

(7-30-97)

MRID No. 440156-01

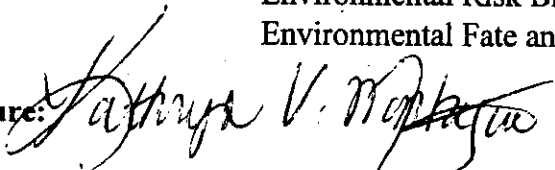
DATA EVALUATION RECORD
§ 71-4 -- AVIAN REPRODUCTION TEST

1. **CHEMICAL:** Metolachlor PC Code No.: 108801
2. **TEST MATERIAL:** CGA-24705 Technical Purity: 97.3%
3. **CITATION:**
- Authors: L.C. Taliaferro, M.C. Taliaferro, and V.C. Miller
Title: Metolachlor: The Reproductive Toxicity Test of CGA-24705 in Northern Bobwhite (*Colinus virginianus*)
Study Completion Date: May 7, 1996
Laboratory: EBA, Inc., Snow Camp, NC
Sponsor: Ciba-Geigy Corporation, Greensboro, NC
Laboratory Report ID: 029508
MRID No.: 440156-01
DP Barcode: D226603

4. **REVIEWED BY:** William Erickson, Biologist
Environmental Risk Branch III
Environmental Fate and Effects Division

Signature:  Date: 7/28/97

5. **APPROVED BY:** Kathryn Montague, Biologist
Environmental Risk Branch III
Environmental Fate and Effects Division

Signature:  Date: 7/30/97

6. **STUDY PARAMETERS/RESULTS SYNOPSIS:**

Test Organism: *Colinus virginianus*
Age at Test Initiation: 15 weeks
Study Duration: 24 weeks
Most sensitive endpoint: not determined
NOEC: not determined
LOEC: not determined

7. **CONCLUSIONS:** The study is not scientifically sound and does not meet the guideline requirement (71-4a) for an avian reproduction study with northern bobwhite.

8. ADEQUACY OF THE STUDY:**Classification:** Invalid

Rationale: The percentage of 14-day-old survivors of the number of hatchlings was unacceptably low (55%) in the control group, and adult mortality occurred in five of the 18 control replicates.

9. GUIDELINE DEVIATIONS:

1. The egg storage humidity was not reported.
2. The temperature and humidity inside the hatcher were not reported.
3. Body weights of adults were measured at test initiation, week 10, and test termination. The guidelines recommend that body weights be measured at test initiation, biweekly up to week 8 or at the onset of egg laying, and at test termination.

10. SUBMISSION PURPOSE: Reregistration.**11. MATERIALS AND METHODS:****A. Test Organisms**

Guideline Criteria	Reported Information
Species A wild waterfowl species, preferably the mallard (<i>Anas platyrhynchos</i>), or an upland game species, preferably the northern bobwhite (<i>Colinus virginianus</i>)	Northern bobwhite (<i>Colinus virginianus</i>)
Age at beginning of test Birds should be approaching their first breeding season.	15 weeks old
Supplier All birds should be from the same source.	Birds were raised at EBA, Inc. from eggs obtained from Strickland Quail Farms, Pooler, GA.
Were birds pen-reared?	Yes

Guideline Criteria	Reported Information
Were birds phenotypically indistinguishable from wild birds?	Yes
<u>Health observation period</u> 2 to 6 weeks.	2 weeks
Were birds healthy and without excessive mortality prior to the test?	Yes

B. Test System

Guideline Criteria	Reported Information
Were pens for adult birds of adequate size and designed to conform to good husbandry practices?	Yes
Were pens for chicks of adequate size and designed to conform to good husbandry practices?	Yes
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)	Range: 16.1 - 29.4°C
<u>Relative humidity</u> Approx. 55%	Mean: 62.1% Range: 40-84%
<u>Lighting</u> First 8 weeks: 7 h per day. Thereafter: 16-17 h per day. At least 6 footcandles at bird level.	First 8 weeks: 7 h per day. Thereafter: photoperiod was increased over a 13-day period to 17 h per day. Mean illumination: 11 foot candles.

Guideline Criteria	Reported Information
<u>Diet</u> A commercial breeder feed (or its equivalent) that is appropriate for the test species.	<u>Adults:</u> 20% protein minimum 2.5% fat minimum 7% fiber maximum <u>Chicks:</u> 30% protein minimum 2.5% fat minimum 6.5% fiber maximum Neither adults nor offspring received any form of medication in the diet.
<u>Preparation of test diet</u> A premixed 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.	Test diets were prepared fresh weekly by mixing a base mix with the basal diet.
Was the premix stored under conditions which maintain stability?	Not reported
Was the diet analyzed to verify homogeneity and stability of the test substance? <u>Replenishment of feed</u>	Yes Adult diets were prepared weekly and presented to the birds each Wednesday of the week. Additional diets were prepared when necessary. Feed and water were provided <i>ad libitum</i> for the adults and offspring.

C. Test Design

Guideline Criteria	Reported Information
<u>Nominal concentrations</u> At least two concentrations other than the control are required; three or more are strongly recommended. The highest test concentrations should show a significant effect or be at or above the maximum field residue level.	Nominal concentrations: control, 50, 200, and 800 ppm ai.
<u>Control</u> Vehicle control.	Negative control
<u>Vehicle</u> Corn oil or other appropriate vehicle.	No vehicle or solvent was used.
<u>Vehicle amount (% of diet by weight)</u> Not more than 2%.	N/A
<u>Number of birds per pen</u> One male and 1 female per pen is strongly recommended. For quail, 1 male and 2 females may be acceptable. For ducks, 2 males and 5 females may be acceptable.	1 male and 1 female per pen
<u>Number of pens per group</u> At least 5 replicate pens are required for mallards housed in groups of 7. For other arrangements, at least 12 pens are required, but considerably more may be needed if birds are kept in pairs.	18 pens per group
<u>Pre-laying exposure duration</u> At least 10 weeks prior to the onset of egg-laying.	12 weeks
<u>Exposure duration with egg-laying</u> At least 10 weeks.	12 weeks

Guideline Criteria	Reported Information
<u>Withdrawal period</u> 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
Were eggs collected daily?	Yes
<u>Egg storage temperature</u> Approximately 16°C (61°F)	Approximately 10°C
<u>Egg storage humidity</u> Approximately 65%	Not reported
Were eggs set weekly?	Yes
Were eggs candled for cracks prior to being set for incubation on Day 0?	Yes
<u>Candling for fertility</u> Quail: approx. Day 11 Ducks: approx. Day 14	Eggs were candled between Day 10 and 12 for embryo viability and on Day 21 for embryo survival.
<u>Transfer of eggs to hatcher</u> Bobwhite: Day 21 Mallard: Day 23	Eggs were transferred on Day 21.
<u>Hatching temperature</u> 39°C (102°F) is recommended	The test protocol amendment stated (see p. 257) that it was maintained at approximately 36.0-38.0°C
<u>Hatching humidity</u> 70% is recommended	The test protocol amendment stated (see p. 257) that it was maintained at approximately 60-80%

Guideline Criteria	Reported Information
<u>Day after egg set that chicks were removed and counted</u> Bobwhite: Day 24 Mallard: Day 27	Chicks that had hatched were removed and counted on Day 23 or 24.

E. Eggshell Thickness Measurement

Guideline Criteria	Reported Information
<u>Collection Schedule</u> At least once every two weeks (Week 1, 3, 5, 7 and 9).	One Egg was collected, when available, for eggshell thickness weekly from odd numbered pens during odd numbered weeks and from even numbered pens during even numbered weeks.
Were shells opened, washed, and air dry for at least 48 hours before measuring?	Yes; shells were air dried for 1 week.
<u>Measurement</u> 3-4 measurements per eggs to the nearest 0.01 mm.	5 measurements taken to the nearest 0.001 mm

12. REPORTED RESULTS:

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

Guideline Criteria	Reported Information
Were body weights of adults reported for test initiation and biweekly up to week 8 or the onset of egg laying?	Body weights were measured at test initiation, week 10, and at test termination.
Was average food consumption of adults reported at least biweekly? <u>Reproductive Endpoints</u> The following endpoints should be reported: ● Eggs laid ● Eggs cracked ● Eggs set ● Viable embryos ● Live 3-week embryos ● Normal hatchlings ● 14-day-old survivors ● Weights of 14-day-old survivors ● Egg shell thickness ● Total food consumption ● Initial and final body weights, by sex	Yes All specified endpoints plus hatchling weights and eggs laid per day.
Were data reported by pen for all endpoints?	Yes

Reported Results: No overt signs of toxicity or treatment-related mortalities were reported. Significantly fewer eggs were laid at the 200 ppm ai level than in the control. The difference is not considered treatment-related, because there was no significant reduction in the number of eggs laid per day at the highest treatment concentration (800 ppm ai). The number of eggs set at the 200 ppm ai level was significantly less than the control. For the same reasons stated above, this effect was not considered treatment-related. No other reproductive parameters were significantly reduced when compared to the control.

