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**EXTREMELY LOW FREQUENCY VERTICAL,
45-Hz ELECTRIC FIELD EXPOSURE OF
RATS: A SEARCH FOR GROWTH, FOOD,
AND WATER CONSUMPTION, BLOOD
METABOLITE, HEMATOLOGICAL, AND
PATHOLOGICAL CHANGES**

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June 1977

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Research was conducted according to the principles enunciated in the
"Guide for the Care and Use of Laboratory Animals," prepared by the
Institute of Laboratory Animal Resources, National Research Council.

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21. ABSTRACT (Continue on reverse side if necessary and identify by block number) Three hundred eighty-four young male rats were exposed to 45-Hz, vertical electric fields in nonmetallic cages, in an attempt to detect alteration of growth, food and water consumption, alterations in selected hematological and serum biochemical values, and pathological changes. Three experiments were performed, each using six groups of 16 animals exposed to field strengths of 0, 2, 10, 20, 50, and 100 V/m (RMS). All variables were statistically analyzed for differences and the possible existence of a "dose effect relationship". A further experiment (C)			

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20. ABSTRACT (continued)

used 48 control animals and 48 animals exposed to 20 V/m (RMS) to minimize the possibility of missing a true alteration. Although some differences were found in three experiments (E, F, and H) neither a dose effect relationship nor a biological effect due to exposure was observed. In experiment G, no statistical differences ($p < 0.05$) were observed for any variables. It was concluded that no alterations in growth, food consumption, or water consumption resulted from exposure to extremely low frequency (ELF) electric fields. Neither serum or plasma concentrations of total protein, globulin, glucose, cholesterol, triglycerides and total lipid nor hematological values for red blood cells, white blood cells, segmented neutrophils, lymphocytes, monocytes, eosinophils, hematocrit or hemoglobin appear to be influenced by ELF fields. In addition, necropsy and histopathological examination of tissue from 16 organ systems did not reveal any changes that could be attributed to electric fields. Project was sponsored by the U. S. Naval Medical Research and Development Command, contract number XSB09.

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PREFACE

The authors gratefully acknowledge the valuable assistance of S. A. Oliva for designing and maintaining the electronic systems of the exposure facility, C. A. McIntire III and W. E. Jackson III for performing the computer programming and statistical analyses, J. E. Egan for the hematological analyses, and G. D. Lee for preparation of the tissue specimens. We further acknowledge the invaluable efforts of A. L. Miller, A. E. Cummings, and P. W. Jones for the care and timely manner in which these experiments were performed. This project was sponsored by the U. S. Naval Medical Research and Development Command, contract number XSB09.

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INTRODUCTION

Extremely low frequency (ELF) radiation generally denotes electromagnetic radiation having frequencies from a few hertz (sometimes including zero hertz or dc) to several hundred hertz. The natural or ambient levels of ELF radiation have been reviewed by Polk;^{1,4} however, the extent to which these fields may interact with biological systems is still the subject of considerable research. The largest source of man-made ELF radiation comes from commercial electrical power lines operating at 50 or 60 Hz. With the recent development of the Navy's ELF Communications System for operation at 45 or 75 Hz, yet another man-made source of this radiation will come into existence.

It has become apparent that at least certain biological systems can sense and utilize ELF fields. For example, some birds are affected by weak magnetic fields,¹⁸ and it is proposed that they may use terrestrial magnetic fields to aid in orientation.²⁰ Kalnijn has presented data suggesting that sharks and rays can locate prey by the weak ELF electric fields they produce, and that some fish may also be able to use terrestrial fields in obtaining orientational and navigational information.⁵ Other biological effects from ELF fields have been reported by Goodman et al. on Physarum polycephalum³ and by Gavalas-Medici and Day-Magdaleno on monkeys.²

Recently, large 60-Hz electric fields have been reported to reduce the growth of rats¹⁰ and mice.⁹ Noval et al.¹³ have reported that 45-Hz vertical electric fields at field strengths of up to 100 V/m (RMS) produced reduced growth, reduced abdominal body fat, and altered brain and liver enzyme activities. The present work represents an attempt to verify the existence of lowered growth rates for rats exposed to similar 45-Hz, vertical electric fields and to determine if food and water consumption, serum metabolite concentrations, or the parameters of a complete blood count were perturbed. A preliminary report of this work has been submitted elsewhere.¹²

MATERIALS AND PROCEDURES

Animals. Male Sprague-Dawley rats, approximately 180 g, Har:(SD) (1), obtained from Hilltop Lab Animals, Inc., Scottsdale, Pennsylvania, were used for all experiments. Animals were quarantined, evaluated for health status, and then randomly assigned to individual cages within the six exposure chambers of the irradiation facility. Body weight, food consumption, and water consumption data were obtained three times each week during the exposure period and the 5-day preexposure acclimatization period. The diet was a standard commercial rodent feed (Wayne Lab-Blox, Allied Mills, Inc., Chicago, Illinois) obtained in pulverized form for food consumption measurements. Food and water were provided ad libitum.

Irradiation facility. The irradiation facility has been described completely in a previous report.¹¹ It was contained in a typical laboratory room maintained under slight positive air pressure, minimizing outside contamination. Access was restricted to personnel concerned with this research, who wore clean gowns, masks, and gloves. Room air was circulated at 23 room-volumes per hour and filtered by HEPA and activated alumina filters. Illumination was provided 12 hours each day from room and chamber lights, beginning at 6:00 a.m. Temperature was controlled at $22^{\circ} \pm 2^{\circ}\text{C}$ and continuously recorded; relative humidity was not controlled, but a continuous record indicated it remained between 25 and 55 percent.

There were six identical exposure chambers contained in three racks, each rack consisting of an upper and a lower chamber. Each exposure chamber contained 16 nonmetallic cages described previously,¹¹ providing food from a 250-cm³ glass jar and water from a glass sipper tube and 250-cm³ glass bottle. Chambers were horizontal, parallel plate capacitors with an upper plate of aluminum screen, a lower plate of aluminum sheet, and an average plate separation of 46.4 ± 0.3 cm (S. D.).

A signal generating and signal monitoring system provided the sinusoidal 45-Hz voltage, which could be independently varied from a nominally zero

field strength value up to 1000 V/m (RMS) for each chamber. This system contained two signal generators to provide a backup generator if the primary signal generator failed and circuitry to sound an alarm if both systems failed. Voltage and frequency were routinely measured to within ± 0.5 percent.

The 45-Hz exposure field and existing ELF fields were measured by the Illinois Institute of Technology (IIT) Research Institute, Chicago, Illinois. Data were obtained for electric and magnetic fields at 15, 45, 60 and 180 Hz, and were presented in the report of this facility.¹¹ The largest ambient field (45-Hz fields turned off) was found at 60 Hz. The average value of the 60-Hz electric field per cage was obtained for each animal position.

Experimental design. Four experiments (lettered E through H) were performed using the six exposure chambers, each containing 16 animals housed one per cage (Table 1). Six groups of 16 animals at field strengths of 2, 10, 20, 50 and 100 V/m (RMS) plus a control were used in experiments E, F, and H in an attempt to determine whether a dose versus effect relationship exists. It was assumed in the experimental design that any dose effect relationship that might be found would be monotonic; i. e., if an alteration were observed at one

Table 1. Experimental Design and Animal Usage

Exposure conditions (V/m)	Experimental group			
	E	F	G	H
Controls	16	16	16, 16, 16	16
2	16	16		16
10	16	16		16
20	16	16	16, 16, 16	16
50	16	16		16
100	16	16		16
Animals/group	96	96	96	96
Total animals	384			

field strength, the alteration produced by a higher field strength would be at least as large. The field strengths chosen cover the range of field strengths reported by Noval et al.¹³ as having produced the growth alteration previously mentioned. Experiment G was designed to maximize the number of animals for one field strength by using three chambers as controls and three chambers at a field strength of 20 V/m (RMS) (see Table 2). This configuration minimizes the chance of making a type-II error, i.e., the failure to declare a result significant for a fixed level if a real effect is present. The field strength of 20 V/m (RMS) was chosen because this value produced the effects observed by Noval et al.,¹³ and it is approximately one hundred times greater than what the ELF Communications System would generate. Because of the large number of animals in each 45-Hz group of experiment G, a further classification into four 60-Hz field strength groups can be made (Table 3). This classification was analyzed using two-way analysis of variance to test for 45-Hz and 60-Hz effects, and to determine if the 45-Hz and 60-Hz fields interact. Chambers were permanently numbered from one through six for reference, and chamber

Table 2. Electric Field Strengths Applied to Each Chamber for Each Experiment

Exposure chamber		45-Hz field strength (V/m(RMS))			
Number	Position	Experiment			
		E	F	G	H
1	U	C	100	20	50
2	L	2	10	C	20
3	U	10	2	20	C
4	L	20	50	C	10
5	U	50	20	C	100
6	L	100	C	20	2

16 animals per chamber

C denotes control group (no 45-Hz fields applied)

U denotes upper chambers

L denotes lower chambers

Table 3. The Number of Animals in Each Group of the 45-Hz and 60-Hz Two-Way Analysis of Experiment G

Frequency (Hz) 60 45	Field strength (V/m(RMS))				Total animals
	.21-.42	.53-.84	1.1-1.7	2.6-3.8	
Field strength (V/m(RMS)) 0	24	8	12	4	48
20	12	4	24	8	48
Total animals	36	12	36	12	96

bias was minimized by utilizing each chamber as a control or for a given field strength only once (Table 2).

After the exposure period, animals were withdrawn from the exposure room one at a time, given an intraperitoneal injection of chloral hydrate at a dose of 36 mg per 100 g of body weight, and placed in a clean cage. When one animal from each group had been obtained and all six had become unconscious, the animals were taken to a separate room where euthanasia was completed by heart puncture and exsanguination. Three milliliters of blood anticoagulated with EDTA at a final concentration of 8 mM were used for hematological analysis. The remainder of the sample was allowed to clot for 1 hour at room temperature, then centrifuged at 600 x g for 15 min to remove the clot, separated into aliquots, and frozen at -60°C for later biochemical analysis. For experiments G and H, this procedure was modified in three ways to reduce the variability caused by recent food consumption and aggressive behavior exhibited by the six animals when placed together in one cage. First, food was withdrawn at 4:00 p.m. on the day before euthanasia; second, animals were kept in separate cages until euthanasia; and third, plasma was obtained from blood containing 5 mM potassium ethylenediaminetetraacetate by centrifugation at 600 x g for 15 minutes.

Biochemical analysis. Total protein and globulin assays were performed on the AutoAnalyzer (Technicon Corporation, Tarrytown, New York) by the technique of Sobocinski et al.¹⁷ Glucose, cholesterol, triglycerides, and total lipids were assayed using commercial reagents and standards from Boehringer Mannheim Corporation (New York, N. Y.) with the following catalog numbers: 15715, 15738, 15989, and 15991, respectively. Unknowns and quantitative serum controls (Monitrol I and II, Dade Division, American Hospital Supply Corporation, Miami, Florida) were assayed simultaneously in a random sequence.

Hematology. Red and white cell counts were obtained using the Coulter Counter Model B (Coulter Electronics, Inc., Hialeah, Florida). Hematocrit values were obtained by reading capillary tubes after centrifugation, and hemoglobin was estimated by the cyanomethemoglobin method employing Drabkin's solution (Hycel, Inc., Houston, Texas).

Pathology. Necropsies were performed on a minimum of four randomly selected animals from each group. Specimens from the skin, brain, salivary gland, lung, heart, stomach, duodenum, cecum, colon, liver, spleen, kidney, urinary bladder, adrenal gland, pancreas, and testes were fixed in 10 percent buffered Formalin for histopathologic examination. Adrenal glands and spleen were weighed when removed from the body. Tissue preparation and staining were performed according to accepted methods as outlined in the Armed Forces Institute of Pathology Manual.⁸ Hematoxylin and eosin were routinely used, but selected samples were submitted to Gomori's methenamine silver stain, Brown-Brenn tissue gram stain, and the periodic acid-Schiff (PAS) reaction.

Statistical analysis. Histograms of individual observations were used to determine if nonparametric statistical tests should be employed. Based on this evaluation, body weight, food consumption, and water consumption data were analyzed using the t-test or analysis of variance (parametric methods) followed by the Neuman-Keuls test¹⁹ (nonparametric method) if significance was observed ($p < 0.05$). For biochemical and histological analyses, significance

($p < 0.05$) was tested using the one-way analysis and multiple pairwise comparisons of the Kruskal-Wallis tests⁴ or the Mann-Whitney test¹⁶ (nonparametric methods).

RESULTS

During these experiments the exposure facility operated without failure. Routine monitoring of the signal-generating systems (at least three times a week) revealed that the chamber voltages remained constant to within +4 and -2 percent, and the 45-Hz frequency did not vary more than ± 0.5 percent.

In this research, growth is defined as the net change in body weight of the test animal. Since the duration of these experiments was short (28 days) and since all animals used were approximately the same age, the average values of growth per day, food consumption per day, and water consumption per day are valid measures for comparing groups within an experiment. These values were calculated by obtaining the total change in body weight or the total weight of food or water consumed for each animal and dividing by 28 (number of days in the exposure period).

Analysis of growth, food consumption and water consumption during 45-Hz electric field exposure. The average body weight and the average growth per day for each group and each experiment are summarized in Figure 1. The cumulative food and water consumption and the food and water consumption per day for each group and each experiment are summarized in Figures 2 and 3. The daily summary of body weight, growth, and cumulative and daily consumption of food and water are presented in Appendix A. The strictly monotonic relationship observed for growth, food consumption, and water consumption showed that these experiments were well controlled. The small depressions observed in the body-weight change/day curves (e.g., in G experiment on days 10, 18 and 25) always occurred after the cage bedding was changed, and may have resulted from the animal's attempt to mark his new bedding by defecation.¹⁵ Notice that

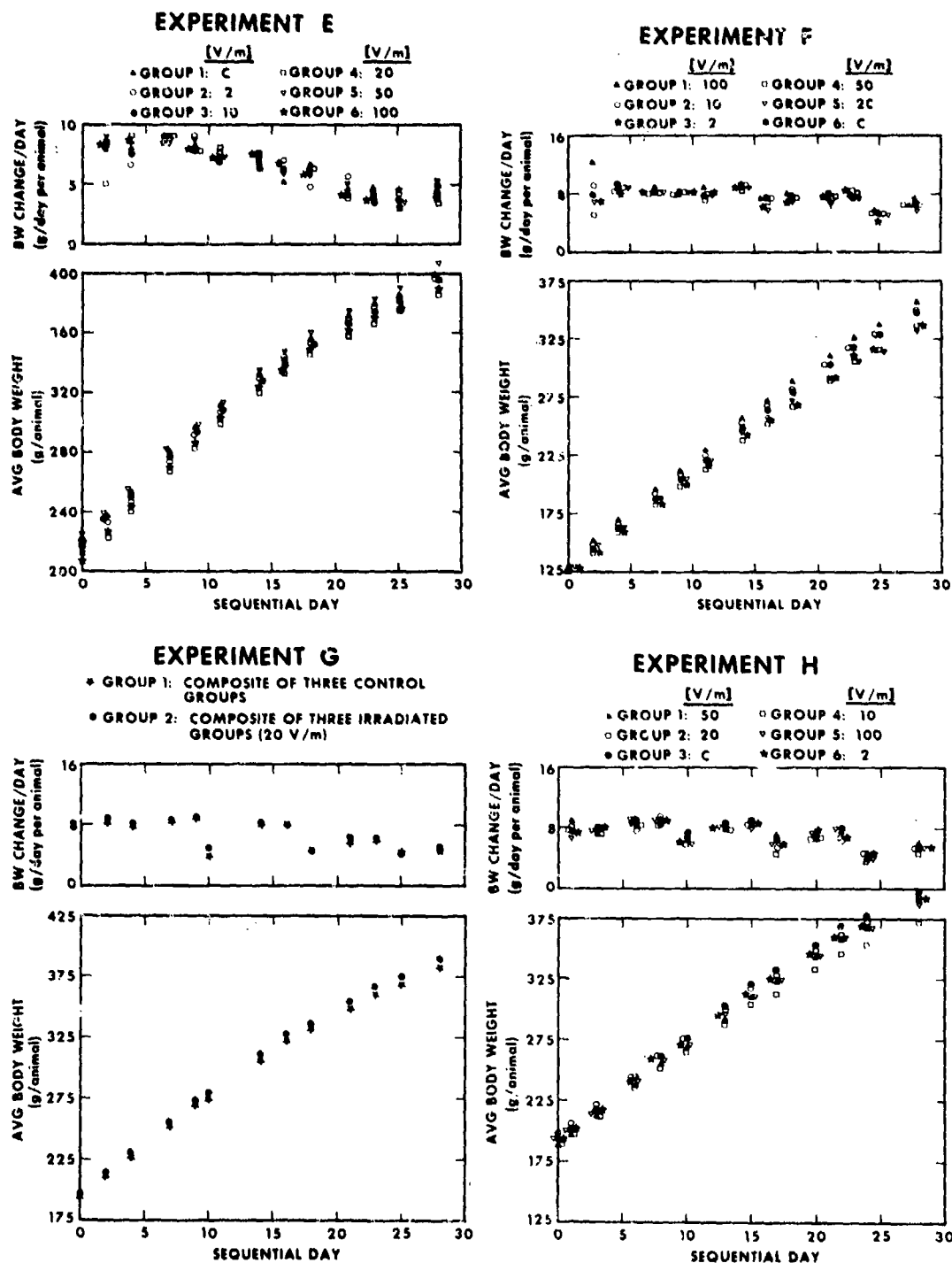


Figure 1. Graphical summary of the average body weight and daily growth for each group during exposure

