FINAL REPORT

INTERLABORATORY VALIDATION OF THE FEMALE PUBERTAL ASSAY

ASSESSMENT OF PUBERTAL DEVELOPMENT AND THYROID FUNCTION IN JUVENILE FEMALE RATS

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SUMMARY AND DISCUSSION

This report discusses the methods and results of the interlaboratory statistical analysis of the female pubertal assay conducted under Work Assignment 4-14 of the USEPA Endocrine Disruptor Screening Program, Interlaboratory Validation of the Female Pubertal Assay. Three laboratories, Argus Laboratories, WIL Laboratories, and Huntingdon Laboratories conducted the assay in accordance with the test method specified by the EPA. Each laboratory tested a corn oil control group and two doses each of three chemicals: DE-71 (30 and 60 mg/kg/day), 2-Chloronitrobenzene (25 and 100 mg/kg/day), and Methoxychlor (12.5 and 50 mg/kg/day) with n=15 juvenile female rats per group. The animals were dosed daily from post natal day 22 to post natal day 42, during which time growth and body weight data and VO status were determined. They were sacrificed on post natal day 42 (and some on PND 43), at which time a suite of organ weights and hormonal concentrations were determined.

The principal results of the statistical analysis are summarized below. Unless specified otherwise, statistically significant results correspond to significance level 0.05 or less.

1. The initial body weights (at PND21) for all treatment groups were about same within individual laboratories. Initial body weights at Argus Laboratories were consistently greater than those at Huntingdon Laboratories, which in turn were consistently greater than those at WIL Laboratories.

2. 2-Chloronitrobenzene and Methoxychlor slowed down body weight growth, at least during portions of the dosing period. The high dose of Methoxychlor was significantly lower than the vehicle control for final body weight and for body weight gain, averaged across all laboratories and for the individual laboratories. However, the low dose of 2-Chloronitrobenzene was significantly higher than the vehicle control for WIL Laboratories, although the high dose did not differ significantly. Figures 2, 5, and 8 indicate that 2-Chloronitrobenzene slowed down growth in the earlier parts of the growth period, with the animals catching up to the control group animals by the end of the growth period. DE-71 did not have a significant effect on body weight growth. Similar changes were observed for final body weight as a percent of control.

3. The test chemicals affected time to vaginal opening. The high dose of 2-Chloronitrobenzene had significantly higher age at vaginal opening than the control group, averaged across all laboratories and at each of the individual laboratories. The high dose of Methoxychlor had significantly lower age at vaginal opening than the vehicle control group, averaged across all laboratories and at each of the individual laboratories. DE-71 had a weaker effect on time to vaginal opening than 2-Chloronitrobenzene or Methoxychlor. The high dose of DE-71 had significantly higher age at vaginal opening than the control group at WIL Laboratories, but not at the other laboratories. For each control group and for most of the chemical groups the animals at Argus Laboratories reached vaginal opening earlier and the animals at WIL Laboratories reached vaginal opening later. At the high dose of Methoxychlor all the laboratories had about the same age at vaginal opening.

4. The high dose of 2-Chloronitrobenzene had significantly higher body weight at vaginal opening than the vehicle control group, averaged across laboratories and at each individual laboratory. The high dose of Methoxychlor had significantly lower body weight at vaginal opening than the vehicle control group, averaged across laboratories and at each individual laboratory. This corresponds to the increased or decreased age at vaginal opening respectively. For the high dose of DE-71 WIL Laboratories had significantly increased age at vaginal opening and body weight at vaginal opening, but not the other laboratories.

5. There were laboratory-to-laboratory differences in organ weights for each of the control and test chemical groups. Organ weights at Argus Laboratories were consistently higher than those at the other two laboratories for paired adrenals, paired kidneys, liver, and pituitary. Organ weights at WIL Laboratories were lower than those at the other two laboratories for paired ovaries and blotted thyroid. Organ weights for Huntingdon Laboratories were lower than those at the other two laboratories for paired kidneys and pituitary. These differences enlarged the laboratory-to-laboratory variation and the associated confidence interval widths, averaged across laboratories.

6. There were laboratory-to-laboratory differences in hormonal assay values for each of the control and test chemical groups. At Argus Laboratories serum thyroxine was consistently high and thyroid stimulating hormone was consistently low. At WIL Laboratories thyroid stimulating hormone was consistently larger than at the other two laboratories. At Huntingdon Laboratories serum thyroxine was relatively low for the 2-Chloronitrobenzene and the Methoxychlor dose groups.

7. Averaged across laboratories the following significant growth and body weight changes relative to controls were observed:

    a. At the high dose of DE-71
        No significant changes

    b. At the high dose of 2-Chloronitrobenzene
        Increased − Age at VO, body weight at VO

    c. At the high dose of Methoxychlor
        Decreased − Final body weight, body weight gain, final body weight as a percent of control, age at VO, body weight at VO

8. Averaged across laboratories the following significant organ weight changes relative to controls were observed:

    a. At the high dose of DE-71
        Increased − Liver

    b. At the high dose of 2-Chloronitrobenzene
        Increased − Liver
        Decreased − Adrenals, ovaries, uterus blotted, uterus wet

c. At the high dose of Methoxychlor
Decreased − Kidneys, liver, ovaries

9. Averaged across laboratories the following significant hormonal assay changes relative to controls were observed:

a. At the high dose of DE-71
Increased – Thyroid stimulating hormone
Decreased − Serum thyroxine

b. At the high dose of 2-Chloronitrobenzene
Decreased – Serum thyroxine

c. At the high dose of Methoxychlor
No significant changes

INTRODUCTION AND BACKGROUND

Study Design

Three laboratories, Argus Laboratories, WIL Laboratories and Huntingdon Laboratories conducted the juvenile female rat pubertal development assay in accordance with the test method specified by the EPA.

Within each laboratory two doses each of three chemicals: DE-71 (30 and 60 mg/kg/day), 2-Chloronitrobenzene (25 and 100 mg/kg/day), and Methoxychlor (12.5 and 50 mg/kg/day) were administered by gavage daily to juvenile female animals from PND22 (post natal day 22) through PND42. In addition, a vehicle control group (corn oil) was simultaneously tested in each laboratory. Argus Laboratories and WIL Laboratories each had one control group. Huntingdon Laboratories had two control groups. The three chemicals and the vehicle control were tested simultaneously at Argus Laboratories and WIL Laboratories. At Huntingdon Laboratories the test was carried out in two groups. DE-71, 2-Chloronitrobenzene, and a vehicle control group were tested together in the first group. Methoxychlor and a second vehicle control group were tested together in the second group. The sample size was n=15 juvenile female rats per group, for a total of seven groups and 105 animals for Argus Laboratories and WIL Laboratories, and a total of eight groups and 120 animals for Huntingdon Laboratories.

Data Used in Analyses

The test method specifies five categories of data:

1. Growth - daily body weights (4 endpoints)
2. Age and body weight at vaginal opening (VO) (4 endpoints)

3. Hormonal analysis (2 endpoints)
    Serum thyroxine (T_4)
    Thyroid stimulating hormone (TSH)
4. Organ weights - 7 organs (8 endpoints)
5. Histology
    Uterine
    Ovarian
    Thyroid
6. Vaginal cytology

Histology and cytology data were not analyzed statistically.

Organs were weighed in pairs when appropriate (ovaries, kidney, and adrenal glands). Uterus was weighed wet and blotted.

All animals attained VO prior to necropsy. All animals survived until final necropsy. At WIL Laboratories and at Argus Laboratories there was one necropsy day, on PND42. At Huntingdon Laboratories 64 animals (8 per treatment group) were sacrificed on PND42 and 56 animals (7 per treatment group) were sacrificed on PND43. For purposes of graphical and tabular summaries the body weight at PND42 was used for all animals, for consistency of comparison. However for purpose of specifying age and body weight at VO for those animals that had VO on day of final sacrifice, age and body weight on day of necropsy (PND42 or PND43) were used.

At Argus Laboratories, five organ weights data values were deleted by quality assurance due to procedural deviations:

Animal 104 - Pituitary
Animal 123 - Adrenals
Animal 129 – Ovaries
Animal 146 - UterusWet and UterusBlotted.

On day of VO for each animal WIL Laboratories and Huntingdon Laboratories determined body weights twice – once for dose determination and a second at clinical observations. In this report the summaries for body weight at VO were based on the dosing body weights. They may differ slightly from summaries based on the clinical observations body weights (e.g. WIL Laboratories).

Deviations from the Statistical Analysis Plan

Huntingdon Laboratories divided its test schedule into two portions. This necessitated that two control groups be run, one in each test portion. The two test portions were:

- Group 1: Corn oil control, DE-71, 2-Chloronitrobenzene
- Group 2: Corn oil control, Methoxychlor

To determine whether there were significant differences between the two control groups, two-sample t-tests were carried out for each response. The results are displayed in Appendix B. One of 15 comparisons was significant at the 5 percent level and three of 15 comparisons were significant at the 10 percent level. This is compatible with random variation. However the signs of the differences in average responses may indicate a systematic difference between control groups. The two hormonal assay averages were greater in group 1 than in group 2. The eight organ weight averages were greater in group 2 than in group 1. The five growth and body weight averages were also greater in group 2 than in group 1.

The principal statistical analyses were divided into two portions, corresponding to the two test portions at Huntingdon Laboratories. For Argus Laboratories and WIL Laboratories the same corn oil control groups were used for each portion.

STATISTICAL METHODS

This section discusses the summaries, displays, and statistical analyses that were used to summarize the results within each laboratory and combined across laboratories. The statistical analysis was based on the test method provided by the EPA but was extended to include comparisons across laboratories.

Outlier Detection and Preliminary Data Summaries Prior to Analysis

Outlier screens were carried out prior to the full analysis. Screens were carried out separately for each laboratory and for each endpoint, based on the untransformed data. Both unadjusted and initial body weight covariate adjusted values were determined for organ weights and for age and body weight at VO, but the outlier screens were carried out based on the unadjusted values only. The outlier screening procedure is described in detail in Appendix A. Appendix A also includes the outlier screening results. Summaries of the raw data by laboratory and group are displayed in Appendix A both with and without the observations that were flagged by the outlier screening procedure and that are considered to be potential outliers. For organ weights, and age and body weight at vaginal opening (VO), summaries of the data by laboratory and group were carried out both with and without potential outliers after adjusting for initial body weights. The summaries of the raw data include N, mean, standard deviation, and CV. The within treatment group CV was calculated as the ratio of the within laboratory residual standard deviation to the least squares mean. The summaries of the unadjusted values also include min and max.

The results of the preliminary outlier screens and the raw summary values were submitted to the EPA for review prior to carrying out the full analysis. The EPA reviewed the list of the potential outliers, as detected by the preliminary outlier screen and divided the screened values into three categories: those that were to be included in all analyses, those that were to be excluded from all analyses, and those that were to be treated as outliers. Table A-1 in Appendix A displays the three categories of screened values.

The results of the principal analyses were similar with and without the outliers. For age at VO, body weight at VO and the organ weights, the results were similar with and without adjustment by centered initial body-weight.

Blocking Variable

At Huntingdon Laboratories the necropsy was divided between PND42 and PND43, as discussed above. A blocking variable was introduced to distinguish these two necropsy days (Block ≡ 0 if PND = 42 and Block ≡ 1 if PND = 43). This was accounted for in the statistical analysis.

Heterogeneity of Residual Variance Among the Laboratories and Treatment Groups

Preliminary tests for heterogeneity of variance were carried out on the data excluding the values flagged by the outlier screen and identified by the EPA as outliers, separately for the two test portions.

For each endpoint the extent of heterogeneity of variability was assessed across laboratories and treatment groups within laboratories. The data were combined across laboratories and a three factor mixed effects analysis of variance model was fitted to the data, including the factors laboratory (random), treatment (fixed), and laboratory×treatment interaction (random). For organ weight responses and for age and body weight at vaginal opening (VO), mean centered initial body weight (i.e., initial body weight minus mean initial body weight over all the test groups within the test portion) and (mean centered initial body weight) ×laboratory interaction were included in the model as covariates.

Four versions of the model were fitted to test for heterogeneity of residual variance.

1. Separate variances for each laboratory and each treatment group (3×5=15 or 3×3=9 variances)
2. Separate variances for each laboratory and chemical (or control) (3×3=9 or 3×2=6 variances)
3. Separate variances for each laboratory (3×1=3 variances)
4. Common variances across all groups

These models were compared by likelihood ratio tests. For each response variable, the model was selected that had the simplest variance structure that was not a significantly worse fit than a more complex variance structure. The subsequent analyses were carried out based on the selected variance models.

Data Summaries - Full Analysis

Data summaries include tables and figures, patterned after those specified in the EPA test method. The tables and figures specified in the test method were extended to provide comparisons across laboratories.

Summary tables were prepared including all the data (except those specified by the EPA to be excluded -- Appendix Table A-1) and additionally excluding the values identified as outliers. The summary tables that excluded outliers were prepared only for those responses for which there was at least one outlier within an individual laboratory. (Note that responses for which an outlier was excluded for any chemical and treatment group were included in the "excluded outlier" summaries for all chemicals and treatment groups). Summary figures include all the data (except those specified by the EPA to be excluded -- Appendix Table A-1). These summary tables and figures were generated based on the statistics produced by the analysis of variance and covariance models that are discussed at the end of the report.

Tables were prepared to display summary values for the four categories of responses enumerated above. Tables 1-A, 1-B compare the model fits for the alternative covariance structures, for test portions 1 and 2 respectively. Tables 2-25 display summaries of the results within the control groups and the treatment groups and their comparisons. Initial body weight at PND21, final body weight, body weight gain, final body weight as percent of control, and hormonal analyses were summarized without adjustment for initial body weight at PND21. Age and body weight at VO, and organ weight variables were summarized with and without adjustment for initial body weight at PND21. Each table corresponds to a single chemical and the associated control group. Some tables display results from each laboratory separately. Other tables display results combined across all three laboratories. The standard errors associated with the summary results within laboratories incorporate only within laboratory variability. The within laboratory coefficient of variation (CV) was calculated as the ratio of the within laboratory residual standard deviation to the least squares mean. This represents the CV among the individual responses within a laboratory. The standard errors associated with summary results combined across laboratories incorporate laboratory-to-laboratory variation as well as within laboratory variation. The results combined across laboratories include an estimate of the coefficient of variation (CV) across laboratories. The among laboratories CV was approximated as CV≈ $[\sqrt{3}(\text{stderr})/(\text{LS mean})]\times 100\%$, where "stderr" is the combined laboratories standard error of the least squares mean (LS mean). This represents the CV among the within laboratory mean responses.

Figures 1-12 display the means and ±2 standard error bars for the daily body weights from PND21 to PND42. Each figure includes three groups, the control and the two doses of a single chemical. Within each plot the mean age of the controls at VO is indicated as a vertical reference line on the PND axis. Figures were prepared for the individual laboratories, as well as combined across the three laboratories.

Figures 13-38 display the least squares means ± 2 standard errors for each of the eight treatment groups (two control groups (one for each test portion) and two treatment groups for each of the three test chemicals) within each laboratory and combined across laboratories. The standard errors associated with summary results within laboratories incorporate only within laboratory variability. The standard errors associated with summary results combined across laboratories incorporate lab-to-lab variability as well as within laboratory variability.

Each figure contains eight groups of bars, each group corresponding to a control or test chemical dose group. Each group includes four bars, corresponding to each of the three

laboratories and to the laboratories combined. Each bar is centered at the least squares mean with width of 2 standard errors above and below the least squares mean. All figures are presented at the end of the report.

Analysis of Variance and Covariance

For each of the responses summarized in Tables 2-25, analysis of variance models were fitted to the data to estimate treatment group effects within individual laboratories and combined across laboratories. For initial body weight, final body weight, body weight gain, final body weight as a percent of control, and the two hormonal assays, only the unadjusted responses were analyzed. For age and body weight at VO and for organ weight responses the unadjusted responses were analyzed as well as the covariate adjusted responses, using mean centered initial body weight at PND21 as the covariate adjustment factor.

Analyses were carried out based on all the data and after omitting outliers. The (possibly heterogeneous) residual variance structures assumed in these analyses were those arrived at as discussed above and are summarized in Tables 1-A and 1-B. Separate analyses were carried out for each test portion.

For each response an analysis of variance model with the selected covariance structure was fitted to the combined data across laboratories and the control group and the one or two test chemicals within the test portion. Treatment group was a fixed effect, and laboratory, and laboratory×treatment group interaction were fixed effects for some models and random effects for others.

For the covariate adjusted responses the factors covariate (mean centered PND21 initial body weight) and covariate×laboratory interaction were included in the models as fixed effects. For calculating summaries within individual laboratories, laboratory, treatment group, and laboratory×treatment group interaction were treated as fixed effects. For calculating summaries combined across laboratories, treatment group was treated as a fixed effect, and laboratory and laboratory×treatment group interaction were treated as random effects.

Least squares means and associated standard errors and 95% confidence intervals for individual treatment groups, and comparisons of each treatment group with its corresponding control group were calculated based on the analysis of variance or analysis of covariance models. The standard approach for calculating least-squares means across two blocks and associated standard errors gives equal weight to each of the two blocks. However the PND42 block includes about half the observations in Huntingdon Laboratories and all the observations in Argus Laboratories and WIL Laboratories. The PND43 block includes about half the observations only in Huntingdon Laboratories. The standard least squares mean calculation substantially over weights the observations in the PND43 block and substantially under weights the observations in the PND42 block. Proper weights needed to be constructed so that for the least squares means combined across laboratories, equal weights were given to each of the three laboratories and within Huntingdon Laboratories, equal weights were given to each of the two blocks. The least squares means, standard errors, and CVs are displayed in Tables 2-25 and in Figures 13-38.

Significance levels for the comparisons were based on two-sample two-sided t-tests. The least squares means, standard errors, CVs, sample sizes, and confidence intervals are displayed in the tables and figures within each laboratory or combined across laboratories. Results significant at the 0.05 significance level are indicated by "*".

The standard errors and confidence intervals for the least squares means within individual laboratories reflect only within laboratory variation. To estimate these effects and their standard errors, the laboratory and laboratory×treatment group factors were treated as fixed effects. The least squares means and associated standard errors for treatment groups within laboratories and comparisons between test chemical dose groups and controls within laboratories were determined based on the within laboratory variation.

The standard errors and confidence intervals for the least squares means combined across laboratories reflect laboratory-to-laboratory variation and as well as within laboratory variation. To estimate these effects and their standard errors, laboratory and laboratory×treatment group factors were treated as random effects and least squares means and associated standard errors for individual treatment groups combined across laboratories and comparisons between treatment groups and control, combined across laboratories, were determined.

STATISTICAL ANALYSIS RESULTS

Outlier screens were carried out on all data including all the treatment groups (seven for Argus Laboratories and WIL Laboratories and eight for Huntingdon Laboratories) separately for each laboratory. The results are displayed in Appendix A. The categorization of the screened potential outliers, as specified by EPA, is displayed in Table A-1. Some of these potential outliers were included in all the analyses, some were excluded from all the analyses, and the remainder were treated as outliers (i.e. included and excluded).

Normal probability plots of the studentized residuals are displayed in Figure sets A-1, A-2, and A-3 (one set per laboratory). These normal probability plots generally showed good agreement with normal distribution assumptions. No data transformations were carried out.

Preliminary summary results with and without potential outliers were calculated for individual laboratories based on a fixed effects analysis of variance model assuming different residual variances among the treatment groups. For age and body weight at VO, and organ weight responses, summary results after adjustment for the body weight at PND21 were also calculated for individual laboratories by incorporating mean centered body weight at PND21 as a covariate. These preliminary results are presented in Appendix A, Tables A-2, A-3 and A-4.

Body weight growth from PND21 through PND42 is displayed in Figures 1-12. Each figure corresponds to a single chemical and either a single laboratory or combined across laboratories. Figures 1-3 corresponds to WIL Laboratories, Figures 4-6 correspond to Argus Laboratories, Figures 7-9 correspond to Huntingdon Laboratories, and Figures 10-12 correspond to the averages combined across laboratories.

The initial body weights (at PND21) were about same for all treatment groups within an individual laboratory, but differed from laboratory to laboratory (Argus Laboratories > Huntingdon Laboratories > WIL Laboratories). As the PND increased, body weight growth differed among the treatment groups within individual laboratories. In general the high dose group within each chemical had reduced body weight growth compared to the control group. There was one instance in which the low dose group of a chemical had a slightly faster or equal body weight growth than the vehicle control. This was the low dose of 2-Chloronitrobenzene in WIL Laboratories.

Tests for heterogeneity of variance were carried out on the data excluding the outliers, separately for the two portions of data. The results of the models fits and the likelihood ratio tests for heterogeneity are summarized in Tables 1-A and 1-B. Based on the likelihood ratio tests, the proper residual covariance models were selected, and the further data summaries and statistical analyses were carried out using these selected models.

Analysis of variance models were fitted to all the data for each endpoint, as specified in the methods section. For age and body weight at VO, and organ weight responses, additional analysis of variance models including covariance adjustment (mean centered body weight at PND21) were also fitted to the data. Tables 2-A to 4-C (a total of 9 tables) present individual laboratories results for body weight responses, and age and body weight at VO. Each table corresponds to a chemical and laboratory combination. Tables 2-A, 2-B, 2-C correspond to DE-71; Tables 3-A, 3-B, 3-C correspond to 2-Chloronitrobenzene; Tables 4-A, 4-B, 4-C correspond to Methoxychlor. Similarly for Tables 5-10. Tables 5-A to 7-C (a total of 9 tables) present individual laboratories results for organ weight responses. Tables 8-A to 10-C (a total of 9 tables) present individual laboratories results for hormonal analysis endpoints. Each table contains results for a single chemical and an individual laboratory. Results for the three laboratories combined are summarized in Tables 11 to 19. Each table contains results for a single chemical.

The least squares means and associated 95% confidence intervals based on the analysis of variance model fits are displayed in Figures 13 to 38. Figures 13 through 28 display the unadjusted responses. Figures 28 through 38 display the covariate adjusted responses. Each figure summarizes the responses across all laboratories, chemicals, and dose groups within chemicals for a single response.

The analysis results based on all the data are summarized below. Significance is at the 0.05 level.

Body Weights

For initial body weight (Tables 2A-4C and Tables 11-13; Figure 13), all treatment groups within individual laboratories were similar. Initial body weights at Argus Laboratories were about 4 grams higher than those at Huntingdon Laboratories, and 10 grams higher than those at WIL Laboratories.

For final body weight (Tables 2A-4C and Tables 11-13; Figure 14), the high dose of Methoxychlor was significantly lower than the vehicle control averaged across all three

laboratories and for Huntingdon and for WIL Laboratories. The low dose of 2-Chloronitrobenzene was significantly higher than the vehicle control for WIL Laboratories. The same results were observed for body weight gain (Figure 15) and for final body weight as percent of control (Figure 16). In addition, the high dose of Methoxychlor was significantly lower than the vehicle control in body weight gain for Argus Laboratories. The final body weights for Argus Laboratories were higher than those for the other two laboratories.

Age and Body Weight at Vaginal Opening (VO)

For age and body weight at VO (Tables 2A-4C and Tables 11-13; Figures 17 and 18, and 29 and 30), the figures and tables show that the high dose of 2-Chloronitrobenzene was significantly higher than the vehicle control averaged across laboratories and for each individual laboratory. The high dose of Methoxychlor was significantly lower than the vehicle control averaged across laboratories and for each individual laboratory. Other test chemical doses were similar to the vehicle control for individual laboratories and averaged across laboratories. For all treatment groups except the high dose of Methoxychlor, Argus Laboratories laboratory reached VO earlier than the other laboratories (nearly 2 days earlier on average). For the high dose of Methoxychlor all the laboratories had about same age at VO. The results were nearly the same after covariate adjustment.

Organ Weights

Organ weights were analyzed with and without covariate adjustment (Tables 5a-7c and Tables 14-16; and Figures 19-26 and 31-38). In general the results with and without covariates were in agreement.

For some organs there was clear separation among laboratories, across all treatment groups. The organ weights for Argus Laboratories were higher for nearly all treatment groups than for the other two laboratories for paired adrenals, paired kidneys, liver, pituitary, blotted uterus, and wet uterus. The organ weights for WIL Laboratories were lower for nearly all treatment groups than for the other two laboratories for paired ovaries and for blotted thyroid. The organ weights for Huntingdon Laboratories were lower for nearly all treatment groups than for the other laboratories for paired kidneys, liver, and pituitary. The relatively large differences among laboratories contributed to relatively large laboratory-to-laboratory variation and therefore to relatively wide 95% confidence intervals associated with the overall least squares means across laboratories.

Significant differences between the test chemicals and the vehicle control are summarized below. Unless specified otherwise, the results agree whether or not covariate adjustment was carried out.

The organ weights for both doses of DE-71 were significantly higher than the vehicle control for liver averaged across laboratories and for each individual laboratory. In addition, the high DE-71 dose had a significantly lower pituitary weight at WIL Laboratories (Table 14 and Tables 5a-5c).

The organ weights for both doses of 2-Chloronitrobenzene were significantly higher than the vehicle control for liver averaged across laboratories and for each individual laboratory. The high dose of 2-Chloronitrobenzene was significantly lower than vehicle control averaged across laboratories for paired adrenals, blotted uterus, paired ovaries and wet uterus, and for pituitary after covariate adjustment. In addition, for Argus Laboratories, the high dose of this chemical was significantly lower than the vehicle control for blotted uterus. For WIL Laboratories, the high dose of this chemical was significantly lower than the vehicle control for paired adrenals, pituitary, and paired ovaries after covariate adjustment. For Huntingdon Laboratories, the low dose of 2-Chloronitrobenzene was significantly lower for paired ovaries and the high dose was significantly lower for paired adrenals, blotted uterus, paired ovaries and pituitary (Table 15 and Tables 6a-6c).

The organ weights for both doses of Methoxychlor were significantly lower than the vehicle control for paired kidneys and liver averaged across laboratories. The low dose of this chemical was significantly higher than the vehicle control averaged across laboratories for wet uterus. The high dose of this chemical was significantly lower than the vehicle control averaged across laboratories, for paired ovaries. In addition, for Argus Laboratories, the high dose of this chemical was significantly higher than the vehicle control for paired adrenals. For WIL Laboratories the high dose of this chemical was significantly lower than the vehicle control for liver. For Huntingdon Laboratories the low dose of the chemical was significantly lower than the vehicle control for paired kidneys and liver. The high dose of the chemical was significantly lower than the vehicle control for paired ovaries, paired kidneys and liver (Table 16 and Tables 7a-7c).

Hormonal Analysis

For serum thryroxine (Tables 8a-10c and Tables 17-19; Figure 27), the two doses of DE-71 had significantly lower values than the vehicle control averaged across laboratories and for each individual laboratory. The high dose of 2-Chloronitrobenzene was significantly lower than the vehicle control averaged across laboratories and for Argus Laboratories. In addition, both doses of 2-Chloronitrobenzene were significantly lower than the vehicle control for Huntingdon Laboratories. For all treatment groups, Argus Laboratories had higher values than the other two laboratories. As a consequence, the among laboratories variation was larger than within-laboratory variation and the 95% confidence intervals across laboratories were about twice as wide as those for individual laboratories.

For thyroid stimulating hormone (Tables 8a-10c and Tables 17-19; Figure 28), the high dose of DE-71 had significantly higher values than the vehicle control averaged across laboratories and for each individual laboratory. The low dose of DE-71 had significantly higher values than the vehicle control averaged across laboratories and for each individual laboratory. The high dose of 2-Chloronitrobenzene was significantly higher than the vehicle control for WIL Laboratories and Huntingdon Laboratories. For all treatment groups WIL Laboratories had considerably higher values than the other two laboratories and Huntingdon Laboratories had slightly higher values than Argus Laboratories. The among laboratories variation was larger than the within-laboratory variation and so for most treatment groups the 95% confidence intervals

across laboratories were about twice as wide as the confidence intervals within individual laboratories.

Analysis results after excluding outliers

Additional analyses of variance were carried out after excluding outliers for the responses which had at least one outlying value. The results are summarized in Tables 20a-22c, and Tables 23-25. These results were similar to those based on all the data except for the following:

The high dose of Methoxychlor was significantly lower than the vehicle control for pituitary averaged across laboratories and at Huntingdon Laboratories.

The low dose of 2-Chloronitrobenze was significantly lower than the vehicle control for pituitary at Huntingdon Laboratories

Table 1a. Likelihoods for Various Heterogeneous Covariance Structures, Likelihood Ratio Goodness of Fit Statistics, and Selections of Covariance Structure. By Parameter for Treatment Group 1 (Corn Oil, DE-71, and 2-Chloronitrobenzene) [1,2]

Parameter	Selected Covariance Structure	-2LogLikelihood				Likelihood Ratio Test					
		Lab* TestChem* DoseLevel (L*T*D)	Lab* TestChem (L*T)	Lab (L)	All (A)	(L*T*D)-(L*T)	p_value (Chisq,df=6)	(L*T)-(L)	p_value (Chisq,df=6)	(L)-(A)	p_value (Chisq,df=2)
Adrenals	L	-1434.0	-1431.0	-1423.7	-1382.2	2.9559	0.81437	7.2819	0.29556	41.485	0.00000
Age at VO	All	928.7	936.6	946.1	950.8	7.9758	0.23988	9.4438	0.15011	4.685	0.09610
BodyWeight Gain	All	1684.9	1693.1	1701.3	1702.1	8.1861	0.22478	8.1548	0.22698	0.810	0.66695
BodyWeight at VO	L	1710.3	1717.3	1727.6	1734.8	7.0196	0.31904	10.2475	0.11461	7.212	0.02716
Final Body Weight (% of control)	All	1536.1	1541.9	1550.1	1552.1	5.8281	0.44272	8.1782	0.22533	2.031	0.36222
Final BodyWeight	All	1752.8	1758.0	1766.3	1768.9	5.2380	0.51367	8.3398	0.21425	2.564	0.27741
Initial BodyWeight	L	1295.9	1296.8	1303.3	1334.7	0.8423	0.99089	6.5260	0.36691	31.424	0.00000
Kidneys	L*T	-167.4	-155.0	-136.0	-116.2	12.4098	0.05343	18.9892	0.00418	19.843	0.00005
Liver	L	747.5	753.2	765.1	771.1	5.6791	0.46008	11.9589	0.06289	6.000	0.04978
Ovaries	L*T*D	-1216.1	-1200.5	-1189.3	-1169.7	15.5450	0.01642	11.2621	0.08061	19.620	0.00005
Pituitary	L*T	-1997.9	-1992.4	-1979.3	-1872.1	5.5193	0.47913	13.0701	0.04194	107.157	0.00000
T4	L*T*D	527.8	544.5	627.3	638.3	16.6707	0.01057	82.8555	0.00000	10.955	0.00418
TSH	L*T*D	963.2	985.5	1029.5	1100.4	22.2744	0.00108	43.9711	0.00000	70.904	0.00000
ThyroidBlotted	L	-1796.0	-1784.0	-1774.1	-1763.4	12.0449	0.06097	9.9189	0.12811	10.708	0.00473
UterusBlotted	All	-405.9	-403.0	-399.4	-395.3	2.8983	0.82149	3.6746	0.72061	4.058	0.13148
UterusWet	L*T	-319.6	-313.4	-300.6	-290.9	6.2245	0.39852	12.8187	0.04601	9.704	0.00781

1. A mixed effects model was fitted to the data separately for each parameter, in which laboratory, laboratory by test chemical and dose level interaction were random effects, test chemical and dose level interaction and block were fixed effects. Three heterogeneous covariance structure models and a homogenous covariance were compared.
2. The steps for selecting a covariance structure were: starting from the most complex structure in (L*T*D), if (L*T*D) was statistically significant better than the next less complex one in L*T, then (L*T*D) was selected. Otherwise (L*T) was compared with (L) to determine whether (L*T) was a better structure. If so, (L*T) was selected. Otherwise (L) was compared with the homogenous model (All). If (L) was better than (All) then (L) was selected. If not, (All) was selected.

Table 1b. Likelihoods for Various Heterogeneous Covariance Structures, Likelihood Ratio Goodness of Fit Statistics, and Selections of Covariance Structure. By Parameter for Treatment Group 2 (Corn Oil and Methoxychlor) [1,2]

Parameter	Selected Covariance Structure[2]	-2LogLikelihood				Likelihood Ratio Test					
		Lab* TestChem* DoseLevel (L*T*D)	Lab* TestChem (L*T)	Lab (L)	All (A)	(L*T*D)-(L*T)	p_value (Chisq,df=3)	(L*T)-(L)	p_value (Chisq,df=3)	(L)-(A)	p_value (Chisq,df=2)
Adrenals	L	-864.3	-861.5	-854.9	-837.4	2.7958	0.42418	6.6546	0.08376	17.4777	0.00016
Age at VO	L*T*D	499.7	546.1	558.1	558.2	46.3452	0.00000	12.0435	0.00724	0.0591	0.97087
BodyWeight Gain	All	1018.5	1025.1	1028.2	1028.4	6.6532	0.08381	3.0024	0.39125	0.2745	0.87175
BodyWeight at VO	L*T*D	970.3	1009.7	1014.7	1015.9	39.4543	0.00000	4.9726	0.17381	1.1847	0.55303
Final Body Weight (% of control)	All	904.9	910.7	913.7	915.3	5.7184	0.12615	3.0413	0.38530	1.5514	0.46038
Final BodyWeight	All	1041.5	1046.3	1049.5	1051.5	4.7768	0.18889	3.1984	0.36204	2.0402	0.36056
Initial BodyWeight	L	777.6	778.4	780.3	797.2	0.8654	0.83377	1.8087	0.61305	16.9419	0.00021
Kidneys	L*T	-103.6	-98.6	-86.6	-62.7	4.9936	0.17227	12.0504	0.00721	23.8807	0.00001
Liver	L	359.9	365.1	370.7	377.3	5.1395	0.16186	5.6789	0.12832	6.5819	0.03722
Ovaries	L	-666.6	-664.3	-660.9	-648.5	2.3269	0.50738	3.3357	0.34270	12.3899	0.00204
Pituitary	L	-1163.2	-1160.4	-1152.8	-1114.9	2.8216	0.41996	7.5798	0.05554	37.9200	0.00000
T4	All	413.5	420.0	424.3	427.1	6.5281	0.08856	4.3047	0.23039	2.8196	0.24420
TSH	L	521.7	523.7	531.4	562.2	1.9783	0.57692	7.7620	0.05120	30.7282	0.00000
ThyroidBlotted	L	-1021.3	-1015.9	-1011.2	-994.9	5.4406	0.14223	4.6030	0.20329	16.3313	0.00028
UterusBlotted	All	-239.1	-237.9	-236.1	-233.7	1.1177	0.77280	1.8060	0.61363	2.3914	0.30250
UterusWet	L	-98.9	-94.6	-93.1	-81.5	4.2629	0.23443	1.5039	0.68137	11.5996	0.00303

1. A mixed effects model was fitted to the data separately for each parameter, in which laboratory, laboratory by test chemical and dose level interaction were random effects, test chemical and dose level interaction and block were fixed effects. Three heterogeneous covariance structure models and a homogenous covariance were compared.
2. The steps for selecting a covariance structure were: starting from the most complex structure in (L*T*D), if (L*T*D) was statistically significant better than the next less complex one in L*T, then (L*T*D) was selected. Otherwise (L*T) was compared with (L) to determine whether (L*T) was a better structure. If so, (L*T) was selected. Otherwise (L) was compared with the homogenous model (All). If (L) was better than (All) then (L) was selected. If not, (All) was selected.

Table 2a. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Body Weight, and Age and Weight at VO for Argus Laboratory[1,6].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	56.994	1.499	10.1	15	57.008	1.499	10.1	15	57.068	1.499	10.1	15
Final BodyWeight[2]	169.650	3.382	7.6	15	167.183	3.382	7.7	15	170.116	3.382	7.6	15
BodyWeight Gain	112.655	3.017	10.3	15	110.175	3.017	10.5	15	113.049	3.017	10.2	15
Final body weight as percent of control[3]	99.312	2.076	8.0	15	97.868	2.076	8.1	15	99.586	2.076	8.0	15
Age at VO[4]	31.562	0.524	6.4	15	32.495	0.524	6.2	15	32.362	0.524	6.2	15
BodyWeight at VO[4]	109.665	4.008	14.1	15	115.065	4.008	13.4	15	114.265	4.008	13.5	15
Adj. Age at VO[5]	31.548	0.533	6.0	15	32.481	0.533	5.9	15	32.347	0.534	5.9	15
Adj. BodyWeight at VO[5]	103.101	3.755	13.1	15	108.483	3.757	12.4	15	107.603	3.763	12.6	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized when animals were necropsied.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 2b. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Body Weight, and Age and Weight at VO for WIL Laboratory[1,6].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	45.941	0.791	6.4	15	46.014	0.791	6.4	15	46.734	0.791	6.3	15
Final BodyWeight[2]	158.823	3.382	8.2	15	161.803	3.382	8.0	15	160.016	3.382	8.1	15
BodyWeight Gain	112.882	3.017	10.2	15	115.789	3.017	10.0	15	113.282	3.017	10.2	15
Final body weight as percent of control[3]	99.312	2.076	8.0	15	101.176	2.076	7.9	15	100.059	2.076	7.9	15
Age at VO[4]	34.229	0.524	5.9	15	35.029	0.524	5.7	15	35.829*	0.524	5.6	15
BodyWeight at VO[4]	115.599	3.173	10.5	15	123.165	3.173	9.9	15	126.359*	3.173	9.6	15
Adj. Age at VO[5]	32.335	0.694	5.9	15	33.157	0.690	5.8	15	34.178*	0.653	5.6	15
Adj. BodyWeight at VO[5]	111.737	4.411	10.9	15	119.347	4.385	10.2	15	122.962*	4.148	9.9	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized when animals were necropsied.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 2c. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Body Weight, and Age and Weight at VO for Huntingdon Laboratory[1,6].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	52.024	1.422	10.2	15	52.617	1.422	10.1	15	52.704	1.422	10.1	15
Final BodyWeight[2]	159.524	3.464	8.1	15	163.371	3.464	7.9	15	162.611	3.464	8.0	15
BodyWeight Gain	107.500	3.090	10.7	15	110.754	3.090	10.4	15	109.907	3.090	10.5	15
Final body weight as percent of control[3]	101.238	2.126	7.9	15	103.679	2.126	7.7	15	103.197	2.126	7.7	15
Age at VO[4]	32.895	0.537	6.1	15	33.962	0.537	5.9	15	33.029	0.537	6.1	15
BodyWeight at VO[4]	114.102	2.805	9.2	15	120.596	2.805	8.7	15	114.036	2.805	9.2	15
Adj. Age at VO[5]	32.901	0.510	5.8	15	34.046	0.511	5.6	15	33.124	0.511	5.8	15
Adj. BodyWeight at VO[5]	114.069	2.566	8.4	15	120.072	2.570	8.0	15	113.441	2.571	8.5	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized whether animals were necropsied at PND42 or PND43.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 3a. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Body Weight, and Age and Weight at VO for Argus Laboratory[1,6].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	56.994	1.499	10.1	15	57.554	1.499	10.0	15	57.234	1.499	10.0	15
Final BodyWeight[2]	169.650	3.382	7.6	15	171.516	3.382	7.6	15	169.383	3.382	7.6	15
BodyWeight Gain	112.655	3.017	10.3	15	113.962	3.017	10.1	15	112.149	3.017	10.3	15
Final body weight as percent of control[3]	99.312	2.076	8.0	15	100.406	2.076	7.9	15	99.156	2.076	8.0	15
Age at VO[4]	31.562	0.524	6.4	15	32.162	0.524	6.2	15	34.895*	0.524	5.8	15
BodyWeight at VO[4]	109.665	4.008	14.1	15	116.465	4.008	13.3	15	127.065*	4.008	12.2	15
Adj. Age at VO[5]	31.548	0.533	6.0	15	32.142	0.541	5.9	15	34.879*	0.536	5.5	15
Adj. BodyWeight at VO[5]	103.101	3.755	13.1	15	109.154	3.814	12.4	15	120.181*	3.780	11.2	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized when animals were necropsied.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 3b. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Body Weight, and Age and Weight at VO for WIL Laboratory[1,6].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	45.941	0.791	6.4	15	46.901	0.791	6.3	15	46.568	0.791	6.4	15
Final BodyWeight[2]	158.823	3.382	8.2	15	168.610*	3.382	7.7	15	162.343	3.382	8.0	15
BodyWeight Gain	112.882	3.017	10.2	15	121.709*	3.017	9.5	15	115.775	3.017	10.0	15
Final body weight as percent of control[3]	99.312	2.076	8.0	15	105.433*	2.076	7.5	15	101.514	2.076	7.8	15
Age at VO[4]	34.229	0.524	5.9	15	34.629	0.524	5.8	15	36.762*	0.524	5.5	15
BodyWeight at VO[4]	115.599	3.173	10.5	15	124.085	3.173	9.8	15	130.945*	3.173	9.3	15
Adj. Age at VO[5]	32.335	0.694	5.9	15	33.029	0.644	5.8	15	35.061*	0.661	5.4	15
Adj. BodyWeight at VO[5]	111.737	4.411	10.9	15	120.786*	4.096	10.1	15	127.451*	4.202	9.5	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized when animals were necropsied.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 3c. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Body Weight, and Age and Weight at VO for Huntingdon Laboratory[1,6].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	52.024	1.422	10.2	15	52.377	1.422	10.2	15	52.230	1.422	10.2	15
Final BodyWeight[2]	159.524	3.464	8.1	15	159.591	3.464	8.1	15	155.224	3.464	8.3	15
BodyWeight Gain	107.500	3.090	10.7	15	107.214	3.090	10.8	15	102.994	3.090	11.2	15
Final body weight as percent of control[3]	101.238	2.126	7.9	15	101.280	2.126	7.9	15	98.509	2.126	8.1	15
Age at VO[4]	32.895	0.537	6.1	15	33.895	0.537	5.9	15	38.695*	0.537	5.2	15
BodyWeight at VO[4]	114.102	2.805	9.2	15	117.176	2.805	9.0	15	137.809*	2.805	7.6	15
Adj. Age at VO[5]	32.901	0.510	5.8	15	33.948	0.510	5.6	15	38.728*	0.510	4.9	15
Adj. BodyWeight at VO[5]	114.069	2.566	8.4	15	116.850	2.568	8.2	15	137.605*	2.567	7.0	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized whether animals were necropsied at PND42 or PND43.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 4a. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Body Weight, and Age and Weight at VO for Argus Laboratory[1,6].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	56.564	1.472	9.9	15	55.671	1.472	10.1	15	56.744	1.472	9.9	15
Final BodyWeight[2]	170.821	3.319	7.4	15	164.021	3.319	7.7	15	161.821	3.319	7.8	15
BodyWeight Gain	114.257	3.077	10.2	15	108.350	3.077	10.8	15	105.077*	3.077	11.1	15
Final body weight as percent of control[3]	100.053	2.003	7.6	15	96.070	2.003	7.9	15	94.782	2.003	8.0	15
Age at VO[4]	31.494	0.415	5.1	15	32.027	0.670	8.1	15	27.561*	0.220	3.0	15
BodyWeight at VO[4]	109.906	3.356	11.7	15	109.706	4.576	16.1	15	85.972*	2.733	12.2	15
Adj. Age at VO[5]	31.502	0.449	5.1	15	32.035	0.685	8.1	15	27.569*	0.283	3.1	15
Adj. BodyWeight at VO[5]	103.632	3.008	10.1	15	104.654	4.073	14.5	15	79.453*	2.292	9.0	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Body weight at PND42 was summarized when animals were necropsied.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 4b. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Body Weight, and Age and Weight at VO for WIL Laboratory[1,6].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	45.511	0.809	6.5	15	46.578	0.809	6.4	15	46.358	0.809	6.4	15
Final BodyWeight[2]	159.994	3.319	7.9	15	160.728	3.319	7.9	15	150.654*	3.319	8.4	15
BodyWeight Gain	114.484	3.077	10.2	15	114.150	3.077	10.2	15	104.297*	3.077	11.2	15
Final body weight as percent of control[3]	100.053	2.003	7.6	15	100.512	2.003	7.6	15	94.212*	2.003	8.1	15
Age at VO[4]	34.161	0.594	6.7	15	33.961	0.504	5.7	15	27.094*	0.159	2.2	15
BodyWeight at VO[4]	115.839	2.750	9.1	15	116.759	3.879	12.8	15	74.459*	1.499	7.5	15
Adj. Age at VO[5]	34.500	0.693	6.7	15	34.244	0.584	5.7	15	27.389*	0.338	2.1	15
Adj. BodyWeight at VO[5]	125.055	3.497	8.6	15	124.453	4.303	12.2	15	82.467*	2.061	4.3	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Body weight at PND42 was summarized when animals were necropsied.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 4c. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Body Weight, and Age and Weight at VO for Huntingdon Laboratory[1,6].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	53.884	1.413	9.6	15	53.144	1.413	9.7	15	54.051	1.413	9.6	15
Final BodyWeight[2]	165.429	3.450	7.6	15	159.242	3.450	7.9	15	155.755*	3.450	8.1	15
BodyWeight Gain	111.544	3.198	10.5	15	106.097	3.198	11.0	15	101.704*	3.198	11.5	15
Final body weight as percent of control[3]	99.905	2.082	7.6	15	96.168	2.082	7.9	15	94.063*	2.082	8.1	15
Age at VO[4]	33.617	0.613	7.0	15	32.484	0.486	5.7	15	27.417*	0.156	1.9	15
BodyWeight at VO[4]	119.843	3.223	10.2	15	109.683*	3.200	11.0	15	81.957*	1.473	6.1	15
Adj. Age at VO[5]	33.556	0.634	7.2	15	32.449	0.471	5.5	15	27.350*	0.165	1.9	15
Adj. BodyWeight at VO[5]	118.404	3.287	10.5	15	108.841*	2.747	9.6	15	80.383*	1.157	4.5	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Body weight at PND42 was summarized whether animals were necropsied at PND42 or PND43
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 5a. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for Argus Laboratory [1,2,3,4].

