

(6-6-96)

MRID No. 433380-01

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

- 1. **CHEMICAL:** Copper Oxychloride Sulfate and Copper Hydroxide PC Code No.: 023503
- 2. **TEST MATERIAL:** Copper Oxychloride Sulfate and Copper Hydroxide Purity: 92% and 88%, respectively

3. **CITATION:**
Authors: Cameron, D.M., V.A. Redgrave, M.H. Rodgers, and G.F. Healey
Title: Copper Oxychloride Sulfate and Copper Hydroxide: Effects on Reproduction in Bobwhite Quail After Dietary Administration
Study Completion Date: May 23, 1994
Laboratory: Huntingdon Research Centre Ltd., Huntingdon, Cambridgeshire, UK
Sponsor: Copper Sulphate Task Force, Valdosta, GA
Laboratory Report ID: CSF 6/942180
MRID No.: 433380-01
DP Barcode: D212814

4. **REVIEWED BY:** Max Feken, M.S., Environmental Toxicologist, KBN Engineering and Applied Sciences, Inc. *Sylvester*
Signature: *[Signature]* Date: 2/12/96

APPROVED BY: Pim Kosalwat, Ph.D., Senior Scientist, KBN Engineering and Applied Sciences, Inc.
Signature: P. Kosalwat Date: 2/12/96

5. **APPROVED BY:**
Signature: *[Signature]* Date: 6-6-96

6. **STUDY PARAMETERS**
Scientific Name of Test Organism: *Colinus virginianus*
Age of Test Organisms at Test Initiation: 9-10 months
Definitive Study Duration: 19 weeks

7. **CONCLUSIONS:** This study is scientifically sound and meets the guideline requirements for an avian reproduction study using northern bobwhite. Based upon a decrease in eggshell thickness at the highest test concentration (500 ppm) for both copper oxychloride sulfate and copper hydroxide, the NOEC was determined to be 100 ppm for both chemicals.

Results Synopsis

Copper Oxychloride Sulfate

Most sensitive endpoints: Eggshell thickness.

NOEC: 100 ppm

LOEC: 500 ppm

Copper Hydroxide

Most sensitive endpoints: Eggshell thickness.

NOEC: 100 ppm

LOEC: 500 ppm

8. ADEQUACY OF THE STUDY:

A. Classification: Core.

B. Rationale: N/A.

C. Repairability: N/A.

9. GUIDELINE DEVIATIONS:

1. The birds in this study were approximately 9-10 months old; although, typically, the first breeding season begins between 22 to 25 weeks of age.
2. The egg-laying exposure period was 9 weeks; at least 10 weeks is recommended.
3. The humidity in the egg storage unit and egg hatcher was not reported.
4. Body weights were recorded biweekly up to week 6. The guidelines recommend that body weights should be recorded up to week 8 or the onset of egg laying.

10. SUBMISSION PURPOSE:

11. MATERIALS AND METHODS:

A. Test Organisms

Guideline Criteria	Reported Information
Species A wild waterfowl species, preferably the mallard (<i>Anas platyrhynchos</i>), or an upland game species, preferably the northern bobwhite (<i>Colinus virginianus</i>)	Northern bobwhite (<i>Colinus virginianus</i>)
Age at beginning of test Birds should be approaching their first breeding season.	9-10 months old; birds were approaching their first breeding season.
Supplier All birds should be from the same source.	Obtained from Mr. B. Potter, Huntingdon, Cambridgeshire, UK
Were birds pen-reared?	Yes.
Were birds phenotypically indistinguishable from wild birds?	Yes.
Health observation period 2 to 6 weeks.	2 weeks
Were birds healthy and without excessive mortality prior to the test?	Yes.

B. Test System

Guideline Criteria	Reported Information
Were pens for adult birds of adequate size and designed to conform to good husbandry practices?	Yes.
Were pens for chicks of adequate size and designed to conform to good husbandry practices?	Yes.

Guideline Criteria	Reported Information
Were pens constructed of a nonbinding material such as galvanized or stainless steel?	Yes.
Was adequate ventilation provided?	Yes.
Temperature Approx. 21°C (70°F)	Mean: maximum 24°C minimum 22°C
Relative humidity Approx. 55%	Mean: 64%
Lighting <u>First 8 weeks:</u> 7 h per day. <u>Thereafter:</u> 16-17 h per day. At least 6 footcandles at bird level.	First 5 weeks: 7 h per day. Weeks 6-9: 16 h per day. Thereafter: 17 h per day. Illumination: 4-12 foot-candles
Diet A commercial breeder feed (or its equivalent) that is appropriate for the test species.	Adults received avian layer diet manufactured by Special Diets Services, Witham, Essex, UK Chicks were fed Standard HRC chick diet supplied by Parker Brothers Ltd, Mildenhall Suffolk, UK
Preparation of test diet A premix containing the test substance should be mechanically mixed with basal diet. If an evaporative vehicle is used, it must be completely evaporated prior to feeding.	The test material was mixed with basal diet into a premix that was used for weekly preparation of the final diet.
Was the premix stored under conditions which maintain stability?	Yes.
Was the diet analyzed to verify homogeneity and stability of the test substance?	Yes.

Guideline Criteria	Reported Information
<u>Replenishment of feed</u>	<p>Adult diets were prepared weekly. Additional diets were prepared when necessary.</p> <p>Feed and water were provided <i>ad libitum</i> for the adults and offspring.</p>

C. Test Design

Guideline Criteria	Reported Information
<p><u>Nominal concentrations</u> At least two concentrations other than the control are required; three or more are strongly recommended. The highest test concentrations should show a significant effect or be at or above the maximum field residue level.</p>	<p>Nominal concentrations: Control; 100 and 500 ppm copper oxychloride sulfate; 100 and 500 ppm copper hydroxide.</p> <p>Max. residue level: Not reported for both chemicals.</p>
<p><u>Control</u> Vehicle control.</p>	Negative control.
<p><u>Vehicle</u> Corn oil or other appropriate vehicle.</p>	None was used.
<p><u>Vehicle amount (% of diet by weight)</u> Not more than 2%.</p>	N/A
<p><u>Number of birds per pen</u> One male and 1 female per pen is strongly recommended. For quail, 1 male and 2 females may be acceptable. For ducks, 2 males and 5 females may be acceptable.</p>	1 male and 1 female per pen.

Guideline Criteria	Reported Information
<p><u>Number of pens per group</u> At least 5 replicate pens are required for mallards housed in groups of 7. For other arrangements, at least 12 pens are required, but considerably more may be needed if birds are kept in pairs.</p>	16 pens per group.
<p><u>Pre-laying exposure duration</u> At least 10 weeks prior to the onset of egg-laying.</p>	10 weeks.
<p><u>Exposure duration with egg-laying</u> At least 10 weeks.</p>	9 weeks.
<p><u>Withdrawal period</u> If reduced reproduction is evident, a withdrawal period of up to 3 weeks may be added to the test phase.</p>	N/A.

D. Egg Collection and Incubation

Guideline Criteria	Reported Information
Were eggs collected daily?	Yes.
<p><u>Egg storage temperature</u> Approximately 16°C (61°F)</p>	Set at 16°C.
<p><u>Egg storage humidity</u> Approximately 65%</p>	Not reported.
Were eggs set weekly?	Yes.
Were eggs candled for cracks prior to being set for incubation on Day 0?	Yes.
<p><u>Candling for fertility</u> Quail: approx. Day 11 Ducks: approx. Day 14</p>	Eggs were candled on days 11 and 18.
<p><u>Transfer of eggs to hatcher</u> Bobwhite: Day 21 Mallard: Day 23</p>	Eggs were transferred on Day 22.

Guideline Criteria	Reported Information
Hatching temperature 39°C (102°F) is recommended	37.5°C
Hatching humidity 70% is recommended	Not reported.
Day after egg set that chicks were removed and counted Bobwhite: Day 24 Mallard: Day 27	Chicks that had hatched were removed and counted on Day 24. All remaining hatchlings and unhatched eggs were removed on Day 25.

E. Eggshell Thickness Measurement

Guideline Criteria	Reported Information
Collection Schedule At least once every two weeks (Week 1, 3, 5, 7 and 9).	All eggs laid on the first day of Weeks 11, 13, 15, 17, and 19 in each replicate were removed for eggshell thickness measurement.
Were shells opened, washed, and air dry for at least 48 hours before measuring?	Yes; shells air dried for at least 48 hours.
Measurement 3-4 measurements per eggs to the nearest 0.01 mm.	4 measurements to the nearest 0.01 mm.

12. REPORTED RESULTS

Guideline Criteria	Reported Information
Quality assurance and GLP compliance statements were included in the report?	Yes.
Did diet analysis verify the concentrations of test material?	Yes.
Did diet analysis show that the test substance was stable and homogeneous?	Yes.

Guideline Criteria	Reported Information
Were body weights of adults reported for test initiation and biweekly up to week 8 or the onset of egg laying?	No, body weights were reported biweekly up to week 6 and on the final week.
Was average food consumption of adults reported at least biweekly?	Yes.
<p>Reproductive Endpoints The following endpoints should be reported:</p> <ul style="list-style-type: none"> • Eggs laid • Eggs cracked • Eggs set • Viable embryos • Live 3-week embryos • Normal hatchlings • 14-day-old survivors • Weights of 14-day-old survivors • Egg shell thickness • Total food consumption • Initial and final body weights, by sex 	All endpoints listed at left plus eggs laid per female, number of dead hatchlings in shell (both pipped and not pipped), and hatchling weight.
Were data reported by pen for all endpoints?	Yes.

Significant Results: There were no treatment related mortalities, overt signs of toxicity or treatment related effects on body weight or feed consumption at any concentration tested. There was a significant decrease in eggshell thickness at the highest test concentration (500 ppm) for both copper oxychloride sulfate and copper hydroxide. No other reproductive parameters were adversely affected.

13. VERIFIED STATISTICAL RESULTS

Means of Endpoints - Copper Oxychloride Sulfate

Endpoint	Control	100 ppm	500 ppm
Eggs laid (EL)	36 (13)	42 (12)	37 (14)
Eggs cracked (EC)	1.8 (1.7)	1.5 (1.6)	2.1 (3.1)
Eggs set (ES)	31 (12)	38 (11)	32 (13)

Endpoint	Control	100 ppm	500 ppm
Viable embryos (VE)	30 (12)	35 (13)	29 (14)
Live 3-wk embryos (LE)	27 (11)	34 (13)	27 (14)
Normal hatchlings (NH)	25 (11)	30 (13)	24 (15)
14-day-old survivors (HS)	22 (10)	26 (12)	19 (14)
Egg shell thickness (THICK)	0.215 (0.021)	0.205 (0.013)	0.203 (0.013)
Hatchling weight (HATWT)	6.6 (0.5)	6.5 (0.6)	6.6 (0.6)
14-day-old survivor weight (SURVWT)	25.0 (2.2)	26.8 (2.9)	25.8 (2.4)
Mean food consumption (FOOD) g/bird/day	17.3 (1.7)	18.0 (1.6)	17.5 (1.6)
Final weight of males (POSTM)	200 (12)	192 (16)	190 (22)
Final weight of females (POSTF)	204 (23)	213 (30)	207 (23)

Means of Endpoints - Copper Hydroxide

Endpoint	Control	100 ppm	500 ppm
Eggs laid (EL)	36 (13)	41 (14)	37 (13)
Eggs cracked (EC)	1.8 (1.7)	1.2 (1.5)	1.5 (1.5)
Eggs set (ES)	31 (12)	37 (13)	33 (13)
Viable embryos (VE)	30 (12)	33 (12)	31 (13)
Live 3-wk embryos (LE)	27 (11)	32 (12)	30 (13)
Normal hatchlings (NH)	25 (11)	29 (11)	28 (13)
14-day-old survivors (HS)	22 (10)	26 (12)	26 (13)

Endpoint	Control	100 ppm	500 ppm
Egg shell thickness (THICK)	0.215 (0.021)	0.210 (0.017)	0.202 (0.014)
Hatchling weight (HATWT)	6.6 (0.5)	6.5 (0.3)	6.5 (0.3)
14-day-old survivor weight (SURVWT)	25.0 (2.2)	26.2 (2.0)	26.5 (1.9)
Mean food consumption (FOOD) g/bird/day	17.3 (1.7)	18.3 (2.0)	17.2 (0.8)
Final weight of males (POSTM)	200 (12)	182 (24)	199 (10)
Final weight of females (POSTF)	204 (23)	206 (29)	207 (21)

Statistically Significant Endpoints

Endpoint	Statistical Method	Levels at which Effect Was Observed	
		Copper Oxychloride Sulfate	Copper Hydroxide
Eggshell Thickness	Dunnett's	500 ppm	500 ppm
Male Body Weight	Dunnett's	None	100 ppm*

* Does not appear to be treatment related.