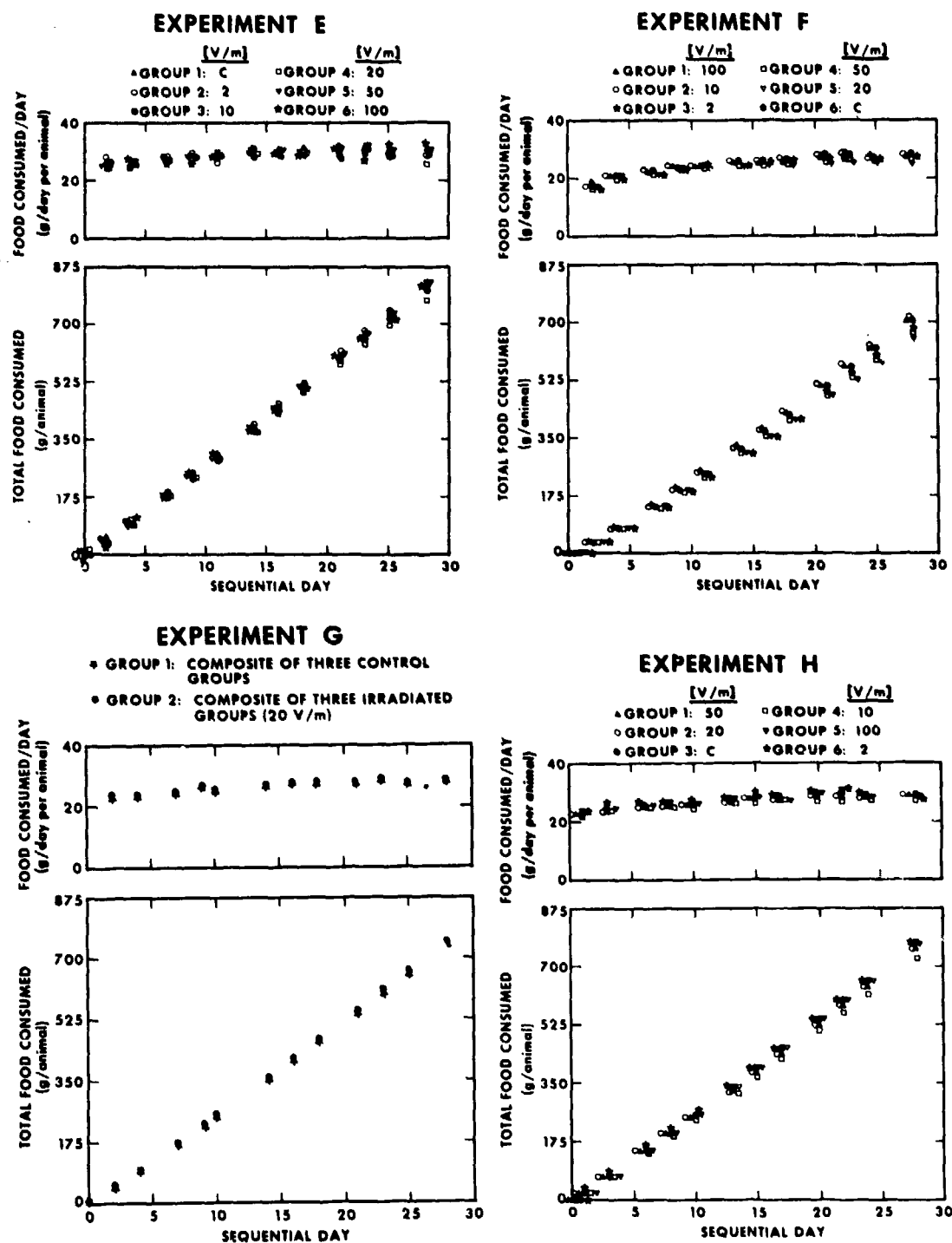
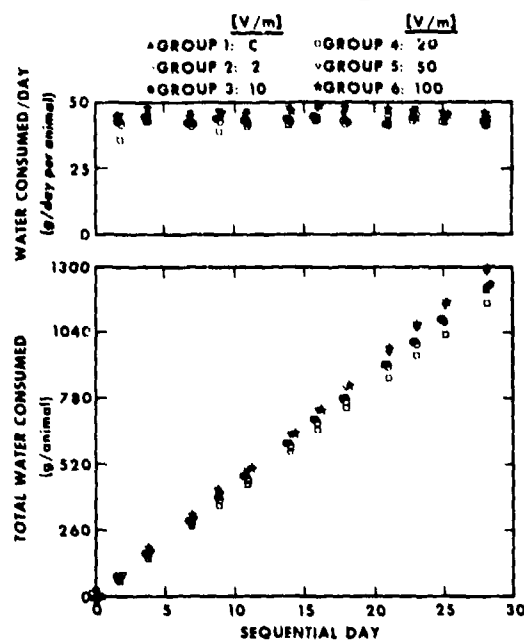
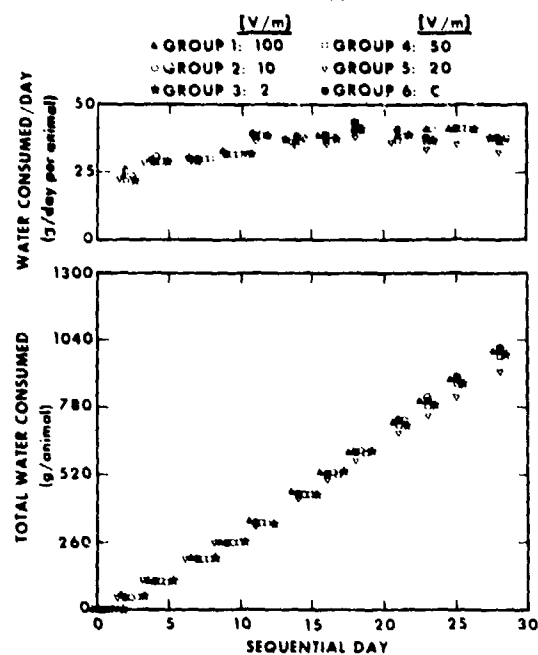


Figure 2. Graphical summary of food consumption data during exposure

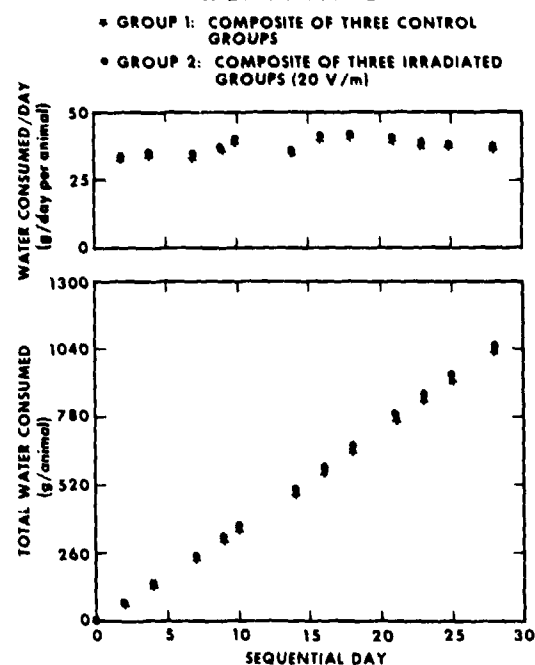
EXPERIMENT E



EXPERIMENT F



EXPERIMENT G



EXPERIMENT H

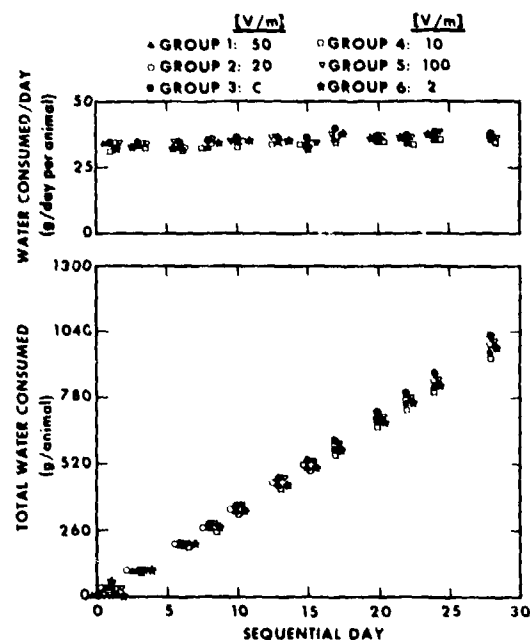


Figure 3. Graphical summary of water consumption data during exposure

these readily visible depressions in growth per day are the result of a virtually indistinguishable displacement in the average cumulative body weight curves.

In three experiments (E, G and H), no statistically significant differences were found between any experimental or control groups for growth per day, food consumption per day, or water consumption per day when these parameters were compared at the several 45-Hz exposure field strengths used (Table 4). In experiment F, statistical analysis revealed no difference in water consumption per day between any experimental or control groups, although differences

Table 4. Statistical Summary of the Analysis of Variance of Growth, Food Consumption and Water Consumption

Variable	Experiment			
	E	F	G	H
Δ BW/ Δ day	-	**	-	-
Δ Food/ Δ day	-	**	-	-
Δ Water/ Δ day	-	-	-	-

- Not significant ($p > 0.05$)

** Significant difference ($p < 0.01$)

in growth per day and food consumption per day were observed. For growth per day, significant differences ($p < 0.05$) were found between the 100 V/m group and the 2, 20, and 50 V/m groups, but not between that group and the control or 10 V/m groups. For food consumption per day the only difference ($p < 0.05$) was between the 20 V/m, 100 V/m, and 10 V/m groups but not between the control, 2 V/m, or 50 V/m groups. These differences are not biologically important, as suggested by the findings that (1) the differences observed in experiment F were not observed in experiments E, G and H, i.e., the alterations were not reproducible, and (2) no dose versus effect relationship was apparent from these differences (Figure 4). Thus, all four experiments indicate that rat growth, food consumption, and water consumption

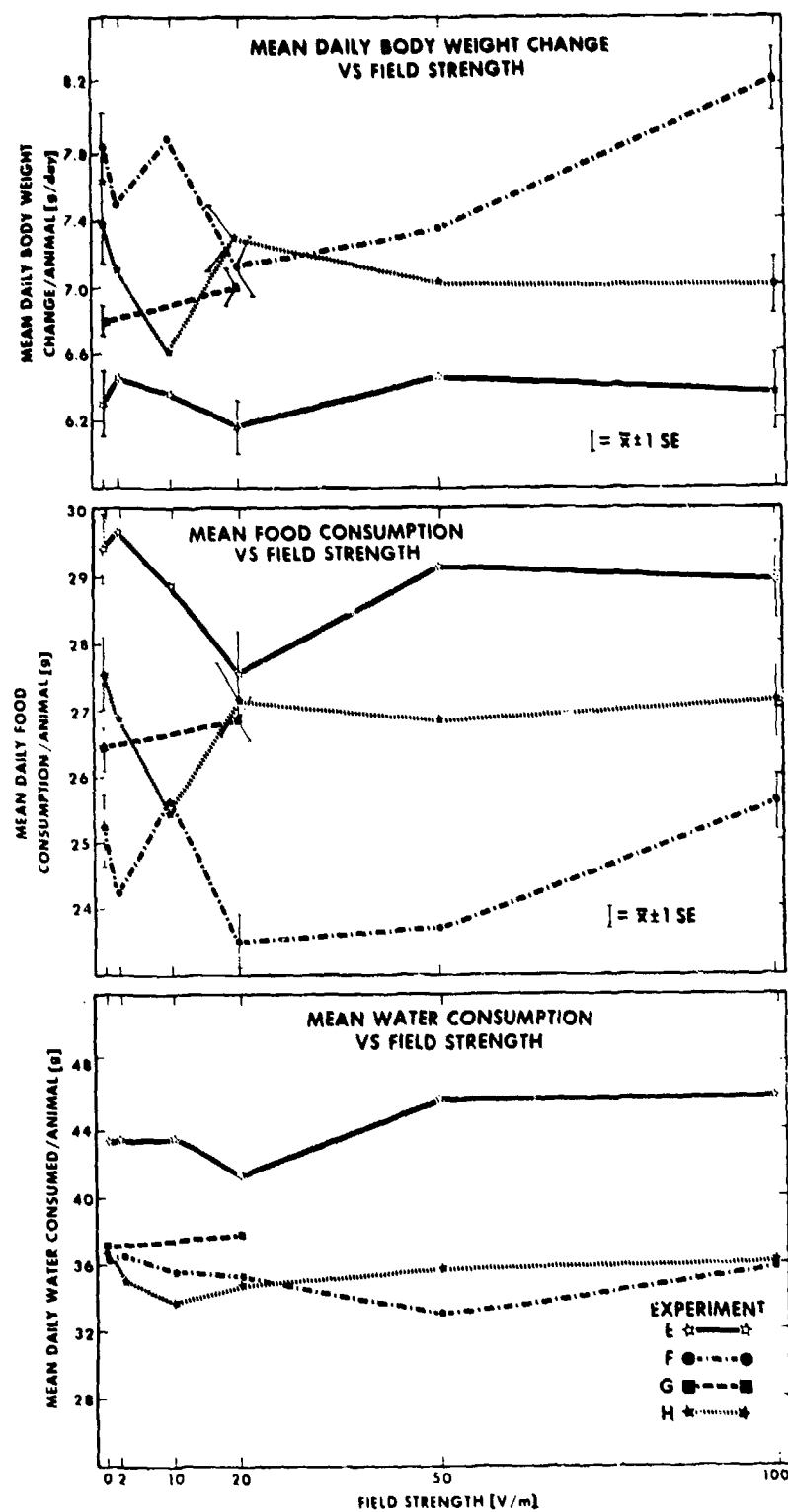


Figure 4. Summary of the mean growth, food and water consumption data versus 45-Hz field strength

were not altered by exposure to 45-Hz ELF electric fields of up to 100 V/m for up to 28 days.

Analysis of biochemical and hematological results versus 45-Hz field strength. In Appendix B are values for each biochemical and hematological parameter measured on all control and experimental animals and a statistical summary for each control and experimental group. Analysis of these data (Table 5) showed that no consistent alterations were found in any of the parameters measured in any of the four experiments performed. Findings for individual parameters are summarized below.

Table 5. Statistical Summary of the Kruskal-Wallis Analysis of the Blood Biochemistry and Hematology Data

Variable	Experiment			
	E	F	G	H
TP	-	-	-	*
GLOB	-	-	-	*
GLU	**	*	-	*
TL	**	-	-	-
CHOL	-	-	-	-
TRIG	-	-	-	-
RBC	**	**	-	-
WBC	-	-	-	-
POLY	-	-	-	-
LYHS	-	-	-	-
HCT	**	-	-	-
HGB	*	-	-	-
MONO	within normal limits			
EOS	within normal limits			

- Not significant ($p > 0.05$)

* Significant difference ($p < 0.05$)

** Significant difference ($p < 0.01$)

Total protein: In experiments E, F and G, no groups were statistically different from the control or from each other. In experiment H, only the control and 100 V/m group differed. No trend or dose relationship was observed (Figure 5).

Globulin: In experiments E, F and G, no groups were statistically different from the control or from each other. In experiment H, only the control and 100 V/m group differed. No trend or dose relationship was observed (Figure 5).

Glucose: In experiment G, where the statistical test should be most sensitive, the control and irradiated groups were not statistically different. In experiment E, only the control and 2 V/m groups differed. In experiment F, the control group, 20 V/m group, and 100 V/m group were statistically different; and in experiment H, only the control and 100 V/m groups were statistically different. No consistent pattern of statistical difference or dose relationship was observed throughout these experiments (Figure 5). In addition, some of the apparently large variability observed in experiments E and F may be due to the euthanasia procedure used (see below).

Total lipids: In experiments F, G and H, no groups were statistically different from the control or each other. In experiment E, only the 2 V/m group and the 100 V/m group differed. No trend or dose relationship was observed (Figure 6).

Cholesterol: In all experiments (E, F, G and H), no groups were statistically different from the control or from each other, and no trend or dose relationship was observed (Figure 6).

Triglycerides: In all experiments (E, F, G and H), no groups were statistically different from the control or each other, and no trend or dose relationship was observed (Figure 6).

Red blood cells: In experiments G and H, no groups were statistically different from the control or from each other. In experiment E, differences were found between the control and the 10, 50 and 100 V/m groups, but

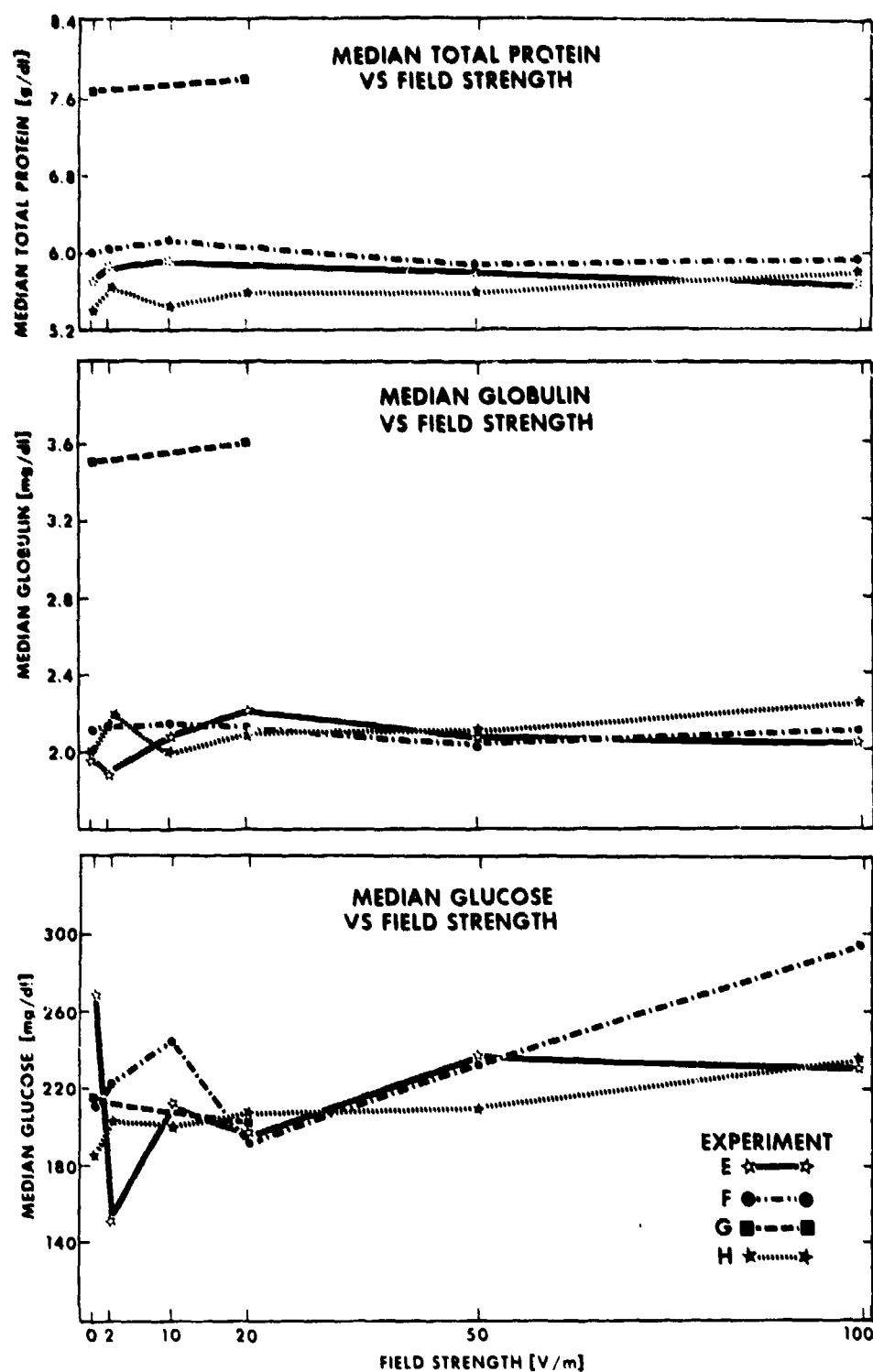


Figure 5. Summary of median total protein, globulin and glucose data versus 45-Hz field strength