	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.047	0.003	28.4	15	0.049	0.003	27.2	15	0.050	0.003	26.4	15
Kidneys	1.655	0.086	20.0	15	1.710	0.046	10.4	15	1.754	0.046	10.2	15
Liver	8.462	0.389	17.7	15	10.644*	0.389	14.0	15	12.063*	0.389	12.4	15
Ovaries	0.083	0.005	25.5	15	0.078	0.005	23.2	15	0.080	0.004	17.3	15
Pituitary	0.013	0.001	17.5	14	0.012	0.001	42.9	15	0.011	0.001	48.2	15
ThyroidBlotted	0.019	0.001	21.5	15	0.022	0.001	19.2	15	0.022	0.001	18.9	15
UterusBlotted	0.327	0.023	27.0	15	0.350	0.024	25.3	14	0.303	0.023	29.1	15
UterusWet	0.374	0.034	34.4	15	0.384	0.034	32.4	14	0.347	0.033	36.0	15
Adj. Adrenals	0.047	0.004	28.1	15	0.049	0.004	26.9	15	0.051	0.004	26.1	15
Adj. Kidneys	1.565	0.081	19.3	15	1.619	0.045	9.2	15	1.662	0.045	9.0	15
Adj. Liver	8.191	0.410	18.0	15	10.372*	0.410	14.2	15	11.788*	0.411	12.5	15
Adj. Ovaries	0.089	0.006	25.3	15	0.084	0.006	24.3	15	0.086	0.003	10.3	15
Adj. Pituitary	0.014	0.001	15.3	14	0.013	0.001	38.0	15	0.012	0.001	42.2	15
Adj. ThyroidBlotted	0.018	0.001	22.0	15	0.021	0.001	19.5	15	0.021	0.001	19.2	15
Adj. UterusBlotted	0.317	0.024	27.6	15	0.338	0.026	25.9	14	0.293	0.025	29.8	15
Adj. UterusWet	0.368	0.037	35.2	15	0.378	0.037	33.1	14	0.341	0.036	36.7	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 5b. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for WIL Laboratory [1,2,3,4].

	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.042	0.001	12.0	15	0.043	0.001	11.7	15	0.040	0.001	12.6	15
Kidneys	1.612	0.047	11.2	15	1.644	0.028	6.4	15	1.600	0.028	6.6	15
Liver	7.940	0.327	15.8	15	9.949*	0.327	12.6	15	10.652*	0.327	11.8	15
Ovaries	0.063	0.004	21.9	15	0.062	0.003	18.1	15	0.059	0.003	20.6	15
Pituitary	0.010	0.000	16.2	15	0.010	0.000	13.9	15	0.009*	0.000	14.9	15
ThyroidBlotted	0.013	0.001	21.2	15	0.013	0.001	21.0	15	0.012	0.001	22.4	15
UterusBlotted	0.288	0.023	30.6	15	0.284	0.023	31.1	15	0.248	0.023	35.7	15
UterusWet	0.327	0.028	32.9	15	0.318	0.025	29.6	15	0.295	0.025	31.9	15
Adj. Adrenals	0.045	0.002	10.7	15	0.047	0.002	10.4	15	0.043	0.002	11.2	15
Adj. Kidneys	1.641	0.060	11.4	15	1.673	0.044	6.3	15	1.625	0.041	6.5	15
Adj. Liver	8.214	0.456	15.3	15	10.220*	0.453	12.3	15	10.889*	0.428	11.5	15
Adj. Ovaries	0.072	0.005	20.1	15	0.071	0.004	13.7	15	0.066	0.004	14.4	15
Adj. Pituitary	0.010	0.001	16.3	15	0.010	0.001	14.0	15	0.009*	0.000	15.0	15
Adj. ThyroidBlotted	0.012	0.001	22.5	15	0.012	0.001	22.3	15	0.012	0.001	23.7	15
Adj. UterusBlotted	0.341	0.032	25.7	15	0.336	0.032	26.1	15	0.294	0.030	29.8	15
Adj. UterusWet	0.369	0.035	26.7	15	0.359	0.034	25.6	15	0.332	0.032	27.8	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 5c. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for Huntingdon Laboratory [1,2,3,4].

	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.041	0.002	21.6	15	0.040	0.002	22.5	15	0.037	0.002	23.8	15
Kidneys	1.481	0.040	10.0	15	1.468	0.040	10.2	15	1.490	0.040	10.0	15
Liver	7.501	0.326	16.3	15	9.588*	0.326	12.7	15	10.922*	0.326	11.2	15
Ovaries	0.092	0.004	17.1	15	0.085	0.003	14.4	15	0.083	0.004	17.6	15
Pituitary	0.009	0.000	16.8	15	0.009	0.000	15.8	15	0.008	0.000	16.8	15
ThyroidBlotted	0.021	0.001	20.1	15	0.023	0.001	18.9	15	0.025	0.001	17.6	15
UterusBlotted	0.322	0.024	27.5	15	0.324	0.024	27.3	15	0.325	0.024	27.2	15
UterusWet	0.343	0.024	25.7	15	0.340	0.035	38.5	15	0.352	0.035	37.2	15
Adj. Adrenals	0.041	0.002	21.5	15	0.040	0.002	22.4	15	0.037	0.002	23.8	15
Adj. Kidneys	1.481	0.037	9.3	15	1.458	0.035	9.1	15	1.478	0.035	9.0	15
Adj. Liver	7.497	0.290	14.4	15	9.519*	0.290	11.4	15	10.844*	0.290	10.0	15
Adj. Ovaries	0.092	0.004	15.6	15	0.085	0.003	14.9	15	0.082	0.004	17.9	15
Adj. Pituitary	0.009	0.000	16.1	15	0.009	0.000	15.6	15	0.008	0.000	16.6	15
Adj. ThyroidBlotted	0.021	0.001	18.4	15	0.023	0.001	17.5	15	0.024	0.001	16.3	15
Adj. UterusBlotted	0.322	0.023	27.2	15	0.323	0.023	27.1	15	0.324	0.023	27.0	15
Adj. UterusWet	0.343	0.025	25.9	15	0.340	0.035	38.7	15	0.352	0.035	37.4	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 6a. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for Argus Laboratory [1,2,3,4].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.047	0.003	28.4	15	0.053	0.003	24.9	15	0.050	0.003	26.6	15
Kidneys	1.655	0.086	20.0	15	1.820	0.102	21.7	15	1.706	0.102	23.1	15
Liver	8.462	0.389	17.7	15	10.943*	0.389	13.7	15	13.455*	0.389	11.1	15
Ovaries	0.083	0.005	25.5	15	0.091	0.006	25.4	15	0.083	0.009	42.2	15
Pituitary	0.013	0.001	17.5	14	0.012	0.001	34.1	15	0.012	0.001	34.2	15
ThyroidBlotted	0.019	0.001	21.5	15	0.020	0.001	20.6	15	0.020	0.001	21.1	15
UterusBlotted	0.327	0.023	27.0	15	0.317	0.023	27.9	15	0.262*	0.023	33.8	15
UterusWet	0.374	0.034	34.4	15	0.367	0.034	35.2	15	0.305	0.034	42.3	15
Adj. Adrenals	0.047	0.004	28.1	15	0.054	0.004	24.7	15	0.051	0.004	26.3	15
Adj. Kidneys	1.565	0.081	19.3	15	1.719	0.105	22.9	15	1.610	0.104	24.4	15
Adj. Liver	8.191	0.410	18.0	15	10.643*	0.417	13.9	15	13.172*	0.413	11.2	15
Adj. Ovaries	0.089	0.006	25.3	15	0.098	0.006	23.4	15	0.090	0.010	41.6	15
Adj. Pituitary	0.014	0.001	15.3	14	0.013	0.001	31.0	15	0.013	0.001	31.2	15
Adj. ThyroidBlotted	0.018	0.001	22.0	15	0.019	0.001	21.1	15	0.019	0.001	21.6	15
Adj. UterusBlotted	0.317	0.024	27.6	15	0.306	0.025	28.6	15	0.251*	0.025	34.8	15
Adj. UterusWet	0.368	0.037	35.2	15	0.361	0.037	36.0	15	0.299	0.037	43.5	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 6b. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for WIL Laboratory [1,2,3,4].

	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.042	0.001	12.0	15	0.044	0.001	11.5	15	0.038*	0.001	13.3	15
Kidneys	1.612	0.047	11.2	15	1.697	0.041	9.3	15	1.687	0.041	9.3	15
Liver	7.940	0.327	15.8	15	10.526*	0.327	11.9	15	12.435*	0.327	10.1	15
Ovaries	0.063	0.004	21.9	15	0.063	0.002	13.7	15	0.054	0.003	21.1	15
Pituitary	0.010	0.000	16.2	15	0.010	0.000	12.5	15	0.009*	0.000	13.8	15
ThyroidBlotted	0.013	0.001	21.2	15	0.012	0.001	23.3	15	0.012	0.001	23.9	15
UterusBlotted	0.288	0.023	30.6	15	0.299	0.023	29.6	15	0.251	0.023	35.2	15
UterusWet	0.327	0.028	32.9	15	0.320	0.021	23.8	14	0.294	0.020	25.9	15
Adj. Adrenals	0.045	0.002	10.7	15	0.047	0.002	10.3	15	0.041*	0.002	11.8	15
Adj. Kidneys	1.641	0.060	11.4	15	1.721	0.050	9.0	15	1.712	0.051	9.1	15
Adj. Liver	8.214	0.456	15.3	15	10.755*	0.423	11.7	15	12.680*	0.434	9.9	15
Adj. Ovaries	0.072	0.005	20.1	15	0.071	0.004	13.4	15	0.062*	0.004	17.5	15
Adj. Pituitary	0.010	0.001	16.3	15	0.010	0.000	12.6	15	0.009*	0.000	13.9	15
Adj. ThyroidBlotted	0.012	0.001	22.5	15	0.011	0.001	24.6	15	0.011	0.001	25.4	15
Adj. UterusBlotted	0.341	0.032	25.7	15	0.343	0.030	25.5	15	0.298	0.030	29.3	15
Adj. UterusWet	0.369	0.035	26.7	15	0.358	0.031	21.9	14	0.332	0.030	23.6	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 6c. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for Huntingdon Laboratory [1,2,3,4].

	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.041	0.002	21.6	15	0.035	0.002	25.3	15	0.033*	0.002	27.0	15
Kidneys	1.481	0.040	10.0	15	1.435	0.041	10.6	15	1.470	0.041	10.4	15
Liver	7.501	0.326	16.3	15	9.296*	0.326	13.1	15	11.259*	0.326	10.8	15
Ovaries	0.092	0.004	17.1	15	0.077*	0.003	15.6	15	0.074*	0.003	12.4	15
Pituitary	0.009	0.000	16.8	15	0.008	0.001	41.5	15	0.006*	0.001	56.3	15
ThyroidBlotted	0.021	0.001	20.1	15	0.021	0.001	20.9	15	0.021	0.001	20.7	15
UterusBlotted	0.322	0.024	27.5	15	0.288	0.024	30.7	15	0.243*	0.024	36.4	15
UterusWet	0.343	0.024	25.7	15	0.320	0.037	43.1	15	0.263	0.037	52.5	15
Adj. Adrenals	0.041	0.002	21.5	15	0.035	0.002	25.2	15	0.033*	0.002	27.0	15
Adj. Kidneys	1.481	0.037	9.3	15	1.429	0.029	7.5	15	1.467	0.029	7.3	15
Adj. Liver	7.497	0.290	14.4	15	9.253*	0.290	11.7	15	11.232*	0.290	9.6	15
Adj. Ovaries	0.092	0.004	15.6	15	0.076*	0.003	14.1	15	0.074*	0.002	9.5	15
Adj. Pituitary	0.009	0.000	16.1	15	0.008	0.001	40.0	15	0.006*	0.001	54.2	15
Adj. ThyroidBlotted	0.021	0.001	18.4	15	0.020	0.001	19.3	15	0.021	0.001	19.0	15
Adj. UterusBlotted	0.322	0.023	27.2	15	0.287	0.023	30.5	15	0.242*	0.023	36.1	15
Adj. UterusWet	0.343	0.025	25.9	15	0.320	0.037	43.5	15	0.263	0.037	53.0	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 7a. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for Argus Laboratory [1,2,3,4].

	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.046	0.003	21.4	15	0.047	0.003	21.0	14	0.054*	0.003	18.4	15
Kidneys	1.671	0.086	19.8	15	1.599	0.046	11.0	15	1.623	0.046	10.8	15
Liver	8.576	0.284	12.7	15	8.187	0.284	13.3	15	7.906	0.284	13.8	15
Ovaries	0.083	0.005	24.6	15	0.087	0.005	23.4	14	0.078	0.005	26.2	15
Pituitary	0.013	0.001	28.3	14	0.011	0.001	33.3	15	0.013	0.001	28.9	15
ThyroidBlotted	0.019	0.001	19.6	15	0.018	0.001	21.6	15	0.020	0.001	19.1	15
UterusBlotted	0.327	0.022	26.1	15	0.378	0.022	22.6	15	0.336	0.022	25.5	15
UterusWet	0.381	0.036	34.9	15	0.468	0.036	28.4	15	0.395	0.036	33.7	15
Adj. Adrenals	0.045	0.003	22.0	15	0.046	0.003	21.5	14	0.053*	0.003	18.8	15
Adj. Kidneys	1.605	0.083	19.0	15	1.546	0.047	10.5	15	1.554	0.050	10.5	15
Adj. Liver	8.151	0.284	12.0	15	7.843	0.274	12.4	15	7.465	0.286	13.1	15
Adj. Ovaries	0.084	0.006	24.5	15	0.088	0.006	23.4	14	0.079	0.006	26.1	15
Adj. Pituitary	0.014	0.001	24.8	14	0.012	0.001	29.4	15	0.014	0.001	25.4	15
Adj. ThyroidBlotted	0.019	0.001	19.9	15	0.017	0.001	21.8	15	0.019	0.001	19.4	15
Adj. UterusBlotted	0.317	0.025	27.0	15	0.370	0.024	23.1	15	0.325	0.025	26.3	15
Adj. UterusWet	0.371	0.040	36.1	15	0.460	0.039	29.2	15	0.384	0.040	34.9	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 7b. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for WIL Laboratory [1,2,3,4].

	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.041	0.001	13.5	15	0.043	0.001	13.1	15	0.045	0.001	12.6	15
Kidneys	1.627	0.047	11.1	15	1.590	0.031	7.5	15	1.522	0.031	7.8	15
Liver	8.054	0.271	12.9	15	7.767	0.271	13.4	15	7.144*	0.271	14.6	15
Ovaries	0.063	0.003	19.9	15	0.062	0.003	20.2	15	0.060	0.003	21.0	15
Pituitary	0.010	0.000	16.7	15	0.010	0.000	17.5	15	0.009	0.000	18.1	15
ThyroidBlotted	0.013	0.001	23.3	15	0.012	0.001	26.6	15	0.012	0.001	24.9	15
UterusBlotted	0.288	0.022	29.7	15	0.330	0.022	25.9	15	0.325	0.022	26.3	15
UterusWet	0.334	0.033	36.8	15	0.409	0.033	30.1	15	0.402	0.033	30.6	15
Adj. Adrenals	0.045	0.002	12.1	15	0.046	0.002	11.9	15	0.048	0.002	11.4	15
Adj. Kidneys	1.682	0.068	11.4	15	1.636	0.049	7.1	15	1.570	0.050	7.4	15
Adj. Liver	8.338	0.440	12.5	15	8.004	0.396	13.1	15	7.391*	0.404	14.1	15
Adj. Ovaries	0.065	0.005	19.6	15	0.063	0.005	20.0	15	0.061	0.005	20.7	15
Adj. Pituitary	0.010	0.001	17.4	15	0.009	0.001	18.2	15	0.009	0.001	18.9	15
Adj. ThyroidBlotted	0.012	0.001	25.1	15	0.011	0.001	28.6	15	0.011	0.001	26.7	15
Adj. UterusBlotted	0.325	0.036	26.4	15	0.360	0.033	23.8	15	0.356	0.033	24.0	15
Adj. UterusWet	0.376	0.052	32.7	15	0.444	0.047	27.7	15	0.438	0.048	28.1	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 7c. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights for Huntingdon Laboratory [1,2,3,4].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.049	0.002	16.2	15	0.045	0.002	17.7	15	0.045	0.002	17.7	15
Kidneys	1.470	0.032	7.9	15	1.384*	0.029	7.5	15	1.353*	0.029	7.6	15
Liver	7.899	0.189	8.7	15	7.078*	0.189	9.7	15	6.986*	0.189	9.9	15
Ovaries	0.092	0.004	14.1	14	0.090	0.004	14.4	15	0.080*	0.004	16.3	15
Pituitary	0.009	0.001	22.9	15	0.009	0.001	23.1	15	0.008	0.001	26.1	15
ThyroidBlotted	0.022	0.002	25.9	15	0.022	0.002	26.2	15	0.023	0.002	24.2	15
UterusBlotted	0.334	0.023	25.6	15	0.344	0.023	24.8	15	0.315	0.023	27.1	15
UterusWet	0.371	0.054	53.3	15	0.421	0.054	47.1	15	0.353	0.054	56.1	15
Adj. Adrenals	0.048	0.002	16.4	15	0.044	0.002	17.8	15	0.044	0.002	17.9	15
Adj. Kidneys	1.454	0.026	6.4	15	1.373*	0.029	7.8	15	1.336*	0.030	8.0	15
Adj. Liver	7.877	0.194	8.8	15	7.065*	0.191	9.8	15	6.962*	0.195	10.0	15
Adj. Ovaries	0.093	0.004	13.9	14	0.090	0.004	14.4	15	0.080*	0.004	16.2	15
Adj. Pituitary	0.009	0.001	23.3	15	0.009	0.001	23.4	15	0.008	0.001	26.5	15
Adj. ThyroidBlotted	0.021	0.002	26.2	15	0.021	0.002	26.3	15	0.023	0.002	24.5	15
Adj. UterusBlotted	0.336	0.024	25.5	15	0.345	0.024	24.8	15	0.316	0.024	27.1	15
Adj. UterusWet	0.378	0.056	52.8	15	0.424	0.055	47.0	15	0.360	0.056	55.5	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 8a. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Hormonal Parameters for Argus Laboratory [1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	7.984	0.348	16.9	15	4.682*	0.125	10.1	15	4.154*	0.159	14.6	15
Thyroid stimulating hormone	3.341	0.315	35.8	15	4.923*	0.528	41.2	15	4.650*	0.274	22.2	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 8b. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Hormonal Parameters for WIL Laboratory [1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	5.179	0.362	27.0	15	1.348*	0.120	33.8	15	0.911*	0.054	20.8	15
Thyroid stimulating hormone	8.062	0.554	26.4	15	11.355*	1.115	38.0	15	14.042*	1.734	47.8	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 8c. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Hormonal Parameters for Huntingdon Laboratory [1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	5.399	0.330	23.5	15	1.579*	0.140	32.7	15	0.733*	0.099	47.5	15
Thyroid stimulating hormone	4.816	0.295	21.9	15	6.470*	0.689	40.7	15	7.043*	0.555	29.8	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 9a. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Hormonal Parameters for Argus Laboratory [1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	7.984	0.348	16.9	15	7.192	0.430	23.1	15	6.876*	0.319	17.9	15
Thyroid stimulating hormone	3.341	0.315	35.8	15	4.229	0.682	62.2	15	3.712	0.265	26.9	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 9b. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Hormonal Parameters for WIL Laboratory [1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	5.179	0.362	27.0	15	5.086	0.214	16.2	15	4.819	0.217	17.3	15
Thyroid stimulating hormone	8.062	0.554	26.4	15	9.242	0.653	27.2	15	10.395*	0.681	25.2	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 9c. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Hormonal Parameters for Huntingdon Laboratory [1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	5.399	0.330	23.5	15	4.199*	0.248	22.5	15	3.899*	0.160	15.4	15
Thyroid stimulating hormone	4.816	0.295	21.9	15	5.103	0.360	25.9	15	6.036*	0.429	26.6	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 10a. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Hormonal Parameters for Argus Laboratory [1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	7.943	0.299	14.3	15	7.814	0.299	14.6	15	7.701	0.299	14.8	15
Thyroid stimulating hormone	3.490	0.399	43.8	15	4.186	0.399	36.5	15	3.416	0.399	44.8	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 10b. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Hormonal Parameters for WIL Laboratory [1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	5.138	0.299	22.1	15	4.965	0.299	22.9	15	5.585	0.299	20.4	15
Thyroid stimulating hormone	8.210	0.693	32.6	15	9.984	0.693	26.8	15	9.050	0.693	29.6	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 10c. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Hormonal Parameters for Huntingdon Laboratory [1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	4.766	0.311	23.9	15	4.446	0.311	25.6	15	4.486	0.311	25.4	15
Thyroid stimulating hormone	3.729	0.320	31.4	15	4.543	0.320	25.8	15	4.316	0.320	27.2	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 11. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Body Weight, and Age and Weight at VO across Laboratories[1,6].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	51.566	3.164	10.6	45	51.733	3.164	10.6	45	52.214	3.164	10.5	45
Final BodyWeight[2]	162.658	3.318	3.5	45	164.112	3.318	3.5	45	164.241	3.318	3.5	45
BodyWeight Gain	111.003	2.764	4.3	45	112.230	2.764	4.3	45	112.070	2.764	4.3	45
Final body weight as percent of control[3]	99.960	1.302	2.3	45	100.914	1.302	2.2	45	100.953	1.302	2.2	45
Age at VO[4]	32.895	0.897	4.7	45	33.829	0.897	4.6	45	33.740	0.897	4.6	45
BodyWeight at VO[4]	113.228	3.031	4.6	45	119.809	3.031	4.4	45	118.036	3.031	4.4	45
Adj. Age at VO[5]	32.279	0.729	3.9	45	33.247	0.728	3.8	45	33.235	0.724	3.8	45
Adj. BodyWeight at VO[5]	109.681	4.251	6.7	45	116.020	4.249	6.3	45	114.268	4.220	6.4	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized whether animals were necropsied at PND42 or PND43.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.

6. CV was calculated as $\sqrt{3}$*standard error/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 12. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Body Weight, and Age and Weight at VO across Laboratories[1,6].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	51.566	3.164	10.6	45	52.337	3.164	10.5	45	52.043	3.164	10.5	45
Final BodyWeight[2]	162.658	3.318	3.5	45	166.565	3.318	3.5	45	162.310	3.318	3.5	45
BodyWeight Gain	111.003	2.764	4.3	45	114.285	2.764	4.2	45	110.296	2.764	4.3	45
Final body weight as percent of control[3]	99.960	1.302	2.3	45	102.379	1.302	2.2	45	99.733	1.302	2.3	45
Age at VO[4]	32.895	0.897	4.7	45	33.562	0.897	4.6	45	36.784*	0.897	4.2	45
BodyWeight at VO[4]	113.228	3.031	4.6	45	119.093	3.031	4.4	45	132.483*	3.031	4.0	45
Adj. Age at VO[5]	32.279	0.729	3.9	45	33.059	0.724	3.8	45	36.241*	0.725	3.5	45
Adj. BodyWeight at VO[5]	109.681	4.251	6.7	45	115.402	4.218	6.3	45	128.946*	4.228	5.7	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Body weight at PND42 was summarized whether animals were necropsied at PND42 or PND43
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. CV was calculated as $\sqrt{3}$*standard error/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 13. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Body Weight, and Age and Weight at VO across Laboratories[1,6].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Initial BodyWeight	51.714	3.110	10.4	45	52.059	3.110	10.3	45	52.302	3.110	10.3	45
Final BodyWeight[2]	165.412	2.947	3.1	45	161.328	2.947	3.2	45	156.074*	2.947	3.3	45
BodyWeight Gain	113.397	1.749	2.7	45	109.502	1.749	2.8	45	103.662*	1.749	2.9	45
Final body weight as percent of control[3]	99.996	1.124	1.9	45	97.575	1.124	2.0	45	94.344*	1.124	2.1	45
Age at VO[4]	32.989	0.588	3.1	45	32.860	0.591	3.1	45	27.353*	0.500	3.2	45
BodyWeight at VO[4]	115.297	3.104	4.7	45	112.010	3.403	5.3	45	80.436*	2.750	5.9	45
Adj. Age at VO[5]	33.047	0.640	3.4	45	32.901	0.635	3.3	45	27.396*	0.555	3.5	45
Adj. BodyWeight at VO[5]	115.459	4.836	7.3	45	112.264	4.969	7.7	45	80.547*	4.576	9.8	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Body weight at PND42 was summarized whether animals were necropsied at PND42 or PND43.
3. Final body weight as percent of control was calculated for each animal as the ratio of its final body weight over the mean of the final body weights within the control group (in percent).
4. All animals had VO before necropsy.
5. Least squares means and standard errors for Adj. age and body weight at VO were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
6. CV was calculated as $\sqrt{3}$*standard error/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 14. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights across Laboratories [1,2,3,4].

	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.044	0.004	14.7	45	0.044	0.004	14.4	45	0.042	0.004	15.3	45
Kidneys	1.598	0.082	8.9	45	1.610	0.079	8.5	45	1.604	0.079	8.6	45
Liver	7.985	0.449	9.7	45	10.070*	0.449	7.7	45	11.203*	0.449	6.9	45
Ovaries	0.079	0.008	16.5	45	0.076	0.007	16.9	45	0.074	0.007	17.4	45
Pituitary	0.011	0.001	19.2	44	0.010	0.001	20.0	45	0.010	0.001	21.3	45
ThyroidBlotted	0.018	0.003	29.2	45	0.019	0.003	27.7	45	0.019	0.003	27.7	45
UterusBlotted	0.312	0.016	9.1	45	0.319	0.017	9.0	44	0.292	0.016	9.7	45
UterusWet	0.347	0.020	9.9	45	0.344	0.021	10.5	44	0.326	0.021	11.0	45
Adj. Adrenals	0.045	0.004	14.9	45	0.046	0.004	14.7	45	0.043	0.004	15.6	45
Adj. Kidneys	1.576	0.074	8.1	45	1.582	0.070	7.7	45	1.580	0.070	7.6	45
Adj. Liver	7.970	0.422	9.2	45	10.029*	0.422	7.3	45	11.161*	0.419	6.5	45
Adj. Ovaries	0.085	0.006	12.2	45	0.081	0.006	12.4	45	0.078	0.006	12.5	45
Adj. Pituitary	0.011	0.001	23.5	44	0.011	0.001	24.4	45	0.010	0.001	26.0	45
Adj. ThyroidBlotted	0.018	0.003	31.1	45	0.018	0.003	29.6	45	0.019	0.003	29.4	45
Adj. UterusBlotted	0.322	0.014	7.6	45	0.327	0.014	7.6	44	0.299	0.014	8.0	45
Adj. UterusWet	0.354	0.018	8.6	45	0.353	0.019	9.5	44	0.333	0.019	9.8	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. CV was calculated as $\sqrt{3}$*standard error/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 15. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights across Laboratories [1,2,3,4].

	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.044	0.004	14.7	45	0.044	0.004	14.4	45	0.039*	0.004	16.2	45
Kidneys	1.598	0.082	8.9	45	1.629	0.082	8.7	45	1.631	0.082	8.7	45
Liver	7.985	0.449	9.7	45	10.250*	0.449	7.6	45	12.345*	0.449	6.3	45
Ovaries	0.079	0.008	16.5	45	0.075	0.007	17.1	45	0.068*	0.007	19.0	45
Pituitary	0.011	0.001	19.2	44	0.010	0.001	20.4	45	0.009	0.001	22.6	45
ThyroidBlotted	0.018	0.003	29.2	45	0.018	0.003	30.2	45	0.017	0.003	30.5	45
UterusBlotted	0.312	0.016	9.1	45	0.301	0.016	9.4	45	0.252*	0.016	11.3	45
UterusWet	0.347	0.020	9.9	45	0.335	0.020	10.3	44	0.296*	0.020	11.5	45
Adj. Adrenals	0.045	0.004	14.9	45	0.045	0.004	14.7	45	0.041*	0.004	16.5	45
Adj. Kidneys	1.576	0.074	8.1	45	1.591	0.072	7.9	45	1.602	0.072	7.8	45
Adj. Liver	7.970	0.422	9.2	45	10.171*	0.419	7.1	45	12.277*	0.420	5.9	45
Adj. Ovaries	0.085	0.006	12.2	45	0.079	0.006	12.6	45	0.072*	0.006	13.8	45
Adj. Pituitary	0.011	0.001	23.5	44	0.011	0.002	24.8	45	0.010*	0.002	27.4	45
Adj. ThyroidBlotted	0.018	0.003	31.1	45	0.017	0.003	32.2	45	0.017	0.003	32.6	45
Adj. UterusBlotted	0.322	0.014	7.6	45	0.308	0.014	7.8	45	0.260*	0.014	9.3	45
Adj. UterusWet	0.354	0.018	8.6	45	0.344	0.019	9.3	44	0.305*	0.018	10.4	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. CV was calculated as $\sqrt{3}$*standard error/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 16. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Unadjusted and Body-Weight Adjusted Organ Weights across Laboratories [1,2,3,4].

	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
Parameter	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Adrenals	0.045	0.002	8.5	45	0.045	0.002	8.6	44	0.047	0.002	8.1	45
Kidneys	1.597	0.075	8.1	45	1.527*	0.072	8.2	45	1.492*	0.072	8.4	45
Liver	8.208	0.284	6.0	45	7.610*	0.284	6.5	45	7.349*	0.284	6.7	45
Ovaries	0.080	0.008	17.7	44	0.079	0.008	17.8	44	0.072*	0.008	19.5	45
Pituitary	0.011	0.001	16.7	44	0.010	0.001	17.5	45	0.010	0.001	18.1	45
ThyroidBlotted	0.018	0.003	27.9	45	0.017	0.003	30.3	45	0.018	0.003	27.9	45
UterusBlotted	0.316	0.014	7.9	45	0.351	0.014	7.1	45	0.325	0.014	7.7	45
UterusWet	0.358	0.022	10.9	45	0.432*	0.022	9.0	45	0.389	0.022	10.0	45
Adj. Adrenals	0.046	0.002	6.0	45	0.045	0.002	6.0	44	0.048	0.002	5.7	45
Adj. Kidneys	1.586	0.078	8.5	45	1.517*	0.076	8.6	45	1.477*	0.076	8.9	45
Adj. Liver	8.093	0.248	5.3	45	7.530*	0.241	5.5	45	7.235*	0.243	5.8	45
Adj. Ovaries	0.081	0.008	16.6	44	0.080	0.008	16.6	44	0.074*	0.008	18.1	45
Adj. Pituitary	0.011	0.001	22.2	44	0.011	0.001	23.1	45	0.010	0.001	23.9	45
Adj. ThyroidBlotted	0.018	0.003	30.3	45	0.016	0.003	32.7	45	0.018	0.003	30.2	45
Adj. UterusBlotted	0.323	0.014	7.7	45	0.356	0.014	6.7	45	0.330	0.014	7.5	45
Adj. UterusWet	0.368	0.026	12.1	45	0.441*	0.024	9.6	45	0.398	0.025	11.0	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. organ weights were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. CV was calculated as $\sqrt{3}$*standard error/LS Mean.
4. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 17. Summary Statistics for Corn Oil and Test Chemical DE-71 in Female Pubertal Assay for Hormonal Parameters across Laboratories [1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	6.196	1.024	28.6	45	2.534*	1.006	68.8	45	1.915*	1.005	90.9	45
Thyroid stimulating hormone	5.556	1.751	54.6	45	7.463*	1.788	41.5	45	7.449*	1.770	41.2	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.

2. CV was calculated as $\sqrt{3}$*standard error/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 18. Summary Statistics for Corn Oil and Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for Hormonal Parameters across Laboratories [1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	6.196	1.024	28.6	45	5.553	1.018	31.8	45	5.213*	1.013	33.7	45
Thyroid stimulating hormone	5.556	1.751	54.6	45	6.042	1.767	50.7	45	6.536	1.756	46.5	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.

2. CV was calculated as $\sqrt{3}$*standard error/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 19. Summary Statistics for Corn Oil and Test Chemical Methoxychlor in Female Pubertal Assay for Hormonal Parameters across Laboratories [1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Serum Thyroxine	5.949	1.001	29.1	45	5.741	1.001	30.2	45	5.924	1.001	29.3	45
Thyroid stimulating hormone	5.218	1.721	57.1	45	6.098*	1.721	48.9	45	5.614	1.721	53.1	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.

2. CV was calculated as $\sqrt{3}$*standard error/LS Mean.
3. Significantly differences from corn oil at the 0.05 level were marked by "*".

Table 20a. Summary Statistics for Corn Oil and DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for Argus Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
Body Weight Gain	112.655	2.943	10.0	15	110.175	2.943	10.2	15	113.049	2.943	10.0	15
Adrenals	0.047	0.003	23.0	15	0.049	0.003	22.0	15	0.050	0.003	21.3	15
Kidneys	1.655	0.086	20.0	15	1.710	0.046	10.4	15	1.754	0.046	10.2	15
Ovaries	0.083	0.005	25.5	15	0.078	0.005	23.2	15	0.080	0.004	17.3	15
Pituitary	0.013	0.001	17.5	14	0.012	0.001	42.8	15	0.011	0.001	48.1	15
UterusWet	0.374	0.034	34.4	15	0.355	0.022	21.5	13	0.323	0.021	23.5	14
Adj. Adrenals	0.047	0.003	22.8	15	0.049	0.003	21.8	15	0.051	0.003	21.2	15
Adj. Kidneys	1.563	0.080	19.3	15	1.617	0.043	9.2	15	1.659	0.043	8.9	15
Adj. Ovaries	0.086	0.006	25.1	15	0.081	0.005	23.5	15	0.084	0.003	13.0	15
Adj. Pituitary	0.014	0.001	15.3	14	0.013	0.001	37.9	15	0.012	0.001	42.1	15
Adj. UterusWet	0.379	0.036	34.2	15	0.360	0.025	21.2	13	0.328	0.024	23.3	14

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 20b. Summary Statistics for Corn Oil and DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for WIL Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	112.882	2.943	10.0	15	115.789	2.943	9.7	15	113.282	2.943	10.0	15
Adrenals	0.042	0.001	12.0	15	0.043	0.001	11.7	15	0.040	0.001	12.6	15
Kidneys	1.612	0.047	11.2	15	1.644	0.028	6.4	15	1.600	0.028	6.6	15
Ovaries	0.063	0.004	21.9	15	0.062	0.003	18.1	15	0.059	0.003	20.6	15
Pituitary	0.010	0.000	16.1	15	0.010	0.000	13.9	15	0.009*	0.000	14.9	15
UterusWet	0.327	0.028	32.9	15	0.318	0.025	29.6	15	0.295	0.025	31.9	15
Adj. Adrenals	0.045	0.002	10.7	15	0.047	0.002	10.4	15	0.043	0.002	11.2	15
Adj. Kidneys	1.640	0.060	11.4	15	1.673	0.044	6.3	15	1.625	0.041	6.5	15
Adj. Ovaries	0.072	0.005	20.1	15	0.071	0.004	13.7	15	0.066	0.004	14.4	15
Adj. Pituitary	0.010	0.001	16.3	15	0.010	0.001	13.9	15	0.009*	0.000	15.0	15
Adj. UterusWet	0.369	0.035	26.7	15	0.359	0.034	25.7	15	0.331	0.032	27.8	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 20c. Summary Statistics for Corn Oil and DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for Huntingdon Laboratory, Outliers Excluded[1,2,3].

	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
Parameter	**LS Mean**	**Std Error**	**CV**	**N**	**LS Mean**	**Std Error**	**CV**	**N**	**LS Mean**	**Std Error**	**CV**	**N**
BodyWeight Gain	107.500	3.015	10.5	15	110.754	3.015	10.2	15	109.907	3.015	10.3	15
Adrenals	0.041	0.002	21.6	15	0.040	0.002	22.5	15	0.037	0.002	23.8	15
Kidneys	1.481	0.040	10.0	15	1.468	0.040	10.2	15	1.490	0.040	10.0	15
Ovaries	0.092	0.004	17.1	15	0.085	0.003	14.4	15	0.083	0.004	17.6	15
Pituitary	0.009	0.000	16.9	15	0.009	0.000	15.8	15	0.008	0.000	16.8	15
UterusWet	0.343	0.024	25.7	15	0.340	0.035	38.5	15	0.352	0.035	37.2	15
Adj. Adrenals	0.041	0.002	21.5	15	0.040	0.002	22.5	15	0.037	0.002	23.8	15
Adj. Kidneys	1.480	0.037	9.3	15	1.457	0.035	9.1	15	1.478	0.035	9.0	15
Adj. Ovaries	0.092	0.004	15.6	15	0.085	0.003	14.9	15	0.082	0.004	17.9	15
Adj. Pituitary	0.009	0.000	16.2	15	0.009	0.000	15.5	15	0.008	0.000	16.5	15
Adj. UterusWet	0.343	0.025	25.9	15	0.340	0.035	38.7	15	0.352	0.035	37.4	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 21a. Summary Statistics for Corn Oil and 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for Argus Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	112.655	2.943	10.0	15	111.317	3.044	10.1	14	112.149	2.943	10.1	15
Adrenals	0.047	0.003	23.0	15	0.051	0.003	21.2	14	0.046	0.003	23.2	14
Kidneys	1.655	0.086	20.0	15	1.820	0.059	12.4	15	1.825	0.061	12.4	14
Ovaries	0.083	0.005	25.5	15	0.091	0.006	25.4	15	0.075	0.003	13.1	14
Pituitary	0.013	0.001	17.5	14	0.012	0.001	34.0	15	0.012	0.001	34.1	15
UterusWet	0.374	0.034	34.4	15	0.367	0.034	35.2	15	0.305	0.034	42.3	15
Adj. Adrenals	0.047	0.003	22.8	15	0.051	0.003	21.0	14	0.047	0.003	23.0	14
Adj. Kidneys	1.563	0.080	19.3	15	1.717	0.057	11.8	15	1.732	0.058	11.7	14
Adj. Ovaries	0.086	0.006	25.1	15	0.095	0.006	23.9	15	0.078	0.003	14.1	14
Adj. Pituitary	0.014	0.001	15.3	14	0.013	0.001	30.9	15	0.013	0.001	31.1	15
Adj. UterusWet	0.379	0.036	34.2	15	0.373	0.036	34.9	15	0.310	0.036	42.0	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 21b. Summary Statistics for Corn Oil and 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for WIL Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	112.882	2.943	10.0	15	121.709*	2.943	9.3	15	115.775	2.943	9.7	15
Adrenals	0.042	0.001	12.0	15	0.044	0.001	11.5	15	0.038*	0.001	13.3	15
Kidneys	1.612	0.047	11.2	15	1.697	0.041	9.3	15	1.687	0.041	9.3	15
Ovaries	0.063	0.004	21.9	15	0.063	0.002	13.7	15	0.054	0.003	21.1	15
Pituitary	0.010	0.000	16.1	15	0.010	0.000	12.5	15	0.009*	0.000	13.7	15
UterusWet	0.327	0.028	32.9	15	0.320	0.021	23.8	14	0.294	0.020	25.9	15
Adj. Adrenals	0.045	0.002	10.7	15	0.047	0.002	10.3	15	0.041*	0.002	11.8	15
Adj. Kidneys	1.640	0.060	11.4	15	1.721	0.050	9.0	15	1.712	0.051	9.1	15
Adj. Ovaries	0.072	0.005	20.1	15	0.071	0.004	13.4	15	0.062*	0.004	17.5	15
Adj. Pituitary	0.010	0.001	16.3	15	0.010	0.000	12.5	15	0.009*	0.000	13.8	15
Adj. UterusWet	0.369	0.035	26.7	15	0.357	0.030	21.9	14	0.332	0.030	23.6	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 21c. Summary Statistics for Corn Oil and 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for Huntingdon Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	107.500	3.015	10.5	15	107.214	3.015	10.5	15	102.994	3.015	10.9	15
Adrenals	0.041	0.002	21.6	15	0.035	0.002	25.3	15	0.033*	0.002	27.0	15
Kidneys	1.481	0.040	10.0	15	1.435	0.041	10.6	15	1.470	0.041	10.4	15
Ovaries	0.092	0.004	17.1	15	0.077*	0.003	15.6	15	0.074*	0.003	12.4	15
Pituitary	0.009	0.000	16.9	15	0.007*	0.000	26.1	14	0.006*	0.000	30.9	15
UterusWet	0.343	0.024	25.7	15	0.320	0.037	43.1	15	0.263	0.037	52.5	15
Adj. Adrenals	0.041	0.002	21.5	15	0.035	0.002	25.2	15	0.033*	0.002	27.0	15
Adj. Kidneys	1.480	0.037	9.3	15	1.428	0.029	7.5	15	1.466	0.029	7.3	15
Adj. Ovaries	0.092	0.004	15.6	15	0.076*	0.003	14.1	15	0.074*	0.002	9.5	15
Adj. Pituitary	0.009	0.000	16.2	15	0.007*	0.000	25.1	14	0.006*	0.000	29.9	15
Adj. UterusWet	0.343	0.025	25.9	15	0.320	0.037	43.5	15	0.263	0.037	53.0	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 22a. Summary Statistics for Corn Oil and Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for Argus Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	114.257	3.077	10.2	15	108.350	3.077	10.8	15	105.077*	3.077	11.1	15
Adrenals	0.046	0.003	21.6	15	0.047	0.003	21.1	14	0.054*	0.003	18.5	15
Kidneys	1.671	0.086	19.8	15	1.599	0.046	11.0	15	1.623	0.046	10.8	15
Ovaries	0.083	0.005	24.6	15	0.087	0.005	23.4	14	0.078	0.005	26.2	15
Pituitary	0.013	0.001	28.5	14	0.011	0.001	33.5	15	0.013	0.001	29.1	15
UterusWet	0.381	0.036	34.9	15	0.468	0.036	28.4	15	0.395	0.036	33.7	15
Adj. Adrenals	0.045	0.003	22.1	15	0.046	0.003	21.6	14	0.053*	0.003	18.9	15
Adj. Kidneys	1.605	0.083	19.0	15	1.546	0.047	10.5	15	1.554	0.050	10.5	15
Adj. Ovaries	0.084	0.006	24.5	15	0.088	0.006	23.4	14	0.079	0.006	26.1	15
Adj. Pituitary	0.014	0.001	25.0	14	0.012	0.001	29.6	15	0.014	0.001	25.5	15
Adj. UterusWet	0.371	0.040	36.1	15	0.460	0.039	29.2	15	0.384	0.040	34.9	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 22b. Summary Statistics for Corn Oil and Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for WIL Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	114.484	3.077	10.2	15	114.150	3.077	10.2	15	104.297*	3.077	11.2	15
Adrenals	0.041	0.001	13.6	15	0.043	0.001	13.1	15	0.044	0.001	12.6	15
Kidneys	1.627	0.047	11.1	15	1.590	0.031	7.5	15	1.522	0.031	7.8	15
Ovaries	0.063	0.003	19.9	15	0.062	0.003	20.2	15	0.060	0.003	21.0	15
Pituitary	0.010	0.000	16.8	15	0.010	0.000	17.6	15	0.009	0.000	18.3	15
UterusWet	0.334	0.033	36.8	15	0.409	0.033	30.1	15	0.402	0.033	30.6	15
Adj. Adrenals	0.045	0.002	12.2	15	0.046	0.002	11.9	15	0.047	0.002	11.5	15
Adj. Kidneys	1.682	0.068	11.4	15	1.636	0.049	7.1	15	1.570	0.050	7.4	15
Adj. Ovaries	0.065	0.005	19.6	15	0.063	0.005	20.0	15	0.061	0.005	20.7	15
Adj. Pituitary	0.010	0.001	17.6	15	0.009	0.001	18.3	15	0.009	0.001	19.1	15
Adj. UterusWet	0.376	0.052	32.7	15	0.444	0.047	27.7	15	0.438	0.048	28.1	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 22c. Summary Statistics for Corn Oil and Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables for Huntingdon Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	111.544	3.198	10.5	15	106.097	3.198	11.0	15	101.704*	3.198	11.5	15
Adrenals	0.047	0.002	13.7	14	0.045	0.002	14.3	15	0.045	0.002	14.3	15
Kidneys	1.470	0.032	7.9	15	1.384*	0.029	7.5	15	1.353*	0.029	7.6	15
Ovaries	0.092	0.004	14.1	14	0.090	0.004	14.4	15	0.080*	0.004	16.3	15
Pituitary	0.010	0.000	15.9	15	0.009	0.000	17.3	14	0.008*	0.000	18.1	15
UterusWet	0.371	0.054	53.3	15	0.421	0.054	47.1	15	0.353	0.054	56.1	15
Adj. Adrenals	0.047	0.002	13.9	14	0.045	0.002	14.4	15	0.045	0.002	14.5	15
Adj. Kidneys	1.454	0.026	6.4	15	1.373*	0.029	7.8	15	1.336*	0.030	8.0	15
Adj. Ovaries	0.093	0.004	13.9	14	0.090	0.004	14.4	15	0.080*	0.004	16.2	15
Adj. Pituitary	0.010	0.000	16.1	15	0.009	0.000	17.5	14	0.008*	0.000	18.4	15
Adj. UterusWet	0.378	0.056	52.8	15	0.424	0.055	47.0	15	0.360	0.056	55.5	15

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. Within laboratory CV was calculated as residual standard deviation/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 23. Summary Statistics for Corn Oil and DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables across Laboratories, Outliers Excluded[1,2,3].

