

The GLIMMIX Procedure

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
Year	2	2016 2017
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	300
Number of Observations Used	300

Dimensions	
G-side Cov. Parameters	2
R-side Cov. Parameters	2
Columns in X	72
Columns in Z per Subject	20
Subjects (Blocks in V)	50
Max Obs per Subject	6

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	3
Lower Boundaries	0
Upper Boundaries	0
Fixed Effects	Profiled

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Optimization Information	
Residual Variance	Profiled
Starting From	Data

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	1630.1718352	.	4.67E-11

Convergence criterion (ABSGCONV=0.00001) satisfied.

Estimated G matrix is not positive definite.

Fit Statistics	
-2 Res Log Likelihood	1630.17
AIC (smaller is better)	1638.17
AICC (smaller is better)	1638.32
BIC (smaller is better)	1645.82
CAIC (smaller is better)	1649.82
HQIC (smaller is better)	1641.08
Generalized Chi-Square	7105.47
Gener. Chi-Square / DF	26.32

Covariance Parameter Estimates				
Cov Parm	Subject	Group	Estimate	Standard Error
Rep	PlotID	Year 2016	-5.2588	1.2826
Rep	PlotID	Year 2017	-10.1565	1.0870
CS	PlotID		7.3884	1.6333
Residual			26.3166	2.7740

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	4	45	61.64	<.0001
Day	2	180	1640.74	<.0001
Trmt*Day	8	180	139.53	<.0001
Year	1	45	3128.22	<.0001
Year*Trmt	4	45	1307.69	<.0001

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Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Year*Day	2	180	41.36	<.0001
Year*Trmt*Day	8	180	78.07	<.0001

Least Squares Means Estimates						
Effect	Label	Estimate	Standard Error	DF	t Value	Pr > t
Year*Trmt	2016 Treatments AandB vs C	38.7967	2.5575	45	15.17	<.0001

Least Squares Means Estimates						
Effect	Label	Estimate	Standard Error	DF	t Value	Pr > t
Year*Trmt	2016 vs 2017 Treatment A	4.2100	0.4614	45	9.12	<.0001

