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DATA EVALUATION RECORD
AVIAN REPRODUCTION TEST
GUIDELINE 71-4b

1. **CHEMICAL:** Sulfentrazone (129081)

2. **TEST MATERIAL:** Sulfentrazone technical; 94.2%

3. **CITATION:**

Authors:	Pedersen, C.A. and D.R. DuCharme
Date:	1994
Title:	Toxicity and reproduction study with F6285 technical in mallard ducks
Laboratory:	Bio-Life Associates, Ltd., Neillsville, WI
Lab. Report No:	BLAL No. 112-006-08
Sponsor:	FMC Corporation, Princeton, NJ
MRID No.:	433559-02

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

Test Organisms Age:	18 weeks
Definitive Study Duration:	21 weeks
Endpoints affected:	none
NOEC:	100 ppm
LOEC:	>100 ppm

5. **REVIEWED BY:**

William Erickson
Biologist
EEB/EFED/EPA

Signature: W. Erickson
Date: 10/23/95

6. **APPROVED BY:**

Harry Craven
Section Head 4
EEB/EFED/EPA

Signature: Harry Craven
Date: 10/25/95

7. **CONCLUSIONS:** This study is scientifically sound but does not fulfill the guideline requirement for an avian reproduction study with the mallard.

6. **ADEQUACY OF THE STUDY:** Supplemental.

7. **GUIDELINE DEVIATIONS:** Test concentrations were too low to support the proposed use on turf and lawn. The study supports the proposed use on soybeans. The study must be repeated at higher test concentrations unless the proposed use on turf and lawn is limited to no more than two annual applications.

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8. **BACKGROUND:** New chemical. Proposed uses are on soybeans and turf and lawn.

9. **MATERIALS AND METHODS:**

Test Organism:

Guideline Criteria	Reported Information
Species:	*Anas platyrhynchos*
Supplier:	Whistling Wings, Inc., Hanover, IL
Same source and hatch?	yes
Pen-reared?	yes
Age:	18 weeks
Indistinguishable from wild birds?	yes
Health:	based on general physical condition, all birds used for testing were healthy
Acclimation:	37 days

Test System:

Guideline Criteria	Reported Information
Adult housing and environmental conditions:	
Pens:	indoor, steel-wire pens (61 x 61 x 48.3 cm) maintained over galvanized dropping pans
Temperature: (21°C recommended)	18°C avg.
Relative humidity: (55% recommended)	58% avg.
Photoperiod: (7 h for first 8 wks, 16-17 h thereafter)	7-h light/day for first 8 weeks; 17-h thereafter
Chicks:	

Brooding pens:	battery brooders (36 x 28 x 11 in.) with up to 20 ducklings per brooder
Temperature:	18-24°C room temp. for most hatches, but as low as 14°C for hatch F
Photoperiod:	24 h

Test Design:

Guideline Criteria	Reported Information
Dose levels:	0, 1, 10, 100 ppm ai
No. pens per level:	16
Male:Female ratio per pen:	1:1
Solvent:	none
Vehicle:	none reported
Diet:	Purina Custom Game Bird Layena 28%
Diet preparation:	prepared fresh weekly, 24 h prior to administration
Verification of test substance concentrations:	200-g samples collected from control and each test level during weeks 1, 2, 3, 4, 8, 12, 16, and 20
Food and water provided ad lib.?	yes
Food consumption/pen recorded weekly?	measured weekly but calculated on a biweekly basis
Adults weighed on weeks 0,2, 4,6,8, and at termination?	yes
Hatchlings and 14-day old chicks weighed?	yes
Egg-laying phase:	10+ weeks
Eggs collected daily?	yes
Eggs stored at 16°C and 65% relative humidity?	15-18°C 58% rh

Hatchability recorded? (bobwhite, day 24; mallard, day 27)	day 27
Adults observed daily for abnormal behavior and signs of toxicity?	yes

10. **QUALITY ASSURANCE MEASURES:** Yes.

11. **AUTHORS' STATISTICAL METHODS:** Dunnett's test (one-tailed) was used to detect statistically significant differences between the control group and each of the treatment groups. Percentage data were arcsine transformed.

12. **REPORTED RESULTS:**

Dietary Analysis: The percents of nominal recovered from the dose verification samples collected during test weeks 1, 2, 3, 4, 8, 12, 16, and 20 averaged 93.2%, 98.3%, and 103% for the 1, 10, and 100 ppm test diets, respectively. The percents of nominal recovered from stability samples held for 7 days in environmental conditions simulating those of the study were 102%, 90.5%, and 95.3% for the 1, 10, and 100 ppm test diets, respectively.

Mortality: In test week 6, one bird dosed at 100 ppm died, and in test week 14 one bird dosed at 1 ppm died; their pen mates were sacrificed per protocol requirement. No mortality occurred in control birds or those dosed at 10 ppm.

Clinical Observations: No overt signs of toxicity were observed.

Gross Necropsy: Examinations were made on the two birds that died during the test, their pen mates, and 64 birds sacrificed at the end of the test period. The 1 ppm bird found dead during test week 14 had an odiferous, green, slimy, fluid-filled body cavity; a hollow, red-colored mass (1.5 x 3 cm) on the ovary; and a gizzard which was void of feed. The 100 ppm bird found dead during test week 6 had outstretched legs and enlarged veins in its upper intestines.

Nine of 64 birds sacrificed at the end of the study revealed gross abnormalities. These included a pale liver, 2 small livers, scabs, missing tracts of feathers, and a cloaca filled with a thick, yellow-colored substance. Because these abnormalities were not dose related, they ". . . were attributed to factors other than the test material."

Adult Body Weights: No statistical differences were noted between the control group and any of the test groups.

Adult Feed Consumption: No statistical differences were noted between the control group and any of the test groups.

Reproduction Results: The authors report that the test material did not adversely affect any parameters of reproduction: "Egg fertility (% viable embryos of eggs set) ranged from 86% to 93% in the test groups, compared to 91% in the control group. Live 21-day embryos (%) of viable embryos ranged from 97% to 98% in the test groups, compared to 95% in the control group. Overall hatchability (%) based on live 21-day embryos ranged from 75% to 86% in the test groups, compared to 84% in the control group."

Egg Shell Thickness: No statistically significant differences in average eggshell thickness values per pen were reported. Mean thickness values were 0.393, 0.407, 0.405, and 0.399 mm for the control, 1, 10, and 100 ppm test groups, respectively.

Offspring: Overall survivability was 93% for the control group and 99-100% in the treatment groups. No significant differences in offspring body weights occurred at day 1 or day 14.

13. REVIEWER'S ANALYSIS:

EFFECTS OF SULFENTRAZONE ON REPRODUCTION OF THE MALLARD:

	LEVEL			
	CONTROL	1 ppm	10 ppm	100 ppm
	MEAN	MEAN	MEAN	MEAN
EL	51.06	58.73	53.94	50.53
EC	0.75	0.73	0.25	0.87
ES	46.44	52.53	50.25	44.40
VE	41.31	48.73	44.19	41.20
LE	40.31	47.60	43.31	40.13
NH	35.75	40.93	36.88	32.53
HS	35.50	40.67	36.63	32.20

ES/EL (%)	87.22	90.00	93.15	86.77
(EL-EC)/ EL (%)	97.68	98.81	99.59	98.19
VE/ES (%)	91.13	92.71	86.44	89.91
LE/VE (%)	94.96	97.66	97.94	97.08
NH/EL (%)	63.34	70.72	65.22	62.31
NH/ES (%)	71.36	77.85	70.11	67.43
NH/LE (%)	84.06	85.97	83.35	74.55
HS/ES (%)	67.90	77.39	69.67	66.82
HS/NH (%)	92.74	99.43	99.42	99.19
THICK	0.39	0.41	0.40	0.40
HATWT	38.57	38.13	37.99	37.07
SURVWT	336.14	328.49	327.41	328.40
FOOD	37902.50	37251.07	36125.56	36657.57
POSTM	1256.13	1288.73	1259.75	1222.20
POSTF	1257.19	1259.73	1316.69	1218.20

Statistical Method: ANOVA (SAS) - results attached

Endpoints affected: none

14. **REVIEWER'S CONCLUSIONS:** Sulfentrazone technical had no significant adverse effects on reproduction of the mallard at test concentrations of 1, 10, and 100 ppm. The study is scientifically sound but does not fulfill the guideline requirement. The study supports the proposed use on soybean (1 application at 0.375 lb ai/acre) but not on turf/lawn, where an unlimited number of applications can be made at up to 0.25 lb ai/acre per application. The study should be repeated at higher test concentrations, or the number of annual applications on turf/lawn should be limited to two.

