DATA EVALUATION RECORD

Chemical: Ignite; Hoe 39866 1.

98.4% (Technical ai) 2. Test Material:

Study Type: Avian Reproduction 3.

> Bobwhite quail Species Tested:

(Colinus virginianus)

Roberts, N.L., Phillips, C.N.K., and Chanter, D.O. Study ID: (1986) The Effects of Dietary Inclusion of Hoe 39866 Active Ingredient Technical (Code: Hoe 39866 OH ZC98 0002) on Reproduction in the Bobwhite Quail; Report No. A33114; Prepared by Huntingdon Research Centre Ltd. for Hoechst Celanese Corporation, Route 202-206 North, Somerville, New Jersey 08876.

Reviewed By: 5.

> Curtis E. Laird Fishery Biologist EEB/HED

Signature: Custin E. Laine

Date: 9-30-88

6. Approved By:

> Norman J. Cook Supervisory Biologist EEB/HED

Signature: Numer & Cook

Date: 1-12-89

7. Conclusions:

> Based on the submitted data, it appears that Ignite does not cause reproductive impairment for the number of eggs laid, eggs set, eggs cracked, food consumption, 14-day survival, egg shell thickness, 14-day body weights, and number hatched. This study indicates the NOEL was > 400 ppm for Ignite. This study, however, does not fulfill the requirement in support of registration for an avian reproduction study because the residue analysis data require clarification. Also, said study would only support those uses resulting in EECs in/on avian food items of 400 ppm or less.

N/A Recommendations: 8.

9. Background:

This study was submitted to support Ignite (Hoe 39866) registration.

10. Discussion of Individual Test: N/A

11. Material and Methods

- A. Test Animals Young adult bobwhite quail that were approaching their first breeding season were obtained from Mr. Wise, Monkfield, Bourne, Cambridgeshire. The birds were approximately 4 months old on arrival and 5 months old when the test was initiated. A total of 80 males and 80 females, with an additional 16 males and 16 females for use as replacement birds, were used.
- B. Test System Adult birds were housed in treatment replicate groups each consisting of one male and one female. The groups were housed in tiered cages of polythene-coated steel wire, each measuring approximately 31.5 cm x 38.5 cm x 24 cm. Each cage contained a nipple drinker and had an externally-attached stainless steel food hopper. There was a sloping floor with a 10 cm egg catcher. The maximum and minimum temperature and the relative humidity were recorded once daily throughout the study, with the following results:

	<u>Mean</u>	Standard Deviation
Maximum temperature	22 °C	+ 3 °C
Minimum temperature	18 °C	+ 3 °C
Relative humidity	60%	+ 14%

C. <u>Dose</u> - Fourteen days prior to the start of the treatment period the birds were allocated randomly to cages, with one male and one female in each cage. There was a total of four treatment groups, with 20 replicates of each treatment as shown below:

Group Treatment		Number of Replicates	Birds Repli		Birds per Treatment		
			<u>M</u>	<u>F</u>	<u>M</u> _	<u>F</u>	
A	Control	20	1	1	20	20	
В	Hoe 39866 25 p	pm 20	1	1	20	20	
С	Hoe 39866 100 p	opm 20	1	.1	20	20	
D		opm 20	1	1	20	20	

In addition to the above birds, four replicates per treatment were maintained for use as replacements if necessary during the pre-egg production period.

D. <u>Statistics</u> - No statistical analysis method was mentioned in this report.

Feeding - The adult birds were given basic diet only or basic diet with test compound incorporated, depending on

treatment group, throughout the 24-week test period. The basic diet was quail layer diet manufactured by Special Diet Services Limited, Witham, Essex, and contained no antibiotics or other growth promoters. Water was available at all times from automatic cup drinkers.

<u>Diet Preparation</u> - A weighed amount of test material was added to untreated diet to give a premix of 20,000 ppm (3000 ppm in preliminary study), which was mixed by being shaken in an inflated polythene bag for a minimum of 3 minutes prior to incorporation in the diets. Aliquots of premix were used to prepare the final inclusion levels. The diets were prepared weekly in batches of 30 to 40 kg (12 kg in preliminary study) and were blended in a double-cone blender for a minimum of 7 minutes.

Samples were taken from all diets at the time of the week 1 mix of the preliminary study as follows:

- 2 x 200 g from the first kg discharged;
- 2 x 200 g from the approximate center of the discharge; and
- 2 x 200 g from the final kg discharged.

The above samples were analyzed for homogeneity and stability by the sponsor.

Egg Collection, Storage, and Incubation

Egg Collection - All eggs laid were collected over a 12-week period from the beginning of week 13 until the end of week 24. The eggs were labeled with the study schedule number, treatment and replicate number, and the date collected, and were then stored on plastic egg trays according to replicate at a temperature of approximately 16 °C and mean relative humidity of 84 percent. Eggs were allowed to stand at room temperature (20 °C) for at least 12 hours prior to incubation. At the end of each 7-day period the eggs were weighed and replicate group mean weights recorded. Each egg was then candled and any broken or cracked eggs were recorded and discarded. The remaining eggs, with the exception of those taken for shell thickness determination, were placed on setting trays in an incubator.

Egg Shell Thickness - The first egg laid in each replicate during weeks 13, 15, 17, 19, 21, and 23 in the egg production period were taken to be examined for shell thickness. The eggs were cracked open at the widest point and the contents washed out with tap water. The shells were then left to dry out at room temperature for at least 48 hours. The shell thickness of each egg

was measured at four points around the circumference of the shell using a micrometer calibrated to 0.01 mm.

Incubation - Eggs were placed in a Sologne 36 incubator at weekly intervals. The incubator was set to run at a temperature of 37.7 °C and a humidity of 57 percent. The eggs were turned automatically once every 60 minutes through an angle of 90° (45° each side of the horizontal) throughout the incubation period. After 21 days the eggs were transferred to hatchers, where hatching occurred within a few days.

Candling - In addition to being candled prior to incubation for cracks, all eggs were candled on days 11 and 18 of the incubation period. At day 11 all infertile eggs and eggs showing early embryonic deaths were recorded and removed. At day 18 late embryonic deaths were recorded and removed. Early and late embryonic deaths were determined on the basis of candling only and the eggs were not cracked open unless the candling result was difficult to assess.

Hatching — On day 21 of the incubation period the eggs were transferred from one incubator to the hatcher. Each hatcher tray was divided into sections using hard-board partitions so that the chicks could be kept separate according to replicate on hatching. The temperature of the hatchers was checked daily. The hatchers used were sill-air Bristol incubator models PH 90 and PH 150 and were designed to run at a temperature of 37.5 °C (99.5 °F). All chicks were removed from the hatcher within 24 hours of hatching and were weighed, tagged, and placed in floor pens.

Chicks

<u>Identification</u> - After hatching, the chicks were individually identified by means of colored plastic leg bands. The following color coding system was used:

Group A Control - White Group B Hoe 39866 25 ppm - Yellow Group C Hoe 39866 100 ppm - Green

Group D Hoe 39866 400 ppm - Red

Accommodation - The chicks were housed in wooden pens with concrete floors. Each pen contained two drinkers and two food hoppers. Wood shavings supplied by the Sawdust Marketing Company Limited, were used as bedding. Each pen contained two 300-watt infrared lamps placed at bird level to supply additional heat to the chicks. Maximum and minimum temperatures and relative humidity

were recorded once daily throughout the study with the following mean values:

	Mean	Standard Deviation
Maximum temperature	26 °C	± 2 °C
Minimum temperature Relative humidity	22 °C 53%	± 2 °C ± 7%

A continuous lighting pattern was adopted for the chicks.

Feeding - The chicks were given standard HRC chick diet made by Joseph Odam Limited, Petersborough, Cambridgeshire, which had the following composition:

Ingredient	Percent w/w
Ground wheat	30.0
Ground maize	25.0
Ground barley	10.0
Provimi 66 fish meal	15.0
Soya bean meal	13.75
Weatings	5.0
Pantoribin 537*	1.25

^{*}Mineral, vitamin, and trace element supplement (BP Nutrition (UK) Ltd.)

The diet contained no antibiotic or other growth promoter.

Observations

Adult birds	
Mortalities	Daily
Bird Health	Assessed daily
Bodyweights	Individual bodyweights were recorded on days -14, 0, 14, 28, 42, 56, 70, 4, and 168.

Food Consumption

Replicate group mean food consumption was recorded once weekly throughout the study.

Macroscopic post mortem examination

All birds which died during the study and all birds surviving at termination of the study were examined post mortem.

Eggs

Egg collection

Eggs were collected daily throughout the 12-week egg production period.

Egg weights

Eggs were weighed at the end of each 7-day collection period.

Cracked and broken eggs

Recorded and removed at time of weighing.

Egg shell thickness

The first egg laid in each replicate in weeks 13, 15, 17, 19, 21, and 23 was taken for egg shell thickness examination.

Infertile eggs

Eggs were candled on day 11 of the incubation period and infertile eggs removed.

Early embryonic deaths

Eggs were candled on day 11 of the incubation period and eggs showing early embryonic death were removed.

Late embryonic deaths

Eggs were candled on day 18 of the incubation period and eggs showing late embryonic death were removed.

Chicks

Number of chicks hatched alive

Weekly

Chick health

Assessed daily

Bodyweights

Individual bodyweights were recorded within 24 hours of hatching and on day 14 after

hatching.

Mortalities

Daily

Macroscopic post mortem examination All chicks which died during the 14-day observation period were examined for gross abnormalities.

Summary of Study Duration

Adults - 12-week pre-egg production period.

Incubation - 12-week egg production period.

The total study duration from the start of the adult observation period to the final chick observation was 24 weeks.

Statistical Analysis

. The following parameters were analyzed statistically:

- Adult food consumption;
- Adult bodyweight:
- 3. Number of eggs laid and mean egg weight;
- 4. Proportion of eggs damaged;
- 5. Eqq shell thickness;
- 6. Numbers of infertilities, embryonic deaths and hatchings;
- 7. Numbers of 14-day-old surviving chicks; and
- 8. Chick bodyweights at hatching and 14 days later.

12. Reported Results

Mortalities and Bird Health - The following mortalities occurred during weeks -1 to 12 (pre-egg production period):

Replicate/	Bird	Day of	
Group	Number	<u>Death</u>	Replacement
	٠	_ •	
14A	2 / 8F	-1*	82A (163M, 164F)
3A	5M	56	81A (161M, 162F)
18A	36F	74	83A (165M, 166F)
35B	70F	52	85B (169M, 170F)
54C	107M	-1*	90C (179M, 180F)
48C	95M	56*	89C (177M, 178F)
51C	102F	76*	92C (183M, 184F)
67D	134F	77	93D (185M, 186F)

^{*}Sacrificed

Where one bird in a replicate group died or was sacrificed, the replicate was replaced by a spare replicate. Two birds (Nos. 28F and 107M) showed marked bodyweight losses during the pretreatment period (week -1) and replicates 14A and 54C were, therefore, discarded.

The following mortalities occurred during weeks 13 to 24 (egg production period).

Replicate/ Group	Bird <u>Number</u>	Day of Death
83A+	166F	100
4A	7M	126
85B+	170F	160
41C	. 82F	98
41C	81M	112
43C	85M	117
5.3C	105M	133*
77 D	154F	147

⁺Replacement replicate

In general, bird health was good throughout the study. Individual bird observations are given in Appendix 4.

^{*}Sacrificed

The majority of observations made were of physical injuries and were not considered to be related to treatment.

Adult Bodyweight - There were no treatment-related effects on body weight during the study. Statistical analysis of the results confirmed that there were no significant differences between groups (see Table 3 for more detail).

Food Consumption - Food consumption was similar in all groups, tending to be generally higher during the egg production period (weeks 13 to 24). Statistical analysis of the results showed no significant differences between treatments (see Table 4 for more detail).

Postmortem Examination - Sporadic mortalities. One bird was found hanging by the neck at the back of the cage, swollen foot, wound on the top of the head, etc. None of the above observations was considered to be related to treatment.

<u>Postexamination Finding</u> - All birds surviving the 24week study period were also examined. No abnormalities were detected in any of the birds.

