

Proc GLIMMIX Results

The GLIMMIX Procedure

Model Information	
Data Set	WORK.RCBD
Response Variable	Weed
Response Distribution	Gaussian
Link Function	Identity
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Restricted Maximum Likelihood
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
R-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	1
Lower Boundaries	1
Upper Boundaries	0
Fixed Effects	Profiled
Residual Variance	Profiled
Starting From	Data

Proc GLIMMIX Results

The GLIMMIX Procedure

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	169.67391681	.	0

Convergence criterion (ABSGCONV=0.00001) satisfied.

Estimated G matrix is not positive definite.

Fit Statistics	
-2 Res Log Likelihood	169.67
AIC (smaller is better)	171.67
AICC (smaller is better)	171.92
BIC (smaller is better)	171.06
CAIC (smaller is better)	172.06
HQIC (smaller is better)	170.33
Generalized Chi-Square	8239.75
Gener. Chi-Square / DF	457.76

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
block	0	.
Residual	457.76	152.59

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
trmt	5	15	8.98	0.0004

trmt Least Squares Means							
trmt	Estimate	Standard Error	DF	t Value	Pr > t	Mean	Standard Error Mean
1	84.0000	10.6977	15	7.85	<.0001	84.0000	10.6977
2	89.5000	10.6977	15	8.37	<.0001	89.5000	10.6977
3	26.0000	10.6977	15	2.43	0.0281	26.0000	10.6977
4	28.0000	10.6977	15	2.62	0.0194	28.0000	10.6977
5	36.0000	10.6977	15	3.37	0.0043	36.0000	10.6977
6	14.7500	10.6977	15	1.38	0.1882	14.7500	10.6977

