

## The SAS System

### The Mixed Procedure

Model Information	
Data Set	WORK.FIRE_ANT_KILLER
Dependent Variable	kill_count
Covariance Structure	Variance Components
Estimation Method	Type 3
Residual Variance Method	Factor
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
chemical	4	1 2 3 4
location	5	1 2 3 4 5

Dimensions	
Covariance Parameters	3
Columns in X	5
Columns in Z	25
Subjects	1
Max Obs Per Subject	40

Number of Observations	
Number of Observations Read	40
Number of Observations Used	40
Number of Observations Not Used	0

Type 3 Analysis of Variance								
Source	DF	Sum of Squares	Mean Square	Expected Mean Square	Error Term	Error DF	F Value	Pr > F
chemical	3	180.132750	60.044250	Var(Residual) + 2 Var (chemical*location) + Q(chemical)	MS (chemical*location)	12	44.59	<.0001
location	4	3.811500	0.952875	Var(Residual) + 2 Var (chemical*location) + 8 Var (location)	MS (chemical*location)	12	0.71	0.6020
chemical*location	12	16.158500	1.346542	Var(Residual) + 2 Var (chemical*location)	MS(Residual)	20	3.89	0.0037
Residual	20	6.925000	0.346250	Var(Residual)	.	.	.	.

Covariance Parameter Estimates	
Cov Parm	Estimate
location	-0.04921
chemical*location	0.5001

Covariance Parameter Estimates	
Cov Parm	Estimate
Residual	0.3462

Fit Statistics	
-2 Res Log Likelihood	93.5
AIC (smaller is better)	99.5
AICC (smaller is better)	100.3
BIC (smaller is better)	98.4

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
chemical	3	12	44.59	<.0001