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9-13-96

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

1. **CHEMICAL:** PIRATE™ PC Code No.: 129093

4-bromo-2-(4-chlorophenyl)-1-(ethoxymethyl)-5-(trifluoromethyl)-1H-pyrrole-3-carbonitrile

2. **TEST MATERIAL:** AC 303,630 Technical Purity: 94.5%

3. **CITATION**

Authors: Helsten, Brian R., Solatycki, Ann M., and Sullivan, Joseph P., PhD
Title: Reproduction Study with Ac 303,630 Technical in the Mallard Duck (*Anas platyrhynchos*)
Study Completion Date: October 28, 1994
Laboratory: Bio-Life Associates, Ltd.
Sponsor: American Cyanimid Company, Princeton, NJ
Laboratory Report ID: BLAL No. 105-026-08
MRID No.: 434928-13
DP Barcode: ~~D211863~~ D210808

4. **REVIEWED BY:** John D. Eisemann, Wildlife Biologist, EEB, EFED

Signature: John D. Eisemann **Date:** 7/27/95

5. **APPROVED BY:** Ann Stavola, Head of Section (5), EEB, EFED

Signature: Ann Stavola **Date:** 9/13/96

6. **STUDY PARAMETERS**

Scientific Name of Test Organism: *Anas platyrhynchos*
Age of Test Organisms at Test Initiation: 23 weeks
Definitive Study Duration: 22 weeks

7. **CONCLUSIONS:**

This study is scientifically sound but does not fulfill the guideline requirements for the avian reproduction test. With an NOEL of 0.5 ppm and a LOEL of 1.5 ppm, the primary effects are reduced egg production, weight loss of the adults, and increased food consumption.

Results Synopsis
Most sensitive endpoints:
NOEC: 0.5 ppm ai LOEC: 1.5 ppm ai

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8. **ADEQUACY OF THE STUDY**

A. Classification: Supplemental

B. Rationale: Raw data required for review was absent.

C. Repairability: Submit temperature and humidity data for the incubator, hatcher and room monitors for the areas the equipment was housed.

9. **GUIDELINE DEVIATIONS**

1. Reported - Malfunctioning temperature and humidity recorder
   4pm to 8am - 7/16/93 to 7/17/93
   4pm to 8am - 7/17/93 to 7/18/93
   8pm to 8am - 7/30/93 to 7/31/93
   4pm to 8am - 7/31/93 to 8/1/93
   7:30pm to 8am - 8/5/93 to 8/6/93
   4pm to 8am - 8/14/93 to 8/15/93
   6pm to 8am - 8/15/93 to 8/16/93
   11pm to 8am - 8/16/93 to 8/17/93
   3pm to 8am - 8/19/93 to 8/20/93

2. Reported - The birds in pen 8 (2.5 ppm treatment group) were not weighed as scheduled on 9/10/93. Weights were recorded 3 days later.

3. Reported - Feed was not offered ad libitum (feed bins found empty) in the following pens:
   Week 10 - Control, pen 4
   Week 12 - Control, pen 13, 14
   0.5 ppm, pen 4, 6, 8, 12, 14
   1.5 ppm, pen 7, 9, 11, 12, 13
   2.5 ppm, pen 1, 5, 6, 7, 9, 15

4. Not reported - No temperature or humidity data were submitted for the incubator, hatcher or the rooms housing the equipment.

5. Not reported - No description of ventilation method for the facility was reported.

10. **SUBMISSION PURPOSE:** To support registration for use on cotton.

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11. MATERIALS AND METHODS

A. Test Organisms

Guideline Criteria	Reported Information
Species A wild waterfowl species, preferably the mallard (*Anas platyrhynchos*), or an upland game species, preferably the northern bobwhite (*Colinus virginianus*)	Mallard (*Anas platyrhynchos*)
Age at beginning of test Birds should be approaching their first breeding season.	23 weeks old
Supplier All birds should be from the same source.	Whistling Wings, Inc. Hanover, Il 61401
Were birds pen-reared?	Yes
Were birds phenotypically indistinguishable from wild birds?	Yes
Health observation period 2 to 6 weeks.	10 weeks
Were birds healthy and without excessive mortality prior to the test?	Yes

B. Test System

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

Guideline Criteria	Reported Information
Where pens constructed of a nonbinding material such as galvanized or stainless steel?	Cage construction was reported as 1" wire mesh.
Was adequate ventilation provided?	Not reported
Temperature Approx. 21°C (70°F)	Mean: 23°C SD: °C (Not Reported)
Relative humidity Approx. 55%	Mean: 60% SD: % (Not Reported)
Lighting First 8 weeks: 7 h per day. Thereafter: 16-17 h per day. At least 6 footcandles at bird level.	First 9 weeks: 7 h per day. Thereafter: 17 h per day.
Diet A commercial breeder feed (or its equivalent) that is appropriate for the test species.	Purina Custom Game Bird Layena 28%
Preparation of test diet 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.	AI disolved in acetone 5 min. Diet hammermilled prior to mixing with AI. 40 kg of feed was mixed weekly, 24 hours prior to feeding. Week 12 and beyond, the volume mixed was increased to 50 kg. They did not mention evaporation of the vehicle prior to feeding.
Was the premix stored under conditions which maintain stability?	Yes. The feed was stored in the same area as the study animals.
Was the diet analyzed to verify homogeneity and stability of the test substance?	Yes. Periodic sampling of food stocks was conducted and diets were found to be stable up to 2 weeks.
Replenishment of feed	They stated the diet avaliable ad libitum, but did not report how feeding was conducted.

C. Test Design

Guideline Criteria	Reported Information
Nominal concentrations 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: 0, 0.5, 1.5, and 2.5 ppm Max. residue level: 76.8 ppm
Control Vehicle control.	The vehicle control was 40 or 50 kg basal diet mixed with 400 and 500 g acetone, respectively.
Vehicle Corn oil or other appropriate vehicle.	Acetone
Vehicle amount (% of diet by weight) Not more than 2%.	1.0 %
Number of birds per pen 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(s) and 1 female(s) per pen.
Number of pens per group 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.	16 pens per group.
Pre-laying exposure duration At least 10 weeks prior to the onset of egg-laying.	10 weeks
Exposure duration with egg-laying At least 10 weeks.	12 weeks

Guideline Criteria	Reported Information
Withdrawal period 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
Egg storage temperature Approximately 16°C (61°F)	Average max 19°C; min 17°C
Egg storage humidity Approximately 65%	63%
Were eggs set weekly?	Yes
Were eggs candled for cracks prior to being set for incubation on Day 0?	Yes
Candling for fertility Quail: approx. Day 11 Ducks: approx. Day 14	Eggs were candled on Day 14.
Transfer of eggs to hatcher Bobwhite: Day 21 Mallard: Day 23	Eggs were transfered on Day 23.
Hatching temperature 39°C (102°F) is recommended	36°C
Hatching humidity 70% is recommended	38%
Day after egg set that chicks were removed and counted Bobwhite: Day 24 Mallard: Day 27	Chicks were removed and counted on Day 27.

E. Eggshell Thickness Measurement

Guideline Criteria	Reported Information
Collection Schedule At least once every two weeks (Week 1, 3, 5, 7 and 9).	Eggs were collected during weeks 1, 3, 5, 7, 9, 11, and 13.
Were shells opened, washed, and air dry for at least 48 hours before measuring?	Yes
Measurement 3-4 measurements per eggs to the nearest 0.01 mm.	Measurements were made at 3 equitorial locations to the nearest 0.01mm.

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. AI concentrations in the diet were lower than nominal values. The average concentration and standard deviation of AI in the feed was: 0.5ppm = 0.44 ppm (±.22); 1.5ppm = (1.52ppm ±52ppm); 2.5ppm = (2.41ppm ±0.22ppm).
Did diet analysis show that the test substance was stable and homogeneous?	Yes.
Were body weights of adults reported for test initiation and biweekly up to week 8 or the onset of egg laying?	Yes
Was average food consumption of adults reported at least biweekly?	Yes

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Guideline Criteria	Reported Information
Reproductive Endpoints 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	The following endpoints were measured: 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
Were data reported by pen for all endpoints?	Yes

Significant Results:

Statistical analysis, consisting of Levene's test for homogenity of variance and non-parametric or parametric Dunnett's test, conducted by the lab found 3 significant differences. At week 22, statistically significant differences were observed between the controls and the 2.5 ppm treatment groups in the weights of both male and female birds. Differences were also found in weekly food consumption between controls and birds receiving 1.5 and 2.5 ppm in the diet. Finally, the total number of eggs laid was significantly lower at the 2.5 ppm dose level as compared to the controls. It was noted that egg production in the 1.5 ppm treatment group dropped to numbers slightly higher than the 2.5 ppm group, but was not significantly lower than the controls.

