

The GLIMMIX Procedure

Year=2016

Model Information	
Data Set	WORK.REPEATED_MEASURES
Response Variable	Height
Response Distribution	Gaussian
Link Function	Identity
Variance Function	Default
Variance Matrix Blocked By	PlotID
Estimation Technique	Restricted Maximum Likelihood
Degrees of Freedom Method	Kenward-Roger
Fixed Effects SE Adjustment	Kenward-Roger

Class Level Information		
Class	Levels	Values
Rep	10	1 2 3 4 5 6 7 8 9 10
Trmt	5	A B C D E
Day	3	1 2 3
PlotID	50	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Number of Observations Read	150
Number of Observations Used	150

Dimensions	
G-side Cov. Parameters	1
R-side Cov. Parameters	4
Columns in X	24
Columns in Z per Subject	10
Subjects (Blocks in V)	50
Max Obs per Subject	3

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	5
Lower Boundaries	5
Upper Boundaries	1
Fixed Effects	Profiled
Starting From	Data

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Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	834.51071277	.	3.790089
1	0	4	834.46363016	0.04708261	0.384518
2	0	2	834.38646589	0.07716428	0.192155
3	0	4	834.21259653	0.17386936	0.284523
4	0	4	834.12650576	0.08609077	0.693638
5	0	4	834.09304975	0.03345601	0.684345
6	0	3	834.09075895	0.00229080	0.064947
7	0	3	834.09066316	0.00009579	0.010363
8	0	3	834.09061638	0.00004678	0.017583
9	0	4	834.08985408	0.00076230	0.064301
10	0	3	834.0896428	0.00021128	0.031825
11	0	3	834.08960492	0.00003788	0.001054
12	0	3	834.0896049	0.00000003	0.000018

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

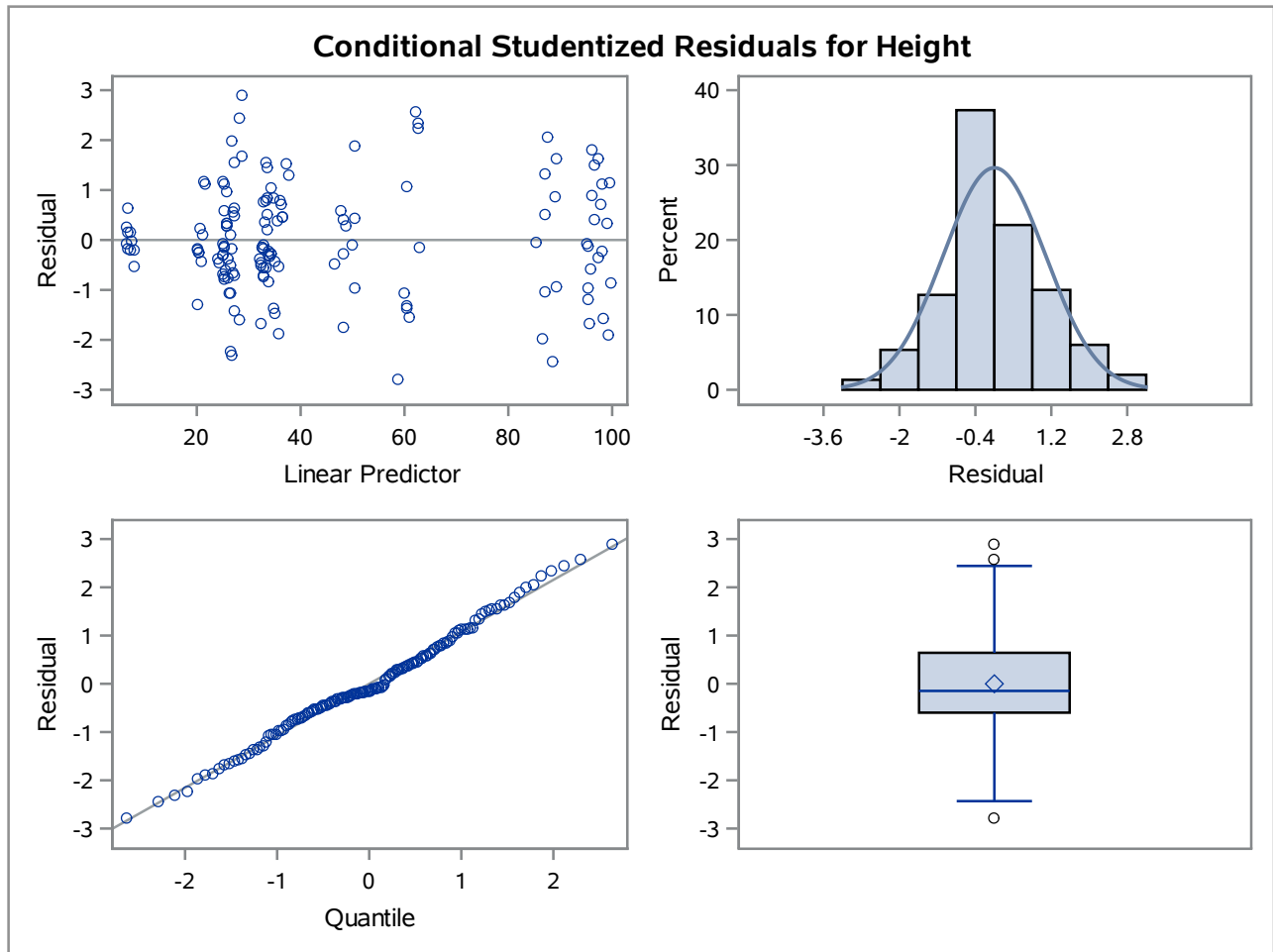
Fit Statistics	
-2 Res Log Likelihood	834.09
AIC (smaller is better)	844.09
AICC (smaller is better)	844.55
BIC (smaller is better)	853.65
CAIC (smaller is better)	858.65
HQIC (smaller is better)	847.73
Generalized Chi-Square	135.00
Gener. Chi-Square / DF	1.00