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD

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OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
1	CONTROL	69	0	64	63	60	54	54	0.404	44.0
2	CONTROL	58	3	51	50	49	42	42	0.365	36.9
3	CONTROL	52	1	47	32	32	30	29	0.407	43.3
4	CONTROL	68	0	62	44	43	32	31	0.391	39.6
5	CONTROL	58	0	53	50	50	48	48	0.398	38.8
6	CONTROL	28	0	26	26	25	19	19	0.425	34.3
7	CONTROL	48	1	44	43	43	41	41	0.358	36.1
8	CONTROL	48	3	41	41	39	32	32	0.391	36.5
9	CONTROL	6	1	2	2	1	1	0	.	.
10	CONTROL	73	1	67	64	64	63	63	0.359	31.8
11	CONTROL	6	0	5	5	5	0	0	0.380	.
12	CONTROL	54	1	50	47	46	43	43	0.416	40.1
13	CONTROL	67	0	63	60	56	42	41	0.405	41.7
14	CONTROL	57	1	52	50	50	50	50	0.402	36.9
15	CONTROL	70	0	65	36	36	36	36	0.391	39.3
16	CONTROL	55	0	51	48	46	39	39	0.399	40.7
17	TRT1	57	0	54	49	45	40	39	0.397	36.8
18	TRT1	56	1	49	48	48	40	40	0.422	36.7
19	TRT1	69	0	65	63	62	60	59	0.428	43.6
20	TRT1	51	0	48	47	47	33	33	0.419	41.6
21	TRT1	63	3	55	48	48	33	33	0.431	40.4
22	TRT1	53	0	50	47	47	43	43	0.401	35.7
23	TRT1	.	.	.	.	.	.	.	.	.
24	TRT1	60	3	53	53	52	40	39	0.391	40.0
25	TRT1	15	0	14	14	14	13	13	.	32.3
26	TRT1	66	1	61	57	54	49	49	0.398	31.2
27	TRT1	63	0	60	57	57	51	51	0.426	36.3
28	TRT1	61	1	56	54	50	35	35	0.393	39.6
29	TRT1	57	1	54	48	48	45	45	0.388	34.3
30	TRT1	71	1	39	27	25	22	22	0.390	40.5

OBS	SURVWT	FOOD	PREM	POSTM	PREF	POSTF
1	325.7	39294	1220	1344	1077	1440
2	283.9	41989	1174	1097	869	926
3	353.8	41859	1257	1292	1060	1456
4	348.8	41313	1379	1339	1060	1247
5	349.6	40560	1287	1333	1147	1291
6	331.1	41158	1258	1206	1024	1108
7	336.7	34014	1181	1226	1146	1337
8	355.2	35484	1217	1156	1111	1467
9	.	34808	1351	1325	901	1293
10	330.4	41404	1364	1386	862	1010
11	.	33514	1261	1345	1079	1094
12	344.8	32458	1273	1289	1101	1348
13	309.1	38781	1230	1216	1107	1325
14	331.6	41236	1212	1168	1075	1227
15	367.2	36222	1087	1072	1089	1370
16	338.1	32346	1296	1304	1087	1176
17	341.5	40817	1153	1228	1145	1279
18	334.3	31221	1243	1194	1059	985
19	377.1	36750	1226	1358	1127	1398
20	350.9	36466	1050	1129	1078	1285
21	313.2	33547	1062	1108	1117	1297
22	323.6	36608	1473	1601	1100	1437
23	.	.	1174	.	1111	.
24	322.0	34740	1330	1381	1025	1367
25	309.5	42000	1301	1222	997	938
26	334.6	41188	1300	1294	1048	1270
27	330.3	36263	1246	1270	1071	1174
28	304.5	37540	1164	1366	1161	1438
29	307.7	39314	1322	1303	1052	1145
30	299.7	38481	1233	1324	919	1527

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD

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OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
31	TRT1	68	0	63	55	54	52	51	0.403	41.7
32	TRT1	71	0	67	64	63	58	58	0.400	41.3
33	TRT2	51	0	48	47	45	39	39	0.402	36.7
34	TRT2	12	0	11	10	10	5	5	.	32.6
35	TRT2	61	0	56	56	54	51	51	0.397	37.2
36	TRT2	59	1	54	51	50	38	38	0.372	38.3
37	TRT2	55	0	51	51	51	48	48	0.413	40.5
38	TRT2	41	0	38	1	1	1	1	0.397	36.1
39	TRT2	61	1	56	39	38	29	29	0.428	41.1
40	TRT2	37	0	36	29	26	16	16	.	34.3
41	TRT2	56	0	52	48	47	39	39	0.414	39.7
42	TRT2	48	0	45	43	42	32	31	0.383	34.4
43	TRT2	64	1	58	56	56	56	56	0.391	40.3
44	TRT2	50	0	46	46	46	41	41	0.407	38.9
45	TRT2	58	1	54	48	46	43	43	0.424	39.7
46	TRT2	71	0	68	62	61	42	42	0.417	36.4
47	TRT2	65	0	62	52	52	49	46	0.410	42.0
48	TRT2	74	0	69	68	68	61	61	0.402	39.7
49	TRT3	42	1	39	36	36	28	27	0.427	40.0
50	TRT3	28	0	26	21	21	19	19	0.400	36.6
51	TRT3	63	0	58	58	57	49	49	0.405	37.7
52	TRT3	60	2	54	51	51	48	47	0.368	38.9
53	TRT3	54	1	49	49	48	43	43	0.391	39.0
54	TRT3	.	.	.	.	.	.	.	.	.
55	TRT3	38	1	2	1	1	0	0	.	.
56	TRT3	69	0	64	62	59	57	56	0.411	36.6
57	TRT3	40	0	37	37	37	33	33	0.392	40.2
58	TRT3	29	2	27	25	25	22	22	.	31.0
59	TRT3	55	2	49	48	47	29	29	0.427	36.3
60	TRT3	57	2	51	30	26	19	19	0.414	37.8

OBS	SURVWT	FOOD	PREM	POSTM	PREF	POSTF
31	338.5	36874	1381	1323	925	1133
32	339.9	36957	1298	1230	991	1223
33	316.8	31191	1106	1033	1087	1268
34	263.5	41825	1208	1016	1069	1029
35	344.4	40141	1237	1405	1099	1697
36	329.8	36074	1364	1499	1036	1314
37	364.9	36262	1443	1323	1105	1366
38	329.1	33827	1181	1133	1057	1341
39	344.8	39758	1348	1298	1165	1203
40	281.3	30094	1099	1209	1104	1363
41	337.7	35737	1192	1254	1095	1402
42	336.6	39002	1367	1268	1071	1148
43	349.6	37472	1342	1342	1159	1393
44	324.6	35590	1276	1338	985	1260
45	315.9	34252	1227	1216	1074	1294
46	316.1	33573	1293	1333	1169	1299
47	346.2	35603	1220	1272	1070	1273
48	337.3	37608	1324	1217	940	1417
49	375.1	34071	1265	1265	1139	1028
50	315.2	36001	1232	1245	1058	1142
51	307.7	37578	1090	1093	1001	1282
52	314.5	34059	1076	1174	1002	1318
53	323.7	36149	1194	1324	1105	1155
54	.	.	1461	.	1077	.
55	.	.	1305	1348	1215	1382
56	315.2	36015	1167	1161	1079	1327
57	324.9	35888	1216	1138	1171	1427
58	308.7	34347	1174	1052	1220	976
59	319.8	36141	1354	1398	941	1241
60	346.6	38785	1202	1220	1018	1285

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD

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OBS	LEVEL	EL	EC	ES	VE	LE	NH	HS	THICK	HATWT
61	TRT3	62	1	58	57	57	43	42	0.401	37.6
62	TRT3	68	0	64	62	59	30	30	0.394	37.1
63	TRT3	73	1	68	61	61	60	59	0.396	36.6
64	TRT3	20	0	20	20	17	8	8	.	33.6