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13. VERIFIED STATISTICAL RESULTS

Means of Endpoints

Endpoint	Control	0.5 ppm	1.5 ppm	2.5 ppm
Eggs laid (EL)	50.75 (21.21)	49.25 (22.11	35.28 (27.53)	30.13 (22.72)
Eggs cracked (EC)	0.75 (0.87)	1.44 (1.67)	1.13 (1.06)	1.00 (1.10)
Eggs set (ES)	47.31 (19.70)	44.75 (20.85)	31.86 (25.95)	27.38 (21.01)
Viable embryos (VE)	39.56 (21.94)	40.38 (19.03)	27.21 (23.43)	22.18 (19.85)
Live 3-wk embryos (LE)	30.06 (21.50)	38.75 (18.56)	26.21 (22.95)	20.00 (18.52)
Normal hatchlings (NH)	33.00 (18.69)	31.88 (17.80)	21.14 (19.86)	14.50 (15.34)
14-day-old survivors (HS)	32.88 (18.71)	31.75 (17.86)	21.07 (19.78)	14.43 (15.25)
Egg shell thickness (THICK)	0.39 (0.02)	0.388 (0.03)	0.38 (0.03)	0.38 (0.02)
Hatchling weight (HATWT)	36.49 (2.80)	38.27 (2.13)	36.36 (3.76)	36.69 (3.60)
14-day-old survivor weight (SURVWT)	310.28 (18.33)	317.29 (24.46)	316.24 (20.14)	304.80 (21.67)
Mean food consumption (FOOD)	44878.13 (3425.74)	46127 (2338.74)	46537.88 (5602.71)	48689.75 (2098.42)
Final weight of males (POSTM)	1251.00 (129.76)	1207.44 (138.37)	1144.81 (166.03)	1072.06 (167.32)
Final weight of females (POSTF)	1155.75 (114.94)	1124.13 (180.14)	977.64 (181.51)	983.4 (121.52)

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Statistically Significant Endpoints

Endpoint	Statistical Method	Levels at which Effect Was Observed
	(e.g. Dunnett's/ Bonferroni/ Williams)	(list all concentrations that were significant) (ppm)
Eggs Laid	Least Square Means	CO vs 2.5 (p=0.015) 0.5 vs 2.5 (p=0.024)
Eggs Laid	One-tailed Dunnett	CO vs 2.5 (p<0.05)
Eggs Set	Least Square Means	CO vs 1.5 (p=0.012) 0.5 vs 2.5 (p=0.028)
Eggs Set	One-tailed Dunnett	CO vs 2.5 (p<0.05)
Viable Embryos	Least Square Means	CO vs 2.5 (p=0.023) 0.5 vs 2.5 (p=0.176)
Viable Embryos	One-tailed Dunnett	CO vs 2.5 (p<0.05)
Live 3-Week Embryos	Least Square Means	CO vs 2.5 (p=0.015) 0.5 vs 2.5 (p=0.012)
Live 3-Week Embryos	One-tailed Dunnett	CO vs 2.5 (p<0.05)
Normal Hatchlings	Least Square Means	CO vs 2.5 (p=0.005) 0.5 vs 2.5 (p=0.008)
Normal Hatchlings	Tukey's	CO vs 2.5 (p<0.05) 0.5 vs 2.5 (p<0.05)
Normal Hatchlings	One-tailed Dunnett	CO vs 2.5 (p<0.05)
14-day Old Survivor Wt.	Least Square Means	CO vs 2.5 (p=0.005) 0.5 vs 2.5 (p=0.008)
14-day Old Survivor Wt.	Tukey's	CO vs 2.5 (p<0.05) 0.5 vs 2.5 (p<0.05)
14-dau Old Survivors Wt.	One-tailed Dunnett	CO vs 2.5 (p<0.05)
Food Consumption	Least Square Means	CO vs 2.5 (p=0.004) 0.5 vs 2.5 (p=0.051)
Food Consumption	Tukey's	CO vs 2.5 (p<0.05)

Endpoint	Statistical Method	Levels at which Effect Was Observed
Final Male Body Wt.	Least Square Means	CO vs 2.5 (p=0.001) CO vs 1.5 (p=0.034) 0.5 vs 2.5 (p=0.008)
Final Male Body Wt.	Tukey's	CO vs 2.5 (p<0.05)
Final Male Body Wt.	One-tailed Dunnett	CO vs 2.5 (p<0.05)
Final Female Body Wt.	Least Square Means	CO vs 2.5 (p=0.001) CO vs 1.5 (p=0.002) 0.5 vs 2.5 (p=0.011) 0.5 vs 1.5 (p=0.035)
Final Female body Wt.	Tukey's	CO vs 2.5 (p<0.05) CO vs 1.5 (p<0.05) 0.5 vs 2.5 (p<0.05) 0.5 vs 1.5 (p<0.05)
Final Female Body Wt.	One-tailed Dunnett	CO vs 2.5 (p<0.05) CO vs 1.5 (p<0.05)

In addition to the differences noted by the laboratory, our analysis revealed numerous other significant effects caused by the two highest dose levels (see Table 'Statistically Significant Endpoints' when using Dunnett's test. Additional differences were observed when analyzed by LSM, but are not discussed here due to the inflated experimentwise error caused by repeated LSM comparisons. Total food consumption increased significantly at a dose of 2.5 ppm. Whereas, significant decreases were observed in post-test weights of both males and females. Both male and female post-test weights in the 2.5 ppm treated birds were more than 14% lower than that of controls. Finally, significant differences were observed at the highest dose in the number of eggs set, viable embryos at 14 days, viable embryos at 21 days, total number of normal hatchlings, and the number of chicks surviving to 14 days.

No effects were observed in the number of eggs cracked, egg shell thickness, hatchling weight or the total number of hatchlings surviving to 14 days of age. Additionally, no significant results were observed when examining reproductive parameters as a ratio of total number of eggs set.

14. REVIEWER'S COMMENTS

The lab reported 3 deviations from the recommended test protocol. First, a temperature and humidity recorder reportedly malfunctioned 9 nights during the first 5 weeks of the study, totaling 131.5 hours, or 16% of the first 5 weeks. No statement was made by the lab as to which monitor failed; ie. the room, incubator, brooder or hatcher. Examination of the survival records indicate the event was not significant enough to invalidate the study. No eggs were placed in the incubator until week nine and hatching success was no different than that reported in past studies.

The lab also failed to report the temperature and humidity in the rooms housing the incubator, hatcher and the temperature of the equipment itself. The average relative humidity reported for the brooder was 38%. This value is roughly 50% of what is recommended in the SEP and the labs own protocol. Comparison of embryo survival and hatching success of control groups shows no major deviation from values observed in previous mallard reproduction studies.

The second deviation reported by the lab concerned weighing the birds. One pair of mallards were weighed 3 days late during week 8. Handling birds during egg production could potentially damage eggs yet to be laid. No evidence was observed in the data indicating increased egg damage following late weighing as no eggs were laid until week 10. This deviation should not impact this study because only pre-study and post-study weights are used by EEB for statistical comparisons and no impact on egg production was noted.

Finally, feed was not offered ad libitum on two occasions. Once during week 10 a food bin in a control pen was discovered empty. During week 12 a similar occurrence was reported in 2 control pens, and 6 pens in each of the 3 active ingredient dose groups. This could impact the study by reducing the amount of test substance to which the animal is exposed and by denying the animal adequate caloric and nutritional intake. The report does not indicate the period of time the birds were without feed or if this event occurred more than one time during the reported weeks. Examination of the raw data indicates the birds were not off feed long enough to impact weight loss or egg production.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15:53 Thursday, July 27, 1995

OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
1	CONTROL	87	3	79	75	72	63	63	0.399	37.6
2	CONTROL	66	1	62	1	1	0	0	0.380	.
3	CONTROL	84	0	78	72	71	63	63	0.402	36.4
4	CONTROL	22	0	22	21	20	17	17	.	31.6
5	CONTROL	52	1	48	48	46	38	37	0.409	34.8
6	CONTROL	58	0	54	52	49	42	42	0.388	38.3
7	CONTROL	39	0	36	33	33	32	32	0.376	35.9
8	CONTROL	72	1	68	62	61	48	48	0.399	39.1
9	CONTROL	37	2	30	9	6	3	3	0.337	39.2
10	CONTROL	40	1	37	33	32	32	32	0.400	43.2
11	CONTROL	26	0	25	25	25	25	24	0.353	34.2
12	CONTROL	29	1	28	26	25	19	19	.	35.5
13	CONTROL	61	0	59	56	54	45	45	0.400	34.8
14	CONTROL	32	0	31	28	27	23	23	0.437	33.4
15	CONTROL	34	1	31	31	29	27	27	0.395	37.1
16	CONTROL	73	1	69	61	58	51	51	0.382	36.2
17	TRT1	68	4	59	40	39	38	37	0.369	40.5
18	TRT1	41	1	39	36	35	31	31	0.437	34.6
19	TRT1	68	1	62	58	55	40	40	0.397	39.7
20	TRT1	28	1	25	25	25	25	25	0.403	37.7
21	TRT1	59	1	54	53	49	41	41	0.388	38.0
22	TRT1	68	1	64	59	58	53	53	0.383	42.7
23	TRT1	60	2	56	55	52	52	52	0.402	39.3
24	TRT1	46	0	44	41	36	9	9	0.395	36.6
25	TRT1	55	2	49	45	42	31	31	0.388	38.6
26	TRT1	3	0	2	1	1	1	1	0.423	38.8
27	TRT1	72	0	67	56	55	46	46	0.392	36.4
28	TRT1	78	1	72	68	68	63	63	0.370	36.7
29	TRT1	26	6	17	14	13	10	9	0.288	35.1
30	TRT1	53	0	49	42	41	33	33	0.395	40.9

