

US EPA ARCHIVE DOCUMENT

1-EEU-144
2/11/2000

MRID No. 449515-02

DATA EVALUATION RECORD
§ 71-4 -- AVIAN REPRODUCTION TEST

1. CHEMICAL: Alachlor PC Code No.: 090501

2. TEST MATERIAL: Alachlor Purity: 93.8%

3. CITATION:
Authors: Sean P. Gallagher, Joann B. Beavers, and Mark J. Jaber
Title: Alachlor: A Reproduction Study with the Northern Bobwhite (*Colinus virginianus*)
Study Completion Date: September 16, 1999
Laboratory: Wildlife International Ltd., Easton, MD
Sponsor: Monsanto Company, St. Louis, MO
Laboratory Report ID: 139-435
MRID No.: 449515-02
DP Barcode: D261284

4. REVIEWED BY: Max Feken, M.S., Environmental Toxicologist, Golder Associates Inc.

Signature:  Date: 2/11/00

APPROVED BY: Pim Kosalwat, Ph.D., Senior Scientist, Golder Associates Inc.

Signature: P. Kosalwat Date: 2/11/00

5. APPROVED BY:

Signature: Date:

6. STUDY PARAMETERS:

Scientific Name of Test Organism: *Colinus virginianus*
Age of Test Organisms at Test Initiation: 18 weeks
Definitive Study Duration: 22 weeks

7. CONCLUSIONS: This study is scientifically sound and meets the guideline requirements for an avian reproduction study using northern bobwhites. The NOEC was determined to be 50 ppm ai based on significant reductions in mean hatchling weight at the 150 and 1000 ppm ai test concentrations when compared to the control.

LEVEL=CONTROL

Variable	Label	N	Mean	Std Dev	CV
EL		14	60.286	7.384	12.249
EC		14	1.143	1.610	140.911
ES		14	52.286	7.630	14.593
VE		14	46.929	8.444	17.995
LE		14	46.714	8.668	18.556
NH		14	45.571	9.019	19.791
HS		14	40.571	10.256	25.279
THICK		14	0.224	0.023	10.234
HATWT		14	6.004	0.465	7.746
SURVMT		14	22.743	2.280	10.025
FOOD		14	195.875	2.965	14.119
PREM		14	21.000	18.726	9.560
POSTM		14	216.857	32.382	14.932
PREF		16	196.750	18.567	9.437
POSTF		14	241.000	27.662	11.395
ES_EL		14	86.754	6.980	8.045
NH_EL		14	76.049	13.646	17.944
ENC_EL	(EL-EC)/EL (%)	14	98.173	2.586	2.634
VE_ES	VE/ES (%)	14	90.408	13.152	14.547
NH_ES	NH/ES (%)	14	87.588	13.523	15.439
HS_ES	HS/ES (%)	14	77.484	14.885	19.211
LE_VE	LE/VE (%)	14	99.430	1.159	1.166
NH_LE	NH/LE (%)	14	97.379	3.291	3.379
HS_NH	HS/NH (%)	14	88.230	8.149	9.236

LEVEL=TRT1

Variable	Label	N	Mean	Std Dev	CV
EL		14	50.286	15.813	31.447
EC		14	1.714	2.585	150.781
ES		14	43.714	13.864	31.716
VE		14	37.929	15.269	40.258
LE		14	37.643	15.154	40.256
NH		14	35.643	14.611	40.992
HS		14	32.071	13.442	41.913
THICK		13	0.229	0.015	6.587
HATWT		13	5.791	0.470	8.110
SURVMT		13	22.815	2.967	13.006
FOOD		14	20.307	1.996	9.829
PREM		16	194.000	17.580	9.062
POSTM		14	217.786	26.385	12.115
PREF		16	194.813	14.386	7.385
POSTF		14	229.714	34.713	15.111
ES_EL		14	87.906	5.698	6.481
NH_EL		14	73.183	19.146	26.162
ENC_EL	(EL-EC)/EL (%)	14	96.974	4.263	4.396
VE_ES	VE/ES (%)	14	87.874	19.779	22.508
NH_ES	NH/ES (%)	14	82.812	19.497	23.544
HS_ES	HS/ES (%)	14	68.428	27.323	39.929
LE_VE	LE/VE (%)	14	99.342	1.437	1.447
NH_LE	NH/LE (%)	14	94.970	6.481	6.825
HS_NH	HS/NH (%)	14	83.787	24.980	29.814

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 10:24 Sunday, January 30, 2000
 LEVEL=TRT2

Variable	Label	N	Mean	Std Dev	CV
EL		15	50.133	24.080	48.032
EC		15	0.867	1.060	122.319
ES		15	43.733	21.763	49.763
VE		15	40.533	20.870	51.488
LE		15	40.133	20.746	51.693
NH		15	38.933	20.589	52.884
HS		15	35.067	19.185	54.710
THICK		13	0.228	0.008	3.524
HATWT		14	5.444	0.598	10.980
SURVMT		14	22.343	3.331	14.908
FOOD		15	20.280	3.015	14.869
PREM		16	193.938	15.242	7.859
POSTM		15	219.267	26.250	11.972
PREF		16	195.375	16.024	8.202
POSTF		15	236.267	29.068	12.303
ES_EL		14	86.787	8.218	9.470
NH_EL		14	76.508	16.858	22.035
ENC_EL	(EL-EC)/EL (%)	14	98.438	1.852	1.882
VE_ES	VE/ES (%)	14	92.061	9.324	10.128
NH_ES	NH/ES (%)	14	87.184	13.780	15.805
HS_ES	HS/ES (%)	14	79.401	15.033	18.933
LE_VE	LE/VE (%)	14	99.070	1.701	1.717
NH_LE	NH/LE (%)	14	95.158	8.533	8.967
HS_NH	HS/NH (%)	14	91.022	8.503	9.342

LEVEL=TRT3

Variable	Label	N	Mean	Std Dev	CV
EL		16	52.813	12.189	23.079
EC		16	1.813	1.940	107.019
ES		16	44.938	13.203	29.382
VE		16	32.563	19.044	58.484
LE		16	32.313	19.088	59.074
NH		16	30.125	18.786	62.360
HS		16	21.438	17.236	80.399
THICK		16	0.228	0.018	7.840
HATWT		16	4.983	0.482	9.679
SURVMT		15	18.533	1.801	9.720
FOOD		16	21.275	1.951	9.172
PREM		16	197.250	13.066	6.624
POSTM		16	220.875	18.772	8.499
PREF		16	195.438	16.749	8.570
POSTF		16	234.875	36.445	15.517
ES_EL		16	83.994	9.834	11.708
NH_EL		16	54.261	27.566	50.802
ENC_EL	(EL-EC)/EL (%)	16	96.519	3.909	4.059
VE_ES	VE/ES (%)	16	69.952	30.947	44.240
NH_ES	NH/ES (%)	16	63.719	29.949	47.002
HS_ES	HS/ES (%)	16	43.731	28.337	64.800
LE_VE	LE/VE (%)	16	98.944	2.154	2.177
NH_LE	NH/LE (%)	16	92.123	8.622	9.359
HS_NH	HS/NH (%)	16	62.804	28.253	44.986