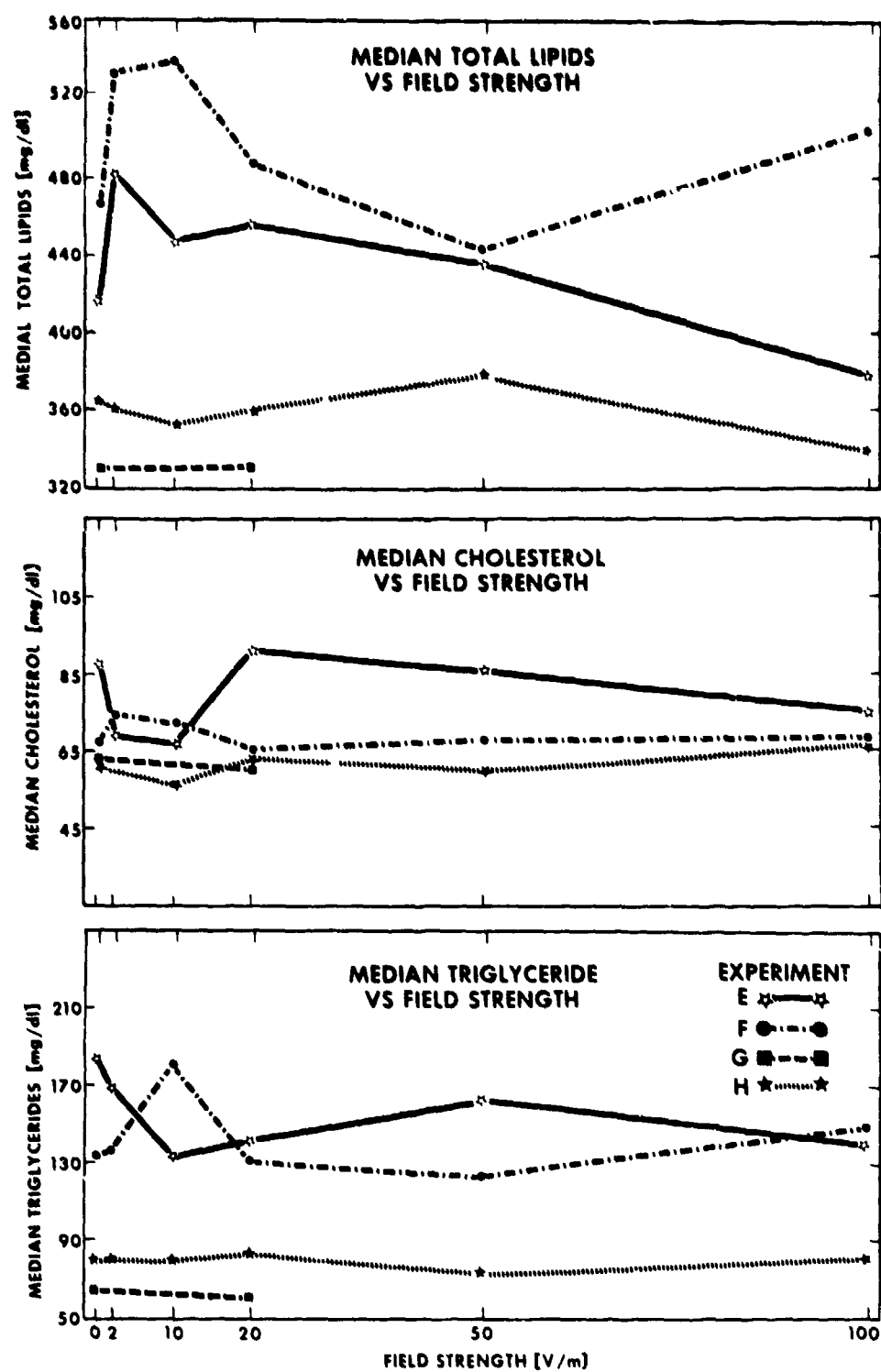


Figure 6. Summary of median total lipid, cholesterol and triglyceride data versus 45-Hz field strength

not between the 2 and 20 V/m groups. Additionally, statistically significant differences were found between the 2 V/m group and the 10, 20, 50 and 100 V/m groups. In experiment F, statistically significant differences were found between the control and the 2, 10 and 50 V/m groups. However, since these differences were not reproduced in experiments G and H, the pattern of statistical difference in experiments E and F may be related to the euthanasia procedure (see below). Considering all experiments, no trend or dose relationship was observed (Figure 7).

White blood cells: In all experiments (E, F, G and H), no groups were statistically different from the control or from each other, and no trend or dose relationship was observed (Figure 7).

Segmented neutrophils (POLY): In all experiments (E, F, G and H), no groups were statistically different from the control or from each other, and no trend or dose relationship was observed (Figure 7).

Lymphocytes: In all experiments (E, F, G and H), no groups were statistically different from the control or from each other, and no trend or dose relationship was observed (Figure 8).

Hematocrit: In experiments F, G and H, no groups were statistically different from the control or from each other. In experiment E, only the 2 V/m and 50 V/m groups were different from each other. No trend or dose relationship was observed (Figure 8).

Hemoglobin: In experiments F, G and H, no groups were statistically different from the control or from each other. In experiment E, only the 2 V/m and 50 V/m groups were different from each other. No trend or dose relationship was observed (Figure 8).

In experiments G and H, an improved euthanasia procedure was used in which plasma was obtained from control and irradiated animals that had fasted for approximately equal periods of time, and that were not excited since the animals had been caged separately until euthanasia to prevent stress. As a result of these improved procedures, marked reductions were noted in the group

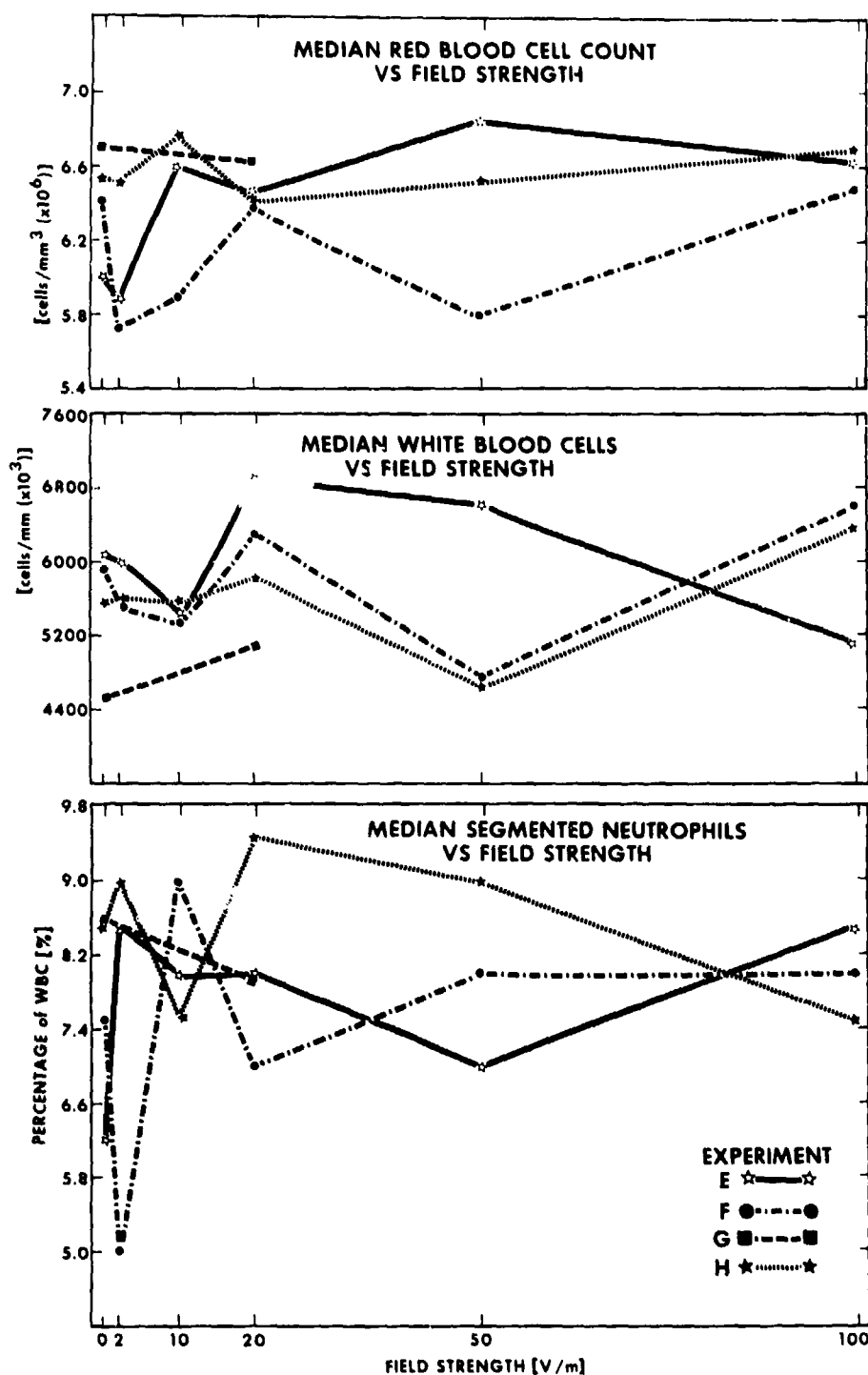


Figure 7. Summary of median red blood cell, white blood cell and segmented neutrophil data versus 45-Hz field strength

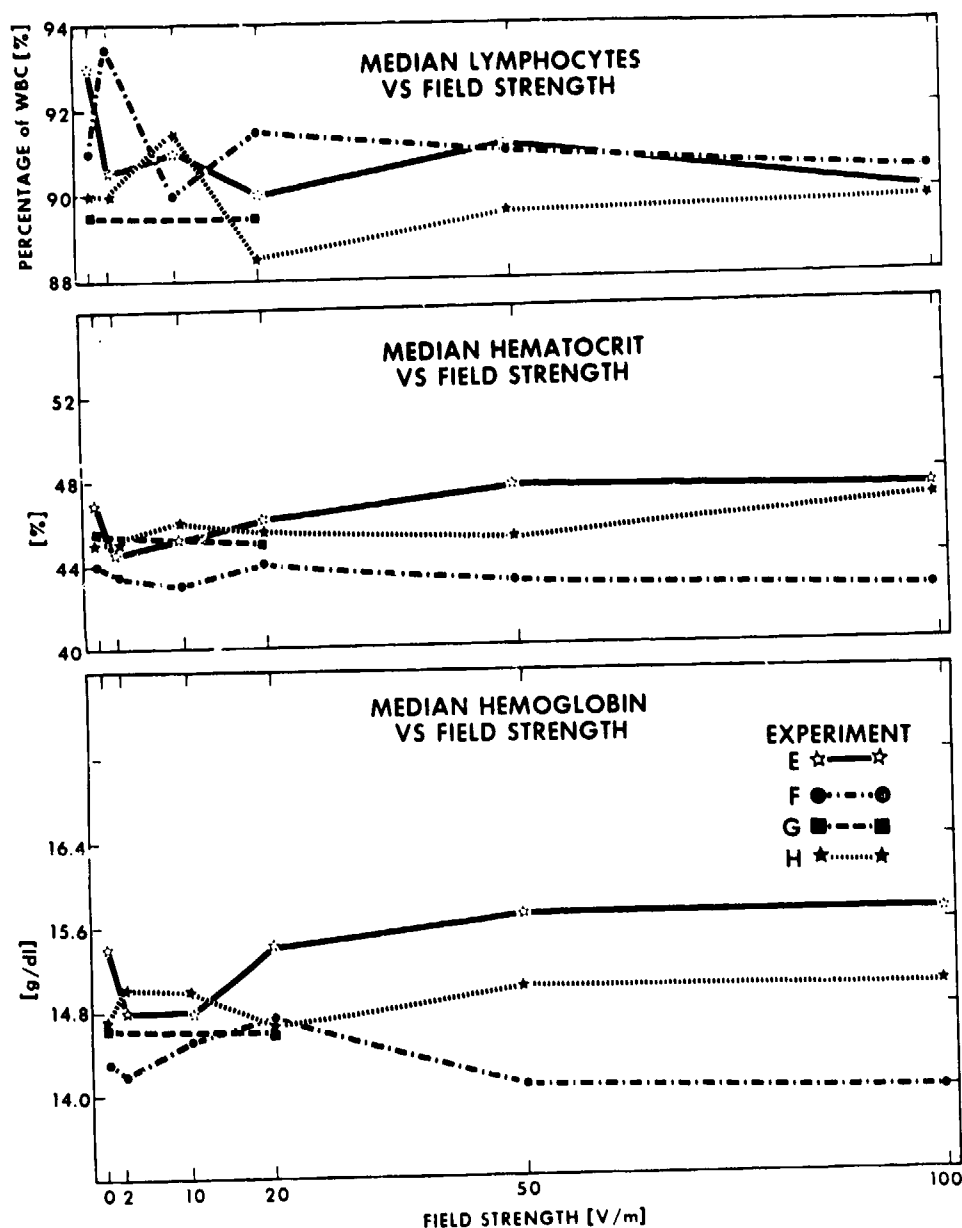


Figure 8. Summary of median lymphocyte, hematocrit and hemoglobin data versus 45-Hz field strength

to group variability (Figures 5-8) and the within group variability for glucose, total lipids, cholesterol, triglyceride, red blood cell, hematocrit, and hemoglobin values. It can be stated with a high degree of confidence that there were no differences in the plasma or serum values of the biochemical variables used

in this study. After completion of serum triglyceride assays for experiments E and F, it was observed that free glycerol was present in the commercial standards used. To correct the triglyceride values in experiments E and F, the values reported in Appendix B and the group medians of Figure 6 must be multiplied by 0.66. This constant factor does not alter the results from statistical analysis. The accuracy of this correction factor and of the measurements in experiments G and H was verified by using two independent standards (Precilip, Boehringer-Mannheim Corp., New York, N. Y., and Triolein, Sigma Chemical Company, St. Louis, Missouri) as well as the known molar extinction coefficient of the reduced form of nicotinamide-adenine-dinucleotide (NADH).

Pathology versus 45-Hz field strength. All animals used in this analysis were coded and analyzed in a blind manner. No gross lesions or differences in adrenal and spleen weights were observed at necropsy, and no significant microscopic changes were present in any of the tissues.

Two-way ANOVA for 45- and 60-Hz effects. Detailed analysis of field map data after completion of experiments E, F, G, and H suggested that the level of the contaminating 60-Hz electric field had been underestimated in the initial field map.¹¹ In an attempt to determine the effect of this field on the results of the 45-Hz analysis, the data from experiment G were separated into four groups according to the average 60-Hz field strength per cage for two-way analysis of variance as shown in Table 3. Since the experiment was not initially designed to examine possible 60-Hz effects, the two-way classification did not yield groups of equal size. In addition, random animal positioning at the beginning of the experiment happened to allow the group exposed to the highest 60-Hz field strength to start with an average initial body weight slightly heavier than the other groups. As a result, care must be taken when interpreting results of the two-way analysis of variance for growth per day, food consumption per day, and water consumption per day shown in Table 6. Despite these restrictions, certain statistically valid comparisons can be made. There were no statistically significant differences ($p < 0.05$) between the control and 20 V/m groups

Table 6. Statistical Summary of the Two-Way Analysis of Variance on 45-Hz and 60-Hz Field Strengths of Experiment G

Variable	Factor one 45 Hz	Factor two 60 Hz	Interaction
Δ BW/ Δ day	-	-	-
Δ Food/ Δ day	-	*	-
Δ Water/ Δ day	-	**	-

- Not significant ($p > 0.05$)

* Significant ($p < 0.05$)

** Significant ($p < 0.01$)

at 45 Hz for growth per day, food consumption per day, or water consumption per day. Neither was the interaction between the 45-Hz and 60-Hz fields found to be significant for growth per day, food consumption per day, or water consumption per day. Further, there was no alteration of growth which is attributable to the 60-Hz field. The statistical differences observed in the data on food consumption per day and water consumption per day occurred only between the highest and lowest field strength groups. Thus, the statistically significant results obtained were most likely not biologically important because (1) the animals in the group exposed to the highest field strength started with an average initial body weight slightly heavier than the other groups, and (2) the food and water consumption correlated strongly with initial body weight. This conclusion is reinforced by the expectation that a biologically important alteration in food and water consumption would be reflected in a growth alteration. To complete the 60-Hz analysis, the biochemical and hematological data were tested for significance; results are presented in Table 7. No statistically significant differences were observed for glucose, total lipids, cholesterol, triglycerides, white blood cells, segmented neutrophils (POLY), lymphocytes, hematocrit, or hemoglobin. Significance occurred in total protein and globulin data only between the highest and next highest field strength groups, and in the red blood cell data only between the lowest and next lowest field strength groups.

Table 7. Statistical Summary of the Kruskal-Wallis Analysis on 60-Hz Field Strengths of Experiment G

Variable	Significance
TP	*
GLOB	**
GLU	-
TL	-
CHOL	-
TRIG	-
RBC	*
WBC	-
POLY	-
LYHS	-
HCT	-
HGB	-

- Not significant ($p > 0.05$)
- * Significant difference ($p < 0.05$)
- ** Significant difference ($p < 0.01$)

Because no significant differences were observed for any variable between the highest and lowest field strength groups or between the two field strength groups with 36 animals each, no biological significance was attributed to these differences.

DISCUSSION AND CONCLUSIONS

Theoretically, ELF radiation can be separated into terrestrial and man-made radiation. The terrestrial field strength in the exposure facility was not measured, but is considered to be negligible compared to the experimental field strengths. Man-made fields at frequencies from 25 to 60 Hz are present anywhere electric power is used.²¹ For example, under high-voltage power lines,

electric field strengths of thousands of volts per meter are found;¹ and in the laboratory, every operating electrical appliance is an ELF irradiator.¹¹ The man-made 45-Hz fields in our exposure facility were documented by the IIT Research Institute. They also documented a contaminating 60-Hz field which was present in all chambers, i. e., both irradiated and control.¹¹

No biologically important differences were found for any of the variables studied. No statistically significant differences were observed in any experiment for the following variables: water consumption, serum or plasma cholesterol, serum or plasma triglycerides, white blood count, segmented neutrophils, lymphocytes, adrenal weights and spleen weights. No significant differences were observed in any of the histopathological analyses. For the following variables, the only observed significant statistical differences occurred between irradiated groups: growth per day, food consumption, serum or plasma total lipids and hemoglobin. Significant differences between the control and irradiated groups occurred only for total protein, globulin, red blood cells, and hematocrit. Further, no dose-relationship was observed between the exposure field strength and any of the variables studied. The most unequivocal results are from experiment G, in which 48 animals were used in both control and 20 V/m exposed groups. No significant differences were observed for any of the variables measured in this experiment.

The data from experiment G were subjected to two-way analysis of variance to test the possibility that the contaminating 60-Hz fields in the exposure facility affected the results of the 45-Hz analysis. No significant differences ($p < 0.05$) were found in growth per day for the 45-Hz or 60-Hz fields; further, no significant interaction was observed for growth per day, food consumption, or water consumption. These findings together with the fact that the two 60-Hz groups (of 36 animals each) were not significantly different from each other led to the conclusion that the 60-Hz fields in this experiment did not produce a biologically important alteration. From this analysis it is surmised that the data from the 45-Hz fields also were not affected.

A pilot experiment gives further indication that ambient fields did not perturb the negative finding of the 45-Hz analysis. In that experiment the average growth rate for 96 animals was found to be 7.8 grams per day per animal. These animals were fed and handled using procedures identical to those in experiments E, F, G, and H; however, they were housed in rat cages of standard No. 2 mesh and sheet stainless steel. At our request, the IIT Research Institute determined that these cages provide better than -40 dB of electric field shielding at 60 Hz (Appendix B of reference 11). Thus, these animals (in the pilot experiment) were grown for 28 days in an ambient 60-Hz electric field which was less than 0.010 V/m (RMS). If the ambient electric fields present in experiments E, F, G, and H had produced a growth reduction in all experimental groups of at least 20 percent (the smallest growth reduction reported by Noval et al.¹³), then these shielded animals would have growth rates greater than 9.2 grams per day per animal. Instead, the growth rate of the animals in this pilot experiment (7.8 grams per day per animal) is well within growth rates measured for the six groups of animals in experiment F (Figure 4) which were the same age as in the pilot study.