14. **REVIEWER'S COMMENTS:** Based on a statistically significant decrease in eggshell thickness at the highest nominal test concentration (500 ppm) for both copper oxychloride sulfate and copper hydroxide, the NOEL and LOEL are determined to be 100 and 500 ppm, respectively, for both chemicals. This study is scientifically sound and fulfills the guideline requirements for an avian reproduction test using northern bobwhite. This study is classified as Core.

Variable	Label	N	Mean	Std Dev	CV
EL		16	36.125	12.966	35.892
EC		16	1.81	1.21	92.801
ES		16	31.44	36.57	37.077
VE		16	29.69	33.29	40.603
LE		16	27.25	31.93	40.721
NH		16	24.75	29.21	44.640
HS		16	21.63	26.00	47.875
ES/EL (%)		16	86.44	89.23	9.615
(EL-EC)/EL (%)		16	93.79	96.84	8.092
VE/ES (%)		16	92.84	91.89	9.780
LE/VE (%)		16	92.65	96.02	9.654
NH/EL (%)		16	67.36	71.31	5.794
NH/ES (%)		16	78.11	79.42	7.421
NH/LE (%)		16	90.60	90.04	11.353
HS/ES (%)		16	66.93	70.51	8.577
HS/NH (%)		16	84.92	88.76	19.269
THICK		16	0.22	0.21	8.252
HATWT		16	6.61	6.51	8.252
SURVMT		16	25.00	26.16	8.252
FOOD		16	17.29	18.34	8.252
POSTM		16	199.50	182.43	8.252
POSTF		16	203.63	206.21	8.252

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
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LEVEL=CONTROL

Variable	Label	N	Mean	Std Dev	CV
EL		16	36.125	12.966	35.892
EC		16	1.81	1.21	92.801
ES		16	31.438	11.656	37.077
VE		16	29.688	12.054	40.603
LE		16	27.250	11.097	40.721
NH		16	24.750	11.048	44.640
HS		16	21.625	10.353	47.875
TRICK		14	0.215	0.021	9.615
HATWT		16	6.611	0.535	8.092
SURVMT		16	25.000	2.184	8.738
FOOD		16	17.288	1.691	9.780
PREM		16	196.250	11.036	5.654
POSTM		16	199.500	11.559	5.794
POSTF		16	187.625	13.923	7.421
ES/EL (%)		16	203.625	23.117	11.353
NH/EL (%)		16	84.440	7.614	8.577
(EL-EC)/EL (%)		16	87.357	12.966	19.269
ENC_EL		16	93.789	7.759	8.252

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
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LEVEL	CONTROL	TRT1	TRT2	MEAN	MEAN
EL	36.13	40.64	36.69		
EC					
ES					
VE					
LE					
NH					
HS					
ES/EL (%)					
(EL-EC)/EL (%)					
VE/ES (%)					
LE/VE (%)					
NH/EL (%)					
NH/ES (%)					
NH/LE (%)					
HS/ES (%)					
HS/NH (%)					
THICK					
HATWT					
SURVMT					
FOOD					
POSTM					
POSTF					

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
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LEVEL	CONTROL	TRT1	TRT2	MEAN	MEAN
EL	36.13	40.64	36.69		
EC					
ES					
VE					
LE					
NH					
HS					
ES/EL (%)					
(EL-EC)/EL (%)					
VE/ES (%)					
LE/VE (%)					
NH/EL (%)					
NH/ES (%)					
NH/LE (%)					
HS/ES (%)					
HS/NH (%)					
THICK					
HATWT					
SURVMT					
FOOD					
POSTM					
POSTF					

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 VE ES VE/ES (%) 92.855 8.839 9.521
 NH ES NH/ES (%) 78.113 14.405 18.441
 HS ES HS/ES (%) 66.926 18.706 27.950
 LE VE LE/VE (%) 92.647 8.286 8.943
 NH LE NH/LE (%) 90.603 9.145 10.093
 HS NH HS/NH (%) 84.924 13.505 15.902

LEVEL=TRT1

Variable Label	N	Mean	Std Dev	CV
EL	14	40.643	13.698	33.703
EC	14	1.214	1.477	121.629
ES	14	36.571	12.954	35.421
VE	14	33.286	11.789	35.419
LE	14	31.929	11.625	36.410
NH	14	29.214	11.443	39.170
HS	14	26.000	11.536	44.369
THICK	14	0.210	0.017	8.210
HATWT	14	6.508	0.295	4.537
SURVWT	14	26.157	1.981	7.575
FOOD	14	18.336	2.017	10.999
PREM	14	185.188	13.111	7.080
POSTM	14	182.429	24.207	13.269
PREF	14	187.625	14.560	7.760
POSTF	14	206.214	28.636	13.887
ES_EL	14	89.529	7.497	8.402
NH_EL	14	71.313	15.618	21.901
ENC_EL	14	96.837	4.259	4.398
VE_ES	14	91.886	12.043	12.043
NH_ES	14	79.417	13.903	17.507
HS_ES	14	70.510	15.478	21.951
LE_VE	14	96.022	4.334	4.513
NH_LE	14	90.038	10.086	11.202
HS_NH	14	88.758	11.885	13.390

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
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LEVEL=TRT2

Variable Label	N	Mean	Std Dev	CV
EL	13	36.692	13.344	36.367
EC	13	1.462	1.450	99.212
ES	13	32.846	12.694	38.647
VE	13	31.154	13.069	41.951
LE	13	30.251	13.186	43.616
NH	13	28.385	13.351	47.037
HS	13	26.077	13.419	51.460
THICK	13	0.202	0.014	6.739
HATWT	12	6.533	0.299	4.580
SURVWT	12	26.467	1.942	7.338
FOOD	12	17.200	0.825	4.794
PREM	13	100.125	15.448	8.125
POSTM	13	199.231	10.353	5.197
PREF	13	183.875	9.387	5.105
POSTF	13	206.615	20.791	10.063
ES_EL	13	82.525	25.238	30.582
NH_EL	13	70.231	26.449	37.659
ENC_EL	13	96.148	3.971	4.130
VE_ES	12	84.203	11.382	12.382
NH_ES	12	77.131	17.131	20.168
HS_ES	12	77.158	19.474	25.239
LE_VE	12	96.272	5.831	6.057
NH_LE	12	93.149	10.602	11.382

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
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 HS_NH HS/NH (%) 90.561 10.928 12.067
 COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 1. ANALYSIS OF EGGS LAID

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General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 1. ANALYSIS OF EGGS LAID

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General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 1. ANALYSIS OF EGGS LAID

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General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	173.94090	86.97045	0.49	0.6162
Error	40	7097.73352	177.44334		
Corrected Total	42	7271.67442			

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	173.94090	86.97045	0.49	0.6162

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 1. ANALYSIS OF EGGS LAID

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General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	173.94090	86.97045	0.49	0.6162
Error	40	7097.73352	177.44334		
Corrected Total	42	7271.67442			

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	173.94090	86.97045	0.49	0.6162

General Linear Models Procedure
Least Squares Means

LEVEL	EL	Pr > T	LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/J	2 3
CONTROL	36.1250000	1	0.3596 0.9098
TRT1	40.6428571	2	0.3596 0.4458
TRT2	36.6923077	3	0.9098 0.4458

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
1. ANALYSIS OF EGGS LAID

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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= 40 MSE= 177.4433
Critical Value of Studentized Range= 3.442

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	-8.537	3.951	16.438
TRT1 - TRT2	-7.347	4.518	16.383
TRT2 - CONTROL	-16.438	-3.951	8.537
TRT2 - TRT1	-11.539	0.567	12.673
CONTROL - TRT1	-16.383	-4.518	7.347
CONTROL - TRT2	-12.673	-0.567	11.539

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
1. ANALYSIS OF EGGS LAID

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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= 40 MSE= 177.4433
Critical Value of Dunnnett's T= 1.977

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	-5.119	4.518	14.155

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

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General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

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General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

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General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2.7187740	1.3593870	0.57	0.5721
Error	40	96.0254121	2.4006353		
Corrected Total	42	98.7441860			

Source	R-Square	c.v.	Root MSE	EC Mean
Model	0.027534	102.4987	1.5494	1.5116

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	2.7187740	1.3593870	0.57	0.5721

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General Linear Models Procedure
Least Squares Means

LEVEL	EC	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/J	2 3
CONTROL	1.81250000	1	0.2978 0.5475
TRT1	1.21428571	2	0.2978 0.6809
TRT2	1.46153846	3	0.5475 0.6809

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

2. ANALYSIS OF EGGS CRACKED

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General Linear Models Procedure

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

NOTE: This test controls the type I experimentwise error rate.
Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 2.400635
Critical Value of Studentized Range= 3.442

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	-1.0571	0.3510	1.7591
CONTROL - TRT1	-0.7819	0.5982	1.9783
TRT2 - CONTROL	-1.7591	-0.3510	1.0571
TRT2 - TRT1	-1.2052	0.2473	1.6998
TRT1 - CONTROL	-1.9783	-0.5982	0.7819
TRT1 - TRT2	-1.6998	-0.2473	1.2052

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

2. ANALYSIS OF EGGS CRACKED

17:14 Wednesday, February 7, 1996

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= 40 MSE= 2.400635
Critical Value of Dunnett's T= 1.977

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	-1.0571	0.3510	1.7591
CONTROL - TRT1	-0.7819	0.5982	1.9783
TRT2 - CONTROL	-1.7591	-0.3510	1.0571
TRT2 - TRT1	-1.2052	0.2473	1.6998
TRT1 - CONTROL	-1.9783	-0.5982	0.7819
TRT1 - TRT2	-1.6998	-0.2473	1.2052

TRT2 - CONTROL -0.3510 0.7927
TRT1 - CONTROL -1.7191 0.5227

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

3. ANALYSIS OF EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

3. ANALYSIS OF EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

3. ANALYSIS OF EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	205.63930	102.81965	0.67	0.5182
Error	40	6153.05838	153.82646		
Corrected Total	42	6358.69767			

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	205.63930	102.81965	0.67	0.5182

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

3. ANALYSIS OF EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	205.63930	102.81965	0.67	0.5182
Error	40	6153.05838	153.82646		
Corrected Total	42	6358.69767			

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LEVEL	ES	Pr > T	HO: LSMEAN(I)=LSMEAN(J)
	LSMEAN	I/J	
CONTROL	31.4375000	1	0.2648 0.7626
TRT1	36.5714286	2	0.2648 0.4401
TRT2	32.8461538	3	0.7626 0.4401

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 3. ANALYSIS OF EGGS SET

 17:14 Wednesday, February 7, 1996
 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= 40 MSE= 153.8265
 Critical Value of Studentized Range= 3.442
 Comparisons significant at the 0.05 level are indicated by *****.

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Limit	Upper Limit		Lower Limit	Upper Limit
TRT1 - TRT2	-7.902	3.725	3.725	15.352	15.352
TRT1 - CONTROL	-5.913	5.134	5.134	16.181	16.181
TRT2 - TRT1	-15.352	-3.725	-3.725	7.902	7.902
TRT2 - CONTROL	-9.863	1.409	1.409	12.680	12.680
CONTROL - TRT1	-16.181	-5.134	-5.134	5.913	5.913
CONTROL - TRT2	-12.680	-1.409	-1.409	9.863	9.863

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 3. ANALYSIS OF EGGS SET

 17:14 Wednesday, February 7, 1996
 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= 40 MSE= 153.8265
 Critical Value of Dunnett's T= 1.977
 Comparisons significant at the 0.05 level are indicated by *****.