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 1. ANALYSIS OF EGGS LAID

10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Class Level Information
 Class Levels Values

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Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
1. ANALYSIS OF EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT	0
LEVEL	
CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
1. ANALYSIS OF EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	964.62336	321.54112	1.24	0.3054
Error	55	14305.88512	260.10700		
Corrected Total	58	15270.50847			

R-Square	C.V.	Root MSE	EL Mean
0.063169	30.25571	16.128	53.305

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	964.62336	321.54112	1.24	0.3054

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
1. ANALYSIS OF EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Least Squares Means

LEVEL	EL LSMEAN	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
		1/j	2 3 4
CONTROL	60.2857143	1	0.1066 0.0959 0.2108
TRT1	50.2857143	2	0.1066 0.9798 0.6702
TRT2	50.1333333	3	0.0959 0.9798 0.6457
TRT3	52.8125000	4	0.2108 0.6702 0.6457

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
1. ANALYSIS OF EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: EL

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 260.107
Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT3	-8.164	7.473	23.110
CONTROL - TRT1	-6.150	10.000	26.150
CONTROL - TRT2	-5.726	10.152	26.031
TRT3 - CONTROL	-23.110	-7.473	8.164
TRT3 - TRT1	-13.110	2.527	18.164
TRT3 - TRT2	-12.677	2.679	18.036
TRT1 - CONTROL	-26.150	-10.000	6.150
TRT1 - TRT3	-18.164	-2.527	13.110
TRT1 - TRT2	-15.726	0.152	16.031
TRT2 - CONTROL	-26.031	-10.152	5.726
TRT2 - TRT3	-18.036	-2.679	12.677
TRT2 - TRT1	-16.031	-0.152	15.726

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
1. ANALYSIS OF EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnnett's One-tailed T tests for variable: EL

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 260.107
Critical Value of Dunnnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - CONTROL	-19.889	-7.473	4.943
TRT1 - CONTROL	-22.823	-10.000	2.823
TRT2 - CONTROL	-22.760	-10.152	2.455

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT	0
LEVEL	
CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: EC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	9.2916364	3.0972121	0.88	0.4553
Error	55	192.7422619	3.5044048		
Corrected Total	58	202.0338983			

R-Square C.V. Root MSE EC Mean
0.045990 134.6931 1.8720 1.3898

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	9.2916364	3.0972121	0.88	0.4553

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

10:24 Sunday, January 30, 2000

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General Linear Models Procedure
Least Squares Means

LEVEL	EC	LSMEAN	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
CONTROL	1.14285714	1	0.4228	0.6929 0.3326
TRT1	1.71428571	2	0.4228	0.2283 0.8865
TRT2	0.86666667	3	0.6929	0.2283 0.1654
TRT3	1.81250000	4	0.3326	0.8865 0.1654

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: EC

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 3.504405
Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Confidence Limit		Difference Between Means	Simultaneous Confidence Limit	
	Lower Limit	Upper Limit		Lower Limit	Upper Limit
TRT3 - TRT1	-1.7168	0.0982	0.0982	1.9133	1.9133
TRT3 - CONTROL	-1.1454	0.6696	0.6696	2.4847	2.4847
TRT3 - TRT2	-0.8366	0.9458	0.9458	2.7283	2.7283
TRT1 - TRT3	-1.9133	-0.0982	-0.0982	1.7168	1.7168
TRT1 - CONTROL	-1.3031	0.5714	0.5714	2.4460	2.4460
TRT1 - TRT2	-0.9954	0.8476	0.8476	2.6907	2.6907
CONTROL - TRT3	-2.4847	-0.6696	-0.6696	1.1454	1.1454
CONTROL - TRT1	-2.4460	-0.5714	-0.5714	1.3031	1.3031
CONTROL - TRT2	-1.5669	0.2762	0.2762	2.1192	2.1192
TRT2 - TRT3	-2.7283	-0.9458	-0.9458	0.8366	0.8366
TRT2 - TRT1	-2.6907	-0.8476	-0.8476	0.9954	0.9954
TRT2 - CONTROL	-2.1192	-0.2762	-0.2762	1.5669	1.5669

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: EC

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 3.504405
Critical Value of Dunnett's T= 2.104

Source DF Type I SS Mean Square F Value Pr > F
 LEVEL 3 720.99115 240.33038 1.06 0.3747

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 3. ANALYSIS OF EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	ES	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	1 2 3 4
CONTROL	52.2857143	1	0.1383 0.1326 0.1884
TRT1	43.7142857	2	0.1383 0.9973 0.8254
TRT2	43.7333333	3	0.1326 0.9973 0.8250
TRT3	44.9375000	4	0.1884 0.8254 0.8250

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 3. ANALYSIS OF EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: ES

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 227.3015
 Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Confidence Limit		Difference Between Means		Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit	Mean	Upper Limit	Mean	Upper Limit
CONTROL - TRT3	-7.270	21.966	7.348	21.966	7.348	21.966
CONTROL - TRT2	-6.291	23.396	8.552	23.396	8.552	23.396
CONTROL - TRT1	-6.526	23.669	8.571	23.669	8.571	23.669
TRT3 - CONTROL	-21.966	7.270	-7.348	7.270	-7.348	7.270
TRT2 - CONTROL	-13.151	15.560	-1.204	15.560	-1.204	15.560
TRT1 - CONTROL	-13.395	15.841	1.223	15.841	1.223	15.841
TRT2 - TRT3	-23.396	6.291	-8.552	6.291	-8.552	6.291
TRT2 - TRT1	-14.824	14.862	0.019	14.862	0.019	14.862
TRT1 - TRT3	-23.669	6.526	-8.571	6.526	-8.571	6.526
TRT1 - TRT2	-15.841	13.395	-1.223	13.395	-1.223	13.395
TRT1 - TRT1	-14.862	14.824	-0.019	14.824	-0.019	14.824

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 3. ANALYSIS OF EGGS SET

10:24 Sunday, January 30, 2000

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit	Pr > F
TRT3 - CONTROL	-0.7715	0.6696	2.1108	0.3747
TRT1 - CONTROL	-0.9170	0.5714	2.0598	0.3747
TRT2 - CONTROL	-1.7396	-0.2762	1.1872	0.3747