The findings of this research are consistent with the work of Knickerbocker et al.⁶ and Krueger and Reed.⁷ Knickerbocker et al. exposed male mice to a vertical electric field of 157,000 V/m at 60 Hz for 10-1/2 months (6-1/2 hours each day), and analyzed for differences in growth, reproduction, gross pathology, and histopathology. Although they noted that the unexposed male progenies of the exposed animals did not grow to be as heavy as the male progenies of the control animals, no other statistical or biological differences were observed. Krueger and Reed exposed female mice to horizontal electric fields of 100 V/m at both 45 Hz and 75 Hz. No statistical differences were observed between exposed and control animals in rate of growth, serotonin levels of blood and brain, or susceptibility to challenge by influenza virus.

After exposing 384 young, male Sprague-Dawley rats for 28 days to 45-Hz vertical electrical field strengths of 2, 10, 20, 50 and 100 V/m (RMS), no

biologically significant differences were observed for any of the measured variables. Further, no dose relationship was found for any of these variables versus the applied 45-Hz field strengths.

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APPENDIX A

Daily Summary of Body Weight, Growth, and Cumulative and Daily Consumption of Food and Water

The following seven tables (A-1 through A-7) summarize the actual raw growth and consumption data for each experimental group of the four experiments (E, F, G, and H). In addition, the dates were obtained and a summary of the temperature and relative humidity on those dates is provided. The field strength and chamber position (either upper or lower) for any group can be obtained from Table 2 of the text.

The headings for each column are defined (proceeding from left to right) as:

DATE:	date these data were obtained; expressed as day/month/last digit of the year
DAY:	the number of days these animals have been exposed
TEMP:	the average $\pm$ the range of room temperature ($^{\circ}$ F), taken over the interval from the previous data day to this day
HUMIDITY:	the average $\pm$ the range of relative humidity (% RH), taken over the interval from the previous data day to this day
N:	the number of animals in each group, either 16 or 48; or when an animal's food or water consumption could not be accurately measured due to an accident; (e. g. , bottle was spilled), it then becomes the smallest number of animals used for any one of the calculations for this date
BODY WEIGHT:	
XBAR	the average mass (g) per animal for this group
SD	the standard deviation of XBAR (g)

CHG. BODY WT:

XBAR average change in mass per day (g/day) per animal for
this group, taken over the interval from the previous
data day to this day

SD the standard deviation of XBAR (g/day)

FOOD CONSUMED AND WATER CONSUMED:

XBAR average food (water) consumed per day (g/day) per animal
for this group, taken over the interval from the previous
data day to this day

SD standard deviation of XBAR (g/day)

TOTAL TO DATE average of cumulative food (water) consumed (g) per ani-
mal from day zero to this day

SD standard deviation TOTAL TO DATE (g)

ASTERISK (*) this symbol is used to note that the data from all animals
could not be used; where N = 16 for experiments E, F,
and H, or N = 48 for experiment G. Further information
is provided in the next paragraph

It was necessary to delete three animals from experiment F because they
accidentally went without water over a weekend. This accident occurred early in
this experiment, and animals resumed normal drinking, eating, and growth val-
ues; therefore, these animals were not deleted from the biochemical and hema-
tological analyses. Because one animal was deleted from group two (Table A-3)
and two animals were deleted from group six (Table A-4), asterisks indicate
that fewer than the usual number of animals were used for each day.

TABLE A-1

EXPERIMENT I																
GROUP 1																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
7/ 4/3	0	8+8-0	0+ 0- 0	16	221.93	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/ 4/3	2	72+0-0	20+ 0- 1	16	237.00	13.17	7.93	1.18	26.40	1.51	52.80	3.03	42.48	4.93	84.96	9.86
11/ 4/3	4	72+0-0	34+ 1- 2	16	253.60	14.69	7.94	1.90	26.30	1.80	105.57	5.97	44.51	5.42	173.97	20.10
14/ 4/3	7	72+0-1	30+ 1- 2	16	280.33	16.00	8.09	1.03	20.19	1.79	190.14	9.59	43.15	6.40	303.43	30.46
16/ 4/3	9	72+0-0	42+ 2- 1	16	296.76	16.74	8.28	1.13	20.75	1.64	247.64	12.33	44.18	5.07	391.70	49.94
18/ 4/3	11	71+1-0	42+ 6- 2	15	311.44	19.94	7.34	3.90	20.00	1.85	303.00	14.67	42.63	6.10	476.53	60.95
21/ 4/3	14	71+0-0	40+ 0- 2	16	332.05	23.51	6.07	1.67	29.00	2.50	393.43	19.97	43.14	6.63	605.94	80.45
23/ 4/3	16	72+0-0	42+ 6- 2	16	342.55	26.43	5.25	3.21	30.57	2.73	454.50	24.20	44.05	7.14	694.04	94.02
25/ 4/3	18	70+2-0	57+ 0- 1	16	355.01	26.56	6.63	2.97	31.43	3.25	517.44	29.60	45.67	7.08	781.31	100.20
28/ 4/3	21	71+0-0	43+ 0- 3	16	369.77	20.63	4.65	1.63	30.67	2.07	609.44	34.59	45.96	6.92	915.20	120.12
30/ 4/3	23	71+0-0	53+ 0- 1	16	379.23	29.14	4.73	1.07	31.66	3.10	672.77	39.35	45.96	6.99	1001.12	139.37
2/ 5/3	25	71+0-0	54+ 0- 1	16	385.19	20.20	2.90	1.40	29.92	3.22	734.07	44.69	42.46	6.36	1086.04	151.56
GROUP 2																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
7/ 4/3	0	8+8-0	0+ 0- 0	16	217.44	14.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/ 4/3	2	72+0-0	20+ 0- 1	16	233.93	14.50	0.24	1.02	20.32	3.99	56.64	7.90	42.23	6.13	84.45	12.27
11/ 4/3	4	72+0-0	34+ 1- 2	16	247.26	14.04	6.66	3.31	25.96	1.00	100.56	9.50	43.06	4.07	170.56	10.62
14/ 4/3	7	72+0-1	30+ 1- 2	16	273.93	21.75	0.09	5.00	20.33	6.06	193.54	22.44	41.51	11.95	295.08	50.74
16/ 4/3	9	72+0-0	42+ 2- 1	16	292.00	19.19	9.00	3.26	29.74	2.99	253.01	26.59	43.61	6.29	302.29	50.00
18/ 4/3	11	71+1-0	42+ 6- 2	13	307.34	10.56	7.63	1.67	26.32	9.44	305.65	24.00	42.06	5.40	460.36	65.26
21/ 4/3	14	71+0-0	40+ 0- 2	16	329.45	19.23	7.37	1.04	31.50	2.67	400.14	24.46	43.27	5.84	590.16	80.90
23/ 4/3	16	72+0-0	42+ 6- 2	16	343.50	10.90	7.05	1.50	30.67	2.05	461.40	28.46	44.95	6.02	688.06	91.72
25/ 4/3	18	70+2-0	57+ 0- 1	16	353.24	10.07	4.84	4.00	30.61	4.50	522.71	29.03	42.03	9.34	772.13	100.20
28/ 4/3	21	71+0-0	43+ 0- 3	16	370.27	19.22	5.60	1.07	32.14	2.91	619.12	32.37	45.14	8.37	907.54	120.90
30/ 4/3	23	71+0-0	53+ 0- 1	16	370.10	20.01	3.91	1.51	31.17	2.97	681.46	37.06	45.73	10.20	998.99	135.74
2/ 5/3	25	71+0-0	54+ 0- 1	16	384.53	20.60	3.21	1.55	29.90	2.54	741.41	38.49	41.07	6.14	1087.34	153.50
GROUP 3																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
7/ 4/3	0	8+8-0	0+ 0- 0	16	213.76	9.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/ 4/3	2	72+0-0	20+ 0- 1	16	226.09	17.35	6.57	6.24	24.01	4.00	49.63	8.17	30.33	9.65	79.67	19.30
11/ 4/3	4	72+0-0	34+ 1- 2	16	244.11	12.14	0.61	3.93	25.64	1.52	100.90	0.91	43.35	3.63	163.36	10.30
14/ 4/3	7	72+0-1	30+ 1- 2	16	270.94	12.72	0.94	1.29	27.72	1.45	184.06	11.22	42.03	3.66	209.45	25.36
16/ 4/3	9	72+0-0	42+ 2- 1	16	286.01	13.34	7.93	1.77	20.53	3.34	241.13	16.64	39.55	12.61	360.54	42.41
18/ 4/3	11	71+1-0	42+ 6- 2	16	301.31	14.59	7.25	1.62	27.04	1.04	296.02	10.20	41.45	4.00	451.44	40.93
21/ 4/3	14	71+0-0	40+ 0- 2	16	322.71	16.20	7.13	1.16	29.17	1.94	384.34	22.30	41.09	3.77	577.11	57.69
23/ 4/3	16	72+0-0	42+ 6- 2	16	335.13	16.65	6.21	1.43	29.30	2.49	443.10	25.79	42.00	3.47	662.69	63.15
25/ 4/3	18	70+2-0	57+ 0- 1	16	346.00	17.19	5.88	1.09	20.01	2.11	500.72	29.60	41.19	3.53	745.27	67.07
28/ 4/3	21	71+0-0	43+ 0- 3	16	357.04	22.05	3.65	3.23	20.10	4.03	585.03	41.30	40.02	0.53	805.33	83.73
30/ 4/3	23	71+0-0	53+ 0- 1	16	366.15	20.05	4.15	2.77	29.72	2.79	644.40	44.58	42.00	3.94	950.14	80.01
2/ 5/3	25	71+0-0	54+ 0- 1	16	373.73	20.60	3.70	1.04	20.04	1.61	701.31	46.79	41.07	4.20	1037.60	95.05

TABLE A-2

EXPERIMENT 2															
GROUP 4															
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL	WATER		CONSUMED	TOTAL
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	XBAR	SD	TO DATE	SD
7/ 4/5	0	8+0-0	0+ 0- 0	16	216.90	12.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/ 4/5	2	72+0-0	20+ 0- 1	16	230.40	15.97	6.75	6.04	25.49	4.06	50.98	39.93	10.20	79.06	20.40
11/ 4/5	4	72+0-0	34+ 1- 2	16	247.02	16.65	0.31	4.73	25.32	4.05	101.62	43.52	9.20	166.09	29.33
14/ 4/5	7	72+0-1	30+ 1- 2	16	273.07	19.41	0.95	1.10	27.71	2.15	104.76	43.02	5.72	295.96	43.27
16/ 4/5	9	72+0-0	42+ 2- 1	16	289.64	19.40	7.03	1.05	27.60	2.00	240.13	43.40	5.72	302.91	53.57
18/ 4/5	11	71+1-0	42+ 0- 2	16	305.07	19.56	0.12	1.29	20.91	2.23	297.95	44.01	5.19	470.94	63.00
21/ 4/5	14	71+0-0	40+ 0- 2	16	325.95	20.30	6.69	1.20	20.75	2.29	304.19	43.70	6.04	602.03	82.60
23/ 4/5	16	72+0-0	42+ 6- 2	16	330.75	21.54	6.40	1.53	20.22	3.70	443.02	44.05	5.30	690.13	92.92
25/ 4/5	18	70+2-0	57+ 0- 1	16	352.23	22.72	6.74	1.77	20.19	2.07	502.19	43.06	4.95	777.04	102.35
28/ 4/5	21	71+0-0	43+ 0- 3	16	366.74	23.04	4.04	1.50	20.41	2.63	591.26	43.07	5.07	909.45	119.22
30/ 4/5	23	71+0-0	53+ 0- 1	16	374.33	24.50	7.79	1.32	30.92	3.15	653.10	44.55	5.37	998.54	129.23
2/ 5/5	25	71+0-0	54+ 0- 1	16	382.59	24.22	4.13	2.20	28.36	2.23	710.90	44.14	6.12	1086.83	140.04
GROUP 5															
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL	WATER		CONSUMED	TOTAL
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	XBAR	SD	TO DATE	SD
7/ 4/5	0	8+0-0	0+ 0- 0	16	214.47	12.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/ 4/5	2	72+0-0	20+ 0- 1	16	231.05	13.07	0.29	1.29	25.57	1.00	51.13	42.30	4.52	84.60	5.03
11/ 4/5	4	72+0-0	34+ 1- 2	16	247.33	14.19	0.14	1.75	26.02	2.13	103.10	42.13	13.19	168.05	30.24
14/ 4/5	7	72+0-1	30+ 1- 2	16	273.49	17.30	0.72	1.50	27.32	2.71	105.14	43.47	5.24	299.26	41.99
16/ 4/5	9	72+0-0	42+ 2- 1	16	290.45	19.07	0.40	1.02	20.20	2.94	241.54	43.62	4.92	306.51	50.30
18/ 4/5	11	71+1-0	42+ 6- 2	16	305.40	19.23	7.52	2.02	20.55	1.52	290.64	44.40	4.59	475.31	56.74
21/ 4/5	14	71+0-0	40+ 0- 2	16	325.90	22.47	6.01	1.77	20.24	3.02	306.37	45.94	5.91	615.12	72.14
23/ 4/5	16	72+0-0	42+ 6- 2	16	339.37	24.12	6.73	1.40	20.50	2.70	445.37	45.07	4.19	704.05	79.35
25/ 4/5	18	70+2-0	57+ 0- 1	16	352.06	24.70	6.34	1.78	20.64	2.00	504.06	45.71	5.33	790.06	83.04
28/ 4/5	21	71+0-0	43+ 0- 3	15	365.54	26.20	4.50	0.92	30.00	2.44	595.04	44.06	4.64	900.44	99.40
30/ 4/5	23	71+0-0	53+ 0- 1	16	373.27	26.32	3.80	1.24	20.80	12.04	648.76	44.50	5.70	1017.05	105.76
2/ 5/5	25	71+0-0	54+ 0- 1	16	381.44	27.10	4.00	1.47	20.84	3.20	711.11	45.02	5.00	1107.00	110.36
GROUP 6															
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL	WATER		CONSUMED	TOTAL
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	XBAR	SD	TO DATE	SD
7/ 4/5	0	8+0-0	0+ 0- 0	16	215.45	16.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/ 4/5	2	72+0-0	20+ 0- 1	16	232.04	16.79	0.30	1.16	26.46	1.90	52.91	44.05	4.60	89.70	9.21
11/ 4/5	4	72+0-0	34+ 1- 2	16	249.04	19.40	0.50	1.50	27.23	2.12	107.36	40.62	6.28	106.94	20.00
14/ 4/5	7	72+0-1	30+ 1- 2	16	275.41	20.45	0.79	0.00	20.44	3.00	102.60	40.05	5.50	327.40	36.17
16/ 4/5	9	72+0-0	42+ 2- 1	16	291.56	22.97	0.07	1.06	20.06	2.77	250.79	47.11	5.73	421.63	40.56
18/ 4/5	11	71+1-0	42+ 6- 2	14	305.57	23.09	7.01	1.60	20.50	1.92	307.79	47.39	5.99	516.01	57.43
21/ 4/5	14	71+0-0	40+ 0- 2	16	329.29	27.07	7.91	1.91	30.69	3.30	399.06	49.02	7.70	663.07	79.06
23/ 4/5	16	72+0-0	42+ 6- 2	16	341.64	27.33	6.10	1.51	31.55	3.51	462.90	40.46	8.56	750.49	95.67
25/ 4/5	18	70+2-0	57+ 0- 1	16	352.96	29.97	5.56	2.94	30.23	4.98	573.41	40.79	11.14	850.17	114.77
28/ 4/5	21	71+0-0	43+ 0- 3	16	366.47	32.08	4.50	1.72	32.21	2.43	620.04	40.84	9.74	990.67	142.42
30/ 4/5	23	71+0-0	53+ 0- 1	16	374.01	34.03	4.17	1.52	31.62	4.35	683.20	40.63	10.35	1095.92	161.40
2/ 5/5	25	71+0-0	54+ 0- 1	16	382.86	35.42	4.02	1.45	30.57	4.31	744.41	45.07	9.43	1186.06	165.27

TABLE A-3

EXPERIMENT F																
GROUP 1																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL		WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	SD	XBAR	SD	TO DATE	SD
12/ 5/5	0	8+0-0	0+ 0- 0	16	127.24	10.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/ 5/5	2	72+1-1	62+ 2- 2	10	132.09	12.70	12.43	1.66	18.75	1.52	37.49	3.84	24.98	2.53	49.97	5.87
16/ 5/5	4	72+1-0	56+ 1- 1	16	170.14	12.05	9.03	1.09	21.25	1.94	79.99	6.39	29.44	2.05	108.06	10.08
19/ 5/5	7	72+1-0	57+ 1- 1	16	196.42	15.03	8.76	1.41	22.30	2.00	147.13	12.30	29.25	2.00	196.62	10.33
21/ 5/5	9	73+0-0	50+ 0- 0	16	212.57	15.29	8.07	1.04	24.20	2.29	195.69	16.37	32.46	2.02	261.54	23.03
23/ 5/5	11	74+0-1	63+ 0- 3	16	230.52	16.90	8.98	1.79	24.59	2.27	244.07	20.52	39.20	4.43	340.11	31.03
26/ 5/5	14	75+0-3	70+10-10	16	257.69	10.56	9.06	1.57	25.76	2.54	322.16	27.25	37.06	4.29	451.29	43.53
28/ 5/5	16	70+0-1	64+ 4- 4	16	272.65	20.27	7.40	1.62	25.79	2.13	373.75	30.70	38.77	4.72	520.83	51.00
30/ 5/5	18	72+0-0	50+ 2- 0	16	270.06	20.40	8.11	1.03	26.11	2.00	425.50	34.34	40.45	3.70	609.73	50.00
2/ 6/5	21	72+1-0	61+ 1- 0	15	311.30	22.00	7.51	1.61	27.77	2.10	509.30	30.77	30.00	4.34	727.54	60.37
4/ 6/5	23	71+0-1	67+ 1- 0	15	327.02	22.92	7.02	2.56	20.90	3.42	567.33	41.71	40.90	4.41	809.54	75.24
6/ 6/5	25	60+2-0	60+ 0- 0	16	330.44	24.37	5.71	1.01	20.40	2.45	624.12	44.00	41.40	4.51	892.29	82.07
9/ 6/5	28	71+0-0	00+ 0- 0	16	357.97	25.50	6.51	0.97	27.09	1.96	707.00	49.64	36.96	4.17	1003.10	92.60
GROUP 2																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL		WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	SD	XBAR	SD	TO DATE	SD
12/ 5/5	0	8+0-0	0+ 0- 0	16	129.65	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/ 5/5	2	72+1-1	62+ 2- 2	15	140.20	9.37	9.32	3.60	19.10	1.05	36.35	3.17	25.07	3.45	50.13	6.66
16/ 5/5	4	72+1-0	56+ 1- 1	15	166.44	11.22	9.00	2.00	21.35	1.60	79.05	6.31	30.63	4.20	111.40	14.12
19/ 5/5	7	72+1-0	57+ 1- 1	15	191.72	12.04	8.43	2.43	23.00	1.75	140.30	10.04	29.01	3.57	200.03	23.90
21/ 5/5	9	73+0-0	50+ 0- 0	15	200.21	13.04	8.24	2.56	24.02	2.06	197.95	13.47	32.40	3.50	265.79	30.45
23/ 5/5	11	74+0-1	63+ 0- 3	15	224.54	14.60	8.17	2.76	24.09	2.10	247.72	17.11	40.15	4.06	346.09	30.70
26/ 5/5	14	75+0-3	70+10-10	15	252.20	10.12	9.24	2.77	25.70	2.00	324.01	22.05	37.97	4.52	459.59	51.30
28/ 5/5	16	70+0-1	64+ 4- 4	15	267.53	16.57	7.63	2.34	26.06	2.10	377.73	26.54	30.70	4.23	537.55	50.07
30/ 5/5	18	72+0-0	50+ 2- 0	15	282.39	17.97	7.43	2.50	27.60	3.12	472.69	20.71	43.41	5.51	624.37	60.95
2/ 6/5	21	72+1-0	61+ 1- 0	14	302.05	10.01	7.22	3.09	20.21	1.92	517.34	33.61	30.60	6.21	745.17	63.16
4/ 6/5	23	71+0-1	62+ 1- 0	15	319.69	20.99	0.55	4.30	29.41	2.59	576.16	30.12	41.21	4.47	805.71	91.04
6/ 6/5	25	66+2-0	60+ 0- 0	15	330.33	22.97	5.32	1.99	20.26	1.73	632.60	40.90	41.04	3.92	907.79	90.04
9/ 6/5	28	71+0-0	00+ 0- 0	15	350.70	23.55	6.79	2.30	20.39	2.70	717.06	40.12	36.77	5.20	1010.09	111.71
GROUP 3																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL		WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	SD	XBAR	SD	TO DATE	SD
12/ 5/5	0	8+0-0	0+ 0- 0	16	120.90	12.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/ 5/5	2	72+1-1	62+ 2- 2	16	142.90	12.37	6.97	1.55	16.51	1.45	33.01	2.00	22.67	3.41	45.34	6.02
16/ 5/5	4	72+1-0	56+ 1- 1	16	159.09	12.70	0.10	1.04	19.77	2.00	72.59	6.49	20.01	2.20	102.95	9.27
19/ 5/5	7	72+1-0	57+ 1- 1	16	164.63	16.13	0.51	1.40	21.39	2.34	136.70	12.05	29.02	3.57	192.40	14.02
21/ 5/5	9	73+0-0	50+ 0- 0	15	200.91	17.20	0.14	0.04	23.02	3.11	104.41	10.41	32.00	3.53	256.24	10.02
23/ 5/5	11	74+0-1	63+ 0- 3	16	217.14	10.00	0.12	1.35	24.20	3.70	232.96	25.43	30.59	3.16	333.43	25.40
26/ 5/5	14	75+0-3	70+10-10	10	243.45	21.02	0.77	1.30	24.59	3.13	306.73	33.72	37.16	4.17	444.91	36.42
28/ 5/5	16	70+0-1	64+ 4- 4	16	255.63	22.01	0.09	1.32	25.13	3.12	356.99	39.36	30.15	3.57	521.22	43.94
30/ 5/5	18	72+0-0	50+ 2- 0	0	269.56	24.56	6.97	1.61	25.00	3.72	400.95	46.23	41.40	4.63	604.20	51.00
2/ 6/5	21	72+1-0	61+ 1- 0	0	292.56	27.27	7.00	1.39	26.71	3.30	469.09	55.16	30.03	4.00	721.30	63.00
4/ 6/5	23	71+0-1	62+ 1- 0	0	309.05	30.16	0.25	1.94	26.06	3.06	542.01	59.00	37.60	5.30	796.51	73.00
6/ 6/5	25	66+2-0	60+ 0- 0	0	317.00	30.43	4.20	1.70	26.33	2.96	595.40	64.00	40.51	6.00	877.53	83.44
9/ 6/5	28	71+0-0	00+ 0- 0	16	330.62	34.99	7.01	1.95	27.46	3.30	677.00	72.41	37.40	5.42	939.73	97.51