OBS	SURVWT	FOOD	PREM	POSTM	PREF	POSTF
1	321.5	41692	1099	1319	1001	1319
2	.	45654	1074	1194	1085	1296
3	332.0	43684	1170	1223	1083	1310
4	310.1	50568	1158	1046	1013	968
5	303.0	42904	1235	1440	1087	1190
6	322.2	45147	1249	1417	1208	1176
7	308.5	45100	1254	1494	960	978
8	323.1	42631	1143	1274	939	1131
9	263.2	43002	1106	1217	1206	1284
10	310.6	44720	1194	1005	1172	1130
11	308.0	49263	1213	1186	1133	1154
12	307.4	49178	1066	1261	919	1035
13	303.3	37164	1164	1297	875	1059
14	286.6	48099	1164	1282	969	1047
15	340.1	46982	1136	1179	1083	1227
16	314.1	42262	1076	1182	956	1188
17	324.1	42909	954	1091	1133	1333
18	299.2	43110	1279	1245	1077	1150
19	298.4	43055	1157	1260	1201	1213
20	298.8	46619	1221	1244	1033	1065
21	300.3	46085	1082	1075	938	1074
22	320.7	45083	1035	1067	1044	1168
23	356.2	42950	1385	1396	1218	1442
24	272.4	46952	1163	1283	1080	1107
25	325.3	46026	1140	1335	1139	1232
26	376.4	49513	1275	1197	911	818
27	307.6	47108	1183	1101	1226	1005
28	306.8	47288	1162	1324	960	1096
29	313.8	48654	1078	1128	989	1061
30	319.9	48764	1109	1281	1075	1219

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OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
31	TRT1	52	3	46	42	41	28	28	0.383	38.7
32	TRT1	11	0	11	11	10	9	9	.	38.0
33	TRT2	.	.	.	.	.	.	.	.	.
34	TRT2	74	0	68	65	62	26	26	0.429	36.5
35	TRT2	21	2	17	16	16	15	15	0.392	33.4
36	TRT2	69	0	64	63	61	52	52	0.409	35.5
37	TRT2	71	2	64	54	54	53	53	0.358	34.9
38	TRT2	50	1	45	35	35	33	33	0.400	38.2
39	TRT2	1	1	0	0	0	0	0	.	.
40	TRT2	4	0	3	2	2	2	2	0.370	31.7
41	TRT2	0	0	0	0	0	0	0	.	.
42	TRT2	66	0	63	48	47	47	46	0.376	43.9
43	TRT2	8	1	6	5	5	1	1	0.387	42.4
44	TRT2	17	2	13	12	10	7	7	0.343	31.7
45	TRT2	45	1	43	37	36	34	34	0.343	34.5
46	TRT2	33	1	30	29	27	21	21	0.385	36.6
47	TRT2	35	3	30	15	12	5	5	0.412	37.0
48	TRT2	.	.	.	.	.	.	.	.	.
49	TRT3	18	3	14	14	13	11	11	0.390	37.1
50	TRT3	63	1	59	56	46	11	11	0.353	35.0
51	TRT3	46	0	44	41	39	36	35	0.357	34.4
52	TRT3	54	3	48	41	41	39	39	0.379	42.0
53	TRT3	9	2	6	1	1	1	1	.	31.2
54	TRT3	1	0	1	1	1	1	1	.	39.6
55	TRT3	17	0	16	10	9	8	8	0.380	32.1
56	TRT3	25	0	25	0	0	0	0	.	.
57	TRT3	1	0	1	1	1	1	1	.	35.2
58	TRT3	23	1	20	13	6	1	1	0.375	41.2
59	TRT3	38	2	34	30	23	14	14	0.377	38.6
60	TRT3	44	1	39	39	37	28	28	0.373	30.6

OBS	SURVWT	FOOD	PREM	POSTM	PREF	POSTF
31	333.2	44457	1270	1400	1194	1286
32	323.6	49463	1116	892	927	717
33	.	38633	1121	1321	1054	.
34	299.1	40659	1070	1236	1020	1089
35	305.8	49159	1298	1103	1013	843
36	327.5	48292	1136	1215	929	1035
37	306.6	45823	1333	1369	969	1002
38	326.4	48353	1231	1123	1025	1063
39	.	49547	1149	893	992	664
40	328.5	49030	946	758	817	615
41	.	50073	1280	1213	1303	981
42	330.0	46686	1109	1098	1160	1272
43	354.7	50195	1172	1210	1059	1092
44	309.4	50212	1240	909	984	866
45	314.0	49987	1152	1266	997	1026
46	273.2	49795	1216	1122	957	957
47	319.7	48346	1116	1182	1038	1182
48	.	29816	1092	1199	850	.
49	314.4	50235	1034	1113	992	981
50	287.3	48317	1119	1149	1035	1061
51	301.3	47716	1347	1180	1116	1048
52	320.4	47451	1075	1335	1068	1087
53	272.1	50387	1101	890	1141	825
54	327.3	50612	1168	1108	1111	1015
55	293.1	50491	1286	939	1113	887
56	.	48626	1234	779	1148	893
57	353.8	49621	1284	1086	1047	868
58	300.1	49440	1245	1182	1113	1069
59	274.5	46815	1223	1272	973	985
60	302.8	50093	1207	1093	1082	970

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15:53 Thursday, July 27, 1995

OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
61	TRT3	66	1	60	44	40	34	34	0.389	40.1
62	TRT3	5	0	4	4	4	2	2	0.400	38.8
63	TRT3	13	0	13	12	11	5	5	.	35.6
64	TRT3	59	2	54	48	48	40	40	0.418	38.9

OBS	SURVWT	FOOD	PREM	POSTM	PREF	POSTF
61	322.1	45786	1007	1017	977	1245
62	286.8	49940	1110	1275	885	.
63	318.5	50414	1181	703	950	764
64	297.8	43092	1173	1232	943	1053

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15:53 Thursday, July 27, 1995

	LEVEL			
	CONTROL	TRT1	TRT2	TRT3
	MEAN	MEAN	MEAN	MEAN
EL	50.75	49.25	35.29	30.12
EC	0.75	1.44	1.00	1.00
ES	47.31	44.75	31.86	27.37
VE	39.56	40.38	27.21	22.19
LE	38.06	38.75	26.21	20.00
NH	33.00	31.87	21.14	14.50
HS	32.88	31.75	21.07	14.44
ES/EL (%)	93.46	89.02	79.99	90.27
(EL-EC)/EL (%)	98.50	96.65	88.27	96.07
VE/ES (%)	84.32	88.41	83.46	78.78
LE/VE (%)	94.97	95.83	95.32	90.69
NH/EL (%)	66.47	62.75	50.07	49.36
NH/ES (%)	70.63	69.92	61.78	54.01
NH/LE (%)	80.05	82.79	76.44	73.46
HS/ES (%)	70.25	69.45	61.65	53.87
HS/NH (%)	99.56	99.21	99.82	99.81
THICK	0.39	0.39	0.38	0.38
HATWT	36.49	38.27	36.36	36.69
SURVWT	310.25	317.29	316.24	304.80
FOOD	44878.12	46127.25	46537.87	48689.75
POSTM	1251.00	1207.44	1144.81	1072.06

POSTF	1155.75	1124.13	977.64	983.40

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15:53 Thursday, July 27, 1995

LEVEL=CONTROL

N Obs	Variable	Label	N	Mean	Std Dev
16	EL		16	50.750	21.205
	EC		16	0.750	0.856
	ES		16	47.313	19.697
	VE		16	39.563	21.942
	LE		16	38.063	21.499
	NH		16	33.000	18.694
	HS		16	32.875	18.708
	THICK		14	0.390	0.024
	HATWT		15	36.487	2.802
	SURVWT		15	310.247	18.330
	FOOD		16	44878.125	3425.739
	PREM		16	1156.313	61.674
	POSTM		16	1251.000	129.758
	PREF		16	1043.063	104.067
	POSTF		16	1155.750	114.936
	ES_EL	ES/EL (%)	16	93.459	4.113
	NH_EL	NH/EL (%)	16	66.475	25.426
	ENC_EL	(EL-EC)/EL (%)	16	98.504	1.671
	VE_ES	VE/ES (%)	16	84.321	27.490
	NH_ES	NH/ES (%)	16	70.627	26.833
	HS_ES	HS/ES (%)	16	70.247	26.517
	LE_VE	LE/VE (%)	16	94.974	7.815
	NH_LE	NH/LE (%)	16	80.048	24.324
	HS_NH	HS/NH (%)	15	99.558	1.195

N Obs	Variable	Label	CV
16	EL		41.784
	EC		114.180
	ES		41.631
	VE		55.462
	LE		56.483
	NH		56.649
	HS		56.906
	THICK		6.220
	HATWT		7.679
	SURVWT		5.908
	FOOD		7.633
	PREM		5.334
	POSTM		10.372
	PREF		9.977
	POSTF		9.945
	ES_EL	ES/EL (%)	4.401
	NH_EL	NH/EL (%)	38.250
	ENC_EL	(EL-EC)/EL (%)	1.696
	VE_ES	VE/ES (%)	32.601
	NH_ES	NH/ES (%)	37.993
	HS_ES	HS/ES (%)	37,749
	LE_VE	LE/VE (%)	8.228
	NH_LE	NH/LE (%)	30.387
	HS_NH	HS/NH (%)	1.200

LEVEL=TRT1

N Obs	Variable	Label	N	Mean	Std Dev
16	EL		16	49.250	22.116
	EC		16	1.437	1.672
	ES		16	44.750	20.847
	VE		16	40.375	19.026
	LE		16	38.750	18.585
	NH		16	31.875	17.795
	HS		16	31.750	17.857
	THICK		15	0.388	0.033
	HATWT		16	38.269	2.128
	SURVWT		16	317.294	24.462
	FOOD		16	46127.250	2338.739
	PREM		16	1163.063	106.470
	POSTM		16	1207.438	138.371
	PREF		16	1071.188	106.685
	POSTF		16	1124.125	180.137
	ES_EL	ES/EL (%)	16	89.025	9.522
	NH_EL	NH/EL (%)	16	62.751	19.850
	ENC_EL	(EL-EC)/EL (%)	16	96.648	5.613
	VE_ES	VE/ES (%)	16	88.414	13.070
	NH_ES	NH/ES (%)	16	69.921	18.861
	HS_ES	HS/ES (%)	16	69.448	19.182
	LE_VE	LE/VE (%)	16	95.826	3.586
	NH_LE	NH/LE (%)	16	82.786	18.498
	HS_NH	HS/NH (%)	16	99.211	2.542