LEVEL Comparison	Simultaneous Lower Limit	Difference Between Means	Simultaneous Upper Limit
TRT1 - CONTROL	-5.913	5.134	16.181
TRT2 - CONTROL	-9.863	1.409	12.680

TRT1 - CONTROL	-3.839	5.134	14.106
TRT2 - CONTROL	-7.746	1.409	10.563

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 4. ANALYSIS OF VIABLE EMBRYOS

 17:14 Wednesday, February 7, 1996
 General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 4. ANALYSIS OF VIABLE EMBRYOS

 17:14 Wednesday, February 7, 1996
 General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Coefficients

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 4. ANALYSIS OF VIABLE EMBRYOS

 17:14 Wednesday, February 7, 1996
 General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	97.032817	48.541408	0.32	0.7268
Error	40	6035.986951	150.899674		
Corrected Total	42	6133.019767			

R-Square	C.V.	Root MSE	VE Mean
0.015829	39.24348	12.284	31.302

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	97.082817	48.541408	0.32	0.7268

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

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17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	LSMEAN	VE	PR > T	H0: LSMEAN(I)=LSMEAN(J)
		1/1	1/2	3
CONTROL	29.6875000	1	0.4282	0.7509
TRT1	33.2857143	2	0.4282	0.6547
TRT2	31.1538462	3	0.7509	0.6547

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS

17:14 Wednesday, February 7, 1996

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= 40 MSE= 150.8997
 Critical Value of Studentized Range= 3.442

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	-9.384	2.132	13.648
TRT1 - CONTROL	-7.344	3.598	14.540
TRT2 - TRT1	-13.648	-2.132	9.384
TRT2 - CONTROL	-9.698	1.466	12.630
CONTROL - TRT1	-14.540	-3.598	7.344
CONTROL - TRT2	-12.630	-1.466	9.698

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS

17:14 Wednesday, February 7, 1996

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= 40 MSE= 150.8997
 Critical Value of Dunnett's T= 1.977

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

LEVEL	Simultaneous Lower Confidence	Difference Between	Simultaneous Upper Confidence
TRT1	-14.540	-3.598	7.344
TRT2	-12.630	-1.466	9.698

Comparison	Limit	Means	Limit
TRT1 - CONTROL	-5.289	3.598	12.485
TRT2 - CONTROL	-7.601	1.466	10.534

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	169.20560	84.60280	0.59	0.5565
Error	40	5690.23626	142.25591		
Corrected Total	42	5859.44186			

R-Square	C.V.	Root MSE	LE Mean
0.028877	40.19323	11.927	29.674

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	169.20560	84.60280	0.59	0.5565

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	i/j	1 2 3
CONTROL	27.2500000	1	0.2902 0.5071
TRT1	31.9285714	2	0.2902 0.7136
TRT2	30.2507692	3	0.5071 0.7136

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

17:14 Wednesday, February 7, 1996

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= 40 MSE= 142.2559
Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous	
	Lower Limit	Confidence	Between Means	Upper Limit	Lower Limit	Upper Limit
TRT1 - TRT2	-9.483	-5.945	1.698	4.679	12.879	15.302
TRT2 - TRT1	-12.879	-7.859	-1.698	2.981	9.483	13.820
CONTROL - TRT1	-15.302	-13.820	-4.679	-2.981	5.945	7.859

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 40 MSE= 142.2559
Critical Value of Dunnnett's T= 1.977

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

Simultaneous Lower	Difference	Simultaneous Upper
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COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL HATCHLINGS

LEVEL Comparison	Confidence Limit	Between Means	Confidence Limit
TRT1 - CONTROL	-3.950	4.679	13.307
TRT2 - CONTROL	-5.823	2.981	11.784

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL HATCHLINGS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL HATCHLINGS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL HATCHLINGS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: NH	DF	Sum of Squares	Mean Square	F Value	Pr > F
Source	2	170.63570	85.31785	0.60	0.5528
Model	40	5672.43407	141.81085		
Error	42	5843.06977			
Corrected Total					

R-Square	C.V.	Root MSE	NH Mean
0.029203	43.61693	11.908	27.302

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	170.63570	85.31785	0.60	0.5528

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COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL MATCHINGS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	NH	PT > T	NO: LSMEAN(I)=LSMEAN(J)
		1	2	3
CONTROL	24.750000	1	0.3118	0.4185
TRT1	29.2142857	2	0.3118	0.8574
TRT2	28.3846154	3	0.4185	0.8574

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL MATCHINGS

17:14 Wednesday, February 7, 1996

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= 40 MSE= 141.8109
Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Limit	Upper Limit		Lower Limit	Upper Limit
TRT1 - TRT2	-10.334	0.830	0.830	11.993	15.071
TRT1 - CONTROL	-6.143	4.464	4.464	10.334	14.457
TRT2 - TRT1	-11.993	-0.830	-0.830	6.143	7.188
TRT2 - CONTROL	-7.188	3.635	3.635	11.993	15.071
CONTROL - TRT1	-15.071	-4.464	-4.464	10.334	14.457
CONTROL - TRT2	-14.457	-3.635	-3.635	11.993	15.071

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL MATCHINGS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnett'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= 40 MSE= 141.8109
Critical Value of Dunnett's T= 1.977

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

Simultaneous Simultaneous

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

LEVEL	Class	Levels	Values
CONTROL	TRT1	TRT2	

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: HS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	195.60599	97.80300	0.71	0.4970
Error	40	5490.67308	137.46683		
Corrected Total	42	5684.27907			

R-Square	C.V.	Root MSE	HS Mean
0.034351	48.06090	11.725	24.395

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	195.60599	97.80300	0.71	0.4970

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COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	HS 1/j	Pr > T	H0: LSMEAN(i)=LSMEAN(j) 2 3
CONTROL	21.6250000	1	0.3140	0.3153
TRT1	26.0000000	2	0.3140	0.9865
TRT2	26.0769231	3	0.3153	0.9865

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:14 Wednesday, February 7, 1996

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 Confidence= 0.95 df= 40 MSE= 137.4668
Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - TRT1	-10.914	0.077	11.068
TRT2 - CONTROL	-6.204	4.452	15.107
TRT1 - TRT2	-11.068	-0.077	10.914
TRT1 - CONTROL	-6.068	4.375	14.818
CONTROL - TRT2	-15.107	-4.452	6.204
CONTROL - TRT1	-14.818	-4.375	6.068

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:14 Wednesday, February 7, 1996

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 Confidence= 0.95 df= 40 MSE= 137.4668
Critical Value of Dunnnett's T= 1.977

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-4.202	4.452	13.106
TRT1 - CONTROL	-4.107	4.375	12.857

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	Df	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1899.2621	949.1310	0.81	0.4505
Error	40	46932.1407	1173.3035		
Corrected Total	42	48830.4028			
R-Square					RESPONSE Mean
	0.038875	48.33924	34.254		71.609
Source	Df	Type I SS	Mean Square	F Value	Pr > F

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	69.5713557	1	0.2378	0.3514
TRT1	71.9956568	2	0.2378	0.8421
TRT2	71.5692598	3	0.3514	0.8421

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

17:14 Wednesday, February 7, 1996

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= 40 MSE= 1173.304
 Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - TRT2	-31.685	0.426	32.538
TRT1 - CONTROL	-28.086	2.424	32.935
TRT2 - TRT1	-32.538	-0.426	31.685
TRT2 - CONTROL	-29.132	1.998	33.128
CONTROL - TRT1	-32.935	-2.424	28.086
CONTROL - TRT2	-35.128	-1.998	29.132

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 40 MSE= 1173.304
 Critical Value of Dunnnett's T= 1.977

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT1 - CONTROL	-22.356	2.424	2.424	27.205	27.281
TRT2 - CONTROL	-23.286	1.998	1.998	27.281	27.281

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE	Sum of Squares	DF	Mean Square	F Value	P > F
Source					
Model	5879.0289	2	2939.5144	0.63	0.5360
Error	180903.2588	39	4638.5451		
Corrected Total	186782.2877	41			
R-Square					RESPONSE Mean
C.V.					Root MSE
					66.107
					79.576

LEVEL	Source	DF	Type I SS	Mean Square	F Value	Pr > F
		2	5879.0289	2939.5144	0.63	0.5360

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	Pr > t	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	79.4196760	1	0.6357 0.5106
TRT1	77.3782985	2	0.6357 0.2679
TRT2	82.3952348	3	0.5106 0.2679

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:14 Wednesday, February 7, 1996

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= 39 MSE= 4638.545
Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-60.390	2.976	66.341
TRT2 - TRT1	-60.259	5.017	70.293
CONTROL - TRT2	-66.341	-2.976	60.390
CONTROL - TRT1	-58.683	2.041	62.765
TRT1 - TRT2	-70.293	-5.017	60.259
TRT1 - CONTROL	-62.765	-2.041	58.683

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:14 Wednesday, February 7, 1996

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= 39 MSE= 4638.545

Critical Value of Dunnett's T= 1.980
Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-48.513	2.976	54.464
TRT1 - CONTROL	-51.363	-2.041	47.301

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	10978.981	5489.490	1.95	0.1566
Error	39	110054.688	2821.915		
Corrected Total	41	121033.669			

R-Square	C.v.	Root MSE	RESPONSE Mean
0.090710	65.96410	53.122	80.531

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	10978.981	5489.490	1.95	0.1566

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	I/J	1 2 3
CONTROL	77.0410083	1	0.2589 0.0574
TRT1	81.0089120	2	0.2589 0.4007
TRT2	84.0750880	3	0.0574 0.4007

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidences 0.95 df= 39 MSE= 2821.915
 Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - TRT1	-47.848	3.066	53.980
TRT2 - CONTROL	-42.389	7.034	56.457
TRT1 - TRT2	-53.980	-3.066	47.848
TRT1 - CONTROL	-43.395	3.968	51.331
CONTROL - TRT2	-56.457	-7.034	42.389
CONTROL - TRT1	-51.331	-3.968	43.395

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidences 0.95 df= 39 MSE= 2821.915
 Critical Value of Dunnett's T= 1.980

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	-33.126	7.034	47.194
TRT1 - CONTROL	-34.518	3.968	42.453

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	L2 L3
TRT1	L2-L3
TRT2	-L2-L3

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE	Sum of Squares	Mean Square	F Value	Pr > F	
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	3256.2842	1628.1421	0.50	0.6076
Error	39	125826.1523	3226.3116		
Corrected Total	41	129082.4364			
	R-Square	C.V.	Root MSE	RESPONSE Mean	

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Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	3256.2842	1628.1421	0.50	0.6076

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	i/j	1 2 3
CONTROL	75.3488335	1	0.9467 0.3701
TR11	75.6061860	2	0.9467 0.4024
TR12	78.9316061	3	0.3701 0.4024

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:14 Wednesday, February 7, 1996

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= 39 MSE= 3226.312
 Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TR12 - TR11	-51.114	3.325	57.765
TR12 - CONTROL	-49.263	3.583	56.429
TR11 - TR12	-57.765	-3.325	51.114
TR11 - CONTROL	-50.386	0.257	50.901
CONTROL - TR12	-56.429	-3.583	49.263
CONTROL - TR11	-50.901	-0.257	50.386

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 39 MSE= 3226.312
 Critical Value of Dunnett's T= 1.980

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TR12 - CONTROL	-39.358	3.583	46.524
TR11 - CONTROL	-40.894	0.257	41.408

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TR11 TR12

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	CONTROL L2 TR11 L3 TR12 -L2-L3

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE
 Weight: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	10891.432	5445.716	1.39	0.2610
Error	40	156760.206	3919.005		
Corrected Total	42	167651.638			

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Source	DF	Type I SS	Mean Square	F Value	Pr > F	Root MSE	RESPONSE Mean
LEVEL	2	10891.432	5445.716	1.39	0.2610	62.602	59.152

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
			1/j	2 3
CONTROL	56.4092690	1	0.5134	0.1046
TRT1	58.8470775	2	0.5134	0.3103
TRT2	62.8407501	3	0.1046	0.3103

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:14 Wednesday, February 7, 1996

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= 40 MSE= 3919.005
Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - TRT1	-54.693	3.994	62.680
TRT2 - CONTROL	-50.462	6.431	63.325
TRT1 - TRT2	-62.680	-3.994	54.693
TRT1 - CONTROL	-53.323	2.438	58.199
CONTROL - TRT2	-63.325	-6.431	50.462
CONTROL - TRT1	-58.199	-2.438	53.323

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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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= 40 MSE= 3919.005
Critical Value of Dunnett's t= 1.977

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-39.777	6.431	52.640
TRT1 - CONTROL	-42.851	2.438	47.726