TABLE A-4

EXPERIMENT F																
GROUP 4																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER CONSUMED			
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
12/ 5/5	0	0+0-0	0+ 0- 0	10	131.01	12.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/ 5/5	2	72+1-1	62+ 2- 2	16	141.32	12.09	5.16	1.53	16.35	0.97	32.70	1.94	22.55	2.26	45.11	4.51
16/ 5/5	4	72+1-0	56+ 1- 1	16	150.34	13.77	0.51	1.26	19.01	1.57	72.33	4.75	20.78	1.90	102.60	0.06
19/ 5/5	7	72+1-0	57+ 1- 1	16	102.19	15.46	7.95	1.16	21.53	1.69	136.93	9.10	29.20	2.67	190.26	15.50
21/ 5/5	9	73+0-0	58+ 0- 0	16	190.05	17.30	7.93	1.34	23.00	1.69	102.92	11.05	32.33	3.52	254.92	21.92
23/ 5/5	11	74+0-1	63+ 0- 3	16	212.30	19.06	7.12	1.56	23.62	2.00	230.15	14.92	30.41	4.42	331.74	29.52
26/ 5/5	14	75+6-3	70+10-10	16	230.00	22.41	0.59	1.39	24.27	2.23	302.95	20.14	37.56	4.93	444.41	43.06
28/ 5/5	16	70+0-1	64+ 4- 4	16	251.92	23.42	6.93	1.24	24.46	2.14	351.07	24.03	30.21	5.05	520.03	53.76
30/ 5/5	18	72+0-0	50+ 2- 0	16	266.42	27.00	7.25	1.27	25.02	1.90	401.91	27.32	41.17	5.33	607.16	63.47
2/ 6/5	21	72+1-0	61+ 1- 0	16	209.49	25.00	7.11	1.01	25.56	2.11	479.07	34.91	37.79	5.55	716.53	75.00
4/ 6/5	23	71+0-1	62+ 1- 0	16	305.05	25.61	0.10	1.65	26.33	2.37	531.23	30.60	36.00	5.43	790.31	83.01
6/ 6/5	25	60+2-0	60+ 0- 0	16	316.30	25.23	5.20	1.40	26.57	1.91	584.36	39.00	41.02	5.14	872.06	81.54
9/ 6/5	28	71+0-0	60+ 0- 0	16	330.71	25.28	6.70	0.96	26.70	1.03	664.00	44.73	37.17	4.57	909.86	103.95

GROUP 5																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER CONSUMED			
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
12/ 5/5	0	0+0-0	0+ 0- 0	16	132.50	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/ 5/5	2	72+1-1	62+ 2- 2	16	146.09	11.75	6.99	2.59	17.07	1.15	34.14	2.30	22.54	1.50	45.00	3.01
16/ 5/5	4	72+1-0	56+ 1- 1	15	163.06	12.22	0.49	1.12	20.10	1.39	74.37	4.27	20.09	1.92	101.26	6.04
19/ 5/5	7	72+1-0	57+ 1- 1	16	100.34	14.23	0.16	1.15	21.34	1.45	130.30	0.07	20.15	1.91	185.72	11.19
21/ 5/5	9	73+0-0	58+ 0- 0	16	203.06	14.46	7.76	1.31	23.62	2.02	185.63	11.25	30.03	2.24	247.30	14.07
23/ 5/5	11	74+0-1	63+ 0- 3	16	219.10	15.92	7.62	1.46	22.05	2.15	231.33	14.00	36.70	3.65	320.79	21.07
26/ 5/5	14	75+6-3	70+10-10	16	245.74	10.45	0.00	1.57	24.02	2.01	303.39	20.24	35.65	3.50	427.73	30.06
28/ 5/5	16	70+0-1	64+ 4- 4	16	257.33	19.65	5.70	1.65	24.01	2.15	331.41	24.10	35.09	3.85	497.48	37.93
30/ 5/5	18	72+0-0	50+ 2- 0	16	271.52	20.10	7.00	1.06	24.42	2.06	400.35	20.54	30.04	3.73	575.50	41.71
2/ 6/5	21	72+1-0	61+ 1- 0	16	291.54	20.04	6.67	1.11	25.75	2.10	479.09	31.40	35.00	3.52	607.16	57.13
4/ 6/5	23	71+0-1	62+ 1- 0	16	306.24	21.99	7.35	1.60	25.57	2.11	527.13	30.70	33.00	3.08	740.56	57.31
6/ 6/5	25	60+2-0	60+ 0- 0	16	319.38	20.07	4.77	1.30	25.20	2.01	577.57	42.00	35.43	3.37	809.47	62.74
9/ 6/5	28	71+0-0	60+ 0- 0	16	332.43	21.05	5.58	1.35	25.40	2.01	638.77	47.07	32.50	3.04	917.57	60.00

GROUP 6																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER CONSUMED			
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
12/ 5/5	0	0+0-0	0+ 0- 0	16	129.04	12.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14/ 5/5	2	72+1-1	62+ 2- 2	14	144.94	11.29	7.95	3.09	17.51	1.19	35.03	2.32	23.66	3.93	47.31	7.32
16/ 5/5	4	72+1-0	56+ 1- 1	14	163.54	11.35	9.30	3.74	20.97	1.54	76.97	4.75	29.05	3.69	105.42	13.72
19/ 5/5	7	72+1-0	57+ 1- 1	14	100.42	11.07	0.30	3.43	22.50	1.63	141.71	7.92	29.53	3.71	194.02	23.00
21/ 5/5	9	73+0-0	58+ 0- 0	14	205.20	13.07	0.43	3.51	23.02	1.66	192.35	10.43	32.00	3.50	250.14	29.43
23/ 5/5	11	74+0-1	63+ 0- 3	14	221.01	14.50	7.06	3.39	24.53	1.71	241.41	12.67	30.74	5.20	335.61	30.55
26/ 5/5	14	75+6-3	70+10-10	14	249.14	17.99	9.30	3.95	25.91	2.61	319.13	19.13	37.95	5.01	449.46	51.62
28/ 5/5	16	70+0-1	64+ 4- 4	14	264.25	20.35	7.56	3.47	26.10	2.59	371.32	23.55	30.01	5.01	527.00	60.70
30/ 5/5	18	72+0-0	50+ 2- 0	13	279.06	21.04	7.00	3.42	26.01	3.35	421.04	29.14	40.03	0.45	611.70	70.56
2/ 6/5	21	72+1-0	61+ 1- 0	14	301.00	23.50	0.01	3.50	29.00	2.07	509.10	30.04	40.00	5.09	735.94	84.00
4/ 6/5	23	71+0-1	62+ 1- 0	14	310.56	26.30	7.54	3.75	20.50	2.07	560.17	40.03	30.05	5.97	800.05	90.03
6/ 6/5	25	60+2-0	60+ 0- 0	14	320.69	27.12	0.31	2.75	27.50	2.56	621.17	41.91	41.35	6.26	890.34	99.12
9/ 6/5	28	71+0-0	60+ 0- 0	14	349.04	29.32	0.05	2.87	28.33	2.54	700.15	51.20	37.69	0.47	1005.40	114.03

TABLE A-5

EXPERIMENT G																
GROUP 1																
DATE	DAY	TEMP	HUMIDITY	H	BODY WEIGHT		CHG. BODY WT.		XBAR	SD	FOOD CONSUMED		XBAR	SD	WATER CONSUMED	
					XBAR	SD	XBAR	SD			TOTAL TO DATE	SD			TOTAL TO DATE	SD
23/ 6/5	0	0+0-0	0+	0- 0 48	126.87	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25/ 6/5	2	73+0-0	63+	0- 1 48	213.70	11.50	8.86	1.20	23.53	1.76	47.06	3.53	33.44	3.65	66.88	7.30
27/ 6/5	4	72+0-0	62+	0- 1 48	230.05	12.08	8.14	1.20	23.87	1.85	94.80	6.93	35.21	3.63	137.30	14.52
30/ 6/5	7	72+1-0	63+	0- 1 48	255.69	14.05	8.54	1.05	24.86	2.04	169.39	12.83	34.84	3.82	241.82	25.44
2/ 7/5	9	70+1-0	62+	0- 0 40	273.60	15.58	9.00	1.49	26.60	2.03	222.60	16.59	37.04	3.58	315.90	31.99
3/ 7/5	10	72+1-1	62+	2- 0 48	278.62	16.37	4.95	2.34	25.83	2.15	248.47	18.45	40.08	4.45	355.98	25.56
7/ 7/5	14	71+1-0	62+	0- 0 48	311.28	18.05	8.16	1.17	27.27	2.47	357.56	27.41	35.90	3.97	409.59	49.92
9/ 7/5	16	72+1-0	63+	1- 0 48	327.29	19.68	8.00	1.45	27.83	2.93	413.35	32.40	40.94	5.33	501.48	58.68
11/ 7/5	18	72+0-1	62+	0- 0 48	336.41	21.55	4.50	1.63	27.70	3.90	468.76	36.81	41.97	5.87	665.41	69.53
14/ 7/5	21	72+0-0	63+	1- 1 48	355.33	23.21	6.31	1.26	27.98	3.01	552.09	45.89	40.05	6.27	727.30	85.13
16/ 7/5	23	73+1-0	63+	1- 0 40	367.55	24.77	6.11	1.57	29.02	3.00	610.74	51.04	39.01	5.36	805.59	95.12
18/ 7/5	25	74+0-1	63+	0- 0 48	375.89	24.60	4.17	1.61	27.44	2.43	665.61	55.66	38.16	5.78	941.70	104.79
21/ 7/5	28	74+0-0	64+	0- 0 48	390.08	27.31	5.00	1.98	28.34	2.62	750.63	61.76	37.37	5.07	1052.51	118.90

GROUP 2																
DATE	DAY	TEMP	HUMIDITY	H	BODY WEIGHT		CHG. BODY WT.		XBAR	SD	FOOD CONSUMED		XBAR	SD	WATER CONSUMED	
					XBAR	SD	XBAR	SD			TOTAL TO DATE	SD			TOTAL TO DATE	SD
23/ 6/5	0	0+0-0	0+	0- 0 48	194.55	9.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25/ 6/5	2	73+0-0	63+	0- 1 47	211.13	11.57	8.29	1.35	22.72	1.92	45.44	3.79	32.73	3.79	65.16	7.29
27/ 6/5	4	72+0-0	62+	0- 1 48	226.75	12.35	7.61	1.25	23.41	2.19	92.26	7.69	34.20	3.85	133.56	14.31
30/ 6/5	7	72+1-0	63+	0- 1 48	251.94	13.86	8.40	1.23	24.26	2.31	165.83	14.22	35.79	3.94	274.94	25.48
2/ 7/5	9	70+1-0	62+	0- 0 40	269.63	15.55	8.04	1.94	26.35	2.49	217.72	18.53	36.84	4.61	307.03	33.72
3/ 7/5	10	72+1-1	62+	2- 0 40	273.43	15.94	3.80	2.75	25.83	3.44	242.80	20.50	39.01	5.13	346.04	37.86
7/ 7/5	14	71+1-0	62+	0- 0 40	305.94	18.59	8.13	1.09	26.87	2.42	350.20	29.46	39.23	4.58	486.96	55.07
9/ 7/5	16	72+1-0	63+	1- 0 40	322.36	20.07	8.21	1.79	27.50	2.60	405.40	34.20	40.40	5.50	567.33	65.42
11/ 7/5	18	72+0-1	62+	0- 0 48	331.77	21.17	4.70	1.93	27.42	2.45	469.24	38.41	41.25	5.51	650.43	75.64
14/ 7/5	21	72+0-0	63+	1- 1 47	342.90	22.42	5.63	1.43	27.41	2.40	542.50	44.94	39.70	5.61	759.62	90.41
16/ 7/5	23	73+1-0	63+	1- 0 40	360.73	24.32	5.99	2.00	28.39	2.64	609.30	48.97	39.00	5.47	859.51	99.94
18/ 7/5	25	74+0-1	63+	0- 0 46	369.55	24.97	4.39	1.70	27.43	2.65	654.27	53.44	38.84	5.78	921.19	110.72
21/ 7/5	28	74+0-0	64+	0- 0 47	383.95	26.82	4.60	1.36	27.99	2.59	738.24	60.20	37.10	6.14	1032.74	126.73

TABLE A-6

EXPERIMENT N																
GROUP 1																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
5/ 8/5	0	0+0-0	0+ 0- 0	16	197.21	9.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/ 8/5	1	73+0-0	64+ 0- 0	16	205.05	10.65	7.84	2.97	23.59	2.35	23.59	2.35	34.29	3.56	34.29	3.56
8/ 8/5	3	71+1-0	63+ 0- 1	16	220.42	13.15	7.60	2.23	24.33	2.33	72.24	6.54	33.09	4.70	102.35	12.49
11/ 8/5	6	72+0-0	65+ 0- 0	16	243.53	15.32	7.70	1.58	25.20	2.60	140.09	14.23	32.90	4.54	200.74	25.57
13/ 8/5	8	73+0-0	64+ 0- 0	16	262.65	10.05	9.56	1.92	25.63	2.00	199.36	19.61	34.33	5.33	269.39	35.47
15/ 8/5	10	74+0-0	67+ 0- 1	16	276.22	19.09	6.78	1.17	25.54	2.60	250.44	24.64	35.97	4.03	341.33	44.87
18/ 8/5	13	74+0-2	68+ 1- 2	16	300.40	21.74	0.00	1.39	27.05	3.02	331.59	33.41	35.40	5.05	447.52	61.75
20/ 8/5	15	71+0-0	66+ 0- 0	16	317.34	22.52	0.47	1.60	27.91	2.95	307.41	39.12	35.35	5.05	510.22	72.73
22/ 8/5	17	72+0-0	69+ 0- 1	15	320.51	22.52	5.50	1.35	27.13	2.73	441.67	43.01	37.03	5.49	592.50	82.61
25/ 8/5	20	72+0-0	71+ 0- 1	16	340.01	25.29	6.93	1.67	20.54	2.60	527.29	51.81	30.40	5.94	701.50	100.09
27/ 8/5	22	72+0-1	67+ 0- 0	16	362.04	25.32	6.60	1.39	20.32	2.50	583.92	56.64	36.26	6.14	774.02	111.00
29/ 8/5	24	70+1-0	66+ 0- 0	16	371.79	25.06	4.00	1.33	27.91	2.17	639.74	60.25	37.46	5.94	840.94	122.77
2/ 9/5	28	0+0-0	0+ 0- 0	16	393.69	26.62	5.47	1.09	20.07	2.46	755.23	69.01	36.67	5.17	945.62	142.77
GROUP 2																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
5/ 8/5	0	0+0-0	0+ 0- 0	16	100.10	13.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/ 8/5	1	73+0-0	64+ 0- 0	16	197.17	14.40	9.07	2.09	23.06	2.09	23.06	2.09	33.76	4.45	33.76	4.45
8/ 8/5	3	71+1-0	63+ 0- 1	16	211.74	16.29	7.20	1.29	23.09	1.09	70.01	5.67	33.04	4.27	101.44	12.57
11/ 8/5	6	72+0-0	65+ 0- 0	16	237.37	10.20	0.54	1.24	25.10	1.78	146.33	10.67	32.59	4.31	199.22	25.19
13/ 8/5	8	73+0-0	64+ 0- 0	16	255.64	20.44	9.14	1.65	25.67	2.17	197.60	14.35	32.96	4.70	265.13	34.09
15/ 8/5	10	74+0-0	67+ 0- 1	16	260.07	21.01	6.61	1.03	25.70	2.13	249.00	10.11	35.10	4.92	335.32	43.57
18/ 8/5	13	74+0-2	68+ 1- 2	16	297.52	23.16	7.09	1.31	26.06	2.25	329.64	24.29	34.50	4.02	439.84	57.32
20/ 8/5	15	71+0-0	66+ 0- 0	16	309.04	25.04	0.66	1.40	27.03	2.50	395.31	20.74	34.38	4.69	507.63	60.01
22/ 8/5	17	72+0-0	69+ 0- 1	16	324.11	25.07	7.14	1.40	27.35	3.30	440.01	33.77	36.01	5.01	579.64	76.04
25/ 8/5	20	72+0-0	71+ 0- 1	16	343.96	26.74	6.61	1.09	20.06	3.21	527.20	41.70	35.23	4.93	605.34	99.75
27/ 8/5	22	72+0-1	67+ 0- 0	16	359.01	20.11	7.52	1.35	20.50	2.25	504.36	45.68	34.19	4.67	753.73	90.13
29/ 8/5	24	70+1-0	66+ 0- 0	16	360.44	20.94	4.72	2.06	20.19	2.40	640.74	49.50	35.67	4.92	805.06	107.50
2/ 9/5	28	0+0-0	0+ 0- 0	16	392.05	31.55	5.90	1.30	29.19	2.45	757.49	50.15	35.04	4.70	905.43	124.03
GROUP 3																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED				WATER		CONSUMED	
					XBAR	SD	XBAR	SD	XBAR	SD	TOTAL TO DATE	SD	XBAR	SD	TOTAL TO DATE	SD
5/ 8/5	0	0+0-0	0+ 0- 0	16	192.44	9.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/ 8/5	1	73+0-0	64+ 0- 0	16	200.21	11.04	7.77	2.91	23.04	2.09	23.04	2.09	34.10	5.15	34.10	5.15
8/ 8/5	3	71+1-0	63+ 0- 1	16	216.59	11.69	0.19	1.51	24.69	1.65	72.43	5.09	34.57	4.44	103.31	13.69
11/ 8/5	6	72+0-0	65+ 0- 0	16	243.94	14.20	9.12	1.35	25.72	1.64	149.50	9.65	34.34	3.00	200.34	24.99
13/ 8/5	8	73+0-0	64+ 0- 0	16	261.67	16.54	0.07	1.71	26.22	1.95	202.03	13.42	35.60	4.27	277.71	32.04
15/ 8/5	10	74+0-0	67+ 0- 1	16	276.44	19.32	7.30	1.05	25.93	2.15	253.09	17.41	36.35	3.60	350.41	38.73
18/ 8/5	13	74+0-2	68+ 1- 2	16	302.32	21.00	0.63	1.23	27.90	2.29	337.50	21.73	36.31	4.20	459.34	50.62
20/ 8/5	15	71+0-0	66+ 0- 0	16	320.33	23.70	9.01	2.17	20.19	2.46	393.97	25.90	36.47	4.45	532.20	59.11
22/ 8/5	17	72+0-0	69+ 0- 1	16	333.37	24.30	6.52	1.46	20.53	2.22	451.02	30.17	39.79	4.70	611.07	64.00
25/ 8/5	20	72+0-0	71+ 0- 1	16	353.70	27.05	6.00	1.49	20.45	2.70	536.30	37.30	37.10	4.42	723.18	70.47
27/ 8/5	22	72+0-1	67+ 0- 0	16	369.41	29.37	7.02	2.03	20.32	2.03	590.01	42.41	37.27	4.54	797.71	80.00
29/ 8/5	24	70+1-0	66+ 0- 0	15	377.27	31.52	3.93	1.06	20.76	2.20	655.53	46.16	30.37	5.40	875.60	97.50
2/ 9/5	28	0+0-0	0+ 0- 0	16	390.50	34.21	5.31	1.56	29.11	2.73	771.96	35.17	37.92	5.75	1000.60	115.90

