Proc GLIMMIX Results

The GLIMMIX Procedure

Model Information	
Data Set	WORK.RCBD
Response Variable	Weed
Response Distribution	Poisson
Link Function	Log
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Maximum Likelihood
Likelihood Approximation	Laplace
Degrees of Freedom Method	Containment

Class Level Information		
Class	**Levels**	**Values**
block	4	1 2 3 4
trmt	6	1 2 3 4 5 6

Number of Observations Read	24
Number of Observations Used	24

Dimensions	
G-side Cov. Parameters	1
Columns in X	7
Columns in Z	4
Subjects (Blocks in V)	1
Max Obs per Subject	24

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	7
Lower Boundaries	1
Upper Boundaries	0
Fixed Effects	Not Profiled
Starting From	GLM estimates

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The GLIMMIX Procedure

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	393.95171425	.	16.31912
1	0	3	393.92307395	0.02864029	4.878291
2	0	3	393.90913699	0.01393696	4.78523
3	0	4	393.90836371	0.00077328	4.652532
4	0	3	393.908229	0.00013471	4.528016
5	0	3	393.90762557	0.00060343	3.785906
6	0	3	393.90604612	0.00157945	1.584237
7	0	3	393.90579638	0.00024975	1.11238
8	0	2	393.905129	0.00066738	0.954611
9	0	3	393.90501786	0.00011114	0.054695
10	0	3	393.90501699	0.00000087	0.002244

Convergence criterion (GCONV=1E-8) satisfied.

Fit Statistics	
-2 Log Likelihood	393.91
AIC (smaller is better)	407.91
AICC (smaller is better)	414.91
BIC (smaller is better)	403.61
CAIC (smaller is better)	410.61
HQIC (smaller is better)	398.48

Fit Statistics for Conditional Distribution	
-2 log L(Weed | r. effects)	382.80
Pearson Chi-Square	236.50
Pearson Chi-Square / DF	9.85

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
block	0.02120	0.01760

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Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
trmt	5	15	76.42	<.0001

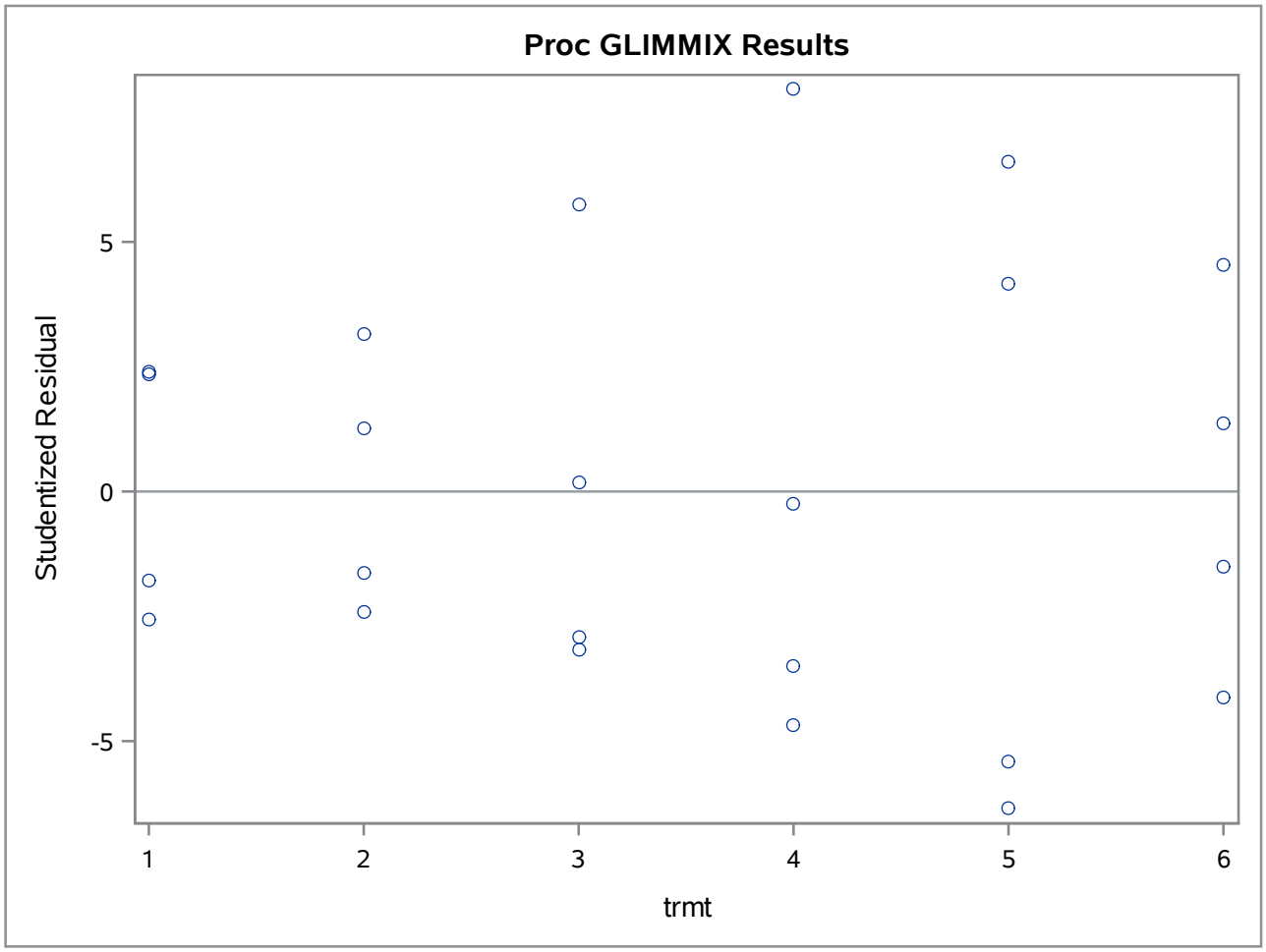
trmt Least Squares Means							
trmt	Estimate	Standard Error	DF	t Value	Pr > |t|	Mean	Standard Error Mean
1	4.4203	0.09109	15	48.53	<.0001	83.1173	7.5709
2	4.4837	0.09008	15	49.78	<.0001	88.5595	7.9772
3	3.2475	0.1222	15	26.57	<.0001	25.7268	3.1441
4	3.3216	0.1194	15	27.83	<.0001	27.7057	3.3072
5	3.5730	0.1107	15	32.26	<.0001	35.6217	3.9450
6	2.6807	0.1492	15	17.96	<.0001	14.5949	2.1780