2. Eggs

Eggs Laid - The total number of eggs laid was higher in Group B (25 ppm) and Group D (400 ppm). The number of eggs laid in Group A (control) and Group C (100 ppm) were similar. The statistical analysis of the results shows no significant difference between treatments (see Table 5).

Broken and Cracked Eggs - The percentage of eggs laid which were cracked or broken varied considerably from week to week, but did not appear to be due to treatment-related effects. Statistical analysis of the results shows no significant differences between treatments (see Table 6 for more detail).

Egg Weight - The total egg weight (mass) was directly related to the number of eggs laid. Statistical analysis showed that there were no significant differences in mean egg weights between treatments.

Egg Shell Thickness - Egg shell thickness was similar in all groups and statistical analysis shows no significant difference between treatments (see Table 8 for more detail). <u>Infertile Eggs</u> - The proportions of infertile eggs varied considerably from week to week within treatment groups, but there was no evidence of any treatmentrelated effect. Statistical analysis of the results showed no significant differences between treatments (see Tables 9 and 10).

Early Embryonic Deaths - The proportions of fertile eggs which showed early embryonic death at day 11 candling were generally small and no significant treatment differences were detected during statistical analysis (see Tables 9 and 10).

Late Embryonic Deaths - The incidence of late embryonic death recorded at day 18 candling was low and no statistically significant treatment differences were found (see Tables 9 and 10).

Hatching - The proportions of fertile eggs which subsequently hatched (hatchability) were generally high and statistical analysis of the results showed no significant differences between treatments. No significant differences in numbers of dead in shell were found between treatments (see Table 11).

3. Chicks

Chick Health and Mortalities The majority of chicks were in good health at time of hatching and remained so for the duration of the 14-day observation period. During week 22 of the study two infrared lamps failed overnight and a number of chicks from the week 165 hatch died as a result. A small number of birds which died during the 14-day observation period were found to have been pecked on or around the beak. This may have occurred after death or may have been caused by "bullying," leading to death. Details of mortalities and abnormalities observed (curled toes, twisted necks) are given in Appendix 10.

Bodyweight - All mean chick bodyweights at hatching and after 14 days were similar overall. Statistical analysis showed no significant differences between treatments (see Table 12).

Numbers of 14-Day Survivors - The proportion of chicks surviving to day 14 was within normal limits and no statistically significant differences were found between treatments. There was no evidence of treatment-related differences in the percentage of 14-day survivors/number of eggs set.

13. Study Author's Conclusion/QA Measures

Under the conditions of this study there was no evidence that dietary administration of Hoe 39866 technical at dose levels of 25, 100, and 400 ppm had any adverse effects on reproduction in the bobwhite quail.

To the best of the author's knowledge and belief, the study was conducted in compliance with Good Laboratory Practice Regulations as set forth in "Part 158 of Title 21 of the U.S. Code of Federal Regulations."

To the best of the author's knowledge and belief the study described in this report was conducted in compliance with the following Good Laboratory Practice Standard: U.S. Environmental Protection Agency, FEDERAL REGISTER, Part 160 of Title 40 of the Code of Federal Regulations, November 29, 1983 (Signed by Nicholas L. Roberts, N.D.A., Study Director).

14. Reviewer's Discussion and Interpretation of the Study:

- A. Test Procedures The test procedure complied with the recommended EPA protocol of October 1982 except it was not reported if the adult diet was available ad libitum. Also, neither corn oil nor any other diluent were used for the test compound during diet preparation.
- B. Statistical Analysis The following parameters were verified using an ANOVA program and Duncan's Multiple Range Test: Eggs laid, eggs set, eggs cracked, and food consumption.

The results are as follows:

Eggs laid = NOEL > 400 ppm

Eggs set = NOEL > 400 ppm

Eggs cracked = NOEL > 400 ppm

Food consumption = NOEL > 400 ppm

Number of 14-bay Survivers - No Significant different from Control

The statistics were not verified for the following parameters: Number of 14-day survivors and bodyweight, egg shell thickness, and number hatched due to lack of replicates in the raw data. There did not appear to be a significant difference between treatment groups and the control group.

C. Discussion/Results - During week 22 of the study two infrared lamps malfunctioned overnight. A number of chicks from the week 16 hatch died as a result. A small number of birds died during the 14-day observation period. They were found pecked on or around the beak.

It is not clear to the reviewer whether pecking occurred before or after death.

The statistical analysis indicates no significant differences between treatments and control group for the following: Eggs laid, eggs set, eggs cracked, and food consumption (see attached printout). Also, postmortem examination of birds dying during the study and of those sacrificed at the end of the study showed no treatment-related effects. Therefore, the NOEL value is greater than 400 ppm.

Relative to the residue analysis data for avian feed, it is unclear, as presented in Appendix 2, what is being shown in the tables. Are these analyses of avian premix? Or are they representative samples taken from test diets during the test? When were these samples taken? Also, where are the analyses of samples taken for each dose level during weeks 1, 12, and 22 of the main study?

D. Adequacy of the Study

- 1. Category Supplemental
- 2. Rationale The residue analysis data need to be clarified as discussed above under the <u>Discussion/</u>Results section.
- 3. Reparability With adequate clarification of the residue analysis data this study could be upgraded to Core. However, said study--since it did not produce an effect level, but only a no-effect level-can only be used to support label uses resulting in EEC's in/on avian food items of 400 ppm or less.

Attachments

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SUMMARY

In order to investigate the dietary effects of Hoe 039866 technical on reproduction in the Bobwhite quail, 3 groups of 20 replicates were given the test substance at dose levels of 25 ppm, 100 ppm and 400 ppm. A further group of 20 replicates received untreated diet throughout the same further group of 20 replicates received untreated diet throughout the same further group of 20 replicates received untreated diet throughout the same further group of 20 replicates received untreated diet throughout the same further group of 20 replicates received untreated diet throughout the same further group of 20 replicates received untreated diet throughout the same further group of 20 replicates and 22 weeks period.

The findings in the study can be summarised as follows:

At all dietary concentrations general behaviour, health, bodyweights and food consumption remained unaffected and were not impaired by treatment with Hoe 039866 technical. None of the mortalities was considered to be associated with treatment and post mortem examination of birds which died during the study, and of those sacrificed at termination, indicated no treatment-related effects.

After feeding at 25 ppm, 100 ppm and 400 ppm the results of all reproductive parameters, including number of eggs laid, broken and cracked eggs, egg weights, egg shell thickness, number of infertile eggs, early and late embryonic death, hatching, chick health, chick bodyweights and number of 14-day survivors, gave no indication of any reproductive impairment.

The reproductive data are summarised below:

	Control	Hoe 039866 - Substance Technical				
		25 ppm	100 ppm	400 ppm		
Eggs laid Eggs cracked or broken Eggs set Viable embryos Live 16-day embryos Normal hatchlings 14-day survivors Eggs laid per hen in 12 weeks Eggs cracked or broken of eggs laid (% Viable embryos of eggs set (%) Live 18-day embryos of viable embryos (%) Normal hatchlings of live 18-day embryos (%) 14-day survivors of normal hatchlings (%) 14-day survivors per hen	957 177 673 561 544 464 358 48 18 83 97 85	1088 153 843 771 742 668 573 54 14 91 96 90 86 29	874 91 660 535 516 438 351 44 10 81 96 85	1033 138 802 720 706 599 491 52 13 90 98 85		

Conclusion

Under the conditions of this test, and taking the results as a whole, there was no evidence that dietary administration of Hoe 039866 technical at dose levels of 25 ppm, 100 ppm and 400 ppm had any adverse effects on at dose levels of 25 ppm, 100 ppm and 400 ppm had any adverse effects on the reproduction of the Bobwhite quail. The high dose level of 400 ppm of the reproduction of the Bobwhite quail. The high dose level of 400 ppm of the 039866 is equivalent to an estimated intake of approximately 40 mg/kg/day. Sivily #A33114 pg 00 0 0 24

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629			***	******	*****		•				
630 631			aramina.								
632		'	GENERAL LI	NEAR MODE	LS PROCED	URE					
633			CLASS	LEVEL INF	CONTITAMON				÷**		
634			CHILO	DOVED IN	OWNITON						
635			CLASS	LEVELS	VALUES	;					
636											
637			TRT	4	ABC	D					
638											
639											
640		NUMB	er of obse	RVATIONS	IN DATA S	ET = 79)				
641				ALYSIS OF				14:54 TUESDAY,	NOVEMBER 1	5, 1988	7
642 643			, - a **	******	****						
644			GENERAL LI	ATEXD MODE	T C DOCCED	i iniz					
645			GENERAL DI	NEAR MODE	LS PROCED	UKE		*			
646 DEPENDENT VARIABLE: RES	SP							*			
647		•									
648 SOURCE	DF	SUM OF SQUARES	М	ean squar	E	F VALUE	:	PR > F	R-SQUARE	C.1	i.
649											
650 MODEL	3 /	201.11505663	6	7.0383522	21	1.18	3	0.3215	0.045234	110.47	27
651 653 FREDOR		404F 6040.55-							V 2 V		
652 ERROR 653	75	4245.03684211	5	6.6004912	:3			ROOT MSE		RESP ME	M
654 CORRECTED TOTAL	78	4446.15189873						7 53333000		6 010106	
655	10	7770.131070/3	•					7.52332980	-	6.8101269	Ö
656											
657 SOURCE	DF .	TYPE I SS	F VAL	UE P	R > F	DF	,	TYPE III SS	F VALUE	PR >	F
658				_						•	•
659 TRT	3	201.11505663	1.	18 0	. 3215	3	3	201.11505663	1.18	0.32	L5
660			2. AN	ALYSIS OF	EC DATA			14:54 TUESDAY,	NOVEMBER 1	5, 1988	8
661			****	******	*****						
662											
663			GENERAL LI	NEAR MODE	LS PROCED	URE					
664 665		Dimensio same-	15 Dares -		MDTSD:-	nnen					
666		DUNCAN'S MULTIP					r Ennor	י ביי אמי			
667		NOTE: THIS TEST	CONTROLS XPERIMENTW			SCIMITS:	. ERIKUI	C MALE,			
668		WI THE E	e milligidi	LUL BRRUN	. IUILE						

ALPHA=0.05 DF=7

...