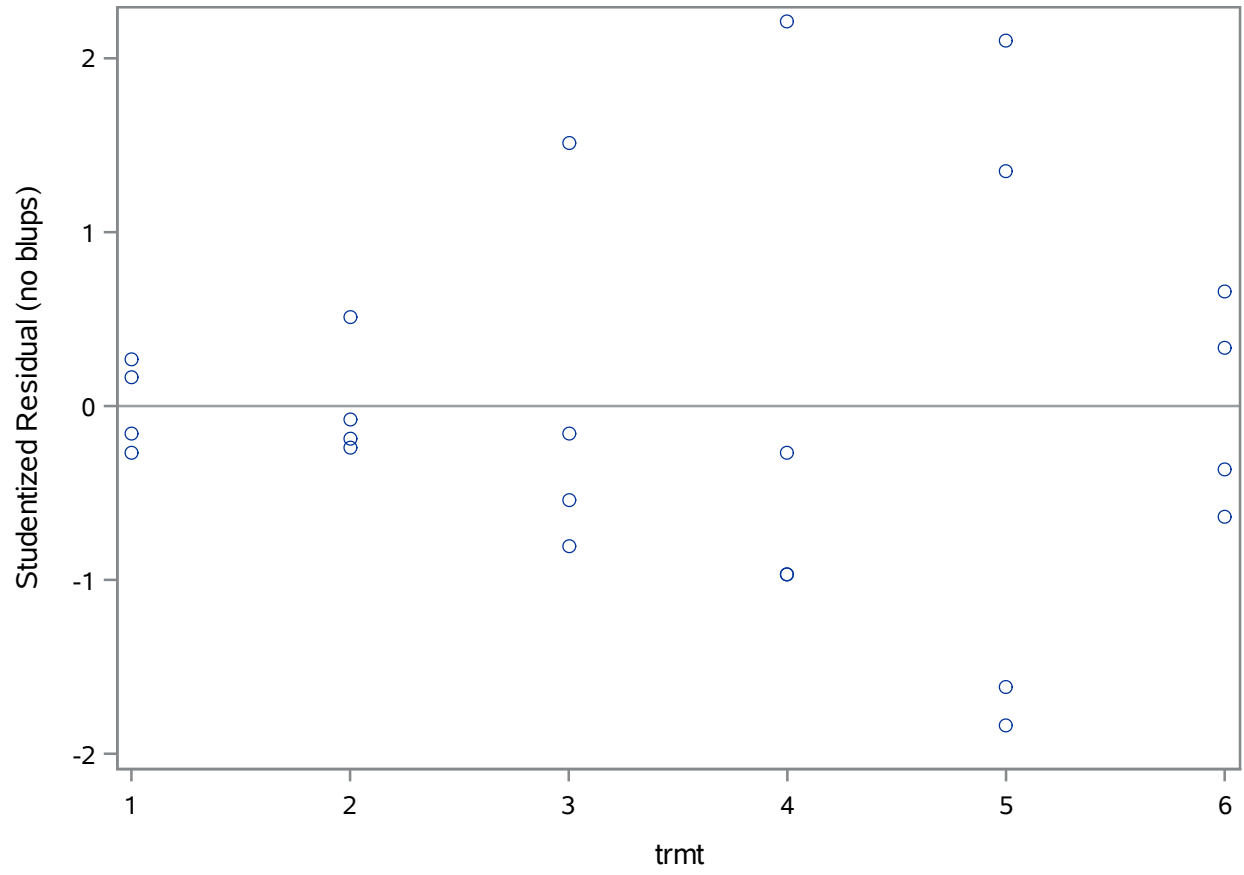
Proc GLIMMIX Results

The GLIMMIX Procedure

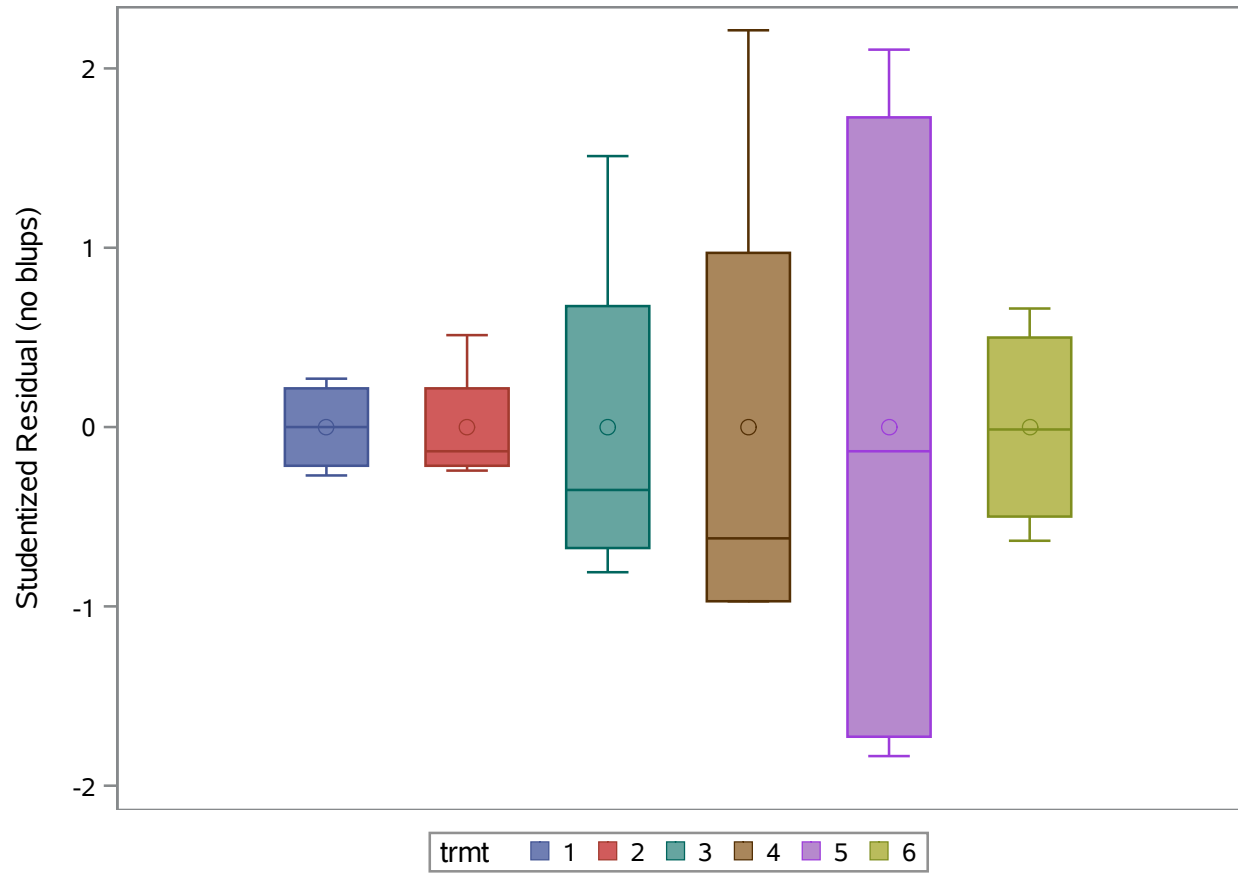
Differences of trmt Least Squares Means Adjustment for Multiple Comparisons: Tukey							
trmt	_trmt	Estimate	Standard Error	DF	t Value	Pr > t	Adj P
1	2	-5.5000	15.1288	15	-0.36	0.7213	0.9990
1	3	58.0000	15.1288	15	3.83	0.0016	0.0166
1	4	56.0000	15.1288	15	3.70	0.0021	0.0214
1	5	48.0000	15.1288	15	3.17	0.0063	0.0575
1	6	69.2500	15.1288	15	4.58	0.0004	0.0040
2	3	63.5000	15.1288	15	4.20	0.0008	0.0083
2	4	61.5000	15.1288	15	4.07	0.0010	0.0107
2	5	53.5000	15.1288	15	3.54	0.0030	0.0292
2	6	74.7500	15.1288	15	4.94	0.0002	0.0020
3	4	-2.0000	15.1288	15	-0.13	0.8966	1.0000
3	5	-10.0000	15.1288	15	-0.66	0.5186	0.9837
3	6	11.2500	15.1288	15	0.74	0.4686	0.9729
4	5	-8.0000	15.1288	15	-0.53	0.6047	0.9940
4	6	13.2500	15.1288	15	0.88	0.3949	0.9467
5	6	21.2500	15.1288	15	1.40	0.1805	0.7241