OBS	SURVWT	FOOD	PREM	POSTM	PREF	POSTF
61	332.2	39443	1543	1603	959	1138
62	301.8	35158	1072	1067	1014	1339
63	357.8	40116	1355	1281	955	1251
64	354.4	39455	1208	964	1080	982

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
09:30 Wednesday, August 16, 1995

	LEVEL			
	CONTROL	TRT1	TRT2	TRT3
	MEAN	MEAN	MEAN	MEAN
EL	51.06	58.73	53.94	50.53
EC	0.75	0.73	0.25	0.87
ES	46.44	52.53	50.25	44.40
VE	41.31	48.73	44.19	41.20
LE	40.31	47.60	43.31	40.13
NH	35.75	40.93	36.88	32.53
HS	35.50	40.67	36.63	32.20
ES/EL (%)	87.22	90.00	93.15	86.77
(EL-EC)/EL (%)	97.68	98.81	99.59	98.19
VE/ES (%)	91.13	92.71	86.44	89.91
LE/VE (%)	94.96	97.66	97.94	97.08
NH/EL (%)	63.34	70.72	65.22	62.31
NH/ES (%)	71.36	77.85	70.11	67.43
NH/LE (%)	84.06	85.97	83.35	74.55
HS/ES (%)	67.90	77.39	69.67	66.82
HS/NH (%)	92.74	99.43	99.42	99.19
THICK	0.39	0.41	0.40	0.40
HATWT	38.57	38.13	37.99	37.07
SURVWT	336.14	328.49	327.41	328.40
FOOD	37902.50	37251.07	36125.56	36657.57
POSTM	1256.13	1288.73	1259.75	1222.20
POSTF	1257.19	1259.73	1316.69	1218.20

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD

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LEVEL=CONTROL

Variable	Label	N	Mean	Std Dev	CV
EL		16	51.063	20.770	40.676
EC		16	0.750	1.000	133.333
ES		16	46.438	19.775	42.585
VE		16	41.313	18.003	43.577
LE		16	40.313	17.613	43.692
NH		16	35.750	17.176	48.044
HS		16	35.500	17.328	48.812
THICK		15	0.393	0.020	5.047
HATWT		14	38.571	3.399	8.813
SURVWT		14	336.143	20.955	6.234
FOOD		16	37902.500	3659.435	9.655
PREM		16	1252.938	75.227	6.004
POSTM		16	1256.125	95.469	7.600
PREF		16	1049.688	91.090	8.678
POSTF		16	1257.188	158.874	12.637
ES_EL	ES/EL (%)	16	87.215	14.656	16.804
NH_EL	NH/EL (%)	16	63.342	24.866	39.257
ENC_EL	(EL-EC)/EL (%)	16	97.683	4.275	4.376
VE_ES	VE/ES (%)	16	91.126	13.573	14.895
NH_ES	NH/ES (%)	16	71.359	24.255	33.990
HS_ES	HS/ES (%)	16	67.901	29.877	44.000
LE_VE	LE/VE (%)	16	94.955	12.192	12.839
NH_LE	NH/LE (%)	16	84.061	24.180	28.765
HS_NH	HS/NH (%)	15	92.744	25.686	27.696

LEVEL=TRT1

Variable	Label	N	Mean	Std Dev	CV
EL		15	58.733	13.646	23.234
EC		15	0.733	1.033	140.836
ES		15	52.533	12.906	24.566
VE		15	48.733	12.942	26.557
LE		15	47.600	12.783	26.855
NH		15	40.933	12.725	31.087
HS		15	40.667	12.574	30.919
THICK		14	0.406	0.015	3.815
HATWT		15	38.133	3.693	9.684
SURVWT		15	328.487	20.417	6.216
FOOD		15	37251.067	2872.191	7.710
PREM		16	1247.250	110.939	8.895
POSTM		15	1288.733	119.085	9.240
PREF		16	1057.875	72.115	6.817
POSTF		15	1259.733	165.762	13.158
ES_EL	ES/EL (%)	15	90.001	10.065	11.183
NH_EL	NH/EL (%)	15	70.719	14.907	21.079
ENC_EL	(EL-EC)/EL (%)	15	98.809	1.683	1.703
VE_ES	VE/ES (%)	15	92.708	7.730	8.338
NH_ES	NH/ES (%)	15	77.851	11.392	14.633
HS_ES	HS/ES (%)	15	77.394	11.305	14.607
LE_VE	LE/VE (%)	15	97.660	3.091	3.165
NH_LE	NH/LE (%)	15	85.970	9.766	11.360
HS_NH	HS/NH (%)	15	99.427	1.002	1.008

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
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LEVEL=TRT2

Variable	Label	N	Mean	Std Dev	CV
EL		16	53.938	14.915	27.653
EC		16	0.250	0.447	178.885
ES		16	50.250	13.921	27.704
VE		16	44.188	17.608	39.848
LE		16	43.313	17.583	40.596
NH		16	36.875	16.998	46.095
HS		16	36.625	16.891	46.120
THICK		14	0.404	0.015	3.828
HATWT		16	37.994	2.721	7.161
SURVWT		16	327.413	25.469	7.779
FOOD		16	36125.563	3171.302	8.779
PREM		16	1264.188	97.230	7.691
POSTM		16	1259.750	125.305	9.947
PREF		16	1080.313	60.360	5.587
POSTF		16	1316.688	142.698	10.838
ES_EL	ES/EL (%)	16	93.148	1.771	1.901
NH_EL	NH/EL (%)	16	65.223	22.448	34.418
EN_EL	(EL-EC)/EL (%)	16	99.586	0.741	0.744
VE_ES	VE/ES (%)	16	86.438	23.818	27.555
NH_ES	NH/ES (%)	16	70.109	24.435	34.853
HS_ES	HS/ES (%)	16	69.668	24.345	34.945
LE_VE	LE/VE (%)	16	97.945	2.713	2.770
NH_LE	NH/LE (%)	16	83.353	14.265	17.114
HS_NH	HS/NH (%)	16	99.422	1.671	1.681

---------- LEVEL=TRT3 ----------

Variable	Label	N	Mean	Std Dev	CV
EL		15	50.533	16.574	32.798
EC		15	0.867	0.834	96.209
ES		15	44.400	18.882	42.528
VE		15	41.200	18.705	45.401
LE		15	40.133	18.578	46.289
NH		15	32.533	17.443	53.617
HS		15	32.200	17.147	53.252
THICK		12	0.402	0.016	4.083
HATWT		14	37.071	2.431	6.557
SURVWT		14	328.400	21.911	6.672
FOOD		14	36657.571	2073.833	5.657
PREM		16	1244.625	132.642	10.657
POSTM		15	1222.200	159.797	13.075
PREF		16	1064.625	88.331	8.297
POSTF		15	1218.200	142.379	11.688
ES_EL	ES/EL (%)	15	86.768	22.692	26.152
NH_EL	NH/EL (%)	15	62.308	23.894	38.348
EN_EL	(EL-EC)/EL (%)	15	98.185	1.988	2.024
VE_ES	VE/ES (%)	15	89.909	15.389	17.116
NH_ES	NH/ES (%)	15	67.428	26.094	38.699
HS_ES	HS/ES (%)	15	66.816	25.761	38.554
LE_VE	LE/VE (%)	15	97.076	4.876	5.023
NH_LE	NH/LE (%)	15	74.547	26.043	34.935
HS_NH	HS/NH (%)	14	99.186	1.211	1.221

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
1. ANALYSIS OF EGGS LAID
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
1. ANALYSIS OF EGGS LAID
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
1. ANALYSIS OF EGGS LAID
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	640.89382	213.63127	0.76	0.5200
Error	58	16260.54167	280.35417		
Corrected Total	61	16901.43548			

R-Square	C.V.	Root MSE	EL Mean
0.037919	31.27793	16.744	53.532

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	640.89382	213.63127	0.76	0.5200