TABLE A-7

EXPERIMENT H																
GROUP 4																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL		WATER CONSUMED		TOTAL	
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	SD	XBAR	SD	TO DATE	SD
5/ 8/5	0	0+0-0	0+ 0- 0	16	188.35	11.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/ 8/5	1	73+0-0	64+ 0- 0	16	196.34	11.47	7.99	2.42	21.08	1.08	21.08	1.08	31.51	3.06	31.51	3.06
8/ 8/5	3	71+1-0	63+ 0- 1	16	210.63	12.67	7.14	1.02	23.51	1.98	68.98	5.73	32.45	3.16	96.48	9.08
11/ 8/5	6	72+0-0	65+ 0- 0	16	235.61	14.38	0.33	1.38	24.53	1.75	142.49	18.62	31.99	3.49	192.38	18.98
13/ 8/5	8	73+0-0	64+ 0- 0	16	252.63	15.86	0.51	1.38	24.63	1.55	192.16	13.33	32.98	3.37	258.35	25.43
15/ 8/5	10	74+0-0	67+ 0- 1	16	264.25	15.99	5.81	1.50	24.65	1.67	241.46	16.29	33.20	3.31	324.74	31.64
18/ 8/5	13	74+0-2	68+ 1- 2	16	287.40	17.56	7.74	1.48	25.92	1.84	319.24	21.01	33.69	3.42	425.83	48.99
20/ 8/5	15	71+0-0	66+ 0- 0	16	303.99	19.74	0.25	2.06	26.28	2.03	371.79	24.62	33.98	3.93	493.63	48.18
22/ 8/5	17	72+0-0	64+ 0- 1	16	313.81	19.58	4.51	1.98	27.17	3.98	426.12	31.27	35.12	3.67	563.88	54.47
25/ 8/5	20	72+0-0	71+ 0- 1	16	332.91	23.53	6.43	2.08	26.96	2.28	507.01	37.24	34.70	4.53	668.22	66.65
27/ 8/5	22	72+0-1	67+ 0- 0	16	346.43	24.91	6.76	1.42	27.15	2.01	561.32	40.77	33.62	3.92	735.46	73.64
29/ 8/5	24	70+1-0	66+ 0- 0	15	353.68	26.23	3.62	1.67	27.17	2.07	615.65	42.76	35.43	4.21	805.14	78.00
2/ 9/5	28	0+0-0	0+ 0- 0	16	372.68	28.98	4.75	1.78	27.19	2.19	724.32	50.05	34.26	3.59	941.94	90.23
GROUP 5																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL		WATER CONSUMED		TOTAL	
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	SD	XBAR	SD	TO DATE	SD
5/ 8/5	0	0+0-0	0+ 0- 0	16	192.01	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/ 8/5	1	73+0-0	64+ 0- 0	16	198.67	12.56	6.66	2.83	23.08	3.43	23.08	3.43	33.54	3.40	33.54	3.40
8/ 8/5	3	71+1-0	63+ 0- 1	16	214.36	13.24	7.84	1.31	24.21	1.66	72.29	5.12	34.26	2.98	102.87	8.91
11/ 8/5	6	72+0-0	65+ 0- 0	16	240.99	14.66	8.88	0.95	25.76	2.89	149.56	18.69	34.14	3.12	204.48	17.50
13/ 8/5	8	73+0-0	64+ 0- 0	16	259.17	15.96	9.89	1.57	26.73	3.44	203.02	17.13	35.94	4.50	276.56	25.63
15/ 8/5	10	74+0-0	67+ 0- 1	15	271.88	16.40	5.96	1.44	25.89	1.91	254.81	19.68	35.38	4.85	346.68	34.39
18/ 8/5	13	74+0-2	68+ 1- 2	16	295.93	17.18	8.29	1.28	27.53	2.88	337.41	27.42	35.75	5.32	453.93	49.21
20/ 8/5	15	71+0-0	66+ 0- 0	16	311.58	17.65	7.82	1.23	27.48	3.54	393.36	31.78	35.27	6.18	524.47	61.17
22/ 8/5	17	72+0-0	69+ 0- 1	16	323.27	17.95	5.85	1.72	27.47	2.34	449.31	35.17	38.12	5.70	608.70	71.71
25/ 8/5	20	72+0-0	71+ 0- 1	16	343.39	18.07	6.71	1.78	29.30	3.51	536.19	45.12	36.78	6.68	711.07	91.07
27/ 8/5	22	72+0-1	67+ 0- 0	16	359.13	19.27	7.87	2.07	30.19	4.50	596.57	53.29	36.50	4.95	784.04	100.67
29/ 8/5	24	70+1-0	66+ 0- 0	15	367.14	20.05	4.80	1.27	28.04	2.05	652.65	55.28	38.21	6.48	860.12	112.75
2/ 9/5	28	0+0-0	0+ 0- 0	15	388.13	21.28	5.25	1.07	28.41	2.27	766.29	61.14	36.32	5.68	1005.03	134.42
GROUP 6																
DATE	DAY	TEMP	HUMIDITY	N	BODY WEIGHT		CHG. BODY WT.		FOOD CONSUMED		TOTAL		WATER CONSUMED		TOTAL	
					XBAR	SD	XBAR	SD	XBAR	SD	TO DATE	SD	XBAR	SD	TO DATE	SD
5/ 8/5	0	0+0-0	0+ 0- 0	16	192.32	9.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/ 8/5	1	73+0-0	64+ 0- 0	16	199.56	10.28	7.24	2.08	23.24	2.51	23.24	2.51	32.54	3.68	32.54	3.68
8/ 8/5	3	71+1-0	63+ 0- 1	16	215.82	10.98	7.73	1.39	26.37	6.40	75.98	14.26	33.83	4.16	98.61	11.75
11/ 8/5	6	72+0-0	65+ 0- 0	16	241.56	13.05	0.85	1.13	25.84	5.85	153.49	29.87	31.99	4.41	194.56	24.89
13/ 8/5	8	73+0-0	64+ 0- 0	16	259.19	13.13	0.82	1.31	25.49	3.58	204.47	35.37	33.93	4.96	262.42	34.29
15/ 8/5	10	74+0-0	67+ 0- 1	16	271.41	15.58	6.11	1.71	26.43	2.63	257.32	39.57	34.81	4.75	332.03	42.95
18/ 8/5	13	74+0-2	68+ 1- 2	15	285.49	17.11	8.02	0.96	27.36	4.64	339.27	53.82	35.87	5.48	437.24	57.53
20/ 8/5	15	71+0-0	66+ 0- 0	16	312.72	18.98	8.62	1.71	27.40	4.09	394.22	59.79	33.88	6.18	503.41	67.89
22/ 8/5	17	72+0-0	69+ 0- 1	16	324.45	19.18	5.87	1.85	27.79	2.41	449.89	62.89	37.03	5.64	577.47	78.46
25/ 8/5	20	72+0-0	71+ 0- 1	16	346.18	20.72	7.22	1.58	29.26	4.23	527.58	75.18	36.34	5.70	686.44	94.69
27/ 8/5	22	72+0-1	67+ 0- 0	16	359.74	22.54	6.82	1.73	30.45	7.40	599.48	87.19	35.87	4.65	780.22	103.19
29/ 8/5	24	70+1-0	66+ 0- 0	16	368.43	22.76	4.34	1.67	28.50	3.31	656.47	94.39	36.25	4.48	852.12	111.50
2/ 9/5	28	0+0-0	0+ 0- 0	15	390.37	25.39	5.49	1.31	28.22	2.14	769.64	97.86	38.37	6.03	977.24	137.61

APPENDIX B

Data and Statistical Summary of the Biochemical and Hematological Analyses

Tables B-1 through B-11 present the raw data and a statistical summary for the biochemical and hematological analyses for each experimental group of the four experiments (E, F, G, and H). The average per day growth rate over the 28-day exposure period and the final weight are presented for convenience. The field strength and chamber position (either upper or lower) for any group can be obtained from Table 2 of the text.

Note that in experiment F, animals numbered 231 (Table B-4), 687, and 689 (Table B-6) were deleted from the growth analyses as discussed in Appendix A. A 999.0 was used in the final weight (FNL WT) column and a 000.0 was used in the growth rate column (WT/DAY) to identify the deleted animals. When a 0.0 is encountered in the rest of these tables, it indicates that the biochemical and hematological determinations were not performed. This only occurred as a result of an insufficient quantity or a clotted sample.

Histograms of these data indicate that nonparametric techniques should be used for their analysis. However, the first quartile (Q-1), median (MED), third quartile (Q-3), the number of animals (N), the average (AVG), standard deviation (S.D.), and standard error (S.E.) are presented for the statistical summary.

The headings for each column are defined (proceeding from left to right) as:

ID#	three-digit code randomly assigned to each animal of an experiment. The digits for units and tens specify where each of the 96 animals was positioned. The digit for hundreds specifies the chamber number (1-6)
T. P.	total serum or plasma protein (g/dl)
GLOB	serum or plasma globulin (mg/dl)
GLU	serum or plasma glucose (mg/dl)

T. L.	serum or plasma total lipids (mg/dl)
CHOL	serum or plasma cholesterol (mg/dl)
TRIG	serum or plasma triglycerides (mg/dl)
WT/DAY	(final body mass-initial body mass)/28 (g/day)
FNL WT	final body mass (g)
RBC	red blood cells (cells/mm ³ x 10 ⁶)
WBC	white blood cells (cells/mm ³ x 10 ³)
POLY	segment neutrophils (%)
LYHS	lymphocytes (%)
HCT	hematocrit (%)
HGB	hemoglobin (g/dl)

Table B-1

GROUP 1																GROUP 2																								
EXPERIMENT E																EXPERIMENT E																								
ID#	T.P.	GLDB	GLU	T.L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYNS	HCT	HGB	ID#	T.P.	GLDB	GLU	T.L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYNS	HCT	HGB											
101	5.720	1.840	322.0	465.0	90.0	187.0	4.900	338.0	6.010	9450.0	6.0	94.0	48.0	14.3	101	5.620	2.000	325.0	537.0	94.0	188.0	6.400	391.0	391.0	5.910	42.0	14.3	101	5.620	2.000	325.0	537.0	94.0	188.0	6.400	391.0	391.0	5.910	42.0	14.3
102	5.910	1.880	206.0	484.0	118.0	187.0	6.000	402.0	5.140	6390.0	6.0	96.0	48.0	15.0	102	5.980	1.880	234.0	476.0	82.0	188.0	6.000	391.0	391.0	5.980	42.0	15.0	102	5.980	1.880	234.0	476.0	82.0	188.0	6.000	391.0	391.0	5.980	42.0	15.0
103	5.910	2.250	211.0	475.0	138.0	202.0	6.100	394.0	5.900	5230.0	4.0	96.0	47.0	15.0	103	5.980	2.250	211.0	475.0	138.0	202.0	6.100	394.0	391.0	5.980	47.0	15.0	103	5.980	2.250	211.0	475.0	138.0	202.0	6.100	394.0	391.0	5.980	47.0	15.0
104	5.700	2.150	254.0	448.0	186.0	193.0	7.500	421.0	5.900	8100.0	4.0	92.0	47.0	15.0	104	5.700	2.150	254.0	448.0	186.0	193.0	7.500	421.0	418.0	5.900	47.0	15.0	104	5.700	2.150	254.0	448.0	186.0	193.0	7.500	421.0	418.0	5.900	47.0	15.0
105	5.890	2.020	200.0	480.0	108.0	235.0	6.900	418.0	5.900	2450.0	6.0	94.0	47.0	15.0	105	5.890	2.020	200.0	480.0	108.0	235.0	6.900	418.0	427.0	5.900	47.0	15.0	105	5.890	2.020	200.0	480.0	108.0	235.0	6.900	418.0	427.0	5.900	47.0	15.0
106	5.210	2.110	439.0	372.0	103.0	169.0	6.900	390.0	5.900	5470.0	6.0	94.0	47.0	15.0	106	5.210	2.110	439.0	372.0	103.0	169.0	6.900	390.0	399.0	5.900	47.0	15.0	106	5.210	2.110	439.0	372.0	103.0	169.0	6.900	390.0	399.0	5.900	47.0	15.0
107	5.470	2.110	196.0	428.0	126.0	126.0	6.600	417.0	5.900	5580.0	6.0	94.0	47.0	15.0	107	5.470	2.110	196.0	428.0	126.0	126.0	6.600	417.0	417.0	5.900	47.0	15.0	107	5.470	2.110	196.0	428.0	126.0	126.0	6.600	417.0	417.0	5.900	47.0	15.0
108	5.980	2.150	468.0	380.0	88.0	143.0	5.900	399.0	5.900	5100.0	15.0	88.0	48.0	15.0	108	5.980	2.150	468.0	380.0	88.0	143.0	5.900	399.0	399.0	5.900	48.0	15.0	108	5.980	2.150	468.0	380.0	88.0	143.0	5.900	399.0	399.0	5.900	48.0	15.0
109	5.310	1.810	220.0	447.0	88.0	143.0	5.900	399.0	5.900	5100.0	15.0	88.0	48.0	15.0	109	5.310	1.810	220.0	447.0	88.0	143.0	5.900	399.0	332.0	5.900	48.0	15.0	109	5.310	1.810	220.0	447.0	88.0	143.0	5.900	399.0	332.0	5.900	48.0	15.0
110	5.790	1.930	220.0	447.0	88.0	143.0	5.900	399.0	5.900	5100.0	15.0	88.0	48.0	15.0	110	5.790	1.930	220.0	447.0	88.0	143.0	5.900	399.0	335.0	5.900	48.0	15.0	110	5.790	1.930	220.0	447.0	88.0	143.0	5.900	399.0	335.0	5.900	48.0	15.0
111	5.910	1.990	220.0	447.0	88.0	143.0	5.900	399.0	5.900	5100.0	15.0	88.0	48.0	15.0	111	5.910	1.990	220.0	447.0	88.0	143.0	5.900	399.0	402.0	5.900	48.0	15.0	111	5.910	1.990	220.0	447.0	88.0	143.0	5.900	399.0	402.0	5.900	48.0	15.0
112	5.470	1.840	194.0	488.0	57.0	137.0	5.900	399.0	5.900	1080.0	13.0	84.0	45.0	15.0	112	5.470	1.840	194.0	488.0	57.0	137.0	5.900	399.0	402.0	5.900	45.0	15.0	112	5.470	1.840	194.0	488.0	57.0	137.0	5.900	399.0	402.0	5.900	45.0	15.0
113	5.390	1.870	192.0	498.0	64.0	147.0	6.300	405.0	5.900	6070.0	11.0	86.0	48.0	15.0	113	5.390	1.870	192.0	498.0	64.0	147.0	6.300	405.0	402.0	5.900	48.0	15.0	113	5.390	1.870	192.0	498.0	64.0	147.0	6.300	405.0	402.0	5.900	48.0	15.0
114	5.570	1.840	234.0	430.0	70.0	147.0	6.300	405.0	5.900	1085.0	11.0	86.0	48.0	15.0	114	5.570	1.840	234.0	430.0	70.0	147.0	6.300	405.0	419.0	5.900	48.0	15.0	114	5.570	1.840	234.0	430.0	70.0	147.0	6.300	405.0	419.0	5.900	48.0	15.0
115	5.630	2.120	284.0	480.0	65.0	183.0	6.400	419.0	5.900	1085.0	11.0	86.0	48.0	15.0	115	5.630	2.120	284.0	480.0	65.0	183.0	6.400	419.0	419.0	5.900	48.0	15.0	115	5.630	2.120	284.0	480.0	65.0	183.0	6.400	419.0	419.0	5.900	48.0	15.0
QMED	5.470	1.855	215.5	377.5	67.5	147.5	5.950	396.5	5.950	5100.0	6.0	88.0	47.0	14.3	QMED	5.470	1.855	215.5	377.5	67.5	147.5	5.950	396.5	396.5	5.950	47.0	14.3	QMED	5.470	1.855	215.5	377.5	67.5	147.5	5.950	396.5	396.5	5.950	47.0	14.3
QMED	5.710	1.960	269.0	447.0	87.0	147.0	6.500	403.5	5.950	7610.0	6.0	88.0	47.0	14.3	QMED	5.710	1.960	269.0	447.0	87.0	147.0	6.500	403.5	419.0	5.950	47.0	14.3	QMED	5.710	1.960	269.0	447.0	87.0	147.0	6.500	403.5	419.0	5.950	47.0	14.3
QMED	5.945	2.135	310.0	477.0	107.0	192.0	6.500	419.0	5.900	5731.0	15.0	91.0	47.0	14.3	QMED	5.945	2.135	310.0	477.0	107.0	192.0	6.500	419.0	398.0	5.900	47.0	14.3	QMED	5.945	2.135	310.0	477.0	107.0	192.0	6.500	419.0	398.0	5.900	47.0	14.3
AVG	5.900	1.600	281.0	415.0	16.0	176.0	6.300	398.0	5.900	5731.0	15.0	91.0	47.0	14.3	AVG	5.900	1.600	281.0	415.0	16.0	176.0	6.300	398.0	398.0	5.900	47.0	14.3	AVG	5.900	1.600	281.0	415.0	16.0	176.0	6.300	398.0	398.0	5.900	47.0	14.3
SE	0.718	0.243	83.1	73.5	25.6	38.9	0.201	27.7	0.112	668.9	0.5	1.1	2.6	0.0	SE	0.718	0.243	83.1	73.5	25.6	38.9	0.201	27.7	27.7	0.112	2.6	0.0	SE	0.718	0.243	83.1	73.5	25.6	38.9	0.201	27.7	27.7	0.112	2.6	0.0