Parameter	Corn Oil				DE-71 (30 mg/kg/day)				DE-71 (60 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	111.004	2.786	4.3	45	112.231	2.786	4.3	45	112.071	2.786	4.3	45
Adrenals	0.043	0.003	13.2	45	0.044	0.003	13.0	45	0.042	0.003	13.7	45
Kidneys	1.605	0.089	9.6	45	1.613	0.086	9.2	45	1.606	0.086	9.2	45
Ovaries	0.079	0.007	16.2	45	0.076	0.007	16.5	45	0.074	0.007	17.0	45
Pituitary	0.011	0.001	21.6	44	0.010	0.001	22.9	45	0.010	0.001	24.5	45
UterusWet	0.346	0.018	9.1	45	0.338	0.017	8.6	43	0.317	0.017	9.0	44
Adj. Adrenals	0.045	0.004	13.6	45	0.045	0.004	13.4	45	0.043	0.003	14.2	45
Adj. Kidneys	1.580	0.077	8.5	45	1.583	0.074	8.1	45	1.581	0.074	8.1	45
Adj. Ovaries	0.084	0.005	10.8	45	0.080	0.005	10.7	45	0.077*	0.005	10.8	45
Adj. Pituitary	0.011	0.002	25.4	44	0.011	0.002	26.8	45	0.010	0.002	28.6	45
Adj. UterusWet	0.356	0.017	8.5	45	0.350	0.017	8.3	43	0.328	0.016	8.5	44

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. CV was calculated as $\sqrt{3}$*standard error/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 24. Summary Statistics for Corn Oil and 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables across Laboratories, Outliers Excluded[1,2,3].

Parameter	Corn Oil				2-Chloronitrobenzene (25 mg/kg/day)				2-Chloronitrobenzene (100 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	111.004	2.786	4.3	45	113.450	2.798	4.3	44	110.297	2.786	4.4	45
Adrenals	0.043	0.003	13.2	45	0.044	0.003	13.0	44	0.039*	0.003	14.7	44
Kidneys	1.605	0.089	9.6	45	1.643	0.087	9.2	45	1.653	0.087	9.1	44
Ovaries	0.079	0.007	16.2	45	0.075	0.007	16.6	45	0.068*	0.007	18.3	44
Pituitary	0.011	0.001	21.6	44	0.010	0.001	24.4	44	0.009*	0.001	26.7	45
UterusWet	0.346	0.018	9.1	45	0.333	0.018	9.4	44	0.294*	0.018	10.6	45
Adj. Adrenals	0.045	0.004	13.6	45	0.045	0.003	13.5	44	0.040*	0.004	15.2	44
Adj. Kidneys	1.580	0.077	8.5	45	1.606	0.075	8.1	45	1.624	0.075	8.0	44
Adj. Ovaries	0.084	0.005	10.8	45	0.078	0.005	10.9	45	0.071*	0.005	11.5	44
Adj. Pituitary	0.011	0.002	25.4	44	0.010	0.002	28.4	44	0.009*	0.002	31.1	45
Adj. UterusWet	0.356	0.017	8.5	45	0.347	0.018	9.1	44	0.308*	0.018	10.2	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control, two doses of DE-71, and two doses of 2-Chloronitrobenzene.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. CV was calculated as $\sqrt{3}$*standard error/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

Table 25. Summary Statistics for Corn Oil and Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Variables across Laboratories, Outliers Excluded[1,2,3].

Parameter	Corn Oil				Methoxychlor (12.5 mg/kg/day)				Methoxychlor (50 mg/kg/day)			
	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N	LS Mean	Std Error	CV	N
BodyWeight Gain	113.397	1.749	2.7	45	109.502	1.749	2.8	45	103.662*	1.749	2.9	45
Adrenals	0.045	0.002	7.9	44	0.045	0.002	7.9	44	0.047	0.002	7.5	45
Kidneys	1.597	0.075	8.1	45	1.527*	0.072	8.2	45	1.492*	0.072	8.4	45
Ovaries	0.080	0.008	17.7	44	0.079	0.008	17.8	44	0.072*	0.008	19.5	45
Pituitary	0.011	0.001	16.6	44	0.010	0.001	17.8	44	0.010*	0.001	18.1	45
UterusWet	0.358	0.022	10.9	45	0.432*	0.022	9.0	45	0.389	0.022	10.0	45
Adj. Adrenals	0.045	0.001	5.0	44	0.045	0.001	4.8	44	0.047	0.001	4.7	45
Adj. Kidneys	1.586	0.078	8.5	45	1.517*	0.076	8.6	45	1.477*	0.076	8.9	45
Adj. Ovaries	0.081	0.008	16.6	44	0.080	0.008	16.6	44	0.074*	0.008	18.1	45
Adj. Pituitary	0.011	0.001	22.0	44	0.010	0.001	23.5	44	0.010*	0.001	24.0	45
Adj. UterusWet	0.368	0.026	12.1	45	0.441*	0.024	9.6	45	0.398	0.025	11.0	45

1. Least squares means and standard errors were estimated based on a mixed effects model applied to the data for control and two doses of Methoxychlor.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effects model with mean centered initial body weight as a covariate.
3. CV was calculated as $\sqrt{3}$*standard error/LS Mean.

* --- Significantly different from corn oil at the 0.05 level.

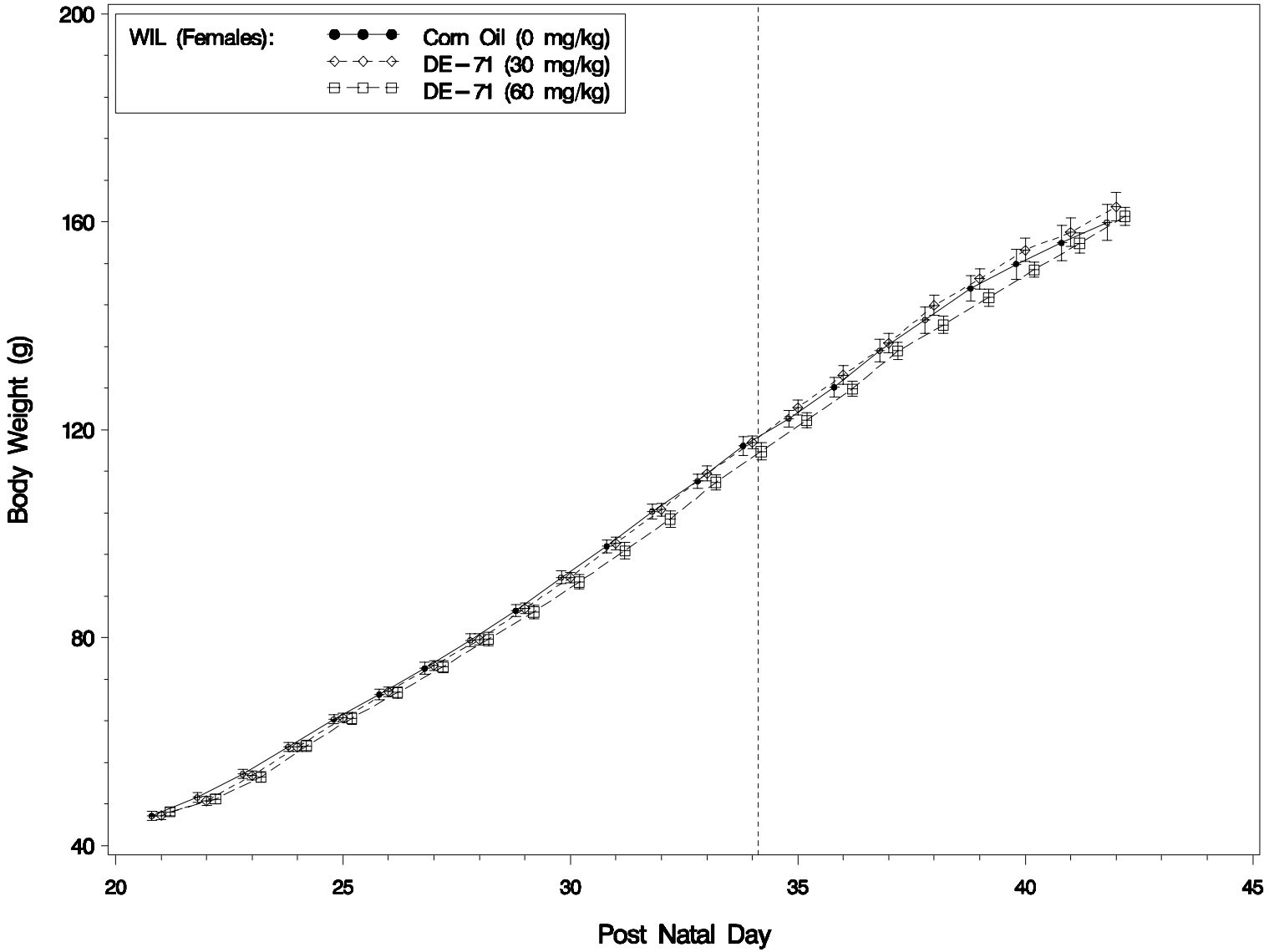


Figure 1. **<u>WIL Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two DE-71 Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

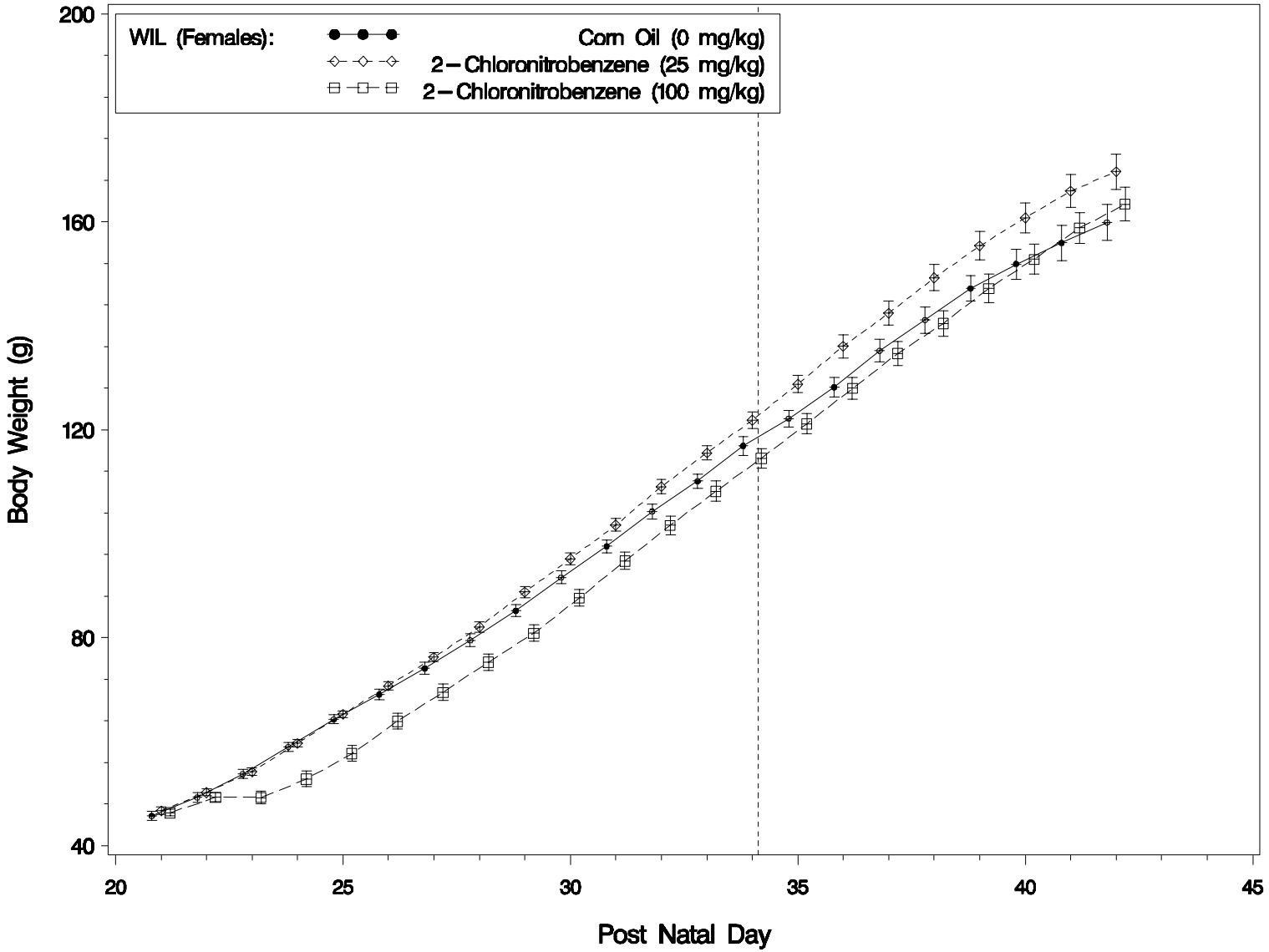


Figure 2. **<u>WIL Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two 2-Chloronitrobenzene Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

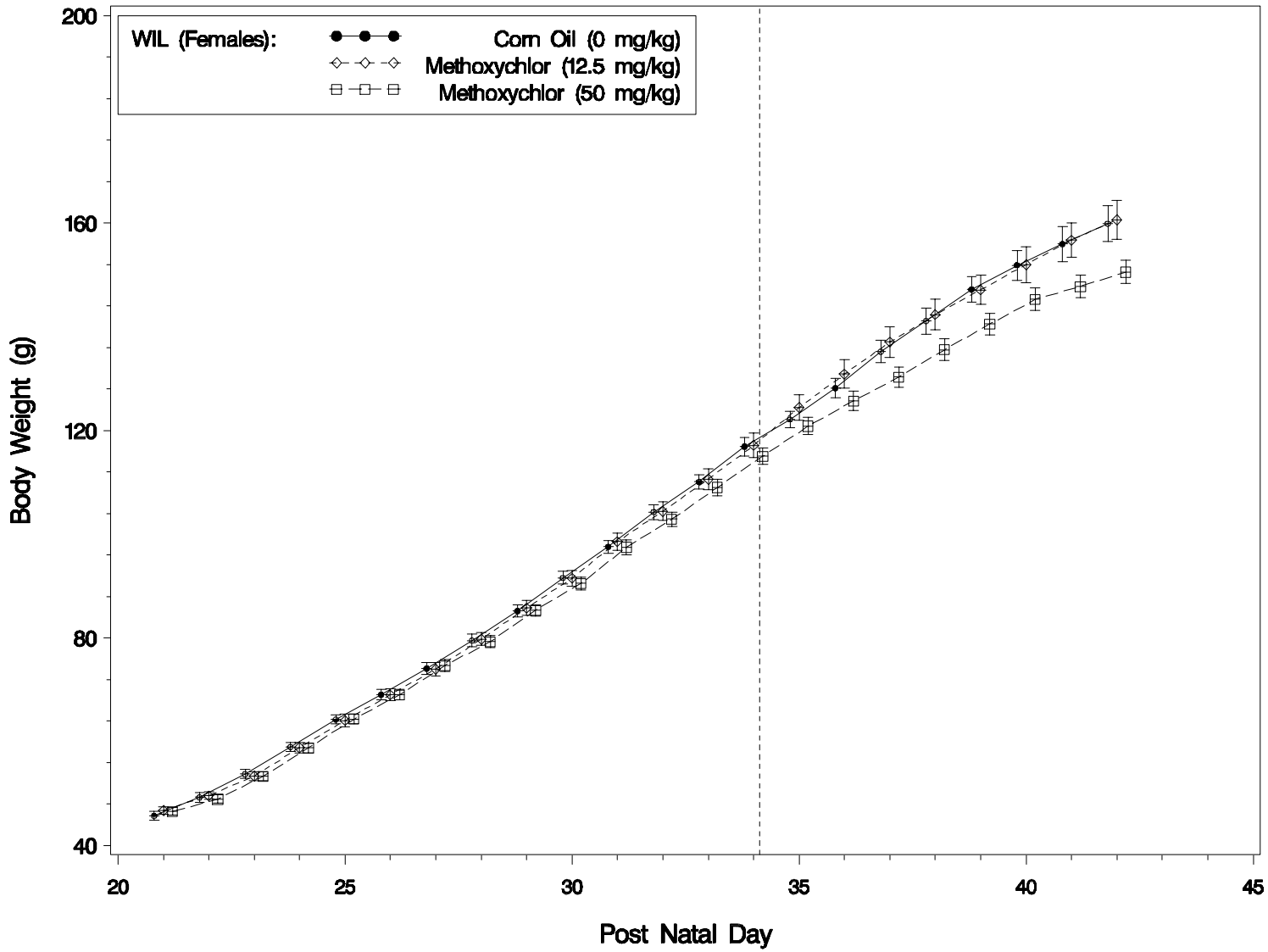


Figure 3. **<u>WIL Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two Methoxychlor Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

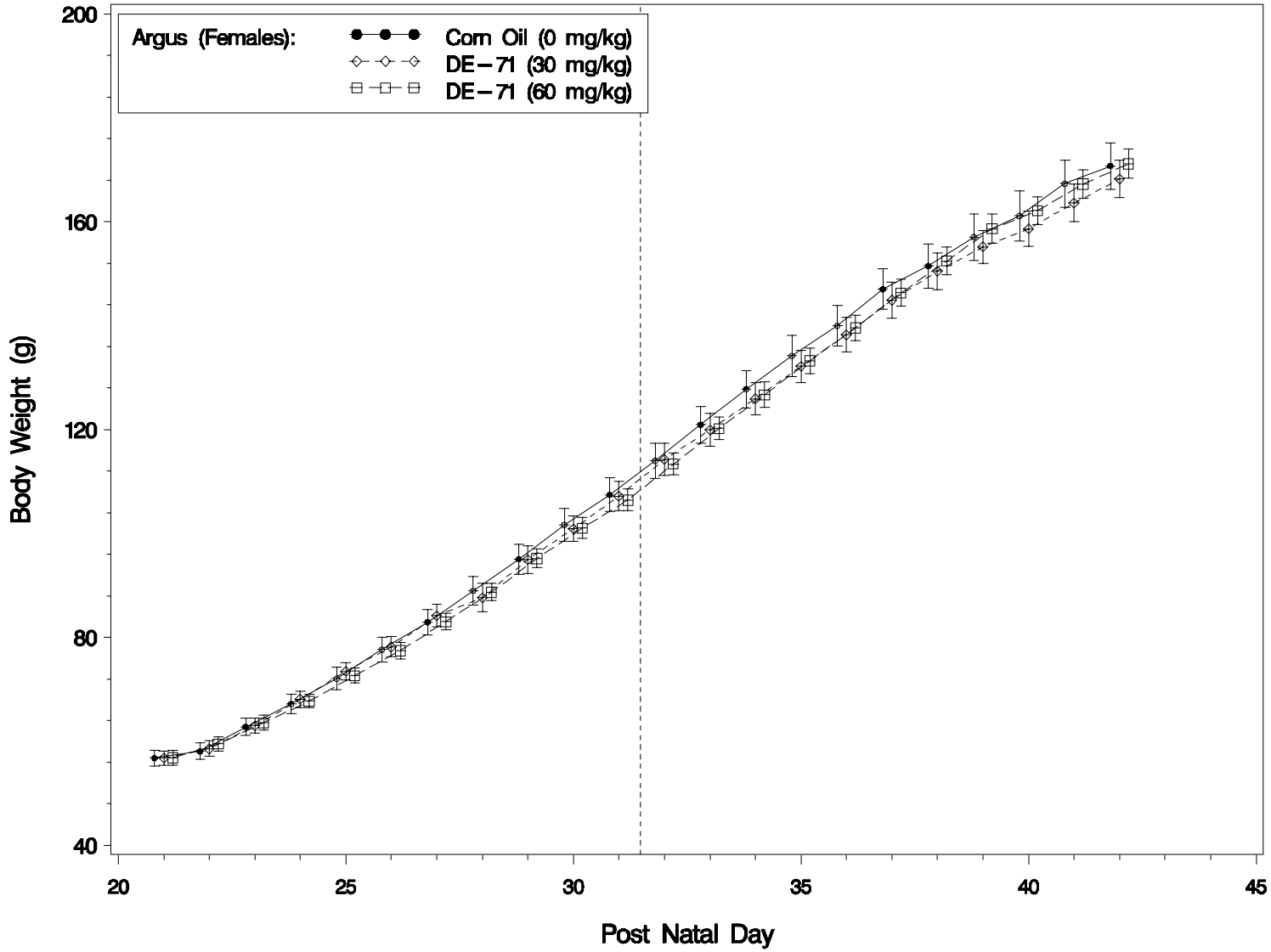


Figure 4. **<u>Argus Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two DE-71 Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

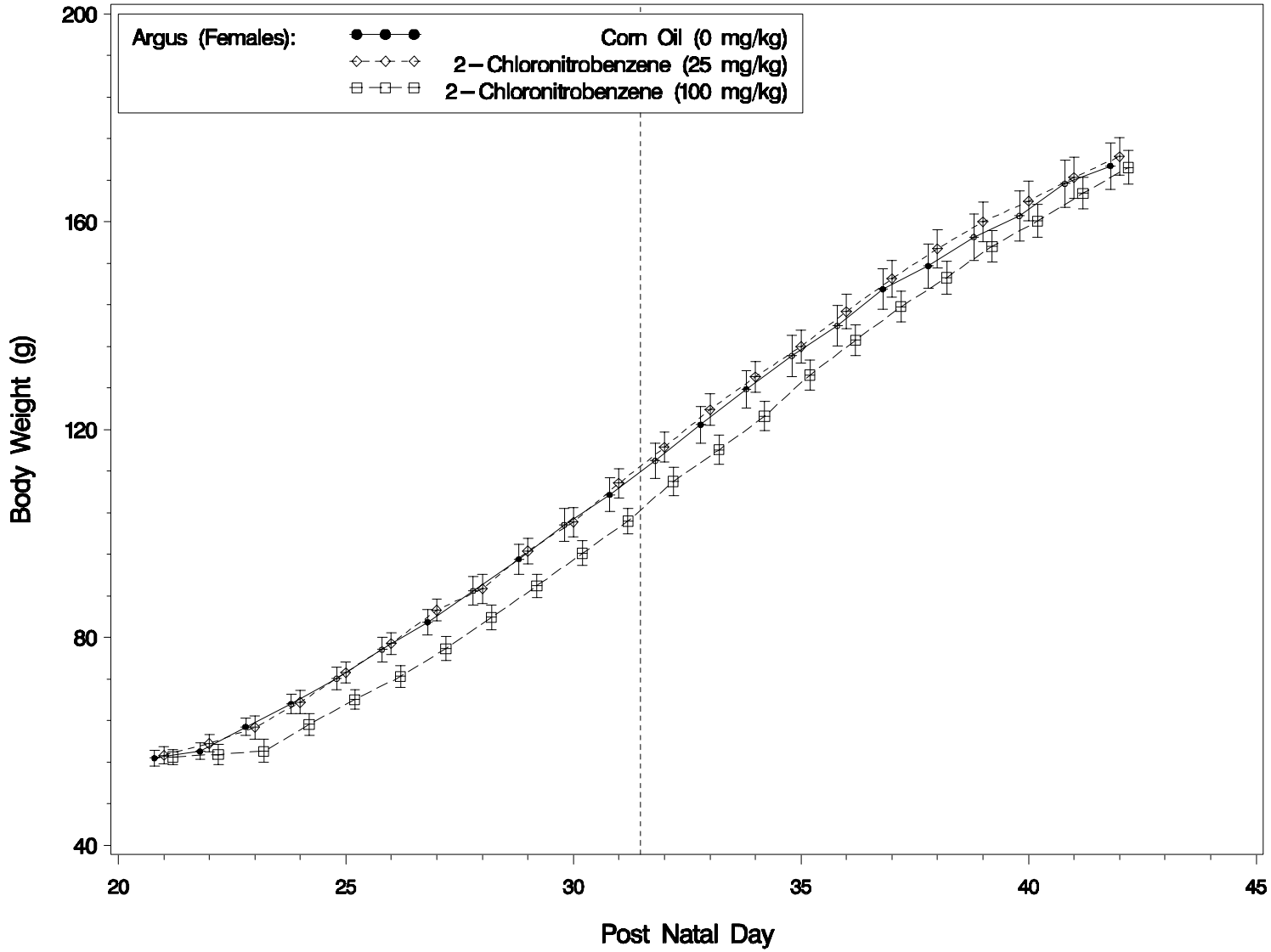


Figure 5. **<u>Argus Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two 2-Chloronitrobenzene Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

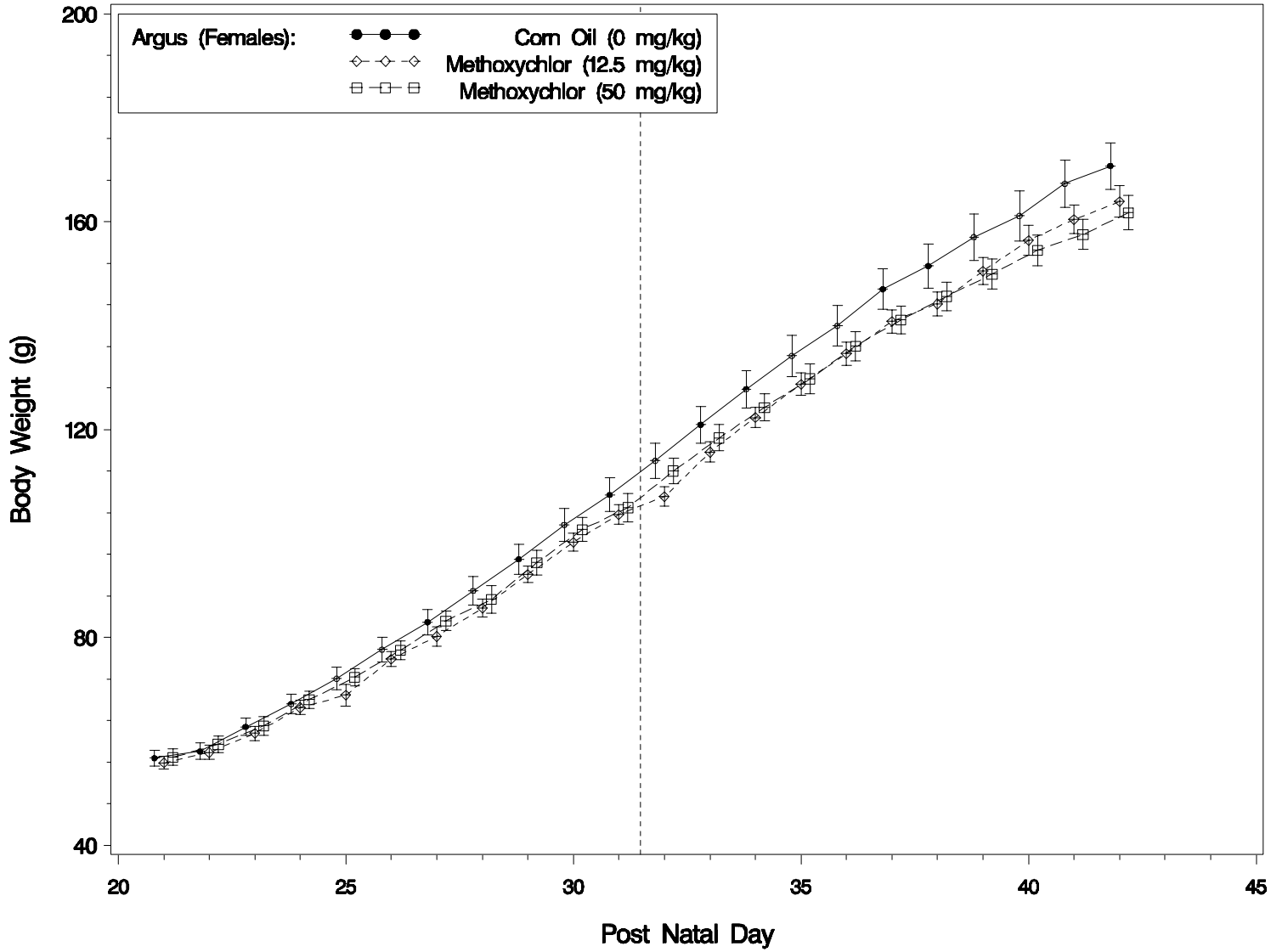


Figure 6. **<u>Argus Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two Methoxychlor Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

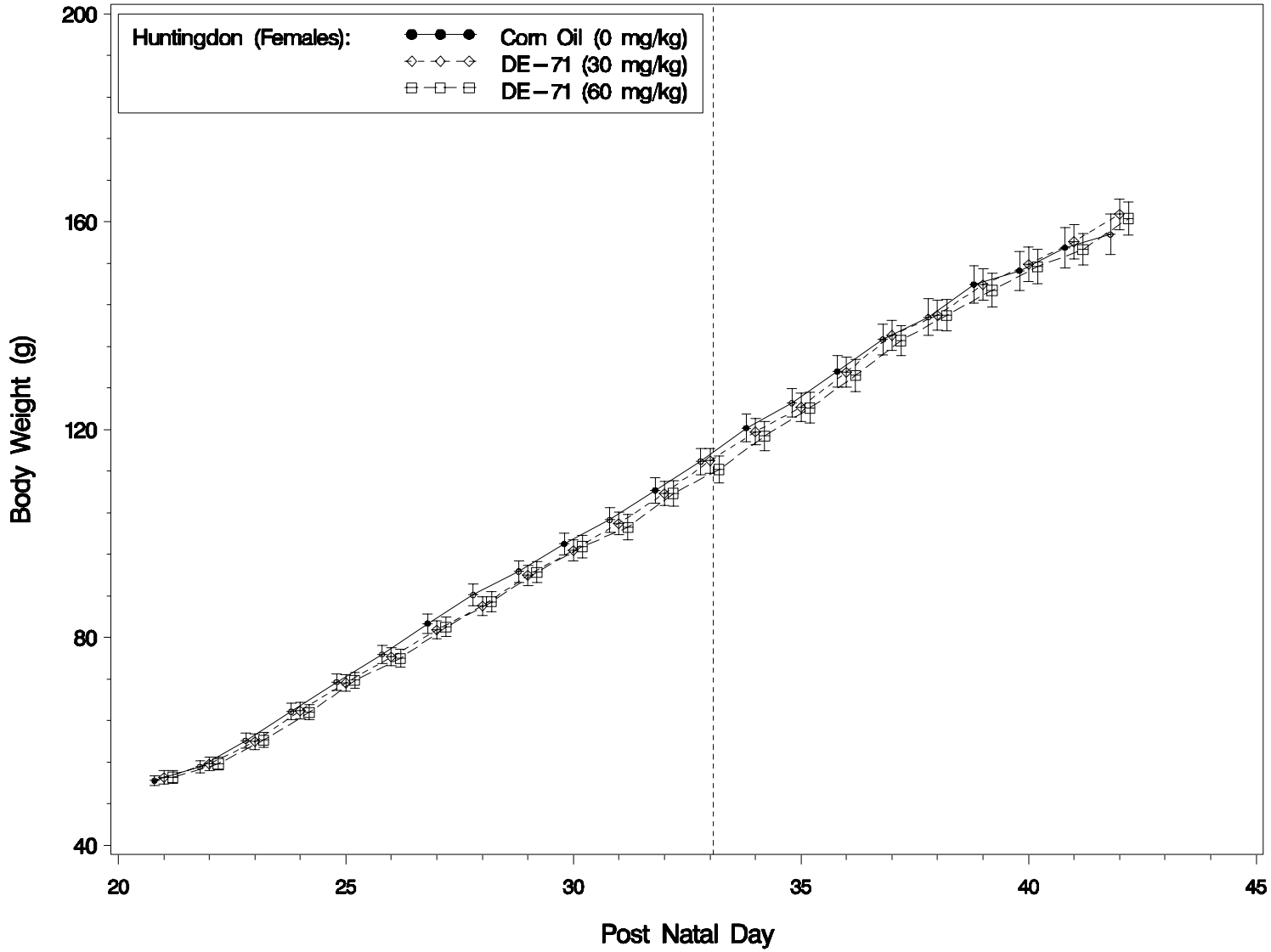


Figure 7. **<u>Huntingdon Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two DE-71 Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

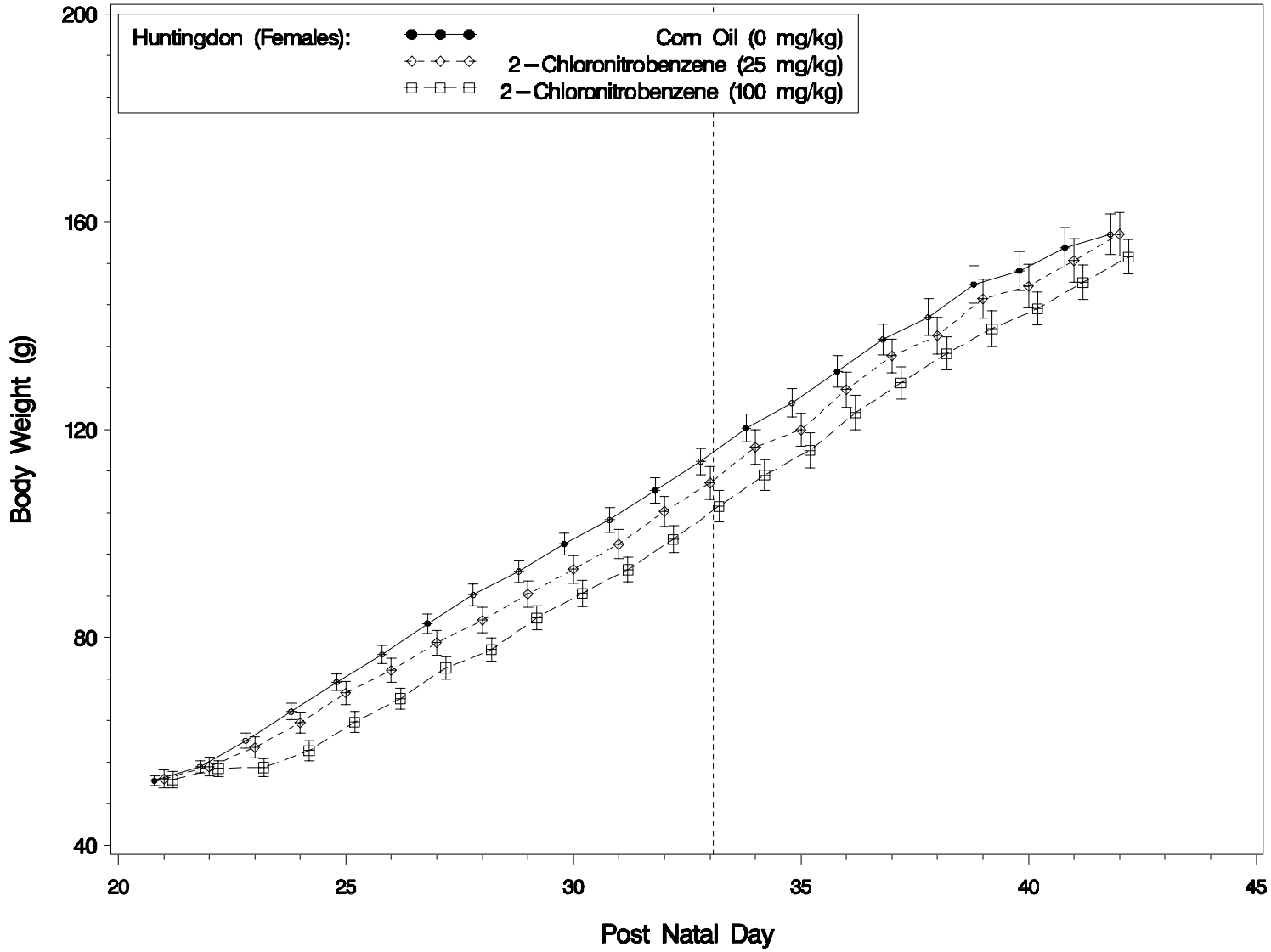


Figure 8. **<u>Huntingdon Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two 2-Chloronitrobenzene Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

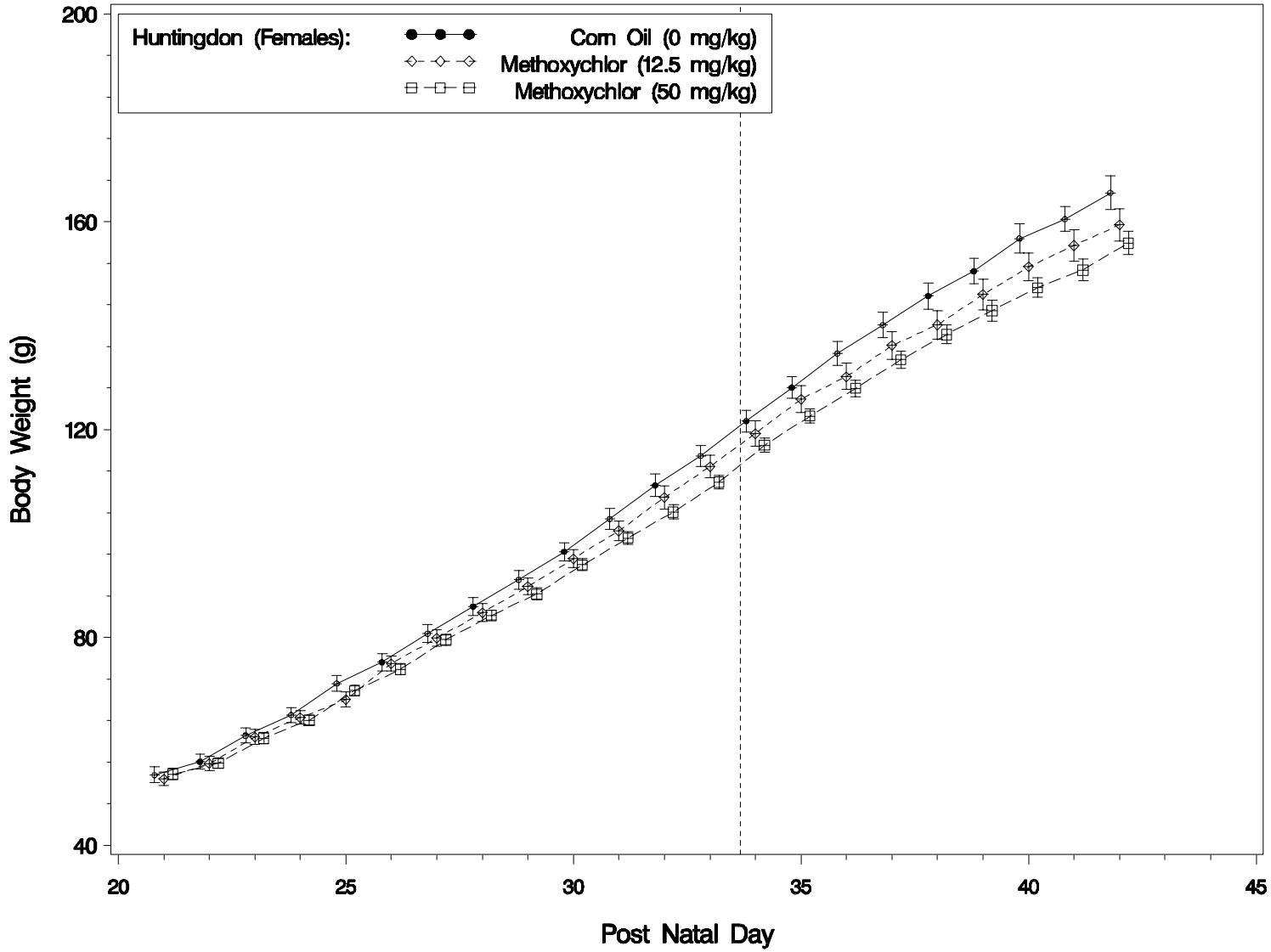


Figure 9. **<u>Huntingdon Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two Methoxychlor Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