13. VERIFIED STATISTICAL RESULTS:**Measurement Endpoint Means (standard deviation):**

Endpoint	Control	50 ppm	200 ppm	800 ppm
Eggs laid per hen	51 (11)	39* (12)	29* (16)	43 (20)
Eggs cracked	2 (2)	2 (2)	1 (2)	2 (2)
Eggs set	45 (11)	33 (12)	24 (15)	37 (19)
Viable embryos	42	28*	21*	34
Viable embryos of eggs set (%)	93	84	89	93
Live 3-wk embryos	41	27*	20*	33
Live 3-wk embryos of viable embryos (%)	98	95	95	95
Normal hatchlings	38	24*	17*	28
Normal hatchlings of live 3-wk embryos (%)	93	88	86	85
14-day-old survivors	21	12*	9*	15
14-day-old survivors of normal hatchlings (%)	55**	48	51	53
Egg shell thickness (mm)	0.195 (0.010)	0.197 (0.009)	0.191 (0.010)	0.187 (0.017)
Hatchling weight (g)	6.6 (0.5)	6.6 (0.4)	6.6 (0.3)	6.3 (0.6)
14-day-old survivor-weight (g)	25.3 (2.0)	25.0 (2.7)	28.3 (3.8)	25.0 (3.7)
Mean food consumption (g)	454.3 (41.6)	430.0 (43.4)	432.4 (42.5)	429.0 (26.9)
Male weight gain (g)	208 (16)	200 (30)	214 (12)	206 (18)

Endpoint	Control	50 ppm	200 ppm	800 ppm
Female weight gain (g)	232 (26)	233 (30)	207* (30)	224 (34)

* statistically different from the control group; comparisons based on Dunnett's test

** based on historical data for bobwhite reproduction, this value is unacceptably low for a control group

14. **REVIEWER'S COMMENTS:** The mortalities observed suggest that conditions for chicks, and possibly adults, may have been inadequate in this study. The percentage of 14-day-old survivors of the number of hatchlings (55%) was unacceptably low in the control group. EFED examined historical records (1978-1993) for 110 bobwhite reproduction studies and found the mean percentage of 14-day-old survivors of the number of hatchlings to be 88%, with a range from 65 to 100%. The reasons for the high chick mortality in this study are unclear. EFED also questions why adult mortality occurred in 21% (15/72) of the replicates in the study. Five adults died in the 18 control pairs, as well as three to four adults in each of the three treatment groups. The study authors deemed these deaths unrelated to treatment.

A further complication of this study was that significant adverse effects were found at 50 ppm and at 200 ppm but not at 800 ppm. However, despite the lack of a dose-dependant response at 800 ppm, the results suggest that the chemical had some adverse effect on reproduction. Because there was a significant effect at the lowest dosage, an NOEC was not established for the most sensitive measurement endpoint.

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
09:19 Thursday, June 27, 1996

OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
1	CONTROL	59	0	53	32	31	30	14	0.186	6.9
2	CONTROL	64	0	57	56	56	52	31	0.203	7.0
3	CONTROL	62	0	57	55	55	49	25	0.198	7.0
4	CONTROL	40	0	36	33	33	27	16	0.196	5.2
5	CONTROL	41	0	32	30	29	29	15	0.192	6.6
6	CONTROL	52	1	48	44	44	39	29	0.183	7.5
7	CONTROL	54	2	47	46	44	42	28	0.197	6.9
8	CONTROL	41	4	32	32	32	29	14	0.189	6.7
9	CONTROL	57	5	47	41	41	38	16	0.193	6.2
10	CONTROL	25	3	20	19	18	17	10	0.178	6.4
11	CONTROL	55	0	50	48	48	46	18	0.212	6.5
12	CONTROL	55	0	50	49	49	47	27	0.191	6.5
13	CONTROL	63	2	55	55	53	52	31	0.214	6.9
14	TRT1	38	0	33	13	13	12	4	0.206	6.6
15	TRT1	53	2	47	44	42	42	15	0.193	6.5
16	TRT1	30	1	24	23	23	17	5	0.207	6.5
17	TRT1	50	0	45	45	44	37	16	0.199	7.2
18	TRT1	28	2	21	20	12	10	7	0.208	6.6
19	TRT1	30	5	27	27	25	22	13	0.192	7.7
20	TRT1	32	2	27	27	25	22	13	0.189	6.3
21	TRT1	19	3	13	9	9	8	5	0.198	6.3
22	TRT1	40	3	33	27	27	24	12	0.213	6.3
23	TRT1	63	1	56	53	51	47	27	0.194	6.7
24	TRT1	55	3	47	45	44	39	23	0.178	6.9
25	TRT1	41	0	37	32	31	29	16	0.192	7.0
26	TRT1	38	6	32	15	15	14	8	0.196	6.1
27	TRT1	35	4	25	23	22	18	5	0.189	6.1
28	TRT1	35	4	27	21	21	16	7	0.200	6.2
29	TRT1	25	1	20	14	12	11	5	0.214	6.4
30	TRT2	43	0	38	37	35	33	17	0.196	6.6

OBS	SURVIV	FOOD	PREM	POSTM	PREF	POSTF
1	22.6	420.6	194.5	163.3	195.4	229.9
2	25.1	500.8	204.5	217.2	202.7	253.8
3	25.0	461.7	193.2	212.3	193.2	240.8
4	26.0	434.2	201.5	209.6	206.4	249.2
5	24.0	539.8	188.3	202.5	196.2	231.2
6	24.4	462.4	207.1	223.8	225.1	262.2
7	29.6	431.4	199.2	225.9	190.1	241.9
8	29.0	505.3	190.6	208.6	191.3	250.6
9	24.3	456.5	184.6	198.0	175.4	221.6
10	25.5	402.0	187.3	199.2	176.1	218.5
11	25.7	438.4	183.0	208.4	188.0	217.4
12	23.5	395.5	174.2	204.6	174.2	159.5
13	24.1	457.6	199.4	226.1	201.2	244.0
14	25.5	377.1	167.0	165.6	174.8	189.7
15	28.8	482.1	193.3	216.1	201.4	242.7
16	24.9	441.4	190.7	219.6	191.4	248.3
17	28.2	458.4	184.3	225.5	186.6	232.7
18	23.1	458.4	184.3	217.0	190.2	228.3
19	19.0	440.3	196.2	242.7	237.1	292.3
20	24.3	451.9	182.1	198.7	192.1	220.9
21	25.4	394.7	198.1	219.2	199.3	238.1
22	24.2	432.9	187.3	191.7	178.3	221.4
23	24.3	450.3	182.1	200.1	177.4	211.9
24	23.1	514.4	191.0	216.1	194.0	282.1
25	27.1	417.4	165.4	197.1	185.1	237.2
26	26.7	385.2	189.2	153.6	188.4	232.1
27	28.7	340.5	179.3	126.7	170.1	171.5
28	22.2	445.9	189.2	206.5	182.7	243.9
29	27.9	384.1	184.8	186.1	178.4	190.5
30	23.8	452.2	191.2	222.3	181.7	179.1

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

09:19 Thursday, June 27, 1996

OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
31	TRT2	47	3	40	34	33	27	14	0.194	6.5
32	TRT2	45	0	38	36	35	23	7	0.205	6.8
33	TRT2	46	0	42	0	0	0	0	0.186	6.8
34	TRT2	20	1	15	9	8	7	6	0.189	6.4
35	TRT2	27	1	21	17	16	14	4	0.185	6.4
36	TRT2	20	0	17	17	17	11	11	0.191	7.2
37	TRT2	24	0	3	3	3	2	1	0.175	6.3
38	TRT2	5	0	18	18	17	16	8	0.186	6.3
39	TRT2	24	2	30	27	26	17	5	0.187	6.1
40	TRT2	34	6	46	45	43	3	2	0.189	6.6
41	TRT2	52	0	29	26	25	22	25	0.184	6.6
42	TRT2	32	0	46	45	43	42	13	0.190	7.1
43	TRT2	60	2	53	50	47	40	20	0.185	7.1
44	TRT3	35	4	27	25	25	22	11	0.195	6.4
45	TRT3	67	1	61	58	58	53	34	0.180	6.2
46	TRT3	49	8	36	34	34	31	9	0.166	6.3
47	TRT3	20	2	15	14	11	9	6	0.184	6.0
48	TRT3	41	4	32	31	30	22	9	0.190	6.9
49	TRT3	58	0	53	47	47	45	25	0.179	6.8
50	TRT3	4	0	2	2	2	2	1	0.220	6.8
51	TRT3	32	0	28	25	24	21	14	0.195	6.1
52	TRT3	11	2	43	42	34	21	7	0.218	5.5
53	TRT3	49	2	36	33	29	17	2	0.170	5.7
54	TRT3	41	1	57	54	54	53	30	0.160	5.4
55	TRT3	63	1	61	55	53	49	40	0.199	6.2
56	TRT3	67	1	61	55	53	49	40	0.180	7.0