Table B-2

EXPERIMENT	GROUP	E	GLU	T.L.	CHOL	TRIG	WT/DAY	FWL	WT	RBC	WBC	POLY	LYMS	MCT	MCB
130	T.P.	5.980	377.0	390.0	47.0	139.0	6.400	384.0	0	000	0	0	0	0	0
333	5.800	338.0	390.0	450.0	51.0	110.0	6.200	375.0	0	5.790	6790	0	0	0	0
334	5.800	197.0	345.0	545.0	64.0	198.0	6.300	359.0	0	6.690	5070	0	0	0	12.450
335	5.800	497.0	554.0	554.0	113.0	195.0	6.400	351.0	0	6.690	5370	0	0	0	11.470
336	5.230	434.0	533.0	533.0	136.0	193.0	6.300	351.0	0	6.480	5990	0	0	0	11.760
337	6.000	224.0	489.0	489.0	187.0	198.0	6.200	385.0	0	6.550	4360	0	0	0	16.880
338	7.700	2316.0	333.0	333.0	69.0	179.0	6.000	389.0	0	6.330	7950	0	0	0	16.080
339	7.700	1184.0	337.0	337.0	62.0	220.0	6.400	359.0	0	6.930	1050	0	0	0	15.050
340	7.400	184.0	424.0	424.0	60.0	187.0	6.200	389.0	0	6.980	8800	0	0	0	15.460
341	6.000	112.0	428.0	428.0	123.0	178.0	6.300	357.0	0	7.120	2840	0	0	0	14.890
342	6.260	193.0	486.0	486.0	165.0	178.0	6.400	359.0	0	6.550	3860	0	0	0	14.920
343	5.270	198.0	460.0	460.0	178.0	207.0	6.500	401.0	0	6.680	6440	0	0	0	14.280
344	5.270	291.0	493.0	493.0	178.0	207.0	6.500	401.0	0	6.680	7770	0	0	0	14.480
345	5.800	168.0	433.0	433.0	106.0	127.0	6.200	343.0	0	7.100	7770	0	0	0	14.480
346	7.480	418.0	501.0	501.0	164.0	194.0	5.100	362.0	0	6.940	4730	0	0	0	14.480
130	T.P.	4.75	172.0	402.0	61.0	98.0	5.700	368.0	0	6.470	3960	0	0	0	14.280
333	5.350	223.0	447.0	447.0	167.0	133.0	6.200	398.0	0	6.600	5410	0	0	0	14.680
334	5.700	234.0	497.0	497.0	109.0	170.0	6.400	398.0	0	6.940	7990	0	0	0	15.050
335	5.000	16.0	16.0	16.0	15.0	16.0	16.0	16.0	0	15.0	5221	0	0	0	15.420
336	12.95	119.0	451.0	451.0	82.0	138.0	6.100	385.0	0	6.951	5221	0	0	0	15.420
337	8.00	348.0	15.0	15.0	37.0	11.0	0.0	2.5	0	0.0	329.0	0	0	0	1.04
338	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
339	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
340	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
341	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
342	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
343	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
344	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
345	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
346	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
347	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
348	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
349	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
350	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
351	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
352	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
353	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
354	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
355	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
356	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
357	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
358	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
359	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
360	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
361	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
362	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
363	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
364	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
365	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
366	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
367	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
368	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
369	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
370	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
371	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
372	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
373	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
374	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
375	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
376	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
377	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
378	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
379	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
380	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
381	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
382	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
383	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
384	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
385	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
386	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
387	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
388	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
389	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
390	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
391	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
392	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
393	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
394	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
395	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
396	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
397	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
398	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
399	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
400	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
401	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
402	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
403	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
404	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
405	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
406	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
407	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
408	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
409	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
410	13.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0.0
411	13.95	0.0	0.0	0.0	0.0	0.0</									

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Table B-3

EXPERIMENT E		GROUP 5		CHOL		TRIG		WT/DAY		FNL WT		RBC		WBC		POLY		LYHS		HCT		HGB	
ID#	T.P.	GLDB	GLU	T.L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYHS	HCT	HGB									
565	360	300	104	485	55	174	7.000	420	5.00	7760	0	90.0	48.0	15.0									
566	910	200	124	342	59	146	6.500	322	4.00	7010	0	92.0	49.0	15.4									
567	900	200	110	476	65	169	6.000	337	4.00	4070	0	95.0	47.0	13.7									
568	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
569	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
570	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
571	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
572	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
573	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
574	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
575	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
576	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
577	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
578	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
579	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									
580	1300	220	105	492	69	203	6.400	380	5.00	7630	0	95.0	48.0	13.2									

EXPERIMENT E		GROUP 6		CHOL		TRIG		WT/DAY		FNL WT		RBC		WBC		POLY		LYHS		HCT		HGB	
ID#	T.P.	GLDB	GLU	I.L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYHS	HCT	HGB									
0-1	550	1	207	328	65	120	6.000	378	6.490	4350	5.00	89.5	45.0	14.9									
0-2	565	2	236	435	95	176	6.550	399	6.855	6625	3.00	91.0	47.0	16.6									
0-3	16.000	16	160	160	16	160	16.000	160	16.000	6011	16.00	16.0	16.0	16.0									
AVG	9.927	9	286	293	84	155	6.733	368	6.554	1919	3.33	91.7	46.0	15.1									
S.D.	0.124	0	159	126	25	8.7	0.183	27	0.130	479	0.9	0	2.8	0									

EXPERIMENT E		GROUP 6			CHOL		TRIG		WT/DAY		FNL WT		RBC		WBC		POLY		LYHS		HCT		HGB	
ID#	T.P.	GLDB	GLU	I.L	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYHS	HCT	HGB										
681	720	22	230	464	88	136	6.000	466	6.900	6050	0	93.0	48.0	16.0										
682	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
683	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
684	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
685	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
686	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
687	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
688	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
689	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
690	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
691	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
692	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
693	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
694	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										
695	700	22	254	464	83	114	6.300	424	6.750	5960	0	90.0	48.0	16.0										

EXPERIMENT E		GROUP 6		CHOL		TRIG		WT/DAY		FNL WT		RBC		WBC		POLY		LYHS		HCT		HGB	
ID#	T.P.	GLDB	GLU	I.L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYHS	HCT	HGB									
0-1	550	1	207	328	65	120	6.000	378	6.490	4350	5.00	89.5	45.0	14.9									
0-2	565	2	236	435	95	176	6.550	399	6.855	6625	3.00	91.0	47.0	16.6									
0-3	16.000	16	160	160	16	160	16.000	160	16.000	6011	16.00	16.0	16.0	16.0									
AVG	9.927	9	286	293	84	155	6.733	368	6.554	1919	3.33	91.7	46.0	15.1									
S.D.	0.124	0	159	126	25	8.7	0.183	27	0.130	479	0.9	0	2.8	0									

Table B-4

ID#	EXPERIMENT		GROUP 1			CHOL	TRIG	WT/DAY	FHL WT	RBC	WBC	POLY	LYMS	NCT	HGB
	T.P.	F	GLOBAL	GLU	T.L.										
101	5.650	2.110	150.0	0	460.0	67.0	55.0	0.0	351.0	5.540	2550.0	20.0	77.0	40.0	13.6
102	5.500	2.210	106.0	0	507.0	67.0	100.0	0	338.0	0.000	0.000	0.000	0.000	0.000	0.000
103	5.500	2.020	322.0	0	458.0	77.0	100.0	0	335.0	0.000	0.000	0.000	0.000	0.000	0.000
104	5.670	2.270	327.0	0	511.0	61.0	100.0	0	364.0	0.000	5.400	10.0	90.0	40.0	13.0
105	5.620	2.120	374.0	0	560.0	63.0	0.000	0	351.0	0.000	0.000	0.000	0.000	0.000	0.000
106	5.740	2.050	230.0	0	0.000	68.0	0.000	0	414.0	0.000	0.000	0.000	0.000	0.000	0.000
107	5.750	2.250	230.0	0	0.000	92.0	0.000	0	373.0	0.000	0.000	0.000	0.000	0.000	0.000
108	5.750	2.200	230.0	0	0.000	66.0	0.000	0	322.0	0.000	0.000	0.000	0.000	0.000	0.000
109	5.750	2.160	230.0	0	0.000	82.0	0.000	0	330.0	0.000	0.000	0.000	0.000	0.000	0.000
110	5.660	2.190	239.0	0	541.0	80.0	0.000	0	338.0	0.000	0.000	0.000	0.000	0.000	0.000
111	5.660	2.190	239.0	0	378.0	106.0	0.000	0	310.0	0.000	0.000	0.000	0.000	0.000	0.000
112	5.660	2.160	266.0	0	472.0	106.0	0.000	0	357.0	0.000	0.000	0.000	0.000	0.000	0.000
113	5.660	2.050	237.0	0	0.000	68.0	0.000	0	330.0	0.000	0.000	0.000	0.000	0.000	0.000
114	5.660	2.050	237.0	0	434.0	59.0	0.000	0	330.0	0.000	0.000	0.000	0.000	0.000	0.000
115	5.680	2.190	275.0	0	502.0	85.0	0.000	0	375.0	0.000	0.000	0.000	0.000	0.000	0.000
116	5.680	2.190	275.0	0	502.0	85.0	0.000	0	375.0	0.000	0.000	0.000	0.000	0.000	0.000

EXPERIMENT		GROUP 2										POLY		LYMS		MCT		HCB	
ID#	T.P.	F	GLOB	GLU	T.L.	CHOL	TRIG	WT/BAY	ENL	WT	RBC	WBC							
Q-1	5550	2040	2570	0	460	635	190	7550	338	0	5740	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151	8250	356	5	490	5575	355	25	87	0	39	0	
Q-MED-3	5540	2250	2540	35	541	650	151												

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Table B-5

EXPERIMENT	F	GROUP 3					RBC	WBC	POLY	LYMS	MCT	HGB
		T.P.	GLU	T.L.	CHOL	TRIG						
333	468	2.110	236	533	92	159	550	766	4	96	45	151
334	575	2.110	232	532	101	148	657	547	4	96	43	142
335	520	2.150	222	534	174	197	578	542	7	92	45	157
336	570	2.213	227	554	60	244	574	238	3	91	45	157
337	520	2.180	213	570	62	244	574	238	3	91	45	157
338	570	2.230	228	570	66	198	574	238	3	91	45	157
339	570	2.230	228	570	66	198	574	238	3	91	45	157
340	570	2.230	228	570	66	198	574	238	3	91	45	157
341	570	2.230	228	570	66	198	574	238	3	91	45	157
342	570	2.230	228	570	66	198	574	238	3	91	45	157
343	570	2.230	228	570	66	198	574	238	3	91	45	157
344	570	2.230	228	570	66	198	574	238	3	91	45	157
345	570	2.230	228	570	66	198	574	238	3	91	45	157
346	570	2.230	228	570	66	198	574	238	3	91	45	157
347	570	2.230	228	570	66	198	574	238	3	91	45	157
348	570	2.230	228	570	66	198	574	238	3	91	45	157

0-1	5.820	2.045	202	494	61	96	560	4875	4	91	43	142
0-2	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-3	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-4	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-5	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-6	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-7	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-8	5.820	2.120	202	534	79	136	572	533	5	93	43	142
0-9	5.820	2.120	202	534	79	136	572	533	5	93	43	142

EXPERIMENT	F	GROUP 4					RBC	WBC	POLY	LYMS	MCT	HGB
		T.P.	GLU	T.L.	CHOL	TRIG						
449	5.680	2.150	310	519	67	112	260	200	5	95	41	130
450	5.680	2.150	310	519	67	112	260	200	5	95	41	130
451	5.680	2.150	310	519	67	112	260	200	5	95	41	130
452	5.680	2.150	310	519	67	112	260	200	5	95	41	130
453	5.680	2.150	310	519	67	112	260	200	5	95	41	130
454	5.680	2.150	310	519	67	112	260	200	5	95	41	130
455	5.680	2.150	310	519	67	112	260	200	5	95	41	130
456	5.680	2.150	310	519	67	112	260	200	5	95	41	130
457	5.680	2.150	310	519	67	112	260	200	5	95	41	130
458	5.680	2.150	310	519	67	112	260	200	5	95	41	130
459	5.680	2.150	310	519	67	112	260	200	5	95	41	130
460	5.680	2.150	310	519	67	112	260	200	5	95	41	130
461	5.680	2.150	310	519	67	112	260	200	5	95	41	130
462	5.680	2.150	310	519	67	112	260	200	5	95	41	130
463	5.680	2.150	310	519	67	112	260	200	5	95	41	130
464	5.680	2.150	310	519	67	112	260	200	5	95	41	130

0-1	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-2	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-3	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-4	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-5	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-6	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-7	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-8	5.680	2.150	310	519	67	112	260	200	5	95	41	130
0-9	5.680	2.150	310	519	67	112	260	200	5	95	41	130

Table B-6

EXPERIMENT F		GROUP 5				EXPERIMENT 6		GROUP 6						
ID#	T.P.	GL08	GLU	T.L.	CHOL	TRIC	WT/DAY	FNL WT	RBC	WBC	POLY	LYMS	HCT	MCH
565	6.580	2.339	472.0	614.0	71.0	229.0	7.100	327.0	6.470	6310.0	5.0	92.0	45.0	15.0
566	5.580	2.180	165.0	533.0	78.0	168.0	6.400	323.0	6.760	2730.0	5.0	94.0	45.0	14.0
567	6.700	1.990	235.0	575.0	87.0	152.0	6.200	290.0	6.330	7230.0	5.0	94.0	42.0	12.0
568	5.870	2.290	78.0	430.0	71.0	162.0	7.200	350.0	6.240	7880.0	10.0	93.0	43.0	13.0
569	5.580	1.930	125.0	622.0	69.0	228.0	7.400	330.0	6.600	7300.0	7.0	91.0	43.0	14.0
570	6.190	2.030	155.0	489.0	60.0	125.0	6.100	307.0	6.290	4300.0	8.0	90.0	43.0	12.0
571	6.050	1.670	129.0	413.0	56.0	130.0	6.100	340.0	6.940	6070.0	9.0	91.0	43.0	14.0
572	6.050	1.700	172.0	498.0	67.0	107.0	7.700	359.0	6.230	7490.0	16.0	92.0	46.0	13.0
573	5.230	2.220	174.0	387.0	59.0	180.0	7.500	354.0	6.350	7490.0	5.0	93.0	48.0	16.0
574	5.710	1.920	252.0	481.0	51.0	132.0	7.500	326.0	6.500	6270.0	4.0	96.0	44.0	15.0
575	5.650	2.200	220.0	481.0	60.0	149.0	8.100	343.0	6.620	10930.0	7.0	99.0	48.0	17.0
576	6.350	2.220	220.0	481.0	51.0	149.0	8.100	343.0	6.620	3270.0	7.0	99.0	48.0	17.0
577	6.170	2.120	192.0	416.0	52.0	114.0	6.800	333.0	7.120	6630.0	6.0	92.0	49.0	16.0
578	6.010	2.150	515.0	517.0	66.0	98.0	5.700	287.0	7.100	5710.0	8.0	92.0	49.0	17.0
579	5.680	1.960	160.0	416.0	57.0	110.0	6.600	325.0	6.085	4950.0	5.0	89.0	43.0	13.0
580	6.045	2.110	191.0	489.0	65.0	131.0	7.300	336.0	6.410	6290.0	5.0	91.0	44.0	13.0
581	6.270	2.255	236.0	533.0	71.0	165.0	7.600	348.0	6.835	7420.0	8.0	93.0	46.0	15.0
582	16.000	16.000	241.0	15.0	16.0	142.0	16.125	322.0	16.000	6305.0	16.0	91.0	16.0	11.0
583	16.000	16.000	241.0	488.0	65.0	151.0	0.713	215.0	0.523	2085.0	2.0	2.0	2.0	2.0
584	0.417	0.060	1.37	75.6	2.2	12.0	0.170	2.5	0.131	322.0	0.0	0.0	0.0	0.0
585	0.104	0.060	1.37	19.6	2.2	12.0	0.170	2.5	0.131	322.0	0.0	0.0	0.0	0.0
586	5.760	2.270	208.0	426.0	59.0	111.0	6.800	322.0	1.400	5140.0	4.0	95.0	48.0	16.0
587	6.600	2.040	221.0	473.0	68.0	163.0	6.800	324.0	1.200	8640.0	4.0	95.0	48.0	16.0
588	5.310	1.930	139.0	357.0	68.0	130.0	7.500	344.0	1.200	5590.0	11.0	92.0	43.0	14.0
589	5.190	2.250	224.0	595.0	57.0	120.0	6.600	355.0	1.500	19850.0	5.0	94.0	46.0	15.0
590	6.010	1.900	216.0	421.0	65.0	126.0	6.800	305.0	1.500	4020.0	10.0	90.0	43.0	14.0
591	6.070	2.360	132.0	467.0	72.0	108.0	6.800	319.0	1.500	5720.0	7.0	91.0	43.0	15.0
592	6.250	2.300	260.0	567.0	78.0	174.0	6.700	363.0	1.500	2963.0	7.0	92.0	44.0	16.0
593	5.800	2.120	204.0	507.0	75.0	174.0	6.700	363.0	1.500	6180.0	7.0	92.0	44.0	16.0
594	5.800	2.120	204.0	507.0	75.0	174.0	6.700	363.0	1.500	6180.0	7.0	92.0	44.0	16.0
595	5.800	2.120	204.0	507.0	75.0	174.0	6.700	363.0	1.500	6180.0	7.0	92.0	44.0	16.0
596	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
597	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
598	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
599	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
600	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
601	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
602	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
603	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
604	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
605	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
606	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
607	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
608	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
609	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
610	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
611	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
612	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
613	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
614	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
615	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
616	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
617	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
618	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
619	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
620	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
621	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
622	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
623	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
624	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
625	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
626	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
627	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
628	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
629	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
630	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
631	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
632	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
633	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
634	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
635	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
636	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
637	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
638	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
639	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
640	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
641	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
642	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
643	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
644	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0	12.0	91.0	43.0	16.0
645	5.910	2.060	191.0	455.0	91.0	122.0	6.500	302.0	1.500	5760.0				

GROUPS 1, 3, AND 6 (COMBINED)