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 3. ANALYSIS OF EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 3. ANALYSIS OF EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	L2 L3 L4 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 3. ANALYSIS OF EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	720.99115	240.33038	1.06	0.3747
Error	55	12501.58512	227.30155		
Corrected Total	58	13222.57627			

R-Square	C.V.	Root MSE	ES Mean
0.054527	32.71478	15.077	46.085

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General Linear Models Procedure

Dunnett's One-tailed T tests for variable: ES

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence=0.95 df= 55 MSE= 227.3015
Critical Value of Dunnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT3 - CONTROL	-18.955	-7.348	4.258
TRT2 - CONTROL	-20.338	-8.552	3.233
TRT1 - CONTROL	-20.558	-8.571	3.416

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	
CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: VE	DF	Sum of Squares	Mean Square	F Value	Pr > F
Source					

Model	3	1590.1330	530.0443	1.88	0.1434
Error	55	15495.5280	281.7369		
Corrected Total	58	17085.6610			

R-Square C.V. Root MSE VE Mean
0.093068 42.74131 16.785 39.271

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1590.1330	530.0443	1.88	0.1434

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	Pr > T HO: LSMEAN(i)=LSMEAN(j)			
		i/j	2	3	4
CONTROL	46.9285714	1	0.1616	0.3097	0.0230
TRT1	37.9285714	2	0.1616	0.6779	0.3862
TRT2	40.5333333	3	0.3097	0.6779	0.1919
TRT3	32.5625000	4	0.0230	0.3862	0.1919

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: VE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence=0.95 df= 55 MSE= 281.7369
Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
CONTROL - TRT2	-10.130	6.395	9.000	22.921	25.808
CONTROL - TRT1	-7.808	6.395	14.366	25.808	30.640
CONTROL - TRT3	-1.908	6.395	14.366	25.808	30.640
TRT2 - CONTROL	-22.921	-6.395	-6.395	10.130	19.130
TRT2 - TRT1	-13.921	-2.605	2.605	19.130	23.953
TRT2 - TRT3	-8.011	7.971	7.971	23.953	
TRT1 - CONTROL	-25.808	-9.000	-9.000	7.808	13.921
TRT1 - TRT2	-19.130	-2.605	-2.605	13.921	

TRT1 - TRT3 -10.908 5.366 21.640
 - CONTROL -30.640 1.908
 TRT3 - TRT2 -14.366 8.011
 TRT3 - TRT1 -7.971 10.908
 -21.640 -5.366

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 4. ANALYSIS OF VIABLE EMBRYOS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: VE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 281.7369
 Critical Value of Dunnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****/.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-19.516	-6.395	6.726
TRT1 - CONTROL	-22.345	-9.000	4.345
TRT3 - CONTROL	-27.288	-14.366	-1.444

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	CONTROL L2 TRT1 L3 TRT2 L4 TRT3 -L2-L3-L4

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ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1593.7408	531.2469	1.89	0.1419
Error	55	15453.2423	280.9680		
Corrected Total	58	17046.9831			

R-Square 0.093491
 C.V. 42.99843
 Root MSE 16.762
 LE Mean 38.983

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1593.7408	531.2469	1.89	0.1419

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	LE	Pr > T	HO: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	1 2 3 4
CONTROL	46.7142857	1	0.1578 0.2954 0.0225
TRT1	37.6428571	2	0.1578 0.6908 0.3887
TRT2	40.1333333	3	0.2954 0.6908 0.1996
TRT3	32.3125000	4	0.0225 0.3887 0.1996

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: LE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 280.968
 Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****/.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL L2			
TRT1 L3			
TRT2 L4			
TRT3 -L2-L3-L4			

CONTROL - TRT2	-9.922	6.581	23.084
CONTROL - TRT1	-7.714	9.071	25.856
CONTROL - TRT3	-1.850	14.402	30.654
TRT2 - CONTROL	-23.084	-6.581	9.922
TRT1 - TRT1	-14.012	2.490	18.993
TRT2 - TRT3	-8.140	7.821	23.781
TRT1 - CONTROL	-25.856	-9.071	7.714
TRT2 - TRT2	-18.993	-2.490	14.012
TRT1 - TRT3	-10.922	5.330	21.582
TRT3 - CONTROL	-30.654	-14.402	1.850
TRT2 - TRT2	-23.781	-7.821	8.140
TRT1 - TRT1	-21.582	-5.330	10.922

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

10:24 Sunday, January 30, 2000
 General Linear Models Procedure

Dunnett's One-tailed T tests for variable: LE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 280.968
 Critical Value of Dunnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference		Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Upper Confidence Limit	Upper Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-19.684	-6.581	-6.581	6.522		
TRT1 - CONTROL	-22.359	-9.071	4.256			
TRT3 - CONTROL	-27.306	-14.402	-1.498			***

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

Effect Coefficients

INTERCEPT	0
LEVEL	
CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1859.8941	619.9647	2.26	0.0912
Error	55	15061.3262	273.8423		
Corrected Total	58	16921.2203			

R-Square C.V. Root MSE
 0.109915 44.31878 16.548

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1859.8941	619.9647	2.26	0.0912

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	LSMEAN	Pr > T H0: LSMEAN(i)=LSMEAN(j)			
		1	2	3	4
CONTROL	45.5714286	1	0.1182	0.2851	0.0136
TRT1	35.6428571	2	0.1182	0.5948	0.3662
TRT2	38.9333333	3	0.2851	0.5948	0.1443
TRT3	30.1250000	4	0.0136	0.3662	0.1443

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: NH

NOTE: This test controls the type I experimentwise error rate.
 Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 273.8423
 Critical Value of Studentized Range= 3.747
 Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
CONTROL - TRT2	-9.654	22.930	6.638	9.929	31.499
CONTROL - TRT1	-6.642	26.499	9.929	19.583	31.499
CONTROL - TRT3	-0.598	31.499	15.446	24.565	31.499
TRT2 - CONTROL	-22.930	9.654	-6.638	3.290	9.654
TRT2 - TRT1	-13.002	19.583	3.290	8.808	19.583
TRT2 - TRT3	-6.948	24.565	8.808	13.002	24.565
TRT1 - CONTROL	-26.499	6.642	-9.929	3.290	6.642
TRT1 - TRT2	-19.583	13.002	-3.290	5.518	13.002
TRT1 - TRT3	-10.527	21.562	5.518	0.598	21.562
TRT3 - CONTROL	-31.499	0.598	-15.446	-8.808	0.598
TRT3 - TRT2	-24.565	6.948	-8.808	10.527	6.948
TRT3 - TRT1	-21.562	10.527	-5.518		10.527

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnnett's One-tailed T tests for variable: NH

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 273.8423
 Critical Value of Dunnnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-19.574	6.298	-6.638	3.229	6.298
TRT2 - TRT1	-23.086	9.929	-9.929	3.229	9.929
TRT2 - TRT3	-28.186	15.446	-15.446	-2.707	15.446