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

09:19 Thursday, June 27, 1996

LEVEL
TRT1 TRT2 TRT3

LEVEL Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT3 - CONTROL	-14.858	-7.594	-0.329
TRT1 - CONTROL	-17.176	-10.028	-2.881
TRT2 - CONTROL	-17.750	-10.485	-3.220

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	131.72759	43.90920	0.60	0.6194
Error	52	3820.14260	73.46428		
Corrected Total	55	3951.87019			

R-Square C.V. Root MSE RESPONSE Mean
0.033333 18.69851 8.5711 45.839

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
CONTROL	47.9003076	1	0.1956	0.5163 0.6455
TRT1	43.6424398	2	0.1956	0.5125 0.3953
TRT2	45.7429592	3	0.5163	0.5125 0.8466
TRT3	46.3727506	4	0.6455	0.3953 0.8466

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 73.46428
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Confidence Limit	Upper Confidence Limit
CONTROL - TRT3	-7.234	1.528	1.528	10.290	10.290
CONTROL - TRT2	-6.605	2.157	2.157	10.919	10.919
CONTROL - TRT1	-4.362	4.258	4.258	12.878	12.878
TRT3 - CONTROL	-10.290	-1.528	-1.528	7.234	7.234
TRT3 - TRT2	-7.968	0.630	0.630	9.228	9.228
TRT3 - TRT1	-5.723	2.730	2.730	11.184	11.184
TRT2 - CONTROL	-10.919	-2.157	-2.157	6.605	6.605
TRT2 - TRT3	-9.228	-0.630	-0.630	7.968	7.968
TRT2 - TRT1	-6.353	2.101	2.101	10.554	10.554
TRT1 - CONTROL	-12.878	-4.258	-4.258	4.362	4.362
TRT1 - TRT3	-11.184	-2.730	-2.730	5.723	5.723
TRT1 - TRT2	-10.554	-2.101	-2.101	6.353	6.353

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

	MEAN	MEAN	MEAN
EL	51.38	39.13	28.87
EC	1.85	2.20	1.07
ES	44.77	32.53	24.00
VE	41.54	27.80	21.33
LE	41.00	26.53	20.27
NH	38.23	23.60	17.47
HS	21.08	11.33	8.67
ES/EL (%)	86.46	81.55	78.03
(EL-EC)/EL (%)	95.80	93.42	94.43
VE/ES (%)	93.10	84.26	89.04
LE/VE (%)	98.48	95.16	95.09
NH/EL (%)	73.78	57.44	56.52
NH/ES (%)	85.43	70.19	73.52
NH/LE (%)	93.25	88.34	86.48
HS/ES (%)	47.13	33.60	38.27
HS/NH (%)	54.98	47.71	51.13
THICK	0.19	0.20	0.19
HATWT	6.64	6.60	6.61
SURVWT	25.29	25.03	28.29
FOOD	454.32	430.01	432.36
POSTM	207.65	199.75	213.92
POSTF	232.35	232.87	207.03

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
09:19 Thursday, June 27, 1996

LEVEL=CONTROL

Variable	Label	N	Mean	Std Dev	CV
EL		13	51.385	11.442	22.268
EC		13	1.846	1.908	103.358
ES		13	44.769	11.381	25.421
VE		13	41.538	11.515	27.722
LE		13	41.000	11.597	28.286
NH		13	38.231	11.039	28.875
HS		13	21.077	7.522	35.687
THICK		13	0.195	0.010	5.357
HATWT		13	6.638	0.545	8.217
SURVWT		13	25.292	2.010	7.946
FOOD		13	454.323	41.552	9.146
POSTM		13	193.838	8.423	4.345
POSTF		13	207.654	16.380	7.888
ES/EL (%)		13	193.485	14.052	7.262
(EL-EC)/EL (%)		13	232.354	26.000	11.190

ES/EL (%)	86.462	5.038	5.827
NH/EL (%)	73.782	9.482	12.852
(EL-EC)/EL (%)	95.796	4.764	4.973
VE/ES (%)	93.099	10.433	11.206
NH/ES (%)	85.430	10.265	12.015
HS/ES (%)	47.135	10.627	22.545
LE/VE (%)	98.484	2.058	2.090
NH/LE (%)	93.250	4.816	5.165
HS/NH (%)	54.978	9.796	17.818

LEVEL=TRT1

Variable	Label	N	Mean	Std Dev	CV
EL		15	39.133	11.710	29.923
EC		15	2.200	1.821	82.751
ES		15	32.533	11.904	36.589
VE		15	27.800	13.251	47.667
LE		15	26.533	13.163	49.610
NH		15	23.600	12.374	52.432
HS		15	11.333	6.986	61.645
THICK		15	0.197	0.009	4.576
HATWT		15	6.600	0.446	6.752
SURVWT		15	25.033	2.656	10.609
FOOD		15	430.013	43.429	10.099
POSTM		15	182.173	19.455	10.679
POSTF		15	199.747	30.312	15.175
ES/EL (%)		15	189.927	15.746	8.291
NH/EL (%)		15	232.873	30.266	12.997
(EL-EC)/EL (%)		15	81.546	7.482	9.176
VE/ES (%)		15	57.442	15.915	27.706
NH/ES (%)		15	93.420	6.053	6.480
HS/ES (%)		15	84.260	18.798	22.309
LE/VE (%)		15	70.195	16.962	24.164
NH/LE (%)		15	33.601	11.340	33.750
HS/NH (%)		15	95.157	10.005	10.515
THICK		15	88.340	7.543	8.538
HATWT		15	47.709	12.310	25.802

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
09:19 Thursday, June 27, 1996

LEVEL=TRT2

Variable	Label	N	Mean	Std Dev	CV
EL		15	28.867	15.829	54.834
EC		15	1.067	1.648	156.339
ES		15	24.000	15.038	62.659
VE		15	21.333	14.085	66.022
LE		15	20.267	13.493	66.578
NH		15	17.467	11.999	68.698
HS		15	8.667	6.747	77.852
THICK		14	0.191	0.010	4.982
HATWT		14	6.607	0.300	4.539
SURVWT		14	28.286	3.804	13.449
FOOD		15	432.360	42.505	9.831
POSTM		15	195.387	8.320	4.258
POSTF		15	213.920	11.555	5.401
ES/EL (%)		15	187.133	16.217	8.682
(EL-EC)/EL (%)		15	207.033	30.155	14.565
VE/ES (%)		15	78.029	17.892	22.950
NH/EL (%)		14	56.520	17.943	31.746
(EL-EC)/EL (%)		14	94.427	12.026	12.736
VE/ES (%)		14	89.035	12.446	13.979
NH/ES (%)		14	73.518	17.169	23.353

File:a:\44015601.out Page 5
 HS ES HS/ES (X) 14 38.269 16.232 42.414
 LE VE LE/VE (X) 14 95.087 4.177 4.393
 NH LE NH/LE (X) 14 86.475 12.237 14.151
 HS NH HS/NH (X) 14 51.128 15.856 31.012

 LEVEL=TRT3

Variable	Label	N	Mean	Std Dev	CV
EL		14	42.643	20.387	47.809
EC		14	2.071	2.093	101.024
ES		14	36.571	19.326	52.845
VE		14	34.071	18.040	52.949
LE		14	32.500	17.862	54.959
NH		14	27.929	17.420	62.373
HS		14	15.429	12.470	80.822
THICK		14	0.187	0.017	9.328
HATWT		14	6.314	0.552	8.738
SURVMT		14	25.000	3.668	14.673
FOOD		14	428.979	26.868	6.263
PREM		14	190.879	7.349	3.850
POSTM		14	206.350	18.322	8.879
PREF		14	193.471	10.316	5.332
POSTF		14	224.143	33.694	15.032
ES EL		14	81.552	11.532	14.140
NH EL		14	61.421	13.945	22.704
ENC EL		14	92.491	7.841	8.478
VE ES		14	93.312	3.601	3.859
NH ES		14	75.927	15.417	20.305
HS ES		14	61.119	15.947	25.783
LE VE		14	95.039	7.338	7.721
NH LE		14	85.054	12.544	14.748
HS NH		14	52.563	17.330	32.969

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
 1. ANALYSIS OF EGGS LAID

 09:19 Thursday, June 27, 1996
 General Linear Models Procedure
 Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
 1. ANALYSIS OF EGGS LAID

 09:19 Thursday, June 27, 1996
 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