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
1. ANALYSIS OF EGGS LAID
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	EL LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	51.0625000	1	.	0.2075	0.6290	0.9302
TRT1	58.7333333	2	0.2075	.	0.4287	0.1851
TRT2	53.9375000	3	0.6290	0.4287	.	0.5738
TRT3	50.5333333	4	0.9302	0.1851	0.5738	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
1. ANALYSIS OF EGGS LAID
****
09:30 Wednesday, August 16, 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= 280.3542
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	-11.122	4.796	20.713
TRT1 - CONTROL	-8.247	7.671	23.588
TRT1 - TRT3	-7.972	8.200	24.372
TRT2 - TRT1	-20.713	-4.796	11.122
TRT2 - CONTROL	-12.784	2.875	18.534
TRT2 - TRT3	-12.513	3.404	19.322
CONTROL - TRT1	-23.588	-7.671	8.247
CONTROL - TRT2	-18.534	-2.875	12.784
CONTROL - TRT3	-15.388	0.529	16.447
TRT3 - TRT1	-24.372	-8.200	7.972
TRT3 - TRT2	-19.322	-3.404	12.513
TRT3 - CONTROL	-16.447	-0.529	15.388

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
1. ANALYSIS OF EGGS LAID
****
09:30 Wednesday, August 16, 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= 280.3542
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	-5.014	7.671	20.356
TRT2 - CONTROL	-9.604	2.875	15.354
TRT3 - CONTROL	-13.214	-0.529	12.156

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
2. ANALYSIS OF EGGS CRACKED
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
2. ANALYSIS OF EGGS CRACKED
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
2. ANALYSIS OF EGGS CRACKED
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: EC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	3.5268817	1.1756272	1.60	0.1997
Error	58	42.6666667	0.7356322		
Corrected Total	61	46.1935484			

R-Square	C.V.	Root MSE	EC Mean
0.076350	132.9420	0.8577	0.6452

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	3.5268817	1.1756272	1.60	0.1997

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
2. ANALYSIS OF EGGS CRACKED
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	EC LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	0.75000000	1	.	0.9571	0.1046	0.7065
TRT1	0.73333333	2	0.9571	.	0.1223	0.6719
TRT2	0.25000000	3	0.1046	0.1223	.	0.0501
TRT3	0.86666667	4	0.7065	0.6719	0.0501	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
2. ANALYSIS OF EGGS CRACKED
****
09:30 Wednesday, August 16, 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= 0.735632
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
TRT3 - CONTROL	-0.6987	0.1167	0.9320
TRT3 - TRT1	-0.6951	0.1333	0.9617
TRT3 - TRT2	-0.1987	0.6167	1.4320
CONTROL - TRT3	-0.9320	-0.1167	0.6987
CONTROL - TRT1	-0.7987	0.0167	0.8320
CONTROL - TRT2	-0.3021	0.5000	1.3021
TRT1 - TRT3	-0.9617	-0.1333	0.6951
TRT1 - CONTROL	-0.8320	-0.0167	0.7987
TRT1 - TRT2	-0.3320	0.4833	1.2987
TRT2 - TRT3	-1.4320	-0.6167	0.1987
TRT2 - CONTROL	-1.3021	-0.5000	0.3021
TRT2 - TRT1	-1.2987	-0.4833	0.3320

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
2. ANALYSIS OF EGGS CRACKED
****
09:30 Wednesday, August 16, 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= 0.735632
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
TRT3 - CONTROL	-0.5331	0.1167	0.7665
TRT1 - CONTROL	-0.6665	-0.0167	0.6331
TRT2 - CONTROL	-1.1392	-0.5000	0.1392

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
3. ANALYSIS OF EGGS SET
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
3. ANALYSIS OF EGGS SET
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
3. ANALYSIS OF EGGS SET
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	612.64852	204.21617	0.74	0.5349
Error	58	16096.27083	277.52191		
Corrected Total	61	16708.91935			

R-Square	C.V.	Root MSE	ES Mean
0.036666	34.41710	16.659	48.403

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	612.64852	204.21617	0.74	0.5349

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
3. ANALYSIS OF EGGS SET
****
09:30 Wednesday, August 16, 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	46.4375000	1	.	0.3128	0.5200	0.7349
TRT1	52.5333333	2	0.3128	.	0.7043	0.1864
TRT2	50.2500000	3	0.5200	0.7043	.	0.3326
TRT3	44.4000000	4	0.7349	0.1864	0.3326	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
3. ANALYSIS OF EGGS SET
****
09:30 Wednesday, August 16, 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= 277.5219
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	-13.553	2.283	18.120
TRT1 - CONTROL	-9.741	6.096	21.933
TRT1 - TRT3	-7.957	8.133	24.224
TRT2 - TRT1	-18.120	-2.283	13.553
TRT2 - CONTROL	-11.767	3.813	19.392
TRT2 - TRT3	-9.987	5.850	21.687
CONTROL - TRT1	-21.933	-6.096	9.741
CONTROL - TRT2	-19.392	-3.813	11.767
CONTROL - TRT3	-13.799	2.038	17.874
TRT3 - TRT1	-24.224	-8.133	7.957
TRT3 - TRT2	-21.687	-5.850	9.987
TRT3 - CONTROL	-17.874	-2.038	13.799

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
3. ANALYSIS OF EGGS SET
****
09:30 Wednesday, August 16, 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= 277.5219
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	-6.525	6.096	18.717
TRT2 - CONTROL	-8.603	3.813	16.228
TRT3 - CONTROL	-14.658	-2.038	10.583

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
4. ANALYSIS OF VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
4. ANALYSIS OF VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
4. ANALYSIS OF VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: VE

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

Model	3	567.84005	189.28002	0.66	0.5829
Error	58	16755.20833	288.88290		
Corrected Total	61	17323.04839			

R-Square	C.V.	Root MSE	VE Mean
0.032779	38.78493	16.997	43.823

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	567.84005	189.28002	0.66	0.5829

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
4. ANALYSIS OF VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	VE LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	41.3125000	1	.	0.2294	0.6341	0.9854
TRT1	48.7333333	2	0.2294	.	0.4598	0.2297
TRT2	44.1875000	3	0.6341	0.4598	.	0.6266
TRT3	41.2000000	4	0.9854	0.2297	0.6266	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
4. ANALYSIS OF VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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= 288.8829
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	-11.612	4.546	20.704
TRT1 - CONTROL	-8.737	7.421	23.579
TRT1 - TRT3	-8.883	7.533	23.950
TRT2 - TRT1	-20.704	-4.546	11.612
TRT2 - CONTROL	-13.020	2.875	18.770
TRT2 - TRT3	-13.170	2.987	19.145
CONTROL - TRT1	-23.579	-7.421	8.737
CONTROL - TRT2	-18.770	-2.875	13.020
CONTROL - TRT3	-16.045	0.112	16.270

TRT3	- TRT1	-23.950	-7.533	8.883
TRT3	- TRT2	-19.145	-2.987	13.170
TRT3	- CONTROL	-16.270	-0.112	16.045

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
4. ANALYSIS OF VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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= 288.8829
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	-5.456	7.421	20.298
TRT2 - CONTROL	-9.792	2.875	15.542
TRT3 - CONTROL	-12.989	-0.112	12.764

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	555.46909	185.15636	0.65	0.5834
Error	58	16410.20833	282.93463		
Corrected Total	61	16965.67742			

R-Square	C.V.	Root MSE	LE Mean
0.032741	39.29469	16.821	42.806

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	555.46909	185.15636	0.65	0.5834

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
09:30 Wednesday, August 16, 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	40.3125000	1	.	0.2329	0.6159	0.9765
TRT1	47.6000000	2	0.2329	.	0.4810	0.2290
TRT2	43.3125000	3	0.6159	0.4810	.	0.6010
TRT3	40.1333333	4	0.9765	0.2290	0.6010	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
09:30 Wednesday, August 16, 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= 282.9346
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	-11.703	4.288	20.278
TRT1 - CONTROL	-8.703	7.288	23.278
TRT1 - TRT3	-8.780	7.467	23.713
TRT2 - TRT1	-20.278	-4.288	11.703
TRT2 - CONTROL	-12.730	3.000	18.730
TRT2 - TRT3	-12.811	3.179	19.170
CONTROL - TRT1	-23.278	-7.288	8.703
CONTROL - TRT2	-18.730	-3.000	12.730
CONTROL - TRT3	-15.811	0.179	16.170
TRT3 - TRT1	-23.713	-7.467	8.780
TRT3 - TRT2	-19.170	-3.179	12.811
TRT3 - CONTROL	-16.170	-0.179	15.811

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
5. ANALYSIS OF LIVE 3-WEEK EMBRYOS
****
09:30 Wednesday, August 16, 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= 282.9346
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	-5.456	7.288	20.031
TRT2 - CONTROL	-9.536	3.000	15.536
TRT3 - CONTROL	-12.923	-0.179	12.564

