

(2-10-2000)

MRID No. 447438-01

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

1. **CHEMICAL:** Cyromazine PC Code No.: 121301

2. **TEST MATERIAL:** CGA-72662 Purity: 96.3%

3. **CITATION:**

Authors: J.B. Beavers, V. Dukes, and M.J. Jaber  
Title: CGA-72662: A One Generation Reproduction Study with the Bobwhite (*Colinus virginianus*)

Study Completion Date: June 12, 1989

Laboratory: Wildlife International Ltd., Easton, MD

Sponsor: Novartis Crop Protection, Inc., Greensboro, NC

Laboratory Report ID: 108-265

MRID No.: 447438-01

DP Barcode: D253080

4. **REVIEWED BY:** Stephen Carey, Biologist, EFED, ERBIII

Signature: *Stephen Carey* Date: 7/27/99

5. **APPROVED BY:** Dan Balluff, Biologist, EFED, ERB

Signature: *Daniel Balluff* Date: ~~7/27/99~~  
2/10/00

6. **STUDY PARAMETERS:**

**Scientific Name of Test Organism:** *Colinus virginianus*

**Age of Test Organisms at Test Initiation:** 28 weeks

**Definitive Study Duration:** 20 weeks

7. **CONCLUSIONS:** This study is scientifically sound and meets the guideline requirements for an avian reproduction study using bobwhite quail. When compared to the control, the authors reported a "slight treatment related increase in the number of males which exhibited regressing testes upon necropsy" at the highest treatment concentration (300 ppm ai). Therefore, the NOEC was determined to be 75 ppm ai.

**Results Synopsis**

Most sensitive endpoints: Regressing testes in adult males

NOEC: 75 ppm

LOEC: 300 ppm



8. **ADEQUACY OF THE STUDY:**

A. **Classification:** Core

B. **Rationale:** N/A

C. **Repairability:** N/A

9. **GUIDELINE DEVIATIONS:** The study room temperature (24.5°C) was higher than recommended (21°C).

10. **SUBMISSION PURPOSE:**

11. **MATERIALS AND METHODS:**

A. **Test Organisms**

Guideline Criteria	Reported Information
<p><b><u>Species</u></b> A wild waterfowl species, preferably the mallard (<i>Anas platyrhynchos</i>), or an upland game species, preferably the northern bobwhite (<i>Colinus virginianus</i>)</p>	<p>Northern bobwhite (<i>Colinus virginianus</i>)</p>
<p><b><u>Age at beginning of test</u></b> Birds should be approaching their first breeding season.</p>	<p>28 weeks old; birds were approaching their first breeding season.</p>
<p><b><u>Supplier</u></b> All birds should be from the same source.</p>	<p>Fritts Quail Farm, Phillipsburg, NJ</p>
<p><b><u>Were birds pen-reared?</u></b></p>	<p>Yes</p>
<p><b><u>Were birds phenotypically indistinguishable from wild birds?</u></b></p>	<p>Yes</p>
<p><b><u>Health observation period</u></b> 2 to 6 weeks.</p>	<p>6 weeks</p>

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Guideline Criteria	Reported Information
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
Were pens constructed of a nonbinding material such as galvanized or stainless steel?	Yes
Was adequate ventilation provided?	Yes
<u>Temperature</u> Approx. 21°C (70°F)	Mean: 24.5°C SD: 2.7°C
<u>Relative humidity</u> Approx. 55%	Mean: 66% SD: 15%
<u>Lighting</u> First 8 weeks: 7 h per day. Thereafter: 16-17 h per day. At least 6 footcandles at bird level.	First 7 weeks: 8 h per day. Thereafter: 17 h per day. Mean illumination: 130 lux.

Guideline Criteria	Reported Information
<p><b>Diet</b> A commercial breeder feed (or its equivalent) that is appropriate for the test species.</p>	<p>28% protein minimum 2.5% fat minimum 5% fiber maximum 5% limestone (adult diet only)</p> <p>Note: Offspring received a water soluble vitamin and electrolyte mix in their water.</p>
<p><b>Preparation of test diet</b> 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.</p>	<p>Test diets were prepared by mixing the test compound into a premix which was used for weekly preparation of the final diet.</p>
<p><b>Was the premix stored under conditions which maintain stability?</b></p>	<p>Yes</p>
<p><b>Was the diet analyzed to verify homogeneity and stability of the test substance?</b></p>	<p>Yes</p>
<p><b>Replenishment of feed</b></p>	<p>Adult diets were prepared weekly and presented to the birds on Wednesday of each week. 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><b><u>Nominal concentrations</u></b> 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, 75, 300, and 1200 ppm ai.  Max. residue level: Not reported.</p>
<p><b><u>Control</u></b> Vehicle control.</p>	<p>Basal diet containing the vehicle equivalent to the amount present in the treated diets.</p>
<p><b><u>Vehicle</u></b> Corn oil or other appropriate vehicle.</p>	<p>Acetone and corn oil</p>
<p><b><u>Vehicle amount (% of diet by weight)</u></b> Not more than 2%.</p>	<p>3.9% acetone and 1.9% corn in premixes (equivalent to 0.13% acetone and 0.06% corn oil in test diets).</p>
<p><b><u>Number of birds per pen</u></b> 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>	<p>1 male and 1 female per pen</p>
<p><b><u>Number of pens per group</u></b> 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>	<p>16 pens per group</p>

Guideline Criteria	Reported Information
<b><u>Pre-laying exposure duration</u></b> At least 10 weeks prior to the onset of egg-laying.	9 weeks
<b><u>Exposure duration with egg-laying</u></b> At least 10 weeks.	10 weeks
<b><u>Withdrawal period</u></b> If reduced reproduction is evident, a withdrawal period of up to 3 weeks may be added to the test phase.	N/A

#### D. Egg Collection and Incubation

Guideline Criteria	Reported Information
<b>Were eggs collected daily?</b>	Yes
<b><u>Egg storage temperature</u></b> Approximately 16°C (61°F)	11.8 ± 1.0°C
<b><u>Egg storage humidity</u></b> Approximately 65%	Approximately 81%
<b>Were eggs set weekly?</b>	Yes
<b>Were eggs candled for cracks prior to being set for incubation on Day 0?</b>	Yes
<b><u>Candling for fertility</u></b> Quail: approx. Day 11 Ducks: approx. Day 14	Eggs were candled on day 11 to determine embryo viability and on day 21 for embryo survival.
<b><u>Transfer of eggs to hatcher</u></b> Bobwhite: Day 21 Mallard: Day 23	Eggs were transferred on Day 21.
<b><u>Hatching temperature</u></b> 39°C (102°F) is recommended	37.0 ± 0.3°C

Guideline Criteria	Reported Information
<b>Hatching humidity</b> 70% is recommended	73%
<b>Day after egg set that chicks were removed and counted</b> Bobwhite: Day 24 Mallard: Day 27	Chicks that had hatched were removed and counted on Day 25. All remaining hatchlings and unhatched eggs were removed on Day 26.

**E. Eggshell Thickness Measurement**

Guideline Criteria	Reported Information
<b>Collection Schedule</b> At least once every two weeks (Week 1, 3, 5, 7 and 9).	One egg was collected weekly, when available, for eggshell thickness from odd numbered pens during odd numbered weeks and from even numbered pen during even numbered weeks.
<b>Were shells opened, washed, and air dry for at least 48 hours before measuring?</b>	Yes; shells air dried for 1 week.
<b>Measurement</b> 3-4 measurements per eggs to the nearest 0.01 mm.	5 measurements to the nearest 0.005 mm.

**12. REPORTED RESULTS:**

Guideline Criteria	Reported Information
<b>Quality assurance and GLP compliance statements were included in the report?</b>	Yes
<b>Did diet analysis verify the concentrations of test material?</b>	Yes

Guideline Criteria	Reported Information
<p><b>Did diet analysis show that the test substance was stable and homogeneous?</b></p>	<p>Yes</p>
<p><b>Were body weights of adults reported for test initiation and biweekly up to week 8 or the onset of egg laying?</b></p>	<p>Yes</p>
<p><b>Was average food consumption of adults reported at least biweekly?</b></p>	<p>Yes</p>
<p><b><u>Reproductive Endpoints</u></b>                      The following endpoints should be reported:</p> <ul style="list-style-type: none"> <li>● Eggs laid</li> <li>● Eggs cracked</li> <li>● Eggs set</li> <li>● Viable embryos</li> <li>● Live 3-week embryos</li> <li>● Normal hatchlings</li> <li>● 14-day-old survivors</li> <li>● Weights of 14-day-old survivors</li> <li>● Egg shell thickness</li> <li>● Total food consumption</li> <li>● Initial and final body weights, by sex</li> </ul>	<p>All endpoints listed at left plus hatchling weight, maximum number of eggs laid, and maximum number of eggs set.</p>
<p><b>Were data reported by pen for all endpoints?</b></p>	<p>Yes</p>

**Significant Results:** There were no overt signs of toxicity or treatment related reductions in food consumption or body weight at any test concentration (75, 300 and 1200 ppm ai) when compared to the control. There were no statistically significant effects on any reproductive parameter measured at any test concentration when compared to the control. In the highest treatment group (1200 ppm ai), the authors noted that "there may have been a slight treatment related increase in the number of males which exhibited regressing testes upon necropsy at terminal sacrifice." Although not statistically significant and no effect was observed



upon fertility, the authors consider this effect to be treatment related.