File:a:\44015601.out Page 6
 METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
 1. ANALYSIS OF EGGS LAID

 09:19 Thursday, June 27, 1996
 General Linear Models Procedure

Dependent Variable: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3652.8035	1217.6012	5.20	0.0032
Error	53	12401.7579	233.9954		
Corrected Total	56	16054.5614			

R-Square C.V. Root MSE EL Mean
 0.227524 38.15859 15.297 40.088

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3652.8035	1217.6012	5.20	0.0032

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
 1. ANALYSIS OF EGGS LAID

 09:19 Thursday, June 27, 1996
 General Linear Models Procedure
 Least Squares Means

LEVEL	EL	Pr > T	LSMEAN(i)=LSMEAN(j)
		i/j	1 2 3 4
CONTROL	51.3846154	1	0.0393 0.0003 0.1438
TRT1	39.1333333	2	0.0393 0.0717 0.5396
TRT2	28.8666667	3	0.0003 0.0717 0.0188
TRT3	42.6428571	4	0.1438 0.5396 0.0188

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
 1. ANALYSIS OF EGGS LAID

 09:19 Thursday, June 27, 1996
 General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 233.9954
 Critical Value of Studentized Range= 3.751

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

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
-------	------------	-------------------------------------	--------------------------	-------------------------------------

CONTROL - TRT3	-6.886	8.742	24.369
CONTROL - TRT1	-3.123	12.251	27.626
CONTROL - TRT2	7.143	22.518	37.892
TRT3 - CONTROL	-24.369	-8.742	6.886
TRT3 - TRT1	-11.568	3.510	18.587
TRT3 - TRT2	-1.301	13.776	28.854
TRT1 - CONTROL	-27.626	-12.251	3.123
TRT1 - TRT3	-18.587	-3.510	11.568
TRT1 - TRT2	-4.549	10.267	25.082
TRT2 - CONTROL	-37.892	-22.518	-7.143
TRT2 - TRT3	-28.854	-13.776	1.301
TRT2 - TRT1	-25.082	-10.267	4.549

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

1. ANALYSIS OF EGGS LAID

09:19 Thursday, June 27, 1996

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= 53 MSE= 233.9954
Critical Value of Dunnnett's T= 2.102

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT3 - CONTROL	-21.126	-8.742	3.642
TRT1 - CONTROL	-24.435	-12.251	-0.068
TRT2 - CONTROL	-34.702	-22.518	-10.334

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

2. ANALYSIS OF EGGS CRACKED

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: EC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	11.519472	3.839824	1.09	0.3596
Error	53	185.954212	3.508570		
Corrected Total	56	197.473684			

R-Square

C.V.

Root MSE

0.058334

104.6742

1.8731

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	11.519472	3.839824	1.09	0.3596

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	EC		Pr > T		LSMEAN(i)=LSMEAN(j)	
	LSMEAN	i/j	1	2	3	4
CONTROL	1.84615385	1	0.6202	0.2771	0.7561	
TRT1	2.20000000	2	0.6202	0.1034	0.8542	
TRT2	1.06666667	3	0.2771	0.1034	0.1548	
TRT3	2.07142857	4	0.7561	0.8542	0.1548	

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
2. ANALYSIS OF EGGS CRACKED

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 3.50857
Critical Value of Studentized Range= 3.751

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous	
	Lower Limit	Confidence	Between Means	Upper Confidence	Limit	Limit
TRT1 - TRT3	-1.7177		0.1286		1.9748	
TRT1 - CONTROL	-1.5288		0.3538		2.2365	
TRT1 - TRT2	-0.6808		1.1333		2.9475	
TRT3 - TRT1	-1.9748		-0.1286		1.7177	
TRT3 - CONTROL	-1.6883		0.2253		2.1389	
TRT3 - TRT2	-0.8415		1.0048		2.8510	
CONTROL - TRT1	-2.2365		-0.3538		1.5288	
CONTROL - TRT3	-2.1389		-0.2253		1.6883	
CONTROL - TRT2	-1.1031		0.7795		2.6621	
TRT2 - TRT1	-2.9475		-1.1333		0.6808	
TRT2 - TRT3	-2.8510		-1.0048		0.8415	
TRT2 - CONTROL	-2.6621		-0.7795		1.1031	

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

2. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 3.50857
Critical Value of Dunnnett's T= 2.102

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous	
	Lower Limit	Confidence	Between Means	Upper Confidence	Limit	Limit
TRT1 - CONTROL	-1.1380		0.3538		1.8457	
TRT3 - CONTROL	-1.2912		0.2253		1.7417	
TRT2 - CONTROL	-2.2714		-0.7795		0.7124	

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

3. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

3. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

3. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3132.2497	1044.0832	4.79	0.0050
Error	53	11559.4696	218.1032		
Corrected Total	56	14691.7193			

R-Square

C.V.

Root MSE

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3132.2497	1044.0832	4.79	0.0050

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

3. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Least Squares Means

LEVEL	ES	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	1 2 3 4
CONTROL	44.7692308	1	0.0332 0.0005 0.1554
TRT1	32.5333333	2	0.0332 0.1195 0.4651
TRT2	24.0000000	3	0.0005 0.1195 0.0260
TRT3	36.5714286	4	0.1554 0.4651 0.0260

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

3. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 218.1032
Critical Value of Studentized Range= 3.751

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Upper Confidence Limit	Upper Confidence Limit
CONTROL - TRT3	-6.890	8.198	12.236	23.285	
CONTROL - TRT1	-2.607	12.236	27.079	27.079	***
CONTROL - TRT2	5.926	20.769	20.769	35.613	
TRT3 - CONTROL	-23.285	-8.198	-8.198	6.890	
TRT3 - TRT1	-10.518	4.038	4.038	18.595	
TRT3 - TRT2	-1.985	12.571	12.571	27.128	
TRT1 - CONTROL	-27.079	-12.236	-12.236	2.607	
TRT1 - TRT3	-18.595	-4.038	-4.038	10.518	
TRT1 - TRT2	-5.770	8.533	8.533	22.837	
TRT2 - CONTROL	-35.613	-20.769	-20.769	-5.926	***
TRT2 - TRT3	-27.128	-12.571	-12.571	1.985	
TRT2 - TRT1	-22.837	-8.533	-8.533	5.770	

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
3. ANALYSIS OF EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

NOTE: This tests controls the type I experimentwise error for
comparisons of all treatments against a control.Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 218.1032
Critical Value of Dunnnett's T= 2.102

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Upper Confidence Limit	Upper Confidence Limit
TRT3 - CONTROL	-20.154	-8.198	-8.198	3.758	***
TRT1 - CONTROL	-23.998	-12.236	-12.236	-0.473	***
TRT2 - CONTROL	-32.532	-20.769	-20.769	-9.007	***

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Class Level Information

Class Levels Values

LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: VE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3128.1424	1042.7141	5.00	0.0040
Error	53	11057.8927	208.6395		
Corrected Total	56	14186.0351			

R-Square 0.220509 C.V. Root MSE 14.444
VE Mean 30.772

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3128.1424	1042.7141	5.00	0.0040

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
4. ANALYSIS OF VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Least Squares Means

LEVEL	VE	Pr > T	H0: LSMEAN(I)=LSMEAN(J)
	LSMEAN	i/j	1 2 3 4
CONTROL	41.5384615	1	0.0152 0.0005 0.1853
TRT1	27.8000000	2	0.0152 0.2256 0.2479
TRT2	21.3333333	3	0.0005 0.2256 0.0213
TRT3	34.0714286	4	0.1853 0.2479 0.0213

NOTE: To ensure overall protection level, only probabilities associated

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 208.6395
Critical Value of Studentized Range= 3.751

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

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
CONTROL - TRT3	-7.289	7.467	13.738	-7.289	22.223
CONTROL - TRT1	-0.779	13.738	20.205	-0.779	28.256
CONTROL - TRT2	5.687	20.205	12.738	5.687	34.723
TRT3 - CONTROL	-22.223	-7.467	-13.738	-22.223	-7.289
TRT3 - TRT1	-7.966	6.271	-12.738	-7.966	20.509
TRT3 - TRT2	-1.499	12.738	-6.467	-1.499	26.975
TRT1 - CONTROL	-28.256	-13.738	-6.467	-28.256	0.779
TRT1 - TRT3	-20.509	-6.271	-7.966	-20.509	7.966
TRT1 - TRT2	-7.523	6.467	-20.205	-7.523	20.456
TRT2 - CONTROL	-34.723	-20.205	-12.738	-34.723	-5.687
TRT2 - TRT3	-26.975	-12.738	-6.467	-26.975	1.499
TRT2 - TRT1	-20.456	-7.523	-13.738	-20.456	7.523