N Obs	Variable	Label	CV
16	EL		44.906
	EC		116.318
	ES		46.586
	VE		47.123
	LE		47.961
	NH		55.826
	HS		56.242
	THICK		8.439
	HATWT		5.561
	SURVWT		7.710
	FOOD		5.070
	PREM		9.154
	POSTM		11.460
	PREF		9.960
	POSTF		16.025
	ES_EL	ES/EL (%)	10.696
	NH_EL	NH/EL (%)	31.633
	ENC_EL	(EL-EC)/EL (%)	5.808
	VE_ES	VE/ES (%)	14.783
	NH_ES	NH/ES (%)	26.975
	HS_ES	HS/ES (%)	27.621
	LE_VE	LE/VE (%)	3.742
	NH_LE	NH/LE (%)	22.344
	HS_NH	HS/NH (%)	2.563

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
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LEVEL=TRT2

N Obs	Variable	Label	N	Mean	Std Dev
16	EL		14	35.286	27.530
	EC		14	1.000	0.961

	ES		14	31.857	25.949
	VE		14	27.214	23.426
	LE		14	26.214	22.952
	NH		14	21.143	19.864
	HS		14	21.071	19.766
	THICK		12	0.384	0.027
	HATWT		12	36.358	3.763
	SURVWT		12	316.242	20.138
	FOOD		16	46537.875	5602.709
	PREM		16	1166.313	97.569
	POSTM		16	1144.813	166.025
	PREF		16	1010.437	112.211
	POSTF		14	977.643	181.512
	ES_EL	ES/EL (%)	13	79.988	25.171
	NH_EL	NH/EL (%)	13	50.072	26.981
	ENC_EL	(EL-EC)/EL (%)	13	88.275	26.922
	VE_ES	VE/ES (%)	12	83.459	14.245
	NH_ES	NH/ES (%)	12	61.782	25.041
	HS_ES	HS/ES (%)	12	61.650	24.971
	LE_VE	LE/VE (%)	12	95.322	6.781
	NH_LE	NH/LE (%)	12	76.438	27.352
	HS_NH	HS/NH (%)	12	99.823	0.614

N Obs	Variable	Label	CV
16	EL		78.021
	EC		96.077
	ES		81.455
	VE		86.081
	LE		87.556
	NH		93.953
	HS		93.804
	THICK		7.056
	HATWT		10.349
	SURVWT		6.368
	FOOD		12.039
	PREM		8.366
	POSTM		14.502
	PREF		11.105
	POSTF		18.566
	ES_EL	ES/EL (%)	31.468
	NH_EL	NH/EL (%)	53.883
	ENC_EL	(EL-EC)/EL (%)	30.498
	VE_ES	VE/ES (%)	17.068
	NH_ES	NH/ES (%)	40.531
	HS_ES	HS/ES (%)	40.504
	LE_VE	LE/VE (%)	7.113
	NH_LE	NH/LE (%)	35.784
	HS_NH	HS/NH (%)	0.615

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15:53 Thursday, July 27, 1995

LEVEL=TRT3

N Obs	Variable	Label	N	Mean	Std Dev
16	EL		16	30.125	22.718
	EC		16	1.000	1.095
	ES		16	27.375	21.014
	VE		16	22.187	19.850
	LE		16	20.000	18.522
	NH		16	14.500	15.336
	HS		16	14.438	15.245
	THICK		11	0.381	0.018
	HATWT		15	36.693	3.601

SURVWT		15	304.800	21.673
FOOD		16	48689.750	2098.417
PREM		16	1174.625	95.402
POSTM		16	1072.063	167.319
PREF		16	1043.375	80.860
POSTF		15	983.400	121.517
ES_EL	ES/EL (%)	16	90.266	9.204
NH_EL	NH/EL (%)	16	49.364	31.075
ENC_EL	(EL-EC)/EL (%)	16	96.074	6.449
VE_ES	VE/ES (%)	16	78.778	30.207
NH_ES	NH/ES (%)	16	54.008	32.122
HS_ES	HS/ES (%)	16	53.866	31.996
LE_VE	LE/VE (%)	15	90.693	14.184
NH_LE	NH/LE (%)	15	73.456	27.658
HS_NH	HS/NH (%)	15	99.816	0.717

N Obs	Variable	Label	CV
16	EL		75.413
	EC		109.545
	ES		76.763
	VE		89.466
	LE		92.610
	NH		105.767
	HS		105.590
	THICK		4.808
	HATWT		9.815
	SURVWT		7.110
	FOOD		4.310
	PREM		8.122
	POSTM		15.607
	PREF		7.750
	POSTF		12.357
	ES_EL	ES/EL (%)	10.197
	NH_EL	NH/EL (%)	62.950
	ENC_EL	(EL-EC)/EL (%)	6.713
	VE_ES	VE/ES (%)	38.344
	NH_ES	NH/ES (%)	59.477
	HS_ES	HS/ES (%)	59.399
	LE_VE	LE/VE (%)	15.639
	NH_LE	NH/LE (%)	37.652
	HS_NH	HS/NH (%)	0.719

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
1. ANALYSIS OF EGGS LAID
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
1. ANALYSIS OF EGGS LAID
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
1. ANALYSIS OF EGGS LAID
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	4940.7477	1646.9159	3.02	0.0371
Error	58	31676.6071	546.1484		
Corrected Total	61	36617.3548			

R-Square	C.V.	Root MSE	EL Mean
0.134929	56.24723	23.370	41.54839

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	4940.7477	1646.9159	3.02	0.0371

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
1. ANALYSIS OF EGGS LAID
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	EL LSMEAN	i/j	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) 1	2	3	4
CONTROL	50.7500000	1	.	0.8566	0.0758	0.0154
TRT1	49.2500000	2	0.8566	.	0.1079	0.0242
TRT2	35.2857143	3	0.0758	0.1079	.	0.5486
TRT3	30.1250000	4	0.0154	0.0242	0.5486	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
1. ANALYSIS OF EGGS LAID
15:53 Thursday, July 27, 1995

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= 58 MSE= 546.1484
Critical Value of Studentized Range= 3.741

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	-20.355	1.500	23.355	
CONTROL	- TRT2	-7.158	15.464	38.086	
CONTROL	- TRT3	-1.230	20.625	42.480	
TRT1	- CONTROL	-23.355	-1.500	20.355	
TRT1	- TRT2	-8.658	13.964	36.586	
TRT1	- TRT3	-2.730	19.125	40.980	
TRT2	- CONTROL	-38.086	-15.464	7.158	
TRT2	- TRT1	-36.586	-13.964	8.658	
TRT2	- TRT3	-17.461	5.161	27.783	
TRT3	- CONTROL	-42.480	-20.625	1.230	
TRT3	- TRT1	-40.980	-19.125	2.730	
TRT3	- TRT2	-27.783	-5.161	17.461	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
1. ANALYSIS OF EGGS LAID
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 58 MSE= 546.1484
Critical Value of Dunnett's T= 2.108

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	-18.919	-1.500	15.919	
TRT2	- CONTROL	-33.494	-15.464	2.566	
TRT3	- CONTROL	-38.044	-20.625	-3.206	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
2. ANALYSIS OF EGGS CRACKED
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
2. ANALYSIS OF EGGS CRACKED
****

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
2. ANALYSIS OF EGGS CRACKED
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: EC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3.9173387	1.3057796	0.91	0.4403
Error	58	82.9375000	1.4299569		
Corrected Total	61	86.8548387			

R-Square	C.V.	Root MSE	EC Mean
0.045102	114.0617	1.1958	1.048387

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3.9173387	1.3057796	0.91	0.4403

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
2. ANALYSIS OF EGGS CRACKED
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

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

	LSMEAN	i/j	1	2	3	4
CONTROL	0.75000000	1	.	0.1093	0.5700	0.5566
TRT1	1.43750000	2	0.1093	.	0.3216	0.3051
TRT2	1.00000000	3	0.5700	0.3216	.	1.0000
TRT3	1.00000000	4	0.5566	0.3051	1.0000	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
2. ANALYSIS OF EGGS CRACKED
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 58 MSE= 1.429957
Critical Value of Studentized Range= 3.741

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- TRT2	-0.720	0.438	1.595
TRT1	- TRT3	-0.681	0.438	1.556
TRT1	- CONTROL	-0.431	0.687	1.806
TRT2	- TRT1	-1.595	-0.438	0.720
TRT2	- TRT3	-1.158	0.000	1.158
TRT2	- CONTROL	-0.908	0.250	1.408
TRT3	- TRT1	-1.556	-0.438	0.681
TRT3	- TRT2	-1.158	0.000	1.158
TRT3	- CONTROL	-0.868	0.250	1.368
CONTROL	- TRT1	-1.806	-0.687	0.431
CONTROL	- TRT2	-1.408	-0.250	0.908
CONTROL	- TRT3	-1.368	-0.250	0.868

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
2. ANALYSIS OF EGGS CRACKED
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 58 MSE= 1.429957
Critical Value of Dunnett's T= 2.108

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-0.204	0.687	1.579
TRT2	- CONTROL	-0.673	0.250	1.173
TRT3	- CONTROL	-0.641	0.250	1.141

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
3. ANALYSIS OF EGGS SET
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
3. ANALYSIS OF EGGS SET
****
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
3. ANALYSIS OF EGGS SET
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	4451.0821	1483.6940	3.10	0.0334
Error	58	27715.9018	477.8604		
Corrected Total	61	32166.9839			