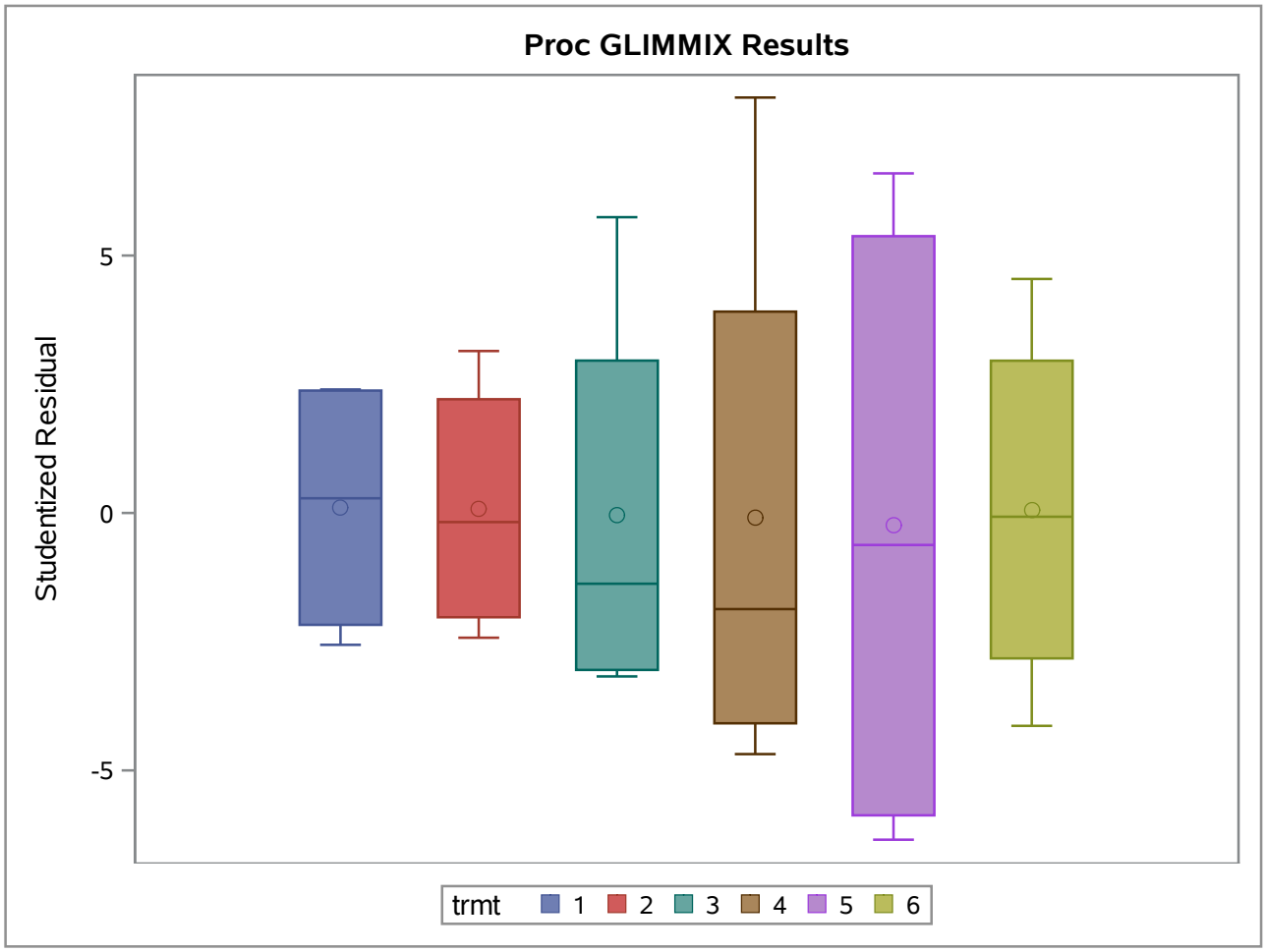
Differences of trmt Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer							
trmt	_trmt	Estimate	Standard Error	DF	t Value	Pr > |t|	Adj P
1	2	-0.06342	0.07596	15	-0.83	0.4168	0.9560
1	3	1.1727	0.1122	15	10.45	<.0001	<.0001
1	4	1.0986	0.1091	15	10.07	<.0001	<.0001
1	5	0.8473	0.09960	15	8.51	<.0001	<.0001
1	6	1.7396	0.1412	15	12.32	<.0001	<.0001
2	3	1.2361	0.1114	15	11.10	<.0001	<.0001
2	4	1.1620	0.1083	15	10.73	<.0001	<.0001
2	5	0.9107	0.09868	15	9.23	<.0001	<.0001
2	6	1.8030	0.1405	15	12.83	<.0001	<.0001
3	4	-0.07410	0.1362	15	-0.54	0.5943	0.9932
3	5	-0.3254	0.1287	15	-2.53	0.0231	0.1767
3	6	0.5669	0.1630	15	3.48	0.0034	0.0326
4	5	-0.2513	0.1260	15	-1.99	0.0646	0.3889
4	6	0.6410	0.1609	15	3.98	0.0012	0.0124
5	6	0.8923	0.1546	15	5.77	<.0001	0.0004