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

4. ANALYSIS OF VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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= 53 MSE= 208.6395
Critical Value of Dunnnett's T= 2.102

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

LEVEL Comparison	Simultaneous		Difference Between Means	Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit		Lower Confidence Limit	Upper Confidence Limit
CONTROL - TRT3	-19.161	-7.467	-13.738	-19.161	4.227
CONTROL - TRT1	-25.243	-13.738	-20.205	-25.243	-2.234
CONTROL - TRT2	-31.710	-20.205	-12.738	-31.710	-8.701

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3254.8158	1084.9386	5.36	0.0027
Error	53	10736.1667	202.5692		
Corrected Total	56	13990.9825			

R-Square	C.V.	Root MSE	LE Mean
0.232637	48.00371	14.233	29.649

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3254.8158	1084.9386	5.36	0.0027

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LE	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
-------	----	---------	-------------------------

	LSMEAN	i/j	1	2	3	4
CONTROL	41.0000000	1		0.0097	0.0003	0.1270
TRT1	26.5333333	2	0.0097		0.2332	0.2643
TRT2	20.2666667	3	0.0003	0.2332		0.0246
TRT3	32.5000000	4	0.1270	0.2643	0.0246	

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 202.5692

Critical Value of Studentized Range= 3.751

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Between Confidence Limit	Lower Confidence Limit	Upper Confidence Limit
CONTROL - TRT3	-6.040	8.500	23.040	***		
CONTROL - TRT1	0.162	14.467	28.772	***		
CONTROL - TRT2	6.428	20.733	35.038	***		
TRT3 - CONTROL	-23.040	-8.500	6.040			
TRT3 - TRT1	-8.062	5.967	19.995			
TRT3 - TRT2	-1.795	12.233	26.262			
TRT1 - CONTROL	-28.772	-14.467	-0.162	***		
TRT1 - TRT3	-19.995	-5.967	8.062			
TRT1 - TRT2	-7.518	6.267	20.051			
TRT2 - CONTROL	-35.038	-20.733	-6.428	***		
TRT2 - TRT3	-26.262	-12.233	1.795			
TRT2 - TRT1	-20.051	-6.267	7.518			

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

5. ANALYSIS OF LIVE 3-WEEK EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 202.5692

Critical Value of Dunnett's T= 2.102

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

LEVEL	Simultaneous		Difference		Simultaneous	
	Lower Confidence	Upper Confidence	Between	Between	Lower Confidence	Upper Confidence

Comparison	Limit	Means	Limit
TRT3 - CONTROL	-20.022	-8.500	3.022
TRT1 - CONTROL	-25.803	-14.467	-3.131
TRT2 - CONTROL	-32.069	-20.733	-9.397

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

6. ANALYSIS OF NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

6. ANALYSIS OF NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

6. ANALYSIS OF NORMAL HATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3166.9392	1055.6464	5.85	0.0016
Error	53	9566.5696	180.5013		
Corrected Total	56	12733.5088			
R-Square					
0.248709					
C.V.					
50.91752					
Root MSE					
13.435					
NH Mean					
26.386					
Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3166.9392	1055.6464	5.85	0.0016

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

6. ANALYSIS OF NORMAL MATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	NH	LSMEAN	i/j	1	2	3	4
CONTROL	38.2307692	1	0.0058	0.0002	0.0517		
TRT1	23.6000000	2	0.0058	0.2167	0.3899		
TRT2	17.4666667	3	0.0002	0.2167	0.0409		
TRT3	27.9285714	4	0.0517	0.3899	0.0409		

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

6. ANALYSIS OF NORMAL MATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 180.5013
Critical Value of Studentized Range= 3.751

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

LEVEL Comparison	Simultaneous			Difference			Simultaneous		
	Lower Confidence Limit	Upper Confidence Limit	Mean	Lower Confidence Limit	Upper Confidence Limit	Mean	Lower Confidence Limit	Upper Confidence Limit	Mean
CONTROL - TRT3	-3.423	10.302	24.028						
CONTROL - TRT1	1.128	14.631	28.134						
CONTROL - TRT2	7.261	20.764	34.267						
TRT3 - CONTROL	-24.028	-10.302	3.423						
TRT3 - TRT1	-8.914	4.329	17.571						
TRT3 - TRT2	-2.780	10.462	23.704						
TRT1 - CONTROL	-28.134	-14.631	-1.128						
TRT1 - TRT3	-17.571	-4.329	8.914						
TRT1 - TRT2	-6.879	6.133	19.145						
TRT2 - CONTROL	-34.267	-20.764	-7.261						
TRT2 - TRT3	-23.704	-10.462	2.780						
TRT2 - TRT1	-19.145	-6.133	6.879						

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

6. ANALYSIS OF NORMAL MATCHLINGS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 180.5013

Critical Value of Dunnnett's T= 2.102

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

LEVEL Comparison	Simultaneous			Difference			Simultaneous		
	Lower Confidence Limit	Upper Confidence Limit	Mean	Lower Confidence Limit	Upper Confidence Limit	Mean	Lower Confidence Limit	Upper Confidence Limit	Mean
TRT3 - CONTROL	-21.179	-10.302	0.574						
TRT1 - CONTROL	-25.331	-14.631	-3.950						
TRT2 - CONTROL	-31.465	-20.764	-10.063						

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

7. ANALYSIS OF 14-DAY-OLD SURVIVORS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

7. ANALYSIS OF 14-DAY-OLD SURVIVORS

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

7. ANALYSIS OF 14-DAY-OLD SURVIVORS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: NS		Sum of		Mean		Pr > F	
Source	DF	Squares	Square	F Value			
Model	3	1211.8589	403.9530	5.32	0.0028		
Error	53	4021.0183	75.8683				
Corrected Total	56	5232.8772					
R-Square		C.V.		Root MSE		HS Mean	
0.231586		62.84603		8.7102		13.860	

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1211.8589	403.9530	5.32	0.0028

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

7. ANALYSIS OF 14-DAY-OLD SURVIVORS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	LSMEAN	Pr > T	HO: LSMEAN(i)=LSMEAN(j)
CONTROL	21.0769231	1	0.0047 0.0004 0.0981
TRT1	11.3333333	3	0.0047 0.4056 0.2113
TRT2	8.6666667	2	0.0004 0.4056 0.0415
TRT3	15.4285714	4	0.0981 0.2113 0.0415

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

7. ANALYSIS OF 14-DAY-OLD SURVIVORS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 75.86827
Critical Value of Studentized Range= 3.751

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

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL	- TRT3	-3.250	5.648	14.547
CONTROL	- TRT1	0.989	9.744	18.498
CONTROL	- TRT2	3.656	12.410	21.165
TRT3	- CONTROL	-14.547	-5.648	3.250
TRT3	- TRT1	-4.490	4.095	12.681
TRT3	- TRT2	-1.823	6.762	15.347
TRT1	- CONTROL	-18.498	-9.744	-0.989
TRT1	- TRT3	-12.681	4.490	4.490
TRT1	- TRT2	-5.769	2.667	11.103
TRT2	- CONTROL	-21.165	-12.410	-3.656
TRT2	- TRT3	-15.347	-6.762	1.823
TRT2	- TRT1	-11.103	-2.667	5.769

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

7. ANALYSIS OF 14-DAY-OLD SURVIVORS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 75.86827

Critical Value of Dunnett's T= 2.102

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	-12.700	-5.648	1.403
TRT1	- CONTROL	-16.681	-9.744	-2.806
TRT2	- CONTROL	-19.348	-12.410	-5.473

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
--------	----	----------------	-------------	---------	--------

Model	3	228.29451	76.09817	1.24	0.3030
Error	52	3178.75974	61.12999		
Corrected Total	55	3407.05425			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.067006	11.95759	7.8186	65.386

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	228.29451	76.09817	1.24	0.3030

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	LSMEAN	i/j	1	2	3	4
CONTROL	68.663074	1	0.2124	0.0619	0.2685		
TRT1	64.9257498	2	0.2124	0.4931	0.8985		
TRT2	62.9201830	3	0.0619	0.4931	0.4247		
TRT3	65.2981286	4	0.2685	0.8985	0.4247		

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 61.12999
Critical Value of Studentized Range= 3.753

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

LEVEL	Comparison	Simultaneous Lower Limit	Confidence	Difference Between Means	Simultaneous Upper Limit
CONTROL	- TRT3	-4.624	3.368	11.361	
CONTROL	- TRT1	-4.123	3.741	11.604	
CONTROL	- TRT2	-2.247	5.746	13.739	
TRT3	- CONTROL	-11.361	-3.368	4.624	
TRT3	- TRT1	-7.339	0.372	8.084	
TRT3	- TRT2	-5.465	2.378	10.221	
TRT1	- CONTROL	-11.604	-3.741	4.123	
TRT1	- TRT3	-8.084	-0.372	7.339	

