440	0.0448
Lh	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP3_5	72h	-0.53029	0.2609050	-2.03	0.9823	-1.5747	0.5141
Lh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP1	24h	1.22647	0.2609050	4.70	0.0054*	0.1820	2.2709
Lh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP1	72h	0.74457	0.2609050	2.85	0.5949	-0.2999	1.7890
Lh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP2	24h	-6.67168	0.2609050	-25.57	<.0001*	-7.7161	-5.6272
Lh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP2	72h	-6.02166	0.2609050	-23.08	<.0001*	-7.0661	-4.9772



## Generalized Regression for Value

## Standard Least Squares

## Multiple Comparisons for Treatment\*Strain\*RIP\*Time

## Tukey HSD All Pairwise Comparisons

## All Pairwise Differences

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP3_5	24h	1.23002	0.2609050	4.71	0.0052*	0.1856	2.2744
Lh	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP3_5	72h	-0.59788	0.2609050	-2.29	0.9266	-1.6423	0.4465
Lh	Brazil	RIP3_5	72h	Lh	Uganda	RIP1	24h	2.60090	0.2609050	9.97	<.0001*	1.5565	3.6453
Lh	Brazil	RIP3_5	72h	Lh	Uganda	RIP1	72h	2.32039	0.2609050	8.89	<.0001*	1.2760	3.3648
Lh	Brazil	RIP3_5	72h	Lh	Uganda	RIP2	24h	-5.91960	0.2609050	-22.69	<.0001*	-6.9640	-4.8752
Lh	Brazil	RIP3_5	72h	Lh	Uganda	RIP2	72h	-6.31009	0.2609050	-24.19	<.0001*	-7.3545	-5.2657
Lh	Brazil	RIP3_5	72h	Lh	Uganda	RIP3_5	24h	2.33688	0.2609050	8.96	<.0001*	1.2924	3.3813
Lh	Brazil	RIP3_5	72h	Lh	Uganda	RIP3_5	72h	1.13805	0.2609050	4.36	0.0167*	0.0936	2.1825
Lh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP1	24h	1.92433	0.2609050	7.38	<.0001*	0.8799	2.9688
Lh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP1	72h	1.78858	0.2609050	6.86	<.0001*	0.7442	2.8330
Lh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP2	24h	-6.50629	0.2609050	-24.94	<.0001*	-7.5507	-5.4619
Lh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP2	72h	-6.82909	0.2609050	-26.17	<.0001*	-7.8735	-5.7847
Lh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP3_5	24h	-0.43319	0.2609050	-1.66	0.9993	-1.4776	0.6112
Lh	Brazil	RIP3_5	72h	no_wasp	Brazil	RIP3_5	72h	0.03613	0.2609050	0.14	1.0000	-1.0083	1.0806
Lh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP1	24h	1.79289	0.2609050	6.87	<.0001*	0.7485	2.8373
Lh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP1	72h	1.31099	0.2609050	5.02	0.0017*	0.2666	2.3554
Lh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP2	24h	-6.10525	0.2609050	-23.40	<.0001*	-7.1497	-5.0608
Lh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP2	72h	-5.45524	0.2609050	-20.91	<.0001*	-6.4997	-4.4108
Lh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP3_5	24h	1.79644	0.2609050	6.89	<.0001*	0.7520	2.8409
Lh	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP3_5	72h	-0.03146	0.2609050	-0.12	1.0000	-1.0759	1.0130
Lh	Uganda	RIP1	24h	Lh	Uganda	RIP1	72h	-0.28052	0.2609050	-1.08	1.0000	-1.3249	0.7639
Lh	Uganda	RIP1	24h	Lh	Uganda	RIP2	24h	-8.52050	0.2609050	-32.66	<.0001*	-9.5649	-7.4761
Lh	Uganda	RIP1	24h	Lh	Uganda	RIP2	72h	-8.91099	0.2609050	-34.15	<.0001*	-9.9554	-7.8666
Lh	Uganda	RIP1	24h	Lh	Uganda	RIP3_5	24h	-0.26402	0.2609050	-1.01	1.0000	-1.3085	0.7804
Lh	Uganda	RIP1	24h	Lh	Uganda	RIP3_5	72h	-1.46285	0.2609050	-5.61	0.0002*	-2.5073	-0.4184
Lh	Uganda	RIP1	24h	no_wasp	Brazil	RIP1	24h	-0.67657	0.2609050	-2.59	0.7795	-1.7210	0.3679
Lh	Uganda	RIP1	24h	no_wasp	Brazil	RIP1	72h	-0.81232	0.2609050	-3.11	0.4039	-1.8568	0.2321
Lh	Uganda	RIP1	24h	no_wasp	Brazil	RIP2	24h	-9.10720	0.2609050	-34.91	<.0001*	-10.1516	-8.0628
Lh	Uganda	RIP1	24h	no_wasp	Brazil	RIP2	72h	-9.42999	0.2609050	-36.14	<.0001*	-10.4744	-8.3856
Lh	Uganda	RIP1	24h	no_wasp	Brazil	RIP3_5	24h	-3.03409	0.2609050	-11.63	<.0001*	-4.0785	-1.9897
Lh	Uganda	RIP1	24h	no_wasp	Brazil	RIP3_5	72h	-2.56477	0.2609050	-9.83	<.0001*	-3.6092	-1.5203