R-Square	C.V.	Root MSE	ES Mean
0.138374	57.50196	21.860	38.01613

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	4451.0821	1483.6940	3.10	0.0334

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
3. ANALYSIS OF EGGS SET
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	ES LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	47.3125000	1	.	0.7414	0.0583	0.0124
TRT1	44.7500000	2	0.7414	.	0.1125	0.0284
TRT2	31.8571429	3	0.0583	0.1125	.	0.5775
TRT3	27.3750000	4	0.0124	0.0284	0.5775	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
3. ANALYSIS OF EGGS SET
15:53 Thursday, July 27, 1995

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= 58 MSE= 477.8604
Critical Value of Studentized Range= 3.741

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	-17.881	2.563	23.006	
CONTROL	- TRT2	-5.705	15.455	36.616	
CONTROL	- TRT3	-0.506	19.937	40.381	
TRT1	- CONTROL	-23.006	-2.563	17.881	
TRT1	- TRT2	-8.268	12.893	34.054	
TRT1	- TRT3	-3.068	17.375	37.818	
TRT2	- CONTROL	-36.616	-15.455	5.705	
TRT2	- TRT1	-34.054	-12.893	8.268	
TRT2	- TRT3	-16.679	4.482	25.643	
TRT3	- CONTROL	-40.381	-19.937	0.506	
TRT3	- TRT1	-37.818	-17.375	3.068	
TRT3	- TRT2	-25.643	-4.482	16.679	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS

3. ANALYSIS OF EGGS SET
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 58 MSE= 477.8604
Critical Value of Dunnett's T= 2.108

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	-18.856	-2.563	13.731	
TRT2	- CONTROL	-32.321	-15.455	1.410	
TRT3	- CONTROL	-36.231	-19.937	-3.644	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
4. ANALYSIS OF VIABLE EMBRYOS
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
4. ANALYSIS OF VIABLE EMBRYOS
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
4. ANALYSIS OF VIABAE EMBRYOS
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: VE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3883.0179	1294.3393	2.92	0.0415
Error	58	25696.4821	443.0428		
Corrected Total	61	29579.5000			

R-Square	C.V.	Root MSE	VE Mean
0.131274	64.76487	21.049	32.50000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3883.0179	1294.3393	2.92	0.0415

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
4. ANALYSIS OF VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	VE LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	39.5625000	1	.	0.9134	0.1144	0.0230
TRT1	40.3750000	2	0.9134	.	0.0929	0.0176
TRT2	27.2142857	3	0.1144	0.0929	.	0.5166
TRT3	22.1875000	4	0.0230	0.0176	0.5166	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
4. ANALYSIS OF VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

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= 58 MSE= 443.0428
Critical Value of Studentized Range= 3.741

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	-18.872	0.812	20.497	
TRT1	- TRT2	-7.215	13.161	33.536	
TRT1	- TRT3	-1.497	18.187	37.872	
CONTROL	- TRT1	-20.497	-0.812	18.872	
CONTROL	- TRT2	-8.027	12.348	32.723	
CONTROL	- TRT3	-2.309	17.375	37.059	
TRT2	- TRT1	-33.536	-13.161	7.215	
TRT2	- CONTROL	-32.723	-12.348	8.027	
TRT2	- TRT3	-15.348	5.027	25.402	
TRT3	- TRT1	-37.872	-18.187	1.497	
TRT3	- CONTROL	-37.059	-17.375	2.309	
TRT3	- TRT2	-25.402	-5.027	15.348	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
4. ANALYSIS OF VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 58 MSE= 443.0428
Critical Value of Dunnett's T= 2.108

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	-14.676	0.812	16.501	
TRT2	- CONTROL	-28.588	-12.348	3.891	
TRT3	- CONTROL	-33.064	-17.375	-1.686	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Modal	3	4015.1247	1338.3749	3.22	0.0292
Error	58	24108.2946	415.6603		
Corrected Total	61	28123.4194			

R-Square	C.V.	Root MSE	LE Mean
0.142768	65.97288	20.388	30.90323

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	4015.1247	1338.3749	3.22	0.0292

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	LE LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	38.0625000	1	.	0.9243	0.1177	0.0150
TRT1	38.7500000	2	0.9243	.	0.0983	0.0118
TRT2	26.2142857	3	0.1177	0.0983	.	0.4083
TRT3	20.0000000	4	0.0150	0.0118	0.4083	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
15:53 Thursday, July 27, 1995

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= 58 MSE= 415.6603
Critical Value of Studentized Range= 3.741

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	-18.379	0.687	19.754	
TRT1	- TRT2	-7.200	12.536	32.271	
TRT1	- TRT3	-0.316	18.750	37.816	
CONTROL	- TRT1	-19.754	-0.687	18.379	
CONTROL	- TRT2	-7.887	11.848	31.584	
CONTROL	- TRT3	-1.004	18.062	37.129	
TRT2	- TRT1	-32.271	-12.536	7.200	
TRT2	- CONTROL	-31.584	-11.848	7.887	
TRT2	- TRT3	-13.521	6.214	25.950	
TRT3	- TRT1	-37.816	-18.750	0.316	
TRT3	- CONTROL	-37.129	-18.062	1.004	
TRT3	- TRT2	-25.950	-6.214	13.521	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
15:53 Thursday, July 27, 1995

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= 58 MSE= 415.6603
Critical Value of Dunnett's T= 2.108

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	-14.509	0.687	15.884	
TRT2	- CONTROL	-27.578	-11.848	3.881	
TRT3	- CONTROL	-33.259	-18.062	-2.866	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
6. ANALYSIS OF NORMAL HATCHLINGS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
6. ANALYSIS OF NORMAL HATCHLINGS
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
6. ANALYSIS OF NORMAL HATCHLINGS
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3748.4067	1249.4689	3.89	0.0134
Error	58	18649.4643	321.5425		
Corrected Total	61	22397.8710			

R-Square	C.V.	Root MSE	NH Mean
0.167355	70.99359	17.932	25.25806

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3748.4067	1249.4689	3.89	0.0134

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
6. ANALYSIS OF NORMAL HATCHLINGS
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	NH LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	33.0000000	1	.	0.8598	0.0760	0.0050
TRT1	31.8750000	2	0.8598	.	0.1074	0.0081
TRT2	21.1428571	3	0.0760	0.1074	.	0.3156
TRT3	14.5000000	4	0.0050	0.0081	0.3156	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
6. ANALYSIS OF NORMAL HATCHLINGS
15:53 Thursday, July 27, 1995

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= 58 MSE= 321.5425
Critical Value of Studentized Range= 3.741

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	-15.644	1.125	17.894	
CONTROL	- TRT2	-5.501	11.857	29.215	
CONTROL	- TRT3	1.731	18.500	35.269	***
TRT1	- CONTROL	-17.894	-1.125	15.644	
TRT1	- TRT2	-6.626	10.732	28.090	
TRT1	- TRT3	0.606	17.375	34.144	***
TRT2	- CONTROL	-29.215	-11.857	5.501	
TRT2	- TRT1	-28.090	-10.732	6.626	
TRT2	- TRT3	-10.715	6.643	24.001	
TRT3	- CONTROL	-35.269	-18.500	-1.731	***
TRT3	- TRT1	-34.144	-17.375	-0.606	***
TRT3	- TRT2	-24.001	-6.643	10.715	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
6. ANALYSIS OF NORMAL HATCHLINGS
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 58 MSE= 321.5425
Critical Value of Dunnett's T= 2.108

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

	Simultaneous Lower	Difference	Simultaneous Upper

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit	
TRT1	- CONTROL	-14.490	-1.125	12.240	
TRT2	- CONTROL	-25.692	-11.857	1.977	
TRT3	- CONTROL	-31.865	-18.500	-5.135	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 62 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: HS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3720.7710	1240.2570	3.87	0.0137
Error	58	18597.6161	320.5486		
Corrected Total	61	22318.3871			

R-Square	C.V.	Root MSE	HS Mean
0.166713	71.16750	17.907	25.16129

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3720.7710	1240.2570	3.87	0.0137

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	HS LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	32.8750000	1	.	0.8596	0.0769	0.0051
TRT1	31.7500000	2	0.8596	.	0.1086	0.0083
TRT2	21.0714286	3	0.0769	0.1086	.	0.3156
TRT3	14.4375000	4	0.0051	0.0083	0.3156	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
15:53 Thursday, July 27, 1995

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= 58 MSE= 320.5486
Critical Value of Studentized Range= 3.741

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	-15.621	1.125	17.871	
CONTROL	- TRT2	-5.530	11.804	29.137	
CONTROL	- TRT3	1.691	18.437	35.184	***
TRT1	- CONTROL	-17.871	-1.125	15.621	
TRT1	- TRT2	-6.655	10.679	28.012	
TRT1	- TRT3	0.566	17.312	34.059	***
TRT2	- CONTROL	-29.137	-11.804	5.530	
TRT2	- TRT1	-28.012	-10.679	6.655	
TRT2	- TRT3	-10.700	6.634	23.968	
TRT3	- CONTROL	-35.184	-18.437	-1.691	***
TRT3	- TRT1	-34.059	-17.312	-0.566	***
TRT3	- TRT2	-23.968	-6.634	10.700	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
7. ANALYSIS OF 14-DAY-OLD SURVIVORS

15:53 Thursday, July 27, 1995

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= 58 MSE= 320.6486
Critical Value of Dunnett's T= 2.108

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	-14.472	-1.125	12.222	
TRT2	- CONTROL	-25.619	-11.804	2.012	
TRT3	- CONTROL	-31.784	-18.437	-5.091	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
8. ANALYSIS OF EGGS SET/EGGS LAID