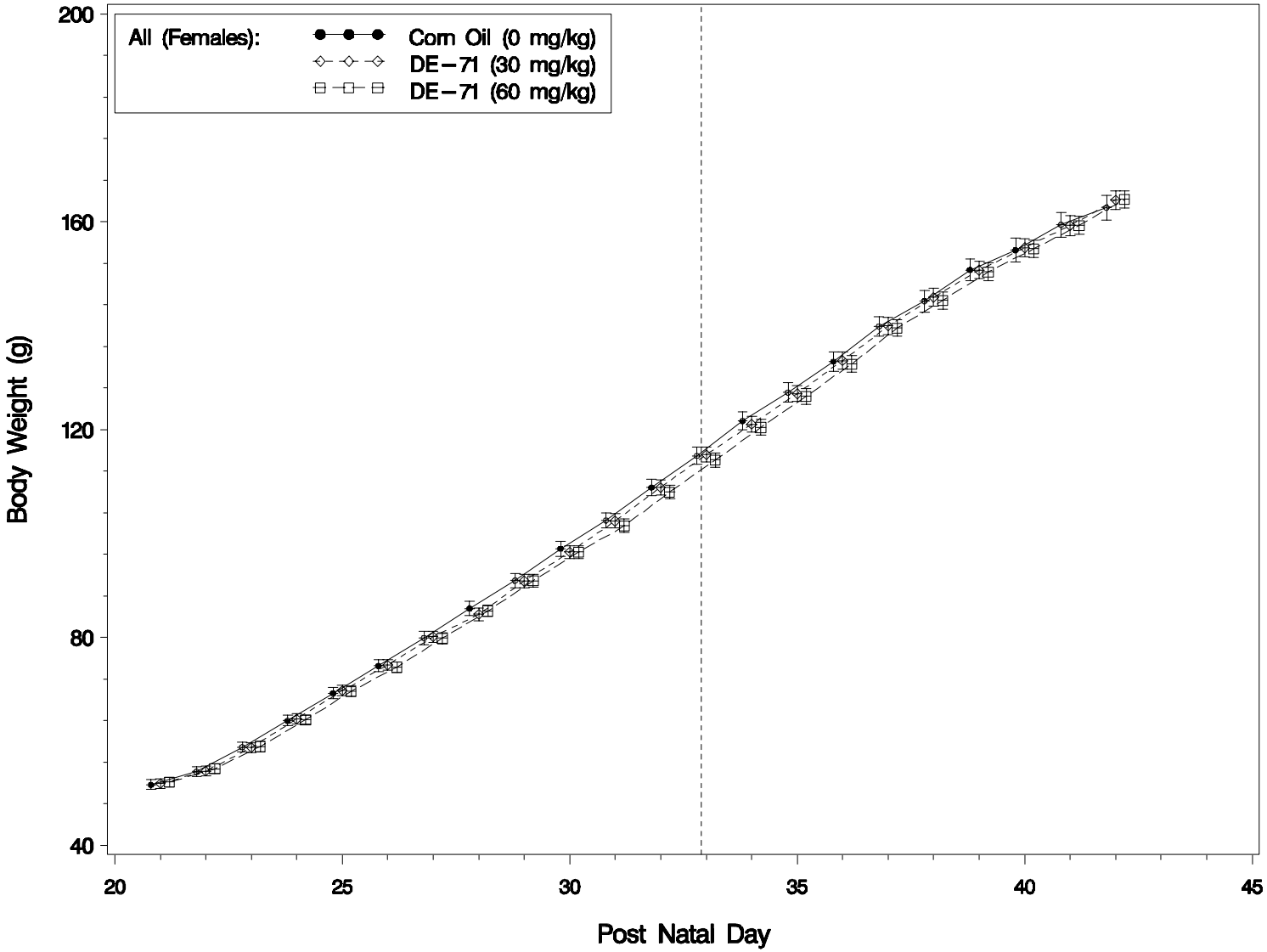


Figure 10. **<u>All Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two DE-71 Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

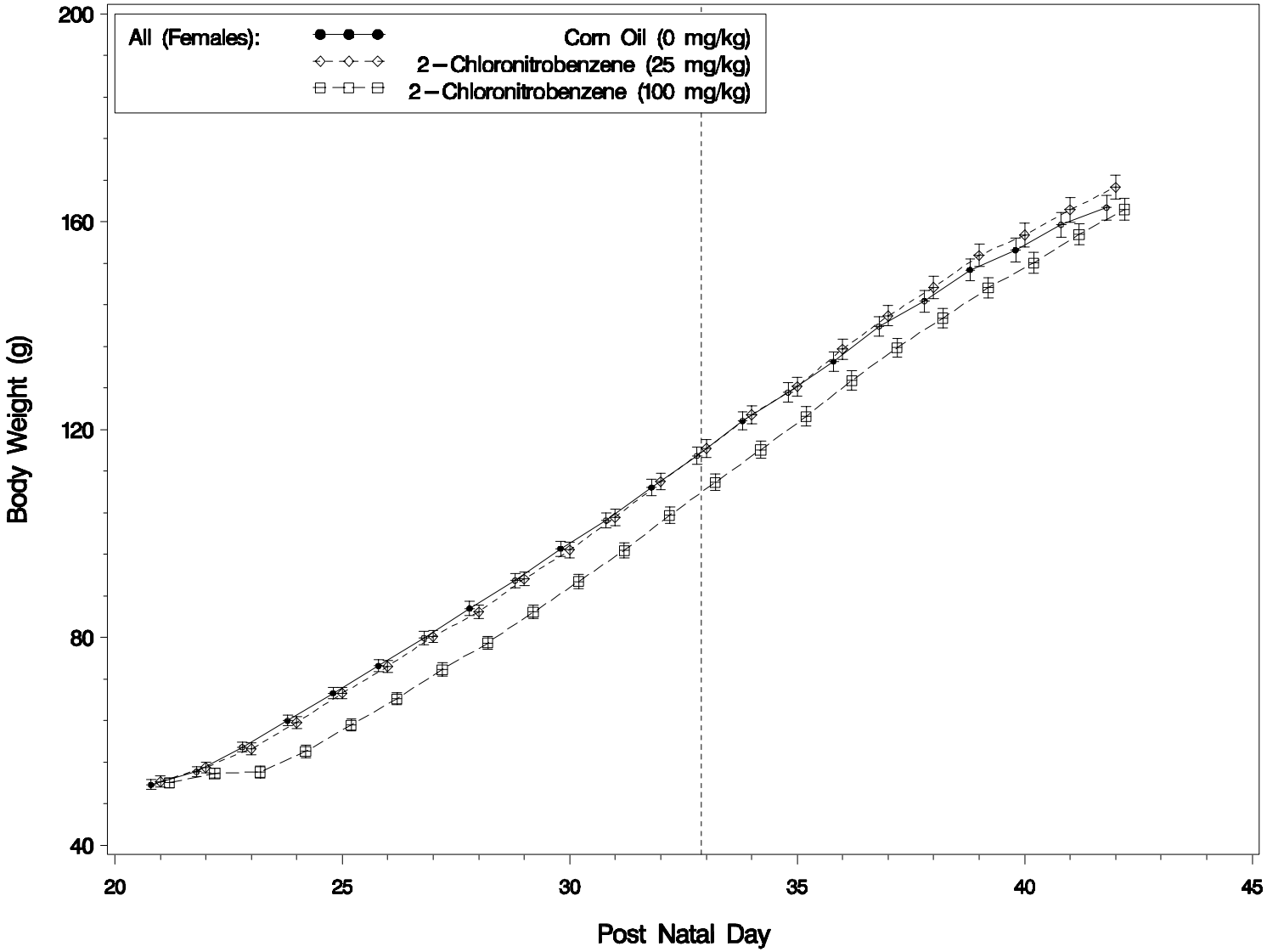


Figure 11. **<u>All Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two 2-Chloronitrobenzene Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

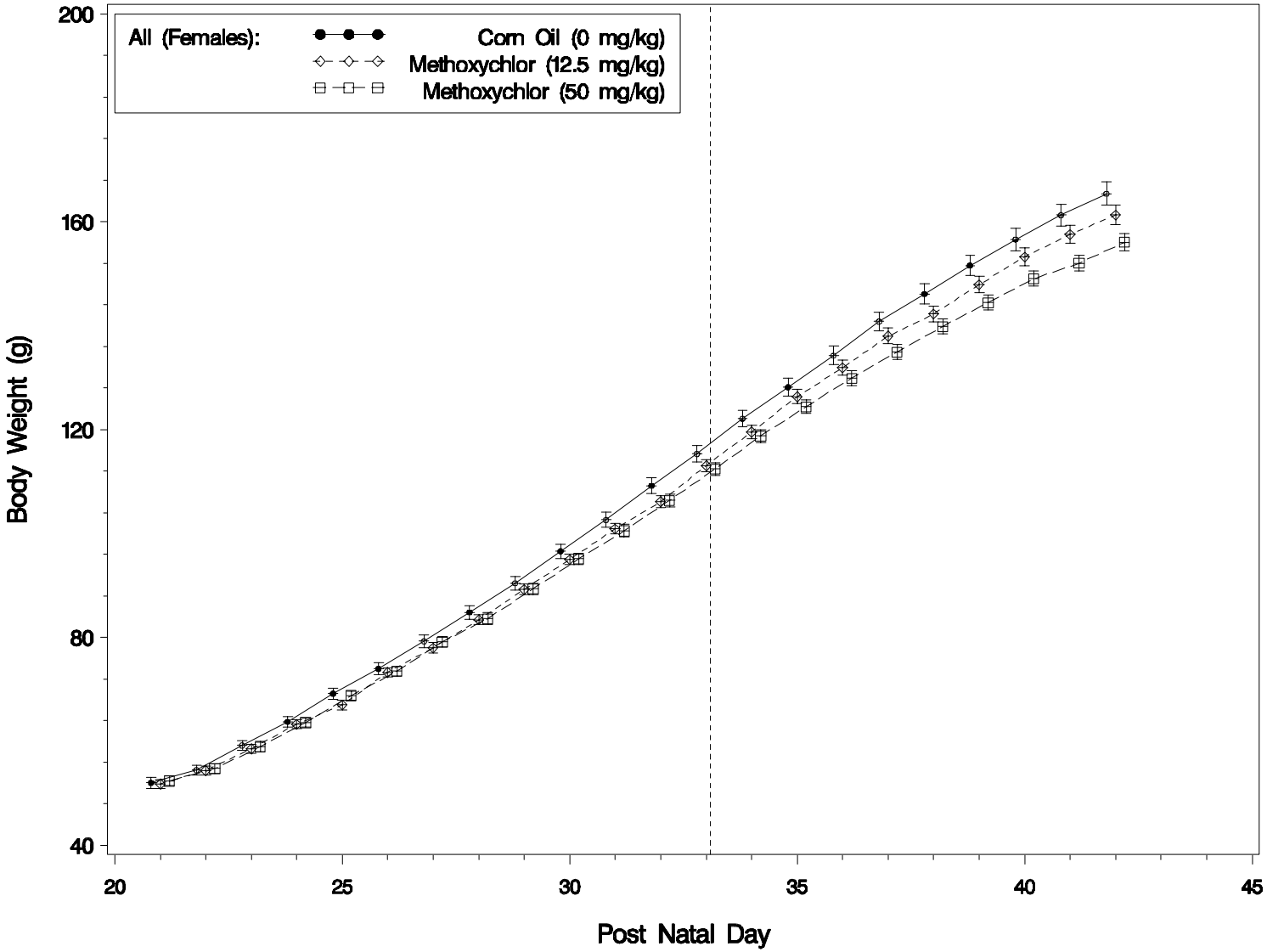


Figure 12. **<u>All Females</u> Means (with ± 2 Standard Error Bars) of Body Weights (g) on Each Day from Weaning through Dosing (PND 21 to PND 42) for the Control Group (Corn Oil) and the Two Methoxychlor Dose Groups. The Reference Line Corresponds to the Mean Age of the Control Group at VO.**

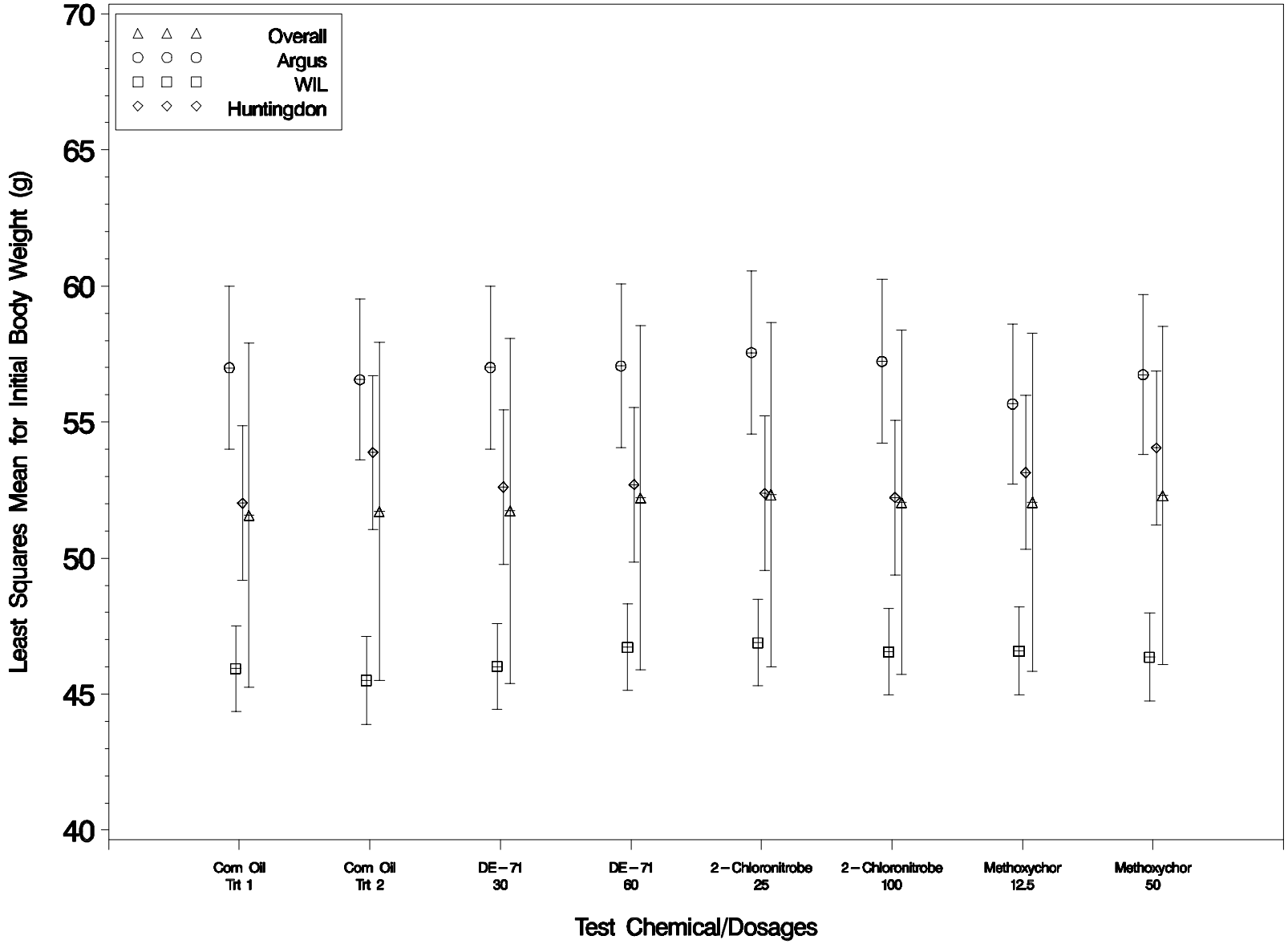


Figure 13. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Initial Body Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

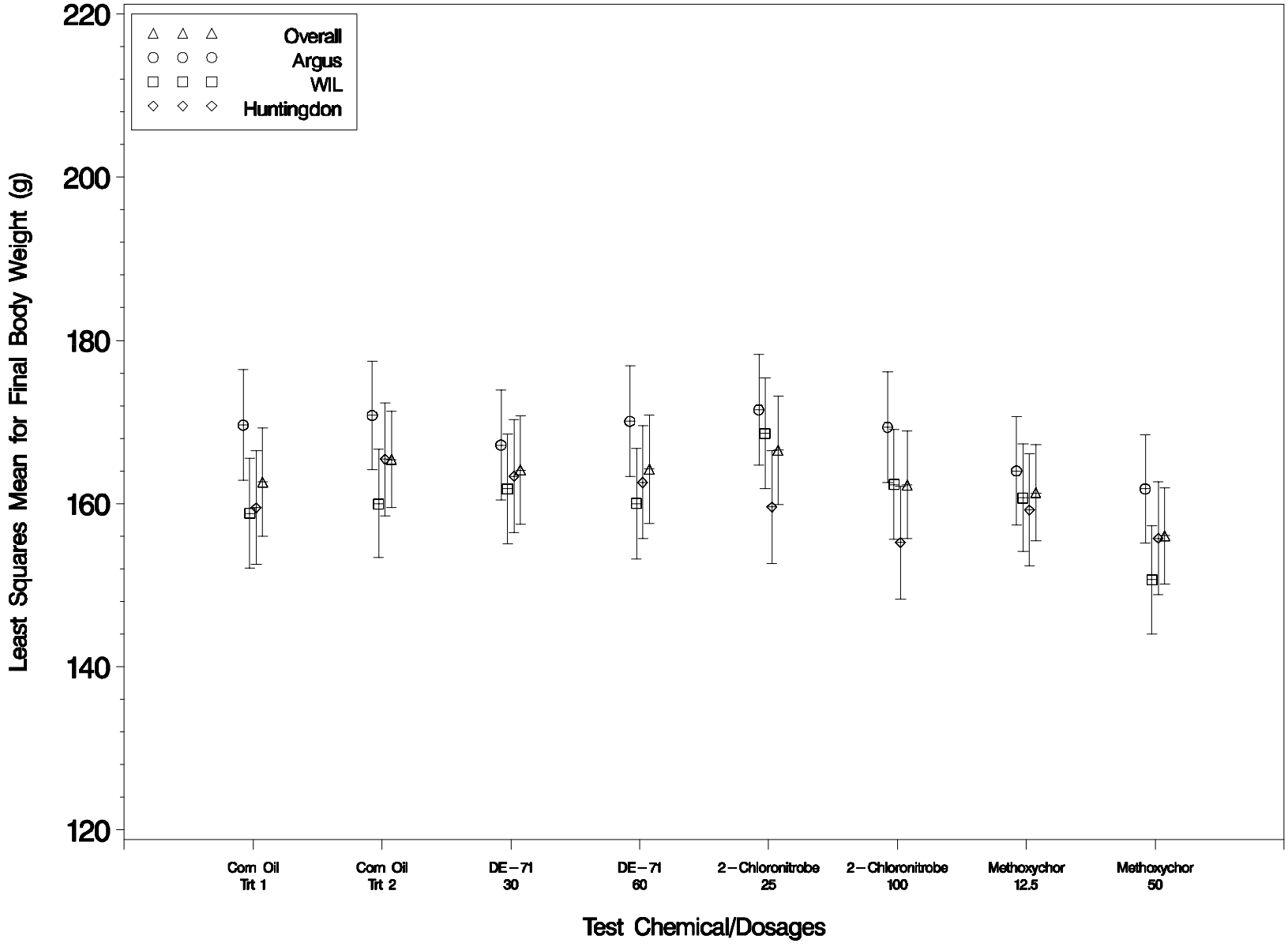


Figure 14. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Final Body Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

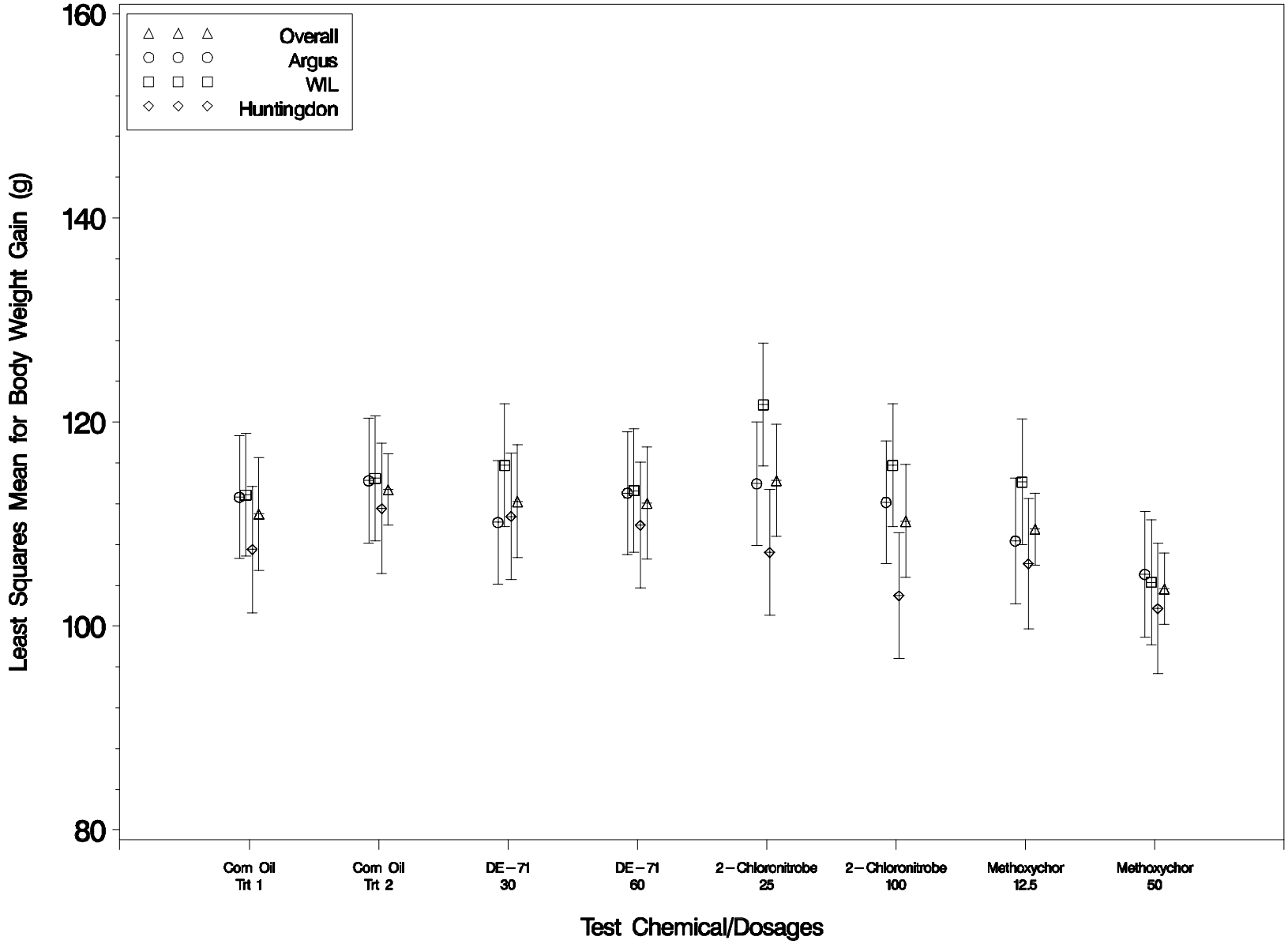


Figure 15. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Body Weight Gain (g) for Each Dose Group across Laboratories and for Each Laboratory.

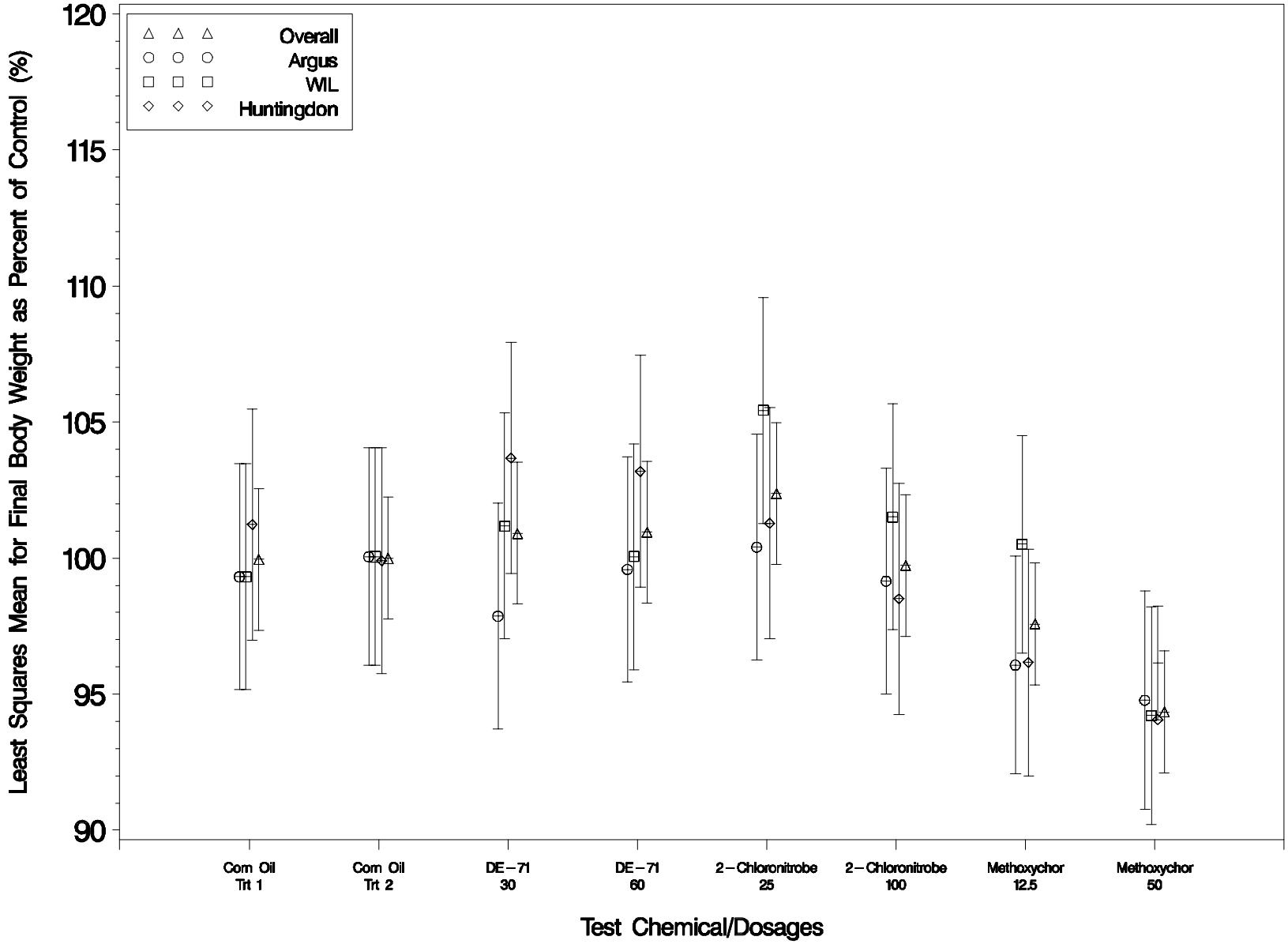


Figure 16. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Final Body Weight as Percent of Control (%) for Each Dose Group across Laboratories and for Each Laboratory.

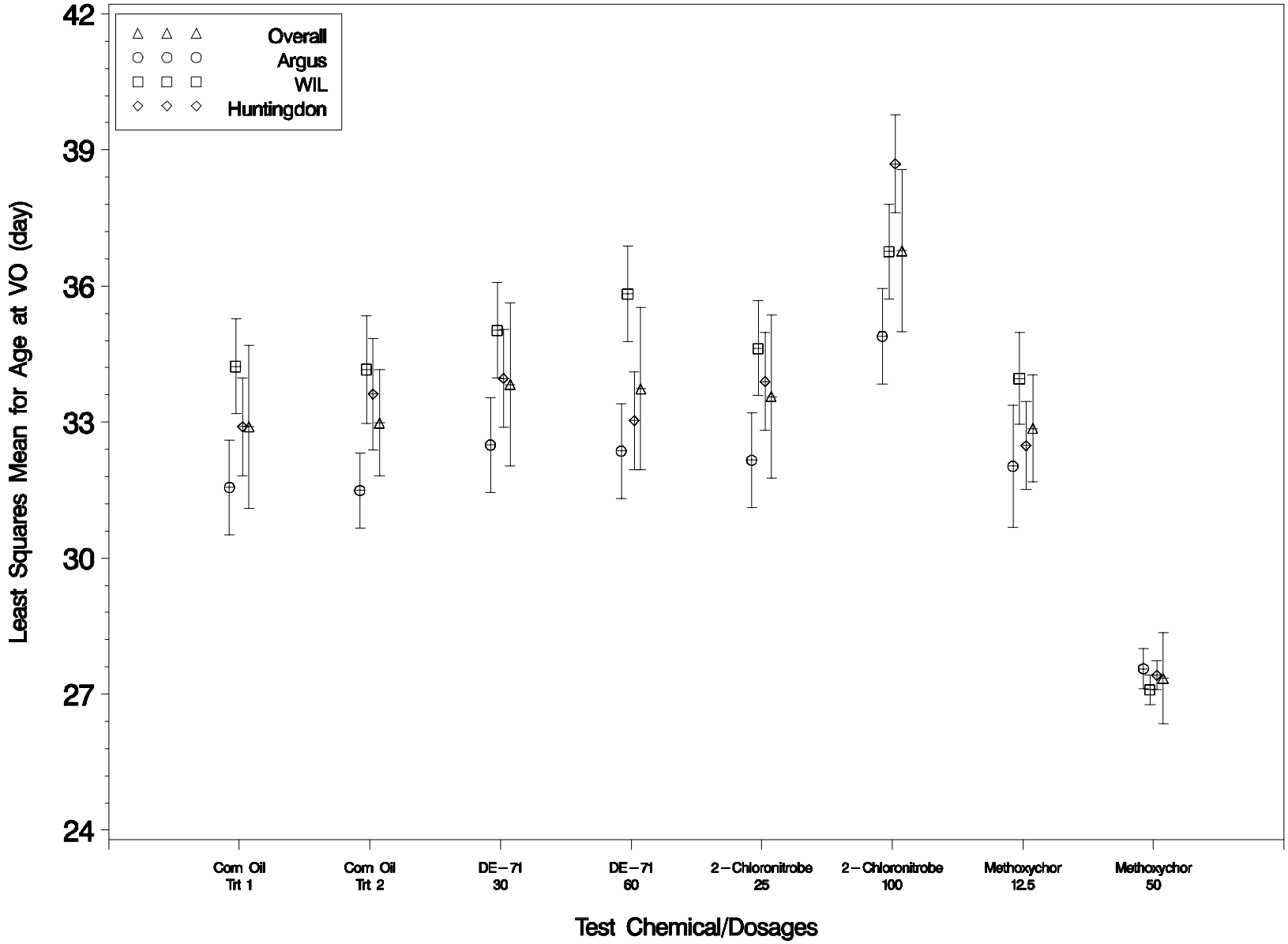


Figure 17. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Age at VO (day) for Each Dose Group across Laboratories and for Each Laboratory.

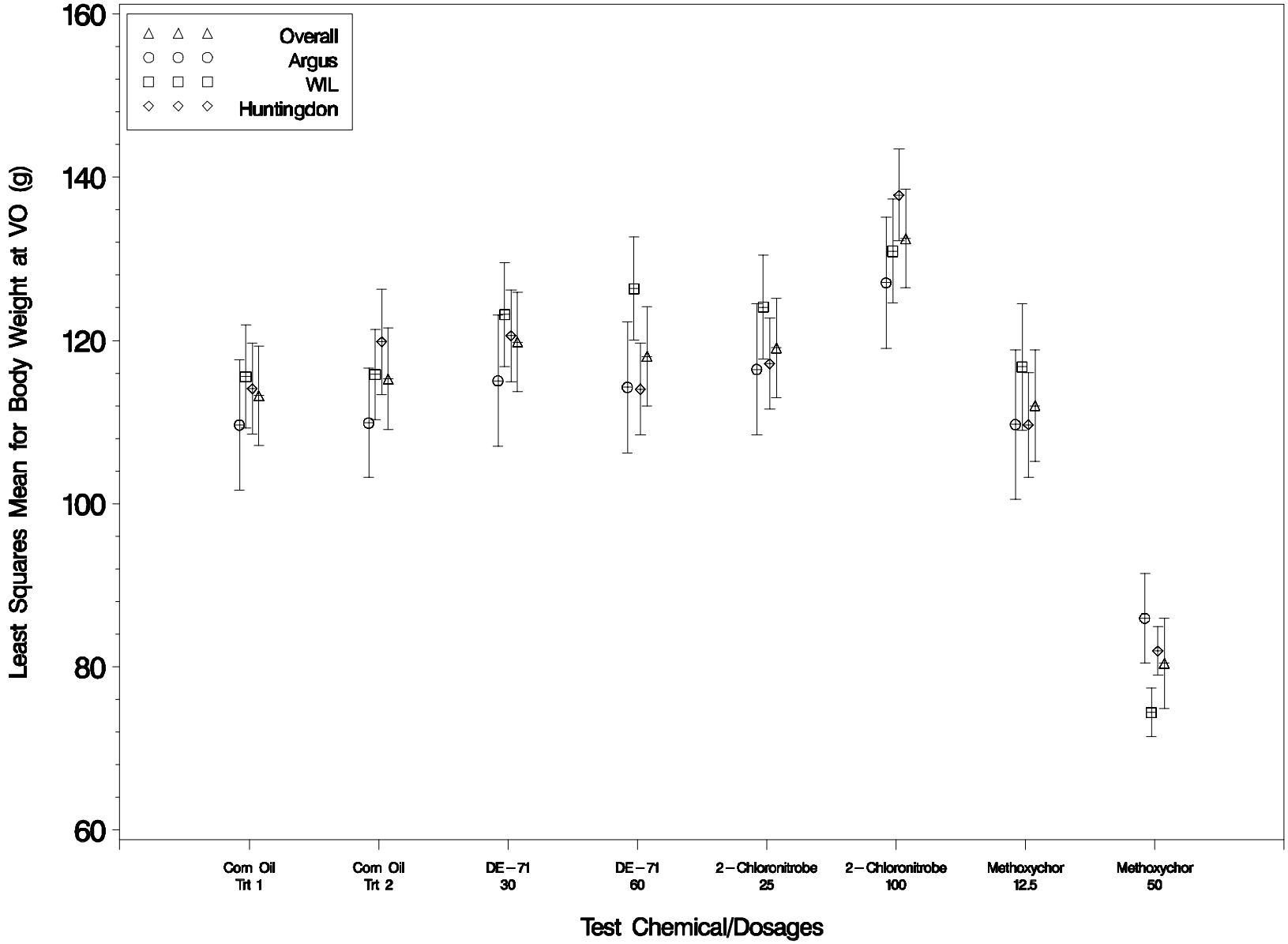


Figure 18. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Body Weight at VO (g) for Each Dose Group across Laboratories and for Each Laboratory.

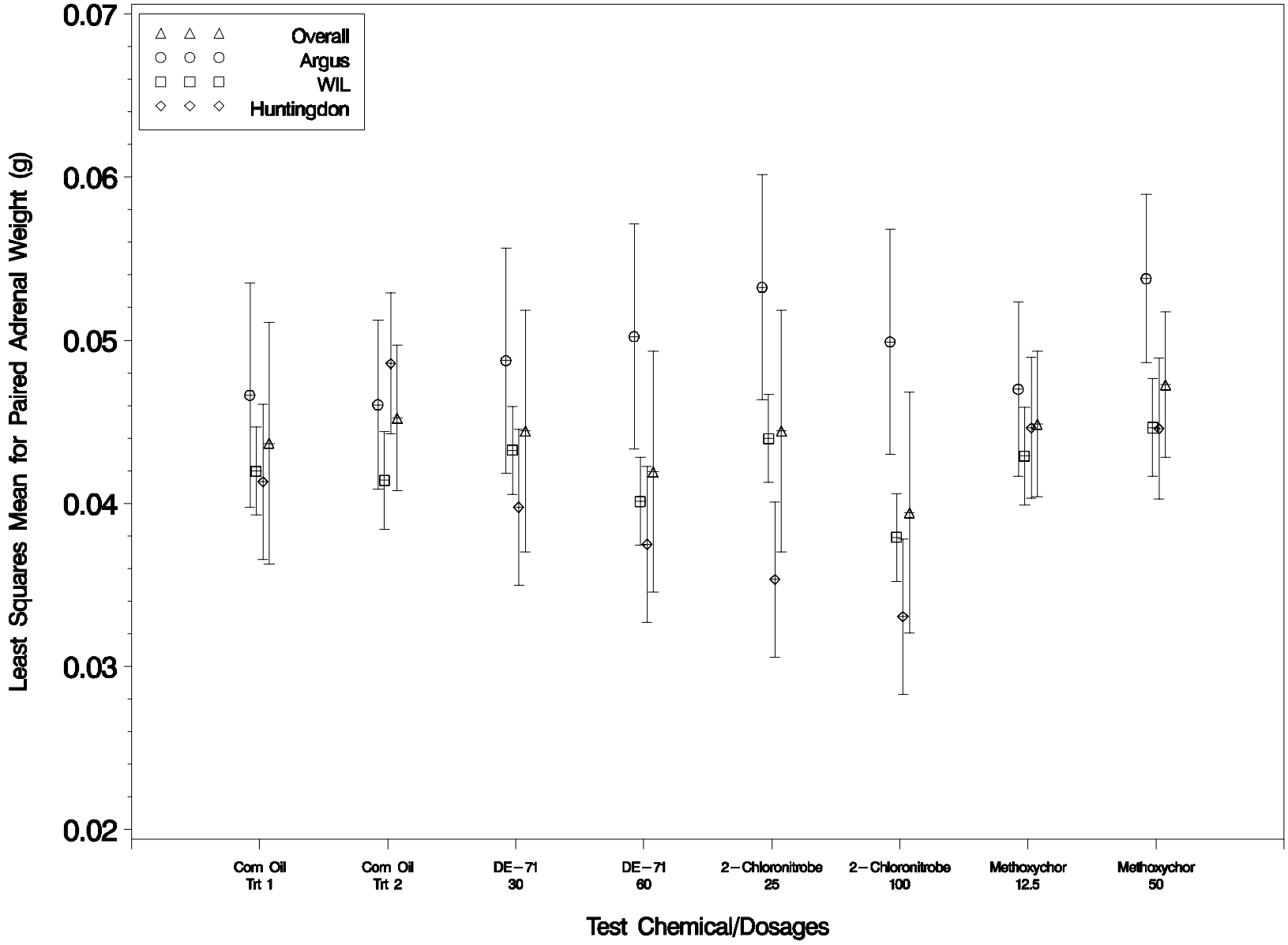


Figure 19. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Paired Adrenal Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

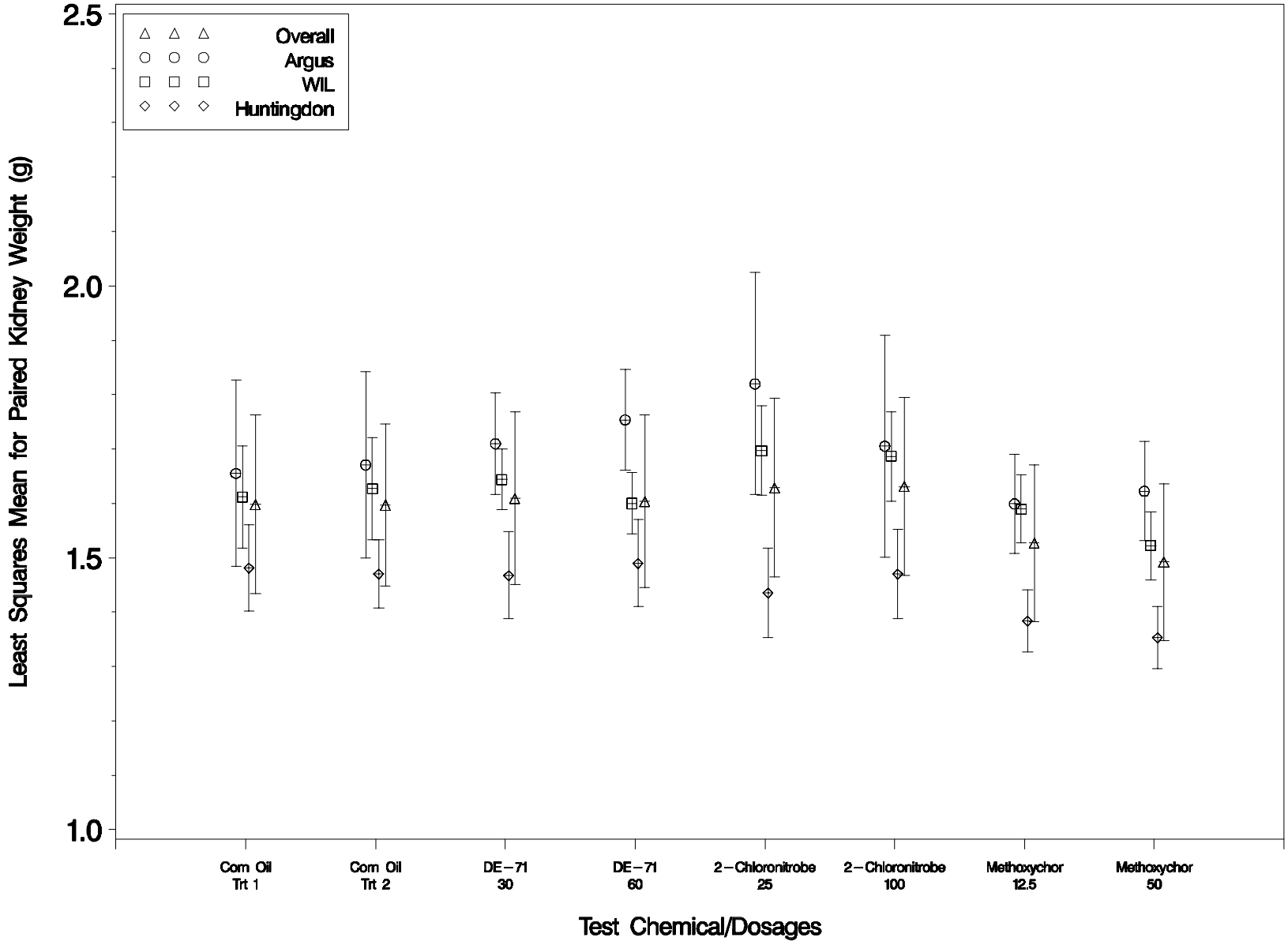


Figure 20. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Paired Kidney Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