TRT1	- TRT2	-5.706	2.006	9.717
TRT2	- CONTROL	-13.739	-5.746	2.247
TRT2	- TRT3	-10.221	-2.378	5.465
TRT2	- TRT1	-9.717	-2.006	5.706

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

8. ANALYSIS OF EGGS SET/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 61.12999
Critical Value of Dunnett's T= 2.104

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

LEVEL	Comparison	Simultaneous Lower Limit	Confidence	Difference Between Means	Simultaneous Upper Limit
TRT3	- CONTROL	-9.705	-3.368	2.969	
TRT1	- CONTROL	-9.975	-3.741	2.494	
TRT2	- CONTROL	-12.083	-5.746	0.591	

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Type I Estimable Functions for: LEVEL

Coefficients

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	444.36431	148.12144	1.12	0.3481
Error	52	6855.67059	131.83982		
Corrected Total	55	7300.03490			

R-Square C.V. Root MSE RESPONSE Mean
0.060872 15.44612 11.482 74.337

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	444.36431	148.12144	1.12	0.3481

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T H0: LSMEAN(i)=LSMEAN(j)
		1 2 3 4
CONTROL	77.4596426	1 0.0916 0.5199 0.7169
TRT1	69.9800594	2 0.0916 0.2845 0.1750
TRT2	74.5945284	3 0.5199 0.2845 0.7740
TRT3	75.8472079	4 0.7169 0.1750 0.7740

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 131.8398
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Limit	Difference Between Means	Simultaneous Upper Confidence Limit
---------------------	--------------------------------	--------------------------------	--

CONTROL - TRT3	-10.125	1.612	13.350
CONTROL - TRT2	-8.873	2.865	14.603
CONTROL - TRT1	-4.068	7.480	19.027
TRT3 - CONTROL	-13.350	-1.612	10.125
TRT3 - TRT2	-10.266	1.253	12.771
TRT3 - TRT1	-5.458	5.867	17.192
TRT2 - CONTROL	-14.603	-2.865	8.873
TRT2 - TRT3	-12.771	-1.253	10.266
TRT2 - TRT1	-6.710	4.614	15.939
TRT1 - CONTROL	-19.027	-7.480	4.068
TRT1 - TRT3	-17.192	-5.867	5.458
TRT1 - TRT2	-15.939	-4.614	6.710

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 131.8398
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - CONTROL	-10.919	-1.612	7.694
TRT2 - CONTROL	-12.172	-2.865	6.441
TRT1 - CONTROL	-16.635	-7.480	1.676

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Coefficients

INTERCEPT 0

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	305.95527	101.98509	1.37	0.2632
Error	52	3880.09102	74.61714		
Corrected Total	55	4186.04630			

R-Square C.V. Root MSE RESPONSE Mean
0.073089 10.57264 8.6381 81.703

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	305.95527	101.98509	1.37	0.2632

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T H0: LSMEAN(i)=LSMEAN(j)
CONTROL	85.5814776	1	0.1911 0.0518 0.2073
TRT1	81.2459277	2	0.1911 0.4795 0.9785
TRT2	78.9598320	3	0.0518 0.4795 0.4706
TRT3	81.3328340	4	0.2073 0.9785 0.4706

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 74.61714
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT3	-4.582	4.249	13.079
CONTROL - TRT1	-4.352	4.336	13.023
CONTROL - TRT2	-2.209	6.622	15.452
TRT3 - CONTROL	-13.079	-4.249	4.582
TRT3 - TRT1	-8.433	0.087	8.607
TRT3 - TRT2	-6.292	2.373	11.038
TRT1 - CONTROL	-13.023	-4.336	4.352
TRT1 - TRT3	-8.607	-0.087	8.433
TRT1 - TRT2	-6.234	2.286	10.806
TRT2 - CONTROL	-15.452	-6.622	2.209
TRT2 - TRT3	-11.038	-2.373	6.292
TRT2 - TRT1	-10.806	-2.286	6.234

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIALE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 74.61714
Critical Value of Dunnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - CONTROL	-11.250	-4.249	2.753
TRT1 - CONTROL	-11.224	-4.336	2.552
TRT2 - CONTROL	-13.623	-6.622	0.380

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	336.58498	112.19499	1.20	0.3187
Error	52	4858.43489	93.43144		
Corrected Total	55	5195.01987			

R-Square C.V. Root MSE RESPONSE Mean
0.064790 13.43925 9.6660 71.924

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	336.58498	112.19499	1.20	0.3187

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	LSMEAN	Pr > T	H0: LSMEAN(1)=LSMEAN(j)
		1/j	1	2 3 4
CONTROL	76.0563206	1	0.2422	0.1803 0.0722
TRT1	71.7234544	2	0.2422	0.8411 0.4897
TRT2	70.9997160	3	0.1803	0.8411 0.6290
TRT3	69.2243632	4	0.0722	0.4897 0.6290

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 93.43144
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT1	-5.388	4.333	14.054
CONTROL - TRT2	-4.825	5.057	14.938
CONTROL - TRT3	-3.049	6.832	16.713
TRT1 - CONTROL	-14.054	-4.333	5.388
TRT1 - TRT2	-8.810	0.724	10.257
TRT1 - TRT3	-7.034	2.499	12.033
TRT2 - CONTROL	-14.938	-5.057	4.825
TRT2 - TRT1	-10.257	-0.724	8.810
TRT2 - TRT3	-7.921	1.775	11.472
TRT3 - CONTROL	-16.713	-6.832	3.049
TRT3 - TRT1	-12.033	-2.499	7.034
TRT3 - TRT2	-11.472	-1.775	7.921

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 93.43144
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-12.041	-4.333	3.375
TRT2 - CONTROL	-12.891	-5.057	2.778
TRT3 - CONTROL	-14.666	-6.832	1.002

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

*****09:19 Thursday, June 27, 1996*****

General Linear Models Procedure

Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	947.14754	315.71585	3.93	0.0133
Error	52	4177.70834	80.34054		
Corrected Total	55	5124.85587			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.184814	17.14809	8.9633	52.270

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	947.14754	315.71585	3.93	0.0133

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T t/j	H0: LSMEAN(i)=LSMEAN(j) 2 3 4
CONTROL	59.4756738	1	0.0047 0.0037 0.0323
TRT1	49.4474899	2	0.0047 0.8914 0.4681
TRT2	48.9906326	3	0.0037 0.8914 0.3973
TRT3	51.8820551	4	0.0323 0.4681 0.3973

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 80.34054

Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT3	-1.569	7.594	16.756
CONTROL - TRT1	1.014	10.028	19.043
CONTROL - TRT2	1.322	10.485	19.648

TRT3 - CONTROL	-16.756	-7.594	1.569
TRT3 - TRT1	-6.406	2.435	11.275
TRT3 - TRT2	-6.100	2.891	11.883

TRT1 - CONTROL	-19.043	-10.028	-1.014
TRT1 - TRT3	-11.275	-2.435	6.406
TRT1 - TRT2	-8.384	0.457	9.297

TRT2 - CONTROL	-19.648	-10.485	-1.322
TRT2 - TRT3	-11.883	-2.891	6.100
TRT2 - TRT1	-9.297	-0.457	8.384

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 80.34054

Critical Value of Dunnnett's T= 2.104

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

Simultaneous

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= 52 MSE= 73.46428
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT3 - CONTROL	-8.475	-1.528	5.419
TRT2 - CONTROL	-9.104	-2.157	4.790
TRT1 - CONTROL	-11.092	-4.258	2.577

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	252.55111	84.18370	0.92	0.4384

File:a:\44015601.out Page 34

Error 52 4765.31552 91.64068

Corrected Total 55 5017.86662

R-Square C.V. Root MSE RESPONSE Mean
0.050330 12.11942 9.5729 78.988

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	252.55111	84.18370	0.92	0.4384

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T H0: LSMEAN(i)=LSMEAN(j)				
		i/j	1	2	3	4
CONTROL	81.0713352	1	0.3087	0.9598	0.2254	
TRT1	77.3422257	2	0.3087	0.2761	0.8242	
TRT2	81.2579392	3	0.9598	0.2761	0.1987	
TRT3	76.5478293	4	0.2254	0.8242	0.1987	

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 91.64068
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous		Difference		Simultaneous	
	Lower Confidence Limit	Upper Confidence Limit	Between Means	Upper Confidence Limit	Lower Confidence Limit	Upper Confidence Limit
TRT2 - CONTROL	-9.599	0.187	0.187	9.973		
TRT2 - TRT1	-5.526	3.916	3.916	13.357		
TRT2 - TRT3	-4.893	4.710	4.710	14.313		
CONTROL - TRT2	-9.973	-0.187	-0.187	9.599		
CONTROL - TRT1	-5.899	3.729	3.729	13.357		
CONTROL - TRT3	-5.263	4.524	4.524	14.310		
TRT1 - TRT2	-13.357	-3.916	-3.916	5.526		
TRT1 - CONTROL	-13.357	-3.729	-3.729	5.899		
TRT1 - TRT3	-8.647	0.794	0.794	10.236		
TRT3 - TRT2	-14.313	-4.710	-4.710	4.893		