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670
671
                                             WARNING: CELL SIZES ARE NOT EQUAL.
672
                                                      HARMONIC MEAN OF CELL SIZES=19.7403
673
674
                                             NUMBER OF MEANS
                                                                    2
                                                                               3
675
                                             CRITICAL RANGE
                                                              4.77511 5.02115 5.18145
676
677
                                      MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.
678
679
                                            DUNCAN GROUPING
                                                                          MEAN
                                                                                    N TRT
680
681
                                                                         8.800
                                                           A
                                                                                   20 A
682
683
                                                                         7.650
                                                                                   20 B
684
685
                                                                         6.150
                                                                                   20 D
686
687
                                                                                   19 C
                                                                         4.526
688
                                                         3. ANALYSIS OF ES DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988
689
                                                          *******
690
691
                                                   GENERAL LINEAR MODELS PROCEDURE
692
693
                                                       CLASS LEVEL INFORMATION
694
695
                                                      CLASS
                                                               LEVELS
                                                                         VALUES
696
697
                                                      TRT
                                                                  4
                                                                         ABCD
698
699
700
                                               NUMBER OF OBSERVATIONS IN LATA SET = 79
701
                                                         3. ANALYSIS OF ES DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988
702
                                                          *******
703
704
                                                    GENERAL LINEAR MODELS PROCEDURE
706 DEPENDENT VARIABLE: RESP
707
708 SOURCE
                            DF
                                     SUM OF SQUARES
                                                            MEAN SQUARE
                                                                               F VALUE
                                                                                                PR > F
                                                                                                              R-SOUARE
                                                                                                                               C.V.
709
710 MODEL
                             3
                                      1103.89946702
                                                            367.96648901
                                                                                  1.08
                                                                                                0.3639
                                                                                                              0.041317
                                                                                                                             49.2722
711
712 ERROR
                            75
                                     25613.84736842
                                                           341.51796491
                                                                                              ROOT MSE
                                                                                                                           RESP MEAN
713
714 CORRECTED TOTAL
                            78
                                     26717.74683544
                                                                                           18.48020468
                                                                                                                         37.50632911
715
716
717 SOURCE
                            DF
                                          TYPE I SS
                                                         F VALUE
                                                                     PR > F
                                                                                                TYPE III SS
                                                                                    DF
                                                                                                                 F VALUE
                                                                                                                             PR > F
718
719 TRT
                             3
                                      1103.89946702
                                                           1.08
                                                                     0.3639
                                                                                     3
                                                                                              1103.89946702
                                                                                                                    1.08
                                                                                                                             0.3639
720
                                                         3. ANALYSIS OF ES DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988 11
721
                                                          *****
722
723
                                                    GENERAL LINEAR MODELS PROCEDURE
724
725
                                     DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESP
                                     NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
726
727
                                           NOT THE EXPERIMENTWISE ERROR RATE
728
729
                                                     ALPHA=0.05 DF=75 MSE=341.518
```

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734
                                              NUMBER OF MEANS
 735
                                             CRITICAL RANGE
                                                               11.7295 12.3339 12.727
 736
 737
                                      MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.
 738
 739
                                            DUNCAN GROUPING
                                                                           MEAN
                                                                                     N TRT
 740
 741
                                                                         42.150
                                                           A
                                                                                    20 B
 742
                                                           A
743
                                                                         40.100
                                                                                    20 D
 744
                                                           A
 745
                                                                         33.947
                                                                                    19 C
746
747
                                                                         33.650
                                                                                    20 A
748
                                                         4. ANALYSIS OF VE DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988
                                                                                                                                 12
749
750
751
                                                    GENERAL LINEAR MODELS PROCEDURE
752
753
                                                        CLASS LEVEL INFORMATION
754
755
                                                      CLASS
                                                               LEVELS
                                                                         VALUES
756
757
                                                      TRT
                                                                         ABCD
758
759
760
                                                NUMBER OF OBSERVATIONS IN DATA SET = 79
761
762
763 NOTE: ALL DEPENDENT VARIABLES ARE CONSISTENT WITH RESPECT TO THE PRESENCE OR ABSENCE OF MISSING VALUES. HOWEVER,
764
                  78 OBSERVATIONS CAN BE USED IN THIS ANALYSIS.
765
                                                         4. ANALYSIS OF VE DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988 13
766
                                                          ******
767
768
                                                    GENERAL LINEAR MODELS PROCEDURE
769
770 DEPENDENT VARIABLE: RESP
771
772 SOURCE
                            DF
                                     SUM OF SQUARES
                                                            MEAN SQUARE
                                                                               F VALUE
                                                                                                PR > F
                                                                                                              R-SQUARE
                                                                                                                               C.V.
773
774 MODEL
                             3
                                      1632.82503374
                                                            544.27501125
                                                                                  1.68
                                                                                                0.1777
                                                                                                              0.063923
                                                                                                                             55.2655
775
776 ERROR
                            74
                                     23910.62368421
                                                            323.11653627
                                                                                              ROOT MSE
                                                                                                                          RESP MEAN
777
778 CORRECTED TOTAL
                            77
                                     25543.44871795
                                                                                           17.97544259
                                                                                                                         32.52564103
779
780
781 SOURCE
                            DF
                                          TYPE I SS
                                                        F VALUE
                                                                     PR > F
                                                                                    DF
                                                                                                TYPE III SS
                                                                                                                 F VALUE
                                                                                                                             PR > F
782
783 TRT
                             3
                                      1632.82503374
                                                           1.68
                                                                     0.1777
                                                                                     3
                                                                                              1632.82503374
                                                                                                                    1.68
                                                                                                                             0.1777
784
                                                         4. ANALYSIS OF VE DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988 14
785
                                                          *****
786
787
                                                   GENERAL LINEAR MODELS PROCEDURE
788
789
                                     DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESP
790
                                    NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE.
791
                                          NOT THE EXPERIMENTWISE ERROR RATE
792
793
                                                    ALPHA=0.05 DF=74 MSE=323.117
794
```

WARNING: CELL SIZES ARE NOT EQUAL.

133

7:5

11.4000 14.0//1 800 80i MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT. 802 803 DUNCAN GROUPING MEAN N TRT 804 805 A 38.550 20 R 806 A 807 A 35.263 19 D 808 809 Α. 28.300 20 A 810 811 27.895 19 C 812 5. ANALYSIS OF LE DATA 14:54 TUESDAY, NOVEMBER 15, 1988 15 813 ****** 814 815 GENERAL LINEAR MODELS PROCEDURE 816 817 CLASS LEVEL INFORMATION 818 819 CLASS LEVELS VALUES 820 821 TRT ABCD 822 823 824 NUMBER OF OBSERVATIONS IN DATA SET = 79 825 5. ANALYSIS OF LE DATA 14:54 TUESDAY, NOVEMBER 15, 1988 16 826 ****** 827 828 GENERAL LINEAR MODELS PROCEDURE 829 830 DEPENDENT VARIABLE: RESP 831 832 SOURCE DF SUM OF SQUARES MEAN SQUARE F VALUE PR > F R-SQUARE C.V. 833 834 MODEL 3 1794.84077282 598.28025761 1.86 0.1440 0.069172 55.0983 835 836 ERROR 75 24152.52631579 322.03368421 ROOT MSE RESP MEAN 837 838 CORRECTED TOTAL 78 25947.36708861 17.94529699 32.56962025 839 840 841 SOURCE DF TYPE I SS F VALUE TR > F DF TYPE III SS F VALUE PR > F 842 843 TRT 3 1794.84077282 1.86 0.1440 3 1794.84077282 1.86 0.1440 844 5. ANALYSIS OF LE DATA 14:54 TUESDAY, NOVEMBER 15, 1988 17 845 ********** 846 847 GENERAL LINEAR MODELS PROCEDURE 848 849 DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESP 850 NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE. 851 NOT THE EXPERIEZTWISE ERROR RATE

ALPHA=0.05 DF=75 MSE=322.034

WARNING: CELL SIZES ARE NOT EQUAL.

852 853

854 855

856

857 858

859

860 861 HARMONIC MEAN OF CELL SIZES=19.7403

NUMBER OF MEANS 2 3 4 CRITICAL RANGE 11.39 11.9769 12.3592

MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

```
38.400
                                                                                    20 B
866
867
                                                                         36,000
                                                                                    20 D
868
869
                                                                         27.842
                                                                                    19 6
870
871
                                                                         27.800
                                                                                    20· A
872
                                                         6. ANALYSIS OF NH DATA
                                                                                                14:54 TUESDAY, NOVEMBER 15, 1988
873
874
875
                                                    GENERAL LINEAR MODELS PROCEDURE
876
877
                                                        CLASS LEVEL INFORMATION
878
879
                                                      CLASS
                                                                LEVELS
                                                                          VALUES
880
881
                                                      TRT
                                                                          ABCD
882
883
884
                                                NUMBER OF OBSERVATIONS IN DATA SET = 79
885
886
887 NOTE: ALL DEPENDENT VARIABLES ARE CONSISTENT WITH RESPECT TO THE PRESENCE OR ABSENCE OF MISSING VALUES, HOWEVER,
888
                  78 OBSERVATIONS CAN BE USED IN THIS ANALYSIS.
889
                                                         6. ANALYSIS OF NH DATA
                                                                                                14:54 TUESDAY, NOVEMBER 15, 1988 19
890
                                                          ******
891
892
                                                    GENERAL LINEAR MODELS PROCEDURE
893
894 DEPENDENT VARIABLE: RESP
895
896 SOURCE
                            DF
                                     SUM OF SQUARES
                                                             MEAN SQUARE
                                                                                F VALUE
                                                                                                 PR > F
                                                                                                               R-SOUARE
                                                                                                                                 C.V.
897
898 MODEL
                                      1432.77735043
                                                            477.59245014
                                                                                   1.81
                                                                                                 0.1525
                                                                                                               0.068414
                                                                                                                              58.5263
899
900 ERROR
                                     19510.09444444
                                                            263.64992492
                                                                                               ROOT MSE
                                                                                                                            RESP MEAN
901
902 CORRECTED TOTAL
                            77
                                     20942.87179487
                                                                                            16.23730042
                                                                                                                          27.74358974
903
904
905 SOURCE
                            DF
                                          TYPE I SS
                                                         F VALUE
                                                                      PR > F
                                                                                     DF
                                                                                                 TYPE III SS
                                                                                                                  F VALUE
                                                                                                                               PR > F
906
907 TRT
                                      1432.77735043
                                                            1.81
                                                                      0.1525
                                                                                      3
                                                                                               1432.77735043
                                                                                                                     1.81
                                                                                                                               0.1525
908
                                                         6. ANALYSIS OF NH DATA
                                                                                                14:54 TUESDAY, NOVEMBER 15, 1988 20
909
910
911
                                                    GENERAL LINEAR MODELS PROCEDURE
912
913
                                     DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESP
914
                                     NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
915
                                           NOT THE EXPERIMENTWISE ERROR RATE
916
917
                                                     ALPHA=0.05 DF=74 MSE=263.65
918
919
                                             WARNING: CELL SIZES ARE NOT EQUAL.
920
                                                      HARMONIC MEAN OF CELL SIZES=19.4595
921
922
                                             NUMBER OF MEANS
                                                                     2
                                                                               3
923
                                             CRITICAL RANGE
                                                               10.3822 10.9171 11.2658
924
925
                                      MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.
926
927
                                            DUNCAN GROUPING
                                                                           MEAN
                                                                                     N TRT
```

```
-931
                                                           Ά
                                                                         29.950
                                                                                    20 D
932
933
                                                                         23.944
                                                                                    18 C
934
935
                                                                         23.200
                                                                                    20 A
936
                                                       7. ANALYSIS OF ES/EL DATA
                                                                                                14:54 TUESDAY, NOVEMBER 15, 1988 21
937
                                                         ******
938
939
                                                    GENERAL LINEAR MODELS PROCEDURE
940
941
                                                        CLASS LEVEL INFORMATION
942
943
                                                      CLASS
                                                                LEVELS
                                                                          VALUES
944
945
                                                      TRT
                                                                   4
                                                                          ABCD
946
947
948
                                                NUMBER OF OBSERVATIONS IN DATA SET = 79
949
950
951 NOTE: ALL DEPENDENT VARIABLES ARE CONSISTENT WITH RESPECT TO THE PRESENCE OR ABSENCE OF MISSING VALUES. HOWEVER,
952
          ONLY
                  76 OBSERVATIONS CAN BE USED IN THIS ANALYSIS.
953
                                                       7. ANALYSIS OF ES/EL DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988
954
                                                         ******
955
956
                                                    GENERAL LINEAR MODELS PROCEDURE
958 DEPENDENT VARIABLE: RESPONSE
959 WEIGHT:
                       WT
960
961 SOURCE
                            DF
                                     SUM OF SQUARES
                                                             MEAN SQUARE
                                                                                F VALUE
                                                                                                 PR > F
                                                                                                               R-SOUARE
                                                                                                                                C.V.
962
963 MODEL
                             3
                                     13643.84596828
                                                           4547.94865609
                                                                                   1.07
                                                                                                 0.3658
                                                                                                               0.042815
                                                                                                                            107.1019
964
965 ERROR
                            72
                                    305022.43252909
                                                           4236.42267402
                                                                                               ROOT MSE
                                                                                                                        RESPONSE MEAN
966
967 CORRECTED TOTAL
                            75
                                    318666.27849737
                                                                                            65.08780741
                                                                                                                         60.77182901
968
969
970 SOURCE
                            DF
                                          TYPE I SS
                                                         F VALUE
                                                                      PR > F
                                                                                                 TYPE III SS
                                                                                                                  F VALUE
                                                                                                                              PR > F
971
972 TRT
                             3
                                     13643.84596828
                                                            1.07
                                                                      0.3658
                                                                                             13613 84596828
                                                                                      3
                                                                                                                    1.07
                                                                                                                              0.3658
973
                                                       7. ANALYSIS OF ES/EL DATA
                                                                                               14:54 TUESDAY, NOVEMBER 15, 1988
974
975
976
                                                    GENERAL LINEAR MODELS PROCEDURE
977
978
                                     DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESPONSE
979
                                     NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
980
                                           NOT THE EXPERIMENTWISE ERROR RATE
981
982
                                                     ALPHA=0.05 DF=72 MSE=4236.42
983
984
                                             WARNING: CELL SIZES ARE NOT EQUAL.
985
                                                      HARMONIC MEAN OF CELL SIZES=18.9736
986
987
                                             NUMBER OF MEANS
                                                                     2
                                                                               3
988
                                             CRITICAL RANGE
                                                               42.1647 44.3369
                                                                                   45.7548
989
990
                                      MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.
991
992
                                            DUN"N GROUPING
                                                                           MEAN
                                                                                     N TRT
993
```