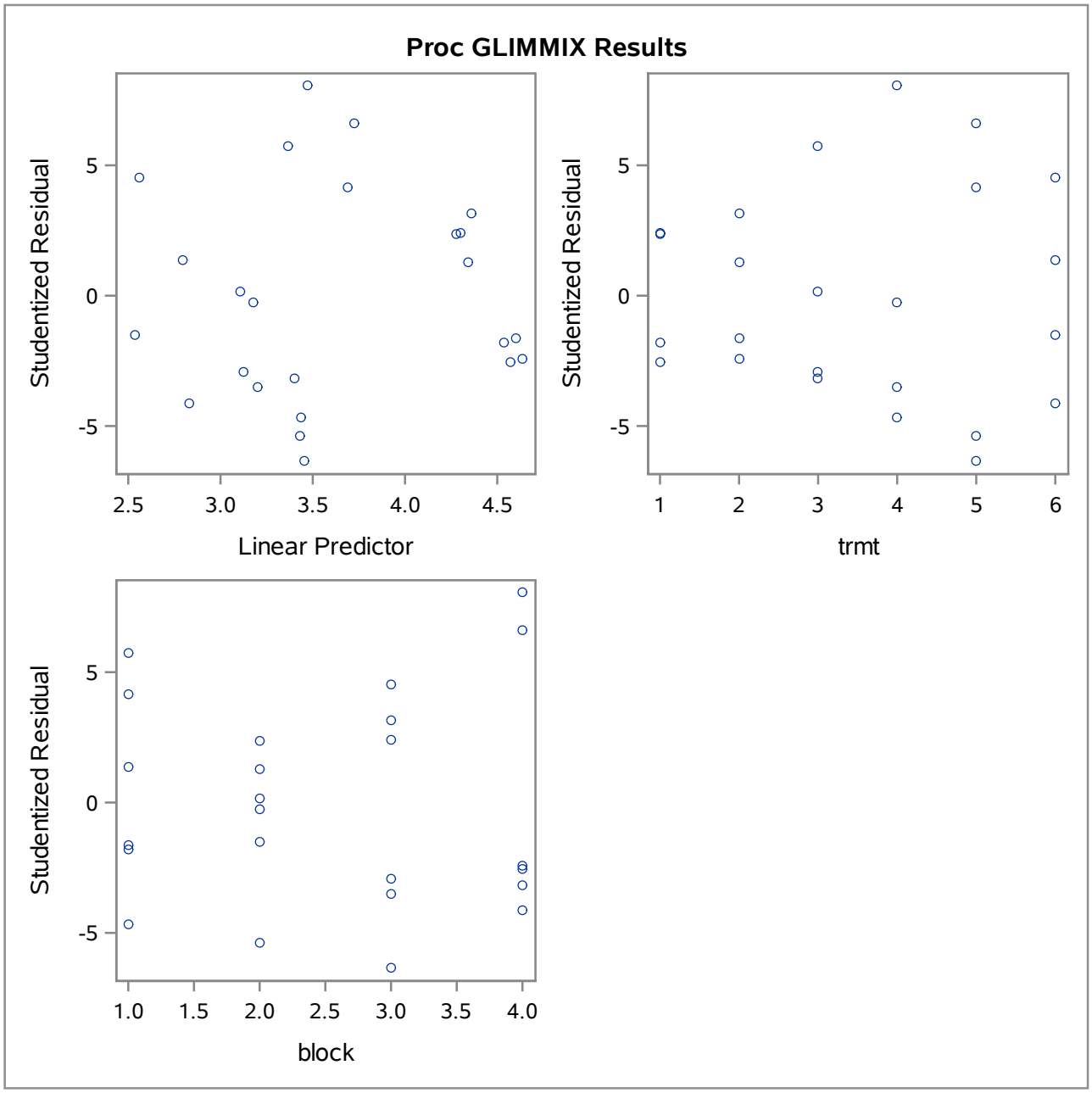
Proc GLIMMIX Results

The GLIMMIX Procedure

Tukey-Kramer Grouping for trmt Least Squares Means (Alpha=0.05)		
LS-means with the same letter are not significantly different.		
trmt	**Estimate**	
2	4.4837	A
		A
1	4.4203	A
5	3.5730	B
		B
4	3.3216	B
		B
3	3.2475	B
6	2.6807	C


Proc GLIMMIX Results
Studentized Residual
5
0
-5
1
2
3
4
5
6
trmt


Proc GLIMMIX Results
Studentized Residual
5
0
-5
trmt
1
2
3
4
5
6


Proc GLIMMIX Results
Studentized Residual
5
0
-5
2.5
3.0
3.5
4.0
4.5
Linear Predictor
Studentized Residual
5
0
-5
1
2
3
4
5
6
trmt
Studentized Residual
5
0
-5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
block

Proc GLIMMIX Results

The UNIVARIATE Procedure
Variable: studentresid (Studentized Residual)

Moments			
N	24	**Sum Weights**	24
Mean	-0.0200584	**Sum Observations**	-0.4814025
Std Deviation	3.97877608	**Variance**	15.8306591
Skewness	0.39291046	**Kurtosis**	-0.7715362
Uncorrected SS	364.114815	**Corrected SS**	364.105159
Coeff Variation	-19835.92	**Std Error Mean**	0.81216427

Basic Statistical Measures			
Location		**Variability**	
Mean	-0.02006	**Std Deviation**	3.97878
Median	-0.88166	**Variance**	15.83066
Mode	.	**Range**	14.41473
		Interquartile Range	5.82008

Tests for Location: Mu0=0				
Test	**Statistic**		**p Value**	
Student's t	**t**	-0.0247	**Pr > |t|**	0.9805
Sign	**M**	-1	**Pr >= |M|**	0.8388