**13. VERIFIED STATISTICAL RESULTS:**

Means of Endpoints

Endpoint	Control	75 ppm ai	300 ppm ai	1200 ppm ai
Eggs laid (EL)	34 (15)	33 (14)	38 (15)	31 (12)
Eggs cracked (EC)	0.9 (1.2)	0.7 (1.0)	0.5 (0.6)	1.4 (1.6)
Eggs set (ES)	29 (14)	28 (13)	33 (15)	25 (12)
Viable embryos (VE)	27 (12)	23 (12)	30 (13)	23 (10)
Live 3-wk embryos (LE)	26 (12)	23 (12)	30 (13)	22 (10)
Normal hatchlings (NH)	23 (11)	20 (11)	26 (11)	19 (9)
14-day-old survivors (HS)	20 (11)	17 (10)	24 (11)	17 (8)
Egg shell thickness (THICK)	0.212 (0.021)	0.205 (0.015)	0.213 (0.015)	0.213 (0.021)
Hatchling weight (HATWT)	6.0 (0.3)	6.1 (0.4)	6.1 (0.6)	6.1 (0.5)
14-day-old survivor weight (SURVWT)	27.0 (3.1)	25.7 (2.4)	24.9 (2.5)	25.4 (2.2)
Mean food consumption (FOOD)	18.0 (1.8)	18.4 (2.2)	19.5 (2.1)	19.1 (2.7)
Final weight of males (POSTM)	205 (13)	201 (16)	200 (11)	203 (16)
Final weight of females (POSTF)	237 (17)	228 (20)	231 (13)	231 (16)

Statistically Significant Endpoints

Endpoint	Statistical Method	Levels at which Effect Was Observed
14-day-old survivor weight	Dunnett's	300 ppm*

\*Not considered treatment related

- 14. REVIEWER'S COMMENTS:** There was a significant difference in 14-day-old survivor weight at the 300 ppm when compared to the control. However, the reviewer does not believe that this reduction was treatment related. The reduction in 14-day-old survivor weight was not concentration responsive and the mean weight for this treatment level was similar to historical control values.

Based on the reported "slight treatment related increase in the number of males which exhibited regressing testes upon necropsy at terminal sacrifice," the NOEL and LOEL were determined to be 75 and 300 ppm, respectively. This study is scientifically sound and fulfills the guideline requirements for an avian reproduction test. This study is classified as **Core**.

APPENDIX IV  
 GROSS PATHOLOGICAL OBSERVATIONS  
 CGA-72662 - PROJECT NUMBER 108-265  
 BIRDS SACRIFICED AT TERMINATION OF THE STUDY  
 PAGE 2

	MALES			FEMALES			
	PPM			PPM			
	CONTROL	75	300	CONTROL	75	300	
Head Lesions	0/15	0/15	0/16	0/14	0/15	0/16	1/14
Foot Lesions	0/15	2/15	1/16	1/14	0/15	1/15	3/14
Feather Loss	1/15	0/15	1/16	4/14	2/15	1/15	2/14
Slight Egg Yolk Peritonitis	--	--	--	--	1/15	1/15	0/16
Egg Yolk Peritonitis	--	--	--	--	0/15	0/15	2/14
Regressing Ovary	--	--	--	--	0/15	0/15	0/16
Regressed Ovary	--	--	--	-	0/15	0/15	0/16
Lacerated Uterus	--	--	--	--	0/15	0/15	1/14
Regressing Testes	1/15	3/15	3/16	7/14	--	--	--
Regressed Testes	2/15	0/15	0/16	0/14	--	--	--
Ascities	0/15	0/15	0/16	0/14	0/15	0/15	1/14
Not Remarkable	11/15	10/15	11/16	6/14	12/15	12/15	6/14

LEVEL	TRT1	TRT2	TRT3
CONTROL MEAN	34.20	37.50	30.86
EL	0.87	0.50	1.36
ES	29.47	32.63	25.21
VE	26.53	30.31	22.86
LE	25.80	29.63	22.14
NH	22.93	25.75	19.00
HS	20.47	23.75	17.00
ES/EL (%)	85.00	81.66	79.33
(EL-EC)/EL (%)	97.98	96.93	95.00
VE/ES (%)	90.06	91.18	91.94
LE/VE (%)	97.38	98.09	96.70
NH/EL (%)	66.32	65.29	60.72
NH/ES (%)	78.07	79.55	77.79
NH/LE (%)	89.17	88.79	86.93
HS/ES (%)	65.88	73.49	67.54
HS/NH (%)	84.16	92.55	87.84
THICK	0.21	0.21	0.21
HATWT	6.00	6.09	6.11
SURVMT	27.04	24.88	25.37
FOOD	18.03	19.45	19.06
POSTM	205.20	200.31	203.07
POSTF	236.53	231.38	231.43

LEVEL	TRT1	TRT2	TRT3
CONTROL MEAN	34.20	37.50	30.86
EL	0.87	0.50	1.36
ES	29.47	32.63	25.21
VE	26.53	30.31	22.86
LE	25.80	29.63	22.14
NH	22.93	25.75	19.00
HS	20.47	23.75	17.00
ES/EL (%)	85.00	81.66	79.33
(EL-EC)/EL (%)	97.98	96.93	95.00
VE/ES (%)	90.06	91.18	91.94
LE/VE (%)	97.38	98.09	96.70
NH/EL (%)	66.32	65.29	60.72
NH/ES (%)	78.07	79.55	77.79
NH/LE (%)	89.17	88.79	86.93
HS/ES (%)	65.88	73.49	67.54
HS/NH (%)	84.16	92.55	87.84
THICK	0.21	0.21	0.21
HATWT	6.00	6.09	6.11
SURVMT	27.04	24.88	25.37
FOOD	18.03	19.45	19.06
POSTM	205.20	200.31	203.07
POSTF	236.53	231.38	231.43

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LEVEL=CONTROL

Variable Label	N	Mean	Std Dev	CV
EL	15	34.200	14.905	43.583
EC	15	0.867	1.187	136.989
ES	15	29.467	13.705	46.512
VE	15	26.533	12.112	45.647
LE	15	25.800	11.791	45.702
NH	15	22.933	10.964	47.808
HS	15	20.467	10.535	51.473
THICK	14	0.212	0.021	9.765
HATWT	15	6.001	0.346	5.768
SURVWT	15	27.040	3.086	11.411
FOOD	15	18.033	1.760	9.760
PREM	16	191.563	10.905	5.693
POSTM	15	205.200	13.192	6.439
PREF	16	195.688	13.300	6.797
POSTF	15	236.533	16.509	6.980
ES_EL	15	84.996	9.990	11.754
NH_EL (%)	15	66.321	12.371	18.654
ENC_EL	15	97.979	2.668	2.733
VE_ES (%)	15	90.058	8.307	9.224
NH_ES (%)	15	78.072	11.110	14.230
HS_ES (%)	15	65.883	17.957	27.255
LE_VE (%)	15	97.376	3.589	3.686
NH_LE (%)	15	89.174	9.951	11.159
HS_NH (%)	15	84.160	17.963	21.344

LEVEL=TRT

Variable Label	N	Mean	Std Dev	CV
EL	15	33.200	14.289	43.039
EC	15	0.733	1.033	140.836
ES	15	28.200	13.116	46.511
VE	15	22.867	12.478	54.568
LE	15	22.533	12.409	54.069
NH	15	19.867	11.388	57.324
HS	15	16.867	9.812	58.171
THICK	15	0.205	0.015	7.438
HATWT	14	6.063	0.432	7.121
SURVWT	15	25.707	2.408	9.365
FOOD	15	18.387	2.240	12.182
PREM	16	191.438	10.482	5.465
POSTM	15	201.267	15.503	7.703
PREF	16	193.438	16.452	8.505
POSTF	15	227.667	20.208	8.876
ES_EL	15	84.165	6.396	7.600
NH_EL (%)	15	58.347	2.180	39.729
ENC_EL	15	97.999	2.767	2.823
VE_ES (%)	15	80.081	28.070	35.052
NH_ES (%)	15	69.896	27.509	39.357
HS_ES (%)	15	60.269	24.952	41.400
LE_VE (%)	14	98.355	2.983	3.033
NH_LE (%)	14	87.162	7.903	9.067
HS_NH (%)	14	87.106	14.385	16.514