Tukey Grouping for trmt Least Squares Means (Alpha=0.05)			
LS-means with the same letter are not significantly different.			
trmt	Estimate		
2	89.5000		A
			A
1	84.0000	B	A
		B	
5	36.0000	B	C
			C
4	28.0000		C
			C
3	26.0000		C
			C
6	14.7500		C

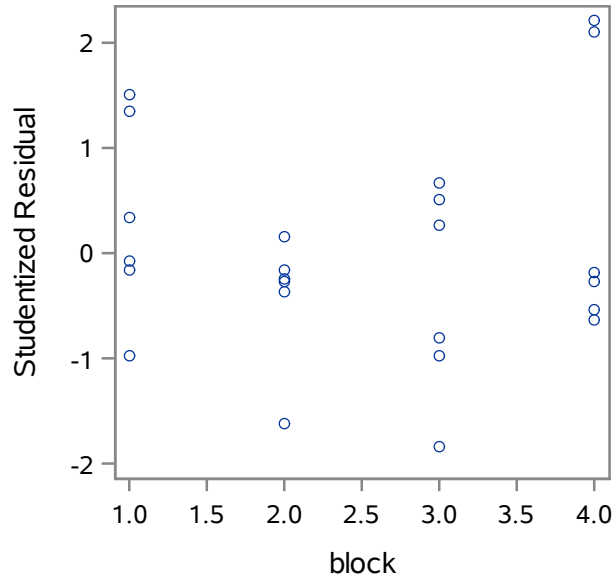
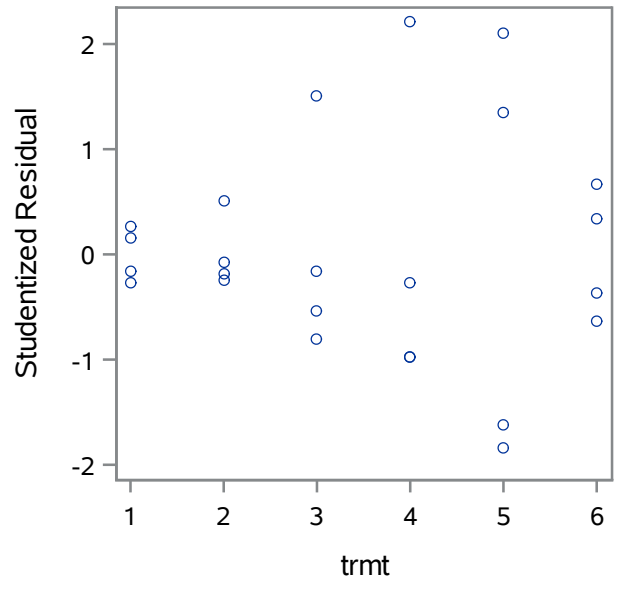
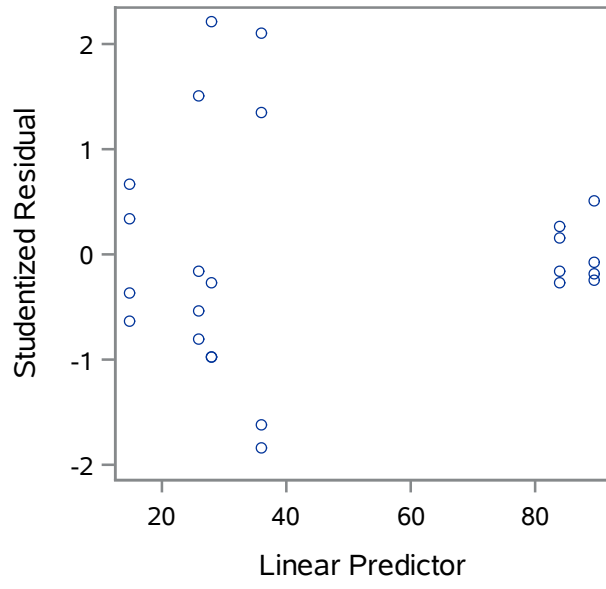
Proc GLIMMIX Results



Proc GLIMMIX Results



Proc GLIMMIX Results



Proc GLIMMIX Results

The UNIVARIATE Procedure Variable: studentresid (Studentized Residual)

Moments			
N	24	Sum Weights	24
Mean	0	Sum Observations	0
Std Deviation	1.02150784	Variance	1.04347826
Skewness	0.58893287	Kurtosis	0.35621279
Uncorrected SS	24	Corrected SS	24
Coeff Variation	.	Std Error Mean	0.20851441

Basic Statistical Measures			
Location		Variability	
Mean	0.00000	Std Deviation	1.02151
Median	-0.17540	Variance	1.04348
Mode	-0.97145	Range	4.04771
		Interquartile Range	1.01193

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	0	Pr > t 	1.0000
Sign	M	-3	Pr >= M 	0.3075
Signed Rank	S	-17	Pr >= S 	0.6372

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.946023	Pr < W	0.2218
Kolmogorov-Smirnov	D	0.156583	Pr > D	0.1299
Cramer-von Mises	W-Sq	0.101609	Pr > W-Sq	0.1011
Anderson-Darling	A-Sq	0.570407	Pr > A-Sq	0.1290

Quantiles (Definition 5)	
Level	Quantile
100% Max	2.212751
99%	2.212751
95%	2.104812
90%	1.511147
75% Q3	0.425010
50% Median	-0.175401
25% Q1	-0.586919

Proc GLIMMIX Results

The UNIVARIATE Procedure
 Variable: studentresid (Studentized Residual)

Quantiles (Definition 5)	
Level	Quantile
10%	-0.971451
5%	-1.619086
1%	-1.834964
0% Min	-1.834964

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-1.834964	19	0.661127	23
-1.619086	18	1.349238	17
-0.971451	15	1.511147	9
-0.971451	13	2.104812	20
-0.809543	11	2.212751	16

```

Stem Leaf          #          Boxplot
  2 12              2              0
  1 5                1              |
  1 3                1              |
  0 57              2              |
  0 233             3              +---+---+
-0 43322221        8              *-----*
-0 865              3              +---+---+
-1 00               2              |
-1 86               2              |
  ---+---+---+---+
  
```