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
6. ANALYSIS OF NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
6. ANALYSIS OF NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
6. ANALYSIS OF NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	542.06720	180.68907	0.69	0.5645
Error	58	15285.41667	263.54167		
Corrected Total	61	15827.48387			

R-Square	C.V.	Root MSE	NH Mean
0.034248	44.45698	16.234	36.516

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	542.06720	180.68907	0.69	0.5645

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
6. ANALYSIS OF NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	NH LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	35.7500000	1	.	0.3780	0.8453	0.5835
TRT1	40.9333333	2	0.3780	.	0.4895	0.1618
TRT2	36.8750000	3	0.8453	0.4895	.	0.4598
TRT3	32.5333333	4	0.5835	0.1618	0.4598	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
6. ANALYSIS OF NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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= 263.5417
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	-11.374	4.058	19.491
TRT1	- CONTROL	-10.249	5.183	20.616
TRT1	- TRT3	-7.280	8.400	24.080
TRT2	- TRT1	-19.491	-4.058	11.374
TRT2	- CONTROL	-14.057	1.125	16.307
TRT2	- TRT3	-11.091	4.342	19.774
CONTROL	- TRT1	-20.616	-5.183	10.249
CONTROL	- TRT2	-16.307	-1.125	14.057
CONTROL	- TRT3	-12.216	3.217	18.649
TRT3	- TRT1	-24.080	-8.400	7.280
TRT3	- TRT2	-19.774	-4.342	11.091
TRT3	- CONTROL	-18.649	-3.217	12.216

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
6. ANALYSIS OF NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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= 263.5417
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	-7.116	5.183	17.482
TRT2	- CONTROL	-10.974	1.125	13.224
TRT3	- CONTROL	-15.516	-3.217	9.082

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: HS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	549.88763	183.29588	0.70	0.5538
Error	58	15113.48333	260.57730		
Corrected Total	61	15663.37097			

R-Square	C.V.	Root MSE	HS Mean
0.035107	44.54069	16.142	36.242

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	549.88763	183.29588	0.70	0.5538

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
09:30 Wednesday, August 16, 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	35.5000000	1	.	0.3768	0.8444	0.5717
TRT1	40.6666667	2	0.3768	.	0.4888	0.1563
TRT2	36.6250000	3	0.8444	0.4888	.	0.4487
TRT3	32.2000000	4	0.5717	0.1563	0.4487	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
09:30 Wednesday, August 16, 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= 260.5773
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	-11.304	4.042	19.387
TRT1 - CONTROL	-10.179	5.167	20.512
TRT1 - TRT3	-7.125	8.467	24.058
TRT2 - TRT1	-19.387	-4.042	11.304
TRT2 - CONTROL	-13.971	1.125	16.221
TRT2 - TRT3	-10.921	4.425	19.771
CONTROL - TRT1	-20.512	-5.167	10.179
CONTROL - TRT2	-16.221	-1.125	13.971
CONTROL - TRT3	-12.046	3.300	18.646
TRT3 - TRT1	-24.058	-8.467	7.125
TRT3 - TRT2	-19.771	-4.425	10.921
TRT3 - CONTROL	-18.646	-3.300	12.046

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
7. ANALYSIS OF 14-DAY-OLD SURVIVORS
****
09:30 Wednesday, August 16, 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= 260.5773
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	-7.063	5.167	17.396
TRT2 - CONTROL	-10.906	1.125	13.156
TRT3 - CONTROL	-15.530	-3.300	8.930

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
8. ANALYSIS OF EGGS SET/EGGS LAID
****

09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
8. ANALYSIS OF EGGS SET/EGGS LAID
****

09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
8. ANALYSIS OF EGGS SET/EGGS LAID
****

09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	6738.6875	2246.2292	0.63	0.6014
Error	58	208291.5214	3591.2331		
Corrected Total	61	215030.2089			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.031338	82.37148	59.927	72.752

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	6738.6875	2246.2292	0.63	0.6014

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
8. ANALYSIS OF EGGS SET/EGGS LAID
****

09:30 Wednesday, August 16, 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	72.7180505	1	.	0.8405	0.4508	0.5768
TRT1	72.1295911	2	0.8405	.	0.3317	0.7105
TRT2	74.9390331	3	0.4508	0.3317	.	0.1943
TRT3	71.0219972	4	0.5768	0.7105	0.1943	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
8. ANALYSIS OF EGGS SET/EGGS LAID
****

09:30 Wednesday, August 16, 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= 58 MSE= 3591.233
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
TRT2 - CONTROL	-53.822	2.221	58.264
TRT2 - TRT1	-54.160	2.809	59.779
TRT2 - TRT3	-53.052	3.917	60.886
CONTROL - TRT2	-58.264	-2.221	53.822
CONTROL - TRT1	-56.381	0.588	57.558
CONTROL - TRT3	-55.273	1.696	58.665
TRT1 - TRT2	-59.779	-2.809	54.160
TRT1 - CONTROL	-57.558	-0.588	56.381
TRT1 - TRT3	-56.773	1.108	58.988
TRT3 - TRT2	-60.886	-3.917	53.052
TRT3 - CONTROL	-58.665	-1.696	55.273
TRT3 - TRT1	-58.988	-1.108	56.773

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
8. ANALYSIS OF EGGS SET/EGGS LAID
****

09:30 Wednesday, August 16, 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= 58 MSE= 3591.233
Critical Value of Dunnett's T= 2.108

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

Simultaneous Simultaneous

LEVEL Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
TRT2 - CONTROL	-42.442	2.221	46.884
TRT1 - CONTROL	-45.989	-0.588	44.812
TRT3 - CONTROL	-47.097	-1.696	43.705

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	9594.6176	3198.2059	0.40	0.7523
Error	58	461706.7554	7960.4613		
Corrected Total	61	471301.3730			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.020358	118.6979	89.221	75.167

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

LEVEL	3	9594.6176	3198.2059	0.40	0.7523

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
09:30 Wednesday, August 16, 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	73.8616552	1	.	0.6518	0.9060	0.3947
TRT1	75.9313675	2	0.6518	.	0.5621	0.6699
TRT2	73.3232429	3	0.9060	0.5621	.	0.3271
TRT3	77.9437418	4	0.3947	0.6699	0.3271	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
09:30 Wednesday, August 16, 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= 58 MSE= 7960.461
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
TRT3 - TRT1	-84.163	2.012	88.188
TRT3 - CONTROL	-80.736	4.082	88.900
TRT3 - TRT2	-80.198	4.620	89.439
TRT1 - TRT3	-88.188	-2.012	84.163
TRT1 - CONTROL	-82.748	2.070	86.888
TRT1 - TRT2	-82.210	2.608	87.426
CONTROL - TRT3	-88.900	-4.082	80.736
CONTROL - TRT1	-86.888	-2.070	82.748
CONTROL - TRT2	-82.900	0.538	83.977
TRT2 - TRT3	-89.439	-4.620	80.198
TRT2 - TRT1	-87.426	-2.608	82.210
TRT2 - CONTROL	-83.977	-0.538	82.900

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
9. ANALYSIS OF VIABLE EMBRYOS/EGGS SETS
****
09:30 Wednesday, August 16, 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= 58 MSE= 7960.461
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
TRT3	- CONTROL	-63.512	4.082	71.677
TRT1	- CONTROL	-65.525	2.070	69.664
TRT2	- CONTROL	-67.034	-0.538	65.957

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: VE

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

Model	3	95.022128	31.674043	0.02	0.9967
Error	58	103434.1780	1783.347896		
Corrected Total	61	103529.2001			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.000918	50.48008	42.230	83.656

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	95.022128	31.674043	0.02	0.9967

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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	83.3905582	1	.	0.9053	0.8186	0.9177
TRT1	83.6613959	2	0.9053	.	0.9090	0.9911
TRT2	83.9170283	3	0.8186	0.9090	.	0.9041
TRT3	83.6356752	4	0.9177	0.9911	0.9041	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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= 58 MSE= 1783.348
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
TRT2	- TRT1	-39.8899	0.2556	40.4011
TRT2	- TRT3	-39.8642	0.2814	40.4269
TRT2	- CONTROL	-38.9662	0.5265	40.0192
TRT1	- TRT2	-40.4011	-0.2556	39.8899
TRT1	- TRT3	-40.7622	0.0257	40.8136
TRT1	- CONTROL	-39.8747	0.2708	40.4163
TRT3	- TRT2	-40.4269	-0.2814	39.8642
TRT3	- TRT1	-40.8136	-0.0257	40.7622
TRT3	- CONTROL	-39.9004	0.2451	40.3906