LEVEL=TRT3

Variable Label	N	Mean	Std Dev	CV
EL	16	37.500	14.823	39.529
EC	16	0.500	0.632	126.491
ES	16	32.625	14.528	44.520
VE	16	30.313	13.489	44.501
LE	16	29.625	13.089	44.182
NH	16	25.750	11.428	44.381
HS	16	23.750	11.036	46.469
THICK	16	0.213	0.015	7.173
HATWT	16	6.093	0.619	10.153
SURVWT	16	24.881	2.509	10.083
FOOD	16	19.450	2.103	10.812
PREM	16	193.688	10.448	5.394
POSTM	16	200.313	10.977	5.480
PREF	16	196.313	9.789	4.987
POSTF	16	231.375	13.205	5.707
ES_EL	16	81.657	16.755	20.519
NH_EL (%)	16	65.293	17.536	26.858
ENC_EL	16	96.930	5.590	5.767
VE_ES (%)	16	91.179	12.591	13.810
NH_ES (%)	16	79.550	15.643	19.664
HS_ES (%)	16	73.490	14.900	20.275
LE_VE (%)	16	98.087	2.936	2.994
NH_LE (%)	16	88.792	10.253	11.547
HS_NH (%)	16	92.551	6.506	7.029

LEVEL=TRT3

Variable Label	N	Mean	Std Dev	CV
EL	14	30.857	11.941	38.698
EC	14	1.357	1.598	117.778
ES	14	25.214	11.530	45.730
VE	14	22.857	10.189	44.579
LE	14	22.143	10.167	45.914
NH	14	19.000	9.282	48.852
HS	14	17.000	8.376	49.269
THICK	14	0.213	0.021	10.053
HATWT	14	6.106	0.508	8.321
SURVWT	14	25.371	2.177	8.582
FOOD	14	19.064	2.692	14.122
PREM	16	193.688	10.750	5.550
POSTM	16	203.071	16.031	7.894
PREF	16	192.625	13.431	6.972
POSTF	14	231.429	15.505	6.700
ES_EL	14	79.327	19.713	24.850
NH_EL (%)	14	60.720	18.667	30.743
ENC_EL	14	95.004	7.895	8.311
VE_ES (%)	14	91.936	7.660	8.331
NH_ES (%)	14	77.794	15.125	19.442
HS_ES (%)	14	67.542	14.233	21.072
LE_VE (%)	14	96.701	4.673	4.832
NH_LE (%)	14	86.933	10.794	12.416
HS_NH (%)	14	87.841	13.538	15.411

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Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 1. ANALYSIS OF EGGS LAID  
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14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 1. ANALYSIS OF EGGS LAID  
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14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	344.33571	114.77857	0.58	0.6318
Error	56	11118.51429	198.54490		
Corrected Total	59	11462.85000			

R-Square C.V. Root MSE EL Mean  
 0.030039 41.38207 14.091 34.050

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	344.33571	114.77857	0.58	0.6318

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 1. ANALYSIS OF EGGS LAID  
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14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	EL	LSMEAN	Pr >  T	H0: LSMEAN(I)=LSMEAN(J)
CONTROL	34.2000000	1	0.8466	0.5173 0.5258
TRT1	33.2000000	2	0.8466	0.3994 0.6563
TRT2	37.5000000	3	0.5173	0.3994 0.2030
TRT3	30.8571429	4	0.5258	0.6563 0.2030

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 1. ANALYSIS OF EGGS LAID  
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14:51 Wednesday, March 3, 1999

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= 56 MSE= 198.5449  
 Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-10.110	3.300	16.710
TRT2 - TRT1	-9.110	4.300	17.710
TRT2 - TRT3	-7.012	6.643	20.297
CONTROL - TRT2	-16.710	-3.300	10.110
CONTROL - TRT1	-12.624	1.000	14.624
CONTROL - TRT3	-10.522	3.343	17.208
TRT1 - TRT2	-17.710	-4.300	9.110
TRT1 - CONTROL	-14.624	-1.000	12.624
TRT1 - TRT3	-11.522	2.343	16.208
TRT3 - TRT2	-20.297	-6.643	7.012
TRT3 - CONTROL	-17.208	-3.343	10.522
TRT3 - TRT1	-16.208	-2.343	11.522

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 1. ANALYSIS OF EGGS LAID  
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14:51 Wednesday, March 3, 1999

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= 56 MSE= 198.5449  
 Critical Value of Dunnnett's T= 2.107

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	-7.370	3.300	13.970
TRT1 - CONTROL	-11.841	-1.000	9.841
TRT3 - CONTROL	-14.376	-3.343	7.690

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
2. ANALYSIS OF EGGS CRACKED  
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14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
2. ANALYSIS OF EGGS CRACKED  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
2. ANALYSIS OF EGGS CRACKED  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	5.7690476	1.9230159	1.46	0.2359
Error	56	73.8809524	1.3193027		
Corrected Total	59	79.6500000			

R-Square	C.V.	Root MSE	EC Mean
0.072430	135.1305	1.1486	0.8500

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	5.7690476	1.9230159	1.46	0.2359

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
2. ANALYSIS OF EGGS CRACKED  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	EC	Pr >  T	HO: LSMEAN(i)=LSMEAN(j)
	LSMEAN	1/j	2 3 4
CONTROL	0.86666667	1	0.7517 0.3782 0.2554
TRT1	0.75333333	2	0.7517 0.5742 0.1495
TRT2	0.50000000	3	0.3782 0.5742 0.0462
TRT3	1.35714286	4	0.2554 0.1495 0.0462

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
2. ANALYSIS OF EGGS CRACKED  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 1.319303  
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit		Lower Limit	Upper Limit
TRT3 - CONTROL	-0.6398	0.4905	0.4905	1.6207	
TRT3 - TRT1	-0.5064	0.6238	0.6238	1.7540	
TRT3 - TRT2	-0.2559	0.8571	0.8571	1.9702	
CONTROL - TRT3	-1.6207	-0.4905	-0.4905	0.6398	
CONTROL - TRT1	-0.9772	0.1333	0.1333	1.2639	
CONTROL - TRT2	-0.7264	0.3667	0.3667	1.4598	
TRT1 - TRT3	-1.7540	-0.6238	-0.6238	0.5064	
TRT1 - CONTROL	-1.2639	-0.1333	-0.1333	0.9772	
TRT1 - TRT2	-0.8598	0.2333	0.2333	1.3264	
TRT2 - TRT3	-1.9702	-0.8571	-0.8571	0.2559	
TRT2 - CONTROL	-1.4598	-0.3667	-0.3667	0.7264	
TRT2 - TRT1	-1.3264	-0.2333	-0.2333	0.8598	

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
2. ANALYSIS OF EGGS CRACKED  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 1.319303  
Critical Value of Dunnett's T= 2.107

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	Upper Limit	Lower Limit
TRT3 - CONTROL	-0.4089	1.3899	0.4905		1.3899	
TRT1 - CONTROL	-1.0171	0.7504	-0.1333		0.7504	
TRT2 - CONTROL	-1.2365	0.5031	-0.3667		0.5031	

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

3. ANALYSIS OF EGGS SET  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

3. ANALYSIS OF EGGS SET  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

3. ANALYSIS OF EGGS SET  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: ES	DF	Sum of Squares	Mean Square	F Value	Pr > F
Source	3	423.75952	141.25317	0.80	0.5011
Model	56	9932.24048	177.36144		
Error	59	10356.00000			
Corrected Total					
R-Square		C.V.	Root MSE	ES Mean	
0.040919		45.92314	13.318	29.000	

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	423.75952	141.25317	0.80	0.5011

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

3. ANALYSIS OF EGGS SET  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	LSMEAN	Pr >  T  H0: LSMEAN(i)=LSMEAN(j)			
		1	2	3	4
CONTROL	29.4666667	1	0.7955	0.5120	0.3939
TRT1	28.2000000	2	0.7955	0.3592	0.5487
TRT2	32.6250000	3	0.5120	0.3592	0.1340
TRT3	25.2142857	4	0.3939	0.5487	0.1340

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

3. ANALYSIS OF EGGS SET  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 177.3614  
Critical Value of Studentized Range= 3.745