997					Ä					
998					A	58.72	19 A		•	
999			~		A					
1000					A	54.68	18 C			·-
1001					7. ANALYS	SIS OF ES/EL DATA	,	14:54 TUES	DAY, NOVEMBER	15, 1988 24
1002				•	*****	*****				
1003										
	VARIABLE	N	MEAN	STANDARD	MINIMUM	MUMIXAM	SID ERROR	SUM	VARIANCE	C.V.
1005		-		DEVIATION	VALUE	VALUE	of mean			
1006			-		•					
1007						TRT=A			·	
1008			47 0700000							
1009		20	47.85000000	19.30441727	0.00000000	75.00000000	4.31659893	957.0000000	372.66052632	40.344
1010		20	33.65000000	14.28755439	0.0000000	55.00000000	3.19479429	673.0000000	204.13421053	42.459
1011		20	47.85000000	19.30441727	0.00000000	75.00000000	4.31659893	957.0000000	372.66052632	40.344
1012 1013		19	0.72233321	0.16235488	0.26666667	0.86956522	0.03724676	13.7243310	0.02635911	22.476
	RESPONSE	19 19	1.02529827	0.17617556	0.54263910	1.20128739	0.04041744	19.4806671	0.03103783	17.183
1014		19	58.72162799	10.09005463	31.07842131	68.80100491	2.31481729	1115.7109318	101.80920243	17.183
1015						mm.n				
1017						TRT=B			~	
1018	EI.	20	54.40000000	20.18702032	0.00000000	79.00000000	A E120E407	1000 0000000	407 51570047	27 100
1019		20	42.15000000	15.79898398	0.00000000	66.0000000	4.51395497 3.53276022	1088.0000000	407.51578947	37.108
1020		20	54.40000000	20.18702032	0.00000000	79.0000000	4.51395497	843.0000000 1088.0000000	249.60789474	
1021		19	0.77935354	0.07627567	0.57692308	0.89189189	0.01749884	14.8077172	407.51578947 0.00581798	37.108 9.787
1022		19	1.08688535	0.09086766	0.86262796	1.23576583	0.02084647	20.6508217	0.00361798	8.360
1023	RESPONSE	19		5.20423872	49.40505604	70.77567915	1.19393425		27.08410070	8.360
1024						, , , , , , , , , , , , , , , , , , , ,	1.13333123	1102.7200755	27.00410070	3.300
1025						TRT=C				
1026			-							
1027	EL	19	44.89473684	27.56587007	0	83.0000000	6.32404431	853.00000000	759.87719298	61.401
1028	ES	19	33.94736842	24.46192889	0	72.00000000	5.61195137	645.00000000	598.38596491	72.058
1029	WT	19	44.89473684	27.56587007	0	83.00000000	6.32404431	853.00000000	759.87719298	61.401
1030	Z	18	0.66899526	0.26361694	0	0.87500000	0.06213511	12.04191471	0.06949389	39.405
1031	ARS	18	0.95473163	0.33103932	O	1.20942920	0.07802672	17.18516935	0.10958703	34.674
1032	RESPONSE	18	54.68008431	18.95952457	0	69.26730889	4.46880280	984.24151750	359.46357173	34.674
1033								•		
1034				Y 40 40 40 40 40 40 40 40 40 40 40 40 40		TRT=D				
1035						*			• 1	
1036	EL	20	51.60000000	22.47899604	1.00000000	77.00000000	5.02645632	1032.0000000	505.30526316	43.564
1037	ES	20	40.10000000	18.09594313	0.00000000	62.00000000	4.04637590	802.0000000	327.46315789	45.127
1038	WI	20	51.60000000	22.47899604	1.00000000	77.00000000	5.02645632	1032.0000000	505.305. 316	43.564
1039		20	0.73647840	0.19670200	0.0000000	0.88333333	0.04398390	14.7295679	0.03869168	26.708
	ARS	20	1.03024744	0.26615292	0.0000000	1.22221476	0.05951360	20.6049488	0.07083737	25.834
	RESPONSE	20	59.00508066	15.24330340	0.0000000	69.99957262	3.40850626	1180.1016132	232.35829841	25.834
1042					8. ANALYS	is of ve/es data		14:54 TUES	DAY, NOVEMBER	5, 1988 25
1043					*****	*******				
1044			. •				4			*
1045					GENERAL LINE	AR MODELS PROCED	JRE			
1046 1047					G13.00 17					
1047					CLASS LE	VEL INFORMATION				
1049					CLACC	remia intima				
1050					CLASS	LEVELS VALUES				
1051					TOT	4 3000				
1051					TRT	4 ABCI	,			
1053										
1054				AT TA	RER OF ORCEDU	ATIONS IN DATA SE	ਦਾ = 70			
1055				1401	OF OBSERVE	TOTAL IN UNIN SI	as - 13			
1056										
	NOTE: ALL DE	PENDENT	VARIABLES ARE	CONSISTENT FOR	H RESPECT TO	THE PRESENCE OR I	ARSENTE OF M	TSSTNC VALUE	HUMENED	
1058	ONLY			N BE USED IN TH					ARMEN VERY	
1059		., 3				IS OF VE/ES DATA		14:54 TUES	DAY, NOVEMBER	15. 1988 26

Toon									
1064 DEPENDEN	T VARIAB	LE: RESPONSE							
1065 WEIGHT:		WT							
1066									4.0
1067 SOURCE		200							
		DF	SUM OF SQUARE	s me	AN SQUARE	F VALUE	PR > F	R-SQUARE	Ċ.º
1068									
1069 MODEL		3	85572.6024690	2 28524	. 20082301	2.06	0.1149	0.091991	164.43
1070							,	0.031331	104.43
1071 ERROR		61	844653.0494716	3 13846	5.77130281		ROOT MSE		
1072							MOOT MSE	i	response me
1073 CORRECTE	n Tryrat.	64	930225.6519406	-					
1074	OIOIAL	04	930223.0319406	ɔ			117.67230474	•	71.562837
					.•				
1075							*		
1076 SOURCE		DF	TYPE I S	S F VALU	E PR > F	DF	TYPE III	SS F VALUE	E PR >
1077									
1078 TRT		3	85572.6024690	2 2.0	6 0.1149	3	85572.60246	5902 2.06	0.11
1079			*	8. ANALY	SIS OF VE/ES DAT	ra.		SDAY, NOVEMBER 1	
1080					*******	•••	14.54 100	BURI, WOVEMBER I	5, 1988
1081		- '						••	
1082				CENTEDAT TEN	515 Maria -			•	
1083				GENERAL LIN	EAR MODELS PROCE	DURE			
1084									
			DUNCAN'S MULT	IPLE RANGE TE	ST FOR VARIABLE:	RESPONSE			
1085		•	NOTE: THIS TES	ST CONTROLS T	HE TYPE I COMPAR	RISONWISE E	RROR RATE,	. *	
1086			NOT THE	EXPERIMENTWIS	SE ERROR RATE			÷	•
1087								's 'f	
1088				ALPHA=0.05	DF=61 MSE=138	46.8			*
1089								.*	
1090			WARNIN	G CELL SIZES	S ARE NOT EQUAL.		8		
.091			1474471						
.092				DARMONIC I	MEAN OF CELL SIZ	ES=15.7935	i		
093								•	
			NUMBER	OF MEANS	2	3	4		
.094			CRITIC	CAL RANGE 8	33.7918 88.105	3 90.944	1		
1095				•					
L096			MEANS WITH TH	E SAME LETTER	ARE NOT SIGNIF	ICANTLY DI	FFERENT		
.097									
.098			DUNCAN	GROUPING	MEAN	N T	יייט		
.099					14441	IN 1.	K1		
.100				*	74.00				
.101				n -	74.85	18 B			
102			•	A				4.	
	•			A	71.90	17 D			
103				A					
104				A	70.70	18 A			
105	,			A					
106				A	64.76	12 C	4		
107					IS OF VE/ES DAT		14 = 4 =		
108					**********	4	14:54 TUES	SDAY, NOVEMBER 19	i, 1988 2
109				*****					
	, .		·						
110 VARIABLE	· 1	n mean	STANDARD	MINIMUM	MAXIMUM	STD ERRO	OR SUM	VARIANCE	C.V
111	-		DEVIATION	VALUE	VALUE	OF MEAN	4 .		
112									
113					TRT=A				
114	ă.						· · · · · · · · · · · · · · · · · · ·		
15 ES	20	33.65000000	14.28755439	n nonnonn	EE 00000000	3 10/=			
16 VE	20			0.00000000	55.00000000	3.1947942			42.45
				0.0000000	55.00000000	3.4221415		234.22105263	54.07
17 WT	20			0.0000000	55.00000000	3.1947942	9 673.0000000	204.13421053	42.45
18 Z	19	0.85331865		0.02500000	1.10000000	0.0582899	16.2130544	0.06455664	29.77
19 ARS	18	3 1.23436298	0.35624975	0.15878021	1.57079633	0.0839688		0.12691389	28.86
20 RESPONSE	18	70.69533417		9.09377593	89.96378963		28 1272.5160151		
21						T.0031202	~ 1212.3100131	410.6202088	28.86
.22					more_n				
.23					TRT=B				
						,			
.24 ES		42.15000000		0.00000000	66.00000000	3.5327602	2 843.0000000	249.60789474	37.48
.25 VE	20	38.55000000	16.34649488	0.00000000	67.00000000	3.6551873		267.20789474	42.40
						· · · · · ·			72.703