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

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

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

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

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

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

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	4263.8139	2131.9069	0.77	0.4720
Error	39	108619.8086	2785.1233		

Dependent Variable: RESPONSE

Weight:

Corrected Total	41	112883.6224					
R-Square	C.V.	Root MSE	RESPONSE Mean				
0.037772	72.10746	52.774	73.188				
Source	DF	Type I SS	Mean Square	F Value	Pr > F		
LEVEL	2	4263.8139	2131.9069	0.77	0.4720		

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(1)=LSMEAN(J)
	LSMEAN	i/j	
CONTROL	71.2936602	1	0.7303 0.2359
TRT1	72.5853325	2	0.7303 0.3885
TRT2	75.8901053	3	0.2359 0.3885

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:14 Wednesday, February 7, 1996

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= 39 MSE= 2785.123
 Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - TRT1	-47.276	3.305	53.886
TRT2 - CONTROL	-44.504	4.596	53.597
TRT1 - TRT2	-53.886	-3.305	47.276
TRT1 - CONTROL	-45.762	1.292	48.345
CONTROL - TRT2	-53.697	-4.596	44.504
CONTROL - TRT1	-48.345	-1.292	45.762

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:14 Wednesday, February 7, 1996

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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 Confidences= 0.95 df= 39 MSE= 2785.123
 Critical Value of Dunnett's T= 1.960

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-35.301	4.596	44.693
TRT1 - CONTROL	-36.942	1.292	39.526

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2445.9036	1222.9518	0.67	0.5177

Dependent Variable: RESPONSE
 Weight: EL

Error	40	73096.8515	1827.4213				
Corrected Total	42	75542.7550		Root MSE	42.748	RESPONSE Mean	80.536
Source	DF	Type I SS	Mean Square	F Value	Pr > F		
LEVEL	2	2445.9036	1222.9518	0.67	0.5177		

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/j	2 3
CONTROL	79.4001555	1	0.2775 0.8358
TRT1	82.1797229	2	0.2775 0.4061
TRT2	79.9516787	3	0.8358 0.4061

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

17:14 Wednesday, February 7, 1996

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= 40 MSE= 1827.421
 Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - TRT2	-37.847	2.228	42.303
TRT1 - CONTROL	-35.297	2.780	40.857
TRT2 - TRT1	-42.303	-2.228	37.847
TRT2 - CONTROL	-38.299	0.552	39.402
CONTROL - TRT1	-40.857	-2.780	35.297
CONTROL - TRT2	-39.402	-0.552	38.299

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

17:14 Wednesday, February 7, 1996

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= 40 MSE= 1827.421
 Critical Value of Dunnett's T= 1.977

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-28.146	2.780	33.705
TRT2 - CONTROL	-31.002	0.552	32.105

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Dependent Variable: RESPONSE					
Weight: ES					

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Model	2	15248.559	7624.279	1.39	0.2624
Error	39	214687.661	5504.812		
Corrected Total	41	229936.220			
R-Square		C.V.	Root MSE	RESPONSE Mean	
	0.066316	110.7628	74.194	66.985	
Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	15248.559	7624.279	1.39	0.2624

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHINGS/EGGS SET

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/j	2 3
CONTROL	64.6865871	1	0.9354 0.1426
TRT1	65.0666626	2	0.9354 0.1623
TRT2	71.9925331	3	0.1426 0.1623

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHINGS/EGGS SET

 17:14 Wednesday, February 7, 1996

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= 39 MSE= 5504.812
 Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - TRT1	-64.185	6.926	78.037
TRT2 - CONTROL	-61.723	7.306	76.535
TRT1 - TRT2	-78.037	-6.926	64.185
TRT1 - CONTROL	-65.771	0.380	66.532
CONTROL - TRT2	-76.335	-7.306	61.723
CONTROL - TRT1	-66.532	-0.380	65.771

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

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15. ANALYSIS OF NORMAL HATCHINGS/EGGS SET

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 39 MSE= 5504.812
 Critical Value of Dunnnett's T= 1.960

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-48.784	7.306	63.396
TRT1 - CONTROL	-53.372	0.380	54.152

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHING SURVIVORS/EGGS SET

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHING SURVIVORS/EGGS SET

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHING SURVIVORS/EGGS SET

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE
 Weight: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	15975.780	7987.890	1.60	0.2142
Error	39	194308.718	4982.275		
Corrected Total	41	210284.497			

R-Square 0.075972
 C.V. 117.8108
 Root MSE 70.585
 RESPONSE Mean 59.914

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	15975.780	7987.890	1.60	0.2142

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	2 3
CONTROL	57.0635688	1	0.7465 0.0971
TRT1	58.5059106	2	0.7465 0.1708
TRT2	64.9603368	3	0.0971 0.1708

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:14 Wednesday, February 7, 1996

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= 39 MSE= 4982.275
 Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous Lower Confidence Limit			Simultaneous Upper Confidence Limit		
	Lower Limit	Difference Between Means	Upper Limit	Lower Limit	Difference Between Means	Upper Limit
TRT2 - TRT1	-61.197	6.454	74.106	-61.197	6.454	74.106
TRT2 - CONTROL	-57.774	7.897	73.568	-57.774	7.897	73.568
TRT1 - TRT2	-74.106	-6.454	61.197	-74.106	-6.454	61.197
TRT1 - CONTROL	-61.491	1.442	64.376	-61.491	1.442	64.376
CONTROL - TRT2	-73.568	-7.897	57.774	-73.568	-7.897	57.774
CONTROL - TRT1	-64.376	-1.442	61.491	-64.376	-1.442	61.491

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 39 MSE= 4982.275
 Critical Value of Dunnnett's T= 1.980

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Simultaneous Upper Confidence Limit	
	Lower Limit	Difference Between Means	Upper Limit	Upper Limit
TRT2 - CONTROL	-45.465	7.897	61.259	61.259
TRT1 - CONTROL	-49.695	1.442	52.580	52.580

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 41 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.0012762	0.0006381	2.08	0.1387
Error	38	0.0116477	0.0003065		
Corrected Total	40	0.0129239			
R-Square C.V. Root MSE THICK Mean					
		0.098748	8.374919	0.0175	0.2090
Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	0.0012762	0.0006381	2.08	0.1387

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

 17:14 Wednesday, February 7, 1996
 General Linear Models Procedure
 Least Squares Means

LEVEL	THICK	Pr > T	LSMEAN(I)=LSMEAN(J)
		i/j	1 2 3
CONTROL	0.21542857	1	0.3759 0.0487
TRT1	0.20950000	2	0.3759 0.2542
TRT2	0.20169231	3	0.0487 0.2542

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

 17:14 Wednesday, February 7, 1996
 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= 38 MSE= 0.000307
 Critical Value of Studentized Range= 3.449

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT1	-0.010210	0.005929	0.022067
CONTROL - TRT2	-0.002710	0.013736	0.030152
TRT1 - CONTROL	-0.022067	-0.005929	0.010210
TRT1 - TRT2	-0.008638	0.007808	0.024254
TRT2 - CONTROL	-0.030182	-0.013736	0.002710
TRT2 - TRT1	-0.024254	-0.007808	0.008638

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

 17:14 Wednesday, February 7, 1996

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= 38 MSE= 0.000307
 Critical Value of Dunnett's T= 1.975
 Comparisons significant at the 0.05 level are indicated by ****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-0.018997	-0.005929	0.007139
TRT2 - CONTROL	-0.027053	-0.013736	-0.000419

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 18. ANALYSIS OF MATCHING WEIGHT

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 18. ANALYSIS OF MATCHING WEIGHT

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEV1

Coefficients

Effect	Estimate
INTERCEPT	0
LEVEL	
CONTROL	L2
TRT1	L3
TRT2	-L2-L3

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 18. ANALYSIS OF MATCHING WEIGHT

 17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.0873631	0.0436815	0.27	0.7680
Error	39	6.4116774	0.1644020		
Corrected Total	41	6.4990405			

R-Square	C.V.	Root MSE	HATWT Mean
0.013442	6.186035	0.4055	6.5545

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	0.0873631	0.0436815	0.27	0.7680

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
18. ANALYSIS OF HATCHLING WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	HATWT	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	6.61125000	1	0.4901 0.6176
TRT1	6.50785714	2	0.4901 0.8739
TRT2	6.53333333	3	0.6176 0.8739

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
18. ANALYSIS OF HATCHLING WEIGHT

17:14 Wednesday, February 7, 1996

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= 39 MSE= 0.164402
Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT2	-0.2993	0.0779	0.4552
CONTROL - TRT1	-0.2581	0.1034	0.4649
TRT2 - CONTROL	-0.4552	-0.0779	0.2993
TRT2 - TRT1	-0.3631	0.0255	0.4141
TRT1 - CONTROL	-0.4649	-0.1034	0.2581

TRT1 - TRT2 -0.4141 -0.0255 0.3631

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
18. ANALYSIS OF HATCHLING WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 39 MSE= 0.164402
Critical Value of Dunnnett's T= 1.980

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-0.3844	-0.0779	0.2286
TRT1 - CONTROL	-0.3971	-0.1034	0.1904

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	L2 L3 -L2-L3

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	17.358095	8.679048	2.06	0.1408
Error	39	164.100952	4.207717		
Corrected Total	41	181.459048			

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	17.358095	8.679048	2.06	0.1408

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	SURVMT	Pr > T	LSMEAN(I)=LSMEAN(J)
CONTROL	25.0000000	1	0.1313 0.0687
TRT1	26.1571429	2	0.1313 0.7034
TRT2	26.4666667	3	0.0687 0.7034

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidences= 0.95 df= 39 MSE= 4.207717
Critical value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - TRT1	-1.6565	0.3095	2.2755
TRT2 - CONTROL	-0.4418	1.4667	3.3751
TRT1 - TRT2	-2.2755	-0.3095	1.6565
TRT1 - CONTROL	-0.6718	1.1571	2.9861

CONTROL - TRT2 -3.3751 0.4418
CONTROL - TRT1 -2.9861 -1.1571 0.6718

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidences= 0.95 df= 39 MSE= 4.207717
Critical Value of Dunnnett's T= 1.980

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	-0.0841	1.4667	3.0174
TRT1 - CONTROL	-0.3290	1.1571	2.6432

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	L2 L3
TRT1	L2-L3
TRT2	-L2-L3

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	11.220125	5.610062	2.16	0.1286
Error	40	103.909643	2.597741		
Corrected Total	42	115.129767			

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	11.220125	5.610062	2.16	0.1286

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	FOOD	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	I/J	1 2 3
CONTROL	17.2875000	1	0.0832 0.8851
TRT1	18.3357143	2	0.0832 0.0748
TRT2	17.2000000	3	0.8851 0.0748

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:14 Wednesday, February 7, 1996

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= 40 MSE= 2.597741
Critical Value of Studentized Range= 3.442

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	-0.3874	1.0482	2.4838
TRT1 - TRT2	-0.3752	1.1357	2.6467
CONTROL - TRT1	-2.4838	-1.0482	0.3874
CONTROL - TRT2	-1.5773	0.0875	1.5523

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-2.6467	-1.1357	0.3752
TRT2 - CONTROL	-1.5523	-0.0875	1.5773

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:14 Wednesday, February 7, 1996

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= 40 MSE= 2.597741
Critical Value of Dunnett's T= 1.977

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	-0.1178	1.0482	2.2142
TRT2 - CONTROL	-1.2772	-0.0875	1.1022

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: POSTM

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3502.9723	1167.6574	4.50	0.0082
Error	39	10118.1905	259.4408		
Corrected Total	42	13621.1626			

R-Square	C.V.	Root MSE	POSTM Mean

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	2713.4265	1356.7133	5.23	0.0097
PREM	1	789.5457	789.5457	3.04	0.0890

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	2	1580.4470	790.2235	3.05	0.0590
PREM	1	789.5457	789.5457	3.04	0.0890

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	POSTM LSMEAN	Std Err LSMEAN	Pr > t HO:LSMEAN=0	LSMEAN Number
CONTROL	198.208407	4.094270	0.0001	1
TRT1	184.610476	4.482837	0.0001	3
TRT2	198.470432	4.488535	0.0001	3

Pr > |t| HO: LSMEAN(i)=LSMEAN(j)

i/j	1	2	3
1		0.0349	0.9655
2	0.0349		0.0373
3	0.9655	0.0373	

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

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= 39 MSE= 259.4400
Critical Value of Studentized Range= 3.245