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	Upper Limit	Lower Limit
TRT2 - CONTROL	-9.516	3.158	3.158		15.832	
TRT1 - TRT1	-8.249	4.425	4.425		17.099	
TRT2 - TRT3	-5.495	7.411	7.411		20.316	
CONTROL - TRT2	-15.832	-3.158	-3.158		9.516	
CONTROL - TRT1	-11.610	1.267	1.267		14.143	
CONTROL - TRT3	-8.852	4.252	4.252		17.357	
TRT1 - TRT2	-17.099	-4.425	-4.425		8.249	
TRT1 - CONTROL	-14.143	-1.267	-1.267		11.610	
TRT1 - TRT3	-10.119	2.986	2.986		16.090	
TRT3 - TRT2	-20.316	-7.411	-7.411		5.495	
TRT3 - CONTROL	-17.357	-4.252	-4.252		8.852	
TRT3 - TRT1	-16.090	-2.986	-2.986		10.119	

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

3. ANALYSIS OF EGGS SET  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 177.3614  
Critical Value of Dunnett's T= 2.107

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

LEVEL Comparison	Simultaneous		Upper Confidence Limit
	Lower Limit	Difference Between Means	
CONTROL	-6.927	3.158	13.244
TRT1	-11.513	-1.267	8.980
TRT3	-14.680	-4.252	6.176

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

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

Model	3	584.11488	194.70496	1.31	0.2797
Error	56	8312.61845	148.43962		
Corrected Total	59	8896.73333			

R-Square C.V. Root MSE VE Mean  
0.065655 47.28427 12.184 25.767

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	584.11488	194.70496	1.31	0.2797

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
4. ANALYSIS OF VIABLE EMBRYOS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	LSMEAN	Pr >  T  HO: LSMEAN(i)=LSMEAN(j)			
		1	2	3	4
CONTROL	26.533333	1	0.4133	0.3918	0.4203
TRT1	22.866667	2	0.4133	0.0946	0.9983
TRT2	30.312500	3	0.3918	0.0946	0.1001
TRT3	22.8571429	4	0.4203	0.9983	0.1001

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 148.4396  
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous		Upper Confidence Limit
	Lower Limit	Difference Between Means	
TRT2 - CONTROL	-7.816	3.779	15.374
TRT2 - TRT1	-4.149	7.446	19.041
TRT2 - TRT3	-4.351	7.455	19.262
CONTROL - TRT2	-15.374	-3.779	7.816
CONTROL - TRT1	-8.114	3.667	15.447
CONTROL - TRT3	-8.313	3.676	15.665
TRT1 - TRT2	-19.041	-7.446	4.149
TRT1 - CONTROL	-15.447	-3.667	8.114

TRT1	-11.979	0.010	11.998
TRT2	-19.262	-7.455	4.351
CONTROL	-3.676	8.313	8.313
TRT1	-11.998	-0.010	11.979

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS

\*\*\*\*\*

General Linear Models Procedure

14:51 Wednesday, March 3, 1999

Dunnnett'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= 56 MSE= 148.4396  
Critical Value of Dunnnett's T= 2.107

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL	-5.447	3.779	13.006
CONTROL	-13.041	-3.667	5.707
CONTROL	-13.216	-3.676	5.864

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

\*\*\*\*\*

General Linear Models Procedure

14:51 Wednesday, March 3, 1999

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

\*\*\*\*\*

General Linear Models Procedure

14:51 Wednesday, March 3, 1999

Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

\*\*\*\*\*

General Linear Models Procedure

14:51 Wednesday, March 3, 1999

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	556.05238	185.35079	1.29	0.2852
Error	56	8015.59762	143.13567		
Corrected Total	59	8571.65000			

R-Square	C.V.	Root MSE	LE Mean
0.064871	47.57031	11.964	25.150

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	556.05238	185.35079	1.29	0.2852

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

\*\*\*\*\*

General Linear Models Procedure

14:51 Wednesday, March 3, 1999

Least Squares Means

LEVEL	LSMEAN	i/j	LE	Pr >  T	HO: LSMEAN(1)=LSMEAN(j)
CONTROL	25.8000000	1	0.4577	0.3775	0.4142
TRT1	22.5333333	2	0.4577	0.1047	0.9303
TRT2	29.6250000	3	0.3775	0.1047	0.9303
TRT3	22.1428571	4	0.4142	0.9303	0.0930

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

\*\*\*\*\*

General Linear Models Procedure

14:51 Wednesday, March 3, 1999

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= 56 MSE= 143.1357  
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL			
TRT1			
TRT2			
TRT3			

TRT2 - CONTROL	-7.561	3.825	15.211
TRT2 - TRT1	-4.294	7.092	18.477
TRT2 - TRT3	-4.111	7.482	19.076
CONTROL - TRT2	-15.211	-3.825	7.561
CONTROL - TRT1	-8.301	3.267	14.834
CONTROL - TRT3	-8.115	3.657	15.430
TRT1 - TRT2	-18.477	-7.092	6.294
TRT1 - CONTROL	-14.834	-3.267	8.301
TRT1 - TRT3	-11.382	0.390	12.163
TRT3 - TRT2	-19.076	-7.482	6.111
TRT3 - CONTROL	-15.430	-3.657	8.115
TRT3 - TRT1	-12.163	-0.390	11.382

CYROMAZINE: REPRO. STUDY WITH THE BOBWWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 143.1357  
 Critical Value of Dunnett's T= 2.107

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

LEVEL Comparison	Simultaneous		Upper Confidence Limit
	Lower Confidence Limit	Difference Between Means	
TRT2 - CONTROL	-5.235	3.825	12.885
TRT1 - CONTROL	-12.472	-3.267	5.938
TRT3 - CONTROL	-13.025	-3.657	5.711

CYROMAZINE: REPRO. STUDY WITH THE BOBWWHITE

6. ANALYSIS OF NORMAL HATCHLINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWWHITE

6. ANALYSIS OF NORMAL HATCHLINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Coefficients

Effect	Sum of Squares	DF	Mean Square	F Value	Pr > F
INTERCEPT	0				
LEVEL					
CONTROL					
TRT1					
TRT2					
TRT3					

CYROMAZINE: REPRO. STUDY WITH THE BOBWWHITE

6. ANALYSIS OF NORMAL HATCHLINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	432.33333	144.11111	1.23	0.3085
Error	56	6577.66667	117.45833		
Corrected Total	59	7010.00000			

R-Square 0.061674 C.V. 49.26282 Root MSE 10.838  
 NH Mean 22.000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	432.33333	144.11111	1.23	0.3085

CYROMAZINE: REPRO. STUDY WITH THE BOBWWHITE

6. ANALYSIS OF NORMAL HATCHLINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Least Squares Means

LEVEL	LSMEAN	Pr >  T  HO: LSMEAN(I)=LSMEAN(J)			
		1	2	3	4
CONTROL	22.9333333	1	0.4416	0.4726	0.3330
TRT1	19.8666667	2	0.4416	0.1366	0.8304
TRT2	25.7500000	3	0.4726	0.1366	0.0943
TRT3	19.0000000	4	0.3330	0.8304	0.0943

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWWHITE

6. ANALYSIS OF NORMAL HATCHLINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

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

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NOTE: This test controls the type I experimentwise error rate.  
 Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 117.4583  
 Critical Value of Studentized Range= 3.745  
 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	-7.497	2.817	13.131
TRT2 - TRT1	-4.431	5.883	16.197
TRT2 - TRT3	-3.752	6.750	17.252
CONTROL - TRT2	-13.131	-2.817	7.497
CONTROL - TRT1	-7.412	3.067	13.546
CONTROL - TRT3	-6.731	3.933	14.598
TRT1 - TRT2	-16.197	-5.883	4.431
TRT1 - CONTROL	-13.546	-3.067	7.412
TRT1 - TRT3	-9.798	0.867	11.531
TRT3 - TRT2	-17.252	-6.750	3.752
TRT3 - CONTROL	-14.598	-3.933	6.731
TRT3 - TRT1	-11.531	-0.867	9.798

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 6. ANALYSIS OF NORMAL MATCHINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 117.4583  
 Critical Value of Dunnnett's T= 2.107

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	-5.391	2.817	11.024
TRT1 - CONTROL	-11.405	-3.067	5.272
TRT3 - CONTROL	-12.419	-3.933	4.553

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64  
 NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: HS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	493.46667	164.48889	1.63	0.1920
Error	56	5640.46667	100.72262		
Corrected Total	59	6133.93333			

R-Square	C.V.	Root MSE	HS Mean
0.080449	51.11748	10.036	19.633

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	493.46667	164.48889	1.63	0.1920