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Coefficients

Effect	INTERCEPT	LEVEL
	0	
	CONTROL	L2
	TRT1	L3
	TRT2	L4
	TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: HS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2954.7042	984.9014	4.07	0.0111
Error	55	13325.2280	242.2769		
Corrected Total	58	16279.9322			

R-Square 0.181494 C.V. 48.69297 Root MSE 15.565 HS Mean 31.966

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	2954.7042	984.9014	4.07	0.0111

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	LSMEAN	Pr > T HO: LSMEAN(i)=LSMEAN(j)			
		i/j	1	2	3
CONTROL	40.5714286	1	0.1542	0.3454	0.0014
TRT1	32.0714286	2	0.1542	0.6067	0.0673
TRT2	35.0666667	3	0.3454	0.6067	0.0181
TRT3	21.4375000	4	0.0014	0.0673	0.0181

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: HS

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidences= 0.95 df= 55 MSE= 242.2769
 Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT2	-9.820	5.505	20.829
CONTROL - TRT1	-7.087	8.500	24.087
CONTROL - TRT3	4.042	19.134	34.226
TRT2 - CONTROL	-20.829	-5.505	9.820
TRT2 - TRT1	-12.329	2.995	18.320
TRT2 - TRT3	-1.192	13.629	28.450
TRT1 - CONTROL	-24.087	-8.500	7.087
TRT1 - TRT2	-18.320	-2.995	12.329
TRT1 - TRT3	-4.458	10.634	25.726
TRT3 - CONTROL	-34.226	-19.134	-4.042
TRT3 - TRT2	-28.450	-13.629	1.192
TRT3 - TRT1	-25.726	-10.634	4.458

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnnett's One-tailed T tests for variable: HS

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidences= 0.95 df= 55 MSE= 242.2769
 Critical Value of Dunnnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT2	-17.672	-5.505	6.663
CONTROL - TRT1	-20.876	-8.500	3.876
CONTROL - TRT3	-31.117	-19.134	-7.151

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class Levels Values
 LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	
CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	107.41611	35.80537	0.78	0.5097
Error	54	2475.47579	45.84214		
Corrected Total	57	2582.89189			

R-Square 0.041588
 C.V. 9.804441
 Root MSE 6.7707
 RESPONSE Mean 69.057

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	107.41611	35.80537	0.78	0.5097

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	2 3 4
CONTROL	69.0673010	1	0.5617 0.7545 0.4122
TRT1	70.5617684	2	0.5617 0.7885 0.1586
TRT2	69.8717432	3	0.7545 0.7885 0.2548
TRT3	67.0195269	4	0.4122 0.1586 0.2548

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 45.84214
Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT1 - TRT2	-6.094	7.474	0.690	7.474	
TRT1 - CONTROL	-5.289	8.278	1.494	8.278	
TRT1 - TRT3	-3.026	10.111	3.542	10.111	
TRT2 - TRT1	-7.474	6.094	-0.690	6.094	
TRT2 - CONTROL	-5.979	7.588	0.804	7.588	
TRT2 - TRT3	-3.716	9.421	2.852	9.421	
CONTROL - TRT1	-8.278	5.289	-1.494	5.289	
CONTROL - TRT2	-7.588	5.979	-0.804	5.979	
CONTROL - TRT3	-4.521	8.616	2.048	8.616	
TRT3 - TRT1	-10.111	3.026	-3.542	3.026	
TRT3 - TRT2	-9.421	3.716	-2.852	3.716	
TRT3 - CONTROL	-8.616	4.521	-2.048	4.521	

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 45.84214
Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

Simultaneous Simultaneous

LEVEL Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-3.895	1.494	6.884
TRT2 - CONTROL	-4.585	0.804	6.194
TRT3 - CONTROL	-7.266	-2.048	3.170

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	CONTROL L2 TRT1 L3 TRT2 L4 TRT3 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3502.0902	1167.3634	4.72	0.0054
Error	54	13353.0912	247.2795		
Corrected Total	57	16855.1814			

R-Square C.V. Root MSE RESPONSE Mean
0.207775 22.29182 15.725 70.542

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Model	3	3502.0902	1167.3634	4.72	0.0054
Error	54	13353.0912	247.2795		
Corrected Total	57	16855.1814			

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	2 3 4
CONTROL	74.5069734	1	0.9757 0.6706 0.0061
TRT1	74.3249391	2	0.9757 0.6486 0.0066
TRT2	77.0486651	3	0.6706 0.6486 0.0017
TRT3	58.0696967	4	0.0061 0.0066 0.0017

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.
Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 247.2795
Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit			Difference Between Means	Simultaneous Upper Confidence Limit		
	Lower Limit	Confidence	Upper Limit		Lower Limit	Confidence	Upper Limit
TRT2 - CONTROL	-13.214		18.297	2.542		18.297	
TRT2 - TRT1	-13.032		18.479	2.724		18.479	
TRT2 - TRT3	3.724		34.234	18.979		34.234	***
CONTROL - TRT2	-18.297		13.214	-2.542		13.214	
CONTROL - TRT1	-15.573		15.937	0.182		15.937	
CONTROL - TRT3	1.182		31.692	16.437		31.692	***
TRT1 - TRT2	-18.479		13.032	-2.724		13.032	
TRT1 - CONTROL	-15.937		15.573	-0.182		15.573	
TRT1 - TRT3	1.000		31.510	16.255		31.510	***
TRT3 - TRT2	-34.234		-3.724	-18.979		-3.724	***
TRT3 - CONTROL	-31.692		-1.182	-16.437		-1.182	***
TRT3 - TRT1	-31.510		-1.000	-16.255		-1.000	***

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 247.2795
Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit		
	Lower Limit	Confidence		Upper Limit	Confidence	
TRT2 - CONTROL	-9.975		2.542		15.058	
TRT1 - CONTROL	-12.699		-0.182		12.335	
TRT3 - CONTROL	-28.556		-16.437		-4.318	***

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT	0
LEVEL CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	10.119359	3.373120	0.15	0.9278

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ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

 10:24 Sunday, January 30, 2000
 General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.
 Alpha= 0.05 Confidence=0.95 df= 54 MSE= 22.16543
 Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-3.8657	-0.1183	3.6291
TRT3 - CONTROL	-4.5098	-0.8814	2.7470
TRT2 - CONTROL	-4.6491	-0.9017	2.8457

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

 10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

 10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	CONTROL L2 TRT1 L3 TRT2 L4 TRT3 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

Source	DF	Type I SS	Mean Square	F Value	Pr > F	R-Square	C.V.	Root MSE	RESPONSE Mean
LEVEL	3	10.119359	3.373120	0.15	0.9278	0.008384	5.382258	4.7080	87.473