**Generalized Regression for Value****Standard Least Squares****Multiple Comparisons for Treatment\*Strain\*RIP\*Time****Tukey HSD All Pairwise Comparisons****All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Uganda	RIP1	24h	no_wasp	Uganda	RIP1	24h	-0.80801	0.2609050	-3.10	0.4154	-1.8524	0.2364
Lh	Uganda	RIP1	24h	no_wasp	Uganda	RIP1	72h	-1.28991	0.2609050	-4.94	0.0023*	-2.3343	-0.2455
Lh	Uganda	RIP1	24h	no_wasp	Uganda	RIP2	24h	-8.70616	0.2609050	-33.37	<.0001*	-9.7506	-7.6617
Lh	Uganda	RIP1	24h	no_wasp	Uganda	RIP2	72h	-8.05614	0.2609050	-30.88	<.0001*	-9.1006	-7.0117
Lh	Uganda	RIP1	24h	no_wasp	Uganda	RIP3_5	24h	-0.80446	0.2609050	-3.08	0.4249	-1.8489	0.2400
Lh	Uganda	RIP1	24h	no_wasp	Uganda	RIP3_5	72h	-2.63236	0.2609050	-10.09	<.0001*	-3.6768	-1.5879
Lh	Uganda	RIP1	72h	Lh	Uganda	RIP2	24h	-8.23999	0.2609050	-31.58	<.0001*	-9.2844	-7.1956
Lh	Uganda	RIP1	72h	Lh	Uganda	RIP2	72h	-8.63048	0.2609050	-33.08	<.0001*	-9.6749	-7.5860
Lh	Uganda	RIP1	72h	Lh	Uganda	RIP3_5	24h	0.01649	0.2609050	0.06	1.0000	-1.0279	1.0609
Lh	Uganda	RIP1	72h	Lh	Uganda	RIP3_5	72h	-1.18234	0.2609050	-4.53	0.0096*	-2.2268	-0.1379
Lh	Uganda	RIP1	72h	no_wasp	Brazil	RIP1	24h	-0.39605	0.2609050	-1.52	0.9999	-1.4405	0.6484
Lh	Uganda	RIP1	72h	no_wasp	Brazil	RIP1	72h	-0.53180	0.2609050	-2.04	0.9817	-1.5762	0.5126
Lh	Uganda	RIP1	72h	no_wasp	Brazil	RIP2	24h	-8.82668	0.2609050	-33.83	<.0001*	-9.8711	-7.7823
Lh	Uganda	RIP1	72h	no_wasp	Brazil	RIP2	72h	-9.14948	0.2609050	-35.07	<.0001*	-10.1939	-8.1050