1129 RESPONSE 1130	18	74.85035166	11.62931528	55.52774812	89.96378963	2.74105590	1347.3063299	135.24097391	15.537
1131					TRT=C				
1132								•	
1133 ES	19	33.94736842	24.46192889	O	72.00000000	5.61195137	645.00000000	598.38596491	72.058
1134 VE	19	27.89473684	20.87234943	0	65.00000000	4.78844536	530.00000000	435.65497076	74.825
1135 WT	19	33.94736842	24.46192889	0	72.00000000		645.00000000	598.38596491	72.058
1136 Z 1137 ARS	17 12	1.26031358	1.18937151	0	5.00000000	0.28846496	21.42533087	1.41460459	94.371
1137 ARS 1138 RESPONSE	12	1.13075184 64.76124177		0	1.57079633		13.56902208	0.17117301	36.589
1139	1.0	01.70124177	23.69548007	0	89.96378963	6.84029590	777.13490119	561.47577569	36.589
1140		,,,			TRT=D				
1141			-					4	
1142 ES	20	40.10000000	18.09594313	0	62.00000000	4.04637590	802.0000000	327.46315789	45.127
1143 VE	19	35.26315789	19.06375883	o '	60.0000000	4.37352622	670.0000000	363.42690058	54.061
1144 WT	20	40.10000000	18.09594313	. 0	62.00000000	4.04637590	802.0000000	327.46315789	45.127
1145 Z	18	0.84501056	0.27987715	0	1.61694915	0.06596768	15.2101901	0.07833122	33.121
1146 ARS	17	1.25545796	0.43182163	0	1.57079633	0.10473213	21.3427854	0.18646992	34.396-
1147 RESPONSE	17	71.90350146	24.73160219	.0			1222.3595249		34.396
1148 1149					S OF LE/VE DA	TA.	14:54 TUES	DAY, NOVEMBER 15	, 1988 29
1150				*******	******				
1151				CENTEDAT TIMES	R MODELS PROC	ention			
1152				OZIZION BIND	IN HODELO PROCI	DORE			
1153				CLASS LEV	EL INFORMATION	1		**	
1154									
1155				CLASS I	EVELS VALUE	ES			
1156							•	-	
1157				TRT	4 ABC	C D			
1158									
1159									
1160			NUM	BER OF OBSERVA	TIONS IN DATA	SET = 79			
1162									
	FDFNDFNT	WADTARIES ADE	CONCICTORE WITH	u proprov vo v	THE DESCRIPTION OF	ADOTHOT OF M	rection in time		
1163 NOTE: ALL D					HE PRESENCE OF	R ABSENCE OF M	ISSING VALUES.	HOWEVER,	
			CONSISTENT WITH	is analysis.					1088 30
1163 NOTE: ALL D 1164 ONLY				is analysis. 9. Analysi	THE PRESENCE OF			HOWEVER,	, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165				is analysis. 9. Analysi	S OF LE/VE DAT				, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165 1166				IS ANALYSIS. 9. ANALYSI	S OF LE/VE DAT	TA.			, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167				IS ANALYSIS. 9. ANALYSI	S OF LE/VE DAY	TA.			, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168	71 OF	BSERVATIONS CA		IS ANALYSIS. 9. ANALYSI	S OF LE/VE DAY	TA.			, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT:	71 OF	BSERVATIONS CA		IS ANALYSIS. 9. ANALYSI	S OF LE/VE DAY	TA.			, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT:	71 OF	ESERVATIONS CA RESPONSE WI	IN BE USED IN TH	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA	S OF LE/VE DAY	EDURE		DAY, NOVEMBER 15	, 1988 30
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE	71 OF	ESERVATIONS CA		IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA	S OF LE/VE DAY	TA.			, 1988 30 C.V.
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174	71 OF	RESPONSE WT	IN BE USED IN TH	IS ANALYSIS. 9. ANALYSI ********* GENERAL LINEA MEAN	S OF LE/VE DAY	edure F value	14:54 TUES	DAY, NOVEMBER 15	C.V.
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL	71 OF	ESERVATIONS CA RESPONSE WI	IN BE USED IN TH	IS ANALYSIS. 9. ANALYSI ********* GENERAL LINEA MEAN	S OF LE/VE DAY	EDURE	14:54 TUES	DAY, NOVEMBER 15	a ·
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176	71 OF	RESPONSE WT DF	SUM OF SQUARES 4794.71082889	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA MEAN 1598.2	S OF LE/VE DATE	edure F value	14:54 TUES PR > F 0.0470	DAY, NOVEMBER 15 R-SQUARE 0.111130	C.V. 26.9969
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL	71 OF	RESPONSE WT	IN BE USED IN TH	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA MEAN 1598.2	S OF LE/VE DAY	edure F value	14:54 TUES	DAY, NOVEMBER 15 R-SQUARE 0.111130	C.V.
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR	71 O	RESPONSE WT DF	SUM OF SQUARES 4794.71082889	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA MEAN 1598.2	S OF LE/VE DATE	TA EDURE F VALUE 2.79	14:54 TUES PR > F 0.0470	R-SQUARE 0.111130	C.V. 26.9969 SPONSE MEAN
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178	71 O	RESPONSE WT DF 3	SUM OF SQUARES 4794.71082889 38350.43881841	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA MEAN 1598.2	S OF LE/VE DATE	TA EDURE F VALUE 2.79	PR > F	R-SQUARE 0.111130	C.V. 26.9969
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T	71 O	RESPONSE WT DF 3	SUM OF SQUARES 4794.71082889 38350.43881841	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA MEAN 1598.2	S OF LE/VE DATE	TA EDURE F VALUE 2.79	PR > F	R-SQUARE 0.111130	C.V. 26.9969 SPONSE MEAN
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE	71 O	RESPONSE WT DF 3	SUM OF SQUARES 4794.71082889 38350.43881841	IS ANALYSIS. 9. ANALYSI ******** GENERAL LINEA MEAN 1598.2	S OF LE/VE DATE	TA EDURE F VALUE 2.79	PR > F	R-SQUARE 0.111130	C.V. 26.9969 SPONSE MEAN
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS	S ANALYSIS. 9. ANALYSIS. 4******** GENERAL LINEA MEAN 1598.2 572.3	S OF LE/VE DAY ************ R MODELS PROCE SQUARE 3694296 9460923 PR > F	EDURE F VALUE 2.79	PR > F	R-SQUARE 0.111130	C.V. 26.9969 SPONSE MEAN 88.62050516
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE	71 O	RESPONSE WI DF 3 67 70	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730	S ANALYSIS. 9. ANALYSI ********* GENERAL LINEA MEAN 1598.2 572.3 F VALUE 2.79	S OF LE/VE DAY ***********************************	TA EDURE F VALUE 2.79 DF 3	PR > F	R-SQUARE 0.111130 RE: SS F VALUE 89 2.79	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE 1183 1184 TRT 1185	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS	S ANALYSIS. 9. ANALYSIS. 9. ANALYSIS. 6. ANALYSIS. GENERAL LINEA MEAN 1598.2 572.3 F VALUE 2.79 9. ANALYSI	S OF LE/VE DAY R MODELS PROCE SQUARE 3694296 9460923 PR > F 0.0470 S OF LE/VE DAY	TA EDURE F VALUE 2.79 DF 3	PR > F	R-SQUARE 0.111130 RE:	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE 1183 1184 TRT 1185 1186	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS	S ANALYSIS. 9. ANALYSIS. 9. ANALYSIS. 6. ANALYSIS. GENERAL LINEA MEAN 1598.2 572.3 F VALUE 2.79 9. ANALYSI	S OF LE/VE DAY ***********************************	TA EDURE F VALUE 2.79 DF 3	PR > F	R-SQUARE 0.111130 RE: SS F VALUE 89 2.79	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE 1183 1184 TRT 1185 1186 1187	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS	SANALYSIS. 9. ANALYSIS. 9. ANALYSI ***********************************	S OF LE/VE DAY R MODELS PROCE SQUARE 3694296 9460923 PR > F 0.0470 S OF LE/VE DAY	EDURE F VALUE 2.79 DF 3	PR > F	R-SQUARE 0.111130 RE: SS F VALUE 89 2.79	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE 1183 1184 TRT 1185 1186	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS	SANALYSIS. 9. ANALYSIS. 9. ANALYSI ***********************************	S OF LE/VE DAY R MODELS PROCE SQUARE 3694296 9460923 PR > F 0.0470 S OF LE/VE DAY	EDURE F VALUE 2.79 DF 3	PR > F	R-SQUARE 0.111130 RE: SS F VALUE 89 2.79	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE 1183 1184 TRT 1185 1186 1187 1188	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS	S ANALYSIS. 9. ANALYSIS. 9. ANALYSIS. 4******** GENERAL LINEA 1598.2 572.3 F VALUE 2.79 9. ANALYSI ********* GENERAL LINEA	S OF LE/VE DAY **************** R MODELS PROCE S SQUARE 3694296 9460923 PR > F 0.0470 S OF LE/VE DAY ***********************************	EDURE F VALUE 2.79 DF 3 FA EDURE	PR > F	R-SQUARE 0.111130 RE: SS F VALUE 89 2.79	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470
1163 NOTE: ALL D 1164 ONLY 1165 1166 1167 1168 1169 1170 DEPENDENT V 1171 WEIGHT: 1172 1173 SOURCE 1174 1175 MODEL 1176 1177 ERROR 1178 1179 CORRECTED T 1180 1181 1182 SOURCE 1183 1184 TRT 1185 1186 1187 1188 1189	71 O	RESPONSE WT DF 3 67 70 DF	SUM OF SQUARES 4794.71082889 38350.43881841 43145.14964730 TYPE I SS 4794.71082889	S ANALYSIS. 9. ANALYSIS. 9. ANALYSI ***********************************	S OF LE/VE DAY R MODELS PROCE SQUARE 3694296 9460923 PR > F 0.0470 S OF LE/VE DAY ***********************************	EDURE F VALUE 2.79 DF 3 TA EDURE RESPONSE	PR > F	R-SQUARE 0.111130 RE: SS F VALUE 89 2.79	C.V. 26.9969 SPONSE MEAN 88.62050516 PR > F 0.0470

1105										
1195		•								
1196				WARNII		ARE NOT EQUAL.				
1197					HARMONIC N	MEAN OF CELL SIZE:	S=17.6533			
1198					= .==.				•	
1199					R OF MEANS	2 3	4			
1200				CRITIC	CAL RANGE 1	16.0869 16.9154	17.4581		•	
1202				WEARC LITTER OF	E CAME TOWNS	ADE NOT COMPANY				
1202				MEANS WITH TH	ie same letter	R ARE NOT SIGNIFIC	CANTLY DIFFE	RENT.		
1203				. DURYCKN	COOLIDANG	107777	A'T MIRNON			
1204				DUNCAN	GROUPING	MEAN	N TRT			
			*		_					
1206		,			A	89.964	17 D			
1207					A					
1208					A	89.445	16 C			
1209					A					
1210	7	-			A	88.774	19 B			
1211	*.				Α -					
1212					A	85.474	19 A			
1213						SIS OF LE/VE DATA		14:54 TUES	DAY, NOVEMBER	15, 1988 32
1214					*****	*****				
1215			-							
	VARIABLE	N	MEAN	STANDARD	MINIMUM	MAXIMUM	STD ERROR	SUM	VARIANCE	C.V.
1217				DEVIATION	VALUE	VALUE	OF MEAN			· ·
1218						,			.*	
1219						TRT=A	****			
1220										
1221		20	28.30000000	15.30428217	0.0000000	55.0000000	3.42214153	566.0000000	234.22105263	54.079
1222		20	27.80000000	15.44974876	0.00000000	55.0000000	3.45466885	556.0000000	238.69473684	55.575
1223		20	28.30000000	15.30428217	0.00000000	55.0000000	3.42214153	566.0000000	234.22105263	54.079
1224		19	0.97748906	0.05323169	0.77272727	1.00000000	0.01221219	18.5722921	0.00283361	5.446
1225		19	1.49241110	0.13615957	1.07386384	1.57079633	0.03123715	28.3558109	0.01853943	9.123
	RESPONSE	19	85.47445378	7.79822981	61.50311061	89.96378963	1.78903662	1624.0146218	60.81238823	9.123
1227										
1228						TRT=B				
1229										
1230	VE .	. 20	38.55000000	16.34649488	0.00000000	67.00000000	3.65518737	771.0000000	267 . 20789474	42.403
1231	LE	20	38.40000000	16.33014648	0.0000000	67.00000000	3.65153176	768.0000000	266.67368421	42.526
1232	WI	20	38.55000000	16.34649488	0.0000000	67.00000000	3.65518737	771.0000000	267.20789474	42.403
1233	Z	19	0.99594548	0.01221904	0.95744681	1.00000000	0.00280324	18.9229640	0.00014931	1.227
1234	ars	19	1.55003025	0.06230038	1.36302032	1.57079633	0.01429269	29.4505747	0.00388134	4.019
1235	RESPONSE	19	88.77445975	3.56811251	78.06389122	89.96378963	0.81858115	1686.7147353	12.73142685	4.019
1236										
1237						TRT=C				
1238								•		
1239	VE	19	27.89473684	20.87234943	0.0000000	65.00000000	4.78844536	530.0000000	435.65497076	74.825
1240	LE	19	27.84210526	20.82003084	0.00000000	65.00000000	4.77644265	529.0000000	433.47368421	74.779
1241	WT	19	27.89473684	20.87234943	0.00000000	65.00000000	4.78844536	530.0000000	435.65497076	74.825
1242	Z	16	0.99869792	0.00520833	0.97916667	1.00000000	0.00130208	15.9791667	0.00002713,	0.522
1243	ARS	16	1.56174361	0.03621087	1.42595283	1.57079633	0.00905272	24.9878977	0.00131123	2.319
1244	RESPONSE	16	89.44531574	2.07389553	81.66820752	89.96378963	0.51847388	1431.1250519	4.30104265	2.319
1245			4	•						
1246						TRT=D				
1247										
1248	VE	19	35.26315789	19.06375883	0.00000000	60.00000000	4.37352622	670.0000000	363.42690058	54.061
1249	LE	20	36.00000000	18.84563331	0.00000000	60.00000000	4.21401172	720.0000000	355.15789474	52.349
1250	WT	19	35.26315789	19.06375883	0.00000000	60.00000000	4.37352622	670.0000000	363.42690058	54.061
1251	Z	17	1.00000000	0.0000000	1.00000000	1.00000000	0.00000000	17.0000000	0.00000000	0.000
1252		17	1.57079633	0.0000000	1.57079633	1.57079633	0.00000000	26.7035376	0.00000000	0.000
	RESPONSE	17		0.00000000	89.96378963			1529.3844236		0.000
1254						SIS OF NH/LE DATA			DAY, NOVEMBER	
1255						*****				
1256										
						NO MODELS DOOGED				

