The GLIMMIX Procedure

Model Information	
Data Set	WORK.PLANTCOVERAGE_YEAR1
Response Variable	Total_Bees
Response Distribution	Negative Binomial
Link Function	Log
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Residual PL
Degrees of Freedom Method	Satterthwaite

Class Level Information		
Class	**Levels**	**Values**
Sampling_Day	4	2 3 4 5
Site	10	Bowman Cretsinger Elkader Greving Kaldenberg McClellan NealSmith Plunkett Sheller Sloan

Number of Observations Read	41
Number of Observations Used	41

Dimensions	
G-side Cov. Parameters	1
R-side Cov. Parameters	1
Columns in X	10
Columns in Z	10
Subjects (Blocks in V)	1
Max Obs per Subject	41

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	2
Lower Boundaries	2
Upper Boundaries	0
Fixed Effects	Profiled
Starting From	Data

The GLIMMIX Procedure

Iteration History					
Iteration	Restarts	Subiterations	Objective Function	Change	Max Gradient
0	0	6	83.572836804	1.62837804	0.00002
1	0	6	77.298935424	0.42019132	0.000395
2	0	5	77.951108445	0.19647095	0.000048
3	0	4	77.925865727	0.07320946	6.851E-6
4	0	3	77.935182647	0.02081360	2.125E-6
5	0	3	77.933210667	0.00622148	2.776E-6
6	0	3	77.93373214	0.00191233	0.000027
7	0	2	77.933613715	0.00058277	4.673E-6
8	0	2	77.933642511	0.00018588	4.356E-7
9	0	2	77.933636059	0.00005816	1.084E-7
10	0	2	77.933637641	0.00001880	5.072E-7
11	0	2	77.933637253	0.00000621	4.795E-6
12	0	1	77.933637258	0.00000511	0.000024
13	0	1	77.933638653	0.00000206	0.000013
14	0	1	77.933637936	0.00000019	6.438E-6
15	0	0	77.933637772	0.00000006	6.629E-6
16	0	0	77.933637773	0.00000002	6.612E-6
17	0	0	77.93363777	0.00000000	6.619E-6

Convergence criterion (PCONV=1.11022E-8) satisfied.

Fit Statistics	
-2 Res Log Pseudo-Likelihood	77.93
Generalized Chi-Square	33.09
Gener. Chi-Square / DF	1.00

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
Site	0.1490	0.1016
Scale	0.1498	0.05035

The GLIMMIX Procedure

Solutions for Fixed Effects

Effect	Sampling_Day	Estimate	Standard Error	DF	t Value	Pr > |t|
Intercept		3.6425	0.2457	31.65	14.82	<.0001
Average_Coverage		0.03914	0.02117	28.86	1.85	0.0747
Sampling_Day	2	0.8611	0.2586	24.72	3.33	0.0027
Sampling_Day	3	0.4883	0.2561	23.76	1.91	0.0687
Sampling_Day	4	-0.6815	0.3616	32.32	-1.88	0.0685
Sampling_Day	5	0	.	.	.	.
Average_C*Sampling_D	2	-0.03986	0.03352	22.63	-1.19	0.2467
Average_C*Sampling_D	3	0.001771	0.04328	22.86	0.04	0.9677
Average_C*Sampling_D	4	0.1077	0.05628	32.29	1.91	0.0646
Average_C*Sampling_D	5	0	.	.	.	.

Type III Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
Average_Coverage	1	33	5.58	0.0242
Sampling_Day	3	26.47	8.04	0.0006
Average_C*Sampling_D	3	25.24	2.00	0.1394

Sampling_Day Least Squares Means

Sampling_Day	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
2	4.5002	0.1771	17.82	25.41	<.0001	0.05	4.1279	4.8726
3	4.3218	0.1990	23.29	21.72	<.0001	0.05	3.9104	4.7332
4	3.6469	0.1831	21.25	19.92	<.0001	0.05	3.2664	4.0274
5	3.8253	0.1920	22.96	19.93	<.0001	0.05	3.4282	4.2224

Differences of Sampling_Day Least Squares Means

Sampling_Day	Sampling_Day	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
2	3	0.1784	0.1966	20.86	0.91	0.3745	0.05	-0.2306	0.5873
2	4	0.8533	0.1876	24.28	4.55	0.0001	0.05	0.4663	1.2403
2	5	0.6749	0.2002	24.95	3.37	0.0024	0.05	0.2625	1.0874
3	4	0.6749	0.2092	24.9	3.23	0.0035	0.05	0.2440	1.1059
3	5	0.4966	0.2229	25.82	2.23	0.0349	0.05	0.03816	0.9550
4	5	-0.1784	0.2007	26	-0.89	0.3822	0.05	-0.5909	0.2341

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