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 61 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
8. ANALYSIS OF EGGS SET/EGGS LAID

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
8. ANALYSIS OF EGGS SET/EGGS LAID

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3758.7566	1252.9189	1.06	0.3714
Error	57	67084.0220	1176.9127		
Corrected Total	60	70842.7786			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.053058	46.55556	34.306	73.68864

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3758.7566	1252.9189	1.06	0.3714

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
8. ANALYSIS OF EGGS SET/EGGS LAID

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| i/j	1	2	3	4
CONTROL	75.3877689	1	.	0.1579	0.1211	0.3370
TRT1	72.9329953	2	0.1579	.	0.7517	0.7846
TRT2	72.3069478	3	0.1211	0.7517	.	0.5961
TRT3	73.4776773	4	0.3370	0.7846	0.5961	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
8. ANALYSIS OF EGGS SET/EGGS LAID

15:53 Thursday, July 27, 1995

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= 57 MSE= 1176.913
Critical Value of Studentized Range= 3.743

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	-30.189	1.910	34.009
CONTROL	- TRT1	-29.644	2.455	34.554

CONTROL	- TRT2	-30.820	3.081	36.981
TRT3	- CONTROL	-34.009	-1.910	30.189
TRT3	- TRT1	-31.555	0.545	32.644
TRT3	- TRT2	-32.730	1.171	35.071
TRT1	- CONTROL	-34.554	-2.455	29.644
TRT1	- TRT3	-32.644	-0.545	31.555
TRT1	- TRT2	-33.274	0.626	34.527
TRT2	- CONTROL	-36.981	-3.081	30.820
TRT2	- TRT3	-35.071	-1.171	32.730
TRT2	- TRT1	-34.527	-0.626	33.274

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
8. ANALYSIS OF EGGS SET/EGGS LAID
****

15:53 Thursday, July 27, 1995

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= 57 MSE= 1176.913
Critical Value of Dunnett's T= 2.111

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT3	- CONTROL	-27.509	-1.910	23.689
TRT1	- CONTROL	-28.054	-2.455	23.145
TRT2	- CONTROL	-30.117	-3.081	23.955

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	13844.653	4614.884	0.42	0.7363
Error	56	608995.736	10874.924		
Corrected Total	59	622840.389			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.022228	148.9257	104.28	70.02346

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	13844.653	4614.884	0.42	0.7363

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| i/j	HO: LSMEAN(i)=LSMEAN(j) 1	2	3	4
CONTROL	69.3481744	1	.	0.4683	0.9968	0.6471
TRT1	73.3178543	2	0.4683	.	0.5332	0.2834
TRT2	69.3736237	3	0.9968	0.5332	.	0.6802
TRT3	66.4668914	4	0.6471	0.2834	0.6802	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 10874.92
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- TRT2	-101.504	3.944	109.393
TRT1	- CONTROL	-93.657	3.970	101.596
TRT1	- TRT3	-90.775	6.851	104.477
TRT2	- TRT1	-109.393	-3.944	101.504
TRT2	- CONTROL	-105.423	0.025	105.474
TRT2	- TRT3	-102.542	2.907	108.355
CONTROL	- TRT1	-101.596	-3.970	93.657
CONTROL	- TRT2	-105.474	-0.025	105.423
CONTROL	- TRT3	-94.745	2.881	100.508
TRT3	- TRT1	-104.477	-6.851	90.775
TRT3	- TRT2	-108.355	-2.907	102.542
TRT3	- CONTROL	-100.508	-2.881	94.745

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 10874.92
Critical Value of Dunnett's T= 2.113

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-73.942	3.970	81.882
TRT2	- CONTROL	-84.129	0.025	84.180
TRT3	- CONTROL	-80.793	-2.881	75.031

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: VE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	8017.5223	2672.5074	1.46	0.2364
Error	55	100904.0635	1834.6193		
Corrected Total	58	108921.5858			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.073608	54.07195	42.832	79.21382

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	8017.5223	2672.5074	1.46	0.2364

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	79.7740285	1	.	0.9934	0.6033	0.1035
TRT1	79.7541106	2	0.9934	.	0.5970	0.1038
TRT2	81.2256491	3	0.6033	0.5970	.	0.0566
TRT3	75.0725783	4	0.1035	0.1038	0.0566	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 1834.619
Critical Value of Studentized Range= 3.747

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2	- CONTROL	-41.884	1.452	44.787
TRT2	- TRT1	-41.864	1.472	44.807
TRT2	- TRT3	-37.797	6.153	50.103
CONTROL	- TRT2	-44.787	-1.452	41.884
CONTROL	- TRT1	-40.101	0.020	40.141
CONTROL	- TRT3	-36.082	4.701	45.485
TRT1	- TRT2	-44.807	-1.472	41.864
TRT1	- CONTROL	-40.141	-0.020	40.101
TRT1	- TRT3	-36.102	4.682	45.465
TRT3	- TRT2	-50.103	-6.153	37.797
TRT3	- CONTROL	-45.485	-4.701	36.082
TRT3	- TRT1	-45.465	-4.682	36.102

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 1834.619
Critical Value of Dunnett's T= 2.115

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2	- CONTROL	-33.146	1.452	36.049
TRT1	- CONTROL	-32.051	-0.020	32.011
TRT3	- CONTROL	-37.262	-4.701	27.859

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	21224.372	7074.791	1.10	0.3555
Error	55	352581.306	6410.569		
Corrected Total	58	373805.678			

R-Square	C.V.	Root MSE	RESPONSE Mean

0.056779 119.1801 80.066 67.18073

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	21224.372	7074.791	1.10	0.3555

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	69.9469584	1	.	0.6238	0.7041	0.0794
TRT1	67.6936990	2	0.6238	.	0.9649	0.1720
TRT2	67.9271358	3	0.7041	0.9649	.	0.2046
TRT3	60.0663337	4	0.0794	0.1720	0.2046	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 6410.569
Critical Value of Studentized Range= 3.747

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL	- TRT2	-78.986	2.020	83.026
CONTROL	- TRT1	-72.744	2.253	77.250
CONTROL	- TRT3	-66.356	9.881	86.117
TRT2	- CONTROL	-83.026	-2.020	78.986
TRT2	- TRT1	-80.772	0.233	81.239
TRT2	- TRT3	-74.294	7.861	90.016
TRT1	- CONTROL	-77.250	-2.253	72.744
TRT1	- TRT2	-81.239	-0.233	80.772
TRT1	- TRT3	-68.609	7.627	83.864
TRT3	- CONTROL	-86.117	-9.881	66.356
TRT3	- TRT2	-90.016	-7.861	74.294
TRT3	- TRT1	-83.864	-7.627	68.609

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 55 MSE= 6410.569
Critical Value of Dunnett's T= 2.115

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	-66.692	-2.020	62.652
TRT1	- CONTROL	-62.128	-2.253	57.621
TRT3	- CONTROL	-70.745	-9.881	50.984

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 61 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

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15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: BL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	42690.007	14230.002	1.38	0.2588
Error	57	588703.353	10328.129		
Corrected Total	60	631393.360			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.067612	199.7570	101.63	50.87550

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	42690.007	14230.002	1.38	0.2588

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| i/j	1	2	3	4
CONTROL	52.7964346	1	.	0.8183	0.7255	0.0897
TRT1	53.9694876	2	0.8183	.	0.5831	0.0604
TRT2	50.7504704	3	0.7255	0.5831	.	0.2216
TRT3	42.7093470	4	0.0897	0.0604	0.2216	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

15:53 Thursday, July 27, 1995

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= 57 MSE= 10328.13
Critical Value of Studentized Range= 3.743

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	-93.92	1.17	96.26
TRT1	- TRT2	-97.21	3.22	103.64
TRT1	- TRT3	-83.83	11.26	106.35
CONTROL	- TRT1	-96.26	-1.17	93.92
CONTROL	- TRT2	-98.38	2.05	102.47
CONTROL	- TRT3	-85.00	10.09	105.18
TRT2	- TRT1	-103.64	-3.22	97.21
TRT2	- CONTROL	-102.47	-2.05	98.38
TRT2	- TRT3	-92.38	8.04	108.47
TRT3	- TRT1	-106.35	-11.26	83.83
TRT3	- CONTROL	-105.18	-10.09	85.00
TRT3	- TRT2	-108.47	-8.04	92.38

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID

15:53 Thursday, July 27, 1995

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= 57 MSE= 10328.13
Critical Value of Dunnett's T= 2.111

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-74.66	1.17	77.01
TRT2	- CONTROL	-82.14	-2.05	78.04
TRT3	- CONTROL	-85.92	-10.09	65.75

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

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15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	33.881418	11.293806	0.03	0.9912
Error	54	17563.34085	325.247053		
Corrected Total	57	17597.22227			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.001925	20.32366	18.035	88.73702

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	33.881418	11.293806	0.03	0.9912

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| i/j	HO: LSMEAN(i)=LSMEAN(j) 1	2	3	4
CONTROL	88.7461233	1	.	0.8862	0.9312	0.8497
TRT1	88.9071323	2	0.8862	.	0.8357	0.7637
TRT2	88.6325468	3	0.9312	0.8357	.	0.9213
TRT3	88.4756539	4	0.8497	0.7637	0.9213	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 325.2471
Critical Value of Studentized Range= 3.749