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 7. ANALYSIS OF 14-DAY-OLD SURVIVORS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	LSMEAN	Pr >  T	HO: LSMEAN(i)=LSMEAN(j)
CONTROL	20.4666667	1	0.3301 0.3666 0.3566
TRT1	16.8666667	2	0.3301 0.0615 0.9716
TRT2	23.7500000	3	0.3666 0.0615 0.0714
TRT3	17.0000000	4	0.3566 0.9716 0.0714

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

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CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
7. ANALYSIS OF 14-DAY-OLD SURVIVORS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 100.7226  
Critical Value of Studentized Range= 3.745

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	-6.268	3.283	12.834
TRT2 - TRT3	-2.975	6.750	16.475
TRT2 - TRT1	-2.668	6.883	16.434
CONTROL - TRT2	-12.834	-3.283	6.268
CONTROL - TRT3	-6.409	3.467	13.342
CONTROL - TRT1	-6.104	3.600	13.304
TRT3 - CONTROL	-16.475	-6.750	2.975
TRT3 - TRT2	-13.342	-3.467	6.409
TRT3 - TRT1	-9.742	0.133	10.009
TRT1 - CONTROL	-16.434	-6.883	2.668
TRT1 - TRT2	-13.304	-3.600	6.104
TRT1 - TRT3	-10.009	-0.133	9.742

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 100.7226  
Critical Value of Dunnnett's T= 2.107

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	-4.317	3.283	10.883
TRT2 - TRT3	-11.325	-3.467	4.392
TRT2 - TRT1	-11.322	-3.600	4.122

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	165.15287	55.05096	0.57	0.6340
Error	56	5363.47855	95.77640		
Corrected Total	59	5528.63143			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.029872	14.76734	9.7865	66.272

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	165.15287	55.05096	0.57	0.6340

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	RESPONSE	Pr >  T	HO: LSMEAN(1)=LSMEAN(j)
	LSMEAN	1/j	2 3 4
CONTROL	68.4212901	1	0.6773 0.4611 0.2084
TRT1	66.9562760	2	0.6773 0.7524 0.3926
TRT2	65.811473	3	0.4611 0.7524 0.5753
TRT3	63.7929183	4	0.2084 0.3926 0.5753

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 95.7764

Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT1	-7.968	1.495	10.958
CONTROL - TRT2	-6.703	2.610	11.924
CONTROL - TRT3	-5.002	4.628	14.258
TRT1 - CONTROL	-10.958	-1.495	7.968
TRT1 - TRT2	-8.198	1.115	10.429
TRT1 - TRT3	-6.497	3.133	12.763
TRT2 - CONTROL	-11.924	-2.610	6.703
TRT2 - TRT1	-10.429	-1.115	8.198
TRT2 - TRT3	-7.465	2.018	11.502
TRT3 - CONTROL	-14.258	-4.628	5.002
TRT3 - TRT1	-12.763	-3.133	6.497
TRT3 - TRT2	-11.502	-2.018	7.465

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 95.7764

Critical Value of Dunnnett's T= 2.107

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

Simultaneous Simultaneous

LEVEL Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL	-9.025	-1.495	6.035
CONTROL	-10.021	-2.610	4.801
CONTROL	-12.291	-4.628	3.035

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Class Level Information

Class Levels Values  
LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Type I Estimable Functions for: LEVEL

Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	795.18871	265.06290	1.13	0.3454
Error	56	13153.62294	234.88612		
Corrected Total	59	13948.81166			

R-Square C.V. Root MSE RESPONSE Mean  
0.057008 20.80854 15.326 73.652

Source DF Type I SS Mean Square F Value Pr > F

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CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS  
\*\*\*\*\*  
14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr >  T	H0: LSMEAN(i)=LSMEAN(j)
			i/j	1 2 3 4
CONTROL	74.4568283		0.2189	0.6962 0.7882
TRT1	67.4989434	2	0.1034	0.1414
TRT2	76.6183282	3	0.6962	0.1034 0.9118
TRT3	75.9939355	4	0.7882	0.1414 0.9118

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS  
\*\*\*\*\*  
14:51 Wednesday, March 3, 1999

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= 56 MSE= 234.8861  
Critical Value of Studentized Range= 3.745

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

LEVEL	Comparison	Simultaneous		
		Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2	- TRT3	-14.227	0.624	15.476
TRT2	- TRT1	-12.424	2.161	16.747
TRT2	- TRT3	-5.466	9.119	23.705
TRT3	- TRT2	-15.476	-0.624	14.227
TRT3	- CONTROL	-13.544	1.537	16.618
TRT3	- TRT1	-6.586	8.495	23.576
CONTROL	- TRT2	-16.747	-2.161	12.424
CONTROL	- TRT3	-16.618	-1.537	13.544
CONTROL	- TRT1	-7.861	6.958	21.776
TRT1	- TRT2	-23.705	-9.119	5.466
TRT1	- TRT3	-23.576	-8.495	6.586
TRT1	- CONTROL	-21.776	-6.958	7.861

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS  
\*\*\*\*\*  
14:51 Wednesday, March 3, 1999

General Linear Models Procedure

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 234.8861  
Critical Value of Dunnett's T= 2.107

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

LEVEL	Comparison	Simultaneous		
		Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2	- CONTROL	-9.445	2.161	13.768
TRT3	- CONTROL	-10.463	1.537	13.538
TRT1	- CONTROL	-18.750	-6.958	4.834

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS  
\*\*\*\*\*  
14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS  
\*\*\*\*\*  
14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS  
\*\*\*\*\*  
14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE	DF	Sum of Squares	F Value	Pr > F
Source	3	71.201463	23.733821	0.45
Model				0.7195

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 Error 55 2912.222572 52.949501  
 Corrected Total 58 2983.424034

R-Square 0.023866  
 C.V. 8.602305  
 Root MSE 7.2766  
 RESPONSE Mean 84.589

Source DF Type I SS Mean Square F Value Pr > F  
 LEVEL 3 71.201463 23.733821 0.45 0.7195

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	RESPONSE	Pr >  T	HO: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	1 2 3 4
CONTROL	83.789717	1	0.4015 0.5918 0.8458
TRT1	86.0762326	2	0.4015 0.7434 0.3106
TRT2	85.2002337	3	0.5918 0.7434 0.4697
TRT3	83.2616139	4	0.8458 0.3106 0.4697

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 52.9495  
 Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means		Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit	Difference	Means	Difference	Upper Limit
TRT1 - TRT2	-6.179	7.931	0.876	0.876	0.876	7.931
TRT1 - CONTROL	-4.878	9.451	2.287	2.287	2.287	9.451
TRT1 - TRT3	-4.472	10.101	2.815	2.815	2.815	10.101
TRT2 - TRT1	-7.931	6.179	-0.876	-0.876	-0.876	6.179
TRT2 - CONTROL	-5.518	8.339	1.411	1.411	1.411	8.339
TRT2 - TRT3	-5.116	8.994	1.939	1.939	1.939	8.994
CONTROL - TRT1	-9.451	4.878	-2.287	-2.287	-2.287	4.878
CONTROL - TRT2	-8.339	5.518	-1.411	-1.411	-1.411	5.518
CONTROL - TRT3	-6.636	7.692	-0.528	-0.528	-0.528	7.692
TRT3 - TRT1	-10.101	4.472	-2.815	-2.815	-2.815	4.472

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 TRT3 - TRT2 -1.939 5.116  
 TRT3 - CONTROL -0.528 6.636

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 52.9495  
 Critical Value of Dunnett's T= 2.109

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	-3.417	2.287	2.287	2.287	2.287	7.990
TRT2 - CONTROL	-4.106	1.411	1.411	1.411	1.411	6.927
TRT3 - CONTROL	-6.232	-0.528	-0.528	-0.528	-0.528	5.175

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Coefficients

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

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

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14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	103.89492	34.63164	0.33	0.8048
Error	55	5799.48223	105.44513		
Corrected Total	58	5903.37715			

R-Square 0.017599 C.V. 14.25335 Root MSE 10.269 RESPONSE Mean 72.044

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	103.89492	34.63164	0.33	0.8048

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr >  T	HO: LSMEAN(i)=LSMEAN(j)
CONTROL	73.0537356	1	0.4602	0.9155 0.6264
TRT1	70.2158166	2	0.4602	0.3936 0.8036
TRT2	73.4470604	3	0.9155	0.3936 0.5498
TRT3	71.1857370	4	0.6264	0.8036 0.5498

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 105.4451  
 Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-9.384	0.393	10.171
TRT2 - TRT3	-7.695	2.261	12.217