1261			à		CLASS	LEVELS	VALUES	5					
1262										٠			
1263			-		TRT	4	ABC	D					
1264													
1265													
1266				NUM	BER OF OBSE	RVATIONS	IN DATA S	SET = 7	19				
1267													
1268													
1270				CAN BE USED IN THE			SENCE OR	ABSENC	EOF	ISSING VALUES. HO	VEVER,		
1270		1 09	OBS-KVATIONS	CAN BE USED IN TH									
1272			•			YSIS OF N	• • • • • • • • • • • • • • • • • • • •	١.		14:54 TUESDAY	, NOVEMBER	15, 1988	3 34
1273													
1274					GENERAL LI	MEND MODE	e pocer	MIDE					
1275					OCHICION DI	HEAR PODE	LO PROCEL	ORE					
1276	DEPENDENT	VARIABLE	E: RESPONSE										
	WEIGHT:		WT										
1278													ž.
1279	SOURCE		DF	SUM OF SQUARES	М	ean Souari	3	F VALU	E	PR > F	R-SQUARE	•	c.v.
1280				*									9.1.
1281	MODEL		3	5841.53071143	194	7.1769038	l	0.4	1	0.7498	0.018354	101	.8788
1282													
	ERROR		65	312429.49747146	480	6.6076534	Į.			ROOT MSE		RESPONSE	MEAN
1284													
	CORRECTED	TOTAL	68	318271.02818289						69.32970253		68.051	17859
1286												•	
1287	SOURCE	•									ė		
1289	SOURCE		DF	TYPE I SS	F VAL	UE PI	? > F	D	F	TYPE III SS	F VALU	E P	R > F
1290	TET		3	5841.53071143	•	41 0	7400			5042 500		_	
1291				3041.33071143	0.4 10 anar	YSIS OF N	.7498 1/15: Data		3	5841.53071143	0.4		.7498
1292			•			*****		,		14:54 TUESDAY,	NOVEMBER	15, 1988	.35
1293													
1294					GENERAL LI	NEAR MODE	S PROCED	URE					
1295													
1296				DUNCAN'S MULTIP	LE RANGE TI	EST FOR VA	RIABLE:	RESPON:	SE	•			
1297				NOTE: THIS TEST	CONTROLS ?	THE TYPE I	COMPARI	SONWIS	E ERRO	R RATE,			
1298		-		NOT THE E	XPERIMENTW	ISE ERROR	RATE						
1299					í								
1300					ALPHA=0.05	5 DF=65	MSE=4806	.61		•			
1301													
1302				WARNING	: CELL SIZE								
1303 1304					HARMONIC	MEAN OF C	ELL SIZE	S=17.00	089				
1304				MARKET		_			_				
1306					OF MEANS L RANGE	2 47.5168	40.0637		4		=		
1307				CKITICA	T LUMBE	47.5100	49.9637	51.:	5689				
1308				MEANS WITH THE	SAME LETTE	D ADE NO	STONIET	Canfre V	DIEEE	DENT			
1309			•			200 200 100 2	DIGNILL	CUMITEL	DIFFE	NEWI.			•
1310				DUNCAN	GROUPING		MEAN	N	TRT				
1311	÷												
1312					A		70.65	18	В				
1313					A								
1314					A		69.38	18	D				
1315					A			٤.					
1316					A		62.74	19	A				
1317					A								
1318			*		A		60.64		С				
1319						SIS OF NH	•			14:54 TUESDAY,	NOVEMBER	15, 1988	36
1320					*****	******	*****						
1321	VARIABLE	N	I MUTAN	Canarius co	1473.00.0		VTM.		nee-				
1323	•er/tuning	P	MEAN MEAN	STANDARD DEVIATION	MINIMUN VALUE		XIMUM VALUE		ERROR	SUM	VARIANCE		C.V.
				SULTUITAL	AUPAE	·	·mot	OF I	HAPITY.			2	6

172	, The	ZU.	27.60000000	15.449/48/6	.0	55.00000000	3.45466885	556.0000000	238.69473684	
132	8 NH	20	23.20000000	14.62370102	. 0		3.26995896	464.0000000		55.575
132	9 WI	20	27.80000000	15.44974876	0		3.45466885	556.0000000		63.033
133	o z	19	0.76563135	0.23590834	0		0.05412109	14.5469957		55.575
133	l ars	19	1.09544407	0.33892780	. 0		0.07775537	20.8134374		30.812
133	2 RESPONSE	19	62.73906960	19.41131929	. 0	89.96378963	4.45326206			30.940
133	3								370.73331043	30.940
133	\$:					- TRT=B				
133	5			•		0				
1336	5 LE	20	38.40000000	16.33014648	0.00000000	67.00000000	3.65153176	759 0000000	200 07200401	40 =0
133	7 NH	20	33.50000000	15.28845454	0.00000000	59.0000000		768.0000000		42.526
1338		20	38.40000000	16.33014648	0.00000000		3.41860236	670.0000000		45.637
1339		19	0.87160784	0.12347759		67.00000000	3.65153176	768.0000000		42.526
	ARS	18	1.23350180	0.12547759	0.59183673	1.01754386	0.02832770	16.5605491	0.01524571	14.167
	RESPONSE	18	70.64601244		0.87775926	1.57079633	0.04596919	22.2030325	0.03803699	15.811
1342		10	70.04001244	11.16994293	50.27166698	89.96378963	2.63278080	1271.6282238	124.76762-08	15.811
	• }. 						_			
1344	*.					TRT=C		·		
		10	27 04010505							
		19	27.84210526		0	65.00000000	4.77644265	529.00000000	433.47368421	74.779
1346		18	23.9444444	lraE322910	0	56.0000000	4.51610931	431.00000000	367.11437908	80.020
1347		19	27.84210526	20.82003084	0	65.00000000	4.77644265	529.00000000	433.47368421	74.779
1348		15	0.76224933	0.26171832	0	1.04000000	0.06757538	11.43373991	0.06849648	34.335
	ARS -	14	1.05873235	0.36687555	0	1.57079633	0.09805161	14.82225296	0.13459767	34.652
	RESPONSE	14	60.63648937	21.01196306	0	89.96378963	5.61568334	848.91085124	441.50259152	34.652
1351				•						
1352						TRT=D				
1353										
1354		20	36.00000000	18.84563331	0.00000000	60.00000000	4.21401172	720.0000000	355.15789474	52.349
1355		20	29.95000000	15.83625089	0.00000000	49.00000000	3.54109335	599.0000000	250.78684211	52.876
1356	WI	20	36.00000000	18.84563331	0.00000000	60.00000000	4.21401172	720.0000000	355.15789474	
1357	Z	18	0.84830172	0.12643531	0.58333333	1.00000000	0.02980109	15.2694309	0.01598589	14.905
1358	ARS	18	1.21134759	0.20024375	0.86912220	1.57079633	0.04719790	21.8042566	0.04009756	16.531
1359	RESPONSE	18	69.37718009	11.46850566	49.77699890	89.96378963	2.70315271		131.52662199	16.531
1360	l				11 ANALYS	IS OF NH/EL DAT	7 A		DAY, NOVEMBER	
1361					****	******				,
1362										
1362 1363					GENERAL LINE	AR MODELS PROCE	DURE			,
					GENERAL LINE	AR MODELS PROCE	DURE			
1363										
1363 1364						AR MODELS PROCE				
1363 1364 1365					CLASS LE	VEL INFORMATION	1			
1363 1364 1365 1366					CLASS LE		1			
1363 1364 1365 1366 1367					CLASS LE	VEL INFORMATION	s			
1363 1364 1365 1366 1367 1368					CLASS LE	VEL INFORMATION	s		. *	•
1363 1364 1365 1366 1367 1368					CLASS LE	VEL INFORMATION	s			•
1363 1364 1365 1366 1367 1368 1369	2			N; n,	CLASS LE CLASS TRT	VEL INFORMATION LEVELS VALUE 4 A B C	s D			•
1363 1364 1365 1366 1367 1368 1369 1370 1371				NUM	CLASS LE CLASS TRT	VEL INFORMATION	s D			•
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372	2			NUM	CLASS LE CLASS TRT	VEL INFORMATION LEVELS VALUE 4 A B C	s D			•
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372		PENDENT	VADTARIES ADE		CLASS LE CLASS TRT BER OF OBSERV	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA	S D SET = 79			
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373	NOTE: ALL DE			CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV	VEL INFORMATION LEVELS VALUE 4 A B C	S D SET = 79	ISSING VALUES.	HOWEVER,	
1363 1364 1365 1366 1367 1369 1370 1371 1372 1373 1374	NOTE: ALL DEI ONLY				CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS.	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR	S D SET = 79 ABSENCE OF M		•	
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375	NOTE: ALL DEI ONLY			CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR	S D SET = 79 ABSENCE OF M		HOWEVER, DAY, NOVEMBER:	15, 1988 38
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1377	NOTE: ALL DEI ONLY			CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR	S D SET = 79 ABSENCE OF M		•	15, 1988 38
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1377	NOTE: ALL DEI ONLY			CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS *******	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATA	S D SET = 79 ABSENCE OF M		•	15, 1988 38
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1377 1378	NOTE: ALL DEI ONLY			CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS *******	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR	S D SET = 79 ABSENCE OF M		•	15, 1988 38
1363 1364 1365 1366 1367 1368 1370 1371 1372 1373 1374 1375 1376 1377 1378 1379	NOTE: ALL DEI ONLY	75 OB	SERVATIONS CA	CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS *******	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATA	S D SET = 79 ABSENCE OF M		•	.15, 1988 38
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1377 1378 1379 1380 1381	NOTE: ALL DEI ONLY DEPENDENT VAI	75 OB	SERVATIONS CA	CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS *******	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATA	S D SET = 79 ABSENCE OF M		•	15, 1988 38
1363 1364 1365 1366 1367 1368 1370 1371 1372 1373 1374 1375 1376 1377 1378 1379 1380 1381 1382	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT:	75 OB	SERVATIONS CA	CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS *******	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATA	S D SET = 79 ABSENCE OF M		•	.5, 1988 38
1363 1364 1365 1366 1367 1368 1370 1371 1372 1373 1374 1375 1376 1377 1378 1379 1380 1381 1382 1383	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT:	75 OB	SERVATIONS CA RESPONSE WT	Consistent wit n be used in th	CLASS LE CLASS TRT BER OF OBSERV. H RESPECT TO IS ANALYSIS. 11 ANALYS ************************************	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATA	S D SET = 79 ABSENCE OF M		•	15, 1988 38
1363 1364 1365 1366 1367 1368 1370 1371 1372 1373 1374 1375 1376 1377 1378 1379 1380 1381 1382 1383	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT: SOURCE	75 OB	SERVATIONS CA	CONSISTENT WIT	CLASS LE CLASS TRT BER OF OBSERV. H RESPECT TO IS ANALYSIS. 11 ANALYS ************************************	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATA	S D SET = 79 ABSENCE OF M		•	15, 1988 38 C.V.
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1377 1380 1381 1382 1383 1384 1385 1386	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT: SOURCE	75 OB	SERVATIONS CA RESPONSE WT	Consistent wit n be used in th	CLASS LE CLASS TRT BER OF OBSERV. H RESPECT TO IS ANALYSIS. 11 ANALYS ************************************	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA THE PRESENCE OR IS OF NH/EL DATA THE PRESENCE OR THE PRE	S D SET = 79 ABSENCE OF M	14:54 TUES	DAY, NOVEMBER	
1363 1364 1365 1366 1367 1368 1370 1371 1372 1373 1374 1375 1376 1377 1380 1381 1382 1383 1384 1385 1386	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT: SOURCE	75 OB	SERVATIONS CA RESPONSE WT	Consistent wit n be used in th	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS ******* GENERAL LINE	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA THE PRESENCE OR IS OF NH/EL DATA THE PRESENCE OR THE PRE	S D SET = 79 ABSENCE OF M	14:54 TUES	DAY, NOVEMBER	
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1381 1382 1383 1384 1385 1386 1387 1388	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT: SOURCE MODEL	75 OB	SERVATIONS CA RESPONSE WT	CONSISTENT WIT N BE USED IN TH	CLASS LE CLASS TRT BER OF OBSERV H RESPECT TO IS ANALYSIS. 11 ANALYS ******* GENERAL LINE	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATE AR MODELS PROCEIN	S D SET = 79 ABSENCE OF M A DURE F VALUE	14:54 TUES	DAY, NOVEMBER : R-SQUARE	c.v.
1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1381 1382 1383 1384 1385 1386 1387 1388	NOTE: ALL DEI ONLY DEPENDENT VAI WEIGHT: SOURCE	75 OB	RESPONSE WT DF 3	CONSISTENT WIT N BE USED IN TH	CLASS LE CLASS TRT BER OF OBSERV. H RESPECT TO IS ANALYSIS. 11 ANALYS ******* GENERAL LINE MEAI	VEL INFORMATION LEVELS VALUE 4 A B C ATIONS IN DATA: THE PRESENCE OR IS OF NH/EL DATE AR MODELS PROCEIN	S D SET = 79 ABSENCE OF M A DURE F VALUE	14:54 TUES	DAY, NOVEMBER : R-SQUARE 0.075662	c.v.