Lh	Uganda	RIP1	72h	no_wasp	Brazil	RIP3_5	24h	-2.75358	0.2609050	-10.55	<.0001*	-3.7980	-1.7091
Lh	Uganda	RIP1	72h	no_wasp	Brazil	RIP3_5	72h	-2.28426	0.2609050	-8.76	<.0001*	-3.3287	-1.2398
Lh	Uganda	RIP1	72h	no_wasp	Uganda	RIP1	24h	-0.52750	0.2609050	-2.02	0.9836	-1.5719	0.5169
Lh	Uganda	RIP1	72h	no_wasp	Uganda	RIP1	72h	-1.00940	0.2609050	-3.87	0.0730	-2.0538	0.0350
Lh	Uganda	RIP1	72h	no_wasp	Uganda	RIP2	24h	-8.42564	0.2609050	-32.29	<.0001*	-9.4701	-7.3812
Lh	Uganda	RIP1	72h	no_wasp	Uganda	RIP2	72h	-7.77563	0.2609050	-29.80	<.0001*	-8.8201	-6.7312
Lh	Uganda	RIP1	72h	no_wasp	Uganda	RIP3_5	24h	-0.52395	0.2609050	-2.01	0.9850	-1.5684	0.5205
Lh	Uganda	RIP1	72h	no_wasp	Uganda	RIP3_5	72h	-2.35185	0.2609050	-9.01	<.0001*	-3.3963	-1.3074
Lh	Uganda	RIP2	24h	Lh	Uganda	RIP2	72h	-0.39049	0.2609050	-1.50	0.9999	-1.4349	0.6539
Lh	Uganda	RIP2	24h	Lh	Uganda	RIP3_5	24h	8.25648	0.2609050	31.65	<.0001*	7.2120	9.3009
Lh	Uganda	RIP2	24h	Lh	Uganda	RIP3_5	72h	7.05765	0.2609050	27.05	<.0001*	6.0132	8.1021
Lh	Uganda	RIP2	24h	no_wasp	Brazil	RIP1	24h	7.84394	0.2609050	30.06	<.0001*	6.7995	8.8884
Lh	Uganda	RIP2	24h	no_wasp	Brazil	RIP1	72h	7.70818	0.2609050	29.54	<.0001*	6.6638	8.7526
Lh	Uganda	RIP2	24h	no_wasp	Brazil	RIP2	24h	-0.58669	0.2609050	-2.25	0.9400	-1.6311	0.4577
Lh	Uganda	RIP2	24h	no_wasp	Brazil	RIP2	72h	-0.90949	0.2609050	-3.49	0.1915	-1.9539	0.1349
Lh	Uganda	RIP2	24h	no_wasp	Brazil	RIP3_5	24h	5.48641	0.2609050	21.03	<.0001*	4.4420	6.5308
Lh	Uganda	RIP2	24h	no_wasp	Brazil	RIP3_5	72h	5.95573	0.2609050	22.83	<.0001*	4.9113	7.0002