Signed Rank	**S**	-9	**Pr >= |S|**	0.8032

Tests for Normality				
Test	**Statistic**		**p Value**	
Shapiro-Wilk	**W**	0.96443	**Pr < W**	0.5336
Kolmogorov-Smirnov	**D**	0.146491	**Pr > D**	>0.1500
Cramer-von Mises	**W-Sq**	0.054972	**Pr > W-Sq**	>0.2500
Anderson-Darling	**A-Sq**	0.316331	**Pr > A-Sq**	>0.2500

Quantiles (Definition 5)	
Level	**Quantile**
100% Max	8.068747
99%	8.068747
95%	6.595293
90%	5.744689
75% Q3	2.771780
50% Median	-0.881662
25% Q1	-3.048299

Proc GLIMMIX Results

The UNIVARIATE Procedure
Variable: studentresid (Studentized Residual)

Quantiles (Definition 5)	
Level	**Quantile**
10%	-4.683652
5%	-5.399651
1%	-6.345982
0% Min	-6.345982

Extreme Observations			
Lowest		**Highest**	
Value	**Obs**	**Value**	**Obs**
-6.34598	19	4.15645	17
-5.39965	18	4.54562	23
-4.68365	13	5.74469	9
-4.13442	24	6.59529	20
-3.48669	15	8.06875	16

```
Stem Leaf                     #             Boxplot
   8 1                        1                |
   6 6                        1                |
   4 257                      3                |
   2 441                      3             +-----+
   0 234                      3             |     |
  -0 8652                     4             *--+--*
  -2 52964                    5             +-----+
  -4 471                      3                |
  -6 3                        1                |
     ----+----+----+----+
```