CONTROL - TRT2	-40.0192	-0.5265	38.9662
CONTROL - TRT1	-40.4163	-0.2708	39.8747
CONTROL - TRT3	-40.3906	-0.2451	39.9004

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
10. ANALYSIS OF LIVE 3-WEEK EMBRYOS/VIABLE EMBRYOS
****
09:30 Wednesday, August 16, 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= 58 MSE= 1783.348
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
TRT2 - CONTROL	-30.9467	0.5265	31.9996
TRT1 - CONTROL	-31.7226	0.2708	32.2643
TRT3 - CONTROL	-31.7483	0.2451	32.2385

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: LE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	13819.469	4606.490	0.93	0.4312
Error	58	286721.148	4943.468		
Corrected Total	61	300540.617			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.045982	101.4307	70.310	69.318

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	13819.469	4606.490	0.93	0.4312

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****
09:30 Wednesday, August 16, 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	72.7401841	1	.	0.3459	0.3529	0.1013
TRT1	69.1102383	2	0.3459	.	0.9942	0.4431
TRT2	69.1377444	3	0.3529	0.9942	.	0.4421
TRT3	66.1056081	4	0.1013	0.4431	0.4421	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****
09:30 Wednesday, August 16, 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= 58 MSE= 4943.468
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	- TRT2	-62.150	3.602	69.355
CONTROL	- TRT1	-63.210	3.630	70.470
CONTROL	- TRT3	-60.205	6.635	73.474
TRT2	- CONTROL	-69.355	-3.602	62.150
TRT2	- TRT1	-66.812	0.028	66.867
TRT2	- TRT3	-63.808	3.032	69.872
TRT1	- CONTROL	-70.470	-3.630	63.210
TRT1	- TRT2	-66.867	-0.028	66.812
TRT1	- TRT3	-64.905	3.005	70.914
TRT3	- CONTROL	-73.474	-6.635	60.205
TRT3	- TRT2	-69.872	-3.032	63.808
TRT3	- TRT1	-70.914	-3.005	64.905

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
11. ANALYSIS OF NORMAL HATCHLINGS/3-WEEK LIVE EMBRYOS
****
09:30 Wednesday, August 16, 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= 58 MSE= 4943.468
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
TRT2 - CONTROL	-56.003	-3.602	48.798
TRT1 - CONTROL	-56.897	-3.630	49.637
TRT3 - CONTROL	-59.902	-6.635	46.632

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	8519.5813	2839.8604	0.33	0.8038
Error	58	499324.5365	8609.0437		
Corrected Total	61	507844.1177			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.016776	165.9103	92.785	55.925

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	8519.5813	2839.8604	0.33	0.8038

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
****
09:30 Wednesday, August 16, 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	57.2353481	1	.	0.9665	0.7881	0.3817
TRT1	57.0451253	2	0.9665	.	0.8170	0.3955
TRT2	56.0122414	3	0.7881	0.8170	.	0.5323
TRT3	53.1104036	4	0.3817	0.3955	0.5323	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
****
09:30 Wednesday, August 16, 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= 58 MSE= 8609.044
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	-88.015	0.190	88.396
CONTROL - TRT2	-85.548	1.223	87.994
CONTROL - TRT3	-84.081	4.125	92.331
TRT1 - CONTROL	-88.396	-0.190	88.015
TRT1 - TRT2	-87.173	1.033	89.239
TRT1 - TRT3	-85.682	3.935	93.552
TRT2 - CONTROL	-87.994	-1.223	85.548
TRT2 - TRT1	-89.239	-1.033	87.173
TRT2 - TRT3	-85.304	2.902	91.107
TRT3 - CONTROL	-92.331	-4.125	84.081
TRT3 - TRT1	-93.552	-3.935	85.682
TRT3 - TRT2	-91.107	-2.902	85.304

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
12. ANALYSIS OF NORMAL HATCHLINGS/EGGS LAID
****
09:30 Wednesday, August 16, 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= 58 MSE= 8609.044
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	-70.485	-0.190	70.104
TRT2 - CONTROL	-70.374	-1.223	67.928
TRT3 - CONTROL	-74.419	-4.125	66.169

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: NH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1647.9588	549.3196	0.68	0.5681
Error	56	45257.3955	808.1678		
Corrected Total	59	46905.3543			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.035134	32.50564	28.428	87.456

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	1647.9588	549.3196	0.68	0.5681

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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	88.0340999	1	.	0.6935	0.9105	0.2392
TRT1	87.3795695	2	0.6935	.	0.6091	0.4106
TRT2	88.2224705	3	0.9105	0.6091	.	0.1968
TRT3	85.9501378	4	0.2392	0.4106	0.1968	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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= 808.1678
Critical Value of Studentized Range= 3.745

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-26.866	0.188	27.243
TRT2 - TRT1	-26.211	0.843	27.897
TRT2 - TRT3	-25.276	2.272	29.821
CONTROL - TRT2	-27.243	-0.188	26.866
CONTROL - TRT1	-26.833	0.655	28.142
CONTROL - TRT3	-25.890	2.084	30.058
TRT1 - TRT2	-27.897	-0.843	26.211
TRT1 - CONTROL	-28.142	-0.655	26.833
TRT1 - TRT3	-26.544	1.429	29.403
TRT3 - TRT2	-29.821	-2.272	25.276
TRT3 - CONTROL	-30.058	-2.084	25.890
TRT3 - TRT1	-29.403	-1.429	26.544

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
13. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/NORMAL HATCHLINGS
****
09:30 Wednesday, August 16, 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= 808.1678
Critical Value of Dunnett's T= 2.107

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-21.340	0.188	21.716
TRT1 - CONTROL	-22.527	-0.655	21.218
TRT3 - CONTROL	-24.344	-2.084	20.176

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: EL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	5957.6241	1985.8747	1.65	0.1881
Error	58	69865.7598	1204.5821		
Corrected Total	61	75823.3839			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.078572	40.44291	34.707	85.817

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	5957.6241	1985.8747	1.65	0.1881

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
****
09:30 Wednesday, August 16, 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	85.3614196	1	.	0.8808	0.1404	0.5025
TRT1	85.6153270	2	0.8808	.	0.1758	0.4074
TRT2	87.8936381	3	0.1404	0.1758	.	0.0358
TRT3	84.1802686	4	0.5025	0.4074	0.0358	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
****
09:30 Wednesday, August 16, 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= 58 MSE= 1204.582
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
TRT2 - TRT1	-30.716	2.278	35.272
TRT2 - CONTROL	-29.925	2.532	34.990
TRT2 - TRT3	-29.281	3.713	36.708
TRT1 - TRT2	-35.272	-2.278	30.716
TRT1 - CONTROL	-32.740	0.254	33.248
TRT1 - TRT3	-32.087	1.435	34.957
CONTROL - TRT2	-34.990	-2.532	29.925
CONTROL - TRT1	-33.248	-0.254	32.740
CONTROL - TRT3	-31.813	1.181	34.175
TRT3 - TRT2	-36.708	-3.713	29.281
TRT3 - TRT1	-34.957	-1.435	32.087
TRT3 - CONTROL	-34.175	-1.181	31.813

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
14. ANALYSIS OF EGGS NOT CRACKED/EGGS LAID
****
09:30 Wednesday, August 16, 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= 58 MSE= 1204.582
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
TRT2 - CONTROL	-23.334	2.532	28.399
TRT1 - CONTROL	-26.040	0.254	26.548
TRT3 - CONTROL	-27.475	-1.181	25.113

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	5080.3831	1693.4610	0.23	0.8736
Error	58	423102.4636	7294.8701		
Corrected Total	61	428182.8467			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.011865	139.4320	85.410	61.256

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	5080.3831	1693.4610	0.23	0.8736