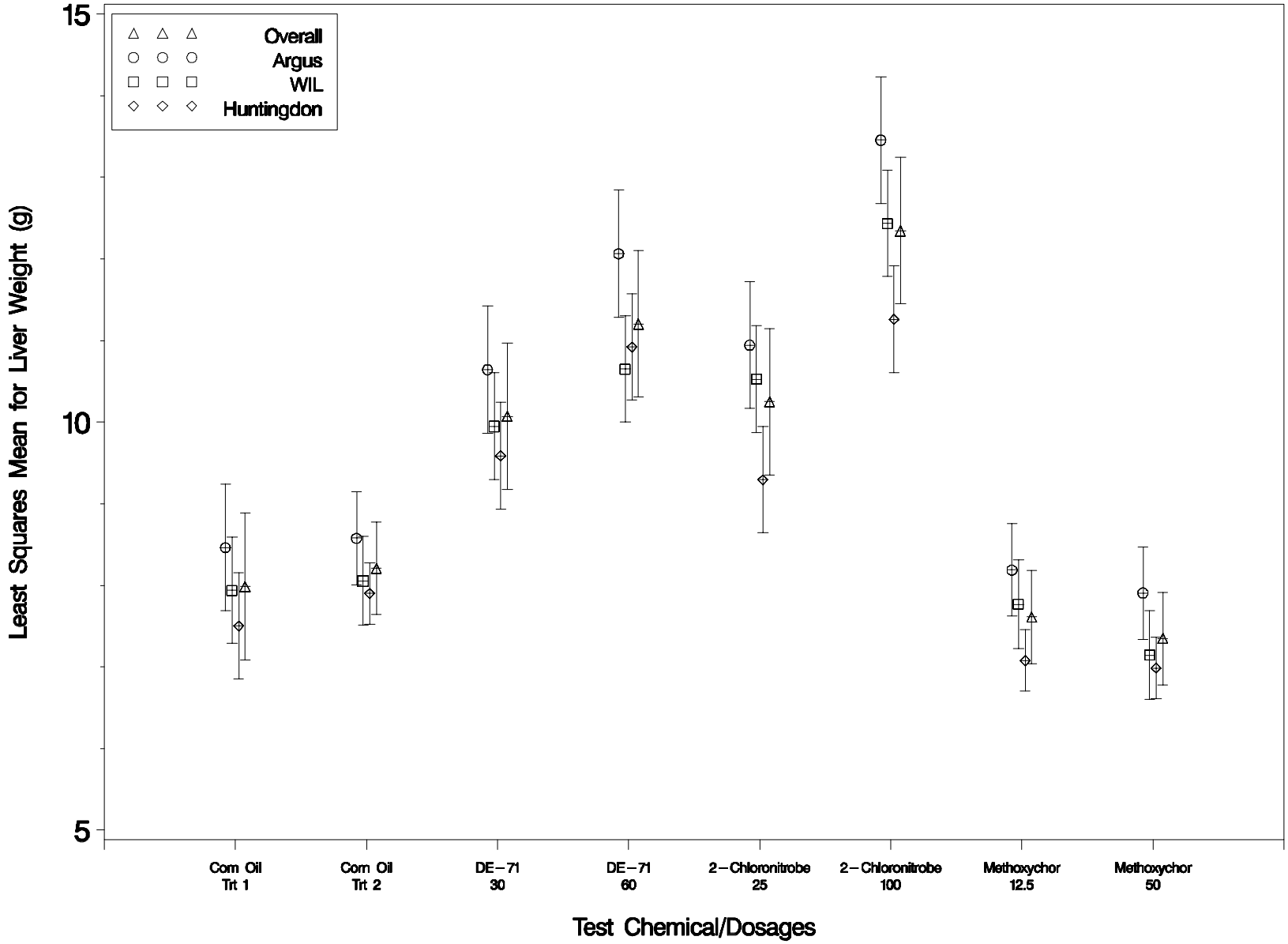


Figure 21. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Liver Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

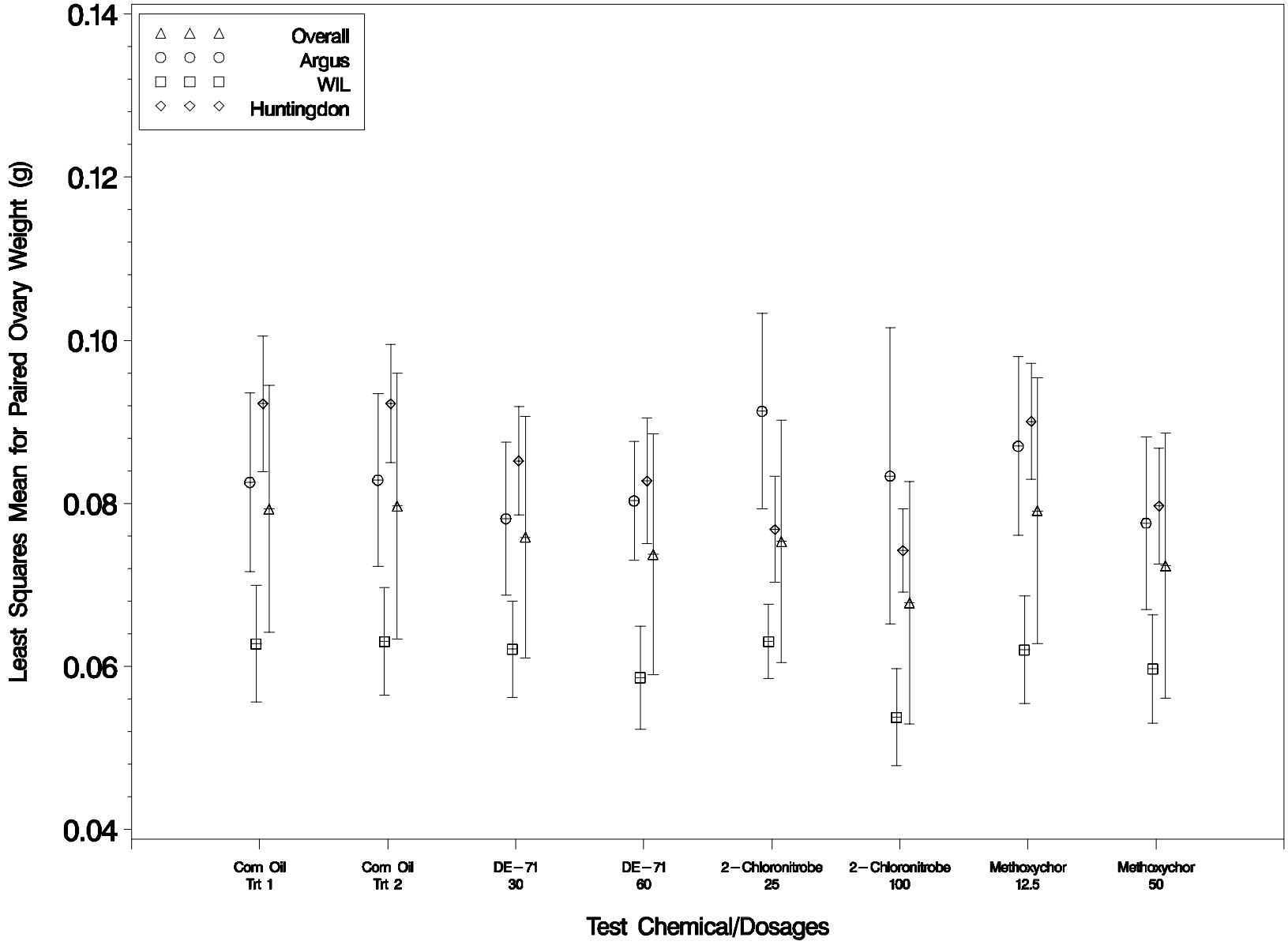


Figure 22. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Paired Ovary Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

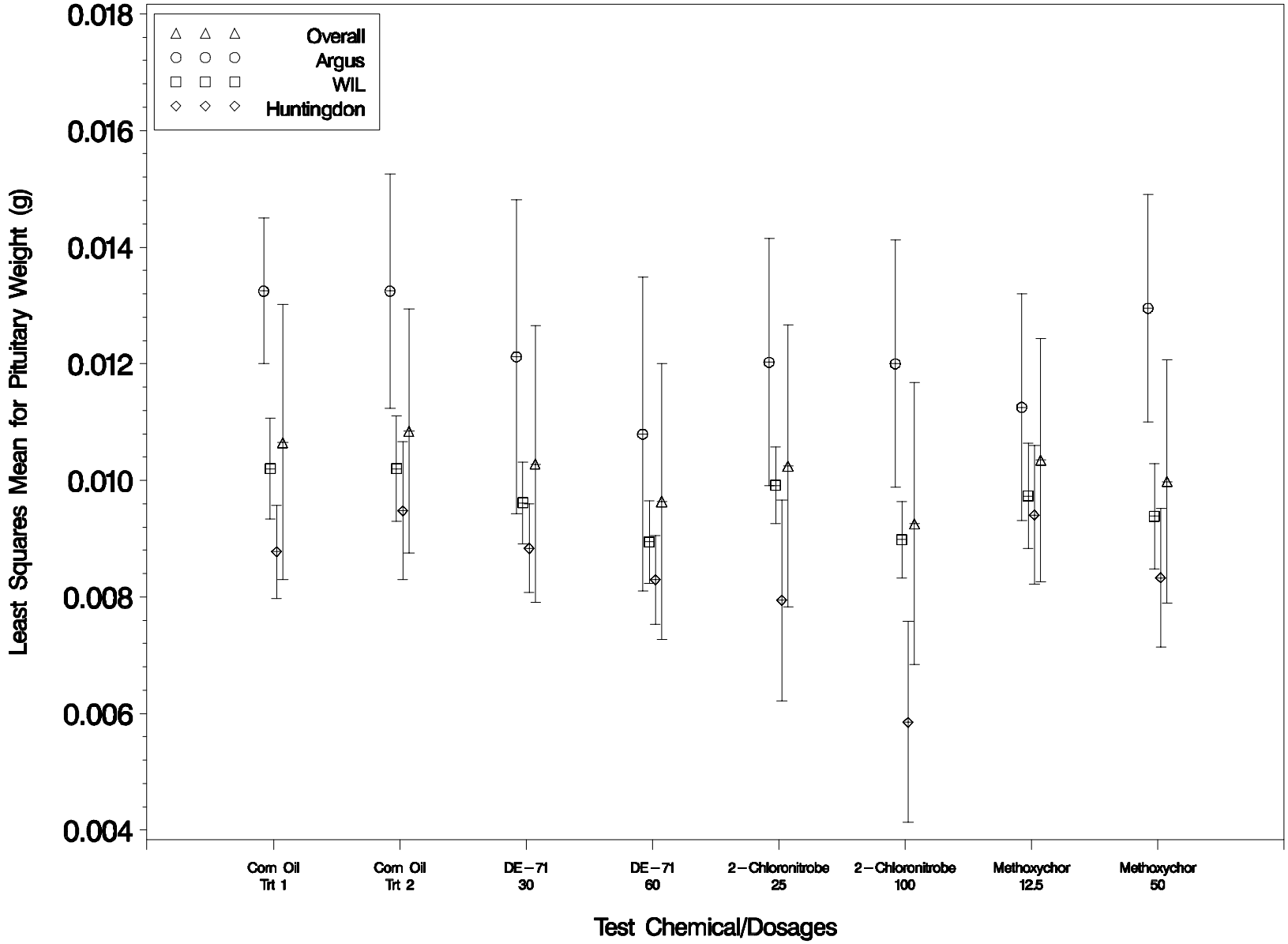


Figure 23. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Pituitary Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

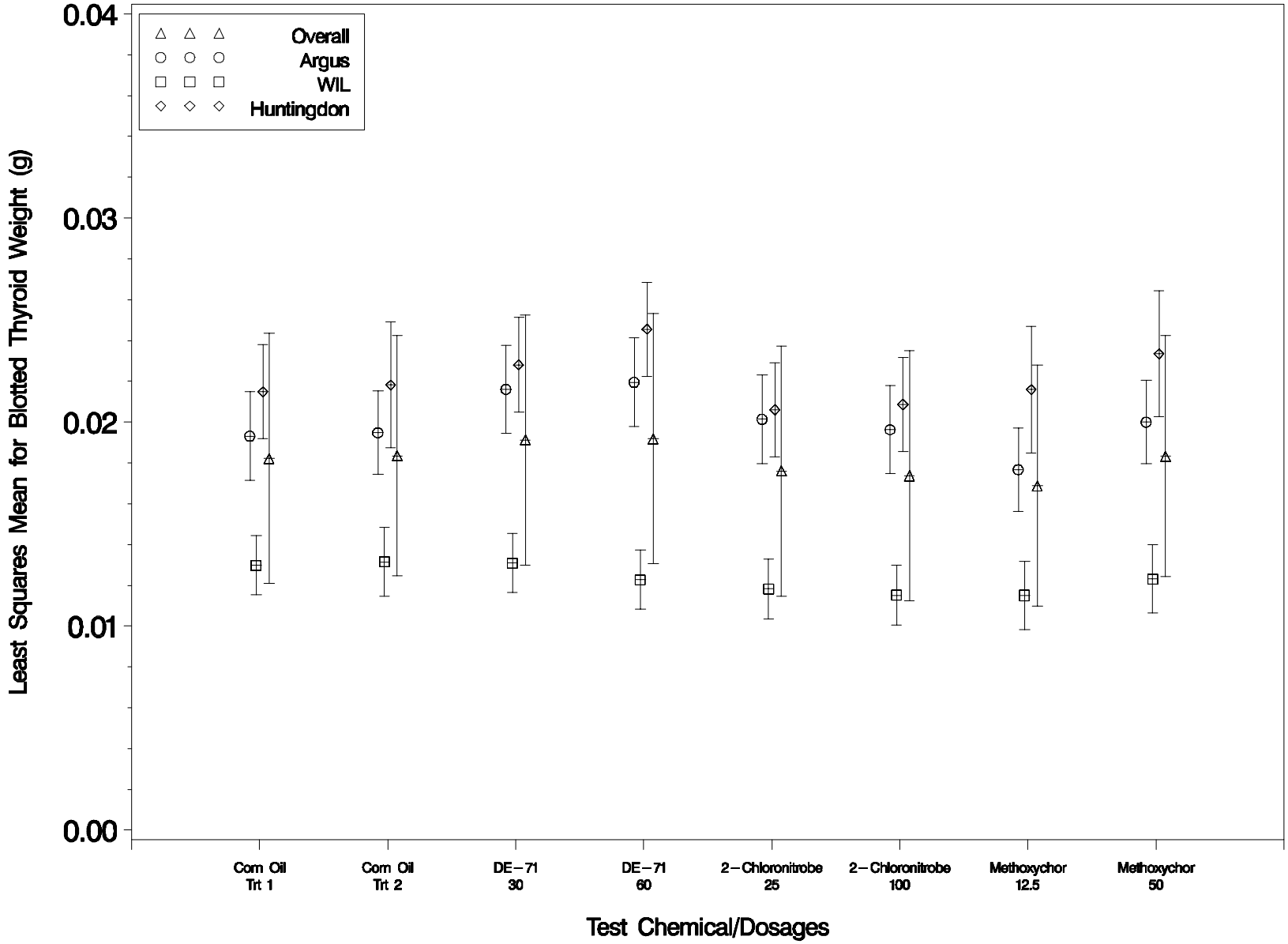


Figure 24. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Blotted Thyroid Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

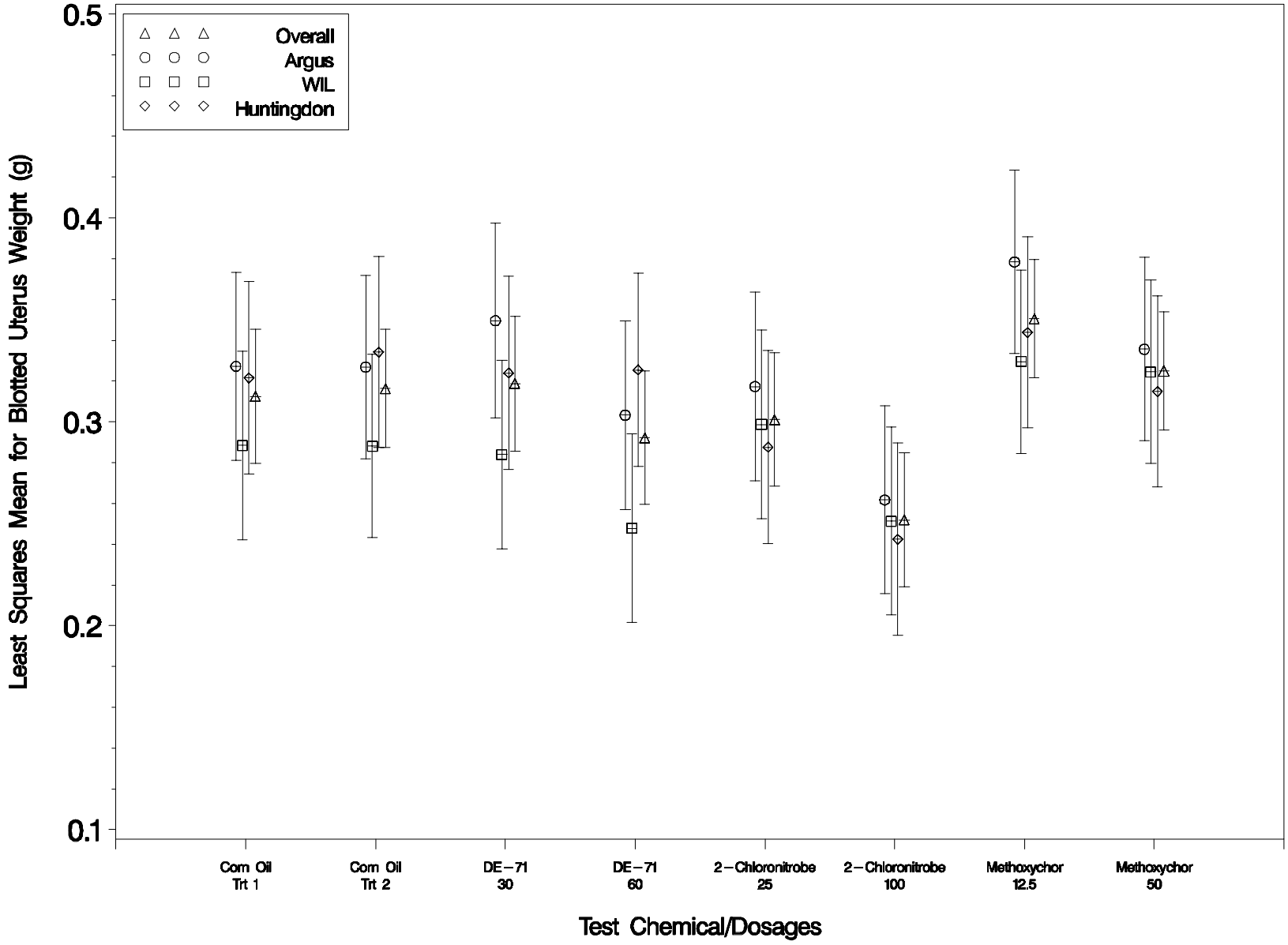


Figure 25. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Blotted Uterus Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

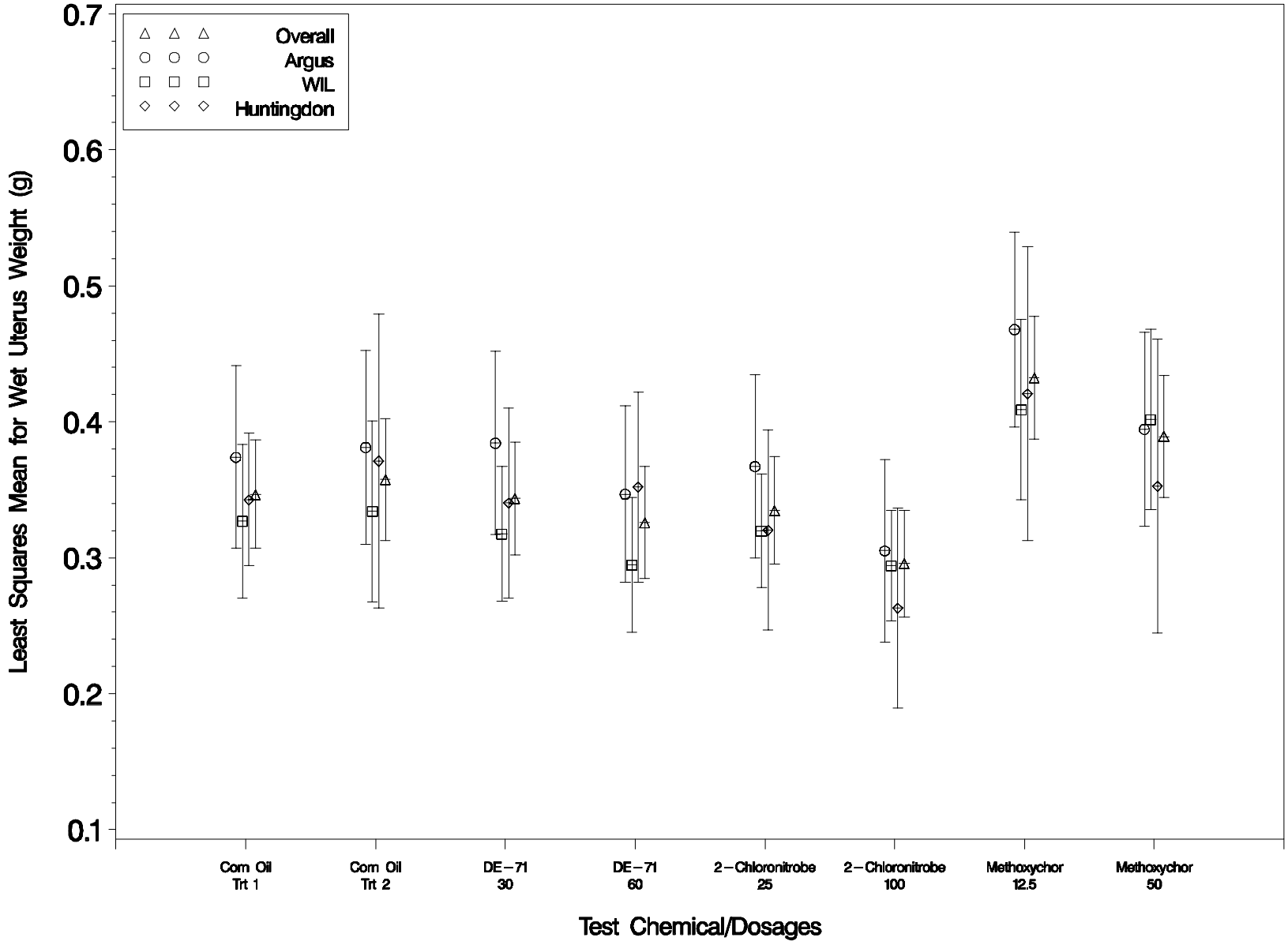


Figure 26. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Wet Uterus Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

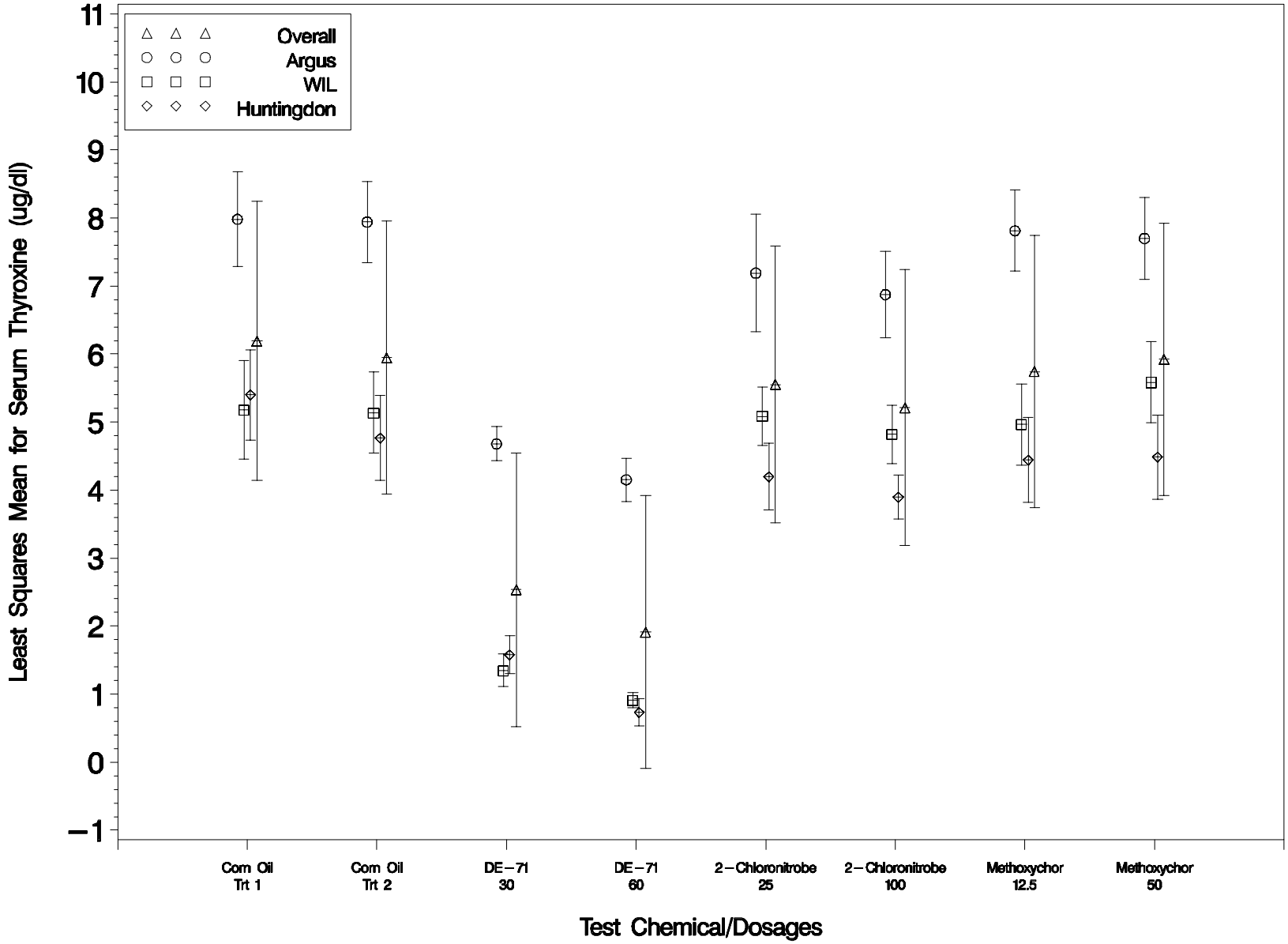


Figure 27. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Serum Thyroxine (µg/dl) for Each Dose Group across Laboratories and for Each Laboratory.

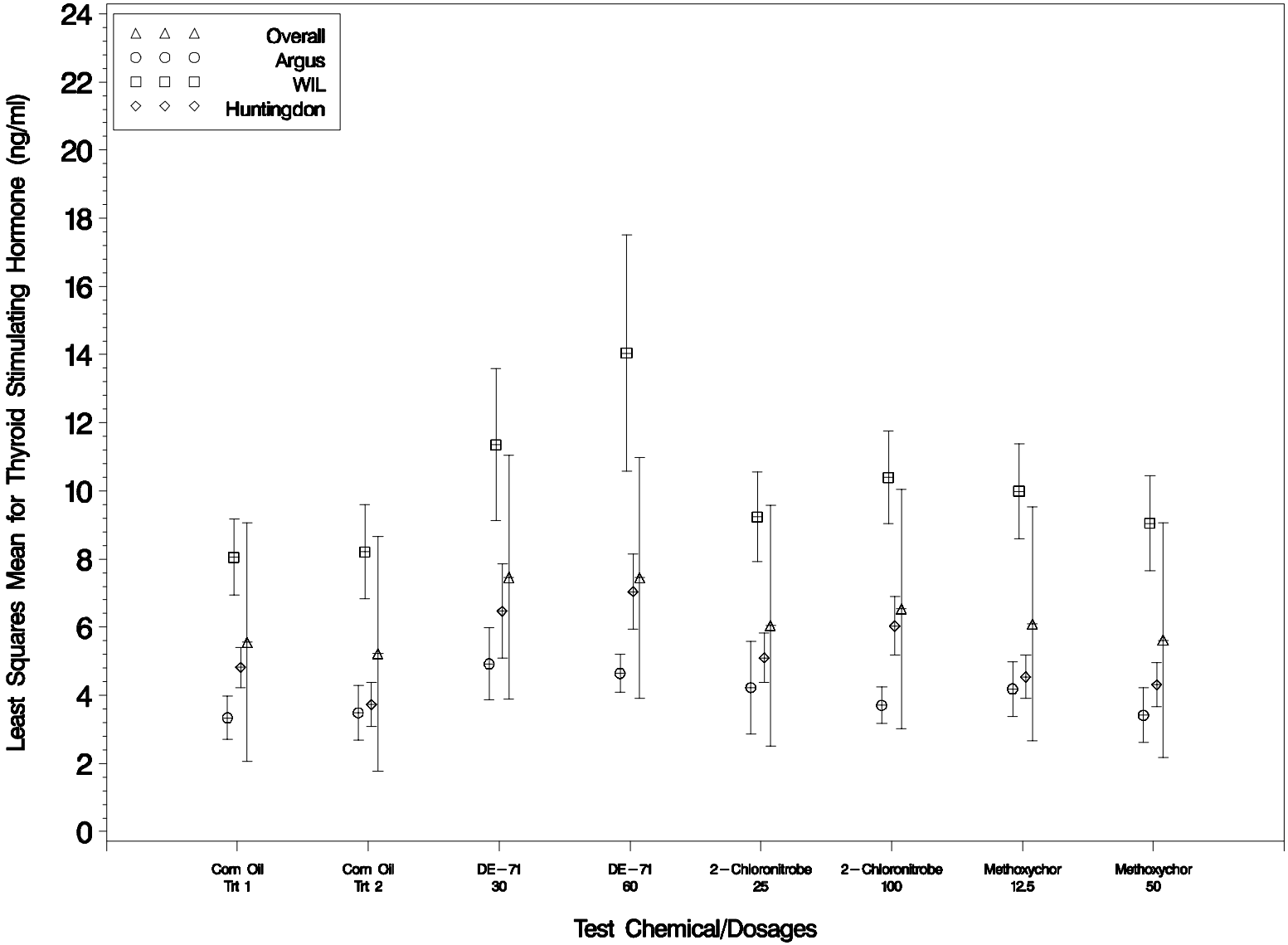


Figure 28. Unadjusted Least Squares Means (with ± 2 Standard Error Bars) for Thyroid Stimulating Hormone (ng/ml) for Each Dose Group across Laboratories and for Each Laboratory.

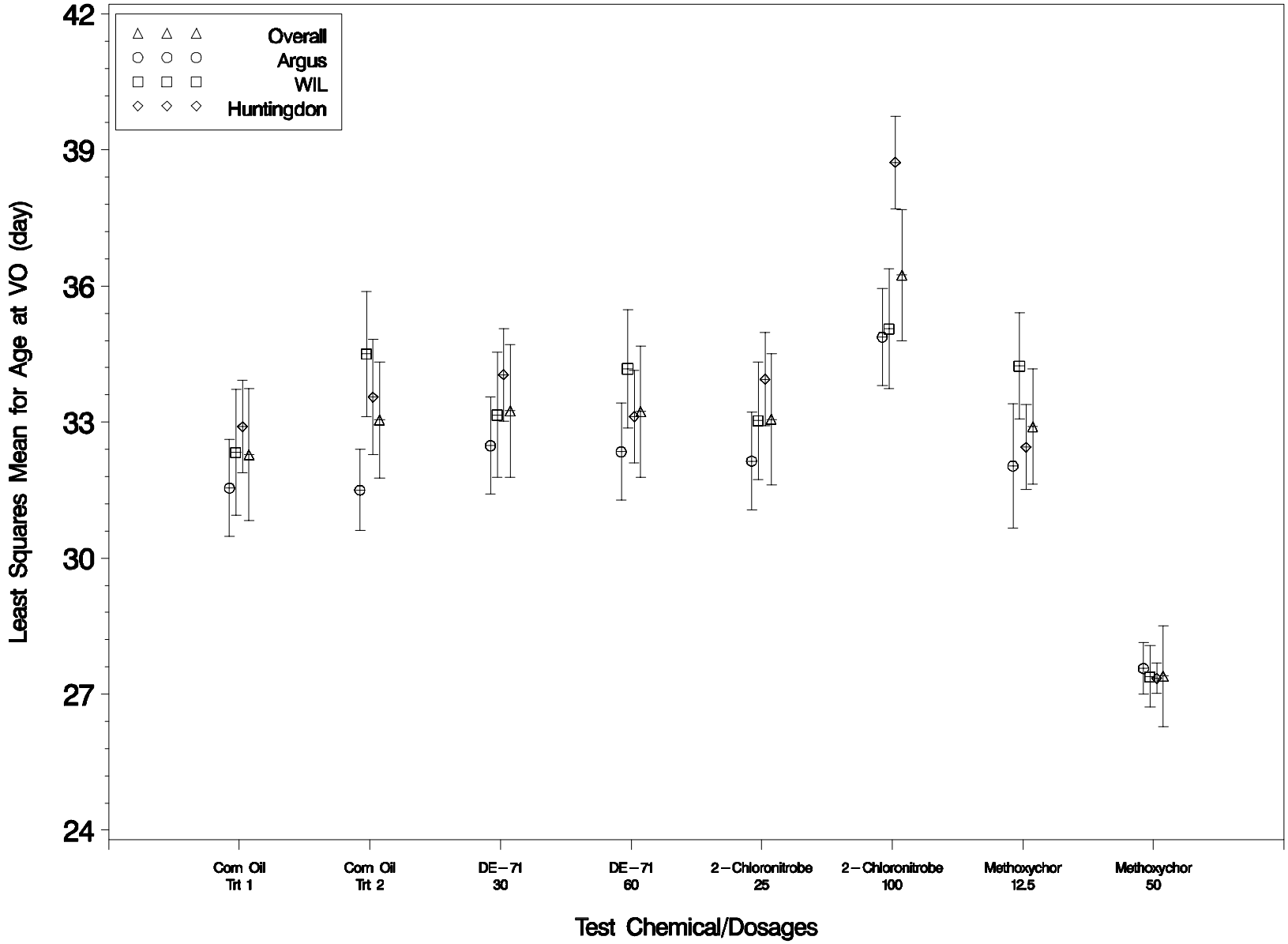


Figure 29. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Age at VO (day) for Each Dose Group across Laboratories and for Each Laboratory.

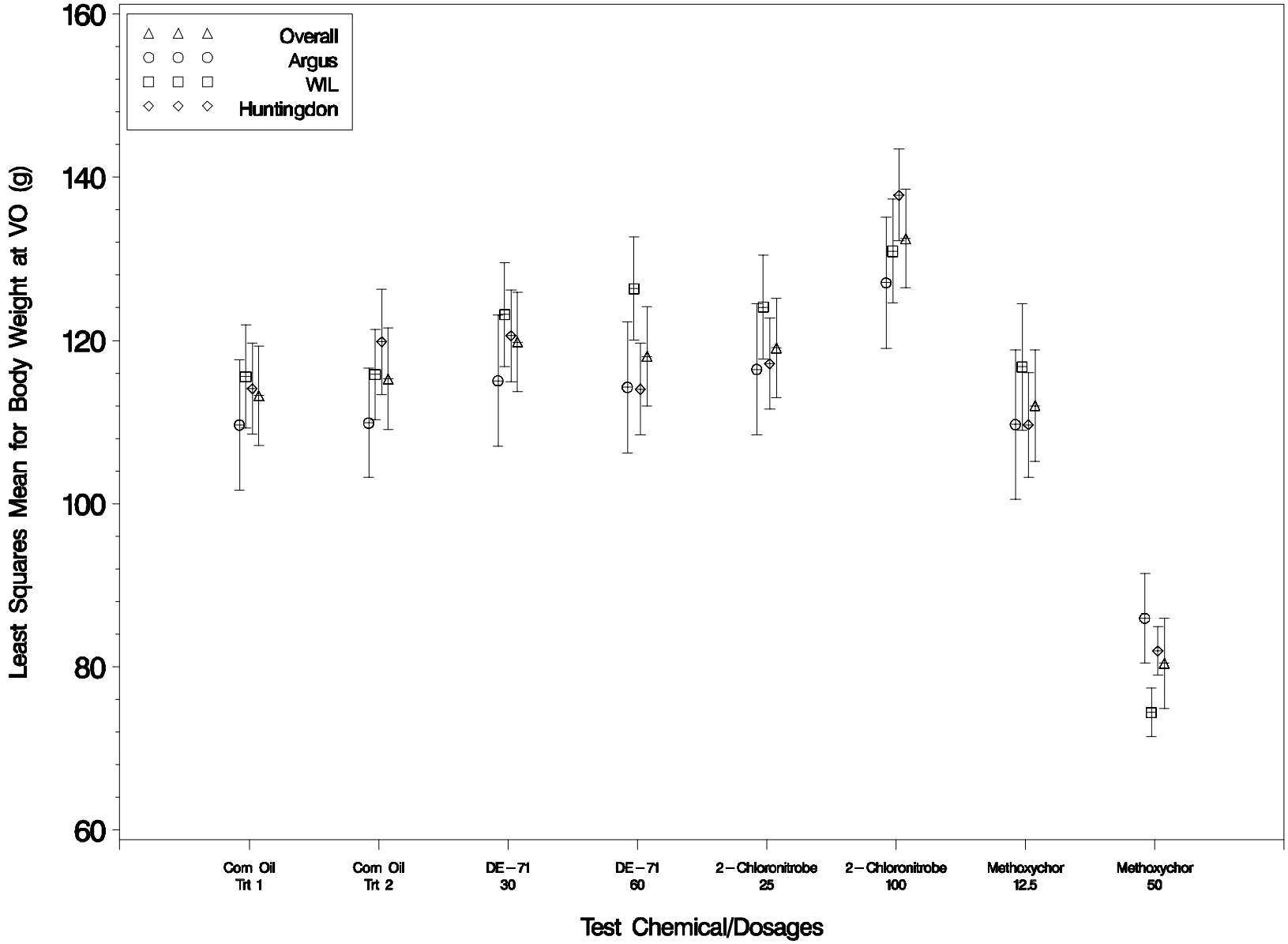


Figure 30. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Body Weight at VO (g) for Each Dose Group across Laboratories and for Each Laboratory.

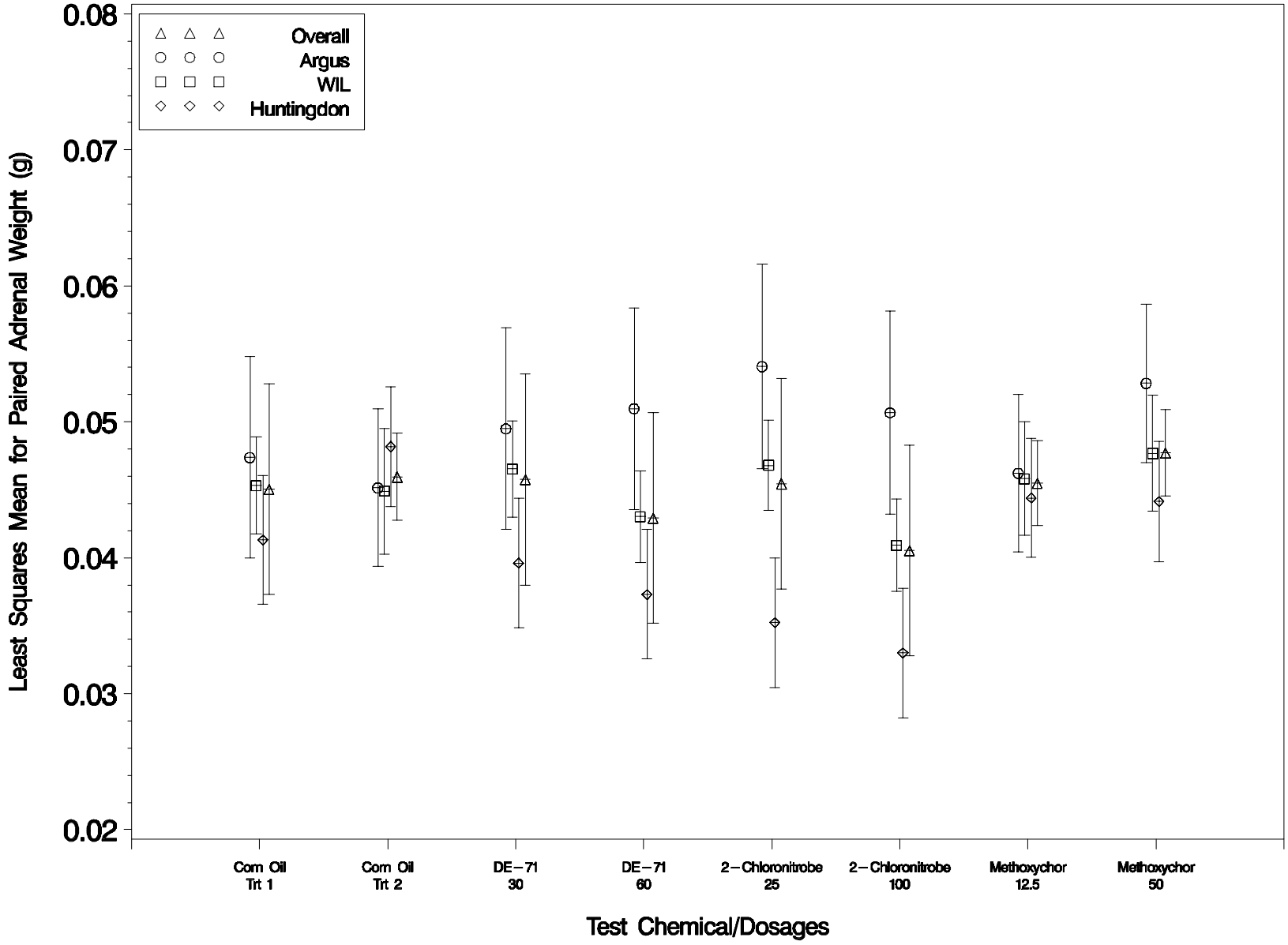


Figure 31. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Paired Adrenal Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

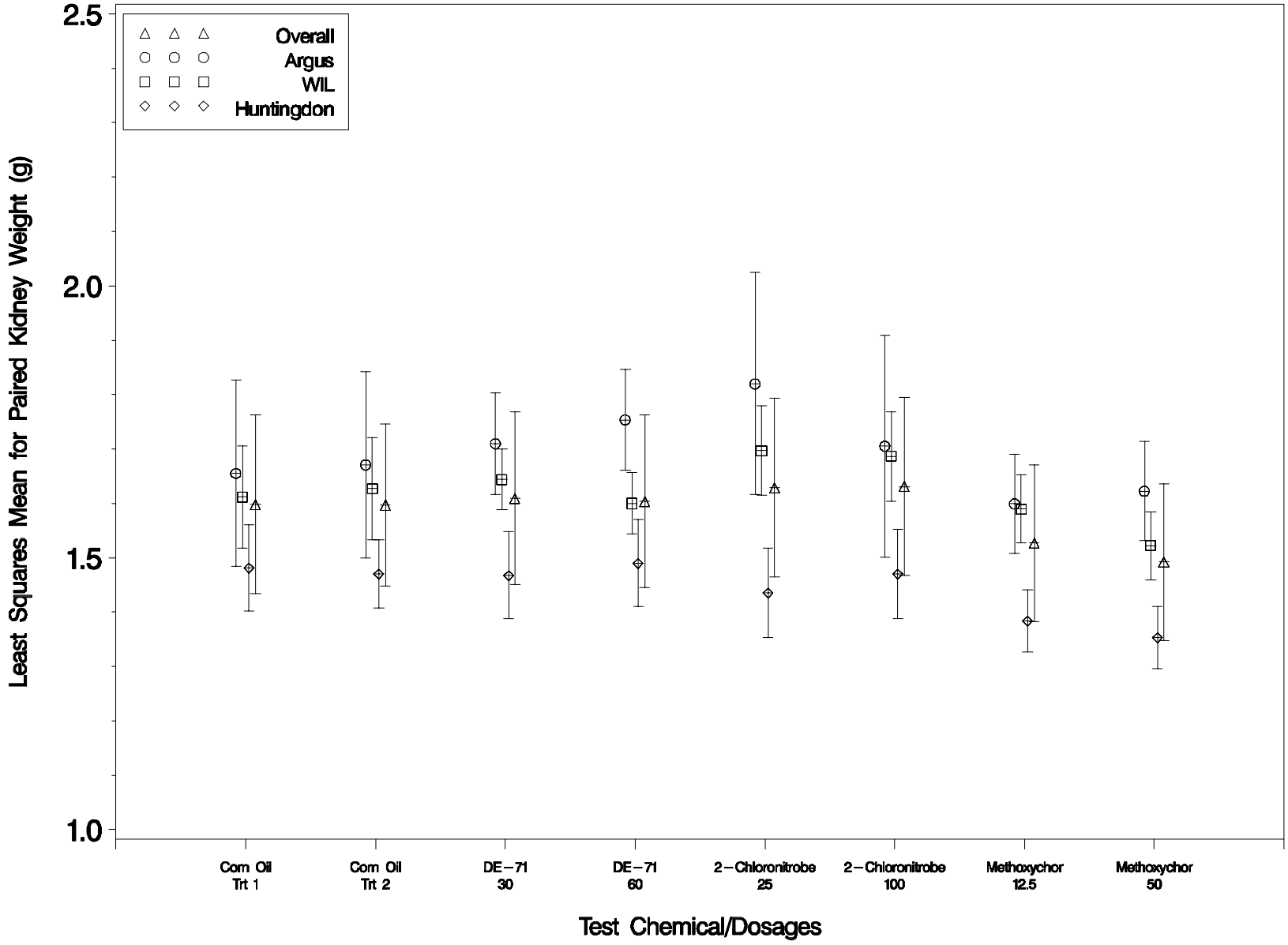


Figure 32. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Paired Kidney Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