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Uganda	RIP2	24h	no_wasp	Uganda	RIP1	24h	7.71249	0.2609050	29.56	<.0001*	6.6681	8.7569
Lh	Uganda	RIP2	24h	no_wasp	Uganda	RIP1	72h	7.23059	0.2609050	27.71	<.0001*	6.1862	8.2750
Lh	Uganda	RIP2	24h	no_wasp	Uganda	RIP2	24h	-0.18565	0.2609050	-0.71	1.0000	-1.2301	0.8588
Lh	Uganda	RIP2	24h	no_wasp	Uganda	RIP2	72h	0.46436	0.2609050	1.78	0.9976	-0.5801	1.5088
Lh	Uganda	RIP2	24h	no_wasp	Uganda	RIP3_5	24h	7.71604	0.2609050	29.57	<.0001*	6.6716	8.7605
Lh	Uganda	RIP2	24h	no_wasp	Uganda	RIP3_5	72h	5.88814	0.2609050	22.57	<.0001*	4.8437	6.9326
Lh	Uganda	RIP2	72h	Lh	Uganda	RIP3_5	24h	8.64697	0.2609050	33.14	<.0001*	7.6025	9.6914
Lh	Uganda	RIP2	72h	Lh	Uganda	RIP3_5	72h	7.44814	0.2609050	28.55	<.0001*	6.4037	8.4926
Lh	Uganda	RIP2	72h	no_wasp	Brazil	RIP1	24h	8.23443	0.2609050	31.56	<.0001*	7.1900	9.2789
Lh	Uganda	RIP2	72h	no_wasp	Brazil	RIP1	72h	8.09867	0.2609050	31.04	<.0001*	7.0542	9.1431
Lh	Uganda	RIP2	72h	no_wasp	Brazil	RIP2	24h	-0.19620	0.2609050	-0.75	1.0000	-1.2406	0.8482
Lh	Uganda	RIP2	72h	no_wasp	Brazil	RIP2	72h	-0.51900	0.2609050	-1.99	0.9868	-1.5634	0.5254
Lh	Uganda	RIP2	72h	no_wasp	Brazil	RIP3_5	24h	5.87690	0.2609050	22.53	<.0001*	4.8325	6.9213
Lh	Uganda	RIP2	72h	no_wasp	Brazil	RIP3_5	72h	6.34622	0.2609050	24.32	<.0001*	5.3018	7.3907
Lh	Uganda	RIP2	72h	no_wasp	Uganda	RIP1	24h	8.10298	0.2609050	31.06	<.0001*	7.0586	9.1474
Lh	Uganda	RIP2	72h	no_wasp	Uganda	RIP1	72h	7.62108	0.2609050	29.21	<.0001*	6.5766	8.6655
Lh	Uganda	RIP2	72h	no_wasp	Uganda	RIP2	24h	0.20484	0.2609050	0.79	1.0000	-0.8396	1.2493
Lh	Uganda	RIP2	72h	no_wasp	Uganda	RIP2	72h	0.85485	0.2609050	3.28	0.2990	-0.1896	1.8993
Lh	Uganda	RIP2	72h	no_wasp	Uganda	RIP3_5	24h	8.10653	0.2609050	31.07	<.0001*	7.0621	9.1510
Lh	Uganda	RIP2	72h	no_wasp	Uganda	RIP3_5	72h	6.27863	0.2609050	24.06	<.0001*	5.2342	7.3231
Lh	Uganda	RIP3_5	24h	Lh	Uganda	RIP3_5	72h	-1.19883	0.2609050	-4.59	0.0078*	-2.2433	-0.1544
Lh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP1	24h	-0.41255	0.2609050	-1.58	0.9997	-1.4570	0.6319
Lh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP1	72h	-0.54830	0.2609050	-2.10	0.9728	-1.5927	0.4961
Lh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP2	24h	-8.84317	0.2609050	-33.89	<.0001*	-9.8876	-7.7987
Lh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP2	72h	-9.16597	0.2609050	-35.13	<.0001*	-10.2104	-8.1215
Lh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP3_5	24h	-2.77007	0.2609050	-10.62	<.0001*	-3.8145	-1.7256
Lh	Uganda	RIP3_5	24h	no_wasp	Brazil	RIP3_5	72h	-2.30075	0.2609050	-8.82	<.0001*	-3.3452	-1.2563
Lh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP1	24h	-0.54399	0.2609050	-2.09	0.9754	-1.5884	0.5004
Lh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP1	72h	-1.02589	0.2609050	-3.93	0.0612	-2.0703	0.0185
Lh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP2	24h	-8.44213	0.2609050	-32.36	<.0001*	-9.4866	-7.3977
Lh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP2	72h	-7.79212	0.2609050	-29.87	<.0001*	-8.8365	-6.7477