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
09:30 Wednesday, August 16, 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	62.5193170	1	.	0.9961	0.5594	0.5649
TRT1	62.5405745	2	0.9961	.	0.5501	0.5565
TRT2	59.9671748	3	0.5594	0.5501	.	0.9847
TRT3	59.8812090	4	0.5649	0.5565	0.9847	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****
09:30 Wednesday, August 16, 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= 58 MSE= 7294.87
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	-81.173	0.021	81.216
TRT1 - TRT2	-78.621	2.573	83.768
TRT1 - TRT3	-79.835	2.659	85.153
CONTROL - TRT1	-81.216	-0.021	81.173
CONTROL - TRT2	-77.322	2.552	82.427
CONTROL - TRT3	-78.557	2.638	83.833
TRT2 - TRT1	-83.768	-2.573	78.621
TRT2 - CONTROL	-82.427	-2.552	77.322
TRT2 - TRT3	-81.109	0.086	81.281
TRT3 - TRT1	-85.153	-2.659	79.835
TRT3 - CONTROL	-83.833	-2.638	78.557
TRT3 - TRT2	-81.281	-0.086	81.109

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
15. ANALYSIS OF NORMAL HATCHLINGS/EGGS SET
****

09:30 Wednesday, August 16, 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= 58 MSE= 7294.87
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	-64.686	0.021	64.728
TRT2 - CONTROL	-66.207	-2.552	61.103
TRT3 - CONTROL	-67.345	-2.638	62.069

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: RESPONSE
Weight: ES

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	5404.3561	1801.4520	0.24	0.8650
Error	58	427585.6633	7372.1666		
Corrected Total	61	432990.0194			

R-Square	C.V.	Root MSE	RESPONSE Mean
0.012481	141.1140	85.861	60.845

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	5404.3561	1801.4520	0.24	0.8650

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****
09:30 Wednesday, August 16, 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	62.1601124	1	.	0.9982	0.5658	0.5340
TRT1	62.1503451	2	0.9982	.	0.5615	0.5298
TRT2	59.6367058	3	0.5658	0.5615	.	0.9395
TRT3	59.2936714	4	0.5340	0.5298	0.9395	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****
09:30 Wednesday, August 16, 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= 58 MSE= 7372.167
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	-81.614	0.010	81.634
CONTROL - TRT2	-77.773	2.523	82.820
CONTROL - TRT3	-78.757	2.866	84.490
TRT1 - CONTROL	-81.634	-0.010	81.614
TRT1 - TRT2	-79.110	2.514	84.137
TRT1 - TRT3	-80.073	2.857	85.786

TRT2 - CONTROL	-82.820	-2.523	77.773
TRT2 - TRT1	-84.137	-2.514	79.110
TRT2 - TRT3	-81.281	0.343	81.967
TRT3 - CONTROL	-84.490	-2.866	78.757
TRT3 - TRT1	-85.786	-2.857	80.073
TRT3 - TRT2	-81.967	-0.343	81.281

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
16. ANALYSIS OF 14-DAY HATCHLING SURVIVORS/EGGS SET
****
09:30 Wednesday, August 16, 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= 58 MSE= 7372.167
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	-65.059	-0.010	65.039
TRT2 - CONTROL	-66.515	-2.523	61.468
TRT3 - CONTROL	-67.915	-2.866	62.183

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
17. ANALYSIS OF EGGSHELL THICKNESS
****
09:30 Wednesday, August 16, 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 55 observations can be used in this analysis.

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
17. ANALYSIS OF EGGSHELL THICKNESS
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Type I Estimable Functions for: LEVEL

Effect		Coefficients
INTERCEPT		0
LEVEL	CONTROL	L2
	TRT1	L3

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        TRT2      L4
        TRT3      -L2-L3-L4
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EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
17. ANALYSIS OF EGGSHELL THICKNESS
****

09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: THICK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.0015535	0.0005178	1.80	0.1596
Error	51	0.0146999	0.0002882		
Corrected Total	54	0.0162533			

R-Square	C.V.	Root MSE	THICK Mean
0.095578	4.232621	0.0170	0.4011

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	0.0015535	0.0005178	1.80	0.1596

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
17. ANALYSIS OF EGGSHELL THICKNESS
****

09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	THICK LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	0.39273333	1	.	0.0374	0.0782	0.1575
TRT1	0.40621429	2	0.0374	.	0.7398	0.5472
TRT2	0.40407143	3	0.0782	0.7398	.	0.7767
TRT3	0.40216667	4	0.1575	0.5472	0.7767	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
17. ANALYSIS OF EGGSHELL THICKNESS
****

09:30 Wednesday, August 16, 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= 51 MSE= 0.000288
Critical Value of Studentized Range= 3.756

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	-0.014899	0.002143	0.019185
TRT1 - TRT3	-0.013690	0.004048	0.021785
TRT1 - CONTROL	-0.003275	0.013481	0.030236
TRT2 - TRT1	-0.019185	-0.002143	0.014899
TRT2 - TRT3	-0.015833	0.001905	0.019643
TRT2 - CONTROL	-0.005417	0.011338	0.028094
TRT3 - TRT1	-0.021785	-0.004048	0.013690
TRT3 - TRT2	-0.019643	-0.001905	0.015833
TRT3 - CONTROL	-0.008029	0.009433	0.026896
CONTROL - TRT1	-0.030236	-0.013481	0.003275
CONTROL - TRT2	-0.028094	-0.011338	0.005417
CONTROL - TRT3	-0.026896	-0.009433	0.008029

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
17. ANALYSIS OF EGGSHELL THICKNESS
****

09:30 Wednesday, August 16, 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= 51 MSE= 0.000288
Critical Value of Dunnett's T= 2.119

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	0.000115	0.013481	0.026847
TRT2 - CONTROL	-0.002028	0.011338	0.024704
TRT3 - CONTROL	-0.004497	0.009433	0.023364

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
18. ANALYSIS OF HATCHLING WEIGHT
****

09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
18. ANALYSIS OF HATCHLING WEIGHT
****

09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
18. ANALYSIS OF HATCHLING WEIGHT
****

09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: HATWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	16.747267	5.582422	0.58	0.6303
Error	55	528.979851	9.617815		
Corrected Total	58	545.727119			

R-Square	C.V.	Root MSE	HATWT Mean
0.030688	8.172511	3.1013	37.947

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	16.747267	5.582422	0.58	0.6303

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
18. ANALYSIS OF HATCHLING WEIGHT
****

09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	HATWT LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	38.5714286	1	.	0.7053	0.6128	0.2060
TRT1	38.1333333	2	0.7053	.	0.9008	0.3609
TRT2	37.9937500	3	0.6128	0.9008	.	0.4199
TRT3	37.0714286	4	0.2060	0.3609	0.4199	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
18. ANALYSIS OF HATCHLING WEIGHT
****

09:30 Wednesday, August 16, 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= 55 MSE= 9.617815
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 - TRT1	-2.615	0.438	3.491
CONTROL - TRT2	-2.429	0.578	3.585
CONTROL - TRT3	-1.605	1.500	4.605
TRT1 - CONTROL	-3.491	-0.438	2.615
TRT1 - TRT2	-2.813	0.140	3.093
TRT1 - TRT3	-1.991	1.062	4.115
TRT2 - CONTROL	-3.585	-0.578	2.429
TRT2 - TRT1	-3.093	-0.140	2.813
TRT2 - TRT3	-2.085	0.922	3.929
TRT3 - CONTROL	-4.605	-1.500	1.605
TRT3 - TRT1	-4.115	-1.062	1.991
TRT3 - TRT2	-3.929	-0.922	2.085

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
18. ANALYSIS OF HATCHLING WEIGHT
****

09:30 Wednesday, August 16, 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= 55 MSE= 9.617815
Critical Value of Dunnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-2.862	-0.438	1.986
TRT2 - CONTROL	-2.965	-0.578	1.810
TRT3 - CONTROL	-3.966	-1.500	0.966

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****

09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: SURVWT

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	705.59664	235.19888	0.47	0.7043
Error	55	27516.10912	500.29289		
Corrected Total	58	28221.70576			

R-Square	C.V.	Root MSE	SURVWT Mean
0.025002	6.778122	22.367	329.99

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	705.59664	235.19888	0.47	0.7043