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-17.021	0.161	17.343
TRT1	- TRT2	-17.982	0.275	18.531
TRT1	- TRT3	-16.750	0.431	17.613
CONTROL	- TRT1	-17.343	-0.161	17.021
CONTROL	- TRT2	-18.402	0.114	18.629
CONTROL	- TRT3	-17.186	0.270	17.727
TRT2	- TRT1	-18.531	-0.275	17.982
TRT2	- CONTROL	-18.629	-0.114	18.402
TRT2	- TRT3	-18.359	0.157	18.673
TRT3	- TRT1	-17.613	-0.431	16.750
TRT3	- CONTROL	-17.727	-0.270	17.186
TRT3	- TRT2	-18.673	-0.157	18.359

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 325.2471
Critical Value of Dunnett's T= 2.112

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	-13.530	0.161	13.852
TRT2	- CONTROL	-14.868	-0.114	14.640
TRT3	- CONTROL	-14.181	-0.270	13.640

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 61 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	4218.8174	1406.2725	0.86	0.4671
Error	57	93191.0268	1634.9303		
Corrected Total	60	97409.8441			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.043310	48.73723	40.434	82.96382

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	4218.8174	1406.2725	0.86	0.4671

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	84.6733196	1	.	0.2019	0.5052	0.1634
TRT1	82.0626918	2	0.2019	.	0.6484	0.7748
TRT2	83.1262747	3	0.5052	0.6484	.	0.5053
TRT3	81.3906272	4	0.1634	0.7748	0.5053	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
15:53 Thursday, July 27, 1995

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= 57 MSE= 1634.93
Critical Value of Studentized Range= 3.743

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	-38.409	1.547	41.503
CONTROL	- TRT1	-35.222	2.611	40.444
CONTROL	- TRT3	-34.550	3.283	41.116
TRT2	- CONTROL	-41.503	-1.547	38.409
TRT2	- TRT1	-38.893	1.064	41.020
TRT2	- TRT3	-38.221	1.736	41.692
TRT1	- CONTROL	-40.444	-2.611	35.222
TRT1	- TRT2	-41.020	-1.064	38.893
TRT1	- TRT3	-37.161	0.672	38.505
TRT3	- CONTROL	-41.116	-3.283	34.550
TRT3	- TRT2	-41.692	-1.736	38.221
TRT3	- TRT1	-38.505	-0.672	37.161

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
15:53 Thursday, July 27, 1995

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= 57 MSE= 1634.93
Critical Value of Dunnett's T= 2.111

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2	- CONTROL	-33.412	-1.547	30.318
TRT1	- CONTROL	-32.783	-2.611	27.561
TRT3	- CONTROL	-33.455	-3.283	26.889

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	48303.969	16101.323	1.41	0.2503
Error	56	640817.568	11443.171		
Corrected Total	59	689121.537			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.070095	195.0519	106.97	54.84323

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	48303.969	16101.323	1.41	0.2503

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	56.3512214	1	.	0.6786	0.8385	0.1050
TRT1	58.6743835	2	0.6786	.	0.5759	0.0516
TRT2	55.0434415	3	0.8385	0.5759	.	0.2028
TRT3	45.7702906	4	0.1050	0.0516	0.2028	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 11443.17
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-97.82	2.32	102.47
TRT1	- TRT2	-104.54	3.63	111.80
TRT1	- TRT3	-87.24	12.90	113.05
CONTROL	- TRT1	-102.47	-2.32	97.82
CONTROL	- TRT2	-106.86	1.31	109.48
CONTROL	- TRT3	-89.56	10.58	110.73
TRT2	- TRT1	-111.80	-3.63	104.54
TRT2	- CONTROL	-109.48	-1.31	106.86
TRT2	- TRT3	-98.90	9.27	117.44
TRT3	- TRT1	-113.05	-12.90	87.24
TRT3	- CONTROL	-110.73	-10.58	89.56

TRT3	- TRT2	-117.44	-9.27	98.90

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 11443.17
Critical Value of Dunnett's T= 2.113

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	-77.60	2.32	82.24
TRT2	- CONTROL	-87.63	-1.31	85.02
TRT3	- CONTROL	-90.50	-10.58	69.34

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: BS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	47668.444	15889.481	1.43	0.2438
Error	56	622464.929	11115.445		
Corrected Total	59	670133.373			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.071133	193.1538	105.43	54.58336

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	47668.444	15889.481	1.43	0.2438

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	RESPONSE LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	55.8788356	1	.	0.6339	0.8766	0.1102
TRT1	58.5106758	2	0.6339	.	0.5722	0.0484
TRT2	54.8973922	3	0.8766	0.5722	.	0.1955
TRT3	45.6046214	4	0.1102	0.0484	0.1955	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 11115.45
Critical Value of Studentized Range= 3.745

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

Simultaneous Simultaneous

LEVEL Comparison		Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT1	- CONTROL	-96.07	2.63	101.33
TRT1	- TRT2	-103.00	3.61	110.22
TRT1	- TRT3	-85.79	12.91	111.61
CONTROL	- TRT1	-101.33	-2.63	96.07
CONTROL	- TRT2	-105.63	0.98	107.59
CONTROL	- TRT3	-88.43	10.27	108.97
TRT2	- TRT1	-110.22	-3.61	103.00
TRT2	- CONTROL	-107.59	-0.98	105.63
TRT2	- TRT3	-97.32	9.29	115.90
TRT3	- TRT1	-111.61	-12.91	85.79
TRT3	- CONTROL	-108.97	-10.27	88.43
TRT3	- TRT2	-115.90	-9.29	97.32

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 56 MSE= 11115.45
Critical Value of Dunnett's T= 2.113

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	-76.14	2.63	81.40
TRT2	- CONTROL	-86.06	-0.98	84.10
TRT3	- CONTROL	-89.04	-10.27	68.49

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
17. ANALYSIS OF EGGSHELL THICKNESS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 52 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
17. ANALYSIS OF EGGSHELL THICKNESS
****

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
17. ANALYSIS OF EGGSHELL THICKNESS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: THICK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.0005752	0.0001918	0.27	0.8464
Error	48	0.0340328	0.0007090		
Corrected Total	51	0.0346081			

R-Square	C.V.	Root MSE	THICK Mean
0.016623	6.900684	0.0266	.3858654

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.0005753	0.0001918	0.27	0.8464

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
17. ANALYSIS OF EGGSHELL THICKNESS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	THICK LSMEAN	Pr > |T| i/j	H0: LSMEAN(i)=LSMEAN(j) 1	2	3	4
CONTROL	0.38978571	1	.	0.8209	0.5619	0.4169
TRT1	0.38753333	2	0.8209	.	0.7094	0.5394
TRT2	0.38366667	3	0.5619	0.7094	.	0.8114
TRT3	0.38100000	4	0.4169	0.5394	0.8114	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
17. ANALYSIS OF EGGSHELL THICKNESS
****

15:53 Thursday, July 27, 1995

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= 48 MSE= 0.000709
Critical Value of Studentized Range= 3.764

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
CONTROL	- TRT1	-0.02408	0.00225	0.02859
CONTROL	- TRT2	-0.02176	0.00612	0.03400
CONTROL	- TRT3	-0.01977	0.00879	0.03734
TRT1	- CONTROL	-0.02859	-0.00225	0.02408
TRT1	- TRT2	-0.02358	0.00387	0.03131
TRT1	- TRT3	-0.02160	0.00653	0.03466
TRT2	- CONTROL	-0.03400	-0.00612	0.02176
TRT2	- TRT1	-0.03131	-0.00387	0.02358
TRT2	- TRT3	-0.02691	0.00267	0.03225
TRT3	- CONTROL	-0.03734	-0.00879	0.01977
TRT3	- TRT1	-0.03466	-0.00653	0.02160
TRT3	- TRT2	-0.03225	-0.00267	0.02691

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
17. ANALYSIS OF EGGSHELL THICKNESS
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 48 MSE= 0.000709
Critical Value of Dunnett's T= 2.122

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-0.02325	-0.00225	0.01874
TRT2	- CONTROL	-0.02834	-0.00612	0.01610
TRT3	- CONTROL	-0.03155	-0.00879	0.01398

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
18. ANALYSIS OF HATCHLING WEIGHT

****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
18. ANALYSIS OF HATCHLING WEIGHT
****

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
18. ANALYSIS OF HATCHLING WEIGHT
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	36.058240	12.019413	1.26	0.2973
Error	54	515.150208	9.539819		
Corrected Total	57	551.208448			

R-Square	C.V.	Root MSE	HATWT Mean
0.065417	8.346562	3.0887	37.00517

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	36.058240	12.019413	1.26	0.2973

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
18. ANALYSIS OF HATCHLING WEIGHT
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	HATWT LSMEAN	Pr > |T| i/j	1	2	3	4
CONTROL	36.4866667	1	.	0.1142	0.9150	0.8553
TRT1	38.2687500	2	0.1142	.	0.1111	0.1616
TRT2	36.3583333	3	0.9150	0.1111	.	0.7805
TRT3	36.6933333	4	0.8553	0.1616	0.7805	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
18. ANALYSIS OF HATCHLING WEIGHT
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 9.539819
Critical Value of Studentized Range= 3.749

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- TRT3	-1.367	1.575	4.518
TRT1	- CONTROL	-1.161	1.782	4.725
TRT1	- TRT2	-1.216	1.910	5.037
TRT3	- TRT1	-4.518	-1.575	1.367
TRT3	- CONTROL	-2.783	0.207	3.196
TRT3	- TRT2	-2.836	0.335	3.506
CONTROL	- TRT1	-4.725	-1.782	1.161
CONTROL	- TRT3	-3.196	-0.207	2.783
CONTROL	- TRT2	-3.043	0.128	3.299
TRT2	- TRT1	-5.037	-1.910	1.216
TRT2	- TRT3	-3.506	-0.335	2.836
TRT2	- CONTROL	-3.299	-0.128	3.043