Covariance Parameter Estimates			
Cov Parm	Subject	Estimate	Standard Error
Rep	PlotID	2.1241	2.1042
Var(1)	PlotID	13.0913	3.5297
Var(2)	PlotID	6.8181	2.7206
Var(3)	PlotID	75.7738	16.2989
ARH(1)	PlotID	-0.1658	0.1922

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Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	4	55.72	189.30	<.0001
Day	2	46.88	447.80	<.0001
Trmt*Day	8	62.34	100.16	<.0001



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Trmt	5	A B C D E
Day	3	1 2 3
PlotID	50	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

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Starting From	Data

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Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	740.20475787	.	1.516498
1	0	4	740.19636866	0.00838921	0.173689
2	0	3	740.19197665	0.00439202	0.10881
3	0	2	740.18744371	0.00453294	0.042043
4	0	3	740.1861892	0.00125451	0.0143
5	0	2	740.18610635	0.00008285	0.002695
6	0	2	740.18606295	0.00004340	0.017933
7	0	2	740.18598967	0.00007329	0.006907
8	0	3	740.18595892	0.00003075	0.001639
9	0	3	740.18595658	0.00000234	0.000015

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

Fit Statistics	
-2 Res Log Likelihood	740.19
AIC (smaller is better)	750.19
AICC (smaller is better)	750.65
BIC (smaller is better)	759.75
CAIC (smaller is better)	764.75
HQIC (smaller is better)	753.83
Generalized Chi-Square	135.00
Gener. Chi-Square / DF	1.00

Covariance Parameter Estimates			
Cov Parm	Subject	Estimate	Standard Error
Rep	PlotID	0.7696	0.9634
Var(1)	PlotID	3.6195	1.2322
Var(2)	PlotID	6.1166	1.6717
Var(3)	PlotID	42.6329	9.1200
ARH(1)	PlotID	-0.1266	0.1744

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Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	4	58.41	38.44	<.0001
Day	2	45.82	1088.74	<.0001
Trmt*Day	8	61.51	122.21	<.0001