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

 10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
CONTROL	87.9622388	1	0.9472 0.6144 0.6110
TRT1	87.8439566	2	0.9472 0.6615 0.6596
TRT2	87.0605682	3	0.6144 0.6615 0.9907
TRT3	87.0808527	4	0.6110 0.6596 0.9907

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

 10:24 Sunday, January 30, 2000
 General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.
 Alpha= 0.05 Confidences 0.95 df= 54 MSE= 22.16543
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT1	-4.5988	0.1183	4.8354
CONTROL - TRT3	-3.6859	0.8814	5.4487
CONTROL - TRT2	-3.8154	0.9017	5.6188
TRT1 - CONTROL	-4.8354	-0.1183	4.5988
TRT3 - CONTROL	-3.8042	0.7631	5.3304
TRT1 - TRT2	-3.9337	0.7834	5.5005
TRT3 - CONTROL	-5.4487	-0.8814	3.6859
TRT1 - TRT2	-5.3304	-0.7631	3.8042
TRT3 - CONTROL	-4.5470	0.0203	4.5876
TRT2 - CONTROL	-5.6188	-0.9017	3.8154

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*****10:24 Sunday, January 30, 2000*****

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	277.40163	92.46721	1.10	0.3570
Error	54	4537.93060	84.03575		
Corrected Total	57	4815.33223			

R-Square 0.057608
 C.V. 11.44152
 Root MSE 9.1671
 RESPONSE Mean 80.121

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	277.40163	92.46721	1.10	0.3570

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	2 3 4
CONTROL	83.2146672	1	0.3784 0.4233 0.0758
TRT1	80.1371417	2	0.3784 0.9354 0.3756
TRT2	80.4192125	3	0.4233 0.9354 0.3327
TRT3	77.1402064	4	0.0758 0.3756 0.3327

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 84.03575
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT2		-6.389	2.795	11.980
CONTROL - TRT1		-6.107	3.078	12.262

CONTROL - TRT3	-2.819	6.074	14.968
TRT2 - CONTROL	-11.980	-2.795	6.389
TRT2 - TRT1	-8.903	0.282	9.467
TRT2 - TRT3	-5.614	3.279	12.172
TRT1 - CONTROL	-12.262	-3.078	6.107
TRT1 - TRT2	-9.467	-0.282	8.903
TRT1 - TRT3	-5.896	2.997	11.890
TRT3 - CONTROL	-14.968	-6.074	2.819
TRT3 - TRT2	-12.172	-3.279	5.614
TRT3 - TRT1	-11.890	-2.997	5.896

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 84.03575
 Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL		-10.092	-2.795	4.501
TRT1 - CONTROL		-10.374	-3.078	4.219
TRT3 - CONTROL		-13.139	-6.074	0.990

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

INTERCEPT 0
 LEVEL CONTROL L2
 TRT1 L3
 TRT2 L4
 TRT3 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2495.1219	831.7073	4.24	0.0092
Error	54	10581.6108	195.9558		
Corrected Total	57	13076.7327			

R-Square 0.190806
 C.V. 24.36540
 Root MSE 13.998
 RESPONSE Mean 57.452

Source DF Type I SS Mean Square F Value Pr > F
 LEVEL 3 2495.1219 831.7073 4.24 0.0092

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
CONTROL	61.3493075	1	0.8600	0.8062 0.0067
TRT1	60.4115056	2	0.8600	0.6734 0.0109
TRT2	62.6533914	3	0.8062	0.6734 0.0033
TRT3	46.9012542	4	0.0067	0.0109 0.0033

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.
 Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 195.9558

File:44951502.sas Page 30
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

Simultaneous Lower Confidence Limit Difference Between Means Simultaneous Upper Confidence Limit

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-12.721	1.304	15.329
TRT1 - TRT1	-11.783	2.242	16.267
TRT2 - TRT3	2.172	15.752	29.332
CONTROL - TRT2	-15.329	-1.304	12.721
CONTROL - TRT1	-13.088	0.938	14.963
CONTROL - TRT3	0.868	14.448	28.028
TRT1 - TRT2	-16.267	-2.242	11.783
TRT1 - TRT3	-14.963	-0.938	13.088
TRT3 - TRT2	-29.332	-15.752	-2.172
TRT3 - CONTROL	-28.028	-14.448	-0.868
TRT3 - TRT1	-27.090	-13.510	0.070

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 195.9558
 Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-9.838	1.304	12.446
TRT1 - CONTROL	-12.080	-0.938	10.204
TRT3 - CONTROL	-25.236	-14.448	-3.660

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

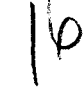
10:24 Sunday, January 30, 2000

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64



NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT 0

LEVEL CONTROL L2
 TRT1 L3
 TRT2 L4
 TRT3 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	4423.7483	1474.5828	5.73	0.0018
Error	54	13890.2715	257.2272		
Corrected Total	57	18314.0198			

R-Square 0.241550
 C.V. 24.23005
 Root MSE 16.038
 RESPONSE Mean 66.192

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	4423.7483	1474.5828	5.73	0.0018

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(1)=LSMEAN(j)
	LSMEAN	1/j	2 3 4
CONTROL	70.9944287	1	0.6186 0.4993 0.0028
TRT1	67.9590726	2	0.6186 0.2428 0.0117
TRT2	75.1180431	3	0.4993 0.2428 0.0003
TRT3	52.6326243	4	0.0028 0.0117 0.0003

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE

13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 257.2272
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-11.946	4.124	20.193
TRT2 - TRT1	-8.910	7.159	23.228
TRT2 - TRT3	6.926	22.485	38.044
CONTROL - TRT1	-20.193	-4.124	11.946
CONTROL - TRT2	-13.034	3.035	19.105
CONTROL - TRT3	2.803	18.362	33.921
TRT1 - TRT2	-23.228	-7.159	8.910
TRT1 - CONTROL	-19.105	-3.035	13.034
TRT1 - TRT3	-0.232	15.326	30.885
TRT3 - TRT2	-38.044	-22.485	-6.926
TRT3 - CONTROL	-33.921	-18.362	-2.803
TRT3 - TRT1	-30.885	-15.326	0.232

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 257.2272
 Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-8.642	4.124	16.889
TRT1 - CONTROL	-15.801	-3.035	9.731
TRT3 - CONTROL	-30.722	-18.362	-6.001

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

10:24 Sunday, January 30, 2000



General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

LEVEL	INTERCEPT
L2	0
L3	
L4	
-L2-L3-L4	

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	104.88446	34.96149	0.77	0.5139
Error	54	2440.89910	45.20184		
Corrected Total	57	2545.78357			

R-Square C.V. Root MSE RESPONSE Mean
0.041199 8.055125 6.7232 83.465

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	104.88446	34.96149	0.77	0.5139