TRT2 - TRT1	-6.725	3.231	13.187
CONTROL - TRT2	-10.171	-0.393	9.384
CONTROL - TRT3	-8.242	1.868	11.978
CONTROL - TRT1	-7.272	2.838	12.948
TRT3 - TRT2	-12.217	-2.261	7.695
TRT3 - CONTROL	-11.978	-1.868	8.242
TRT3 - TRT1	-9.315	0.970	11.253
TRT1 - TRT2	-13.187	-3.231	6.725
TRT1 - CONTROL	-12.948	-2.838	7.272
TRT1 - TRT3	-11.253	-0.970	9.315

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 105.4451  
 Critical Value of Dunnett's T= 2.109

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-7.391	0.393	8.178
TRT3 - CONTROL	-9.917	-1.868	6.181
TRT1 - CONTROL	-10.887	-2.838	5.211

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	336.60596	112.20199	0.75	0.5273
Error	56	8384.94958	149.73124		
Corrected Total	59	8721.55554			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.038595	23.34994	12.236	52.405

Source	DF	Type I SS	Mean Square	F Value	Pr > F
EVEL	3	336.60596	112.20199	0.75	0.5273

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	RESPONSE	Pr >  T	HO: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/1	2 3 4
CONTROL	54.8947016	1	0.1904 0.8752 0.4405
TRT1	48.9720102	2	0.1904 0.2394 0.6013
TRT2	54.2010344	3	0.8752 0.2394 0.5287
TRT3	51.3618714	4	0.4405 0.6013 0.5287

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 149.7312

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	-10.951	0.694	12.339
CONTROL - TRT3	-8.508	3.533	15.574
CONTROL - TRT1	-5.909	5.923	17.754
TRT2 - CONTROL	-12.339	-0.694	10.951
TRT2 - TRT3	-9.019	2.839	14.697
TRT2 - TRT1	-6.416	5.229	16.874
TRT3 - CONTROL	-15.574	-3.533	8.508
TRT3 - TRT2	-14.697	-2.839	9.019
TRT3 - TRT1	-9.651	2.390	14.431
TRT1 - CONTROL	-17.754	-5.923	5.909
TRT1 - TRT2	-16.874	-5.229	6.416
TRT1 - TRT3	-14.431	-2.390	9.651

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 149.7312  
 Critical Value of Dunnett's T= 2.107

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-9.960	-0.694	8.573
TRT3 - CONTROL	-13.114	-3.533	6.048
TRT1 - CONTROL	-15.337	-5.923	3.492

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS  
 \*\*\*\*\*  
 CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Effect INTERCEPT

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

13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS  
 \*\*\*\*\*  
 CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	452.58060	150.86020	1.05	0.3792
Error	55	7926.36579	144.11574		
Corrected Total	58	8378.94639			

R-Square 0.054014 C.V. 16.52227 Root MSE 12.005 RESPONSE Mean 72.658

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	452.58060	150.86020	1.05	0.3792

13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS  
 \*\*\*\*\*  
 CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	RESPONSE	Pr >  T	HO: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/1	2 3 4
CONTROL	69.0944581	1	0.4830 0.0846 0.4752
TRT1	72.2454067	2	0.4830 0.3180 0.9901
TRT2	76.6731153	3	0.0846 0.3180 0.3241
TRT3	72.5017834	4	0.4752 0.9901 0.5241

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 144.1157  
 Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - TRT3	-7.268	4.371	16.011
TRT2 - TRT1	-7.212	4.428	16.067
TRT2 - CONTROL	-3.852	7.579	19.009
TRT3 - TRT2	-16.011	-4.371	7.268
TRT3 - TRT1	-11.965	0.056	12.078
TRT3 - CONTROL	-8.612	3.207	15.027
TRT1 - TRT2	-16.067	-4.428	7.212
TRT1 - TRT3	-12.078	-0.056	11.965
TRT1 - CONTROL	-8.668	3.151	14.970
CONTROL - TRT2	-19.009	-7.579	3.852
CONTROL - TRT3	-15.027	-3.207	8.612
CONTROL - TRT1	-14.970	-3.151	8.668

13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS  
 \*\*\*\*\*  
 CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 144.1157  
 Critical Value of Dunnett's T= 2.109

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	-1.522	7.579	16.679
TRT3 - CONTROL	-6.203	3.207	12.617
TRT1 - CONTROL	-6.259	3.151	12.561

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	145.17404	48.39135	0.80	0.4977
Error	56	3376.44165	60.29360		
Corrected Total	59	3521.61569			

R-Square C.V. Root MSE RESPONSE Mean  
0.041224 9.315382 7.7649 83.356

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	145.17404	48.39135	0.80	0.4977

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	RESPONSE	Pr >  T	H0: LSMEAN(1)=LSMEAN(J)
	LSMEAN	I/J	1 2 3 4

CONTROL	84.2172919	1	0.9020	0.8940	0.2122
TRT1	84.5678623	2	0.9020	0.7962	0.1720
TRT2	83.8436954	3	0.8940	0.7962	0.2550
TRT3	80.5738151	4	0.2122	0.1720	0.2550

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 60.2936  
Critical Value of Studentized Range= 3.745

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	-7.157	7.858	0.351	7.858	7.858	7.858
TRT1 - TRT2	-6.665	8.114	0.724	8.114	8.114	8.114
TRT1 - TRT3	-3.649	11.633	3.992	11.633	11.633	11.633
CONTROL - TRT1	-7.858	7.157	-0.351	7.157	7.157	7.157
CONTROL - TRT2	-7.016	7.763	0.374	7.763	7.763	7.763
CONTROL - TRT3	-3.999	11.282	3.641	11.282	11.282	11.282
TRT2 - TRT1	-8.114	6.665	-0.724	6.665	6.665	6.665
TRT2 - CONTROL	-7.763	7.016	-0.374	7.016	7.016	7.016
TRT2 - TRT3	-4.257	10.792	3.268	10.792	10.792	10.792
TRT3 - TRT1	-11.633	3.649	-3.992	3.649	3.649	3.649
TRT3 - CONTROL	-11.282	3.999	-3.641	3.999	3.999	3.999
TRT3 - TRT2	-10.792	4.257	-3.268	4.257	4.257	4.257

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 60.2936  
Critical Value of Dunnnett's T= 2.107

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	-7.157	7.858	0.351	7.858	7.858	7.858
TRT1 - TRT2	-6.665	8.114	0.724	8.114	8.114	8.114
TRT1 - TRT3	-3.649	11.633	3.992	11.633	11.633	11.633
CONTROL - TRT1	-7.858	7.157	-0.351	7.157	7.157	7.157
CONTROL - TRT2	-7.016	7.763	0.374	7.763	7.763	7.763
CONTROL - TRT3	-3.999	11.282	3.641	11.282	11.282	11.282
TRT2 - TRT1	-8.114	6.665	-0.724	6.665	6.665	6.665
TRT2 - CONTROL	-7.763	7.016	-0.374	7.016	7.016	7.016
TRT2 - TRT3	-4.257	10.792	3.268	10.792	10.792	10.792
TRT3 - TRT1	-11.633	3.649	-3.992	3.649	3.649	3.649
TRT3 - CONTROL	-11.282	3.999	-3.641	3.999	3.999	3.999
TRT3 - TRT2	-10.792	4.257	-3.268	4.257	4.257	4.257

TRT1 - CONTROL 0.351 6.325  
 TRT2 - CONTROL -0.374 5.507  
 TRT3 - CONTROL -3.641 2.439

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class Levels Values  
 LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	599.39987	199.79996	0.94	0.4262
Error	56	11867.39170	211.91771		
Corrected Total	59	12466.79157			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.048080	23.28870	14.557	62.508

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	599.39987	199.79996	0.94	0.4262

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	RESPONSE	Pr >  T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	1/J	2 3 4
CONTROL	63.4623989	1	0.2445 0.6982 0.9589
TRT1	57.2100720	2	0.2445 0.1186 0.5323
TRT2	65.5016316	3	0.6982 0.1186 0.7424
TRT3	63.7422583	4	0.9589 0.2323 0.7424

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 211.9177  
 Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means	Simultaneous Upper Confidence Limit	
	Limit	Limit		Limit	Limit
TRT2 - TRT3	-12.347	-11.815	1.759	15.866	15.866
TRT2 - CONTROL	-11.815	-5.562	2.039	15.893	15.893
TRT2 - TRT1	-5.562		8.292	22.145	22.145
TRT3 - TRT2	-15.866	-14.045	-1.759	12.347	12.347
TRT3 - CONTROL	-14.045	-7.792	0.280	14.604	14.604
TRT3 - TRT1	-7.792		6.532	20.857	20.857
CONTROL - TRT2	-15.893	-14.604	-2.039	11.815	11.815
CONTROL - TRT3	-14.604	-7.823	0.280	14.045	14.045
CONTROL - TRT1	-7.823		6.252	20.328	20.328
TRT1 - TRT2	-22.145	-20.857	-8.292	5.562	5.562
TRT1 - TRT3	-20.857	-20.328	-6.532	7.792	7.792
TRT1 - CONTROL	-20.328		-6.252	7.823	7.823

