The Mixed Procedure

Model Information	
Data Set	WORK.SOYBEAN
Dependent Variable	yield
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**
field	3	1 2 3
phos	4	0 30 60 90
variety	3	1 2 3

Dimensions	
Covariance Parameters	2
Columns in X	20
Columns in Z	9
Subjects	1
Max Obs per Subject	36

Number of Observations	
Number of Observations Read	36
Number of Observations Used	36
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**
phos	3	408.371944	136.123981	Var(Residual) + Q(phos,phos*variety)	MS(Residual)	18	601.04	<.0001
variety	2	763.250556	381.625278	Var(Residual) + 4 Var(field(variety)) + Q(variety,phos*variety)	MS(field(variety))	6	3.38	0.1042
phos*variety	6	117.413889	19.568981	Var(Residual) + Q(phos*variety)	MS(Residual)	18	86.40	<.0001
field(variety)	6	678.370000	113.061667	Var(Residual) + 4 Var(field(variety))	MS(Residual)	18	499.21	<.0001
Residual	18	4.076667	0.226481	Var(Residual)	.	.	.	.

The Mixed Procedure

Covariance Parameter Estimates	
Cov Parm	**Estimate**
field(variety)	28.2088
Residual	0.2265

Fit Statistics	
-2 Res Log Likelihood	82.9
AIC (Smaller is Better)	86.9
AICC (Smaller is Better)	87.5
BIC (Smaller is Better)	87.3

Type 3 Tests of Fixed Effects				
Effect	**Num DF**	**Den DF**	**F Value**	**Pr > F**
phos	3	18	601.04	<.0001
variety	2	6	3.38	0.1042
phos*variety	6	18	86.40	<.0001

The Mixed Procedure

Model Information	
Data Set	WORK.SOYBEAN
Dependent Variable	yield
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**
field	3	1 2 3
phos	4	0 30 60 90
variety	3	1 2 3

Dimensions	
Covariance Parameters	3
Columns in X	20
Columns in Z	12
Subjects	1
Max Obs per Subject	36

Number of Observations	
Number of Observations Read	36
Number of Observations Used	36
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**
phos	3	408.371944	136.123981	Var(Residual) + Q(phos,phos*variety)	MS(Residual)	18	601.04	<.0001
variety	2	763.250556	381.625278	Var(Residual) + 4 Var(field*variety) + Q(variety,phos*variety)	MS(field*variety)	4	232.60	<.0001
phos*variety	6	117.413889	19.568981	Var(Residual) + Q(phos*variety)	MS(Residual)	18	86.40	<.0001
field	2	671.807222	335.903611	Var(Residual) + 4 Var(field*variety) + 12 Var(field)	MS(field*variety)	4	204.73	<.0001
field*variety	4	6.562778	1.640694	Var(Residual) + 4 Var(field*variety)	MS(Residual)	18	7.24	0.0012
Residual	18	4.076667	0.226481	Var(Residual)	.	.	.	.

The Mixed Procedure

Covariance Parameter Estimates	
Cov Parm	**Estimate**
field	27.8552
field*variety	0.3536
Residual	0.2265

Fit Statistics	
-2 Res Log Likelihood	68.2
AIC (Smaller is Better)	74.2
AICC (Smaller is Better)	75.4
BIC (Smaller is Better)	71.5

Type 3 Tests of Fixed Effects				
Effect	**Num DF**	**Den DF**	**F Value**	**Pr > F**
phos	3	18	601.04	<.0001
variety	2	4	232.60	<.0001
phos*variety	6	18	86.40	<.0001