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	Pr > T HO: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j 1 2 3 4

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CONTROL	84.722423	1	0.5431	0.9973	0.2005
TRT1	83.1670833	2	0.5431	0.5453	0.5096
TRT2	84.7136897	3	0.9973	0.5453	0.2017
TRT3	81.5337361	4	0.2005	0.5096	0.2017

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 45.20184
Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous Upper Confidence Limit
	Lower Confidence Limit	Upper Confidence Limit		
CONTROL - TRT1	-6.727	0.009	6.745	6.745
CONTROL - TRT2	-5.181	1.555	8.292	8.292
CONTROL - TRT3	-3.334	3.189	9.711	9.711
TRT2 - CONTROL	-6.745	-0.009	6.727	6.727
TRT2 - TRT1	-5.190	1.547	8.283	8.283
TRT2 - TRT3	-3.342	3.180	9.702	9.702
TRT1 - CONTROL	-8.292	-1.555	5.181	5.181
TRT1 - TRT2	-1.547	1.547	5.190	5.190
TRT1 - TRT3	-4.889	1.633	8.156	8.156
TRT3 - CONTROL	-9.711	-3.189	3.334	3.334
TRT3 - TRT2	-9.702	-3.180	3.342	3.342
TRT3 - TRT1	-8.156	-1.633	4.889	4.889

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 45.20184
Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous Upper Confidence Limit
	Lower Confidence Limit	Upper Confidence Limit		
CONTROL - TRT1	-6.727	0.009	6.745	6.745
CONTROL - TRT2	-5.181	1.555	8.292	8.292
CONTROL - TRT3	-3.334	3.189	9.711	9.711
TRT2 - CONTROL	-6.745	-0.009	6.727	6.727
TRT2 - TRT1	-5.190	1.547	8.283	8.283
TRT2 - TRT3	-3.342	3.180	9.702	9.702
TRT1 - CONTROL	-8.292	-1.555	5.181	5.181
TRT1 - TRT2	-1.547	1.547	5.190	5.190
TRT1 - TRT3	-4.889	1.633	8.156	8.156
TRT3 - CONTROL	-9.711	-3.189	3.334	3.334
TRT3 - TRT2	-9.702	-3.180	3.342	3.342
TRT3 - TRT1	-8.156	-1.633	4.889	4.889

TRT2	-	CONTROL	-5.360	-0.009	5.343
TRT1	-	CONTROL	-6.907	-1.555	3.796
TRT3	-	CONTROL	-8.370	-3.189	1.993

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values			
LEVEL	4	CONTROL TRT1 TRT2 TRT3			

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect INTERCEPT Coefficients 0

LEVEL	CONTROL	L2
	TRT1	L3
	TRT2	L4
	TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3461.1202	1153.7067	5.04	0.0037
Error	54	12354.0862	228.7794		
Corrected Total	57	15815.2064			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.218848	22.99297	15.125	65.783

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3461.1202	1153.7067	5.04	0.0037

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	HO: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	1 2 3 4
CONTROL	71.6622219		0.5470 0.9867 0.0018
TRT1	68.1970491	1	0.5470 0.5581 0.0102
TRT2	71.5642525	2	0.9867 0.5581 0.0019
TRT3	53.4658988	3 4	0.0018 0.0102 0.0019

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 228.7794
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by '****'.

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT2		-15.059	0.096	15.251
CONTROL - TRT1		-11.689	3.465	18.620
CONTROL - TRT3		3.523	18.196	32.870
TRT2 - CONTROL		-15.251	-0.096	15.059
TRT2 - TRT1		-11.785	3.369	18.524
TRT2 - TRT3		3.427	18.100	32.774
TRT1 - CONTROL		-18.620	-3.465	11.689
TRT1 - TRT2		-18.524	-3.369	11.785
TRT1 - TRT3		0.058	14.731	29.405
TRT3 - CONTROL		-32.870	-18.196	-3.523
TRT3 - TRT2		-32.774	-18.100	-3.427
TRT3 - TRT1		-29.405	-14.731	-0.058

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This test controls the type I experimentwise error for

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comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 228.7794
Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-12.135	-0.096	-0.096	11.943	
TRT1 - CONTROL	-15.504	-3.465	-3.465	8.574	
TRT3 - CONTROL	-29.853	-18.196	-18.196	-6.539	***

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	L2 L3 L4 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Dependent Variable: RESPONSE					
Model	3	5788.5229	1929.5076	7.10	0.0004
Error	54	14669.5384	271.6581		
Corrected Total	57	20458.0613			

R-Square C.V. Root MSE RESPONSE Mean
0.282946 29.76066 16.482 55.382

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	5788.5229	1929.5076	7.10	0.0004

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T H0: LSMEAN(i)=LSMEAN(j)			
		1	2	3	4
CONTROL	62.7109771	1	0.3047	0.7420	0.0004
TRT1	56.2557532	2	0.3047	0.1773	0.0093
TRT2	64.7720511	3	0.7420	0.1773	0.0001
TRT3	39.9883789	4	0.0004	0.0093	0.0001

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: RESPONSE

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 271.6581
Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Simultaneous Upper Confidence Limit	Difference Between Means	Simultaneous	
				Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-14.453	2.061	2.061	18.575	
TRT2 - TRT1	-7.998	8.516	8.516	25.030	
TRT2 - TRT3	8.794	24.784	24.784	40.773	***
CONTROL - TRT2	-18.575	-2.061	-2.061	14.453	
CONTROL - TRT1	-10.059	6.455	6.455	22.969	
CONTROL - TRT3	6.733	22.723	22.723	38.712	***
TRT1 - TRT2	-25.030	-8.516	-8.516	7.998	
TRT1 - CONTROL	-22.969	-6.455	-6.455	10.059	
TRT1 - TRT3	0.278	16.267	16.267	32.257	***
TRT3 - TRT2	-60.773	-24.784	-24.784	-8.794	***
TRT3 - CONTROL	-38.712	-6.733	-6.733	-22.723	***
TRT3 - TRT1	-32.257	-16.267	-16.267	-0.278	***

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: RESPONSE

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 271.6581
 Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-11.058	2.061	15.180
TRT1 - CONTROL	-19.574	-6.455	6.664
TRT3 - CONTROL	-35.425	-22.723	-10.020

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 56 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT	0
LEVEL CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: THICK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.0001973	0.0000658	0.23	0.8777
Error	52	0.0151124	0.0002906		
Corrected Total	55	0.0153097			

R-Square 0.012888
 C.V. 7.507624
 Root MSE 0.0170
 THICK Mean 0.2271

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.0001973	0.0000658	0.23	0.8777