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT2	-14.384	0.269	14.922
CONTROL - TRT1	2.710	17.071	31.433
TRT2 - CONTROL	-14.922	-0.269	14.384
TRT2 - TRT1	1.688	16.802	31.917
TRT1 - CONTROL	-31.433	-17.071	-2.710

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

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2051.4572	683.7191	1.22	0.3160
Error	39	21890.8893	561.3049		
Corrected Total	42	23942.0465			

R-Square	C.V.	Root MSE	POSTF Mean
0.085672	11.53607	23.692	205.37

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Dunnett'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= 39 MSE= 259.4408
Critical Value of Dunnett's T= 1.978

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-12.167	-0.269	11.629
TRT1 - CONTROL	-28.732	-17.071	-5.410

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variables: POSTF

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2051.4572	683.7191	1.22	0.3160
Error	39	21890.8893	561.3049		
Corrected Total	42	23942.0465			

R-Square	C.V.	Root MSE	POSTF Mean
0.085672	11.53607	23.692	205.37

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	78.8624	39.4312	0.07	0.9323
PREF	1	1972.2948	1972.2948	3.51	0.0684

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	2	209.6265	104.8133	0.19	0.8304
PREF	1	1972.2948	1972.2948	3.51	0.0684

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr > T HO:LSMEAN=0	LSMEAN Number
CONTROL	203.572716	5.923034	0.0001	1
TRT1	204.286753	6.414872	0.0001	2
TRT2	208.753540	6.669394	0.0001	3

Pr > |T| HO: LSMEAN(1)=LSMEAN(J)

i/j	1	2	3
1		0.9352	0.5647
2	0.9352		0.6364
3	0.5647	0.6364	

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

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

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= 32 MSE= 561.3049
Critical Value of Studentized Range= 3.445

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - TRT1	-21.831	0.401	22.633
TRT2 - CONTROL	-18.562	2.990	24.543
TRT1 - TRT2	-22.633	-0.401	21.831
TRT1 - CONTROL	-18.534	2.589	23.713
CONTROL - TRT2	-24.543	-2.990	18.562
CONTROL - TRT1	-23.713	-2.589	18.534

COPPER HYDROXIDE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:14 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 39 MSE= 561.3049
Critical Value of Dunnnett's T= 1.978

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	-14.510	2.990	20.491
TRT1 - CONTROL	-14.563	2.589	19.741

LEVEL	CONTROL	TRT1	TRT2	MEAN	STDEV	CV
1	44	41	41	41	1.81	2.13
2	40	38	37	38	31.44	32.31
3	19	17	16	17	29.69	28.63
4	50	50	50	50	27.25	26.63
5	30	30	30	30	24.75	23.75
6	16	16	16	16	21.63	19.06
7	24	24	24	24	86.44	85.82
8	25	25	25	25	93.79	94.08
9	32	32	32	32	92.84	88.44
10	23	23	23	23	92.65	91.04
11	32	32	32	32	67.36	63.13
12	31	31	31	31	78.11	72.20
13	18	18	18	18	90.60	85.77
14	31	31	31	31	66.93	57.68
15	15	15	15	15	84.92	75.03
16	31	31	31	31	0.22	0.20
17	37	37	37	37	6.61	6.57
18	37	37	37	37	25.00	25.83
19	41	41	41	41	17.29	17.46
20	31	31	31	31	199.50	190.44
21	27	27	27	27	203.63	206.94
22	32	32	32	32		
23	32	32	32	32		
24	37	37	37	37		
25	24	24	24	24		
26	41	41	41	41		
27	46	46	46	46		
28	38	38	38	38		
29	46	46	46	46		
30	38	38	38	38		
31	30	30	30	30		
32	25	25	25	25		
33	37	37	37	37		
34	37	37	37	37		
35	32	32	32	32		
36	34	34	34	34		
37	47	47	47	47		
38	19	19	19	19		
39	42	42	42	42		
40	27	27	27	27		
41	37	37	37	37		
42	11	11	11	11		
43	28	28	28	28		
44	2	2	2	2		
45	0	0	0	0		
46	53	53	53	53		
47	36	36	36	36		
48	20	20	20	20		

LEVEL	CONTROL	TRT1	TRT2	MEAN	STDEV	CV
1	190	190	190	190	1.81	2.13
2	184	184	184	184	31.44	32.31
3	184	184	184	184	29.69	28.63
4	200	200	200	200	27.25	26.63
5	193	193	193	193	24.75	23.75
6	185	185	185	185	21.63	19.06
7	195	195	195	195	86.44	85.82
8	204	204	204	204	93.79	94.08
9	199	199	199	199	92.84	88.44
10	196	196	196	196	92.65	91.04
11	187	187	187	187	67.36	63.13
12	214	214	214	214	78.11	72.20
13	209	209	209	209	90.60	85.77
14	225	225	225	225	66.93	57.68
15	203	203	203	203	84.92	75.03
16	188	188	188	188	0.22	0.20
17	182	182	182	182	6.61	6.57
18	206	206	206	206	25.00	25.83
19	189	189	189	189	17.29	17.46
20	213	213	213	213	199.50	190.44
21	202	202	202	202	203.63	206.94
22	235	235	235	235		
23	204	204	204	204		
24	238	238	238	238		
25	174	174	174	174		
26	181	181	181	181		
27	195	195	195	195		
28	175	175	175	175		
29	205	205	205	205		
30	180	180	180	180		
31	231	231	231	231		
32	163	163	163	163		
33	178	178	178	178		
34	208	208	208	208		
35	173	173	173	173		
36	199	199	199	199		
37	176	176	176	176		
38	208	208	208	208		
39	181	181	181	181		
40	199	199	199	199		
41	186	186	186	186		
42	174	174	174	174		
43	191	191	191	191		
44	181	181	181	181		
45	205	205	205	205		
46	189	189	189	189		
47	177	177	177	177		
48	206	206	206	206		
49	181	181	181	181		
50	199	199	199	199		
51	175	175	175	175		
52	194	194	194	194		
53	163	163	163	163		
54	216	216	216	216		
55	178	178	178	178		
56	208	208	208	208		
57	173	173	173	173		
58	199	199	199	199		
59	176	176	176	176		
60	208	208	208	208		
61	181	181	181	181		
62	199	199	199	199		
63	175	175	175	175		
64	208	208	208	208		
65	186	186	186	186		
66	173	173	173	173		
67	199	199	199	199		
68	176	176	176	176		
69	208	208	208	208		
70	181	181	181	181		
71	199	199	199	199		
72	176	176	176	176		
73	208	208	208	208		
74	181	181	181	181		
75	199	199	199	199		
76	176	176	176	176		
77	208	208	208	208		
78	181	181	181	181		
79	199	199	199	199		
80	176	176	176	176		
81	208	208	208	208		
82	181	181	181	181		
83	199	199	199	199		
84	176	176	176	176		
85	208	208	208	208		
86	181	181	181	181		
87	199	199	199	199		
88	176	176	176	176		
89	208	208	208	208		
90	181	181	181	181		
91	199	199	199	199		
92	176	176	176	176		
93	208	208	208	208		
94	181	181	181	181		
95	199	199	199	199		
96	176	176	176	176		
97	208	208	208	208		
98	181	181	181	181		
99	199	199	199	199		
100	176	176	176	176		

Variable Label	N	Mean	Std Dev	CV
EL	16	36.125	12.966	35.892
EC	16	1.813	1.982	92.801
ES	16	31.438	11.456	37.077
VE	16	29.668	12.054	40.933
LE	16	27.250	11.067	40.721
NH	16	24.750	11.046	44.640
HS	16	21.625	10.333	47.875
THICK	16	0.215	0.021	9.645
HATWT	16	3.611	0.535	8.992
SURVWT	16	25.000	2.184	8.736
FOOD	16	17.288	1.691	9.780
PREM	16	155.250	11.036	5.624
POSTM	16	160.500	11.559	5.794
PREF	16	167.625	13.923	7.421
POSTF	16	203.625	23.117	11.353
ES/EL (%)	16	66.440	7.414	8.577
NH/EL (%)	16	67.357	12.966	19.249
ENC_EL (EL-EC)/EL (%)	16	93.789	7.739	8.252

LEVEL	CONTROL	TRT1	TRT2	MEAN	STDEV	CV
1	44	41	41	41	1.81	2.13
2	40	38	37	38	31.44	32.31
3	19	17	16	17	29.69	28.63
4	50	50	50	50	27.25	26.63
5	30	30	30	30	24.75	23.75
6	16	16	16	16	21.63	19.06
7	24	24	24	24	86.44	85.82
8	25	25	25	25	93.79	94.08
9	32	32	32	32	92.84	88.44
10	23	23	23	23	92.65	91.04
11	32	32	32	32	67.36	63.13
12	31	31	31	31	78.11	72.20
13	18	18	18	18	90.60	85.77
14	31	31	31	31	66.93	57.68
15	15	15	15	15	84.92	75.03
16	31	31	31	31	0.22	0.20
17	37	37	37	37	6.61	6.57
18	37	37	37	37	25.00	25.83
19	41	41	41	41	17.29	17.46
20	31	31	31	31	199.50	190.44
21	27	27	27	27	203.63	206.94
22	32	32	32	32		
23	32	32	32	32		
24	37	37	37	37		
25	24	24	24	24		
26	41	41	41	41		
27	46	46	46	46		
28	38	38	38	38		
29	46	46	46	46		
30	38	38	38	38		
31	30	30	30	30		
32	25	25	25	25		
33	37	37	37	37		
34	37	37	37	37		
35	32	32	32	32		
36	34	34	34	34		
37	47	47	47	47		
38	19	19	19	19		
39	42	42	42	42		
40	27	27	27	27		
41	37	37	37	37		
42	11	11	11	11		
43	28	28	28	28		
44	2	2	2	2		
45	0	0	0	0		
46	53	53	53	53		
47	36	36	36	36		
48	20	20	20	20		

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General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 I. ANALYSIS OF EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 I. ANALYSIS OF EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Dependent Variable: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	253.04545	126.52273	0.71	0.4990
Error	41	7355.30000	179.35366		
Corrected Total	43	7605.54545			

R-Square	C.V.	Root MSE	EL Mean
0.033267	35.07507	13.392	38.182

Source	DF	Type III Sum of Squares	Mean Square	F Value	Pr > F
LEVEL	2	253.04545	126.52273	0.71	0.4990

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 I. ANALYSIS OF EGGS LAID

17:05 Wednesday, February 7, 1996

LEVEL=TRT1

Variable Label	N	Mean	Std Dev	CV
EL	12	42.000	12.497	29.755
EC	12	1.500	1.567	104.447
ES	12	37.583	10.975	29.201
VE	12	34.833	13.259	38.063
LE	12	33.583	12.930	38.500
NH	12	29.750	12.990	43.665
HS	12	26.417	12.442	47.100
TRICK	11	0.205	0.013	6.502
HATWT	12	6.531	0.562	8.609
SURVMT	12	26.783	2.894	10.806
FOOD	12	18.042	1.646	9.124
PREM	16	190.813	8.826	4.625
POSTM	10	192.300	16.166	8.407
POSTF	16	187.750	10.109	5.385
ES/EL	10	213.400	30.391	14.241
NH/EL	12	89.780	3.790	4.221
(EL-EC)/EL (%)	12	68.144	20.643	30.293
VE/ES (%)	12	96.650	3.253	3.366
NH/ES (%)	12	88.970	22.872	25.708
HS/ES (%)	12	75.801	29.792	39.252
LE/VE (%)	12	67.096	24.062	35.863
NH/LE (%)	12	94.595	4.009	4.151
HS/NH (%)	12	88.796	11.280	12.703
HS/NH (%)	12	86.675	12.464	14.381