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 211.9177  
 Critical Value of Dunnett's T= 2.107

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	Upper Limit	Lower Limit	Upper Limit
TRT2 - CONTROL	-8.985	2.039	2.039	13.063		
TRT3 - CONTROL	-11.119	0.280	0.280	11.678		
TRT1 - CONTROL	-17.453	-6.252	-6.252	4.948		

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: RESPONSE					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	773.98379	257.99460	1.50	0.2248
Error	56	9638.14974	172.10982		
Corrected Total	59	10412.13353			

R-Square 0.074335 C.V. 23.64437 Root MSE 13.119 RESPONSE Mean 55.485

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	773.98379	257.99460	1.50	0.2248

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr >  T  H0: LSMEAN(i)=LSMEAN(j)			
		1	2	3	4
CONTROL	55.0901537	1	0.3302	0.2686	0.8844
TRT1	50.3847593	2	0.3302	0.0389	0.2712
TRT2	60.3587098	3	0.2686	0.0389	0.3467
TRT3	55.8023158	4	0.8844	0.2712	0.3467

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET  
 \*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 56 MSE= 172.1098  
 Critical Value of Studentized Range= 3.745

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	Upper Limit	Lower Limit	Upper Limit
TRT2 - TRT3	-8.157	4.556	4.556	17.269		
TRT2 - CONTROL	-7.216	5.269	5.269	17.753		
TRT2 - TRT1	-2.511	9.974	9.974	22.459		
TRT3 - TRT2	-17.269	-4.556	-4.556	8.157		
TRT3 - CONTROL	-12.197	0.712	0.712	13.621		
TRT3 - TRT1	-7.492	5.418	5.418	18.327		
CONTROL - TRT2	-17.753	-5.269	-5.269	7.216		
CONTROL - TRT3	-13.621	-0.712	-0.712	12.197		
CONTROL - TRT1	-7.979	4.705	4.705	17.390		
TRT1 - TRT2	-22.459	-9.974	-9.974	2.511		
TRT1 - TRT3	-18.327	-5.418	-5.418	7.492		
TRT1 - CONTROL	-17.390	-4.705	-4.705	7.979		

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 56 MSE= 172.1098  
 Critical Value of Dunnnett's T= 2.107

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

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-4.666	5.269	5.269	15.203	
TRT3 - CONTROL	-9.560	0.712	0.712	10.985	
TRT1 - CONTROL	-14.799	-4.705	-4.705	5.588	

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 17. ANALYSIS OF EGGSHELL THICKNESS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 17. ANALYSIS OF EGGSHELL THICKNESS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 17. ANALYSIS OF EGGSHELL THICKNESS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: THICK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.0007307	0.0002436	0.73	0.5379
Error	55	0.0183250	0.0003332		
Corrected Total	58	0.0190557			

R-Square C.V. Root MSE THICK Mean  
 0.038345 8.653628 0.0183 0.2109

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.0007307	0.0002436	0.73	0.5379

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 17. ANALYSIS OF EGGSHELL THICKNESS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	THICK LSMEAN	Pr >  T  NO: LSMEAN(i)=LSMEAN(j)	LSMEAN			
			1	2	3	4
CONTROL	0.21242857	1	0.2740	0.8879	0.9261	0.9261
TRT1	0.20493333	2	0.2036	0.2354	0.9639	0.9639
TRT2	0.21337500	3	0.8879	0.2036	0.9639	0.9639
TRT3	0.21307143	4	0.9261	0.2354	0.9639	0.9639

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 17. ANALYSIS OF EGGSHELL THICKNESS  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 0.000333  
 Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT2 - TRT3	-0.017394	0.000304	0.000304	0.018001	
TRT2 - CONTROL	-0.016751	0.000946	0.000946	0.018644	
TRT2 - TRT1	-0.008939	0.008442	0.008442	0.025822	
TRT3 - TRT2	-0.018001	-0.000304	-0.000304	0.017394	

TRT3 - CONTROL	-0.017635	0.000643	0.018921
TRT3 - TRT1	-0.009833	0.008138	0.026109
CONTROL - TRT2	-0.018644	-0.000946	0.016751
CONTROL - TRT3	-0.018921	-0.000643	0.017635
CONTROL - TRT1	-0.010476	0.007495	0.025466
TRT1 - TRT2	-0.025822	-0.008442	0.008939
TRT1 - TRT3	-0.026109	-0.008138	0.009833
TRT1 - CONTROL	-0.025466	-0.007495	0.010476

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

17. ANALYSIS OF EGGSHELL THICKNESS

\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 0.000333  
Critical Value of Dunnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Difference Between Means		Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit	Difference	Means	Upper Limit	Lower Limit
TRT2 - CONTROL	-0.013106	0.000946	0.000946	0.014998	0.015156	0.006774
TRT3 - CONTROL	-0.013870	0.000643	0.000643	0.015156	0.006774	0.006774
TRT1 - CONTROL	-0.021764	-0.007495	-0.007495	0.006774	0.006774	0.006774

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Type I Estimable Functions for: LEVEL

Effect Coefficients

INTERCEPT 0

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.0979988	0.0326663	0.14	0.9380
Error	55	13.1964657	0.2399357		
Corrected Total	58	13.2944644			

R-Square	C.V.	Root MSE	HATWT Mean
0.007371	8.075814	0.4898	6.0654

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.0979988	0.0326663	0.14	0.9380

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Least Squares Means

LEVEL	HATWT	Pr >  T  H0: LSMEAN(i)=LSMEAN(j)				
		LSMEAN	1/j	2	3	4
CONTROL	6.0006667	1	0.7339	0.6016	0.5662	0.8178
TRT1	6.06285714	2	0.7339	0.8665	0.8178	0.9443
TRT2	6.09312500	3	0.6016	0.8665	0.9443	0.9443
TRT3	6.10571429	4	0.5662	0.8178	0.9443	0.9443

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 55 MSE= 0.239936  
Critical Value of Studentized Range= 3.747

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

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LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - TRT2	-0.4623	0.0126	0.4875
TRT3 - TRT1	-0.4476	0.0429	0.5334
TRT3 - CONTROL	-0.3772	0.1050	0.5873
TRT2 - TRT3	-0.4875	-0.0126	0.4623
TRT2 - TRT1	-0.4447	0.0303	0.5052
TRT2 - CONTROL	-0.3759	0.0925	0.5589
TRT1 - TRT3	-0.5334	-0.0429	0.4476
TRT1 - TRT2	-0.5052	-0.0303	0.4447
TRT1 - CONTROL	-0.4201	0.0622	0.5444
CONTROL - TRT3	-0.5873	-0.1050	0.3772
CONTROL - TRT2	-0.5589	-0.0925	0.3759
CONTROL - TRT1	-0.5444	-0.0622	0.4201

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
18. ANALYSIS OF HATCHLING WEIGHT  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 55 MSE= 0.239936  
Critical Value of Dunnnett's T= 2.109

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - CONTROL	-0.2789	0.1050	0.4890
TRT2 - CONTROL	-0.2789	0.0925	0.4338
TRT1 - CONTROL	-0.3218	0.0622	0.4461

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

Class Level	Values
LEVEL	4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: SURVWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	39.065836	13.021945	1.96	0.1301
Error	55	364.678232	6.630513		
Corrected Total	58	403.744068			

R-Square	C.V.	Root MSE	SURVWT Mean
0.096759	10.00288	2.5750	25.742

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	39.065836	13.021945	1.96	0.1301

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	SURVWT	Pr >  T	LSMEAN(i)=LSMEAN(j)
CONTROL	27.040000	1	0.1693
TRT1	25.707129	2	0.3846
TRT2	24.881250	3	0.0234
TRT3	25.3714286	4	0.0868

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 6.630513  
Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Simultaneous Difference Between Means		Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit	Difference	Means	Upper Limit	Lower Limit
CONTROL - TRT1	-1.2023	3.8680	1.3329		3.8680	
CONTROL - TRT3	-0.8666	4.2037	1.6686		4.2037	
CONTROL - TRT2	-0.2931	4.6106	2.1588		4.6106	
TRT1 - CONTROL	-3.8680	1.2023	-1.3329		1.2023	
TRT1 - TRT3	-2.2428	2.9142	0.3357		2.9142	
TRT1 - TRT2	-1.6707	3.3225	0.8259		3.3225	
TRT3 - CONTROL	-4.2037	0.8666	-1.6686		0.8666	
TRT3 - TRT1	-2.9142	2.2628	-0.3357		2.2628	
TRT3 - TRT2	-2.0064	2.9868	0.4902		2.9868	
TRT2 - CONTROL	-4.6106	0.2931	-2.1588		0.2931	
TRT2 - TRT1	-3.3225	1.6707	-0.8259		1.6707	
TRT2 - TRT3	-2.9868	2.0064	-0.4902		2.0064	