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	THICK LSMEAN	Pr > T HO: LSMEAN(i)=LSMEAN(j)
CONTROL	0.22400000	1 0.4361 0.5763 0.5704
TRT1	0.22915385	2 0.4361 0.8278 0.8036
TRT2	0.22769231	3 0.5763 0.8278 0.9838
TRT3	0.22756250	4 0.5704 0.8036 0.9838

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: THICK

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 0.000291
 Critical Value of Studentized Range= 3.753

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - TRT2	-0.016285	0.001462	0.019209
TRT1 - TRT3	-0.015503	0.001591	0.018486
TRT1 - CONTROL	-0.012273	0.005154	0.022581
TRT2 - TRT1	-0.019209	-0.001462	0.016285

TRT2 - TRT3 0.000130 0.017024
 TRT2 - CONTROL 0.003692 0.021120
 TRT3 - TRT1 -0.018486 0.015303
 TRT3 - TRT2 -0.017024 0.016765
 TRT3 - CONTROL -0.012996 0.003562 0.020121
 CONTROL - TRT1 -0.022581 -0.005154 0.012273
 CONTROL - TRT2 -0.021120 -0.003692 0.013735
 CONTROL - TRT3 -0.020121 -0.003562 0.012996

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

10:24 Sunday, January 30, 2000
 General Linear Models Procedure

Dunnett's One-tailed T tests for variable: THICK
 NOTE: This tests controls the type I experimentwise error for
 comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 0.000291
 Critical Value of Dunnett's T= 2.111

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT1 - CONTROL	-0.008706	0.005154	0.003692	0.019014	
TRT2 - CONTROL	-0.010168	0.003692	0.003692	0.017552	
TRT3 - CONTROL	-0.009607	0.003562	0.003562	0.016732	

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 58 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Coefficients
 INTERCEPT 0

LEVEL CONTROL L2
 TRT1 L3
 TRT2 L4
 TRT3 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

10:24 Sunday, January 30, 2000
 General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	8.9826274	2.9942091	11.70	0.0001
Error	54	13.8141795	0.2558181		
Corrected Total	57	22.7968069			

R-Square 0.394030
 C.V. 9.136512
 Root MSE 0.5058
 HATWT Mean 5.5359

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	8.9826274	2.9942091	11.70	0.0001

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

10:24 Sunday, January 30, 2000
 General Linear Models Procedure
 Least Squares Means

LEVEL	HATWT LSMEAN	Pr > T HO: LSMEAN(i)=LSMEAN(j)			
		1	2	3	4
CONTROL	6.00357143	1	0.2720	0.0050	0.0001
TRT1	5.79142857	2	0.2720	0.0749	0.0001
TRT2	5.44428571	3	0.0050	0.0749	0.0158
TRT3	4.98312500	4	0.0001	0.0001	0.0158

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

10:24 Sunday, January 30, 2000
 General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: HATWT

NOTE: This test controls the type I experimentwise error rate.
 Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 0.255818
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT1	-0.2946	0.2121	0.7189
CONTROL - TRT2	0.0525	0.5593	1.0660
CONTROL - TRT3	0.5298	1.0204	1.5111
TRT1 - CONTROL	-0.7189	-0.2121	0.2946
TRT1 - TRT2	-0.1596	0.3471	0.8539
TRT1 - TRT3	0.3176	0.8083	1.2990
TRT2 - CONTROL	-1.0660	-0.5593	-0.0525
TRT2 - TRT1	-0.8539	-0.3471	0.1596
TRT2 - TRT3	-0.0295	0.4612	0.9518
TRT3 - CONTROL	-1.5111	-1.0204	-0.5298
TRT3 - TRT1	-1.2990	-0.8083	-0.3176
TRT3 - TRT2	-0.9518	-0.4612	0.0295

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: HATWT

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 0.255818
 Critical Value of Dunnett's T= 2.106

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-0.6147	-0.2121	0.1904
TRT2 - CONTROL	-0.9619	-0.5593	-0.1567
TRT3 - CONTROL	-1.4102	-1.0204	-0.6306

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 56 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	CONTROL L2 TRT1 L3 TRT2 L4 TRT3 -L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: SURVWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	186.02332	62.00777	8.89	0.0001
Error	52	362.89883	6.97882		
Corrected Total	55	548.92214			

Source	R-Square	C.V.	Root MSE	SURVWT Mean
LEVEL	0.338888	12.26885	2.6417	21.532

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	186.02332	62.00777	8.89	0.0001

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	SURVWT LSMEAN	Pr > t HO: LSMEAN(i)=LSMEAN(j)
CONTROL	22.7428571	1 0.9434 0.6904 0.0001
TRT1	22.8153846	2 0.9434 0.6443 0.0001
TRT2	22.3428571	3 0.6904 0.6443 0.0003
TRT3	18.5333333	4 0.0001 0.0001 0.0003

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

10:24 Sunday, January 30, 2000

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General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: SURVWT

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 6.978824
Critical Value of Studentized Range= 3.753

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-2.6280	0.0725	2.7731
TRT1 - TRT2	-2.2280	0.4725	3.1731
TRT1 - TRT3	1.6252	4.2821	6.9389
CONTROL - TRT1	-2.7731	-0.0725	-2.6280
CONTROL - TRT2	-2.2501	0.4000	3.0501
CONTROL - TRT3	1.6040	4.2095	6.8151
TRT2 - TRT1	-3.1731	-0.4725	2.2280
TRT2 - CONTROL	-3.0501	-0.4000	2.2501
TRT2 - TRT3	1.2040	3.8095	6.4151
TRT3 - TRT1	-6.9389	-4.2821	-1.6252
TRT3 - CONTROL	-6.8151	-4.2095	-1.6040
TRT3 - TRT2	-6.4151	-3.8095	-1.2040

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnnett's One-tailed T tests for variable: SURVWT

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 6.978824
Critical Value of Dunnnett's T= 2.111

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-2.0750	0.0725	2.2201
TRT2 - CONTROL	-2.5074	-0.4000	1.7074
TRT3 - CONTROL	-6.2815	-4.2095	-2.1375

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Class Level Information

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Class Levels Values

LEVEL 4 CONTROL TRT1 TRT2 TRT3

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT	0
LEVEL CONTROL	L2
TRT1	L3
TRT2	L4
TRT3	-L2-L3-L4

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: FOOD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	11.313324	3.771108	0.59	0.6230
Error	55	350.483286	6.372423		
Corrected Total	58	361.796610			

R-Square 0.031270 C.V. Root MSE 2.5244
0.031270 12.17905 2.5244 FOOD Mean 20.727

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	11.313324	3.771108	0.59	0.6230

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

10:24 Sunday, January 30, 2000

General Linear Models Procedure
Least Squares Means

LEVEL	FOOD LSMEAN	Pr > T	LSMEAN(i)=LSMEAN(j)
CONTROL	21.000000	1	0.4708 0.4461 0.7671
TRT1	20.3071429	2	0.4708 0.9770 0.2994