1393										
	SOURCE		DF	TYPE I S	5 F VALU	E PR > F	DF	TYPE III	SS FVAL	UE PR > F
1395				•						
1396	TRI		~3	50613.96094842			3	50613.96094	842 1.	94 0.1314
1397 1398						SIS OF NH/EL DATA	A	14:54 TUE	SDAY, NOVEMBER	15, 1988 39
1399					*****	*****				
1400					COMPANY IN	710 HODELS DOCUMENT				-
1401					GENERAL LIN	EAR MODELS PROCEI	JURE .			
1402				DUNCAN'S MILTI	DIF DANCE TO	ST FOR VARIABLE:	DECDONOR			
1403						HE TYPE I COMPARI		on hadin		
1404						SE ERROR RATE	ISOMMISE EKK	OR RATE,		
1405					THE CHANGE INT.	OF EMOK WIFE				
1406		•			ALPHA=0.05	DF=71 MSE=8708	1 95			
1407										
1408	p.*			WARNIN	G: CELL SIZE	S ARE NOT EQUAL.				
1409	*.					MEAN OF CELL SIZE	S=18.684			
1410										
1411				NUMBER	OF MEANS	2 3	3 4			
1412				CRITIC	AL RANGE	60.9353 64.0744	66.1248			
1413								•		
1414			-	MEANS WITH TH	E SAME LETTE	R ARE NOT SIGNIFI	CANTLY DIFF	ERENT.		
1415										
1416				DUNCAN	GROUPING	MEAN	N TRT			
1417										
1418					A	51.48	19 B			
1419 1420			•		A				4 · *	•
1420					A	45.10	20 D			•
1421					A					
1423					A	43.30	19 A			
1424					A A	40.01	10 0			
					A					
1425						40.01	17 C			
1425 1426					י מאיג 11	SIS OF NH/EL DATA	· · · ·-	14:54 TUES	SDAY, NOVEMBER	15, 1988 40
					י מאיג 11		· · · ·-	14:54 TUES	SDAY, NOVEMBER	15, 1988 40
1426 1427	/ARIABLE	N	MEAN	STANDARD	*******	SIS OF NH/EL DATA	•			
1426 1427	/ARIABLE	N	MEAN	STANDARD DEVIATION	י מאיג 11	SIS OF NH/EL DATA	STD ERROR	SUM	SDAY, NOVEMBER VARIANCE	15, 1988 40 C.V.
1426 1427 1428 V	/ARIABLE	И	MEAN		MINIMUM 11 AND 15	SIS OF NH/EL DATA	•			
1426 1427 1428 V 1429	/ARIABLE	N	MEAN		MINIMUM 11 AND 15	SIS OF NH/EL DATA	STD ERROR	SUM		
1426 1427 1428 V 1429 1430	/ARIABLE	N	MEAN		MINIMUM 11 AND 15	SIS OF NH/EL DATA ***********************************	STD ERROR	SUM		
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E	EL.	N 	MEAN 47.85000000		MINIMUM 11 AND 15	SIS OF NH/EL DATA ***********************************	STD ERROR OF MEAN	SUM	VARIANCE	
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E	erl H			DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE 372.66052632	c.v.
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W	EL H VT	20 20 20	47.85000000 23.20000000 47.85000000	19.30441727 14.62370102 19.30441727	MINIMUM VALUE	MAXIMUM VALUE TRT=A	STD ERROR OF MEAN 4.31659893	SUM	VARIANCE 372.66052632	C.V.
1426 1427 1428 1429 1430 1431 - 1432 1433 E 1434 N 1435 W	EL H VI	20 20 20 20	47.85000000 23.20000000 47.85000000 0.48817105	19.30441727 14.62370102 19.30441727 0.22041145	MINIMUM VALUE	MAXIMUM VALUE TRT=A 75.00000000 47.00000000	STD ERROR OF MEAN 4.31659893 3.26995896	SUM	VARIANCE 372.66052632 213.85263158	C.V. 40.344 63.033
1426 1427 1428 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A	EL VI VI VI VI VI	20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264	MINIMUM VALUE	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085	C.V. 40.344 63.033 40.344
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A	EL H VI	20 20 20 20	47.85000000 23.20000000 47.85000000 0.48817105	19.30441727 14.62370102 19.30441727 0.22041145	MINIMUM VALUE	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409	957.00000000 464.00000000 957.00000000 9.27524990	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085	40.344 63.033 40.344 45.150
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439	EL VI VI VI VI VI VI VI VI VI VI VI VI VI	20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264	MINIMUM VALUE	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085	40.344 63.033 40.344 45.150 35.596
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 -	EL VI VI VI VI VI VI VI VI VI VI VI VI VI	20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264	MINIMUM VALUE	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295	40.344 63.033 40.344 45.150 35.596
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441	el H VT Z RRS RESPONSE	20 20 20 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938	MINIMUM VALUE	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295	40.344 63.033 40.344 45.150 35.596
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E	el H VI L RESPONSE	20 20 20 19 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938	11 ANA ' 'S ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947	40.344 63.033 40.344 45.150 35.596 37.108
1426 1427 1428 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N	EL WI VI VI VI VI VI VI VI VI VI VI VI VI VI	20 20 20 19 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.500000000	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938	11 ANA 75	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211	40.344 63.033 40.344 45.150 35.596 37.108 45.637
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E	EL WH WT Z ARS RESPONSE	20 20 20 19 19 19 20 20	47.85000000 23.20000000 47.8500000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032	11 ANA ' (5 **********************************	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.000000000	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1435 W 1436 Z 1437 A 1438 R 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z	EL WH VT Z VRS RESPONSE	20 20 20 19 19 19 20 20 20	47.85000000 23.20000000 47.8500000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 0.79729730	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082	40.344 63.033 40.344 45.150 35.596 35.596 37.108 45.637 37.108 18.554
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A	EL WH VT Z VRS RESPONSE	20 20 20 19 19 19 20 20	47.85000000 23.20000000 47.8500000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032	11 ANA ' 'S ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 0.79729730 1.10377883	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A	EL WH VT Z ARS RESPONSE	20 20 19 19 19 20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.898799924	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 0.79729730 1.10377883	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626	957.00000000 464.00000000 957.0000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256	40.344 63.033 40.344 45.150 35.596 35.596 37.108 45.637 37.108 18.554
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R	EL WH WT Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	20 20 19 19 19 20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.898799924	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097	11 ANA ' 'S ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.0000000 79.0000000 0.79729730 1.10377883 63.21642396	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R 1448	EL WH WT Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	20 20 19 19 19 20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.898799924	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097	11 ANA 75 ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.0000000 79.0000000 0.79729730 1.10377883 63.21642396	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142
1426 1427 1428 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R 1448 1449 -	EL H NT Z ARS RESPONSE EL H NT Z RESPONSE	20 20 19 19 19 20 20 20 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.898799924	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097	11 ANA 75 ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.0000000 79.0000000 0.79729730 1.10377883 63.21642396	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881 1.55202267	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855 978.0569877	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256 45.76671274	40.344 63.033 40.344 45.150 35.596 35.596 37.108 45.637 37.108 18.554 13.142
1426 1427 1428 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 - 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R 1448 1 1449 - 1450	EL WH VT VT VI	20 20 20 19 19 19 20 20 20 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.89879924 51.47668356	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097 6.76510996	11 ANA ' 5 ******** MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 0.79729730 1.10377883 63.21642396 TRT=C	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881 1.55202267	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256 45.76671274	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142
1426 1427 1428 V 1429 1430 1431 - 1433 E 1433 E 1436 Z 1437 A 1438 R 1438 R 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R 1448 1449 - 1450 1451 E	EL H VT Z VIRS RESPONSE EL H VIT Z VIRS RESPONSE	20 20 20 19 19 19 20 20 20 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.89879924 51.47668356	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097 6.76510996	11 ANA ' 'S ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 0.79729730 1.10377883 63.21642396 TRT=C 83.000000000	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881 1.55202267	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 10.5861853 17.0771855 978.0569877	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256 45.76671274	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142 13.142
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R 1448 1449 - 1450 1451 E 1452 N	EL H T C L H T C L H T C L H T C L H T T T T	20 20 19 19 19 20 20 20 19 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.89879924 51.47668356	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097 6.76510996	11 ANA ' 'S ******* MINIMUM VALUE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 79.00000000 79.00000000 TRT=C 83.000000000 56.000000000	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881 1.55202267	957.00000000 464.00000000 957.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 1088.0000000 11.5861853 17.0771855 978.0569877 853.000000000 431.000000000	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256 45.76671274 759.87719298 367.11437908	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142 13.142
1426 1427 1428 V 1429 1430 1431 - 1432 1433 E 1434 N 1435 W 1436 Z 1437 A 1438 R 1439 1440 - 1441 1442 E 1443 N 1444 W 1445 Z 1446 A 1447 R 1448 1449 - 1450 1451 E 1452 N 1453 W	EL WH WT Z ARS EESPONSE EL WH TT Z ARS EESPONSE	20 20 19 19 19 20 20 20 19 19 19	47.85000000 23.20000000 47.85000000 0.48817105 0.75597094 43.29651747 54.40000000 33.50000000 54.40000000 0.60979923 0.89879924 51.47668356 44.89473684 23.94444444 44.89473684	19.30441727 14.62370102 19.30441727 0.22041145 0.26909264 15.41166938 20.18702032 15.28845454 20.18702032 0.11314070 0.11812097 6.76510996 27.56587007 19.16022910 27.56587007	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAXIMUM VALUE TRT=A 75.00000000 47.00000000 75.00000000 0.77192982 1.07291297 61.44865217 TRT=B 79.00000000 59.00000000 79.00000000 79.00000000 79.00000000 TRT=C 83.00000000 83.00000000 83.00000000	STD ERROR OF MEAN 4.31659893 3.26995896 4.31659893 0.05056585 0.06173409 3.53567944 4.51395497 3.41860236 4.51395497 0.02595626 0.02709881 1.55202267	957.00000000 464.00000000 957.00000000 9.27524990 14.36344786 822.63383189 1088.0000000 670.0000000 11.5861853 17.0771855 978.0569877 853.00000000 431.00000000 7.87412425	VARIANCE 372.66052632 213.85263158 372.66052632 0.04858121 0.07241085 237.51955295 407.51578947 233.73684211 407.51578947 0.01280082 0.01395256 45.76671274 759.87719298 367.11437908 759.87719298	40.344 63.033 40.344 45.150 35.596 37.108 45.637 37.108 18.554 13.142 13.142