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
18. ANALYSIS OF HATCHLING WEIGHT
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 54 MSE= 9.539819

Critical Value of Dunnett's T= 2.112

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-0.563	1.782	4.127
TRT3	- CONTROL	-2.176	0.207	2.589
TRT2	- CONTROL	-2.655	-0.128	2.398

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: SURVWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1487.9650	495.9883	1.08	0.3639
Error	54	24716.0759	457.7051		
Corrected Total	57	26204.0409			

R-Square	C.V.	Root MSE	SURVWT Mean
0.056784	6.856573	21.394	312.0224

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1487.9650	495.9883	1.08	0.3639

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	SURVWT LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	310.246667	1	.	0.3635	0.4725	0.4887
TRT1	317.293750	2	0.3635	.	0.8980	0.1100
TRT2	316.241667	3	0.4725	0.8980	.	0.1730
TRT3	304.800000	4	0.4887	0.1100	0.1730	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****

15:53 Thursday, July 27, 1995

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= 54 MSE= 457.7051
Critical Value of Studentized Range= 3.749

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- TRT2	-20.606	1.052	22.710
TRT1	- CONTROL	-13.335	7.047	27.430
TRT1	- TRT3	-7.889	12.494	32.876
TRT2	- TRT1	-22.710	-1.052	20.606
TRT2	- CONTROL	-15.970	5.995	27.960
TRT2	- TRT3	-10.523	11.442	33.407
CONTROL	- TRT1	-27.430	-7.047	13.335
CONTROL	- TRT2	-27.960	-5.995	15.970
CONTROL	- TRT3	-15.262	5.447	26.155
TRT3	- TRT1	-32.876	-12.494	7.889
TRT3	- TRT2	-33.407	-11.442	10.523

TRT3	- CONTROL	-26.155	-5.447	15.262

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dunnett'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= 54 MSE= 457.7051
Critical Value of Dunnett's T= 2.112

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1	- CONTROL	-9.194	7.047	23.289
TRT2	- CONTROL	-11.507	5.995	23.497
TRT3	- CONTROL	-21.948	-5.447	11.055

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
20. ANALYSIS OF FOOD CONSUMPTION
****

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
20. ANALYSIS OF FOOD CONSUMPTION
****

15:53 Thursday, July 27, 1995

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
20. ANALYSIS OF FOOD CONSUMPTION

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: FOOD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	120836615	40278872	3.04	0.0358
Error	60	794986400	13249773		
Corrected Total	63	915823014			

R-Square	C.V.	Root MSE	FOOD Mean
0.131943	7.818214	3640.0	46558.25

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	120836615	40278872	3.04	0.0358

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
20. ANALYSIS OF FOOD CONSUMPTION

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	FOOD LSMEAN	Pr > |T| H0: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	44878.1250	1	.	0.3356	0.2021	0.0044
TRT1	46127.2500	2	0.3356	.	0.7508	0.0510
TRT2	46537.8750	3	0.2021	0.7508	.	0.0997
TRT3	48689.7500	4	0.0044	0.0510	0.0997	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
20. ANALYSIS OF FOOD CONSUMPTION

15:53 Thursday, July 27, 1995

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= 60 MSE= 13249773
Critical Value of Studentized Range= 3.737
Minimum Significant Difference= 3400.8

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

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

TRT3	- TRT2	-1249	2152	5553
TRT3	- TRT1	-838	2563	5963
TRT3	- CONTROL	411	3812	7212 ***
TRT2	- TRT3	-5553	-2152	1249
TRT2	- TRT1	-2990	411	3811
TRT2	- CONTROL	-1741	1660	5061
TRT1	- TRT3	-5963	-2563	838
TRT1	- TRT2	-3811	-411	2990
TRT1	- CONTROL	-2152	1249	4650
CONTROL	- TRT3	-7212	-3812	-411 ***
CONTROL	- TRT2	-5061	-1660	1741
CONTROL	- TRT1	-4650	-1249	2152

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
20. ANALYSIS OF FOOD CONSUMPTION

15:53 Thursday, July 27, 1995

General Linear Models Procedure

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

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

Alpha= 0.05 Confidence= 0.95 df= 60 MSE= 13249773
Critical Value of Dunnett's T= 2.104
Minimum Significant Difference= 2707.6

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	1104	3812	6519
TRT2 - CONTROL	-1048	1660	4367
TRT1 - CONTROL	-1458	1249	3957

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

15:53 Thursday, July 27, 1995

General Linear Models Procedure
Class Level Information

Class	Levels	Values
LEVEL	4	CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT

15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: POSTM

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	423655.51	105913.88	5.04	0.0015
Error	59	1240423.60	21024.13		
Corrected Total	63	1664079.11			

R-Square	C.V.	Root MSE	POSTM Mean
0.254589	12.40533	145.00	1168.828

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	290931.80	96977.27	4.61	0.0058
PREW	1	132723.72	132723.72	6.31	0.0147

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	318651.13	106217.04	5.05	0.0035
PREW	1	132723.72	132723.72	6.31	0.0147

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****

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General Linear Models Procedure
Least Squares Means

LEVEL	POSTM LSMEAN	Std Err LSMEAN	Pr > |T| H0:LSMEAN=0	LSMEAN Number
CONTROL	1255.48750	36.29322	0.0001	1
TRT1	1208.46939	36.25158	0.0001	2
TRT2	1144.18057	36.25012	0.0001	3
TRT3	1067.17504	36.30140	0.0001	4

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

i/j	1	2	3	4
1	.	0.3630	0.0341	0.0005
2	0.3630	.	0.2148	0.0078
3	0.0341	0.2148	.	0.1386
4	0.0005	0.0078	0.1386	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****

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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= 59 MSE= 21024.13
Critical Value of Studentized Range= 3.739
Minimum Significant Difference= 135.53

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	-91.97	43.56	179.09	
CONTROL - TRT2	-29.34	106.19	241.72	
CONTROL - TRT3	43.41	178.94	314.47	***
TRT1 - CONTROL	-179.09	-43.56	91.97	
TRT1 - TRT2	-72.91	62.63	198.16	
TRT1 - TRT3	-0.16	135.37	270.91	
TRT2 - CONTROL	-241.72	-106.19	29.34	
TRT2 - TRT1	-198.16	-62.63	72.91	
TRT2 - TRT3	-62.78	72.75	208.28	
TRT3 - CONTROL	-314.47	-178.94	-43.41	***
TRT3 - TRT1	-270.91	-135.37	0.16	
TRT3 - TRT2	-208.28	-72.75	62.78	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****

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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= 59 MSE= 21024.13
Critical Value of Dunnett's T= 2.105
Minimum Significant Difference= 107.89

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	-151.46	-43.56	64.33	
TRT2 - CONTROL	-214.08	-106.19	1.71	
TRT3 - CONTROL	-286.83	-178.94	-71.04	***

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
22. COVARIATE ANALYSIS OF ?%MALE BODY WEIGHT
****

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General Linear Models Procedure
Class Level Information

Class	Levels	Values

LEVEL 4 CONTROL TRT1 TRT2 TRT3

Number of observations in data set = 64

NOTE: Due to missing values, only 61 observations can be used in this analysis.

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dependent Variable: POSTF

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	682260.74	170565.18	9.26	0.0001
Error	56	1032044.90	18429.37		
Corrected Total	60	1714305.64			

R-Square	C.V.	Root MSE	POSTF Mean
0.397981	12.75655	135.75	1064.197

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	394378.08	131459.36	7.13	0.0004
PREP	1	287882.66	287882.66	15.62	0.0002

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	342286.97	114095.66	6.19	0.0010
PREP	1	287882.66	287882.66	15.62	0.0002

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
15:53 Thursday, July 27, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr > |T| H0:LSMEAN=0	LSMEAN Number
CONTROL	1158.94749	33.94835	0.0001	1
TRT1	1107.24215	34.20647	0.0001	2
TRT2	998.17319	36.65197	0.0001	3
TRT3	978.83607	35.07076	0.0001	4

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

i/j	1	2	3	4
1	.	0.2886	0.0021	0.0005
2	0.2886	.	0.0353	0.0111
3	0.0021	0.0353	.	0.7052
4	0.0005	0.0111	0.7052	.

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

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
15:53 Thursday, July 27, 1995

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= 56 MSE= 18429.37
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit	
CONTROL	- TRT1	-95.46	31.62	158.71	
CONTROL	- TRT3	43.16	172.35	301.54	***
CONTROL	- TRT2	46.56	178.11	309.66	***
TRT1	- CONTROL	-158.71	-31.62	95.46	
TRT1	- TRT3	11.53	140.73	269.92	***
TRT1	- TRT2	14.93	146.48	278.03	***
TRT3	- CONTROL	-301.54	-172.35	-43.16	***
TRT3	- TRT1	-269.92	-140.73	-11.53	***
TRT3	- TRT2	-127.82	5.76	139.34	
TRT2	- CONTROL	-309.66	-178.11	-46.56	***
TRT2	- TRT1	-278.03	-146.48	-14.93	***
TRT2	- TRT3	-139.34	-5.76	127.82	

EFFECTS OF PIRATE ON THE REPRODUCTION OF MALLARDS
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
15:53 Thursday, July 27, 1995

General Linear Models Procedure

Dunnett'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= 56 MSE= 18429.37
Critical Value of Dunnett's T= 2.111

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

LEVEL Comparison		Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit	
TRT1	- CONTROL	-132.95	-31.62	69.70	
TRT3	- CONTROL	-275.35	-172.35	-69.35	***

TRT2	- CONTROL	-282.98	-178.11	-73.23	***