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

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= 55 MSE= 6.630513  
Critical Value of Dunnnett's T= 2.109

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

LEVEL Comparison	Simultaneous Lower Confidence Limit		Simultaneous Difference Between Means		Simultaneous Upper Confidence Limit	
	Lower Limit	Upper Limit	Difference	Means	Upper Limit	Lower Limit
TRT1 - CONTROL	-3.3512	0.6855	-1.3329		0.6855	
TRT3 - CONTROL	-3.6870	0.3498	-1.6686		0.3498	
TRT2 - CONTROL	-4.1108	-0.2067	-2.1588		-0.2067	****

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
20. ANALYSIS OF FOOD CONSUMPTION  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Class Level Information

LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
20. ANALYSIS OF FOOD CONSUMPTION  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Type I Estimable Functions for: LEVEL

Effect Coefficients

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
20. ANALYSIS OF FOOD CONSUMPTION  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: FOOD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	18.901190	6.300397	1.29	0.2879
Error	56	274.182810	4.896122		
Corrected Total	59	293.084000			

R-Square	C.V.	Root MSE	FOOD Mean
0.064491	11.80746	2.2127	18.740

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	18.901190	6.300397	1.29	0.2879

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
20. ANALYSIS OF FOOD CONSUMPTION  
\*\*\*\*\*

14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
Least Squares Means

LEVEL	FOOD LSMEAN	Pr >  T _H0: LSMEAN(i)=LSMEAN(j)			
		i/j	1	2	3
CONTROL	18.0333333	1	0.6636	0.0803	0.2151
TRT1	18.3866667	2	0.6636	0.1866	0.4134

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 20. ANALYSIS OF FOOD CONSUMPTION  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 56 MSE= 4.896122  
 Critical Value of Studentized Range= 3.745

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 - TRT3	-1.7585	0.3857	2.5299	3.1691	
TRT2 - TRT1	-1.0424	1.0633	3.1691	3.5224	
TRT2 - CONTROL	-0.6891	1.4167			
TRT3 - TRT2	-2.5299	-0.3857	1.7385	2.8549	
TRT3 - TRT1	-1.4997	0.6776	2.8549	3.2083	
TRT3 - CONTROL	-1.1464	1.0310			
TRT1 - TRT2	-3.1691	-1.0633	1.0424	1.4997	
TRT1 - TRT3	-2.8549	-0.6776	1.4997	2.4928	
TRT1 - CONTROL	-1.7861	0.3533			
CONTROL - TRT2	-3.5224	-1.4167	0.6891	1.1464	
CONTROL - TRT3	-3.2083	-1.0310	1.1464	1.7861	
CONTROL - TRT1	-2.4928	-0.3533			

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 20. ANALYSIS OF FOOD CONSUMPTION  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dunnnett'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= 56 MSE= 4.896122  
 Critical Value of Dunnnett's T= 2.107

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	-0.2590	1.4167	3.0923		
TRT3 - CONTROL	-0.7016	1.0310	2.7335		

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Dependent Variable: POSTM

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	4997.9740	1249.4935	11.15	0.0001
Error	55	6164.6094	112.0838		

Corrected Total 59 11162.5833

R-Square 0.447743 C.V. 10.587 Root MSE 10.587 POSTM Mean 202.42

Source DF Type I SS Mean Square F Value Pr > F

LEVEL PREH	3	212.8839	70.9613	0.63	0.5968
	1	4785.0901	4785.0901	42.69	0.0001

Source DF Type III SS Mean Square F Value Pr > F

LEVEL PREH	3	503.1989	167.7330	1.50	0.2257
	1	4785.0901	4785.0901	42.69	0.0001

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Least Squares Means

LEVEL	POSTM LSMEAN	Std Err LSMEAN	Pr >  T  HO:LSMEAN=0	LSMEAN Number
CONTROL	207.095932	2.748900	0.0001	1
TRT1	201.587517	2.733983	0.0001	2

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 TRT2 199.156711 2.652665 0.0001 3  
 TRT3 202.017207 2.834082 0.0001 4  
 Pr > |T| HO: LSMEAN(I)=LSMEAN(J)

i/j	1	2	3	4
1		0.1606	0.0431	0.2051
2	0.1606		0.5263	0.9136
3	0.0431	0.5263		0.4635
4	0.2051	0.9136	0.4635	

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 112.0838  
 Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous		Difference Between Means	Upper Confidence Limit
	Lower Confidence Limit	Upper Confidence Limit		
CONTROL - TRT1	-8.295	2.129	10.424	12.552
CONTROL - TRT3	-6.309	3.933	10.242	14.175
CONTROL - TRT2	-5.193	4.887	10.084	14.968
TRT3 - CONTROL	-12.552	-2.129	-10.424	8.295
TRT3 - TRT1	-8.618	1.805	10.424	12.228
TRT3 - TRT2	-7.506	2.759	10.265	13.024
TRT1 - CONTROL	-14.175	-3.933	-10.242	6.309
TRT1 - TRT3	-12.228	-1.805	-10.424	8.618
TRT1 - TRT2	-9.126	0.954	-10.084	11.035
TRT2 - CONTROL	-14.968	-4.887	-10.084	5.193
TRT2 - TRT3	-13.024	-2.759	-10.265	7.506
TRT2 - TRT1	-11.035	-0.954	-10.126	9.126

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 21. COVARIATE ANALYSIS OF MALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 112.0838  
 Critical Value of Dunnett's T= 2.108  
 Comparisons significant at the 0.05 level are indicated by /\*\*\*\*.

Simultaneous Lower Confidence Limit  
 Simultaneous Upper Confidence Limit  
 Difference Between Means  
 LEVEL Comparison  
 TRT3 - CONTROL -10.422 -2.129 6.164  
 TRT1 - CONTROL -12.082 -3.933 4.215  
 TRT2 - CONTROL -12.908 -4.887 3.133

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure  
 Class Level Information  
 Class Levels Values  
 LEVEL 4 CONTROL TRT1 TRT2 TRT3  
 Number of observations in data set = 64

NOTE: Due to missing values, only 60 observations can be used in this analysis.

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	7265.5924	1816.3981	11.61	0.0001
Error	55	8605.6576	156.4665		
Corrected Total	59	15871.2500			

R-Square 0.457783  
 C.V. 5.397479  
 Root MSE 12.509  
 POSTF Mean 231.75

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	597.0048	199.0016	1.27	0.2931
PREF	1	6668.5876	6668.5876	42.62	0.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	438.2930	146.0977	0.93	0.4307
PREF	1	6668.5876	6668.5876	42.62	0.0001

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr >  T  HO:LSMEAN=0	LSMEAN Number
CONTROL	235.352004	3.234787	0.0001	1
TRT1	228.427968	3.231826	0.0001	2
TRT2	230.105071	3.133209	0.0001	3
TRT3	233.329950	3.355742	0.0001	4

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

i/j	1	2	3	4
1		0.1361	0.2482	0.6669
2			0.7112	0.2966
3				0.4865
4				

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

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

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= 55 MSE= 156.4665  
 Critical Value of Studentized Range= 3.747

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT3	-7.210	5.105	17.420
CONTROL - TRT2	-6.752	5.158	17.069
CONTROL - TRT1	-3.234	8.867	20.968
TRT3 - CONTROL	-17.420	-5.105	7.210
TRT3 - TRT2	-12.074	0.054	12.182
TRT3 - TRT1	-8.553	3.762	16.077
TRT2 - CONTROL	-17.069	-5.158	6.752
TRT2 - TRT3	-12.182	-0.054	12.074
TRT2 - TRT1	-8.202	3.708	15.619
TRT1 - CONTROL	-20.968	-8.867	3.234
TRT1 - TRT3	-16.077	-3.762	8.553
TRT1 - TRT2	-15.619	-3.708	8.202

CYROMAZINE: REPRO. STUDY WITH THE BOBWHITE  
 22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT  
 \*\*\*\*\*  
 14:51 Wednesday, March 3, 1999

General Linear Models Procedure

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 156.4665  
 Critical Value of Dunnnett's T= 2.108

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

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
TRT3 - CONTROL	-14.903	-5.105	-5.105	4.694	
TRT2 - CONTROL	-14.635	-5.158	-5.158	4.318	
TRT1 - CONTROL	-18.495	-8.867	-8.867	0.761	

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