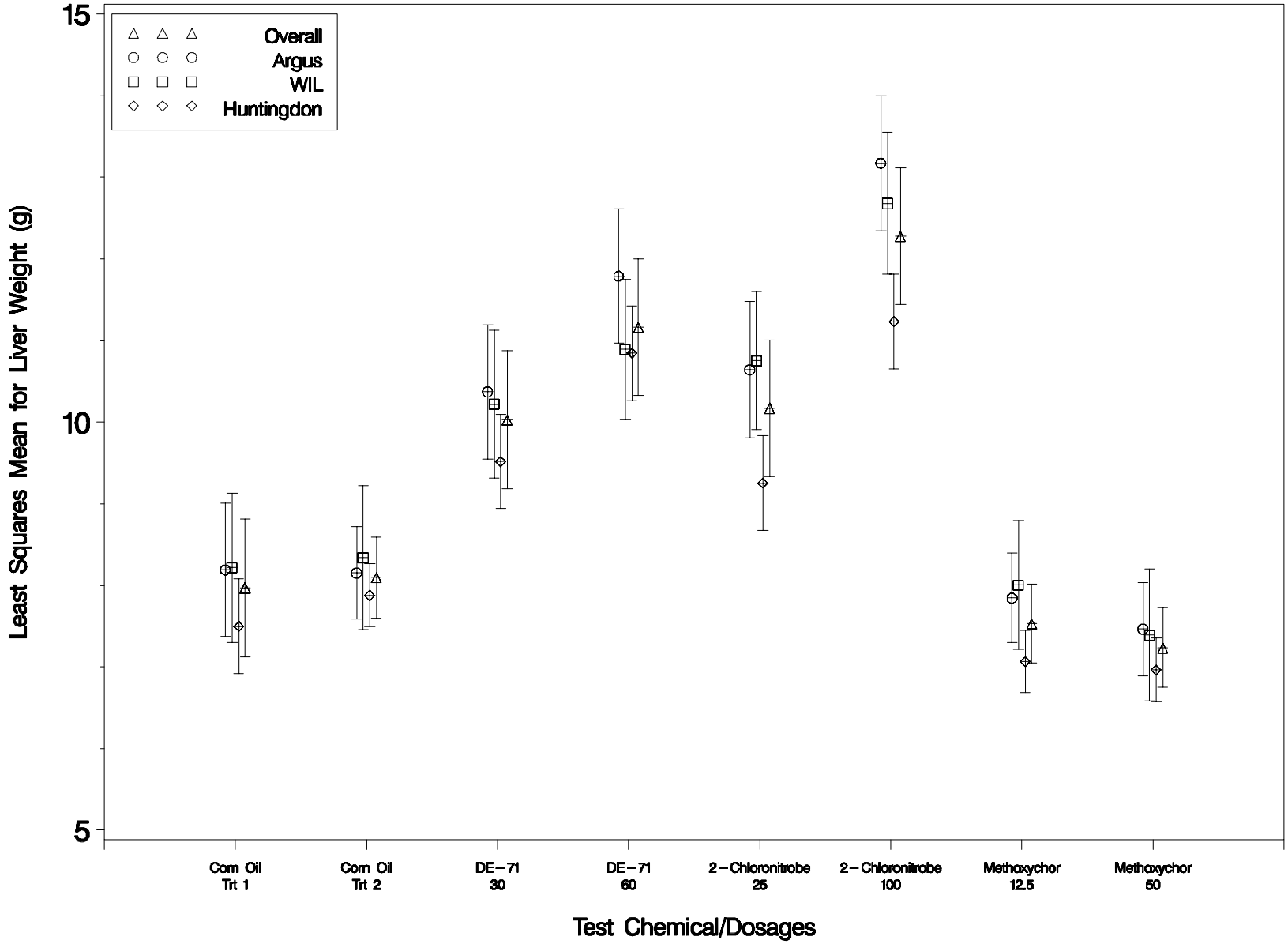


Figure 33. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Liver Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

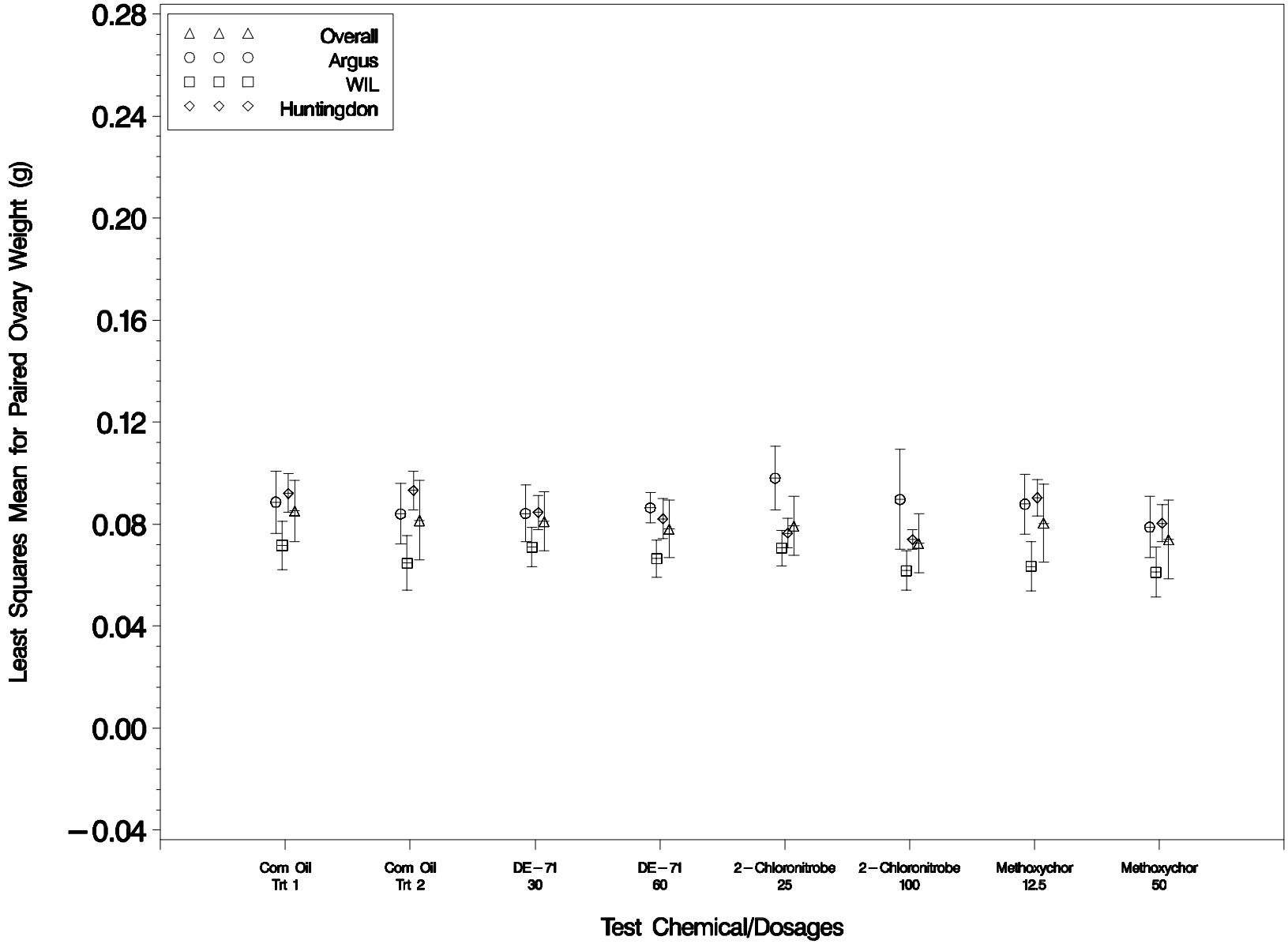


Figure 34. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Paired Ovary Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

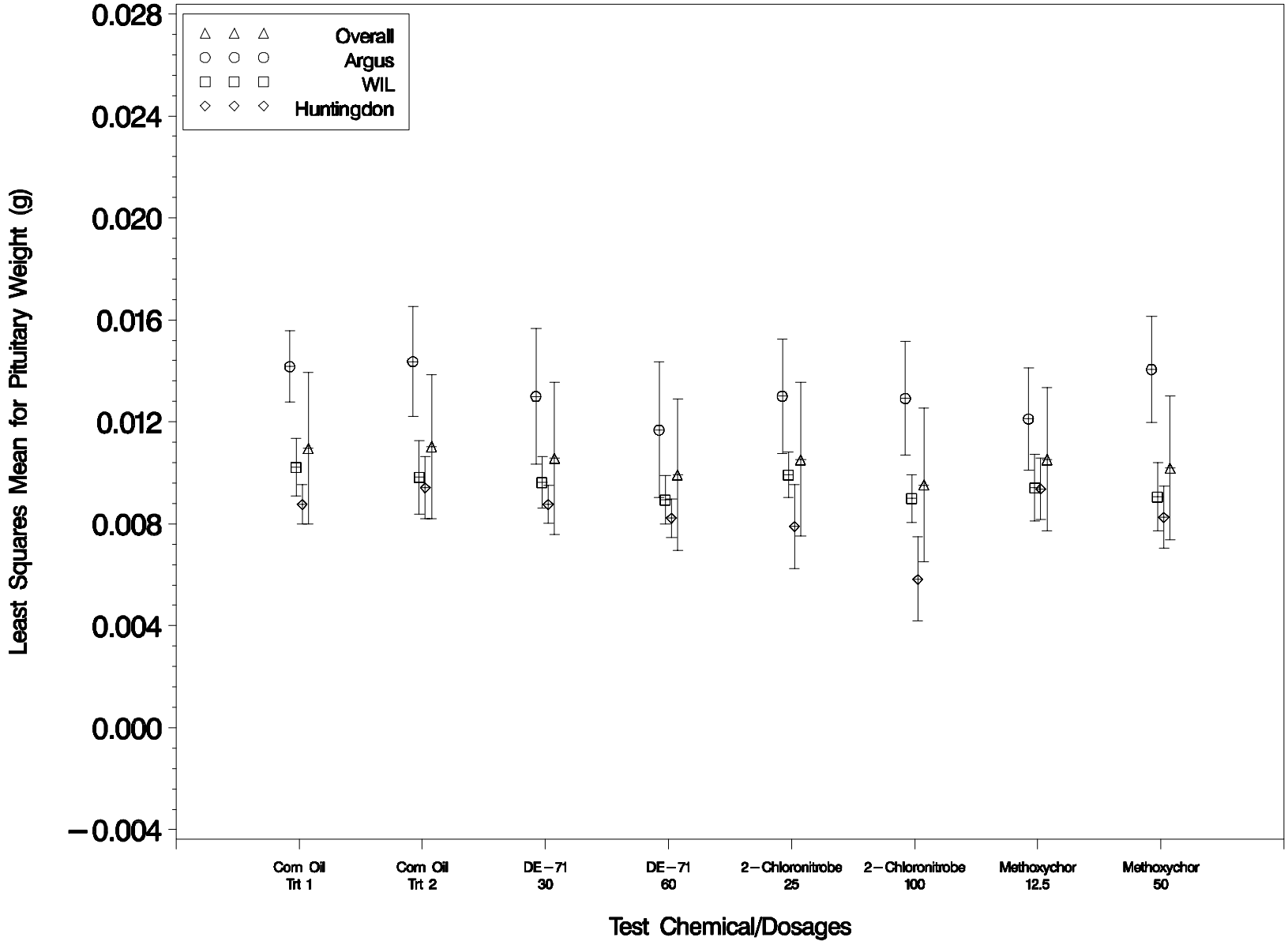


Figure 35. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Pituitary Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

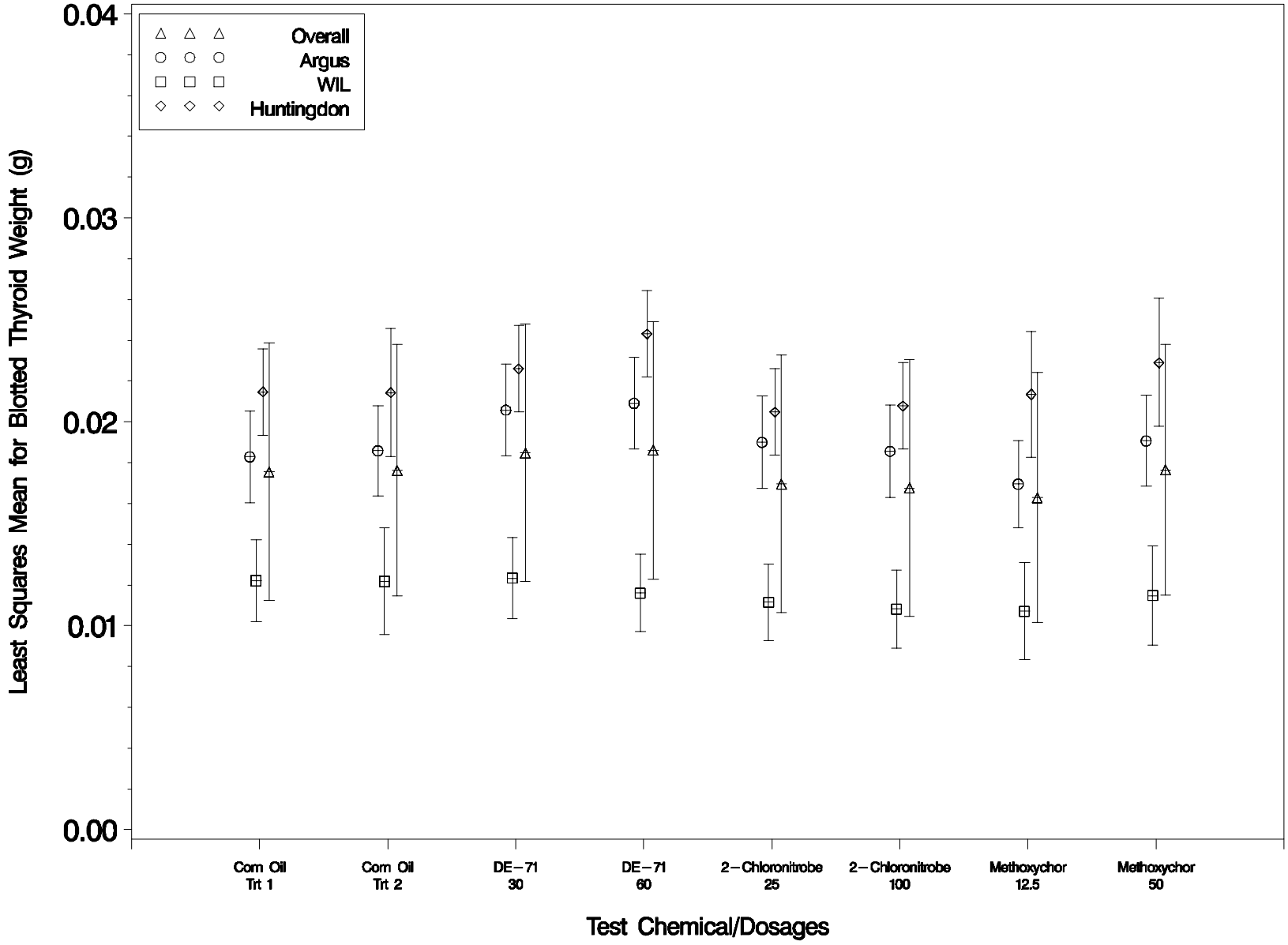


Figure 36. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Blotted Thyroid Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

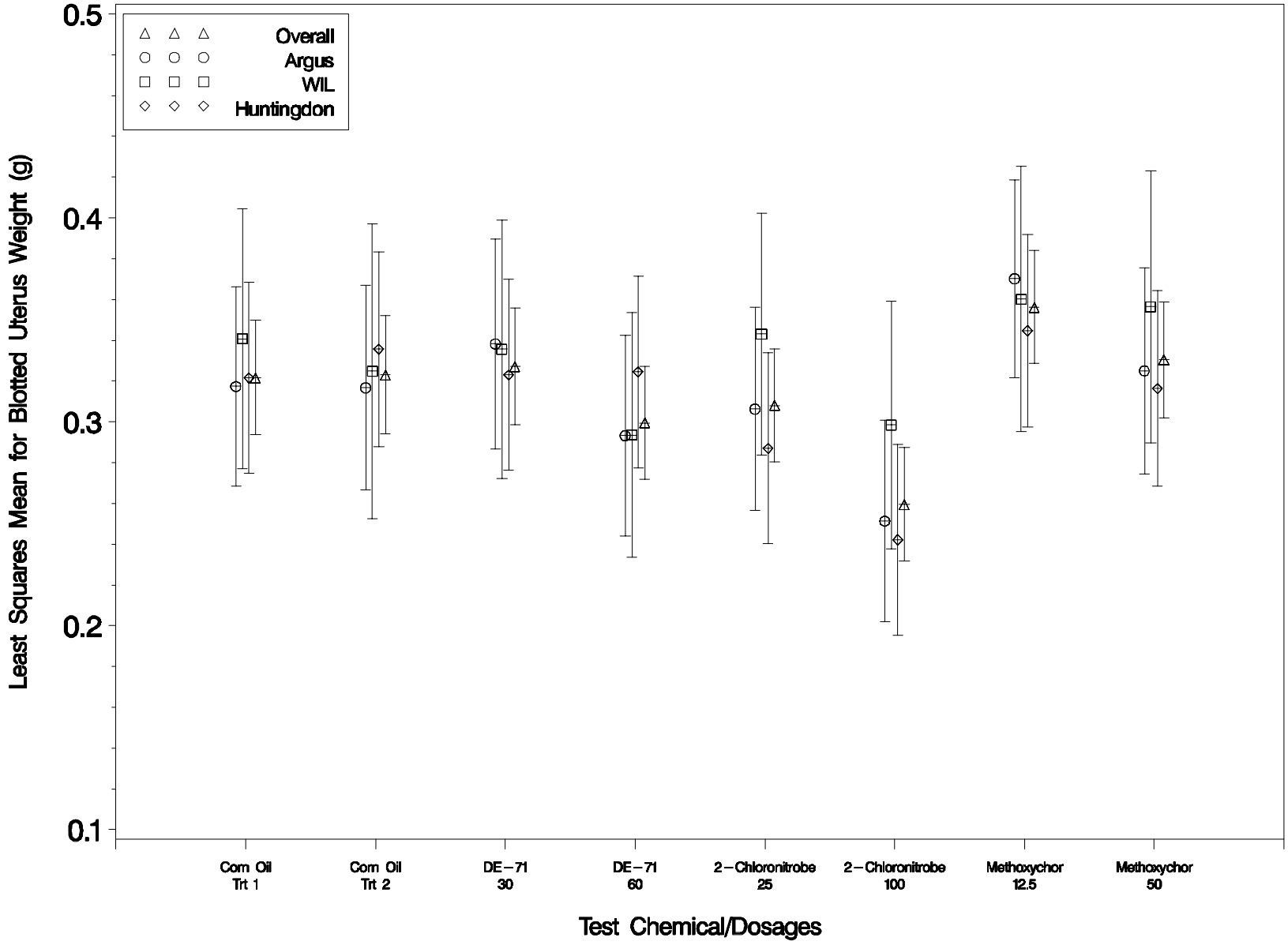


Figure 37. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Blotted Uterus Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

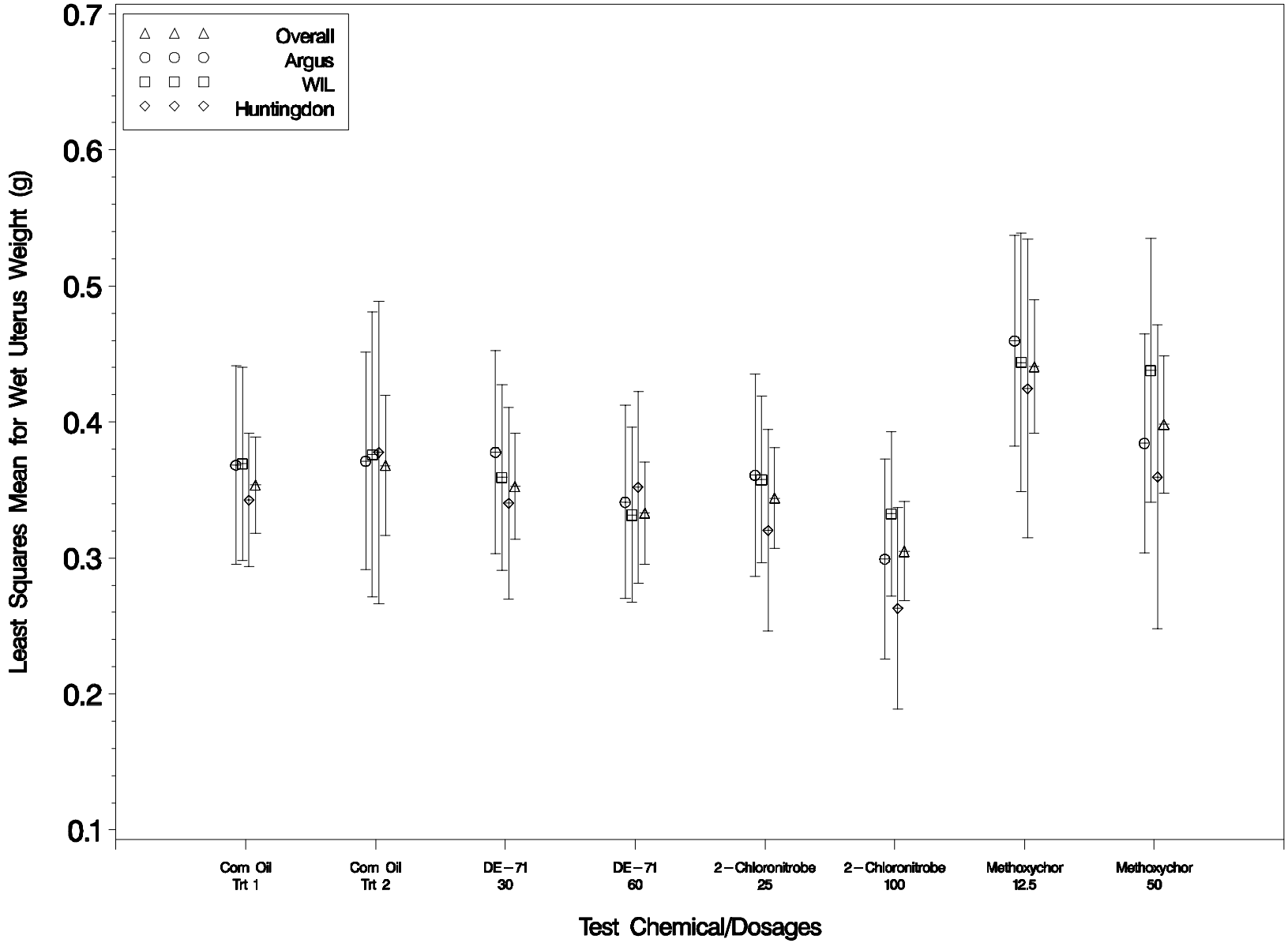


Figure 38. Adjusted Least Squares Means (with ± 2 Standard Error Bars) for Wet Uterus Weight (g) for Each Dose Group across Laboratories and for Each Laboratory.

APPENDIX A

OUTLIER SCREEN AND OUTLIER DETECTION FOR FEMALE PUBERTAL ASSAY

A-1. Outlier Screens and Preliminary Summaries

Within each laboratory, for each endpoint a one way analysis of variance model was fitted to the data. For growth data the body weight gain from PND22 to PND42 was used. Separate standard deviations were assumed within each treatment group. Studentized residuals were determined based on the analysis of variance fit and were ordered in absolute value. Normal probability plots of the studentized residuals were prepared for each response and were displayed in Figure Groups A1-A3 for Argus, WIL, and Huntingdon Laboratories respectively. The absolute studentized residuals were compared to a cutoff value, 2.84, corresponding to a 2.5% significance level (for a two-sided test) and n=105 and k=7. Section A-2 discusses the determination of the cutoff point. Any studentized residuals in excess of 2.84 in absolute value were flagged as preliminary outliers.

The preliminary outliers were provided to EPA which determined whether they should be included in all analyses, excluded from all analyses, or treated as outliers (i.e. they should be both included and excluded). The results of EPA's determinations are summarized in Table A-1.

Summaries of the raw data by laboratory and treatment group were carried out both including and excluding observations flagged as potential outliers. Each summary includes mean, standard deviation, min, max, and CV (Tables A-2, A-3, and A-4 for Argus, WIL, and Huntingdon Laboratories respectively.)

For organ weights, and age and body weight at perpetual separation (PPS), additional summaries of data by laboratory and treatment group were carried out after adjustment for mean centered initial body weight (PND21), both with and without potential outliers. A one way analysis of variance model with mean centered initial body weight as a covariate was fitted to the data for each organ weight and PPS related response endpoint. Separate variances were assumed for each treatment group. Each summary includes adjusted mean, within treatment group residual standard deviation, and CV. The within treatment group coefficient of variation was calculated as the ratio of the within treatment group residual standard deviation to the adjusted mean (Tables A-2, A-3, and A-4).

A-2. Determination of the 2.5% Significance Level Cutoff Point for the Outlier Detection Procedure – Simulation Analysis

Outlier detection was carried out by fitting a one-way analysis of variance model with separate variances in each group and comparing the maximum absolute studentized residual to a cutoff point.

The statistical analysis plans specifies an outlier test cutoff point corresponding to a 2.5% significance level (for a two-sided test) and n=105 (for k=7 groups). A simulation analysis was carried out to estimate the cutoff values corresponding to a 2.5%

significance level for the maximum normed residual statistic for the case with k=7 groups and n=15 observations per group, and separate standard deviations estimated within each group.

To carry out the simulation, k=7 groups of n=15 independent standard normal random variates were generated and the maximum normed residual statistic was calculated within each group by:

- Standardizing each observation by subtracting the sample mean and dividing by the sample standard deviation
- Calculating the maximum standardized value within each group
- Calculating the maximum across k=7 groups of the maximum standardized value within each group

The procedure was repeated for 1,000 iterations and the maximum values within iterations were ordered from smallest to largest. The 975^{th} largest order statistic was used to estimate the upper 2.5% point of the null distribution of the outlier detection statistic under the separate variance calculation specified in the statistical analysis plan.

The estimation procedure was repeated 25 times to obtain 25 realizations of the upper 2.5% point of the distribution of the statistic. The mean of the 25 realizations was used as the estimated 2.5% significance level cutoff point. The standard error across the 25 realizations was also reported.

For k=7 groups with n=15 observations per group the upper 2.5% significance level cutoff point is estimated to be 2.84 with standard error 0.006.

Table A-1. Responses Detected as Potential Outliers. Categorization of Potential Outliers by EPA as always Include in Analysis, Treat as Outlier, and Always Exclude from Analysis.

Parameter	Lab	Test Chemical	Dose	Observed Value
Always Include in Analysis				
TSH	Argus	2-Chloronitrobenzene	25.0	12.7800
TSH	Argus	Methoxychlor	12.5	10.5400
TSH	WIL	2-Chloronitrobenzene	25	16.5000
TSH	WIL	2-Chloronitrobenzene	100	18.4000
TSH	Huntingdon	DE-71	30	14.3000
TSH	Huntingdon	DE-71	60	13.2000
Liver	Huntingdon	Methoxychlor	12.5	9.2791
UterusWet	Huntingdon	2-Chloronitrobenzene	25	0.77330
UterusWet	Huntingdon	Methoxychlor	50	0.87270
Age at VO	Huntingdon	DE-71	60	37.0000
Treat as Outlier				
Adrenals	Argus	2-Chloronitrobenzene	25	0.0902
Adrenals	Argus	2-Chloronitrobenzene	100	0.1026
Kidneys	Argus	2-Chloronitrobenzene	100	0.0428
Ovaries	Argus	2-Chloronitrobenzene	100	0.2054
UterusWet	Argus	DE-71	30	0.7637
UterusWet	Argus	DE-71	60	0.6686
Body Weight Gain	Argus	2-Chloronitrobenzene	25	152.3
Adrenals	Huntingdon	Corn Oil	0	0.0763
Pituitary	Huntingdon	2-Chloronitrobenzene	25	0.0221
Pituitary	Huntingdon	Methoxychlor	12.5	0.0192
Always Exclude from Analysis				
Ovaries	Huntingdon	Corn Oil	0	0.2548

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
1	**t4**	Corn Oil	0.0	15	8.031	1.3466	16.7676	5.137	9.914
		DE-71	30.0	15	4.730	0.4741	10.0230	4.060	5.662
		DE-71	60.0	15	4.202	0.6076	14.4606	3.194	5.424
		2-Chloronitrobenzene	25.0	15	7.240	1.6631	22.9726	4.130	10.494
		2-Chloronitrobenzene	100.0	15	6.924	1.2304	17.7713	4.997	8.907
		Methoxychlor	12.5	15	7.903	1.2462	15.7694	5.921	10.377
		Methoxychlor	50.0	15	7.789	1.0627	13.6432	6.083	9.640
2	**TSH**	Corn Oil	0.0	15	3.606	1.1951	33.1412	2.080	6.110
		DE-71	30.0	15	5.187	2.0301	39.1350	2.910	10.410
		DE-71	60.0	15	4.915	1.0333	21.0257	3.820	6.870
		2-Chloronitrobenzene	25.0	15	4.494	2.6295	58.5104	1.570	12.780
		2-Chloronitrobenzene	100.0	15	3.977	0.9974	25.0819	2.380	5.230
		Methoxychlor	12.5	15	4.303	1.8805	43.7044	2.560	10.540
		Methoxychlor	50.0	15	3.532	1.4317	40.5342	1.650	7.080
3	**TSH***	Corn Oil	0.0	15	3.606	1.1951	33.1412	2.080	6.110
		DE-71	30.0	15	5.187	2.0301	39.1350	2.910	10.410
		DE-71	60.0	15	4.915	1.0333	21.0257	3.820	6.870
		2-Chloronitrobenzene	25.0	14	3.902	1.3369	34.2606	1.570	7.500
		2-Chloronitrobenzene	100.0	15	3.977	0.9974	25.0819	2.380	5.230
		Methoxychlor	12.5	14	3.857	0.7757	20.1108	2.560	4.750
		Methoxychlor	50.0	15	3.532	1.4317	40.5342	1.650	7.080
4	**Adrenals**	Corn Oil	0.0	15	0.046	0.0102	22.1903	0.027	0.061
		DE-71	30.0	15	0.048	0.0108	22.4245	0.033	0.070
		DE-71	60.0	15	0.050	0.0138	27.6640	0.024	0.085
		2-Chloronitrobenzene	25.0	15	0.053	0.0134	25.4131	0.039	0.090
		2-Chloronitrobenzene	100.0	15	0.049	0.0170	34.3332	0.032	0.103
		Methoxychlor	12.5	14	0.047	0.0079	16.7954	0.036	0.067
		Methoxychlor	50.0	15	0.054	0.0111	20.5218	0.042	0.083
5	**Adrenals***	Corn Oil	0.0	15	0.046	0.0102	22.1903	0.027	0.061
		DE-71	30.0	15	0.048	0.0108	22.4245	0.033	0.070
		DE-71	60.0	15	0.050	0.0138	27.6640	0.024	0.085
		2-Chloronitrobenzene	25.0	14	0.050	0.0089	17.6797	0.039	0.074

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
		2-Chloronitrobenzene	100.0	14	0.046	0.0088	19.3020	0.032	0.059
		Methoxychlor	12.5	14	0.047	0.0079	16.7954	0.036	0.067
		Methoxychlor	50.0	15	0.054	0.0111	20.5218	0.042	0.083
6	**Kidneys**	Corn Oil	0.0	15	1.660	0.3308	19.9267	0.779	2.214
		DE-71	30.0	15	1.715	0.1911	11.1405	1.455	2.069
		DE-71	60.0	15	1.759	0.1650	9.3812	1.556	2.146
		2-Chloronitrobenzene	25.0	15	1.825	0.2312	12.6694	1.247	2.120
		2-Chloronitrobenzene	100.0	15	1.710	0.5079	29.6941	0.043	2.156
		Methoxychlor	12.5	15	1.588	0.1752	11.0320	1.295	1.857
		Methoxychlor	50.0	15	1.612	0.1751	10.8629	1.366	1.960
7	**Kidneys***	Corn Oil	0.0	15	1.660	0.3308	19.9267	0.779	2.214
		DE-71	30.0	15	1.715	0.1911	11.1405	1.455	2.069
		DE-71	60.0	15	1.759	0.1650	9.3812	1.556	2.146
		2-Chloronitrobenzene	25.0	15	1.825	0.2312	12.6694	1.247	2.120
		2-Chloronitrobenzene	100.0	14	1.829	0.2204	12.0498	1.475	2.156
		Methoxychlor	12.5	15	1.588	0.1752	11.0320	1.295	1.857
		Methoxychlor	50.0	15	1.612	0.1751	10.8629	1.366	1.960
8	**Liver**	Corn Oil	0.0	15	8.491	1.3875	16.3417	6.427	10.631
		DE-71	30.0	15	10.672	1.3149	12.3213	7.855	12.625
		DE-71	60.0	15	12.092	0.7723	6.3869	10.865	13.931
		2-Chloronitrobenzene	25.0	15	10.971	1.3727	12.5117	8.675	14.000
		2-Chloronitrobenzene	100.0	15	13.483	2.2412	16.6216	9.321	17.647
		Methoxychlor	12.5	15	8.101	0.8637	10.6618	6.851	9.993
		Methoxychlor	50.0	15	7.821	0.9481	12.1227	6.501	9.660
9	**Ovaries**	Corn Oil	0.0	15	0.082	0.0211	25.6675	0.047	0.129
		DE-71	30.0	15	0.078	0.0181	23.2830	0.054	0.112
		DE-71	60.0	15	0.080	0.0139	17.3921	0.054	0.101
		2-Chloronitrobenzene	25.0	15	0.091	0.0232	25.4897	0.065	0.142
		2-Chloronitrobenzene	100.0	15	0.083	0.0351	42.3584	0.053	0.205
		Methoxychlor	12.5	14	0.086	0.0238	27.5326	0.052	0.146
		Methoxychlor	50.0	15	0.077	0.0156	20.3284	0.057	0.107
10	**Ovaries***	Corn Oil	0.0	15	0.082	0.0211	25.6675	0.047	0.129

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
		DE-71	30.0	15	0.078	0.0181	23.2830	0.054	0.112
		DE-71	60.0	15	0.080	0.0139	17.3921	0.054	0.101
		2-Chloronitrobenzene	25.0	15	0.091	0.0232	25.4897	0.065	0.142
		2-Chloronitrobenzene	100.0	14	0.074	0.0097	13.1289	0.053	0.091
		Methoxychlor	12.5	14	0.086	0.0238	27.5326	0.052	0.146
		Methoxychlor	50.0	15	0.077	0.0156	20.3284	0.057	0.107
11	**Pituitary**	Corn Oil	0.0	14	0.013	0.0023	17.5905	0.009	0.018
		DE-71	30.0	15	0.012	0.0049	40.8385	0.003	0.025
		DE-71	60.0	15	0.011	0.0055	50.8922	0.000	0.019
		2-Chloronitrobenzene	25.0	15	0.012	0.0037	31.1373	0.005	0.021
		2-Chloronitrobenzene	100.0	15	0.012	0.0044	37.2146	0.002	0.019
		Methoxychlor	12.5	15	0.011	0.0039	35.2819	0.005	0.020
		Methoxychlor	50.0	15	0.013	0.0045	35.1061	0.005	0.020
12	**ThyroidBlotted**	Corn Oil	0.0	15	0.019	0.0042	21.9554	0.012	0.028
		DE-71	30.0	15	0.022	0.0044	20.3306	0.014	0.028
		DE-71	60.0	15	0.022	0.0031	14.0962	0.015	0.027
		2-Chloronitrobenzene	25.0	15	0.020	0.0051	25.5394	0.011	0.029
		2-Chloronitrobenzene	100.0	15	0.020	0.0036	18.4460	0.015	0.028
		Methoxychlor	12.5	15	0.017	0.0040	22.7223	0.011	0.026
		Methoxychlor	50.0	15	0.020	0.0032	16.1974	0.015	0.024
13	**UterusBlotted**	Corn Oil	0.0	15	0.321	0.0940	29.2464	0.224	0.564
		DE-71	30.0	14	0.344	0.0848	24.6687	0.222	0.525
		DE-71	60.0	15	0.297	0.0925	31.1071	0.203	0.505
		2-Chloronitrobenzene	25.0	15	0.311	0.1015	32.6062	0.202	0.585
		2-Chloronitrobenzene	100.0	15	0.256	0.0985	38.5044	0.061	0.442
		Methoxychlor	12.5	15	0.373	0.0811	21.7506	0.238	0.519
		Methoxychlor	50.0	15	0.330	0.0739	22.3809	0.198	0.437
14	**UterusWet**	Corn Oil	0.0	15	0.368	0.1287	34.9633	0.253	0.622
		DE-71	30.0	14	0.378	0.1303	34.4313	0.262	0.764
		DE-71	60.0	15	0.341	0.1192	34.9765	0.214	0.669
		2-Chloronitrobenzene	25.0	15	0.361	0.1434	39.6792	0.242	0.755
		2-Chloronitrobenzene	100.0	15	0.299	0.1130	37.7809	0.171	0.508

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
		Methoxychlor	12.5	15	0.455	0.1642	36.1111	0.291	0.884
		Methoxychlor	50.0	15	0.381	0.0978	25.6252	0.266	0.611
15	**UterusWet***	Corn Oil	0.0	15	0.368	0.1287	34.9633	0.253	0.622
		DE-71	30.0	13	0.349	0.0713	20.4327	0.262	0.483
		DE-71	60.0	14	0.318	0.0804	25.3231	0.214	0.504
		2-Chloronitrobenzene	25.0	15	0.361	0.1434	39.6792	0.242	0.755
		2-Chloronitrobenzene	100.0	15	0.299	0.1130	37.7809	0.171	0.508
		Methoxychlor	12.5	15	0.455	0.1642	36.1111	0.291	0.884
		Methoxychlor	50.0	15	0.381	0.0978	25.6252	0.266	0.611
16	**Initial BodyWeight**	Corn Oil	0.0	15	56.767	5.8944	10.3835	44.600	65.900
		DE-71	30.0	15	56.780	5.3444	9.4126	46.800	65.100
		DE-71	60.0	15	56.840	5.4854	9.6506	49.600	67.400
		2-Chloronitrobenzene	25.0	15	57.327	6.3873	11.1420	46.200	70.200
		2-Chloronitrobenzene	100.0	15	57.007	5.5846	9.7964	47.900	67.000
		Methoxychlor	12.5	15	55.873	4.9319	8.8269	49.500	65.000
		Methoxychlor	50.0	15	56.947	5.9523	10.4524	47.400	69.800
17	**Final BodyWeight**	Corn Oil	0.0	15	170.733	17.1858	10.0659	139.000	200.000
		DE-71	30.0	15	168.267	14.1748	8.4240	137.000	188.000
		DE-71	60.0	15	171.200	10.7118	6.2569	153.000	194.000
		2-Chloronitrobenzene	25.0	15	172.600	14.1310	8.1871	145.000	204.000
		2-Chloronitrobenzene	100.0	15	170.467	12.4721	7.3164	149.000	190.000
		Methoxychlor	12.5	15	163.933	11.5478	7.0442	150.000	188.000
		Methoxychlor	50.0	15	161.733	12.7362	7.8748	147.000	188.000
18	**BodyWeight Gain**	Corn Oil	0.0	15	113.967	14.1250	12.3940	85.600	134.100
		DE-71	30.0	15	111.487	12.1510	10.8991	81.500	125.900
		DE-71	60.0	15	114.360	11.1883	9.7834	99.500	144.000
		2-Chloronitrobenzene	25.0	15	115.273	13.1927	11.4447	95.700	152.300
		2-Chloronitrobenzene	100.0	15	113.460	11.8979	10.4865	93.400	128.700
		Methoxychlor	12.5	15	108.060	9.9107	9.1715	96.600	127.700
		Methoxychlor	50.0	15	104.787	9.9778	9.5220	90.600	130.600
19	**BodyWeight Gain***	Corn Oil	0.0	15	113.967	14.1250	12.3940	85.600	134.100
		DE-71	30.0	15	111.487	12.1510	10.8991	81.500	125.900

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
		DE-71	60.0	15	114.360	11.1883	9.7834	99.500	144.000
		2-Chloronitrobenzene	25.0	14	112.629	8.6280	7.6606	95.700	126.700
		2-Chloronitrobenzene	100.0	15	113.460	11.8979	10.4865	93.400	128.700
		Methoxychlor	12.5	15	108.060	9.9107	9.1715	96.600	127.700
		Methoxychlor	50.0	15	104.787	9.9778	9.5220	90.600	130.600
20	**Age at VO**	Corn Oil	0.0	15	31.467	1.5976	5.0772	29.000	35.000
		DE-71	30.0	15	32.400	1.9198	5.9254	29.000	35.000
		DE-71	60.0	15	32.267	2.5486	7.8985	30.000	39.000
		2-Chloronitrobenzene	25.0	15	32.067	1.7099	5.3324	29.000	35.000
		2-Chloronitrobenzene	100.0	15	34.800	2.1112	6.0667	31.000	39.000
		Methoxychlor	12.5	15	32.000	2.5912	8.0975	27.000	35.000
		Methoxychlor	50.0	15	27.533	0.8338	3.0284	26.000	29.000
21	**BodyWeight at VO**	Corn Oil	0.0	15	110.067	12.9088	11.7282	86.000	129.000
		DE-71	30.0	15	115.467	15.4590	13.3883	93.000	141.000
		DE-71	60.0	15	114.667	19.2861	16.8192	90.000	150.000
		2-Chloronitrobenzene	25.0	15	116.867	11.7769	10.0772	99.000	141.000
		2-Chloronitrobenzene	100.0	15	127.467	16.6299	13.0464	98.000	158.000
		Methoxychlor	12.5	15	109.867	17.6549	16.0694	77.000	134.000
		Methoxychlor	50.0	15	86.133	10.4735	12.1597	70.000	110.000
22	**Final Body Weight as percent of control**	Corn Oil	0.0	15	100.000	10.0659	10.0659	81.414	117.142
		DE-71	30.0	15	98.555	8.3023	8.4240	80.242	110.113
		DE-71	60.0	15	100.273	6.2740	6.2569	89.613	113.627
		2-Chloronitrobenzene	25.0	15	101.093	8.2767	8.1871	84.928	119.485
		2-Chloronitrobenzene	100.0	15	99.844	7.3050	7.3164	87.271	111.285
		Methoxychlor	12.5	15	96.017	6.7637	7.0442	87.856	110.113
		Methoxychlor	50.0	15	94.729	7.4597	7.8748	86.099	110.113
23	**Adj Adrenals**	Corn Oil	0.0	15	0.046	0.0106	22.8935	.	.
		DE-71	30.0	15	0.048	0.0109	22.5214	.	.
		DE-71	60.0	15	0.050	0.0136	27.3898	.	.
		2-Chloronitrobenzene	25.0	15	0.053	0.0134	25.3909	.	.
		2-Chloronitrobenzene	100.0	15	0.049	0.0170	34.2686	.	.
		Methoxychlor	12.5	14	0.047	0.0079	16.7307	.	.