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 I. ANALYSIS OF EGGS LAID

17:05 Wednesday, February 7, 1996

LEVEL=TRT2

Variable Label	N	Mean	Std Dev	CV
EL	16	37.375	14.408	38.549
EC	16	2.125	3.052	143.639
ES	16	32.313	13.420	41.532
VE	16	28.625	13.990	48.873
LE	16	26.625	14.394	54.061
NH	16	23.750	14.626	61.585
HS	16	19.063	14.140	74.175
TRICK	15	0.203	0.013	6.486
HATWT	15	6.573	0.577	8.780
SURVMT	15	25.627	2.372	9.169
FOOD	16	17.463	1.614	9.241
PREM	16	190.875	14.142	7.409
POSTM	16	196.438	22.373	11.748
POSTF	16	182.125	8.778	4.820
ES/EL	16	206.938	23.493	11.353
NH/EL (%)	15	85.818	9.440	11.000
(EL-EC)/EL (%)	15	63.127	26.332	41.712
VE/ES (%)	15	94.081	7.663	7.932
NH/ES (%)	15	85.441	15.877	19.082
HS/ES (%)	15	72.201	27.347	37.877
LE/VE (%)	15	57.681	28.633	49.640
NH/LE (%)	15	91.041	12.577	13.814
HS/NH (%)	15	85.771	17.036	19.862

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General Linear Models Procedure
Least Squares Means

LEVEL	EL	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/J	2 3
CONTROL	36.1250000	1	0.2573 0.7931
TRT1	42.0000000	2	0.2573 0.3711
TRT2	37.3750000	3	0.7931 0.3711

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
1. ANALYSIS OF EGGS LAID

17:05 Wednesday, February 7, 1996

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= 41 MSE= 179.3537
Critical Value of Studentized Range= 3.439

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	-7.811	-6.561	4.625	5.875	17.061
TRT2 - TRT1	-17.061	-10.264	-4.625	1.250	7.811	12.764
CONTROL - TRT1	-18.311	-12.764	-5.875	-1.250	6.561	10.264
CONTROL - TRT2						

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
1. ANALYSIS OF EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnett'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= 41 MSE= 179.3537
Critical Value of Dunnett's T= 1.975

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	-4.224	-5.875	5.875	15.974	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: EC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2.6936636	1.3494318	0.26	0.7669
Error	41	209.1675000	5.1021341		
Corrected Total	43	211.8611636			

R-Square	C.V.	Root MSE	EC Mean
0.012737	122.6997	2.2588	1.8409

Source	DF	Type III Sum of Squares	Mean Square	F Value	Pr > F
LEVEL	2	2.6988636	1.3494318	0.26	0.7669

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

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General Linear Models Procedure
Least Squares Means

LEVEL	EC	Pr > T	LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/J	2
CONTROL	1.81250000	1	0.7190
TRT1	1.50000000	2	0.7190
TRT2	2.12500000	3	0.6976

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

17:05 Wednesday, February 7, 1996

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= 41 MSE= 5.102134
Critical Value of Studentized Range= 3.439

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	Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-1.6294	0.3125	0.3125	2.2544	2.2544	2.2544
TRT2 - TRT1	-1.4725	0.6250	0.6250	2.7225	2.7225	2.7225
CONTROL - TRT2	-2.2544	-0.3125	-0.3125	1.6294	1.6294	2.4100
CONTROL - TRT1	-1.7850	0.3125	0.3125	2.4100	2.4100	2.4100
TRT1 - TRT2	-2.7225	-0.6250	-0.6250	1.4725	1.4725	1.7850
TRT1 - CONTROL	-2.4100	-0.3125	-0.3125	1.7850	1.7850	1.7850

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
2. ANALYSIS OF EGGS CRACKED

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 41 MSE= 5.102134
Critical Value of Dunnnett's T= 1.975

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	Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-1.6294	0.3125	0.3125	2.2544	2.2544	2.2544
TRT2 - TRT1	-1.4725	0.6250	0.6250	2.7225	2.7225	2.7225
CONTROL - TRT2	-2.2544	-0.3125	-0.3125	1.6294	1.6294	2.4100
CONTROL - TRT1	-1.7850	0.3125	0.3125	2.4100	2.4100	2.4100
TRT1 - TRT2	-2.7225	-0.6250	-0.6250	1.4725	1.4725	1.7850
TRT1 - CONTROL	-2.4100	-0.3125	-0.3125	1.7850	1.7850	1.7850

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COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
3. ANALYSIS OF EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
3. ANALYSIS OF EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
3. ANALYSIS OF EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	290.50379	145.25189	0.98	0.3532
Error	41	6069.29167	147.90955		
Corrected Total	43	6359.79545			

Source	R-Square	C.V.	Root MSE	Mean Square	F Value	Pr > F
LEVEL	0.045714	36.37794	12.162	145.25189	0.98	0.3532

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
3. ANALYSIS OF EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	ES	Pr > T	HO: LSMEAN(I)=LSMEAN(J)
		1/j	1	2 3
CONTROL	31.4375000	1	0.1931	0.8398
TRT1	37.5833333	2	0.1931	0.2630
TRT2	32.3125000	3	0.8398	0.2630

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
3. ANALYSIS OF EGGS SET

17:05 Wednesday, February 7, 1996

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= 41 MSE= 147.9096
Critical Value of Studentized Range= 3.439

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	Mean	Limit	Upper Limit	Lower Limit
TRT1 - TRT2	-6.023	5.271	5.271	16.564	17.439	
TRT1 - CONTROL	-5.148	6.146	6.146	6.023	11.331	
TRT2 - TRT1	-16.564	-5.271	-5.271	5.148	9.581	
TRT2 - CONTROL	-9.581	0.875	0.875	5.148	9.581	
CONTROL - TRT1	-17.439	-6.146	-6.146	5.148	9.581	
CONTROL - TRT2	-11.331	-0.875	-0.875	5.148	9.581	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
3. ANALYSIS OF EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 41 MSE= 147.9096
Critical Value of Dunnnett's T= 1.975

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	Mean	Limit	Upper Limit	Lower Limit
TRT1 - CONTROL	-17.439	-6.146	-6.146	5.148	9.581	
TRT2 - CONTROL	-11.331	-0.875	-0.875	5.148	9.581	

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COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	250.30492	145.15246	6.84	0.0072
Error	41	7046.05417	171.92327		
Corrected Total	43	7296.35909			

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	2	290.30492	145.15246	6.84	0.0072

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

LEVEL	VE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	I/J	1 2 3
CONTROL	29.6875000	1	0.3101 0.8199
TRT1	34.8333333	2	0.3101 0.2221
TRT2	28.6250000	3	0.8199 0.2221

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 4. ANALYSIS OF VIABLE EMBRYOS

 17:05 Wednesday, February 7, 1996
 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= 41 MSE= 171.9233
 Critical Value of Studentized Range= 3.439

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

LEVEL Comparison	Simultaneous		Difference	
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Upper Confidence Limit
TRT1 - CONTROL	-7.030	17.322	5.146	18.384
TRT1 - TRT2	-5.967	18.384	6.208	
CONTROL - TRT1	-17.322	7.030	-5.146	7.030
CONTROL - TRT2	-10.210	12.335	1.063	12.335
TRT2 - TRT1	-18.384	5.967	-6.208	5.967
TRT2 - CONTROL	-12.335	10.210	-1.063	10.210

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 4. ANALYSIS OF VIABLE EMBRYOS

 17:05 Wednesday, February 7, 1996
 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= 41 HSE= 171.9233
 Critical Value of Dunnett's T= 1.975

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

LEVEL	Simultaneous Lower Confidence	Simultaneous Upper Confidence	Difference Between	Upper Confidence
CONTROL	-18.384	17.322	5.146	18.384
TRT1	-12.335	10.210	1.063	12.335
TRT2	-7.030	7.030	0	7.030

Limit	Means	Limit
-4.742	5.146	15.033
-10.217	-1.063	8.092

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure
 Class Level Information

Class Levels Values
 LEVEL 3 CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Coefficients

Effect	Intercept	LEVEL
INTERCEPT	0	
LEVEL		CONTROL L2 TRT1 L3 TRT2 -L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	386.52233	194.29167	5.17	0.0027
Error	41	6703.66667	165.69919		
Corrected Total	43	7102.25000			

R-Square 0.054103
 Type I SS Mean Square F Value Pr > F

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
LEVEL	2	386.52233	194.29167	1.17	0.3027

Root MSE 12.872
 LE Mean 28.750

General Linear Models Procedure
 Least Squares Means

LEVEL	LE	Pr > T	H0: LSMEAN(1)=LSMEAN(J)
	LSMEAN	1/1	2 3
CONTROL	27.2500000	1	0.2048 0.8914
TRT1	33.5833333	2	0.2048 0.1645
TRT2	26.6250000	3	0.8914 0.1645

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 17:05 Wednesday, February 7, 1996

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= 41 MSE= 165.6992
 Critical Value of Studentized Range= 3.439
 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	Difference	Means	Difference	Upper Limit
TRT1 - CONTROL	-5.620	18.287	6.333	6.333	18.287	18.912
TRT1 - TRT2	-4.995	18.912	6.958	6.958	18.912	18.912
CONTROL - TRT1	-18.287	5.620	6.333	6.333	5.620	11.692
CONTROL - TRT2	-10.442	11.692	0.625	0.625	11.692	11.692
TRT2 - TRT1	-18.912	4.995	-6.958	-6.958	4.995	10.442
TRT2 - CONTROL	-11.692	10.442	-0.625	-0.625	10.442	10.442

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

 17:05 Wednesday, February 7, 1996

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= 41 MSE= 165.6992
 Critical Value of Dunnett's T= 1.975
 Comparisons significant at the 0.05 level are indicated by *****.

LEVEL Comparison	Simultaneous Lower		Difference		Simultaneous Upper	
	Lower	Upper	Difference	Means	Difference	Upper
TRT1 - CONTROL	-5.620	18.287	6.333	6.333	18.287	18.912
TRT1 - TRT2	-4.995	18.912	6.958	6.958	18.912	18.912
CONTROL - TRT1	-18.287	5.620	6.333	6.333	5.620	11.692
CONTROL - TRT2	-10.442	11.692	0.625	0.625	11.692	11.692
TRT2 - TRT1	-18.912	4.995	-6.958	-6.958	4.995	10.442
TRT2 - CONTROL	-11.692	10.442	-0.625	-0.625	10.442	10.442

General Linear Models Procedure
 Class Level Information

LEVEL	Class	Levels	Values
CONTROL	3	CONTROL	TRT1 TRT2

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL
 Coefficients

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 6. ANALYSIS OF NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Dependent Variable: NH

Source	Df	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	272.00000	136.00000	0.61	0.5325
Error	41	6341.05900	154.65900		
Corrected Total	43	7103.05900			

General Linear Models Procedure
 R-Square

R-Square	Adjusted R-Square	Root MSE
0.037945	0.036599	12.969

General Linear Models Procedure
 Type I SS

Source	Df	Type I SS	Mean Square	F Value	Pr > F
LEVEL CONTROL	2	272.00000	136.00000	0.61	0.4525

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL MATCHINGS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	1/1	1/2	1/3
CONTROL	24.7500000	1	0.3186	0.8284
TRT1	29.7500000	2	0.3186	0.2327
TRT2	23.7500000	3	0.8284	0.2327

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL MATCHINGS

17:05 Wednesday, February 7, 1996

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= 41 MSE= 168.2012
Critical Value of Studentized Range=3.439

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-7.043	5.000	17.043
TRT1 - TRT2	-6.043	6.000	18.043
CONTROL - TRT1	-17.043	-5.000	7.043
CONTROL - TRT2	-10.150	1.000	12.150
TRT2 - TRT1	-18.043	-6.000	6.043
TRT2 - CONTROL	-12.150	-1.000	10.150

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
6. ANALYSIS OF NORMAL MATCHINGS

17:05 Wednesday, February 7, 1996

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= 41 MSE= 168.2012
Critical Value of Dunnnett's T= 1.975

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

Simultaneous Simultaneous

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

LEVEL	Levels	Values
CONTROL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Coefficients

INTERCEPT 0

LEVEL CONTROL L2

TRT1 L3

TRT2 -L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Coefficients

INTERCEPT 0

LEVEL CONTROL L2

TRT1 L3

TRT2 -L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: HS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	374.35583	187.17992	1.22	0.3068
Error	41	6502.60417	153.89278		
Corrected Total	43	6866.96000			

R-Square	Root MSE	HS Mean
0.056014	56.38797	12.405

Source	DF	Type III Sum of Squares	Mean Square	F Value	Pr > F
LEVEL	2	374.35583	187.17992	1.22	0.3068

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COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	HS 1/2	Pr > T	HO: LSMEAN(1)=LSMEAN(2)	3
CONTROL	21.6250000	1	0.3177	0.5623	
TRT1	26.4166667	2	0.3177	0.1283	
TRT2	19.0625000	3	0.5623	0.1283	