TRT3 - CONTROL -4.524 5.263
TRT3 - TRT1 -10.236 -0.794 8.647

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 91.64068
Critical Value of Dunnett's T= 2.104

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

LEVEL Comparison	Simultaneous			Difference			Simultaneous		
	Lower Confidence Limit	Upper Confidence Limit	Means	Lower Confidence Limit	Upper Confidence Limit	Means	Lower Confidence Limit	Upper Confidence Limit	Means
TRT2 - CONTROL	-7.572	0.187	0.187	-7.572	0.187	0.187	-7.572	0.187	0.187
TRT1 - CONTROL	-11.363	-3.729	-3.729	-11.363	-3.729	-3.729	-11.363	-3.729	-3.729
TRT3 - CONTROL	-12.282	-4.524	-4.524	-12.282	-4.524	-4.524	-12.282	-4.524	-4.524

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure Type I Estimable Functions for: LEVEL

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	810.60110	270.20037	1.99	0.1262
Error	52	7043.62046	135.45424		
Corrected Total	55	7854.22156			

R-Square C.V. Root MSE RESPONSE Mean
0.103206 18.68988 11.638 62.272

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	810.60110	270.20037	1.99	0.1262

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > T HO: LSMEAN(i)=LSMEAN(j)
CONTROL	68.3615270	1 0.0185 0.1385 0.1778
TRT1	57.6349941	2 0.0185 0.3613 0.2921
TRT2	61.6180539	3 0.1385 0.3613 0.8885
TRT3	62.2378581	4 0.1778 0.2921 0.8885

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 135.4542
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous			Difference			Simultaneous		
	Lower Confidence Limit	Upper Confidence Limit	Means	Lower Confidence Limit	Upper Confidence Limit	Means	Lower Confidence Limit	Upper Confidence Limit	Means
CONTROL - TRT3	-5.774	6.124	6.124	-5.774	6.124	6.124	-5.774	6.124	6.124
CONTROL - TRT2	-5.154	6.743	6.743	-5.154	6.743	6.743	-5.154	6.743	6.743

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 135.4542
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT3 - CONTROL	-15.557	-6.124	3.309
TRT2 - CONTROL	-16.177	-6.743	2.690
TRT1 - CONTROL	-20.007	-10.727	-1.446

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: RESPONSE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	486.36732	162.12244	2.17	0.1029
Error	52	3888.65483	74.78182		
Corrected Total	55	4375.02216			

R-Square 0.111169 C.V. 22.32862 Root MSE 8.6476
RESPONSE Mean 38.729

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	486.36732	162.12244	2.17	0.1029

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE	Pr > T	H0: LSMEAN(i)=LSMEAN(j)
	LSMEAN	i/j	1 2 3 4
CONTROL	43.2856757	1	0.0153 0.1085 0.2371
TRT1	35.0687613	2	0.0153 0.3913 0.1936
TRT2	37.8468583	3	0.1085 0.3913 0.6581
TRT3	39.3015796	4	0.2371 0.1936 0.6581

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 74.78182

Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL - TRT3	-4.856	3.984	12.824
CONTROL - TRT2	-3.401	5.439	14.279
CONTROL - TRT1	-0.480	8.217	16.914
TRT3 - CONTROL	-12.824	-3.984	-4.856
TRT2 - CONTROL	-7.220	-1.455	-10.130
TRT1 - CONTROL	-4.296	4.233	-12.762
TRT2 - TRT3	-14.279	-5.439	-3.401
TRT2 - TRT1	-10.130	-1.455	-7.220
TRT1 - TRT3	-5.751	2.778	-11.307
TRT1 - CONTROL	-16.914	-8.217	-4.80
TRT3 - CONTROL	-12.762	-4.233	-4.296
TRT1 - TRT2	-11.307	-2.778	-5.751

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 74.78182
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3 - CONTROL	-10.993	-3.984	3.025
TRT2 - CONTROL	-12.448	-5.439	1.570
TRT1 - CONTROL	-15.113	-8.217	-1.321

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
17. ANALYSIS OF EGGSHELL THICKNESS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
17. ANALYSIS OF EGGSHELL THICKNESS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Coefficients

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
17. ANALYSIS OF EGGSHELL THICKNESS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: THICK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.0007940	0.0002647	1.82	0.1559
Error	52	0.0075820	0.0001458		
Corrected Total	55	0.0083759			

R-Square C.V. Root MSE THICK Mean
0.094792 6.273917 0.0121 0.1925

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.0007940	0.0002647	1.82	0.1559

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
17. ANALYSIS OF EGGSHELL THICKNESS

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	THICK LSMEAN	Pr > T H0: LSMEAN(i)=LSMEAN(j)
CONTROL	0.19476923	1 0.6382 0.3956 0.1103
TRT1	0.19693333	2 0.6382 0.1766 0.0349
TRT2	0.19078571	3 0.3956 0.1766 0.4375
TRT3	0.18721429	4 0.1103 0.0349 0.4375

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

17. ANALYSIS OF EGGSHELL THICKNESS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 0.000146
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-0.009980	0.002164	0.014308
TRT1 - TRT2	-0.005762	0.006148	0.018057
TRT1 - TRT3	-0.002191	0.009719	0.021629
CONTROL - TRT1	-0.014308	-0.002164	0.009980
CONTROL - TRT2	-0.008360	0.003984	0.016327
CONTROL - TRT3	-0.004789	0.007555	0.019899
TRT2 - TRT1	-0.018057	-0.006148	0.005762
TRT2 - CONTROL	-0.016327	-0.003984	0.008360
TRT2 - TRT3	-0.008542	0.003571	0.015685
TRT3 - TRT1	-0.021629	-0.009719	0.002191
TRT3 - CONTROL	-0.019899	-0.007555	0.004789
TRT3 - TRT2	-0.015685	-0.003571	0.008542

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

17. ANALYSIS OF EGGSHELL THICKNESS

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

NOTE: This tests controls the type I experimentwise error for
comparisons of all treatments against a control.Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 0.000146
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1 - CONTROL	-0.007465	0.002164	0.011793
TRT2 - CONTROL	-0.013771	-0.003984	0.005803
TRT3 - CONTROL	-0.017342	-0.007555	0.002232

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Coefficients

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.9563736	0.3187912	1.44	0.2405
Error	52	11.4771978	0.2207153		
Corrected Total	55	12.4335714			

R-Square	C.V.	Root MSE	HATWT Mean
0.076919	7.184325	0.4698	6.5393

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.9563736	0.3187912	1.44	0.2405

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

18. ANALYSIS OF HATCHLING WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	HATWT LSMEAN	Pr > T i/j	H0: LSMEAN(i)=LSMEAN(j)
		1	2 3 4

	6.63846154	1	0.8298	0.8633	0.0790
CONTROL	6.60000000	2	0.8298	0.9675	0.1078
TRT1	6.60714286	3	0.8633	0.9675	0.1051
TRT2	6.31428571	4	0.0790	0.1078	0.1051

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 18. ANALYSIS OF HATCHLING WEIGHT *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 0.220715
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous			Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
CONTROL - TRT2	-0.4489	0.0313	0.5116	-0.4489	0.0313	0.5116
CONTROL - TRT1	-0.4340	0.0385	0.5110	-0.4340	0.0385	0.5110
CONTROL - TRT3	-0.1561	0.3242	0.8044	-0.1561	0.3242	0.8044
TRT2 - CONTROL	-0.5116	-0.0313	0.4489	-0.5116	-0.0313	0.4489
TRT2 - TRT1	-0.4562	0.0071	0.4705	-0.4562	0.0071	0.4705
TRT2 - TRT3	-0.1784	0.2929	0.7641	-0.1784	0.2929	0.7641
TRT1 - CONTROL	-0.5110	-0.0385	0.4340	-0.5110	-0.0385	0.4340
TRT1 - TRT2	-0.4705	-0.0071	0.4562	-0.4705	-0.0071	0.4562
TRT1 - TRT3	-0.1777	0.2857	0.7491	-0.1777	0.2857	0.7491
TRT3 - CONTROL	-0.8044	-0.3242	0.1561	-0.8044	-0.3242	0.1561
TRT3 - TRT2	-0.7641	-0.2929	0.1784	-0.7641	-0.2929	0.1784
TRT3 - TRT1	-0.7491	-0.2857	0.1777	-0.7491	-0.2857	0.1777