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
		Methoxychlor	50.0	15	0.054	0.0112	20.7190	.	.
24	**Adj Adrenals***	Corn Oil	0.0	15	0.046	0.0106	23.0331	.	.
		DE-71	30.0	15	0.048	0.0109	22.4982	.	.
		DE-71	60.0	15	0.050	0.0136	27.2615	.	.
		2-Chloronitrobenzene	25.0	14	0.050	0.0089	17.7175	.	.
		2-Chloronitrobenzene	100.0	14	0.046	0.0087	19.0837	.	.
		Methoxychlor	12.5	14	0.047	0.0078	16.6438	.	.
		Methoxychlor	50.0	15	0.054	0.0112	20.7211	.	.
25	**Adj Kidneys**	Corn Oil	0.0	15	1.661	0.3023	18.2034	.	.
		DE-71	30.0	15	1.715	0.1552	9.0485	.	.
		DE-71	60.0	15	1.758	0.1410	8.0219	.	.
		2-Chloronitrobenzene	25.0	15	1.816	0.1895	10.4371	.	.
		2-Chloronitrobenzene	100.0	15	1.707	0.5217	30.5704	.	.
		Methoxychlor	12.5	15	1.604	0.1782	11.1081	.	.
		Methoxychlor	50.0	15	1.609	0.1445	8.9812	.	.
26	**Adj Kidneys***	Corn Oil	0.0	15	1.660	0.3025	18.2194	.	.
		DE-71	30.0	15	1.714	0.1553	9.0594	.	.
		DE-71	60.0	15	1.757	0.1409	8.0166	.	.
		2-Chloronitrobenzene	25.0	15	1.815	0.1897	10.4479	.	.
		2-Chloronitrobenzene	100.0	14	1.830	0.2155	11.7797	.	.
		Methoxychlor	12.5	15	1.603	0.1778	11.0907	.	.
		Methoxychlor	50.0	15	1.609	0.1444	8.9777	.	.
27	**Adj Liver**	Corn Oil	0.0	15	8.492	1.2671	14.9218	.	.
		DE-71	30.0	15	10.673	1.2430	11.6464	.	.
		DE-71	60.0	15	12.089	0.9341	7.7272	.	.
		2-Chloronitrobenzene	25.0	15	10.943	1.3809	12.6194	.	.
		2-Chloronitrobenzene	100.0	15	13.472	2.2022	16.3467	.	.
		Methoxychlor	12.5	15	8.150	0.8336	10.2288	.	.
		Methoxychlor	50.0	15	7.812	0.8130	10.4070	.	.
28	**Adj Ovaries**	Corn Oil	0.0	15	0.082	0.0218	26.5406	.	.
		DE-71	30.0	15	0.078	0.0196	25.1837	.	.
		DE-71	60.0	15	0.080	0.0101	12.6498	.	.

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
		2-Chloronitrobenzene	25.0	15	0.091	0.0227	24.8610	.	.
		2-Chloronitrobenzene	100.0	15	0.083	0.0366	43.9176	.	.
		Methoxychlor	12.5	14	0.085	0.0231	27.1109	.	.
		Methoxychlor	50.0	15	0.077	0.0170	21.9959	.	.
29	**Adj Ovaries***	Corn Oil	0.0	15	0.082	0.0214	25.9940	.	.
		DE-71	30.0	15	0.078	0.0189	24.2367	.	.
		DE-71	60.0	15	0.080	0.0116	14.4496	.	.
		2-Chloronitrobenzene	25.0	15	0.091	0.0227	24.9237	.	.
		2-Chloronitrobenzene	100.0	14	0.074	0.0106	14.2704	.	.
		Methoxychlor	12.5	14	0.086	0.0233	27.1730	.	.
		Methoxychlor	50.0	15	0.077	0.0162	21.0601	.	.
30	**Adj Pituitary**	Corn Oil	0.0	14	0.013	0.0022	16.4985	.	.
		DE-71	30.0	15	0.012	0.0047	38.8852	.	.
		DE-71	60.0	15	0.011	0.0051	47.7063	.	.
		2-Chloronitrobenzene	25.0	15	0.012	0.0041	34.3360	.	.
		2-Chloronitrobenzene	100.0	15	0.012	0.0039	32.7705	.	.
		Methoxychlor	12.5	15	0.011	0.0036	32.3027	.	.
		Methoxychlor	50.0	15	0.013	0.0044	34.3640	.	.
31	**Adj ThyroidBlotted**	Corn Oil	0.0	15	0.019	0.0042	21.7529	.	.
		DE-71	30.0	15	0.022	0.0046	21.1099	.	.
		DE-71	60.0	15	0.022	0.0030	13.9191	.	.
		2-Chloronitrobenzene	25.0	15	0.020	0.0046	23.2113	.	.
		2-Chloronitrobenzene	100.0	15	0.020	0.0033	17.0314	.	.
		Methoxychlor	12.5	15	0.018	0.0037	20.8135	.	.
		Methoxychlor	50.0	15	0.020	0.0031	15.5097	.	.
32	**Adj UterusBlotted**	Corn Oil	0.0	15	0.322	0.0935	29.0810	.	.
		DE-71	30.0	14	0.343	0.0849	24.7816	.	.
		DE-71	60.0	15	0.297	0.0931	31.3153	.	.
		2-Chloronitrobenzene	25.0	15	0.311	0.0994	32.0234	.	.
		2-Chloronitrobenzene	100.0	15	0.256	0.0992	38.8129	.	.
		Methoxychlor	12.5	15	0.375	0.0788	21.0337	.	.
		Methoxychlor	50.0	15	0.330	0.0756	22.9193	.	.

Outlier(s) excluded

Table A-2. Summary Statistics for Argus Laboratories
Female Pubertal Assay

od	parm	TestChemical	DoseageLevel	N	Mean	Std	CV	Min	Max
33	**Adj UterusWet**	Corn Oil	0.0	15	0.368	0.1294	35.1507	.	.
		DE-71	30.0	14	0.378	0.1302	34.4605	.	.
		DE-71	60.0	15	0.341	0.1198	35.1306	.	.
		2-Chloronitrobenzene	25.0	15	0.361	0.1435	39.7427	.	.
		2-Chloronitrobenzene	100.0	15	0.299	0.1142	38.1811	.	.
		Methoxychlor	12.5	15	0.456	0.1634	35.8682	.	.
		Methoxychlor	50.0	15	0.381	0.0992	26.0201	.	.
34	**Adj UterusWet***	Corn Oil	0.0	15	0.368	0.1293	35.1295	.	.
		DE-71	30.0	13	0.349	0.0716	20.5191	.	.
		DE-71	60.0	14	0.317	0.0804	25.3241	.	.
		2-Chloronitrobenzene	25.0	15	0.362	0.1446	39.9716	.	.
		2-Chloronitrobenzene	100.0	15	0.299	0.1133	37.8511	.	.
		Methoxychlor	12.5	15	0.454	0.1655	36.4529	.	.
		Methoxychlor	50.0	15	0.382	0.0981	25.7167	.	.
35	**Adj Age at VO**	Corn Oil	0.0	15	31.467	1.6002	5.0855	.	.
		DE-71	30.0	15	32.400	1.9255	5.9430	.	.
		DE-71	60.0	15	32.267	2.5632	7.9438	.	.
		2-Chloronitrobenzene	25.0	15	32.068	1.7077	5.3253	.	.
		2-Chloronitrobenzene	100.0	15	34.801	2.1191	6.0893	.	.
		Methoxychlor	12.5	15	31.997	2.5996	8.1246	.	.
		Methoxychlor	50.0	15	27.534	0.8502	3.0879	.	.
36	**Adj BodyWeight at VO**	Corn Oil	0.0	15	110.100	10.4331	9.4760	.	.
		DE-71	30.0	15	115.482	13.4654	11.6602	.	.
		DE-71	60.0	15	114.602	15.2545	13.3109	.	.
		2-Chloronitrobenzene	25.0	15	116.152	13.5747	11.6870	.	.
		2-Chloronitrobenzene	100.0	15	127.179	14.0855	11.0753	.	.
		Methoxychlor	12.5	15	111.092	15.2211	13.7014	.	.
		Methoxychlor	50.0	15	85.926	7.0747	8.2335	.	.

***Outlier(s) excluded**

Table A-3. Summary Statistics for WIL Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
1	t4	Corn Oil	0.0	15	5.227	1.3977	26.7414	3.300	7.700
		DE-71	30.0	15	1.396	0.4554	32.6213	0.840	2.600
		DE-71	60.0	15	0.959	0.1898	19.8030	0.640	1.400
		2-Chloronitrobenzene	25.0	15	5.133	0.8252	16.0753	3.700	6.900
		2-Chloronitrobenzene	100.0	15	4.867	0.8347	17.1507	3.000	6.000
		Methoxychlor	12.5	15	5.053	0.7927	15.6868	3.600	6.400
		Methoxychlor	50.0	15	5.673	1.3161	23.1978	3.800	8.800
2	TSH	Corn Oil	0.0	15	8.327	2.1302	25.5830	5.800	13.300
		DE-71	30.0	15	11.620	4.3118	37.1068	7.200	20.500
		DE-71	60.0	15	14.307	6.7093	46.8964	7.400	31.100
		2-Chloronitrobenzene	25.0	15	9.507	2.5172	26.4784	6.600	16.500
		2-Chloronitrobenzene	100.0	15	10.660	2.6243	24.6180	7.500	18.400
		Methoxychlor	12.5	15	10.100	3.2593	32.2700	5.900	16.900
		Methoxychlor	50.0	15	9.167	2.5096	27.3775	4.400	14.200
3	TSH*	Corn Oil	0.0	15	8.327	2.1302	25.5830	5.800	13.300
		DE-71	30.0	15	11.620	4.3118	37.1068	7.200	20.500
		DE-71	60.0	15	14.307	6.7093	46.8964	7.400	31.100
		2-Chloronitrobenzene	25.0	14	9.007	1.6712	18.5545	6.600	11.700
		2-Chloronitrobenzene	100.0	14	10.107	1.5745	15.5785	7.500	13.200
		Methoxychlor	12.5	15	10.100	3.2593	32.2700	5.900	16.900
		Methoxychlor	50.0	15	9.167	2.5096	27.3775	4.400	14.200
4	Adrenals	Corn Oil	0.0	15	0.042	0.0037	8.9167	0.035	0.049
		DE-71	30.0	15	0.043	0.0057	13.2965	0.033	0.056
		DE-71	60.0	15	0.040	0.0053	13.2435	0.031	0.047
		2-Chloronitrobenzene	25.0	15	0.044	0.0057	13.1974	0.035	0.058
		2-Chloronitrobenzene	100.0	15	0.037	0.0046	12.2130	0.028	0.047
		Methoxychlor	12.5	15	0.043	0.0051	11.8755	0.034	0.053
		Methoxychlor	50.0	15	0.045	0.0074	16.4614	0.033	0.055
5	Kidneys	Corn Oil	0.0	15	1.617	0.1809	11.1921	1.281	2.031
		DE-71	30.0	15	1.649	0.1324	8.0294	1.497	1.948
		DE-71	60.0	15	1.605	0.0702	4.3757	1.482	1.725
		2-Chloronitrobenzene	25.0	15	1.702	0.1783	10.4786	1.373	2.013

Table A-3. Summary Statistics for WIL Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		2-Chloronitrobenzene	100.0	15	1.692	0.1329	7.8588	1.441	1.914
		Methoxychlor	12.5	15	1.579	0.1481	9.3756	1.336	1.826
		Methoxychlor	50.0	15	1.511	0.0806	5.3347	1.396	1.640
6	**Liver**	Corn Oil	0.0	15	7.968	1.2226	15.3448	6.550	10.354
		DE-71	30.0	15	9.977	0.9330	9.3511	8.066	11.223
		DE-71	60.0	15	10.681	1.0791	10.1035	9.327	13.489
		2-Chloronitrobenzene	25.0	15	10.554	1.5473	14.6612	8.057	13.182
		2-Chloronitrobenzene	100.0	15	12.463	1.3885	11.1408	10.551	14.732
		Methoxychlor	12.5	15	7.681	1.1489	14.9578	5.800	9.591
		Methoxychlor	50.0	15	7.058	0.6608	9.3621	5.552	8.173
7	**Ovaries**	Corn Oil	0.0	15	0.062	0.0137	21.9968	0.039	0.099
		DE-71	30.0	15	0.062	0.0113	18.2263	0.047	0.081
		DE-71	60.0	15	0.058	0.0121	20.7296	0.039	0.078
		2-Chloronitrobenzene	25.0	15	0.063	0.0086	13.7441	0.049	0.077
		2-Chloronitrobenzene	100.0	15	0.053	0.0113	21.2398	0.032	0.072
		Methoxychlor	12.5	15	0.061	0.0127	20.6841	0.044	0.093
		Methoxychlor	50.0	15	0.059	0.0110	18.7203	0.034	0.075
8	**Pituitary**	Corn Oil	0.0	15	0.010	0.0016	16.2596	0.008	0.013
		DE-71	30.0	15	0.010	0.0013	13.9591	0.007	0.012
		DE-71	60.0	15	0.009	0.0013	15.0798	0.007	0.011
		2-Chloronitrobenzene	25.0	15	0.010	0.0013	13.2373	0.007	0.012
		2-Chloronitrobenzene	100.0	15	0.009	0.0012	13.0890	0.007	0.011
		Methoxychlor	12.5	15	0.010	0.0014	14.0307	0.008	0.012
		Methoxychlor	50.0	15	0.009	0.0020	21.7762	0.006	0.013
9	**ThyroidBlotted**	Corn Oil	0.0	15	0.013	0.0026	20.3778	0.009	0.018
		DE-71	30.0	15	0.013	0.0022	16.5494	0.011	0.018
		DE-71	60.0	15	0.012	0.0035	28.4593	0.008	0.018
		2-Chloronitrobenzene	25.0	15	0.012	0.0029	24.3899	0.008	0.019
		2-Chloronitrobenzene	100.0	15	0.011	0.0024	21.1795	0.008	0.016
		Methoxychlor	12.5	15	0.011	0.0040	35.6224	0.004	0.018
		Methoxychlor	50.0	15	0.012	0.0022	18.6112	0.008	0.015
10	**UterusBlotted**	Corn Oil	0.0	15	0.282	0.0917	32.4785	0.170	0.520

Table A-3. Summary Statistics for WIL Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		DE-71	30.0	15	0.278	0.0757	27.2165	0.170	0.384
		DE-71	60.0	15	0.242	0.0782	32.3277	0.145	0.389
		2-Chloronitrobenzene	25.0	15	0.293	0.0772	26.3592	0.199	0.498
		2-Chloronitrobenzene	100.0	15	0.245	0.0639	26.0274	0.149	0.338
		Methoxychlor	12.5	15	0.324	0.0761	23.4755	0.203	0.446
		Methoxychlor	50.0	15	0.319	0.0603	18.9222	0.229	0.415
11	**UterusWet**	Corn Oil	0.0	15	0.321	0.1077	33.5419	0.195	0.590
		DE-71	30.0	15	0.312	0.0840	26.9417	0.204	0.434
		DE-71	60.0	15	0.289	0.1030	35.6507	0.176	0.478
		2-Chloronitrobenzene	25.0	14	0.314	0.0630	20.0900	0.228	0.466
		2-Chloronitrobenzene	100.0	15	0.288	0.0866	30.0177	0.157	0.457
		Methoxychlor	12.5	15	0.396	0.1390	35.1083	0.231	0.713
		Methoxychlor	50.0	15	0.389	0.1205	31.0138	0.254	0.637
12	**Initial BodyWeight**	Corn Oil	0.0	15	45.713	3.3434	7.3139	41.000	51.600
		DE-71	30.0	15	45.787	2.7931	6.1002	42.100	50.700
		DE-71	60.0	15	46.507	3.1420	6.7560	41.300	51.500
		2-Chloronitrobenzene	25.0	15	46.673	2.8045	6.0087	42.400	51.200
		2-Chloronitrobenzene	100.0	15	46.340	2.6578	5.7355	42.500	50.600
		Methoxychlor	12.5	15	46.780	2.7914	5.9670	42.600	51.200
		Methoxychlor	50.0	15	46.560	2.7354	5.8751	42.200	50.700
13	**Final BodyWeight**	Corn Oil	0.0	15	159.907	13.2422	8.2812	147.400	185.600
		DE-71	30.0	15	162.887	10.5105	6.4527	149.100	185.300
		DE-71	60.0	15	161.100	6.7037	4.1612	152.100	171.100
		2-Chloronitrobenzene	25.0	15	169.693	13.1280	7.7363	154.900	194.900
		2-Chloronitrobenzene	100.0	15	163.427	12.4925	7.6441	143.100	187.300
		Methoxychlor	12.5	15	160.640	14.3460	8.9305	139.300	185.600
		Methoxychlor	50.0	15	150.567	8.6553	5.7485	138.200	167.600
14	**BodyWeight Gain**	Corn Oil	0.0	15	114.193	13.5885	11.8996	99.100	142.000
		DE-71	30.0	15	117.100	10.9994	9.3932	104.800	137.400
		DE-71	60.0	15	114.593	6.2782	5.4787	105.700	124.000
		2-Chloronitrobenzene	25.0	15	123.020	13.4812	10.9586	105.500	148.800
		2-Chloronitrobenzene	100.0	15	117.087	11.4192	9.7528	98.800	137.800

Table A-3. Summary Statistics for WIL Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		Methoxychlor	12.5	15	113.860	13.9995	12.2954	90.900	137.000
		Methoxychlor	50.0	15	104.007	7.8732	7.5699	94.700	118.400
15	**Age at VO**	Corn Oil	0.0	15	34.133	2.2949	6.7234	31.000	38.000
		DE-71	30.0	15	34.933	2.1865	6.2592	32.000	39.000
		DE-71	60.0	15	35.733	2.3442	6.5602	31.000	40.000
		2-Chloronitrobenzene	25.0	15	34.533	1.8074	5.2338	31.000	37.000
		2-Chloronitrobenzene	100.0	15	36.667	2.4976	6.8117	33.000	42.000
		Methoxychlor	12.5	15	33.933	1.9445	5.7303	30.000	38.000
		Methoxychlor	50.0	15	27.067	0.5936	2.1932	26.000	28.000
16	**BodyWeight at VO**	Corn Oil	0.0	15	116.000	10.5411	9.0871	99.500	133.900
		DE-71	30.0	15	123.567	13.7605	11.1361	103.800	147.200
		DE-71	60.0	15	126.760	11.1373	8.7861	109.200	142.900
		2-Chloronitrobenzene	25.0	15	124.487	9.6204	7.7281	109.700	149.500
		2-Chloronitrobenzene	100.0	15	131.347	15.0247	11.4390	110.600	169.100
		Methoxychlor	12.5	15	116.920	14.9459	12.7830	92.800	144.000
		Methoxychlor	50.0	15	74.620	5.6023	7.5078	67.400	83.400
17	**Final Body Weight as percent of control**	Corn Oil	0.0	15	100.000	8.2812	8.2812	92.179	116.068
		DE-71	30.0	15	101.864	6.5729	6.4527	93.242	115.880
		DE-71	60.0	15	100.746	4.1923	4.1612	95.118	107.000
		2-Chloronitrobenzene	25.0	15	106.120	8.2098	7.7363	96.869	121.884
		2-Chloronitrobenzene	100.0	15	102.201	7.8124	7.6441	89.490	117.131
		Methoxychlor	12.5	15	100.459	8.9715	8.9305	87.113	116.068
		Methoxychlor	50.0	15	94.159	5.4127	5.7485	86.425	104.811
18	**Adj Adrenals**	Corn Oil	0.0	15	0.042	0.0034	8.1853	.	.
		DE-71	30.0	15	0.043	0.0051	11.7674	.	.
		DE-71	60.0	15	0.040	0.0053	13.4581	.	.
		2-Chloronitrobenzene	25.0	15	0.043	0.0057	13.0722	.	.
		2-Chloronitrobenzene	100.0	15	0.037	0.0043	11.3497	.	.
		Methoxychlor	12.5	15	0.043	0.0053	12.2633	.	.
		Methoxychlor	50.0	15	0.045	0.0069	15.4789	.	.
19	**Adj Kidneys**	Corn Oil	0.0	15	1.622	0.1900	11.7166	.	.
		DE-71	30.0	15	1.654	0.1341	8.1063	.	.

Table A-3. Summary Statistics for WIL Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		DE-71	60.0	15	1.604	0.0639	3.9840	.	.
		2-Chloronitrobenzene	25.0	15	1.699	0.1758	10.3459	.	.
		2-Chloronitrobenzene	100.0	15	1.691	0.1298	7.6754	.	.
		Methoxychlor	12.5	15	1.576	0.1407	8.9284	.	.
		Methoxychlor	50.0	15	1.510	0.0797	5.2788	.	.
20	**Adj Liver**	Corn Oil	0.0	15	8.013	1.2724	15.8790	.	.
		DE-71	30.0	15	10.017	0.9391	9.3750	.	.
		DE-71	60.0	15	10.668	1.0387	9.7358	.	.
		2-Chloronitrobenzene	25.0	15	10.530	1.6099	15.2895	.	.
		2-Chloronitrobenzene	100.0	15	12.463	1.2891	10.3435	.	.
		Methoxychlor	12.5	15	7.649	1.1085	14.4920	.	.
		Methoxychlor	50.0	15	7.042	0.6366	9.0403	.	.
21	**Adj Ovaries**	Corn Oil	0.0	15	0.063	0.0142	22.4436	.	.
		DE-71	30.0	15	0.062	0.0099	15.8745	.	.
		DE-71	60.0	15	0.058	0.0100	17.1504	.	.
		2-Chloronitrobenzene	25.0	15	0.062	0.0092	14.7230	.	.
		2-Chloronitrobenzene	100.0	15	0.053	0.0108	20.2489	.	.
		Methoxychlor	12.5	15	0.061	0.0128	21.1039	.	.
		Methoxychlor	50.0	15	0.059	0.0114	19.3486	.	.
22	**Adj Pituitary**	Corn Oil	0.0	15	0.010	0.0017	16.4669	.	.
		DE-71	30.0	15	0.010	0.0013	13.9394	.	.
		DE-71	60.0	15	0.009	0.0013	15.1887	.	.
		2-Chloronitrobenzene	25.0	15	0.010	0.0013	13.3907	.	.
		2-Chloronitrobenzene	100.0	15	0.009	0.0012	13.0381	.	.
		Methoxychlor	12.5	15	0.010	0.0014	14.0933	.	.
		Methoxychlor	50.0	15	0.009	0.0020	21.8424	.	.
23	**Adj ThyroidBlotted**	Corn Oil	0.0	15	0.013	0.0025	19.4561	.	.
		DE-71	30.0	15	0.013	0.0021	16.4170	.	.
		DE-71	60.0	15	0.012	0.0036	29.6086	.	.
		2-Chloronitrobenzene	25.0	15	0.012	0.0028	23.7153	.	.
		2-Chloronitrobenzene	100.0	15	0.011	0.0024	21.3115	.	.
		Methoxychlor	12.5	15	0.011	0.0041	35.9354	.	.

Table A-3. Summary Statistics for WIL Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		Methoxychlor	50.0	15	0.012	0.0022	18.1495	.	.
24	Adj UterusBlotted	Corn Oil	0.0	15	0.286	0.0841	29.3826	.	.
		DE-71	30.0	15	0.281	0.0701	24.9252	.	.
		DE-71	60.0	15	0.241	0.0773	32.0869	.	.
		2-Chloronitrobenzene	25.0	15	0.291	0.0743	25.5643	.	.
		2-Chloronitrobenzene	100.0	15	0.245	0.0652	26.5631	.	.
		Methoxychlor	12.5	15	0.321	0.0808	25.1505	.	.
		Methoxychlor	50.0	15	0.318	0.0593	18.6622	.	.
25	Adj UterusWet	Corn Oil	0.0	15	0.325	0.0990	30.4955	.	.
		DE-71	30.0	15	0.315	0.0781	24.8052	.	.
		DE-71	60.0	15	0.288	0.1041	36.2193	.	.
		2-Chloronitrobenzene	25.0	14	0.313	0.0665	21.2185	.	.
		2-Chloronitrobenzene	100.0	15	0.288	0.0872	30.2690	.	.
		Methoxychlor	12.5	15	0.393	0.1440	36.6391	.	.
		Methoxychlor	50.0	15	0.387	0.1184	30.6017	.	.
26	Adj Age at VO	Corn Oil	0.0	15	34.092	2.2972	6.7381	.	.
		DE-71	30.0	15	34.897	2.1318	6.1088	.	.
		DE-71	60.0	15	35.744	2.1795	6.0975	.	.
		2-Chloronitrobenzene	25.0	15	34.555	1.7717	5.1271	.	.
		2-Chloronitrobenzene	100.0	15	36.667	2.4232	6.6086	.	.
		Methoxychlor	12.5	15	33.962	1.9541	5.7539	.	.
		Methoxychlor	50.0	15	27.081	0.6865	2.5348	.	.
27	Adj BodyWeight at VO	Corn Oil	0.0	15	116.449	10.4140	8.9430	.	.
		DE-71	30.0	15	123.963	14.0995	11.3739	.	.
		DE-71	60.0	15	126.638	12.9365	10.2153	.	.
		2-Chloronitrobenzene	25.0	15	124.244	9.9464	8.0055	.	.
		2-Chloronitrobenzene	100.0	15	131.345	15.2678	11.6242	.	.
		Methoxychlor	12.5	15	116.601	14.9480	12.8198	.	.
		Methoxychlor	50.0	15	74.459	4.3015	5.7769	.	.

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
1	t4	Corn Oil (trt 1)	0.0	15	5.313	1.2889	24.2577	3.800	7.500
		Corn Oil (trt 2)	0.0	15	4.607	1.2389	26.8943	2.700	7.200
		DE-71	30.0	15	1.493	0.5365	35.9249	0.900	2.900
		DE-71	60.0	15	0.647	0.3758	58.1160	0.100	1.300
		2-Chloronitrobenzene	25.0	15	4.113	0.9553	23.2253	2.900	6.100
		2-Chloronitrobenzene	100.0	15	3.813	0.5975	15.6675	2.800	5.000
		Methoxychlor	12.5	15	4.287	1.0091	23.5416	3.000	6.300
		Methoxychlor	50.0	15	4.327	0.6442	14.8883	3.000	5.500
2	TSH	Corn Oil (trt 1)	0.0	15	4.340	1.2123	27.9336	2.400	6.600
		Corn Oil (trt 2)	0.0	15	3.520	0.8377	23.7978	2.400	5.800
		DE-71	30.0	15	5.993	2.7714	46.2414	3.500	14.300
		DE-71	60.0	15	6.567	2.2661	34.5092	4.200	13.200
		2-Chloronitrobenzene	25.0	15	4.627	1.5036	32.4975	2.500	7.500
		2-Chloronitrobenzene	100.0	15	5.560	1.9892	35.7767	3.500	9.400
		Methoxychlor	12.5	15	4.333	1.4171	32.7017	2.900	7.000
		Methoxychlor	50.0	15	4.107	1.3063	31.8089	2.900	6.800
3	TSH*	Corn Oil (trt 1)	0.0	15	4.340	1.2123	27.9336	2.400	6.600
		Corn Oil (trt 2)	0.0	15	3.520	0.8377	23.7978	2.400	5.800
		DE-71	30.0	14	5.400	1.6077	29.7717	3.500	8.600
		DE-71	60.0	14	6.093	1.3798	22.6459	4.200	8.600
		2-Chloronitrobenzene	25.0	15	4.627	1.5036	32.4975	2.500	7.500
		2-Chloronitrobenzene	100.0	15	5.560	1.9892	35.7767	3.500	9.400
		Methoxychlor	12.5	15	4.333	1.4171	32.7017	2.900	7.000
		Methoxychlor	50.0	15	4.107	1.3063	31.8089	2.900	6.800
4	Adrenals	Corn Oil (trt 1)	0.0	15	0.042	0.0091	21.5430	0.027	0.057
		Corn Oil (trt 2)	0.0	15	0.048	0.0092	19.0681	0.037	0.076
		DE-71	30.0	15	0.041	0.0079	19.5503	0.028	0.058
		DE-71	60.0	15	0.038	0.0080	21.0059	0.020	0.053
		2-Chloronitrobenzene	25.0	15	0.036	0.0107	29.7019	0.016	0.053
		2-Chloronitrobenzene	100.0	15	0.034	0.0088	25.9985	0.023	0.055
		Methoxychlor	12.5	15	0.044	0.0077	17.3545	0.033	0.057
		Methoxychlor	50.0	15	0.044	0.0062	14.0129	0.034	0.056
5	Adrenals*	Corn Oil (trt 1)	0.0	15	0.042	0.0091	21.5430	0.027	0.057

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		Corn Oil (trt 2)	0.0	14	0.046	0.0052	11.2264	0.037	0.058
		DE-71	30.0	15	0.041	0.0079	19.5503	0.028	0.058
		DE-71	60.0	15	0.038	0.0080	21.0059	0.020	0.053
		2-Chloronitrobenzene	25.0	15	0.036	0.0107	29.7019	0.016	0.053
		2-Chloronitrobenzene	100.0	15	0.034	0.0088	25.9985	0.023	0.055
		Methoxychlor	12.5	15	0.044	0.0077	17.3545	0.033	0.057
		Methoxychlor	50.0	15	0.044	0.0062	14.0129	0.034	0.056
6	**Kidneys**	Corn Oil (trt 1)	0.0	15	1.472	0.1455	9.8841	1.269	1.685
		Corn Oil (trt 2)	0.0	15	1.490	0.1266	8.4943	1.275	1.701
		DE-71	30.0	15	1.459	0.1693	11.6012	1.202	1.769
		DE-71	60.0	15	1.481	0.1271	8.5816	1.304	1.704
		2-Chloronitrobenzene	25.0	15	1.427	0.1326	9.2922	1.260	1.654
		2-Chloronitrobenzene	100.0	15	1.462	0.1694	11.5898	1.191	1.874
		Methoxychlor	12.5	15	1.404	0.1044	7.4395	1.250	1.618
		Methoxychlor	50.0	15	1.373	0.1042	7.5915	1.252	1.611
7	**Liver**	Corn Oil (trt 1)	0.0	15	7.451	1.1347	15.2299	6.189	9.866
		Corn Oil (trt 2)	0.0	15	8.053	0.6770	8.4064	6.736	9.132
		DE-71	30.0	15	9.537	1.3277	13.9214	7.335	12.046
		DE-71	60.0	15	10.871	1.1452	10.5350	9.188	13.359
		2-Chloronitrobenzene	25.0	15	9.245	1.3796	14.9223	7.231	12.005
		2-Chloronitrobenzene	100.0	15	11.208	1.0512	9.3788	9.388	13.112
		Methoxychlor	12.5	15	7.233	0.7336	10.1428	6.307	9.279
		Methoxychlor	50.0	15	7.141	0.7803	10.9279	5.277	8.336
8	**Liver***	Corn Oil (trt 1)	0.0	15	7.451	1.1347	15.2299	6.189	9.866
		Corn Oil (trt 2)	0.0	15	8.053	0.6770	8.4064	6.736	9.132
		DE-71	30.0	15	9.537	1.3277	13.9214	7.335	12.046
		DE-71	60.0	15	10.871	1.1452	10.5350	9.188	13.359
		2-Chloronitrobenzene	25.0	15	9.245	1.3796	14.9223	7.231	12.005
		2-Chloronitrobenzene	100.0	15	11.208	1.0512	9.3788	9.388	13.112
		Methoxychlor	12.5	14	7.086	0.4841	6.8318	6.307	8.074
		Methoxychlor	50.0	15	7.141	0.7803	10.9279	5.277	8.336
9	**Ovaries**	Corn Oil (trt 1)	0.0	15	0.093	0.0156	16.8167	0.070	0.127
		Corn Oil (trt 2)	0.0	15	0.104	0.0427	41.0031	0.076	0.255

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		DE-71	30.0	15	0.086	0.0124	14.3798	0.053	0.106
		DE-71	60.0	15	0.083	0.0141	16.9126	0.065	0.112
		2-Chloronitrobenzene	25.0	15	0.078	0.0123	15.8637	0.061	0.105
		2-Chloronitrobenzene	100.0	15	0.075	0.0091	12.1777	0.060	0.091
		Methoxychlor	12.5	15	0.091	0.0145	15.8494	0.056	0.117
		Methoxychlor	50.0	15	0.081	0.0142	17.5787	0.062	0.106
10	**Ovaries***	Corn Oil (trt 1)	0.0	15	0.093	0.0156	16.8167	0.070	0.127
		Corn Oil (trt 2)	0.0	14	0.093	0.0094	10.0924	0.076	0.112
		DE-71	30.0	15	0.086	0.0124	14.3798	0.053	0.106
		DE-71	60.0	15	0.083	0.0141	16.9126	0.065	0.112
		2-Chloronitrobenzene	25.0	15	0.078	0.0123	15.8637	0.061	0.105
		2-Chloronitrobenzene	100.0	15	0.075	0.0091	12.1777	0.060	0.091
		Methoxychlor	12.5	15	0.091	0.0145	15.8494	0.056	0.117
		Methoxychlor	50.0	15	0.081	0.0142	17.5787	0.062	0.106
11	**Pituitary**	Corn Oil (trt 1)	0.0	15	0.009	0.0015	16.4607	0.007	0.012
		Corn Oil (trt 2)	0.0	15	0.010	0.0019	19.3032	0.005	0.012
		DE-71	30.0	15	0.009	0.0016	17.8881	0.006	0.013
		DE-71	60.0	15	0.008	0.0012	13.9483	0.007	0.011
		2-Chloronitrobenzene	25.0	15	0.008	0.0042	51.6555	0.005	0.022
		2-Chloronitrobenzene	100.0	15	0.006	0.0020	34.2225	0.002	0.010
		Methoxychlor	12.5	15	0.010	0.0030	31.5880	0.007	0.019
		Methoxychlor	50.0	15	0.008	0.0012	14.2729	0.006	0.011
12	**Pituitary***	Corn Oil (trt 1)	0.0	15	0.009	0.0015	16.4607	0.007	0.012
		Corn Oil (trt 2)	0.0	15	0.010	0.0019	19.3032	0.005	0.012
		DE-71	30.0	15	0.009	0.0016	17.8881	0.006	0.013
		DE-71	60.0	15	0.008	0.0012	13.9483	0.007	0.011
		2-Chloronitrobenzene	25.0	14	0.007	0.0015	21.8596	0.005	0.010
		2-Chloronitrobenzene	100.0	15	0.006	0.0020	34.2225	0.002	0.010
		Methoxychlor	12.5	14	0.009	0.0014	16.0827	0.007	0.011
		Methoxychlor	50.0	15	0.008	0.0012	14.2729	0.006	0.011
13	**ThyroidBlotted**	Corn Oil (trt 1)	0.0	15	0.022	0.0024	11.2861	0.018	0.026
		Corn Oil (trt 2)	0.0	15	0.022	0.0068	30.5806	0.011	0.033
		DE-71	30.0	15	0.023	0.0047	20.4422	0.017	0.035

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		DE-71	60.0	15	0.025	0.0045	18.4490	0.018	0.035
		2-Chloronitrobenzene	25.0	15	0.021	0.0056	26.9246	0.011	0.033
		2-Chloronitrobenzene	100.0	15	0.021	0.0035	16.6074	0.017	0.026
		Methoxychlor	12.5	15	0.022	0.0044	20.0803	0.016	0.033
		Methoxychlor	50.0	15	0.024	0.0054	22.8264	0.016	0.037
14	**UterusBlotted**	Corn Oil (trt 1)	0.0	15	0.332	0.0696	20.9400	0.228	0.449
		Corn Oil (trt 2)	0.0	15	0.344	0.0831	24.1480	0.221	0.496
		DE-71	30.0	15	0.335	0.0864	25.8102	0.175	0.510
		DE-71	60.0	15	0.336	0.1211	36.0175	0.207	0.610
		2-Chloronitrobenzene	25.0	15	0.298	0.0872	29.2399	0.175	0.455
		2-Chloronitrobenzene	100.0	15	0.253	0.0939	37.0860	0.152	0.471
		Methoxychlor	12.5	15	0.354	0.0976	27.5628	0.209	0.567
		Methoxychlor	50.0	15	0.325	0.1048	32.2513	0.183	0.510
15	**UterusWet**	Corn Oil (trt 1)	0.0	15	0.353	0.0893	25.2752	0.238	0.534
		Corn Oil (trt 2)	0.0	15	0.395	0.1786	45.2260	0.109	0.755
		DE-71	30.0	15	0.351	0.1044	29.7697	0.189	0.584
		DE-71	60.0	15	0.363	0.1547	42.6731	0.213	0.689
		2-Chloronitrobenzene	25.0	15	0.331	0.1477	44.6420	0.195	0.773
		2-Chloronitrobenzene	100.0	15	0.274	0.1265	46.2427	0.156	0.616
		Methoxychlor	12.5	15	0.444	0.2350	52.8999	0.210	0.891
		Methoxychlor	50.0	15	0.376	0.1805	47.9759	0.187	0.873
16	**UterusWet***	Corn Oil (trt 1)	0.0	15	0.353	0.0893	25.2752	0.238	0.534
		Corn Oil (trt 2)	0.0	15	0.395	0.1786	45.2260	0.109	0.755
		DE-71	30.0	15	0.351	0.1044	29.7697	0.189	0.584
		DE-71	60.0	15	0.363	0.1547	42.6731	0.213	0.689
		2-Chloronitrobenzene	25.0	14	0.299	0.0858	28.6692	0.195	0.455
		2-Chloronitrobenzene	100.0	15	0.274	0.1265	46.2427	0.156	0.616
		Methoxychlor	12.5	15	0.444	0.2350	52.8999	0.210	0.891
		Methoxychlor	50.0	14	0.341	0.1216	35.6798	0.187	0.579
17	**Initial BodyWeight**	Corn Oil (trt 1)	0.0	15	52.433	3.6388	6.9399	47.500	58.100
		Corn Oil (trt 2)	0.0	15	53.520	5.8240	10.8819	41.100	63.700
		DE-71	30.0	15	53.027	5.0381	9.5010	43.500	59.600
		DE-71	60.0	15	53.113	4.6696	8.7918	44.800	61.300

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		2-Chloronitrobenzene	25.0	15	52.787	6.7519	12.7910	40.900	60.800
		2-Chloronitrobenzene	100.0	15	52.640	5.9877	11.3748	43.100	60.400
		Methoxychlor	12.5	15	52.780	5.1981	9.8486	43.800	63.500
		Methoxychlor	50.0	15	53.687	4.2970	8.0038	48.100	62.400
18	**Final BodyWeight**	Corn Oil (trt 1)	0.0	15	157.573	15.2757	9.6943	139.900	194.100
		Corn Oil (trt 2)	0.0	15	165.587	12.5350	7.5701	132.500	178.700
		DE-71	30.0	15	161.420	11.3275	7.0174	136.400	176.900
		DE-71	60.0	15	160.660	12.3630	7.6951	142.900	186.700
		2-Chloronitrobenzene	25.0	15	157.640	16.2467	10.3062	130.300	186.500
		2-Chloronitrobenzene	100.0	15	153.273	12.5870	8.2121	134.200	175.800
		Methoxychlor	12.5	15	159.400	11.8562	7.4380	142.500	186.100
		Methoxychlor	50.0	15	155.913	8.8444	5.6726	144.700	173.400
19	**BodyWeight Gain**	Corn Oil (trt 1)	0.0	15	105.140	13.7700	13.0968	90.200	142.800
		Corn Oil (trt 2)	0.0	15	112.067	12.0541	10.7562	87.100	127.000
		DE-71	30.0	15	108.393	8.7340	8.0577	92.900	122.400
		DE-71	60.0	15	107.547	11.1060	10.3267	94.400	134.400
		2-Chloronitrobenzene	25.0	15	104.853	11.5842	11.0480	88.900	127.800
		2-Chloronitrobenzene	100.0	15	100.633	10.3667	10.3014	76.600	117.400
		Methoxychlor	12.5	15	106.620	12.4388	11.6665	88.700	129.400
		Methoxychlor	50.0	15	102.227	9.2041	9.0036	83.700	121.500
20	**Age at VO**	Corn Oil (trt 1)	0.0	15	33.067	1.4376	4.3476	31.000	36.000
		Corn Oil (trt 2)	0.0	15	33.667	2.3503	6.9810	30.000	38.000
		DE-71	30.0	15	34.133	1.5523	4.5476	32.000	37.000
		DE-71	60.0	15	33.200	1.2649	3.8100	32.000	37.000
		2-Chloronitrobenzene	25.0	15	34.067	1.7099	5.0193	31.000	38.000
		2-Chloronitrobenzene	100.0	15	38.867	2.5317	6.5138	33.000	42.000
		Methoxychlor	12.5	15	32.533	1.8465	5.6757	28.000	36.000
		Methoxychlor	50.0	15	27.467	0.5164	1.8801	27.000	28.000
21	**Age at VO***	Corn Oil (trt 1)	0.0	15	33.067	1.4376	4.3476	31.000	36.000
		Corn Oil (trt 2)	0.0	15	33.667	2.3503	6.9810	30.000	38.000
		DE-71	30.0	15	34.133	1.5523	4.5476	32.000	37.000
		DE-71	60.0	14	32.929	0.7300	2.2171	32.000	34.000
		2-Chloronitrobenzene	25.0	15	34.067	1.7099	5.0193	31.000	38.000

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		2-Chloronitrobenzene	100.0	15	38.867	2.5317	6.5138	33.000	42.000
		Methoxychlor	12.5	15	32.533	1.8465	5.6757	28.000	36.000
		Methoxychlor	50.0	15	27.467	0.5164	1.8801	27.000	28.000
22	**BodyWeight at VO**	Corn Oil (trt 1)	0.0	15	113.380	9.6046	8.4711	97.900	137.800
		Corn Oil (trt 2)	0.0	15	119.553	12.1050	10.1252	93.100	136.300
		DE-71	30.0	15	119.873	7.6090	6.3475	111.100	134.200
		DE-71	60.0	15	113.313	9.4139	8.3078	95.300	128.700
		2-Chloronitrobenzene	25.0	15	116.453	12.5772	10.8002	91.800	137.300
		2-Chloronitrobenzene	100.0	15	137.087	12.3741	9.0265	113.700	157.000
		Methoxychlor	12.5	15	109.393	12.1685	11.1236	83.100	126.300
		Methoxychlor	50.0	15	81.667	4.8432	5.9305	72.400	89.600
23	**Final Body Weight as percent of control**	Corn Oil (trt 1)	0.0	15	100.000	9.6943	9.6943	88.784	123.181
		Corn Oil (trt 2)	0.0	15	100.000	7.5701	7.5701	80.019	107.919
		DE-71	30.0	15	102.441	7.1887	7.0174	86.563	112.265
		DE-71	60.0	15	101.959	7.8458	7.6951	90.688	118.485
		2-Chloronitrobenzene	25.0	15	100.042	10.3105	10.3062	82.692	118.358
		2-Chloronitrobenzene	100.0	15	97.271	7.9880	8.2121	85.167	111.567
		Methoxychlor	12.5	15	96.264	7.1601	7.4380	86.058	112.388
		Methoxychlor	50.0	15	94.158	5.3412	5.6726	87.386	104.719
24	**Adj Adrenals**	Corn Oil (trt 1)	0.0	15	0.042	0.0089	21.0071	.	.
		Corn Oil (trt 2)	0.0	15	0.048	0.0089	18.5341	.	.
		DE-71	30.0	15	0.041	0.0085	20.8426	.	.
		DE-71	60.0	15	0.038	0.0078	20.2881	.	.
		2-Chloronitrobenzene	25.0	15	0.036	0.0106	29.1540	.	.
		2-Chloronitrobenzene	100.0	15	0.034	0.0085	25.1584	.	.
		Methoxychlor	12.5	15	0.044	0.0077	17.2493	.	.
		Methoxychlor	50.0	15	0.044	0.0065	14.6721	.	.
25	**Adj Adrenals***	Corn Oil (trt 1)	0.0	15	0.042	0.0089	20.9404	.	.
		Corn Oil (trt 2)	0.0	14	0.046	0.0048	10.3832	.	.
		DE-71	30.0	15	0.041	0.0085	20.9943	.	.
		DE-71	60.0	15	0.038	0.0077	20.1950	.	.
		2-Chloronitrobenzene	25.0	15	0.036	0.0105	29.0815	.	.