TRT2 20.2800000 3 0.4461 0.9770 0.2775
 TRT3 21.2750000 4 0.7671 0.2994 0.2775

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 20. ANALYSIS OF FOOD CONSUMPTION

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: FOOD

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 6.372423
 Critical Value of Studentized Range= 3.747

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit		Lower Limit	Upper Limit
TRT3 - CONTROL	-2.1725	0.2750	0.2750	2.7225	
TRT3 - TRT1	-1.4797	0.9679	0.9679	3.4154	
TRT3 - TRT2	-1.4086	0.9950	0.9950	3.3986	
CONTROL - TRT3	-2.7225	-0.2750	-0.2750	2.1725	
CONTROL - TRT1	-1.8350	0.6929	0.6929	3.2207	
CONTROL - TRT2	-1.7653	0.7200	0.7200	3.2053	
TRT1 - TRT3	-3.4154	-0.9679	-0.9679	1.4797	
TRT1 - CONTROL	-3.2207	-0.6929	-0.6929	1.8350	
TRT1 - TRT2	-2.4582	0.0271	0.0271	2.5125	
TRT2 - TRT3	-3.3986	-0.9950	-0.9950	1.4086	
TRT2 - CONTROL	-3.2053	-0.7200	-0.7200	1.7653	
TRT2 - TRT1	-2.5125	-0.0271	-0.0271	2.4582	

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 20. ANALYSIS OF FOOD CONSUMPTION

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnett's One-tailed T tests for variable: FOOD

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 6.372423
 Critical Value of Dunnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit		Lower Limit	Upper Limit
TRT3 - CONTROL	-1.6683	0.2750	0.2750	2.2183	
TRT1 - CONTROL	-2.6999	-0.6929	-0.6929	1.3142	

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Class Level Information

Class Levels Values
 LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dependent Variable: POSTM

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	24946.869	6236.717	26.30	0.0001
Error	54	12807.267	237.172		
Corrected Total	58	37754.136			
R-Square		C.V.	Root MSE	POSTM Mean	
0.660772		7.039218	15.400	218.78	

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	139.381	46.460	0.20	0.8987
PREM	1	24807.488	24807.488	104.60	0.0001
Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	72.078	24.026	0.10	0.9589
PREM	1	24807.488	24807.488	104.60	0.0001

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure
 Least Squares Means

LEVEL	POSTM LSMEAN	Std Err LSMEAN	Pr > T LSMEAN=0	LSMEAN Number
CONTROL	218.118789	4.117772	0.0001	1
TRT1	220.258478	4.123019	0.0001	2

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 TRT2 219.453835 3.976402 0.0001 3
 TRT3 217.431922 3.864785 0.0001 4
 Pr > |T| HO: LSMEAN(i)=LSMEAN(j)

i/j	1	2	3	4
1		0.7147	0.8165	0.9038
2	0.7147		0.8888	0.6199
3	0.8165	0.8888		0.7169
4	0.9038	0.6199	0.7169	

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: POSTM

NOTE: This test controls the type I experimentwise error rate.
 Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 237.1716
 Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - TRT2	-13.064	1.608	16.280
TRT3 - TRT1	-11.851	3.089	18.029
TRT3 - CONTROL	-10.922	4.018	18.958
TRT2 - TRT3	-16.280	-1.608	13.064
TRT2 - TRT1	-13.690	1.481	16.652
TRT2 - CONTROL	-12.761	2.410	17.580
TRT1 - TRT3	-18.029	-3.089	11.851
TRT1 - TRT2	-16.652	-1.481	13.690
TRT1 - CONTROL	-14.501	0.929	16.359
CONTROL - TRT3	-18.958	-4.018	10.922
CONTROL - TRT2	-17.580	-2.410	12.761
CONTROL - TRT1	-16.359	-0.929	14.501

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Dunnnett's One-tailed T tests for variable: POSTM

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 237.1716
 Critical Value of Dunnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - CONTROL	-7.843	4.018	15.878
TRT2 - CONTROL	-9.634	2.410	14.453
TRT1 - CONTROL	-11.321	0.929	13.178

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 59 observations can be used in this analysis.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

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General Linear Models Procedure

Dependent Variable: POSTF

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	25242.215	6310.554	10.36	0.0001
Error	54	32886.429	609.008		
Corrected Total	58	58128.644			
R-Square		C.V.	Root MSE	POSTF Mean	
	0.434247	10.48090	24.678		235.46

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	907.104	302.368	0.50	0.6863
PREF	1	24335.111	24335.111	39.96	0.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	636.018	212.006	0.35	0.7906
PREF	1	24335.111	24335.111	39.96	0.0001

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 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

 10:24 Sunday, January 30, 2000

General Linear Models Procedure

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 237.1716
 Critical Value of Dunnett's T= 2.104
 Comparisons significant at the 0.05 level are indicated by ****.

NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 609.0079
Critical Value of Dunnett's T= 2.104

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-24.033	-4.733	14.566
TRT3 - CONTROL	-25.131	-6.125	12.881
TRT1 - CONTROL	-30.915	-11.286	8.343

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr > T H0:LSMEAN=0	LSMEAN Number
CONTROL	240.585121	6.595823	0.0001	1
TRT1	231.130429	6.599300	0.0001	2
TRT2	235.376364	6.373411	0.0001	3
TRT3	234.833553	6.169525	0.0001	4

Pr > |T| H0: LSMEAN(i)=LSMEAN(j)

i/j	1	2	3	4
1		0.3155	0.5724	0.5269
2	0.3155		0.6455	0.6835
3	0.5724	0.6455		0.9514
4	0.5269	0.6835	0.9514	

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

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General Linear Models Procedure

Tukey's Studentized Range (HSD) Test for variable: POSTF

NOTE: This test controls the type I experimentwise error rate.

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 609.0079
Critical Value of Studentized Range= 3.749

Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT2	-19.577	4.733	29.043
CONTROL - TRT3	-17.815	6.125	30.065
CONTROL - TRT1	-13.440	11.286	36.011
TRT2 - CONTROL	-29.043	-4.733	19.577
TRT2 - TRT3	-22.119	1.392	24.903
TRT2 - TRT1	-17.758	6.552	30.862
TRT3 - CONTROL	-30.065	-6.125	17.815
TRT3 - TRT2	-24.903	-1.392	22.119
TRT3 - TRT1	-18.780	5.161	29.101
TRT1 - CONTROL	-36.011	-11.286	13.440
TRT1 - TRT2	-30.862	-6.552	17.758
TRT1 - TRT3	-29.101	-5.161	18.780

ALACHLOR: REPRO. STUDY WITH THE NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

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General Linear Models Procedure

Dunnett's One-tailed T tests for variable: POSTF