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Table B-8

GROUPS 2, 4, AND 5 (COMBINED)														
ID#	T.P.	GLOB	GLU	T.L.	CHOL	TRIG	WT/DAY	FNL WT	RRC	WBC	POLY	LYHS	HCT	HGB
1	180	4.200	2.14	318	89	62	6.700	382	6.530	3130	9.0	87.0	44.6	14.5
2	180	4.100	2.23	288	63	65	5.900	351	6.580	3440	10.0	87.0	44.5	15.6
3	180	4.300	2.17	335	74	67	5.700	355	6.720	3160	9.0	87.0	44.4	14.4
4	180	4.700	2.59	323	125	76	5.700	322	6.510	3330	8.0	87.0	44.5	14.5
5	180	4.300	2.38	308	54	127	5.900	350	6.780	3320	8.0	87.0	44.5	14.5
6	180	4.300	2.35	308	64	170	5.600	374	6.460	3330	12.0	86.0	44.3	14.4
7	180	4.300	2.35	308	53	167	5.700	395	6.420	3150	15.0	86.0	44.3	14.4
8	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
9	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
10	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
11	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
12	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
13	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
14	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
15	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
16	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
17	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
18	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
19	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
20	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
21	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
22	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
23	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
24	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
25	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
26	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
27	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
28	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
29	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4
30	180	4.300	2.35	308	59	184	5.700	412	6.440	3150	21.0	86.0	44.3	14.4

Table B-9

EXPERIMENT	H	GROUP	1	T. P.	GLOB	GLU	T. L.	CHOL	TRIG	WT/BAY	FNL WT	RBC	WBC	POLY	LYMS	HCT	HGB
101	5.478	1.989	144.0	461.0	75.2	75.9	239	356.0	6.500	6.500	356.0	6.230	410.0	9.000	9.000	43.0	14.720
102	5.320	1.760	144.0	456.0	62.4	57.5	230	403.0	7.400	7.400	403.0	5.940	301.0	9.000	9.000	40.0	13.120
103	5.218	2.010	195.0	456.0	45.7	57.5	230	348.0	7.400	7.400	348.0	6.420	475.0	12.000	9.000	40.0	13.120
104	5.610	2.120	232.0	456.0	52.4	57.5	230	391.0	7.400	7.400	391.0	6.150	381.0	12.000	9.000	46.0	13.120
105	5.680	2.010	232.0	456.0	51.4	57.5	230	390.0	7.400	7.400	390.0	6.650	350.0	12.000	9.000	47.0	13.120
106	5.290	2.220	216.0	456.0	51.4	57.5	230	424.0	7.400	7.400	424.0	6.650	350.0	12.000	9.000	47.0	13.120
107	5.640	2.350	196.0	456.0	46.1	57.5	230	404.0	7.400	7.400	404.0	6.870	480.0	13.000	9.000	44.0	13.120
108	5.200	2.220	221.0	456.0	57.2	57.5	230	374.0	7.400	7.400	374.0	6.650	350.0	13.000	9.000	47.0	13.120
109	5.200	2.220	221.0	456.0	57.2	57.5	230	374.0	7.400	7.400	374.0	6.650	350.0	13.000	9.000	47.0	13.120
110	5.200	2.220	221.0	456.0	57.2	57.5	230	374.0	7.400	7.400	374.0	6.650	350.0	13.000	9.000	47.0	13.120
111	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
112	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
113	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
114	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
115	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
116	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
117	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
118	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
119	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
120	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
121	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
122	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
123	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
124	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
125	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
126	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
127	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
128	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
129	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
130	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
131	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
132	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
133	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
134	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
135	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
136	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
137	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
138	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
139	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
140	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
141	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
142	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
143	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
144	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
145	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
146	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
147	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
148	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
149	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
150	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
151	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
152	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
153	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
154	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
155	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
156	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
157	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
158	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
159	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
160	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
161	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
162	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
163	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
164	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
165	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
166	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
167	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
168	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0	7.400	7.400	382.0	6.850	350.0	13.000	9.000	47.0	13.120
169	5.550	2.230	201.0	456.0	77.5	57.5	230	382.0									

ID#	T.P.	CL08	CLU	T.L.	CHOL	TRIG	WT/DAY	FML WT	RBC	WBC	POLY	LYMS	HCT	HGB
118	418	926	0	0	52	92	98	36	22	64	0	94	0	12
119	453	926	12	366	53	92	706	43	26	100	4	98	0	12
120	453	926	151	366	65	91	400	319	68	100	6	98	0	11
121	453	926	151	366	65	81	400	319	68	100	4	98	0	11
122	453	926	224	366	65	54	300	349	68	100	16	91	0	11
123	453	926	224	366	65	33	300	349	68	100	12	91	0	11
124	453	926	224	366	65	33	300	349	68	100	10	91	0	11
125	453	926	224	366	65	33	300	349	68	100	10	91	0	11
126	453	926	224	366	65	33	300	349	68	100	10	91	0	11
127	453	926	224	366	65	33	300	349	68	100	10	91	0	11
128	453	926	224	366	65	33	300	349	68	100	10	91	0	11
129	453	926	224	366	65	33	300	349	68	100	10	91	0	11
130	453	926	224	366	65	33	300	349	68	100	10	91	0	11
131	453	926	224	366	65	33	300	349	68	100	10	91	0	11
132	453	926	224	366	65	33	300	349	68	100	10	91	0	11
133	453	926	224	366	65	33	300	349	68	100	10	91	0	11
134	453	926	224	366	65	33	300	349	68	100	10	91	0	11
135	453	926	224	366	65	33	300	349	68	100	10	91	0	11
136	453	926	224	366	65	33	300	349	68	100	10	91	0	11
137	453	926	224	366	65	33	300	349	68	100	10	91	0	11
138	453	926	224	366	65	33	300	349	68	100	10	91	0	11
139	453	926	224	366	65	33	300	349	68	100	10	91	0	11
140	453	926	224	366	65	33	300	349	68	100	10	91	0	11
141	453	926	224	366	65	33	300	349	68	100	10	91	0	11
142	453	926	224	366	65	33	300	349	68	100	10	91	0	11
143	453	926	224	366	65	33	300	349	68	100	10	91	0	11
144	453	926	224	366	65	33	300	349	68	100	10	91	0	11
145	453	926	224	366	65	33	300	349	68	100	10	91	0	11
146	453	926	224	366	65	33	300	349	68	100	10	91	0	11
147	453	926	224	366	65	33	300	349	68	100	10	91	0	11
148	453	926	224	366	65	33	300	349	68	100	10	91	0	11
149	453	926	224	366	65	33	300	349	68	100	10	91	0	11
150	453	926	224	366	65	33	300	349	68	100	10	91	0	11
151	453	926	224	366	65	33	300	349	68	100	10	91	0	11
152	453	926	224	366	65	33	300	349	68	100	10	91	0	11
153	453	926	224	366	65	33	300	349	68	100	10	91	0	11
154	453	926	224	366	65	33	300	349	68	100	10	91	0	11
155	453	926	224	366	65	33	300	349	68	100	10	91	0	11
156	453	926	224	366	65	33	300	349	68	100	10	91	0	11
157	453	926	224	366	65	33	300	349	68	100	10	91	0	11
158	453	926	224	366	65	33	300	349	68	100	10	91	0	11
159	453	926	224	366	65	33	300	349	68	100	10	91	0	11
160	453	926	224	366	65	33	300	349	68	100	10	91	0	11
161	453	926	224	366	65	33	300	349	68	100	10	91	0	11
162	453	926	224	366	65	33	300	349	68	100	10	91	0	11
163	453	926	224	366	65	33	300	349	68	100	10	91	0	11
164	453	926	224	366	65	33	300	349	68	100	10	91	0	11
165	453	926	224	366	65	33	300	349	68	100	10	91	0	11
166	453	926	224	366	65	33	300	349	68	100	10	91	0	11
167	453	926	224	366	65	33	300	349	68	100	10	91	0	11
168	453	926	224	366	65	33	300	349	68	100	10	91	0	11
169	453	926	224	366	65	33	300	349	68	100	10	91	0	11
170	453	926	224	366	65	33	300	349	68	100	10	91	0	11
171	453	926	224	366	65	33	300	349	68	100	10	91	0	11
172	453	926	224	366	65	33	300	349	68	100	10	91	0	11
173	453	926	224	366	65	33	300	349	68	100	10	91	0	11
174	453	926	224	366	65	33	300	349	68	100	10	91	0	11
175	453	926	224	366	65	33	300	349	68	100	10	91	0	11
176	453	926	224	366	65	33	300	349	68	100	10	91	0	11
177	453	926	224	366	65	33	300	349	68	100	10	91	0	11
178	453	926	224	366	65	33	300	349	68	100	10	91	0	11
179	453	926	224	366	65	33	300	349	68	100	10	91	0	11
180	453	926	224	366	65	33	300	349	68	100	10	91	0	11
181	453	926	224	366	65	33	300	349	68	100	10	91	0	11
182	453	926	224	366	65	33	300	349	68	100	10	91	0	11
183	453	926	224	366	65	33	300	349	68	100	10	91	0	11
184	453	926	224	366	65	33	300	349	68	100	10	91	0	11
185	453	926	224	366	65	33	300	349	68	100	10	91	0	11
186	453	926	224	366	65	33	300	349	68	100	10	91	0	11
187	453	926	224	366	65	33	300	349	68	100	10	91	0	11
188	453	926	224	366	65	33	300	349	68	100	10	91	0	11
189	453	926	224	366	65	33	300	349	68	100	10	91	0	11
190	453	926	224	366	65	33	300	349	68	100	10	91	0	11
191	453	926	224	366	65	33	300	349	68	100	10	91	0	11
192	453	926	224	366	65	33	300	349	68	100	10	91	0	11
193	453	926	224	366	65	33	300	349	68	100	10	91	0	11
194	453	926	224	366	65	33	300	349	68	100	10	91	0	11
195	453	926	224	366	65	33	300	349	68	100	10	91	0	11
196	453	926	224	366	65	33	300	349	68	100	10	91	0	11
197	453	926	224	366	65	33	300	349	68	100	10	91	0	11
198	453	926	224	366	65	33	300	349	68	100	10	91	0	11
199	453	926	224	366	65	33	300	349	68	100	10	91	0	11
200	453	926	224	366	65	33	300	349	68	100	10	91	0	11
201	453	926	224	366	65	33	300	349	68	100	10	91	0	11
202	453	926	224	366	65	33	300	349	68	100	10	91	0	11
203	453	926	224	366	65	33	300	349	68	100	10	91	0	11
204	453	926	224	366	65	33	300	349	68	100	10	91	0	11
205	453	926	224	366	65	33	300	349	68	100	10	91	0	11
206	453	926	224	366	65	33	300	349	68	100	10	91	0	11
207	453	926	224	366	65	33	300	349	68	100	10	91	0	11
208	453	926	224	366	65	33	300	349	68	100	10	91	0	11
209	453	926	224	366	65	33	300	349	68	100	10	91	0	11
210	453	926	224	366	65	33	300	349	68	100	10	91	0	11
211	453	926	224	366	65	33	300	349	68	100	10	91	0	11
212	453	926	224	366	65	33	300	349	68	100	10	91	0	11
213	453	926	224	366	65	33	300	349	68	100	10	91	0	11
214	453	926	224	366	65	33	300	349	68	100	10	91	0	11
215	453	926	224	366	65	33	300	349	68	100	10	91	0	11
216	453	926	224	366	65	33	300	349	68	100	10	91	0	11
217	453	926	224	366	65	33	300	349	68	100	10	91	0	11
218	453	926	224	366	65	33	300	349	68	100	10	91	0	11
219	453	926	224	366	65	33	300	349	68	100	10	91	0	11
220	453	926	224	366	65	33	300	349	68	100	10	91	0	11
221	453	926	224	366	65	33	300	349	68	100	10	91	0	11
222	453	926	224	366	65	33	300	349	68	100	10	91	0	11
223	453	926	224	366	65	33	300	349	68	100	10	91	0	11

EXPERIMENT	H	GROUP 3			WT/DAY	FHL WT	RBC	WBC	POLY	LYMS	NCT	HGB
		GLU	T.L.	CHOL								
1	2	142	0	51	377	0	5	580	6	92	41	12
2	2	130	421	112	412	0	6	764	0	89	45	14
3	2	226	332	112	415	0	0	520	0	90	0	14
4	2	207	312	53	474	0	0	520	0	94	0	14
5	1	170	345	57	400	0	6	520	0	91	0	14
6	1	171	338	77	477	0	6	644	0	90	0	14
7	1	178	380	62	378	0	6	550	0	86	0	14
8	1	170	411	62	388	0	6	550	0	93	0	14
9	1	178	443	57	393	0	6	550	0	91	0	14
10	1	137	243	57	353	0	6	1010	0	93	0	14
11	1	217	366	53	353	0	6	1280	0	87	0	14
12	1	216	353	53	401	0	6	1280	0	90	0	14
13	1	233	333	59	336	0	6	1280	0	90	0	14
14	1	186	312	64	431	0	6	1280	0	90	0	14
15	1	186	312	64	431	0	6	1280	0	90	0	14
16	1	192	337	65	408	0	6	1280	0	90	0	14
17	1	231	375	66	408	0	6	1280	0	90	0	14
18	1	231	375	66	408	0	6	1280	0	90	0	14
19	1	231	375	66	408	0	6	1280	0	90	0	14
20	1	231	375	66	408	0	6	1280	0	90	0	14
21	1	231	375	66	408	0	6	1280	0	90	0	14
22	1	231	375	66	408	0	6	1280	0	90	0	14
23	1	231	375	66	408	0	6	1280	0	90	0	14
24	1	231	375	66	408	0	6	1280	0	90	0	14
25	1	231	375	66	408	0	6	1280	0	90	0	14
26	1	231	375	66	408	0	6	1280	0	90	0	14
27	1	231	375	66	408	0	6	1280	0	90	0	14
28	1	231	375	66	408	0	6	1280	0	90	0	14
29	1	231	375	66	408	0	6	1280	0	90	0	14
30	1	231	375	66	408	0	6	1280	0	90	0	14
31	1	231	375	66	408	0	6	1280	0	90	0	14
32	1	231	375	66	408	0	6	1280	0	90	0	14
33	1	231	375	66	408	0	6	1280	0	90	0	14
34	1	231	375	66	408	0	6	1280	0	90	0	14
35	1	231	375	66	408	0	6	1280	0	90	0	14
36	1	231	375	66	408</							

[illegible][illegible]

EXPERIMENT	H	GLOB	GLU	I. L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYMS	HCT	HGB
ID#	T. P.													
5565	9.0	0.40	0.6	39	7.0	12.0	0.0	41.5	6.7	3.5	0.0	0.0	7.0	15.0
5566	1.18	0.20	0.6	33	4.7	12.2	0.0	38.2	6.3	5.2	0.0	0.0	4.7	15.4
5567	1.50	0.00	0.0	36	5.2	13.2	0.0	38.2	6.7	4.4	0.0	0.0	4.4	15.4
5568	1.33	0.00	0.0	47	5.6	13.4	0.0	38.2	6.6	4.4	0.0	0.0	4.4	15.4
5569	1.33	0.10	0.0	33	5.2	13.4	0.0	37.5	6.6	6.6	0.0	0.0	4.3	15.4
5570	1.22	0.50	0.0	40	5.2	13.5	0.0	37.5	6.6	6.6	0.0	0.0	4.4	15.4
5571	1.22	0.50	0.0	44	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5572	1.22	0.50	0.0	32	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5573	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5574	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5575	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5576	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5577	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5578	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5579	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5580	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5581	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5582	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5583	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5584	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5585	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5586	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5587	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5588	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5589	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5590	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5591	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5592	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5593	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0	0.0	4.4	15.4
5594	1.22	0.50	0.0	33	5.2	13.5	0.0	36.9	6.6	6.6	0.0			

[illegible]

EXP. NO.	T.P.	GLOR	GLU	T.L.	CHOL	TRIG	WT/DAY	FNL WT	RBC	WBC	POLY	LYMS	NCT	HGB
1	580	2.22	193	57.9	59.1	92.4	700	368	6.97	2750	7.0	91.0	0.0	15.6
2	580	2.22	193	57.9	59.1	139.0	6.000	350	6.270	587.0	8.0	90.0	4.3	14.6
3	580	2.22	193	57.9	59.1	139.0	6.000	350	6.270	587.0	8.0	90.0	4.3	14.6
4	580	2.22	193	57.9	59.1	11.0	6.000	327.8	6.303	6.740	8.0	90.0	4.3	14.6
5	580	2.22	193	57.9	59.1	11.0	6.000	327.8	6.303	6.740	8.0	90.0	4.3	14.6
6	580	2.22	193	57.9	59.1	193.0	6.000	377.1	6.520	5.568	17.0	92.0	4.6	14.4
7	580	2.22	193	57.9	59.1	193.0	6.000	377.1	6.520	5.568	17.0	92.0	4.6	14.4
8	580	2.22	193	57.9	59.1	118.0	7.400	403.0	6.910	3.235	10.0	93.0	4.8	13.5
9	580	2.22	193	57.9	59.1	176.0	8.000	451.0	7.800	10.230	16.0	94.0	4.8	13.5
10	580	2.22	193	57.9	59.1	176.0	8.000	451.0	7.800	10.230	16.0	94.0	4.8	13.5
11	580	2.22	193	57.9	59.1	81.4	8.100	342.9	6.520	5.200	12.0	92.0	4.5	14.4
12	580	2.22	193	57.9	59.1	81.4	8.100	342.9	6.520	5.200	12.0	92.0	4.5	14.4
13	580	2.22	193	57.9	59.1	42.3	7.400	387.0	6.120	6.668	15.0	92.0	4.4	14.4
14	580	2.22	193	57.9	59.1	42.3	7.400	387.0	6.120	6.668	15.0	92.0	4.4	14.4
15	580	2.22	193	57.9	59.1	46.2	6.400	393.0	6.350	3.360	12.0	93.0	4.5	14.6
16	580	2.22	193	57.9	59.1	46.2	6.400	393.0	6.350	3.360	12.0	93.0	4.5	14.6
17	580	2.22	193	57.9	59.1	32.2	7.500	409.0	7.350	7.528	10.0	95.0	4.4	14.6
18	580	2.22	193	57.9	59.1	73.3	6.000	373.0	6.530	4.360	7.0	95.0	5.5	15.0
19	580	2.22	193	57.9	59.1	73.3	6.000	373.0	6.530	4.360	7.0	95.0	5.5	15.0
20	580	2.22	193	57.9	59.1	16.0	16.000	16.0	15.622	5.255	12.0	99.1	1.0	15.0
21	580	2.22	193	57.9	59.1	16.0	16.000	16.0	15.622	5.255	12.0	99.1	1.0	15.0
22	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
23	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
24	580	2.22	193	57.9	59.1	16.0	8.000	16.0	15.622	5.255	12.0	99.1	1.0	15.0
25	580	2.22	193	57.9	59.1	16.0	8.000	16.0	15.622	5.255	12.0	99.1	1.0	15.0
26	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
27	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
28	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
29	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
30	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
31	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
32	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
33	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
34	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
35	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
36	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
37	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
38	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
39	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
40	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
41	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
42	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
43	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
44	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
45	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
46	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
47	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
48	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
49	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
50	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
51	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
52	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
53	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
54	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
55	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
56	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
57	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
58	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
59	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
60	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
61	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
62	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
63	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
64	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
65	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
66	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
67	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
68	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
69	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
70	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
71	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
72	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
73	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
74	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
75	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
76	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
77	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
78	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
79	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
80	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
81	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
82	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
83	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
84	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
85	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
86	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
87	580	2.22	193	57.9	59.1	35.3	8.211	395.6	6.000	4.360	7.0	95.0	5.5	15.0
88	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
89	580	2.22	193	57.9	59.1	16.0	8.211	16.0	15.622	5.255	12.0	99.1	1.0	15.0
90	580	2.22	193	57.9										