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Lh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP3_5	24h	-0.54044	0.2609050	-2.07	0.9774	-1.5849	0.5040
Lh	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP3_5	72h	-2.36834	0.2609050	-9.08	<.0001*	-3.4128	-1.3239
Lh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP1	24h	0.78628	0.2609050	3.01	0.4752	-0.2581	1.8307
Lh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP1	72h	0.65053	0.2609050	2.49	0.8382	-0.3939	1.6950
Lh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP2	24h	-7.64435	0.2609050	-29.30	<.0001*	-8.6888	-6.5999
Lh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP2	72h	-7.96714	0.2609050	-30.54	<.0001*	-9.0116	-6.9227
Lh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP3_5	24h	-1.57124	0.2609050	-6.02	<.0001*	-2.6157	-0.5268
Lh	Uganda	RIP3_5	72h	no_wasp	Brazil	RIP3_5	72h	-1.10192	0.2609050	-4.22	0.0259*	-2.1464	-0.0575
Lh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP1	24h	0.65484	0.2609050	2.51	0.8291	-0.3896	1.6993
Lh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP1	72h	0.17294	0.2609050	0.66	1.0000	-0.8715	1.2174
Lh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP2	24h	-7.24331	0.2609050	-27.76	<.0001*	-8.2877	-6.1989
Lh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP2	72h	-6.59329	0.2609050	-25.27	<.0001*	-7.6377	-5.5489
Lh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP3_5	24h	0.65839	0.2609050	2.52	0.8214	-0.3860	1.7028
Lh	Uganda	RIP3_5	72h	no_wasp	Uganda	RIP3_5	72h	-1.16951	0.2609050	-4.48	0.0113*	-2.2139	-0.1251
no_wasp	Brazil	RIP1	24h	no_wasp	Brazil	RIP1	72h	-0.13575	0.2609050	-0.52	1.0000	-1.1802	0.9087
no_wasp	Brazil	RIP1	24h	no_wasp	Brazil	RIP2	24h	-8.43063	0.2609050	-32.31	<.0001*	-9.4751	-7.3862
no_wasp	Brazil	RIP1	24h	no_wasp	Brazil	RIP2	72h	-8.75342	0.2609050	-33.55	<.0001*	-9.7979	-7.7090
no_wasp	Brazil	RIP1	24h	no_wasp	Brazil	RIP3_5	24h	-2.35753	0.2609050	-9.04	<.0001*	-3.4020	-1.3131
no_wasp	Brazil	RIP1	24h	no_wasp	Brazil	RIP3_5	72h	-1.88821	0.2609050	-7.24	<.0001*	-2.9326	-0.8438
no_wasp	Brazil	RIP1	24h	no_wasp	Uganda	RIP1	24h	-0.13144	0.2609050	-0.50	1.0000	-1.1759	0.9130
no_wasp	Brazil	RIP1	24h	no_wasp	Uganda	RIP1	72h	-0.61335	0.2609050	-2.35	0.9050	-1.6578	0.4311
no_wasp	Brazil	RIP1	24h	no_wasp	Uganda	RIP2	24h	-8.02959	0.2609050	-30.78	<.0001*	-9.0740	-6.9852
no_wasp	Brazil	RIP1	24h	no_wasp	Uganda	RIP2	72h	-7.37957	0.2609050	-28.28	<.0001*	-8.4240	-6.3351
no_wasp	Brazil	RIP1	24h	no_wasp	Uganda	RIP3_5	24h	-0.12790	0.2609050	-0.49	1.0000	-1.1723	0.9165
no_wasp	Brazil	RIP1	24h	no_wasp	Uganda	RIP3_5	72h	-1.95580	0.2609050	-7.50	<.0001*	-3.0002	-0.9114
no_wasp	Brazil	RIP1	72h	no_wasp	Brazil	RIP2	24h	-8.29488	0.2609050	-31.79	<.0001*	-9.3393	-7.2504
no_wasp	Brazil	RIP1	72h	no_wasp	Brazil	RIP2	72h	-8.61767	0.2609050	-33.03	<.0001*	-9.6621	-7.5732
no_wasp	Brazil	RIP1	72h	no_wasp	Brazil	RIP3_5	24h	-2.22177	0.2609050	-8.52	<.0001*	-3.2662	-1.1773
no_wasp	Brazil	RIP1	72h	no_wasp	Brazil	RIP3_5	72h	-1.75245	0.2609050	-6.72	<.0001*	-2.7969	-0.7080
no_wasp	Brazil	RIP1	72h	no_wasp	Uganda	RIP1	24h	0.00431	0.2609050	0.02	1.0000	-1.0401	1.0487
no_wasp	Brazil	RIP1	72h	no_wasp	Uganda	RIP1	72h	-0.47759	0.2609050	-1.83	0.9962	-1.5220	0.5668