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 18. ANALYSIS OF HATCHLING WEIGHT *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 0.220715
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous			Simultaneous		
	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit

	CONTROL	-0.4121	-0.0313	0.3495
TRT1	CONTROL	-0.4131	-0.0385	0.3362
TRT3	CONTROL	-0.7050	-0.3242	0.0566

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT *****

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE 19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT *****

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: SURVWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	107.09011	35.69670	3.64	0.0186
Error	52	510.27971	9.81307		
Corrected Total	55	617.36982			

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	107.09011	35.69670	3.64	0.0186

R-Square	C.V.	Root MSE	SURVWT Mean
0.173462	12.09575	3.1326	25.898

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	SURVWT LSMEAN	Pr > T H0: 1/J	LSMEAN(I)=LSMEAN(J) 2 3 4
CONTROL	25.2923077	1	0.8282 0.0164 0.8095
TRT1	25.0333333	2	0.8282 0.0073 0.9773
TRT2	28.2857143	3	0.0164 0.0073 0.0077
TRT3	25.0000000	4	0.8095 0.9773 0.0077

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 9.813071
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-0.209	2.993	6.196
TRT2 - TRT1	0.163	3.252	6.342 ***
TRT2 - TRT3	0.143	3.286	6.428 ***
CONTROL - TRT2	-6.196	-2.993	0.209
CONTROL - TRT1	-2.892	0.259	3.409
CONTROL - TRT3	-2.910	0.292	3.495
TRT1 - TRT2	-6.342	-3.252	-0.163 ***
TRT1 - CONTROL	-3.409	-0.259	2.892
TRT1 - TRT3	-3.056	0.033	3.123
TRT3 - TRT2	-6.428	-3.286	-0.143 ***
TRT3 - CONTROL	-3.495	-0.292	2.910
TRT3 - TRT1	-3.123	-0.033	3.056

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

NOTE: This tests controls the type I experimentwise error for

comparisons of all treatments against a control.

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 9.813071
Critical Value of Dunnnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	0.454	2.993	5.532
TRT1 - CONTROL	-2.757	-0.259	2.239
TRT3 - CONTROL	-2.831	-0.292	2.247

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

09:19 Thursday, June 27, 1996

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
20. ANALYSIS OF FOOD CONSUMPTION

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: FOOD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	5790.7548	1930.2516	1.25	0.3008
Error	53	81802.7800	1543.4487		
Corrected Total	56	87593.5347			

R-Square C.V. Root MSE FOOD Mean

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	5790.7548	1930.2516	1.25	0.3008

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

20. ANALYSIS OF FOOD CONSUMPTION

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	FOOD	Pr > T	NO: LSMEAN(I)=LSMEAN(J)
	LSMEAN	i/j	1 2 3 4
CONTROL	454.323077	1	0.1084 0.1460 0.0998
TRT1	430.013333	2	0.1084 0.8707 0.9438
TRT2	432.360000	3	0.1460 0.8707 0.8177
TRT3	428.978571	4	0.0998 0.9438 0.8177

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

20. ANALYSIS OF FOOD CONSUMPTION

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 53 MSE= 1543.449

Critical Value of Studentized Range= 3.751

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

LEVEL	Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL	- TRT2	-17.52	21.96	61.45
CONTROL	- TRT1	-15.18	24.31	63.80
CONTROL	- TRT3	-14.79	25.34	65.48
TRT2	- CONTROL	-61.45	-21.96	17.52
TRT2	- TRT1	-35.70	2.35	40.40
TRT2	- TRT3	-35.34	3.38	42.10
TRT1	- CONTROL	-63.80	-24.31	15.18
TRT1	- TRT2	-40.40	-2.35	35.70
TRT1	- TRT3	-37.69	1.03	39.76
TRT3	- CONTROL	-65.48	-25.34	14.79
TRT3	- TRT2	-42.10	-3.38	35.34
TRT3	- TRT1	-39.76	-1.03	37.69

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

20. ANALYSIS OF FOOD CONSUMPTION

09:19 Thursday, June 27, 1996

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= 53 MSE= 1543.449

Critical Value of Dunnnett's t= 2.102

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	-53.25	-21.96	9.33
TRT1	- CONTROL	-55.60	-24.31	6.98
TRT3	- CONTROL	-57.15	-25.34	6.46

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE

21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: POSTM

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	2320.0019	580.0005	1.40	0.2463
Error	52	21514.7079	413.7444		
Corrected Total	56	23834.7098			

R-Square	C.V.	Root MSE	POSTM Mean
0.097337	9.831095	20.341	206.90

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1518.3812	506.1271	1.22	0.3106
PREM	1	801.6208	801.6208	1.94	0.1699

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

LEVEL	3	661.11549	220.37183	0.53	0.6619
PREN	1	801.62076	801.62076	1.94	0.1699

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	POSTM LSMEAN	Std Err LSMEAN	PR > T H0: LSMEAN=0	LSMEAN Number
CONTROL	206.568767	5.695102	0.0001	1
TRT1	202.396119	5.586235	0.0001	2
TRT2	212.339270	5.373326	0.0001	3
TRT3	206.212514	5.437180	0.0001	4

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

i/j	1	2	3	4
1		0.6113	0.4579	0.9640
2	0.6113		0.2209	0.6276
3	0.4579	0.2209		0.4256
4	0.9640	0.6276	0.4256	

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 413.7444
Critical Value of Studentized Range= 3.753

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	-14.191	6.266	6.266	26.723	
TRT2 - TRT3	-12.492	7.570	7.570	27.632	
TRT2 - TRT1	-5.540	14.173	14.173	33.886	
CONTROL - TRT2	-26.723	-6.266	-6.266	14.191	
CONTROL - TRT3	-19.490	1.304	1.304	22.097	
CONTROL - TRT1	-12.550	7.907	7.907	28.364	
TRT3 - TRT2	-27.632	-7.570	-7.570	12.492	
TRT3 - CONTROL	-22.097	-1.304	-1.304	19.490	
TRT3 - TRT1	-13.459	6.603	6.603	26.665	
TRT1 - TRT2	-33.886	-14.173	-14.173	5.540	
TRT1 - CONTROL	-28.364	-7.907	-7.907	12.550	

TRT1 - TRT3	-26.665	-6.603	13.459
-------------	---------	--------	--------

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 413.7444
Critical Value of Dunnett's T= 2.103

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	-9.942	6.266	6.266	22.474	
TRT3 - CONTROL	-17.778	-1.304	-1.304	15.171	
TRT1 - CONTROL	-24.115	-7.907	-7.907	8.301	

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 57

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

Dependent Variable: POSTF		Sum of Squares	Mean Square	F Value	Pr > F
Source	DF				
Model	4	24264.198	6066.050	10.32	0.0001
Error	52	30565.295	587.794		
Corrected Total	56	54829.494			
R-Square		C.V.	Root MSE	POSTF Mean	
0.442539		10.83259	24.244	223.81	
Source	DF	Type I SS	Mean Square	F Value	Pr > F

LEVEL PREF	3 1	6404.524 17859.674	2134.841 17859.674	3.63 30.38	0.0187 0.0001
Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL PREF	3 1	4187.040 17859.674	1395.680 17859.674	2.37 30.38	0.0807 0.0001

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure
Least Squares Means

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr > T HO:LSMEAN=0	LSMEAN Number
CONTROL	229.014755	6.751436	0.0001	1
TRT1	234.084464	6.263749	0.0001	2
TRT2	211.816827	6.319759	0.0001	3
TRT3	220.820631	6.507576	0.0001	4

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

i/j	1	2	3	4
1		0.5849	0.0702	0.3843
2			0.0153	0.1486
3				0.3285
4				

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

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 587.7941
Critical Value of Studentized Range= 3.753

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-23.864	0.519	24.903
TRT1 - TRT3	-15.182	8.730	32.643
TRT1 - TRT2	2.344	25.840	49.536
CONTROL - TRT1	-24.903	-0.519	23.864
CONTROL - TRT3	-16.573	8.211	32.995
CONTROL - TRT2	0.937	25.321	49.704
TRT3 - TRT1	-32.643	-8.730	15.182

TRT3 - CONTROL	-32.995	-8.211	16.573
TRT3 - TRT2	-6.803	17.110	41.022
TRT2 - TRT1	-49.336	-25.840	-2.344
TRT2 - CONTROL	-49.704	-25.321	-0.937
TRT2 - TRT3	-41.022	-17.110	6.803

METOLACHLOR: REPRODUCTIVE TOXICITY TEST IN NORTHERN BOBWHITE
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT

09:19 Thursday, June 27, 1996

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 52 MSE= 587.7941
Critical Value of Dunnnett's t= 2.103

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-18.799	0.519	19.838
TRT3 - CONTROL	-27.847	-8.211	11.425
TRT2 - CONTROL	-44.639	-25.321	-6.002