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

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 Confidence= 0.95 df= 41 MSE= 153.8928
Critical Value of Studentized Range= 3.439

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

LEVEL Comparison	Simultaneous Lower Limit	Simultaneous Upper Limit	Difference Between Means	Simultaneous Lower Confidence Limit	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-6.728	15.311	4.792	4.792	15.311
TRT1 - TRT2	-4.165	19.874	7.354	7.354	19.874
CONTROL - TRT1	-16.311	6.728	-4.792	-4.792	6.728
CONTROL - TRT2	-8.103	13.228	2.563	2.563	13.228
TRT2 - TRT1	-18.874	4.165	-7.354	-7.354	4.165
TRT2 - CONTROL	-13.228	5.103	-2.563	-2.563	5.103

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnett'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 Confidence= 0.95 df= 41 MSE= 153.8928
Critical Value of Dunnett's T= 1.875

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	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-4.563	4.792	4.792	14.166
TRT2 - CONTROL	-11.223	-2.563	-2.563	6.098

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Type I Estimable Functions for: LEVEL

Effect Coefficients

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
8. ANALYSIS OF EGGS SET/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1241.4275	620.5938	0.45	0.6427
Error	40	57725.1242	1393.2281		
Corrected Total	42	56970.3117			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.021787	55.35087	37.326	69.549

Source	DF	Type I SS	Mean Square	F Value	Pr > F
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COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	LSMEAN	1/1	1	2	3
CONTROL	69.5713557	1	0.4542	0.9003		
TRT1	71.2906318	2	0.4542	0.3823		
TRT2	69.2968684	3	0.9003	0.3823		

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 1393.228
 Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-32.774	1.719	36.443
TRT1 - TRT2	-33.192	1.994	37.179
CONTROL - TRT1	-36.643	-1.719	32.976
CONTROL - TRT2	-32.376	0.274	32.925
TRT2 - TRT1	-37.179	-1.994	33.192
TRT2 - CONTROL	-32.925	-0.274	32.376

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 8. ANALYSIS OF EGGS SET/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 40 MSE= 1393.228
 Critical Value of Dunnnett's T= 1.977

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT1 - CONTROL	-26.462	1.719	1.719	29.901	
TRT2 - CONTROL	-26.797	-0.274	-0.274	26.248	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	4367.5380	2184.7690	0.34	0.7113
Error	40	25395.3392	634.8885		
Corrected Total	42	25832.8772			
R-Square	0.14912	101.6294	Root MSE	79.686	76.403

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Type I SS Mean Square F Value Pr > F
LEVEL 2 4369.5380 2184.7690 0.34 0.7110

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(1)=LSMEAN(2)	LSMEAN	1/J
CONTROL	79.4196760	1	0.9196	0.5079	
TRT1	79.9446095	2	0.9196	0.4566	
TRT2	76.0850271	3	0.5079	0.4566	

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:05 Wednesday, February 7, 1996

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= 40 MSE= 6349.888
Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous			Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-73.541	0.525	76.591	-73.541	0.525	76.591
TRT1 - TRT2	-71.257	3.866	78.976	-71.257	3.866	78.976
CONTROL - TRT1	-74.591	-0.525	73.541	-74.591	-0.525	73.541
CONTROL - TRT2	-66.370	3.335	73.040	-66.370	3.335	73.040
TRT2 - CONTROL	-78.976	-3.866	71.257	-78.976	-3.866	71.257
TRT2 - TRT1	-73.340	-3.335	68.370	-73.340	-3.335	68.370

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 40 MSE= 6349.888

Critical Value of Dunnnett's T= 1.977

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

LEVEL Comparison	Simultaneous		Simultaneous	
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	Simultaneous
TRT1 - CONTROL	-59.639	-0.525	60.689	
TRT2 - CONTROL	-59.956	-3.335	53.287	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	3982.0721	1991.0361	0.58	0.5635
Error	40	136850.8862	3421.2722		
Corrected Total	42	140832.9583			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.028275	73.98681	58.492	79.057

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Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	3982.0721	1991.0361	0.58	0.5635

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/J	2 3
CONTROL	77.0410093	1	0.2873 0.5892
TRT1	81.2712166	2	0.2873 0.5908
TRT2	79.1265420	3	0.5892 0.5908

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Tukey's Studentized Range (MSD) Test for variables: RESPONSE

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

Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 3421.272
Critical Value of Studentized Range= 3.442

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	-52.993	2.145	57.282
TRT1	- CONTROL	-50.136	4.230	57.596
TRT2	- TRT1	-57.282	-2.145	52.993
TRT2	- CONTROL	-49.080	2.086	53.251
CONTROL	- TRT1	-58.596	-4.230	50.136
CONTROL	- TRT2	-53.251	-2.086	49.080

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett's One-tailed T tests for variables: 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= 40 MSE= 3421.272
Critical Value of Dunnnett's T= 1.977

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	-39.932	4.230	48.392
TRT2	- CONTROL	-39.476	2.086	43.647

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	Df	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1319.5835	659.7918	0.17	0.8476
Error	40	15863.9226	3967.0992		
Corrected Total	42	16003.5534			

R-Square C.V. Root MSE RESPONSE Mean

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	1319.5835	659.7918	0.17	0.8474

File: \\43338001.cou1 Page 26
NOTE: This tests controls the type I experimentwise error for comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 3967.099
Critical Value of Dunnett's t= 1.977

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
TRT2 - CONTROL	-45.832	-1.078	-1.078	43.677	
TRT1 - CONTROL	-50.066	-2.506	-2.506	45.048	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	75.3488335	1	0.5680 0.8030
TRT1	72.8429562	3	0.5680 0.7459
TRT2	74.2712512	2	0.8030 0.7459

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

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

NOTE: This test controls the type I experimentwise error rate.
Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 3967.099
Critical Value of Studentized Range= 3.712

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
CONTROL - TRT2	-54.048	24.173	2.572	24.173	
CONTROL - TRT1	-56.937	41.948	4.985	41.948	
TRT2 - CONTROL	-56.173	-1.078	-1.078	54.018	
TRT1 - CONTROL	-57.945	1.428	1.428	60.801	
TRT1 - CONTROL	-61.048	-2.506	-2.506	56.037	
TRT2 - TRT1	-60.901	-1.428	-1.428	57.945	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

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

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	5443.3315	2721.6658	0.41	0.6653
Error	40	262740.1782	6568.5045		
Corrected Total	42	268183.5097			

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	5443.3315	2721.6658	0.41	0.6653
Error	40	262740.1782	6568.5045		
Corrected Total	42	268183.5097			

Source	DF	Type I SS	Mean Square	F Value	Pr > F	R-Square	C.V.	Root MSE	RESPONSE Mean
LEVEL	2	5448.0313	2724.0157	0.41	0.6633	0.020314	144.9470	81.046	55.914

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/1	2 3
CONTROL	56.4092690	1	0.7448 0.5634
TRT1	58.0284303	2	0.7448 0.3775
TRT2	53.6545115	3	0.5634 0.3775

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 5568.504
 Critical Value of Studentized Range= 3.332

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	-73.711	1.610	73.650
TRT1 - TRT2	-72.025	0.374	80.772
CONTROL - TRT1	-76.949	1.610	73.711
CONTROL - TRT2	-68.140	2.155	73.650
TRT2 - TRT1	-80.772	-4.374	72.025
TRT2 - CONTROL	-73.650	-2.755	58.140

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure

Dunnnett'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= 40 MSE= 6568.504
 Critical Value of Dunnnett's T= 1.977

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	-59.572	1.619	62.810
TRT2 - CONTROL	-60.343	-2.755	54.833

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996
 General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	10619.920	5309.960	1.29	0.333
Error	40	164077.384	4101.935		

Corrected Total	42	174697.305				
R-Square	C.V.	Root MSE	RESPONSE Mean			
0.060790	91.22556	64.046	70.207			
Source	DF	Type I SS	Mean Square	F Value	Pr > F	
LEVEL	2	10619.920	5309.960	1.29	0.2853	

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	HO: LSMEAN(1)=LSMEAN(2)	LSMEAN	1/1
CONTROL	71.2936602	1	0.6541	0.2628	
TRT1	73.4038830	2	0.6541	0.1282	
TRT2	66.0699561	3	0.2628	0.1282	

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Tukey's Studentized Range (MSD) Test for Variances: Response

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

Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 4101.935
 Critical value of Studentized Range= 3.042

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	57.410	2.110	61.637
TRT1 - TRT2	66.937	7.834	74.771
CONTROL - TRT1	-61.639	-2.110	-57.419
CONTROL - TRT2	-50.801	-5.224	-61.248
TRT2 - TRT1	-67.707	-7.334	-55.046
TRT2 - CONTROL	-61.248	-5.224	-50.801

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

 17:05 Wednesday, February 7, 1996

Dunnnett'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= 40 MSE= 4101.935
 Critical Value of Dunnnett's T= 1.977

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-46.245	2.110	50.466
TRT2 - CONTROL	-50.732	-5.224	40.285

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 43

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	U
LEVEL	L2 L3 L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	193.30410	96.65205	0.04	0.9609

Dependent Variable: RESPONSE

Error	40	96887.44391	2422.18610
Corrected Total	42	97080.74800	
R-Square		C.V.	Root MSE
0.001991		61.81853	49.216
Source	DF	Type I SS	Mean Square
			F Value
			Pr > F
LEVEL	2	195.30410	96.65205
			0.04
			0.9609

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(1)=LSMEAN(J)
	LSMEAN	1/1	2 3
CONTROL	79.4001555	1	0.8086
TRT1	80.1314867	2	0.8086
TRT2	79.3830156	3	0.9953

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

 17:05 Wednesday, February 7, 1996

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= 40 MSE= 2422.186
 Critical value of Studentized Range= 3.442

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

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1	- CONTROL	-45.0131	0.7313	46.6755
TRT1	- TRT2	-45.6449	0.7485	47.1418
CONTROL	- TRT1	-46.4758	-0.7313	45.0131
CONTROL	- TRT2	-43.0941	0.0171	43.0683
TRT2	- TRT1	-47.1118	-0.7485	45.6449
TRT2	- CONTROL	-43.0943	-0.0171	43.0341

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

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= 40 MSE= 2422.186
 Critical Value of Dunnett's T= 1.977

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

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1	- CONTROL	-36.4271	0.7313	37.8897
TRT2	- CONTROL	-34.9578	-0.0171	34.9535

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHINGS/EGGS SET

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 48

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHINGS/EGGS SET

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL HATCHINGS/EGGS SET

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Dependent Variable: RESPONSE	48				

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Model	2	3372.3061	1686.1530	0.21	0.8152
Error	40	328339.8469	8208.4961		
Corrected Total	42	331712.1510			
R-Square	C.V.	Root MSE	RESPONSE Mean		
0.010166	142.1834	90.601	63.721		
Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	3372.3061	1686.1530	0.21	0.8152

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL MATCHINGS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	Pr > T	MS	LSMEAN(I)=LSMEAN(J)
	LSMEAN	f/j	1 2 3	
CONTROL	64.6865871	1	0.9585	0.5981
TRT1	64.9940841	2	0.9585	0.5724
TRT2	61.6711500	3	0.5981	0.5724

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 15. ANALYSIS OF NORMAL MATCHINGS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Lukey'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= 40 MSE= 8208.496
 Critical Value of Studentized Range= 3.442

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	-83.903	0.307	85.518
TRT1	- TRT2	-82.182	3.323	88.728
CONTROL	- TRT1	-84.518	0.307	83.903
CONTROL	- TRT2	-76.237	5.015	82.268
TRT2	- TRT1	-88.728	-3.323	82.082
TRT2	- CONTROL	-82.268	-5.015	85.237

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE

15. ANALYSIS OF NORMAL MATCHINGS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 40 MSE= 8208.496
 Critical Value of Dunnnett's T= 1.977

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	-68.097	0.307	68.712
TRT2	- CONTROL	-67.393	-3.015	61.362

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 42

NOTE: Due to missing values, only 42 observations are used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	L2
	L3
	-L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE
 Weight: ES

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Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	18372.487	9186.243	1.11	0.3386
Error	40	330192.706	8254.818		
Corrected Total	42	348565.192			

R-Square C.V. Root MSE RESPONSE Mean
 0.052709 165.1485 90.856 55.015

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	18372.487	9186.243	1.11	0.3386