## Generalized Regression for Value

### Standard Least Squares

### Multiple Comparisons for Treatment\*Strain\*RIP\*Time

### Tukey HSD All Pairwise Comparisons

#### All Pairwise Differences

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
no_wasp	Brazil	RIP1	72h	no_wasp	Uganda	RIP2	24h	-7.89384	0.2609050	-30.26	<.0001*	-8.9383	-6.8494
no_wasp	Brazil	RIP1	72h	no_wasp	Uganda	RIP2	72h	-7.24382	0.2609050	-27.76	<.0001*	-8.2883	-6.1994
no_wasp	Brazil	RIP1	72h	no_wasp	Uganda	RIP3_5	24h	0.00786	0.2609050	0.03	1.0000	-1.0366	1.0523
no_wasp	Brazil	RIP1	72h	no_wasp	Uganda	RIP3_5	72h	-1.82004	0.2609050	-6.98	<.0001*	-2.8645	-0.7756
no_wasp	Brazil	RIP2	24h	no_wasp	Brazil	RIP2	72h	-0.32280	0.2609050	-1.24	1.0000	-1.3672	0.7216
no_wasp	Brazil	RIP2	24h	no_wasp	Brazil	RIP3_5	24h	6.07310	0.2609050	23.28	<.0001*	5.0287	7.1175
no_wasp	Brazil	RIP2	24h	no_wasp	Brazil	RIP3_5	72h	6.54242	0.2609050	25.08	<.0001*	5.4980	7.5869
no_wasp	Brazil	RIP2	24h	no_wasp	Uganda	RIP1	24h	8.29919	0.2609050	31.81	<.0001*	7.2548	9.3436
no_wasp	Brazil	RIP2	24h	no_wasp	Uganda	RIP1	72h	7.81728	0.2609050	29.96	<.0001*	6.7729	8.8617
no_wasp	Brazil	RIP2	24h	no_wasp	Uganda	RIP2	24h	0.40104	0.2609050	1.54	0.9998	-0.6434	1.4455
no_wasp	Brazil	RIP2	24h	no_wasp	Uganda	RIP2	72h	1.05106	0.2609050	4.03	0.0464*	0.0066	2.0955
no_wasp	Brazil	RIP2	24h	no_wasp	Uganda	RIP3_5	24h	8.30273	0.2609050	31.82	<.0001*	7.2583	9.3472
no_wasp	Brazil	RIP2	24h	no_wasp	Uganda	RIP3_5	72h	6.47483	0.2609050	24.82	<.0001*	5.4304	7.5193
no_wasp	Brazil	RIP2	72h	no_wasp	Brazil	RIP3_5	24h	6.39590	0.2609050	24.51	<.0001*	5.3515	7.4403
no_wasp	Brazil	RIP2	72h	no_wasp	Brazil	RIP3_5	72h	6.86522	0.2609050	26.31	<.0001*	5.8208	7.9096
no_wasp	Brazil	RIP2	72h	no_wasp	Uganda	RIP1	24h	8.62198	0.2609050	33.05	<.0001*	7.5776	9.6664
no_wasp	Brazil	RIP2	72h	no_wasp	Uganda	RIP1	72h	8.14008	0.2609050	31.20	<.0001*	7.0956	9.1845
no_wasp	Brazil	RIP2	72h	no_wasp	Uganda	RIP2	24h	0.72384	0.2609050	2.77	0.6542	-0.3206	1.7683
no_wasp	Brazil	RIP2	72h	no_wasp	Uganda	RIP2	72h	1.37385	0.2609050	5.27	0.0007*	0.3294	2.4183
no_wasp	Brazil	RIP2	72h	no_wasp	Uganda	RIP3_5	24h	8.62553	0.2609050	33.06	<.0001*	7.5811	9.6700
no_wasp	Brazil	RIP2	72h	no_wasp	Uganda	RIP3_5	72h	6.79763	0.2609050	26.05	<.0001*	5.7532	7.8421
no_wasp	Brazil	RIP3_5	24h	no_wasp	Brazil	RIP3_5	72h	0.46932	0.2609050	1.80	0.9971	-0.5751	1.5138
no_wasp	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP1	24h	2.22608	0.2609050	8.53	<.0001*	1.1817	3.2705
no_wasp	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP1	72h	1.74418	0.2609050	6.69	<.0001*	0.6997	2.7886
no_wasp	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP2	24h	-5.67206	0.2609050	-21.74	<.0001*	-6.7165	-4.6276
no_wasp	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP2	72h	-5.02205	0.2609050	-19.25	<.0001*	-6.0665	-3.9776
no_wasp	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP3_5	24h	2.22963	0.2609050	8.55	<.0001*	1.1852	3.2741
no_wasp	Brazil	RIP3_5	24h	no_wasp	Uganda	RIP3_5	72h	0.40173	0.2609050	1.54	0.9998	-0.6427	1.4462
no_wasp	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP1	24h	1.75676	0.2609050	6.73	<.0001*	0.7123	2.8012
no_wasp	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP1	72h	1.27486	0.2609050	4.89	0.0028*	0.2304	2.3193
no_wasp	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP2	24h	-6.14138	0.2609050	-23.54	<.0001*	-7.1858	-5.0970