1459									
1460 EL	20	51.60000000	22.47899604	1.00000000	77.000C^900	5.02645632	1032.0000000	505.30526316	43.564
1461 NH	20	29.95000000	15.83625089	0.00000000	49.00000000	3.54109335	599.0000000	250.78684211	52.876
1462 WT	20	51.60000000	22.47899604	1.00000000	77.00000000	5.02645632	1032.0000000	505.30526316	43.564
1463 Z	20	0.52697394	0.24300515	0.00000000	0.81666667	0.05433760	10.5394787	0.05905150	46.113
1464 ARS	20	0.78745245	0.32020537	0.00000000	1.12832465	0.07160010	15.7490490	0.10253148	40.663
1465 RESPONSE	20	45.09954939	18.33903469	0.00000000	64.62222971	4.10073282	901.9909878	336.32019332	40.663
QUEUE									

Ignite

TOTAL NUMBER OF LEVELS

NUMBER OF CONTROL REPLICATES: 20

CONTROL MEAN: 47.85

TOTAL NUMBER OF REPLICATES: 80

MEAN SQUARE ERROR: 508.026

ERROR DEGREES OF FREEDOM: 76

V1 used for this calculation: 3

V2 used for this calculation: 100

PHI value used for calculation of D 1.64

MEAN 1 47.85

NUMBER OF REPLICATES: 20

MEAN 2 54.40

NUMBER OF REPLICATES: 20

MEAN 3 44.90

NUMBER OF REPLICATES: 20

MEAN 4

51.60

NUMBER OF REPLICATES: 20

GRAND MEAN: 49.68625

Calculated PHI value for the Power Test .716833

PERCENT CHANGE DETECTION LIMIT = 35.82436

Ignite

TOTAL NUMBER OF LEVELS 4

NUMBER OF CONTROL REPLICATES: 20

CONTROL MEAN: 8.8

TOTAL NUMBER OF REPLICATES: 80

MEAN SQUARE ERROR: 56.6005

ERROR DEGREES OF FREEDOM: 76

V1 used for this calculation: 3

V2 used for this calculation: 60

PHI value used for calculation of D 1.7

MEAN 1 8.80

NUMBER. OF REPLICATES: 20

MEAN 2

7.65

NUMBER OF REPLICATES: 20

MEAN 3

6.15

NUMBER OF REPLICATES: 20

MEAN 4

4.26

NUMBER OF REPLICATES: 20

GRAND MEAN: 6.714

Calculated PHI value for the Power Test 1.011735

PERCENT CHANGE DETECTION LIMIT = 117.3878

Ignite

TOTAL NUMBER OF LEVELS

NUMBER OF CONTROL REPLICATES:

CONTROL MEAN:

33.65

TGTAL NUMBER OF REPLICATES:

80

MEAN SQUARE ERROR:

341.158

ERROR DEGREES OF FREEDOM:

76

V1 used for this calculation:

V2 used for this calculation: 60

PHI value used for calculation of D 1.7

MEAN 1

33.65

NUMBER OF REPLICATES: 20

MEAN 2

42.15

NUMBER OF REPLICATES: 20

MEAN 3

33.95

NUMBER OF REPLICATES:

MEAN 4

40.10

NUMBER OF REPLICATES:

GRAND MEAN: 37.46175

Calculated PHI value for the Power Test .9045106

FERCENT CHANGE DETECTION LIMIT = 59.01625

Ignite

TOTAL NUMBER OF LEVELS

4

NUMBER OF CONTROL REPLICATES:

20

CONTROL MEAN:

28.3

TOTAL NUMBER OF REPLICATES:

80

MEAN SQUARE ERROR:

323.117

ERROR DEGREES OF FREEDOM:

76

V1 used for this calculation:

3

V2 used for this calculation:

60

PHI value used for calculation of D 1.7

MEAN 1

28,30

NUMBER OF REPLICATES: 20

MEAN 2

38.55

NUMBER OF REPLICATES: 20

MEAN 3

27.90

NUMBER OF REPLICATES: 20

MEAN 4

35.26

NUMBER OF REPLICATES: 20

GRAND MEAN: 32.502

Calculated PHI value for the Power Test 1.133862

0,40

PERCENT CHANGE DETECTION LIMIT = 56.44675

Ignite

TOTAL NUMBER OF LEVELS 4

NUMBER OF CONTROL REPLICATES: 12

CONTROL MEAN: 27

TOTAL NUMBER OF REPLICATES: 80

MEAN SQUARE ERROR: 322.034

ERROR DEGREES OF FREEDOM: 76

V1 used for this calculation: 3

V2 used for this calculation: 100

PHI value used for calculation of D 1.64

MEAN 1 27.40

NUMBER OF REPLICATES: 20

MEAN 2 38.40

NUMBER OF REPLICATES: 20

MEAN 3 27.84

NUMBER OF REPLICATES: 20

MEAN 4 36.00

NUMBER OF REPLICATES:

GRAND MEAN: 32.4105

Calculated PHI value for the Power Test 1.2128

20

PERCENT CHANGE DETECTION LIMIT = 61.41517

0,49

Ignite

TOTAL NUMBER OF LEVELS 4

NUMBER OF CONTROL REPLICATES: 12

CONTROL MEAN: 23.2

TOTAL NUMBER OF REPLICATES: 80

MEAN SQUARE ERROR: 263.65

ERROR DEGREES OF FREEDOM: 76

V1 used for this calculation: 3

V2 used for this calculation: 100

PHI value used for calculation of D 1.64

MEAN 1 23.20

NUMBER OF REPLICATES: 20

MEAN 2 33.50

NUMBER OF REPLICATES: 20

MEAN 3 23.94

NUMBER OF REPLICATES: 20

MEAN 4

23.20

NUMBER OF REPLICATES: 20

GRAND MEAN: 25.961

Calculated PHI value for the Power Test 1.201736 O. 49
PERCENT CHANGE DETECTION LIMIT = 68.06503

Eggs Laid (BWA)

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248 TRT 4 A B C D							
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251 NUMBER OF OBSERVATIONS IN DATA SET = 80 252							
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254 NOTE: ALL DEPENDENT VARIABLES ARE CONSISTENT WITH RESPECT TO THE PRESENCE OR ABSENCE OF MISSING VA	LUES.	HOWE\	ÆR,				
255 ONLY 24 OBSERVAT. CAN BE USED IN THIS ANALYSIS.							
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258 GENERAL LINEAR MODELS PROCEDURE		FRIDA	AY, JUNE	10, 1	1988	3	
258 GENERAL LINEAR MODELS PROCEDURE 259		5 FRIDA	AY, JUNE	10,	1988	3	
258 GENERAL LINEAR MODELS PROCEDURE 259 260 DEPENDENT VARIABLE: RESP	,	5 FRIDA	AY, JUNE	10, 1	1988	3	
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258 GENERAL LINEAR MODELS PROCEDURE 259 260 DEPENDENT VARIABLE: RESP 261 262 SOURCE DF SUM OF SQUARES MEAN SQUARE F VALUE PR > 263 264 MODEL 3 30425.12500000 10141.70833333 1.61 0.21 265 266 ERROR 20 126134.83333334 6306.74166667 ROOT M	F 90	Ī	R-SQUARE			C.V. 8515	
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258 GENERAL LINEAR MODELS PROCEDURE 259 260 DEPENDENT VARIABLE: RESP 261 262 SOURCE DF SUM OF SQUARES MEAN SQUARE F VALUE PR > 263 264 MODEL 3 30425.1250000 10141.70833333 1.61 0.21 265 266 ERROR 20 126134.83333334 6306.74166667 ROOT M 267 268 CORRECTED TOTAL 23 156559.95833334 79.414996 269 270 271 SOURCE DF TYPE I SS F VALUE PR > F DF TYPE 272 273 TRT 3 30425.1250000 1.61 0.2190 3 30425.1 274 SAS 275 276 GENERAL LINEAR MODELS PROCEDURE 277 278 DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESP	F 90 ISE 648 : III	. SS	R-SQUARE D.194335 F VAL	1 1011 UE 61	7.8 RESP 1 . 4583. PR	C.V. 8515 MEAN 3333 > F	
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285	CRITICAL RANGE 95.5139 100.305 103.61	.7
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287	MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DI	FFERENT.
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289	DUNCAN GROUPING MEAN N T	RT
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293	A 1013.17 6 D)
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295	A 1010.67 6 B	ŀ
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The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request. JES2 JOB LOG -- SYSTEM EPA2 -- NODE NCCIBM1

. 1 OUEUE. f 'n.c.' all 168 NOTE: COPYRIGHT (C) 1984,1986 SAS INSTITUTE INC., CARY, N.C. 27511, U.S.A. 226 CARY, N.C. 27511-8000 QUEUE 1 227 999 227 SAS 10:10 MONDAY, JANUARY 23, 1989 228 229 R R R R. R R R R R R R 230 R R Ŕ R R R R R Ē E E E Ε R E E E E Е Ε 231 E E Ē E E R Ė E R Ś S S s S S S S S S S 232 Ω T s S S S S S S S P P P P P P P P P P Þ 233 R P P P B P P P P P P 1 1 1 1 1 1 1 1 1 1 2 234 5 T 1 2 4 5 6 8 9 0 2 5 6 7 9 0 8 235 236 1 A 15 39 43 7 35 42 58 53 57 54 61 24 11 29 57 39 32 68 237 2 В 45 60 2 69 57 59 33 47 33 58 60 72 74 44 61 36 52 33 64 238 3 C 40 12 57 65 41 60 50 31 45 14 53 40 35 51 27 239 D 68 34 34 43 26 50 53 52 39 45 56 53 51 62 14 64 49 240 10:10 MONDAY, JANUARY 23, 1989 SAS 241 242 GENERAL LINEAR MODELS PROCEDURE 243 244 CLASS LEVEL INFORMATION 245 246 CLASS **LEVELS VALUES** 247 248 TRT ABCD 249 250 NUMBER OF OBSETT IONS IN DATA SET = 80 251 252 253 254 NOTE: ALL DEPENDENT VARIABLES ARE CONSISTENT WITH RESPECT TO THE PRESENCE OR ABSENCE OF MISSING VALUES. HOWEVER, 255 70 OBSERVATIONS CAN BE USED IN THIS ANALYSIS. ONLY 256 SAS 10:10 MONDAY, JANUARY 23, 1989 257 258 GENERAL LINEAR MODELS PROCEDURE 259 260 DEPENDENT VARIABLE, PFSP 261 262 SOURCE DF SUM OF SQUARES MEAN SQUARE F VALUE PR > F R-SOUARE C.V. 263 264 MODEL 3 1366.32347536 455.44115845 1.62 0.1923 0.068729 36.9371 265 266 ERROR 66 18513.44795322 280.50678717 ROOT MSE RESP MEAN 267 19879.77142857 268 CORRECTED TOTAL 69 16.74833685 45.34285714 269 270 271 SOURCE DF TYPE I SS F VALUE PR > F DF TYPE III SS F VALUE PR > F 272 273 TRT 1366.32347536 0.1923 1.62 1366.32347536 1.62 0.1923 274 SAS 10:10 MONDAY, JANUARY 23, 1989 275 276 GENERAL LINEAR MODELS PROCEDURE 277 278 DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE: RESP 279 NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE, 280 NOT THE EXPERIMENTWISE ERROR RATE

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Page is not included in this copy.
Pages 58 through 68 are not included.
The material not included contains the following type of information:
Identity of product inert ingredients.
Identity of product impurities.
Description of the product manufacturing process.
Description of quality control procedures.
Identity of the source of product ingredients.
Sales or other commercial/financial information.
A draft product label.
The product confidential statement of formula.
Information about a pending registration action.
FIFRA registration data.
The document is a duplicate of page(s)
The document is not responsive to the request.
The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.