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	57.0635688	1	0.8496	0.2384
TRT1	58.1877369	2	0.8496	0.1829
TRT2	50.2534322	3	0.2384	0.1829

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:05 Wednesday, February 7, 1996

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= 40, MSE= 8254.818
 Critical Value of Studentized Range= 3.446

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	-83.324	1.124	85.572
TRT1 - TRT2	-77.771	7.934	93.580
CONTROL - TRT1	-85.572	-1.124	83.324
CONTROL - TRT2	-72.666	6.810	84.286
TRT2 - TRT1	-82.580	-6.810	77.771
TRT2 - CONTROL	-86.286	-6.810	72.666

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

17:05 Wednesday, February 7, 1996

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= 40, MSE= 8254.818
 Critical Value of Dunnett's T= 1.977

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	-67.473	1.124	69.721
TRT2 - CONTROL	-71.369	-6.810	57.748

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

CLASS	LEVEL	Levels	Values
		3	CONTROL TRT1 TRT2

Number of observations in data set = 40

NOTE: Due to missing values, only 40 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for LEVEL

Coefficients

EFFECT	COEFFICIENT
INTERCEPT	5
LEVEL	
CONTROL	L3
TRT1	L3
TRT2	L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

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Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.0013076	0.0006538	2.48	0.0979
Error	37	0.0097704	0.0002641		
Corrected Total	39	0.0110780			

R-Square C.V. Root MSE THICK Mean
 0.118034 7.822877 0.0163 0.2077

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	0.0013076	0.0006538	2.48	0.0979

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	THICK LSMEAN	Pr > T 1/2	HO: LSMEAN(1)=LSMEAN(2) 2	HO: LSMEAN(1)=LSMEAN(3) 3
CONTROL	0.21542857	1	0.1136	0.0414
TRT1	0.20481818	2	0.1136	0.7406
TRT2	0.20266667	3	0.0414	0.7406

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Tukey's Studentized Range (HSD) Test for variables: THICK

NOTE: This test controls the type I experimentwise error rate.
 Alpha= 0.05 Confidence= 0.95 df= 37 MSE= 0.000264
 Critical Value of Studentized Range= 3.403
 Comparisons significant at the 0.05 level are indicated by *****.

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT1	-0.005375	0.000610	0.026596
CONTROL - TR2	-0.001982	0.000610	0.027502
TRT1 - CONTROL	-0.026596	-0.000610	0.005375
TRT1 - TRT2	-0.013598	0.002152	0.017901
TRT2 - CONTROL	-0.027505	-0.012762	0.001982
TRT2 - TRT1	-0.017901	-0.002152	0.013598

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 17. ANALYSIS OF EGGSHELL THICKNESS

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett'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= 37 MSE= 0.000264
 Critical Value of Dunnnett's T= 1.978

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-0.023564	-0.010610	0.002343
TRT2 - CONTROL	-0.024709	-0.012762	-0.000814

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 43

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 18. ANALYSIS OF HATCHLING WEIGHT

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCUT	0
LEVEL	CONTROL L2 TRT1 L3 TRT2 -L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 19. ANALYSIS OF HATCHLING WEIGHT

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.0444605	0.0222302	0.07	0.9311
Error	40	12.4336000	0.3108400		
Corrected Total	42	12.4780605			

R-Square	C.V.	Root MSE	HATWT Mean
0.003563	8.478798	0.5575	6.5756

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	0.0444605	0.0222302	0.07	0.9311

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
18. ANALYSIS OF MATCHING WEIGHT

17:05 Wednesday, February 7, 1996
General Linear Models Procedure
Least Squares Means

LEVEL	HATWT LSMEAN	Pr > T 1/2	H0: LSMEAN(I)=LSMEAN(J) 3
CONTROL	6.61125000	1	0.7076 0.8509
TRT1	6.53083333	2	0.7076 0.8450
TRT2	6.57333333	3	0.8509 0.8450

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
18. ANALYSIS OF MATCHING WEIGHT

17:05 Wednesday, February 7, 1996
General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 40 MSE= 0.31084
Critical Value of Studentized Range= 3.442

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	-0.44978	0.03792	0.52561
CONTROL - TRT1	-0.45779	0.08042	0.59862
TRT2 - CONTROL	-0.52561	-0.03792	0.44978
TRT1 - CONTROL	-0.48306	0.04250	0.56806
TRT1 - CONTROL	-0.59862	-0.08042	0.43779

TRT1 - TRT2 -0.56806 -0.04250 0.48306

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
18. ANALYSIS OF MATCHING WEIGHT

17:05 Wednesday, February 7, 1996

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= 40 MSE= 0.31084
Critical Value of Dunnett's T= 1.977

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	-0.43407	-0.03792	0.35824
TRT1 - CONTROL	-0.50136	-0.08042	0.34052

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 42

NOTE: Due to missing values, only 43 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:05 Wednesday, February 7, 1996

Dependent Variable: SURVWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	21.845628	10.922814	1.80	0.1781
Error	40	242.486000	6.062150		
Corrected Total	42	264.331628			

R-Square	C.V.	Root MSE	SURVWT Mean
0.082645	9.548355	2.4621	25.7786

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	21.845628	10.922814	1.80	0.1781

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	SURVWT	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	25.000000	1	0.0651 0.3558
TRT1	26.763333	2	0.0651 0.3218
TRT2	25.826667	3	0.3558 0.3218

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

LEVEL	SURVWT	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	25.000000	1	0.0651 0.3558
TRT1	26.763333	2	0.0651 0.3218
TRT2	25.826667	3	0.3558 0.3218

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

Alpha= 0.05, Confidence= 0.95, df= 40, MSE= 6.06215
Critical Value of Studentized Range= 3.442

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - TRT2	-1.3463	0.9567	3.2776
TRT1 - CONTROL	-0.5352	1.7833	4.0718
TRT2 - TRT1	3.2776	0.9567	6.3643
TRT2 - CONTROL	-1.3271	0.8267	2.9804

CONTROL - TRT1	-1.7833	0.5052
CONTROL - TRT2	-2.9804	1.3271

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

17:05 Wednesday, February 7, 1996

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= 40, MSE= 6.06215
Critical Value of Dunnnett's T= 1.977

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-0.0756	1.7833	3.6423
TRT2 - CONTROL	-0.9228	0.8267	2.5762

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

LEVEL	Levels	Values	
3	CONTROL	TRT1	TRT2

Number of observations in data set = 43

NOTE: Due to missing values, only 44 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect	Coefficients
INTERCEPT	0
LEVEL	CONTROL
	TRT1
	TRT2
	L2-L3

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:05 Wednesday, February 7, 1996

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General Linear Models Procedure

Dependent Variable: FOOD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	4.1237879	2.0618939	0.76	0.4757
Error	41	111.7441667	2.7254675		
Corrected Total	43	115.8679545			

R-Square C.V. Root MSE FOOD Mean

0.035590	9.403179	1.6509	17.557
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Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	4.1237879	2.0618939	0.76	0.4757

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	FOOD	LSMEAN	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	1	17.2875000	0.2585	0.7658
TRT1	2	18.0416667	0.2385	0.5636
TRT2	3	17.4625000	0.7658	0.5636

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dukey's Studentized Range (SRP) Test for Variance: FOOD

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

Alpha= 0.05 Confidences 0.95 df= 41 MSE= 2.725467
Critical Value of Studentized Range= 3.439

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

LEVEL Comparison	Simultaneous Lower Confidence Limit			Simultaneous Upper Confidence Limit		
	Lower Limit	Difference Between Means	Upper Limit	Lower Limit	Difference Between Means	Upper Limit
TRT1 - TRT2	-0.9539	0.5792	2.1122	-0.9539	0.5792	2.1122
TRT1 - CONTROL	-0.7789	0.7542	0.9772	-0.7789	0.7542	0.9772
TRT2 - TRT1	2.1122	-0.5792	0.9539	2.1122	-0.5792	0.9539
TRT2 - CONTROL	-1.2443	0.1750	1.5943	-1.2443	0.1750	1.5943

CONTROL - TRT1	-2.2872	-0.7542	0.7789
CONTROL - TRT2	-1.5943	-0.1750	1.2443

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

17:05 Wednesday, February 7, 1996

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 Confidences 0.95 df= 41 MSE= 2.725467
Critical Value of Dunnett's T= 1.975

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Simultaneous Upper Confidence Limit	
	Lower Limit	Difference Between Means	Upper Limit	Upper Limit
TRT1 - CONTROL	-0.4908	0.7542	1.9991	1.9991
TRT2 - CONTROL	-0.9776	0.1750	1.5276	1.5276

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

Number of observations in data set = 43

NOTE: Due to missing values, only 42 observations are used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dependent Variable: POSW

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	446.4369	148.8123	6.92	0.0001
Error	38	8134.6264	213.9710		
Corrected Total	41	8581.0633			

R-Square C.V. Root MSE

0.5192	1.2443	15.557
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Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	711.2958	355.6479	1.66	0.2032
PREM	1	3733.1411	3733.1411	17.45	0.0002
Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	2	181.5495	90.7747	0.42	0.6573
PREM	1	3733.1411	3733.1411	17.45	0.0002

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	POSTH LSMEAN	Std Err LSMEAN	Pr > T HO:LSMEAN=0	LSMEAN Number
CONTROL	196.986845	3.706102	0.0001	1
TRT1	193.386145	4.633003	0.0001	2
TRT2	192.271814	3.683210	0.0001	3

Pr > |T| HO: LSMEAN(1)=LSMEAN(J)

	1/1	1	2	3
		0.5493	0.3771	
	2	0.5493	0.8512	
	3	0.3771	0.8512	

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Tukey's Studentized range (HSD) Test for variables POSTH

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

Alpha= 0.05 Confidence= 0.95 df= 38 MSE= 213.971
Critical Value of Studentized Range= 3.449

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	-7.181	7.200	21.581
CONTROL - TRT2	-3.550	9.063	21.675
TRT1 - CONTROL	14.501	7.200	7.179
TRT1 - TRT2	-12.516	1.863	16.243
TRT2 - CONTROL	-21.675	-9.063	3.550

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 38 MSE= 213.971
Critical Value of Dunnett's T= 1.982

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	-18.889	-7.200	4.489
TRT2 - CONTROL	-19.315	-9.063	1.190

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	3	CONTROL TRT1 TRT2

number of observations in data set = 42

NOTE: Due to missing values, only 42 observations can be used in this analysis.

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3042.8409	1014.2803	1.87	0.1500
Error	38	21951.0505	577.6587		
Corrected Total	41	25097.0714			
R-Square		0.12			
Adjusted R-Square		0.07			
Corrected Total		11.59688	24.035		207.21

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	2	589.9839	294.9920	0.51	0.6042
PREF	1	2656.0570	2656.0570	4.60	0.0385

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	2	560.9603	280.4801	0.49	0.6191
PREF	1	2656.0570	2656.0570	4.60	0.0385

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure
 Least Squares Means

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr > T HO:LSMEAN=0	LSMEAN Number
CONTROL	202.547667	6.029602	0.0001	1
TRT1	210.450963	7.723815	0.0001	2
TRT2	209.857981	6.161060	0.0001	3

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

i/j	1	2	3
1		0.4216	0.4060
2	0.4216		0.9533
3	0.4060	0.9533	

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

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

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

NOTE: This test controls the type I error (familywise error rate).
 Alpha= 0.05 Confidence= 0.95 df= 35 MSSE= 577.0587
 Critical Value of Studentized Range= 3.149

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	-17.166	6.663	30.091
TRT1 - CONTROL	-13.854	9.775	35.404
TRT2 - TRT1	-30.091	-6.663	17.166
TRT2 - CONTROL	-17.611	3.313	24.036
CONTROL - TRT1	-33.604	-9.375	13.854
CONTROL - TRT2	-24.036	3.313	17.411

COPPER OXYCHLORIDE SULFATE: EFFECTS ON REPRODUCTION IN THE BOBWHITE
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

 17:05 Wednesday, February 7, 1996

General Linear Models Procedure

Dunnnett's One-tailed t tests for variable: POSTF

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

Alpha= 0.05 Confidence= 0.95 df= 35 MSSE= 577.6587
 Critical Value of Dunnnett's t= 1.982

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	-9.431	9.775	28.981
TRT2 - CONTROL	-13.533	3.313	20.158

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