**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences**

Treatment	Strain	RIP	Time	-Treatment	-Strain	-RIP	-Time	Difference	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
no_wasp	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP2	72h	-5.49137	0.2609050	-21.05	<.0001*	-6.5358	-4.4469
no_wasp	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP3_5	24h	1.76031	0.2609050	6.75	<.0001*	0.7159	2.8047
no_wasp	Brazil	RIP3_5	72h	no_wasp	Uganda	RIP3_5	72h	-0.06759	0.2609050	-0.26	1.0000	-1.1120	0.9768
no_wasp	Uganda	RIP1	24h	no_wasp	Uganda	RIP1	72h	-0.48190	0.2609050	-1.85	0.9956	-1.5263	0.5625
no_wasp	Uganda	RIP1	24h	no_wasp	Uganda	RIP2	24h	-7.89815	0.2609050	-30.27	<.0001*	-8.9426	-6.8537
no_wasp	Uganda	RIP1	24h	no_wasp	Uganda	RIP2	72h	-7.24813	0.2609050	-27.78	<.0001*	-8.2926	-6.2037
no_wasp	Uganda	RIP1	24h	no_wasp	Uganda	RIP3_5	24h	0.00355	0.2609050	0.01	1.0000	-1.0409	1.0480
no_wasp	Uganda	RIP1	24h	no_wasp	Uganda	RIP3_5	72h	-1.82435	0.2609050	-6.99	<.0001*	-2.8688	-0.7799
no_wasp	Uganda	RIP1	72h	no_wasp	Uganda	RIP2	24h	-7.41624	0.2609050	-28.43	<.0001*	-8.4607	-6.3718
no_wasp	Uganda	RIP1	72h	no_wasp	Uganda	RIP2	72h	-6.76623	0.2609050	-25.93	<.0001*	-7.8107	-5.7218
no_wasp	Uganda	RIP1	72h	no_wasp	Uganda	RIP3_5	24h	0.48545	0.2609050	1.86	0.9951	-0.5590	1.5299
no_wasp	Uganda	RIP1	72h	no_wasp	Uganda	RIP3_5	72h	-1.34245	0.2609050	-5.15	0.0011*	-2.3869	-0.2980
no_wasp	Uganda	RIP2	24h	no_wasp	Uganda	RIP2	72h	0.65002	0.2609050	2.49	0.8392	-0.3944	1.6944
no_wasp	Uganda	RIP2	24h	no_wasp	Uganda	RIP3_5	24h	7.90169	0.2609050	30.29	<.0001*	6.8573	8.9461
no_wasp	Uganda	RIP2	24h	no_wasp	Uganda	RIP3_5	72h	6.07379	0.2609050	23.28	<.0001*	5.0294	7.1182
no_wasp	Uganda	RIP2	72h	no_wasp	Uganda	RIP3_5	24h	7.25168	0.2609050	27.79	<.0001*	6.2072	8.2961
no_wasp	Uganda	RIP2	72h	no_wasp	Uganda	RIP3_5	72h	5.42378	0.2609050	20.79	<.0001*	4.3793	6.4682
no_wasp	Uganda	RIP3_5	24h	no_wasp	Uganda	RIP3_5	72h	-1.82790	0.2609050	-7.01	<.0001*	-2.8723	-0.7835