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	SURVWT LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	336.142857	1	.	0.3610	0.2908	0.3637
TRT1	328.486667	2	0.3610	.	0.8942	0.9917
TRT2	327.412500	3	0.2908	0.8942	.	0.9044
TRT3	328.400000	4	0.3637	0.9917	0.9044	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
09:30 Wednesday, August 16, 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= 55 MSE= 500.2929
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 - TRT1	-14.365	7.656	29.678
CONTROL - TRT3	-14.655	7.743	30.141
CONTROL - TRT2	-12.956	8.730	30.417
TRT1 - CONTROL	-29.678	-7.656	14.365
TRT1 - TRT3	-21.935	0.087	22.108
TRT1 - TRT2	-20.223	1.074	22.372
TRT3 - CONTROL	-30.141	-7.743	14.655
TRT3 - TRT1	-22.108	-0.087	21.935
TRT3 - TRT2	-20.699	0.987	22.674
TRT2 - CONTROL	-30.417	-8.730	12.956
TRT2 - TRT1	-22.372	-1.074	20.223
TRT2 - TRT3	-22.674	-0.987	20.699

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
19. ANALYSIS OF 14-DAY SURVIVOR WEIGHT
****
09:30 Wednesday, August 16, 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= 55 MSE= 500.2929
Critical Value of Dunnett's T= 2.104

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-25.141	-7.656	9.829
TRT3 - CONTROL	-25.527	-7.743	10.041
TRT2 - CONTROL	-25.949	-8.730	8.489

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
20. ANALYSIS OF FOOD CONSUMPTION
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
20. ANALYSIS OF FOOD CONSUMPTION
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
20. ANALYSIS OF FOOD CONSUMPTION
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: FOOD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	27847979	9282660	1.01	0.3944
Error	57	523132284	9177759		
Corrected Total	60	550980263			

R-Square	C.V.	Root MSE	FOOD Mean
0.050543	8.189889	3029.5	36991

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	27847979	9282660	1.01	0.3944

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
20. ANALYSIS OF FOOD CONSUMPTION
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	FOOD LSMEAN	Pr > |T| HO: LSMEAN(i)=LSMEAN(j) i/j	1	2	3	4
CONTROL	37902.5000	1	.	0.5520	0.1026	0.2662
TRT1	37251.0667	2	0.5520	.	0.3056	0.6001
TRT2	36125.5625	3	0.1026	0.3056	.	0.6332
TRT3	36657.5714	4	0.2662	0.6001	0.6332	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
20. ANALYSIS OF FOOD CONSUMPTION
****
09:30 Wednesday, August 16, 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= 57 MSE= 9177759
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 - TRT1	-2230	651	3533
CONTROL - TRT3	-1689	1245	4179
CONTROL - TRT2	-1058	1777	4612
TRT1 - CONTROL	-3533	-651	2230
TRT1 - TRT3	-2386	593	3573
TRT1 - TRT2	-1756	1126	4007
TRT3 - CONTROL	-4179	-1245	1689
TRT3 - TRT1	-3573	-593	2386
TRT3 - TRT2	-2402	532	3466
TRT2 - CONTROL	-4612	-1777	1058
TRT2 - TRT1	-4007	-1126	1756
TRT2 - TRT3	-3466	-532	2402

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
20. ANALYSIS OF FOOD CONSUMPTION
****
09:30 Wednesday, August 16, 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= 57 MSE= 9177759
Critical Value of Dunnett's T= 2.110

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	-2949	-651	1646
TRT3 - CONTROL	-3584	-1245	1095
TRT2 - CONTROL	-4037	-1777	483

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: POSTM

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	551330.32	137832.58	19.15	0.0001
Error	57	410329.55	7198.76		
Corrected Total	61	961659.87			

R-Square	C.V.	Root MSE	POSTM Mean
0.573311	6.751229	84.846	1256.7

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	33399.79	11133.26	1.55	0.2124
PREM	1	517930.54	517930.54	71.95	0.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	19333.33	6444.44	0.90	0.4493
PREM	1	517930.54	517930.54	71.95	0.0001

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	POSTM LSMEAN	Std Err LSMEAN	Pr > |T| HO:LSMEAN=0	LSMEAN Number
CONTROL	1253.57192	21.21352	0.0001	1
TRT1	1286.91551	21.90807	0.0001	2
TRT2	1246.91084	21.26532	0.0001	3
TRT3	1240.43621	22.01227	0.0001	4

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

i/j	1	2	3	4
1	.	0.2788	0.8252	0.6693
2	0.2788	.	0.1952	0.1402
3	0.8252	0.1952	.	0.8338
4	0.6693	0.1402	0.8338	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****
09:30 Wednesday, August 16, 1995

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= 57 MSE= 7198.764
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 - TRT2	-51.72	28.98	109.68
TRT1 - CONTROL	-48.09	32.61	113.31
TRT1 - TRT3	-15.46	66.53	148.52
TRT2 - TRT1	-109.68	-28.98	51.72
TRT2 - CONTROL	-75.76	3.63	83.01
TRT2 - TRT3	-43.15	37.55	118.25
CONTROL - TRT1	-113.31	-32.61	48.09
CONTROL - TRT2	-83.01	-3.63	75.76
CONTROL - TRT3	-46.77	33.92	114.62
TRT3 - TRT1	-148.52	-66.53	15.46
TRT3 - TRT2	-118.25	-37.55	43.15
TRT3 - CONTROL	-114.62	-33.92	46.77

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
21. COVARIATE ANALYSIS OF MALE BODY WEIGHT
****
09:30 Wednesday, August 16, 1995

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= 57 MSE= 7198.764
Critical Value of Dunnett's T= 2.109

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT1 - CONTROL	-31.69	32.61	96.91
TRT2 - CONTROL	-59.63	3.63	66.88
TRT3 - CONTROL	-98.23	-33.92	30.38

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
****
09:30 Wednesday, August 16, 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 TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure

Dependent Variable: POSTF

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	139191.80	34797.95	1.54	0.2037
Error	57	1290240.54	22635.80		
Corrected Total	61	1429432.34			

R-Square	C.V.	Root MSE	POSTF Mean
0.097376	11.90543	150.45	1263.7

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LEVEL	3	76891.130	25630.377	1.13	0.3437
PREF	1	62300.670	62300.670	2.75	0.1026

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LEVEL	3	64803.691	21601.230	0.95	0.4206
PREF	1	62300.670	62300.670	2.75	0.1026

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
****
09:30 Wednesday, August 16, 1995

General Linear Models Procedure
Least Squares Means

LEVEL	POSTF LSMEAN	Std Err LSMEAN	Pr > |T| HO:LSMEAN=0	LSMEAN Number
CONTROL	1262.28603	37.73834	0.0001	1
TRT1	1262.92800	38.89423	0.0001	2
TRT2	1309.23594	37.88023	0.0001	3
TRT3	1217.51524	38.84873	0.0001	4

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

i/j	1	2	3	4
1	.	0.9906	0.3859	0.4121
2	0.9906	.	0.3986	0.4123
3	0.3859	0.3986	.	0.0962
4	0.4121	0.4123	0.0962	.

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

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
****
09:30 Wednesday, August 16, 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= 57 MSE= 22635.8
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
TRT2 - TRT1	-86.15	56.95	200.05
TRT2 - CONTROL	-81.27	59.50	200.27
TRT2 - TRT3	-44.61	98.49	241.59
TRT1 - TRT2	-200.05	-56.95	86.15
TRT1 - CONTROL	-140.55	2.55	145.65
TRT1 - TRT3	-103.86	41.53	186.92
CONTROL - TRT2	-200.27	-59.50	81.27
CONTROL - TRT1	-145.65	-2.55	140.55
CONTROL - TRT3	-104.11	38.99	182.09
TRT3 - TRT2	-241.59	-98.49	44.61
TRT3 - TRT1	-186.92	-41.53	103.86
TRT3 - CONTROL	-182.09	-38.99	104.11

EFFECTS OF TSULFENTRAZONE ON REPRODUCTION OF THE MALLARD
22. COVARIATE ANALYSIS OF FEMALE BODY WEIGHT
****

09:30 Wednesday, August 16, 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= 57 MSE= 22635.8
Critical Value of Dunnett's T= 2.109

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

LEVEL Comparison	Simultaneous Lower Confidence Limit	Difference Between Means	Simultaneous Upper Confidence Limit
TRT2 - CONTROL	-52.67	59.50	171.67
TRT1 - CONTROL	-111.48	2.55	116.57
TRT3 - CONTROL	-153.01	-38.99	75.04