**All Pairwise Differences Connecting Letters**



**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

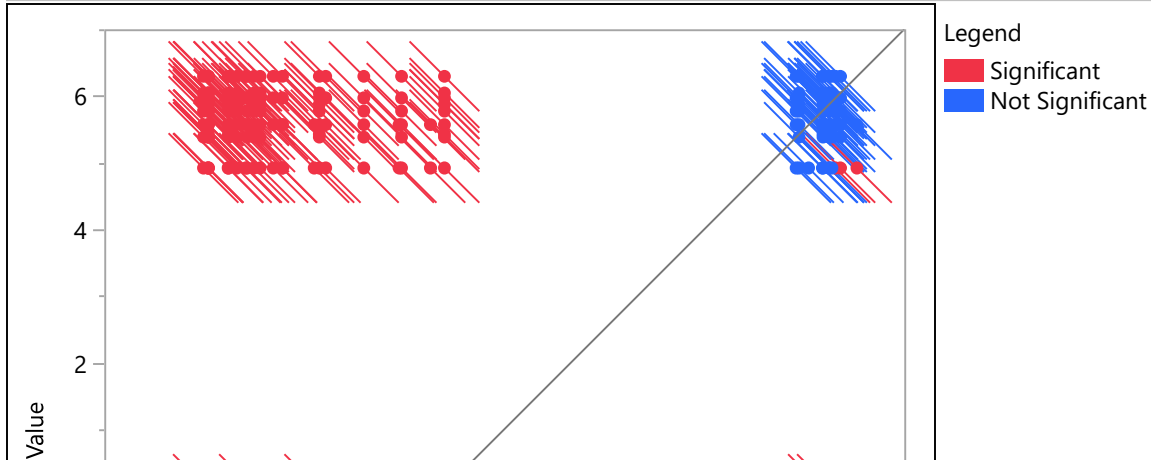
**Tukey HSD All Pairwise Comparisons**

**All Pairwise Differences Connecting Letters**

Treatment	Strain	RIP	Time												Least Squares Mean
Gh	Uganda	RIP1	72h												-3.133749
Lh	Uganda	RIP1	24h												-3.138850
Gh	Uganda	RIP3_5	24h												-3.434118
Gh	Uganda	RIP1	24h												-3.438974
Gh	Brazil	RIP1	24h												-3.443138
Lh	Brazil	RIP1	24h												-3.508949

Levels not connected by same letter are significantly different.

**All Pairwise Comparisons Scatterplot**





**Generalized Regression for Value**

**Standard Least Squares**

**Multiple Comparisons for Treatment\*Strain\*RIP\*Time**

**Tukey HSD All Pairwise Comparisons**

**All Pairwise Comparisons Scatterplot**