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		2-Chloronitrobenzene	100.0	15	0.034	0.0085	25.0482	.	.
		Methoxychlor	12.5	15	0.044	0.0077	17.2326	.	.
		Methoxychlor	50.0	15	0.044	0.0065	14.7493	.	.
26	**Adj Kidneys**	Corn Oil (trt 1)	0.0	15	1.479	0.1337	9.0392	.	.
		Corn Oil (trt 2)	0.0	15	1.483	0.1026	6.9149	.	.
		DE-71	30.0	15	1.459	0.1486	10.1877	.	.
		DE-71	60.0	15	1.480	0.1222	8.2597	.	.
		2-Chloronitrobenzene	25.0	15	1.429	0.0761	5.3225	.	.
		2-Chloronitrobenzene	100.0	15	1.466	0.1386	9.4550	.	.
		Methoxychlor	12.5	15	1.406	0.1141	8.1127	.	.
		Methoxychlor	50.0	15	1.364	0.1223	8.9687	.	.
27	**Adj Liver**	Corn Oil (trt 1)	0.0	15	7.478	1.0750	14.3756	.	.
		Corn Oil (trt 2)	0.0	15	8.028	0.7500	9.3417	.	.
		DE-71	30.0	15	9.536	1.2340	12.9412	.	.
		DE-71	60.0	15	10.865	1.0812	9.9512	.	.
		2-Chloronitrobenzene	25.0	15	9.255	1.2066	13.0372	.	.
		2-Chloronitrobenzene	100.0	15	11.225	1.0055	8.9574	.	.
		Methoxychlor	12.5	15	7.243	0.7416	10.2385	.	.
		Methoxychlor	50.0	15	7.108	0.8110	11.4104	.	.
28	**Adj Liver***	Corn Oil (trt 1)	0.0	15	7.470	1.0886	14.5743	.	.
		Corn Oil (trt 2)	0.0	15	8.034	0.7214	8.9794	.	.
		DE-71	30.0	15	9.535	1.2554	13.1659	.	.
		DE-71	60.0	15	10.866	1.0944	10.0722	.	.
		2-Chloronitrobenzene	25.0	15	9.251	1.2472	13.4818	.	.
		2-Chloronitrobenzene	100.0	15	11.220	1.0104	9.0054	.	.
		Methoxychlor	12.5	14	7.103	0.5256	7.4002	.	.
		Methoxychlor	50.0	15	7.115	0.7981	11.2163	.	.
29	**Adj Ovaries**	Corn Oil (trt 1)	0.0	15	0.093	0.0146	15.6442	.	.
		Corn Oil (trt 2)	0.0	15	0.104	0.0450	43.3973	.	.
		DE-71	30.0	15	0.086	0.0124	14.3901	.	.
		DE-71	60.0	15	0.083	0.0142	17.0678	.	.
		2-Chloronitrobenzene	25.0	15	0.078	0.0110	14.1145	.	.
		2-Chloronitrobenzene	100.0	15	0.075	0.0072	9.5343	.	.

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		Methoxychlor	12.5	15	0.091	0.0156	17.0327	.	.
		Methoxychlor	50.0	15	0.080	0.0152	18.8736	.	.
30	**Adj Ovaries***	Corn Oil (trt 1)	0.0	15	0.093	0.0146	15.6830	.	.
		Corn Oil (trt 2)	0.0	14	0.092	0.0098	10.6499	.	.
		DE-71	30.0	15	0.086	0.0123	14.3502	.	.
		DE-71	60.0	15	0.083	0.0142	17.0249	.	.
		2-Chloronitrobenzene	25.0	15	0.078	0.0110	14.1338	.	.
		2-Chloronitrobenzene	100.0	15	0.075	0.0072	9.5951	.	.
		Methoxychlor	12.5	15	0.091	0.0155	16.9399	.	.
		Methoxychlor	50.0	15	0.081	0.0151	18.7760	.	.
31	**Adj Pituitary**	Corn Oil (trt 1)	0.0	15	0.009	0.0014	15.7667	.	.
		Corn Oil (trt 2)	0.0	15	0.010	0.0016	17.2649	.	.
		DE-71	30.0	15	0.009	0.0016	17.3702	.	.
		DE-71	60.0	15	0.008	0.0011	13.2698	.	.
		2-Chloronitrobenzene	25.0	15	0.008	0.0040	49.3896	.	.
		2-Chloronitrobenzene	100.0	15	0.006	0.0020	33.9439	.	.
		Methoxychlor	12.5	15	0.010	0.0031	32.1673	.	.
		Methoxychlor	50.0	15	0.008	0.0014	16.5873	.	.
32	**Adj Pituitary***	Corn Oil (trt 1)	0.0	15	0.009	0.0014	15.7677	.	.
		Corn Oil (trt 2)	0.0	15	0.010	0.0017	17.2818	.	.
		DE-71	30.0	15	0.009	0.0016	17.3519	.	.
		DE-71	60.0	15	0.008	0.0011	13.2426	.	.
		2-Chloronitrobenzene	25.0	14	0.007	0.0014	19.0578	.	.
		2-Chloronitrobenzene	100.0	15	0.006	0.0020	33.9035	.	.
		Methoxychlor	12.5	14	0.009	0.0015	17.1169	.	.
		Methoxychlor	50.0	15	0.008	0.0014	16.5093	.	.
33	**Adj ThyroidBlotted**	Corn Oil (trt 1)	0.0	15	0.022	0.0023	10.6715	.	.
		Corn Oil (trt 2)	0.0	15	0.022	0.0066	30.0208	.	.
		DE-71	30.0	15	0.023	0.0044	19.1109	.	.
		DE-71	60.0	15	0.025	0.0041	16.6330	.	.
		2-Chloronitrobenzene	25.0	15	0.021	0.0052	25.0552	.	.
		2-Chloronitrobenzene	100.0	15	0.021	0.0029	13.9544	.	.
		Methoxychlor	12.5	15	0.022	0.0042	19.2224	.	.

Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
		Methoxychlor	50.0	15	0.024	0.0056	23.7335	.	.
34	**Adj UterusBlotted**	Corn Oil (trt 1)	0.0	15	0.333	0.0702	21.0860	.	.
		Corn Oil (trt 2)	0.0	15	0.344	0.0817	23.7718	.	.
		DE-71	30.0	15	0.335	0.0863	25.7833	.	.
		DE-71	60.0	15	0.336	0.1220	36.3157	.	.
		2-Chloronitrobenzene	25.0	15	0.299	0.0874	29.2561	.	.
		2-Chloronitrobenzene	100.0	15	0.254	0.0917	36.1353	.	.
		Methoxychlor	12.5	15	0.354	0.1013	28.5867	.	.
		Methoxychlor	50.0	15	0.324	0.1052	32.4436	.	.
35	**Adj UterusWet**	Corn Oil (trt 1)	0.0	15	0.354	0.0901	25.4812	.	.
		Corn Oil (trt 2)	0.0	15	0.395	0.1783	45.1846	.	.
		DE-71	30.0	15	0.351	0.1050	29.9385	.	.
		DE-71	60.0	15	0.363	0.1554	42.8748	.	.
		2-Chloronitrobenzene	25.0	15	0.331	0.1486	44.9025	.	.
		2-Chloronitrobenzene	100.0	15	0.274	0.1267	46.2599	.	.
		Methoxychlor	12.5	15	0.444	0.2374	53.4155	.	.
		Methoxychlor	50.0	15	0.376	0.1804	47.9874	.	.
36	**Adj UterusWet***	Corn Oil (trt 1)	0.0	15	0.353	0.0894	25.3079	.	.
		Corn Oil (trt 2)	0.0	15	0.395	0.1800	45.5439	.	.
		DE-71	30.0	15	0.351	0.1053	30.0010	.	.
		DE-71	60.0	15	0.363	0.1549	42.6908	.	.
		2-Chloronitrobenzene	25.0	14	0.299	0.0872	29.1357	.	.
		2-Chloronitrobenzene	100.0	15	0.273	0.1280	46.8250	.	.
		Methoxychlor	12.5	15	0.444	0.2333	52.5155	.	.
		Methoxychlor	50.0	14	0.341	0.1213	35.5624	.	.
37	**Adj Age at VO**	Corn Oil (trt 1)	0.0	15	33.056	1.4365	4.3456	.	.
		Corn Oil (trt 2)	0.0	15	33.677	2.3237	6.9000	.	.
		DE-71	30.0	15	34.134	1.5252	4.4682	.	.
		DE-71	60.0	15	33.202	1.2571	3.7862	.	.
		2-Chloronitrobenzene	25.0	15	34.062	1.6859	4.9493	.	.
		2-Chloronitrobenzene	100.0	15	38.860	2.4580	6.3255	.	.
		Methoxychlor	12.5	15	32.529	1.8950	5.8255	.	.
		Methoxychlor	50.0	15	27.480	0.5549	2.0192	.	.

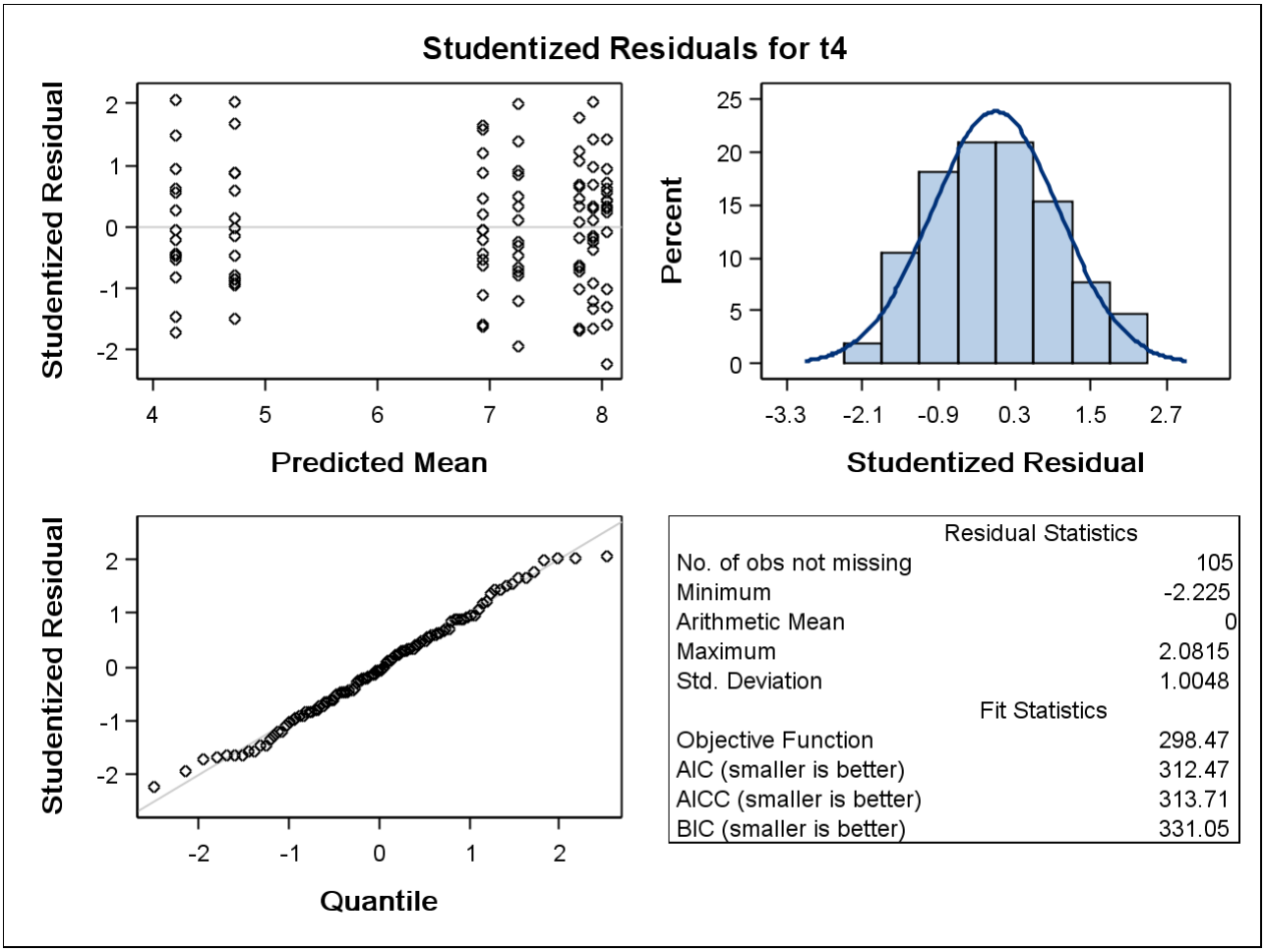
Table A-3. Summary Statistics for Huntingdon Laboratories
Female Pubertal Assay

od	parm	TestChemical	DosageLevel	N	Mean	Std	CV	Min	Max
38	**Adj Age at VO***	Corn Oil (trt 1)	0.0	15	33.063	1.4382	4.3499	.	.
		Corn Oil (trt 2)	0.0	15	33.670	2.3437	6.9610	.	.
		DE-71	30.0	15	34.133	1.5458	4.5287	.	.
		DE-71	60.0	14	32.931	0.7402	2.2477	.	.
		2-Chloronitrobenzene	25.0	15	34.065	1.7054	5.0064	.	.
		2-Chloronitrobenzene	100.0	15	38.864	2.5110	6.4610	.	.
		Methoxychlor	12.5	15	32.532	1.8629	5.7264	.	.
		Methoxychlor	50.0	15	27.471	0.5320	1.9368	.	.
39	**Adj BodyWeight at VO**	Corn Oil (trt 1)	0.0	15	113.874	7.6130	6.6854	.	.
		Corn Oil (trt 2)	0.0	15	119.097	12.5267	10.5180	.	.
		DE-71	30.0	15	119.849	6.5203	5.4404	.	.
		DE-71	60.0	15	113.213	8.1622	7.2096	.	.
		2-Chloronitrobenzene	25.0	15	116.638	10.4296	8.9418	.	.
		2-Chloronitrobenzene	100.0	15	137.400	13.8536	10.0827	.	.
		Methoxychlor	12.5	15	109.584	10.2586	9.3614	.	.
		Methoxychlor	50.0	15	81.065	3.5098	4.3296	.	.

Figure Group A-1 Quantile-Quantile Plots of Studentized Residuals for Each Response within Argus Laboratories

Female Pubertal Assay

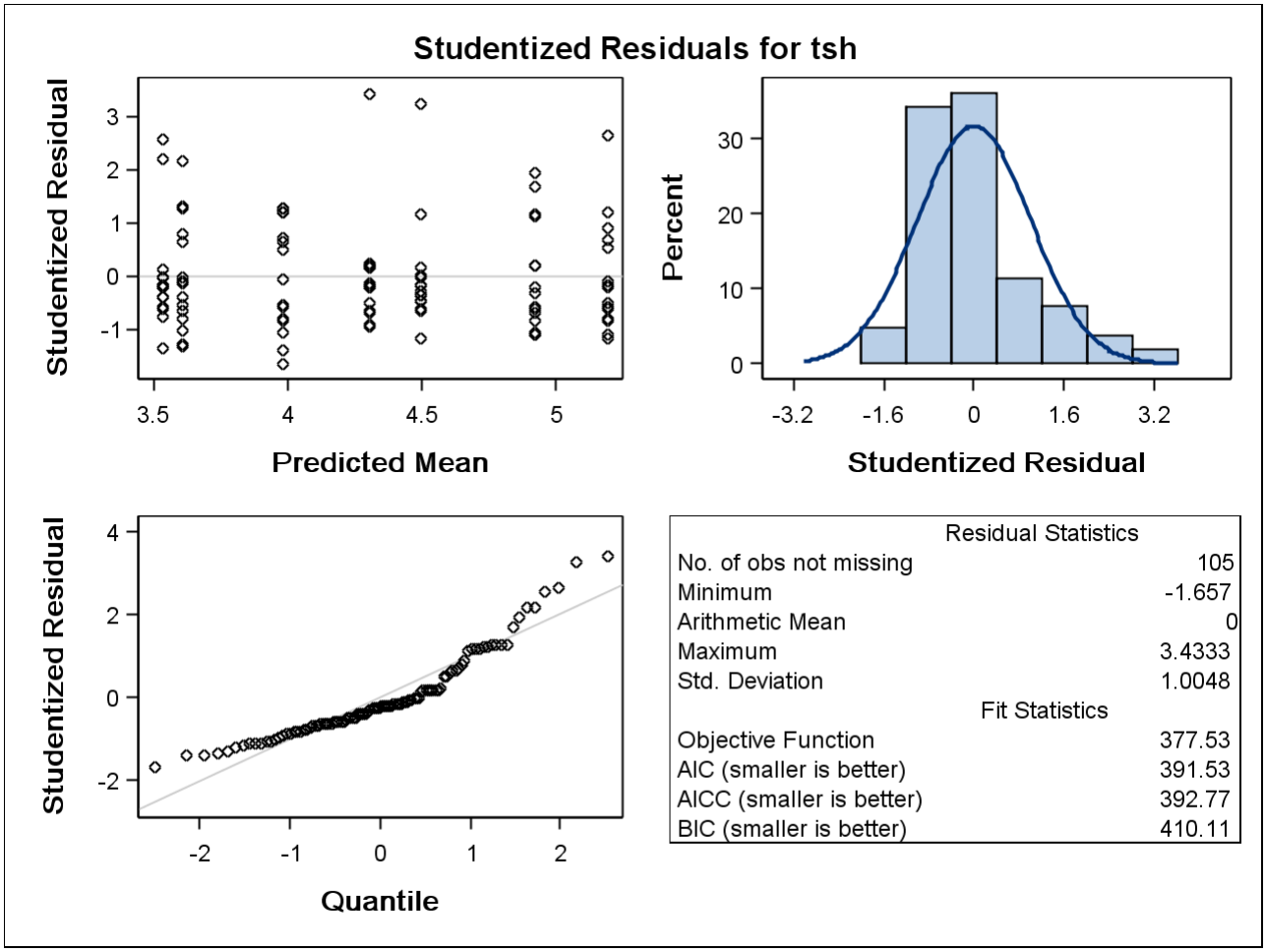
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.225
Arithmetic Mean	0
Maximum	2.0815
Std. Deviation	1.0048
Fit Statistics	
Objective Function	298.47
AIC (smaller is better)	312.47
AICC (smaller is better)	313.71
BIC (smaller is better)	331.05

Pubertal Study - Argus: Females
Outlier Screens
TSH

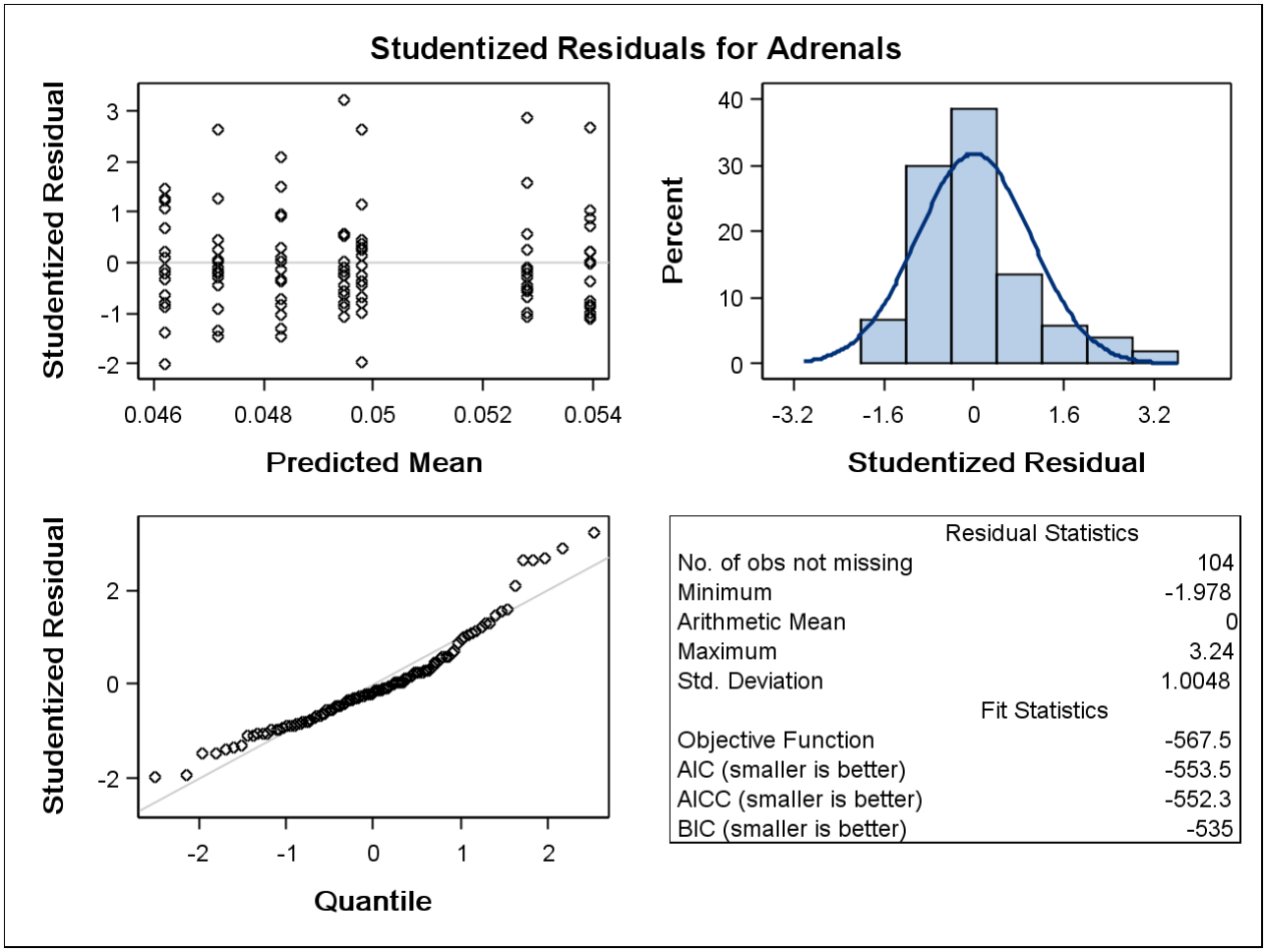
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.657
Arithmetic Mean	0
Maximum	3.4333
Std. Deviation	1.0048
Fit Statistics	
Objective Function	377.53
AIC (smaller is better)	391.53
AICC (smaller is better)	392.77
BIC (smaller is better)	410.11

Pubertal Study - Argus: Females
Outlier Screens
Adrenals

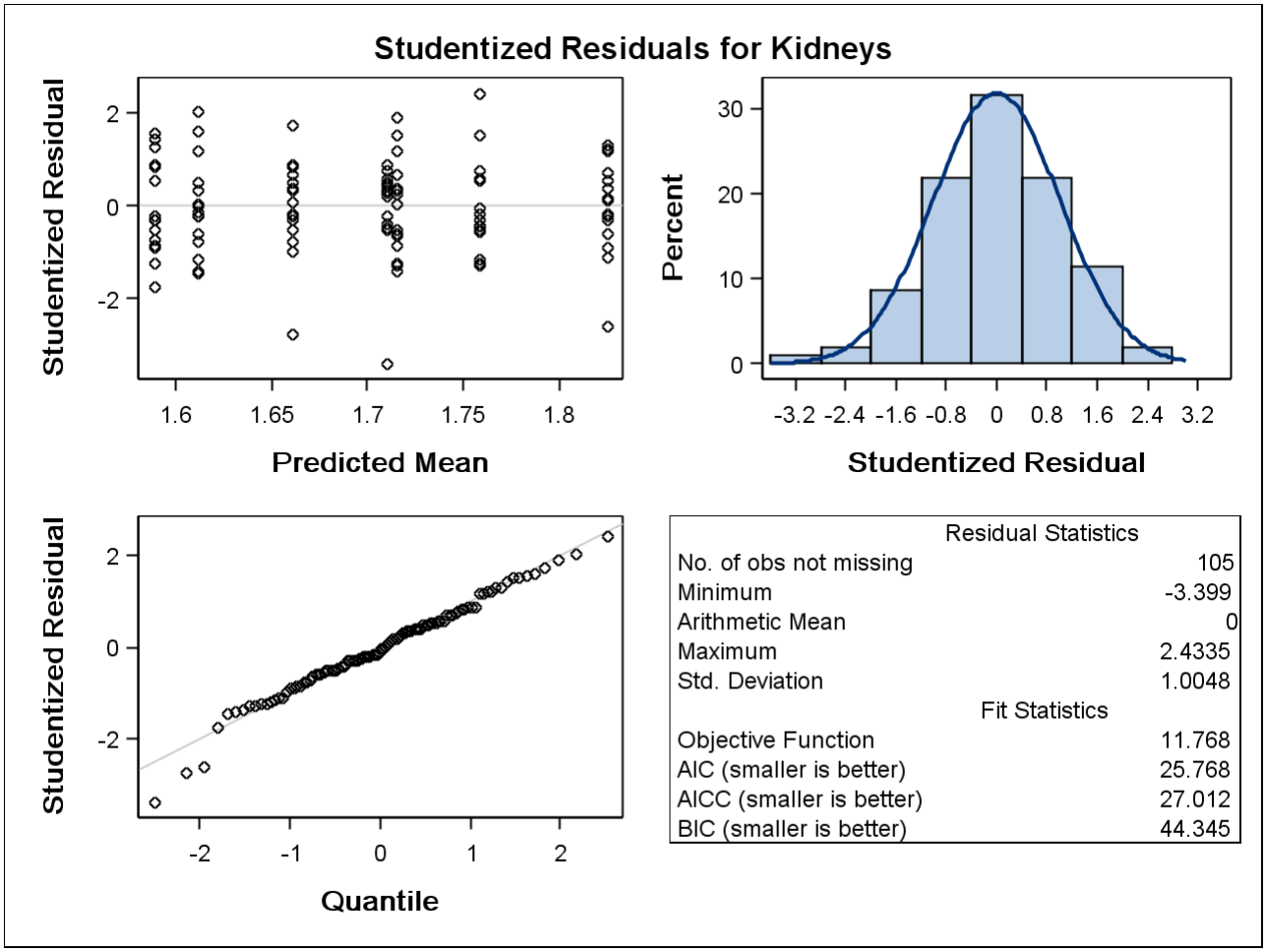
The Mixed Procedure



Residual Statistics	
No. of obs not missing	104
Minimum	-1.978
Arithmetic Mean	0
Maximum	3.24
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-567.5
AIC (smaller is better)	-553.5
AICC (smaller is better)	-552.3
BIC (smaller is better)	-535

Pubertal Study - Argus: Females
Outlier Screens
Kidneys

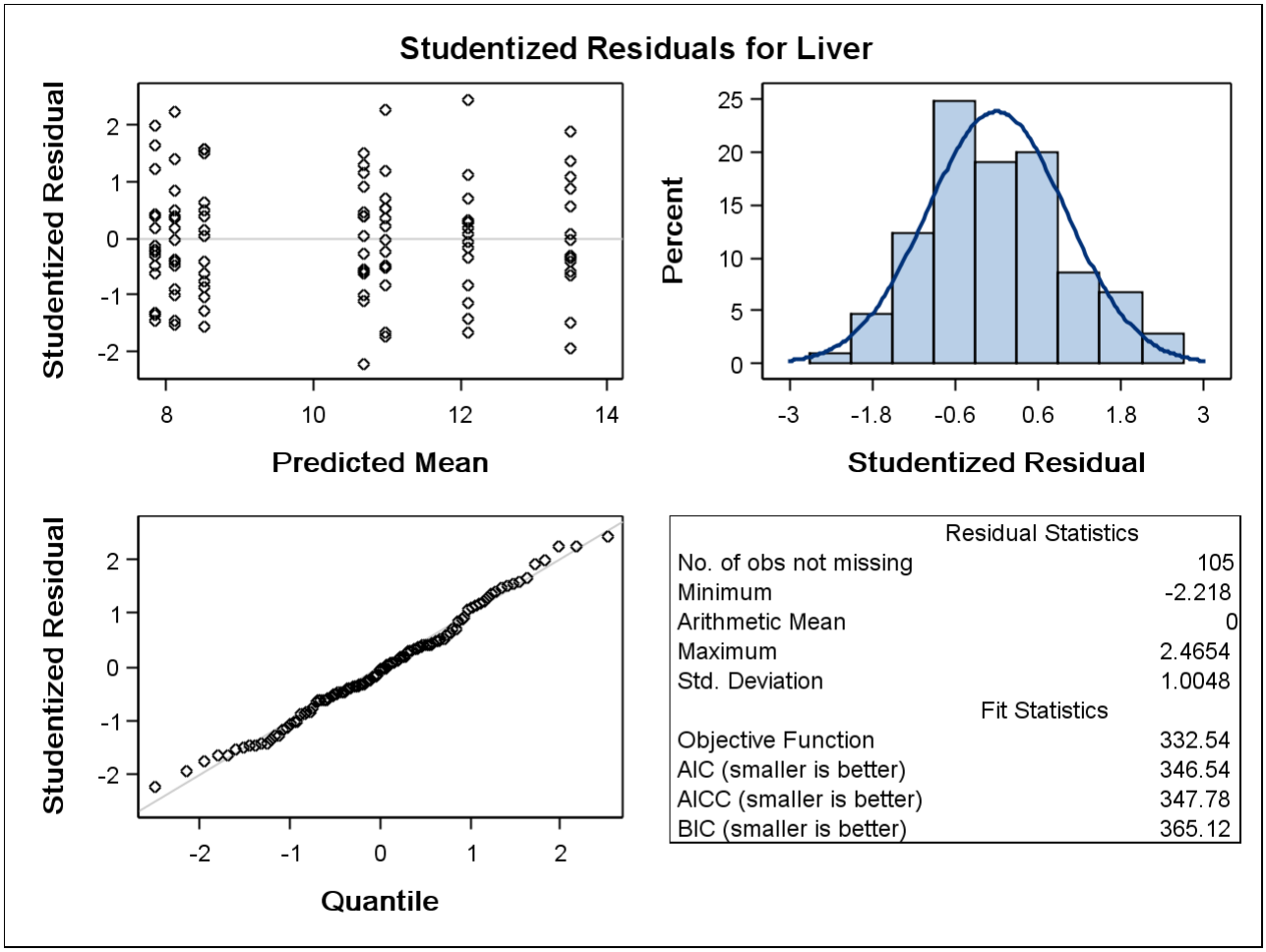
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-3.399
Arithmetic Mean	0
Maximum	2.4335
Std. Deviation	1.0048
Fit Statistics	
Objective Function	11.768
AIC (smaller is better)	25.768
AICC (smaller is better)	27.012
BIC (smaller is better)	44.345

Pubertal Study - Argus: Females
Outlier Screens
Liver

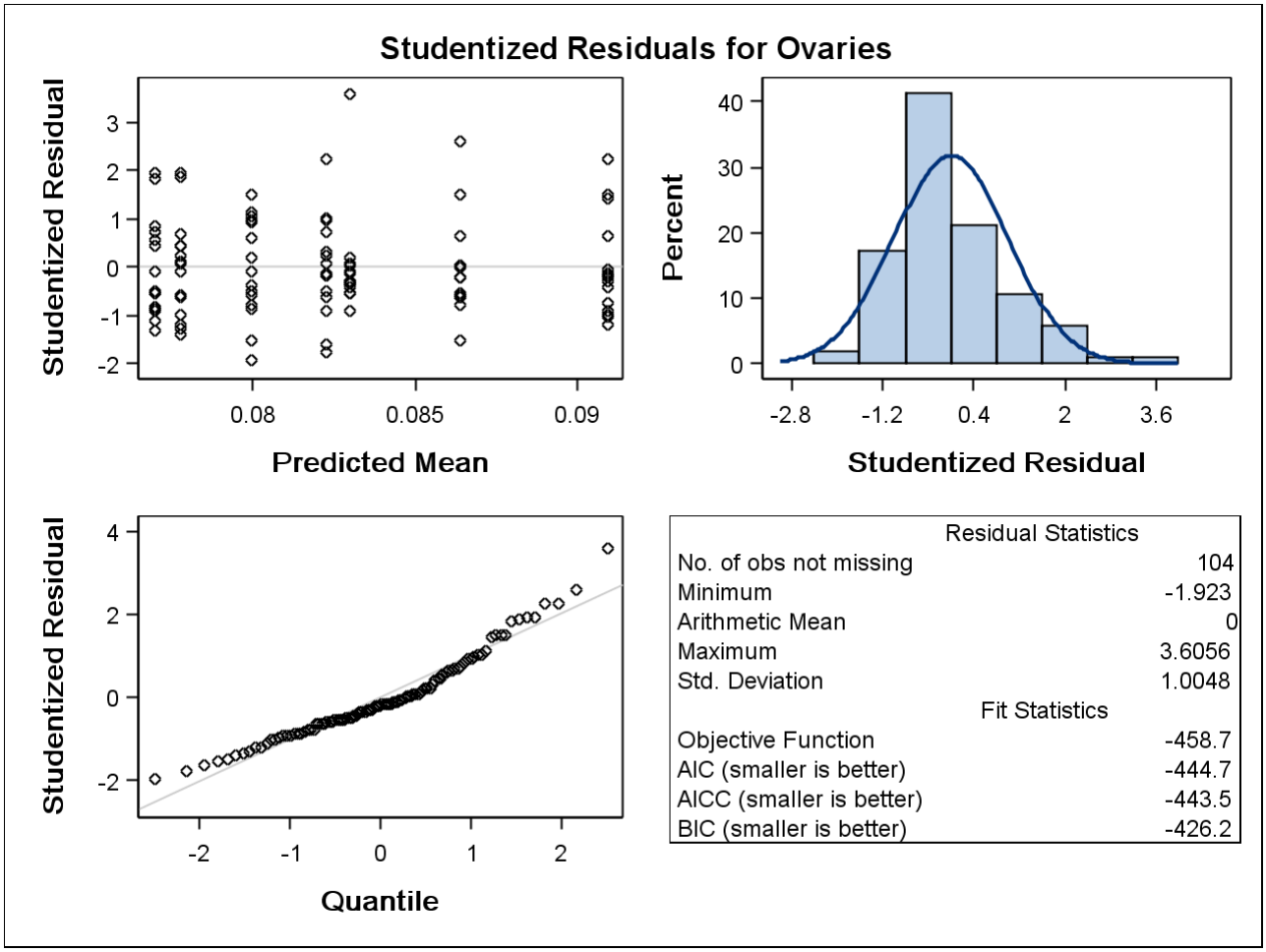
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.218
Arithmetic Mean	0
Maximum	2.4654
Std. Deviation	1.0048
Fit Statistics	
Objective Function	332.54
AIC (smaller is better)	346.54
AICC (smaller is better)	347.78
BIC (smaller is better)	365.12

Pubertal Study - Argus: Females
Outlier Screens
Ovaries

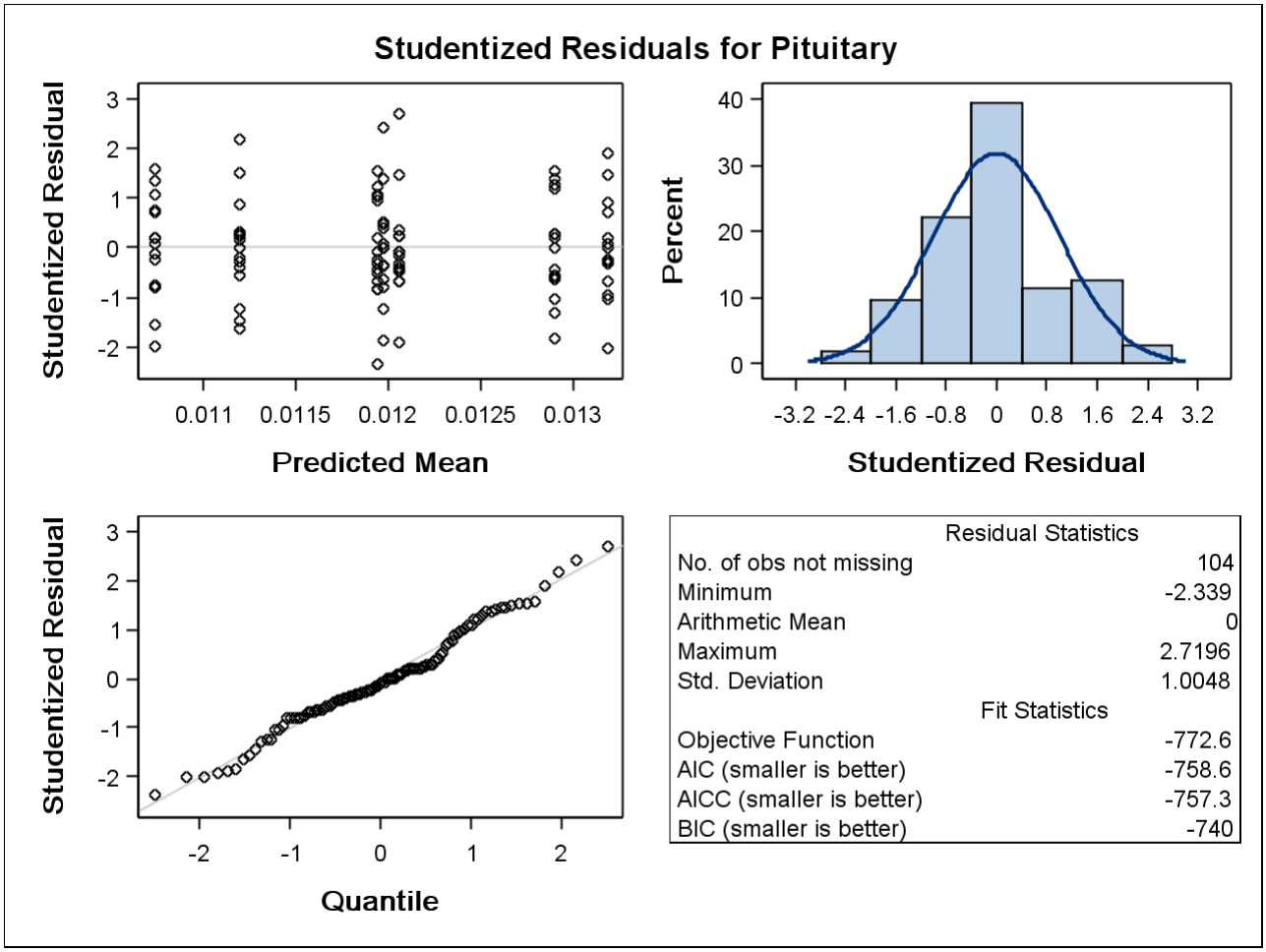
The Mixed Procedure



Residual Statistics	
No. of obs not missing	104
Minimum	-1.923
Arithmetic Mean	0
Maximum	3.6056
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-458.7
AIC (smaller is better)	-444.7
AICC (smaller is better)	-443.5
BIC (smaller is better)	-426.2

Pubertal Study - Argus: Females
Outlier Screens
Pituitary

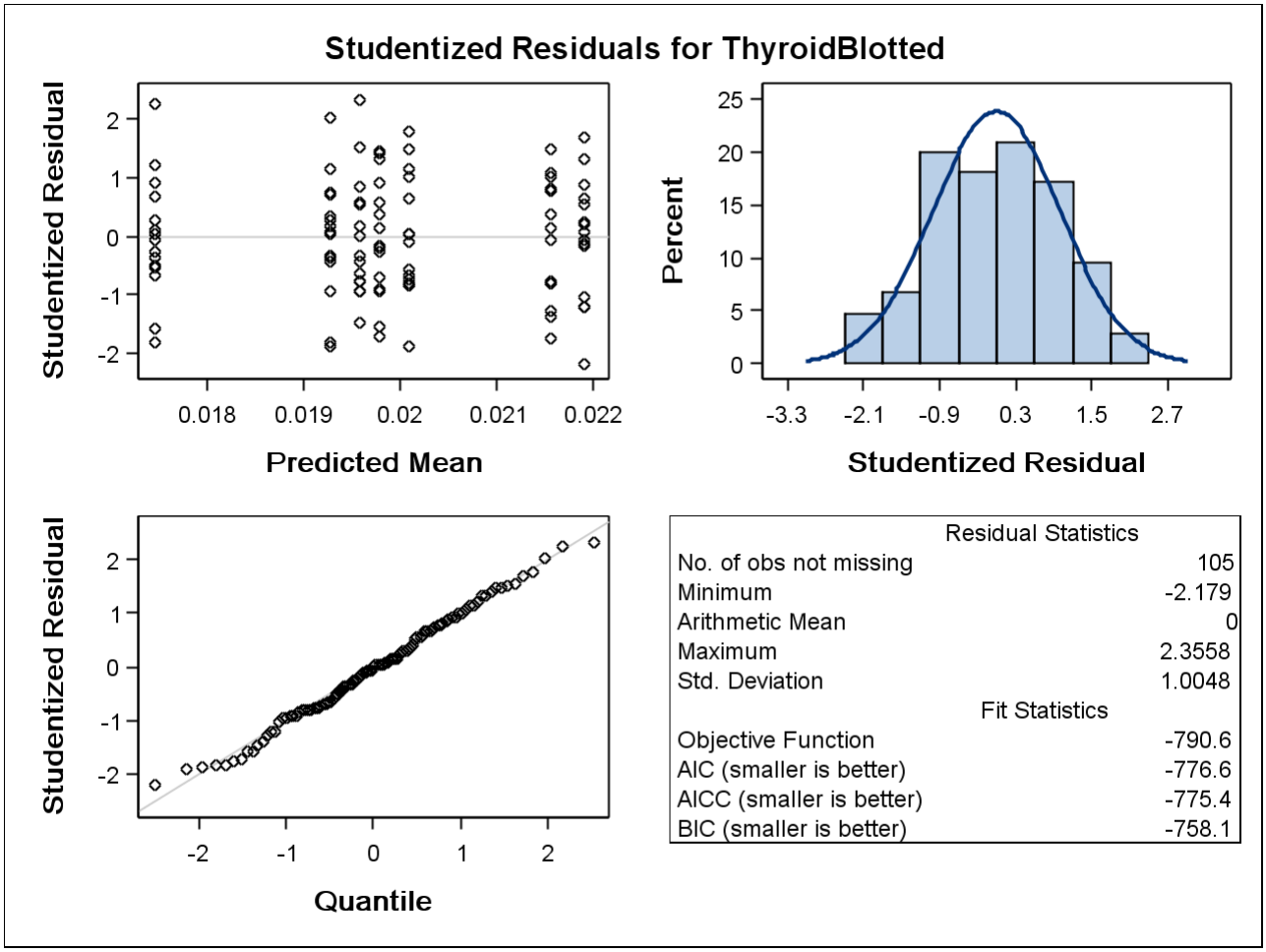
The Mixed Procedure



Residual Statistics	
No. of obs not missing	104
Minimum	-2.339
Arithmetic Mean	0
Maximum	2.7196
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-772.6
AIC (smaller is better)	-758.6
AICC (smaller is better)	-757.3
BIC (smaller is better)	-740

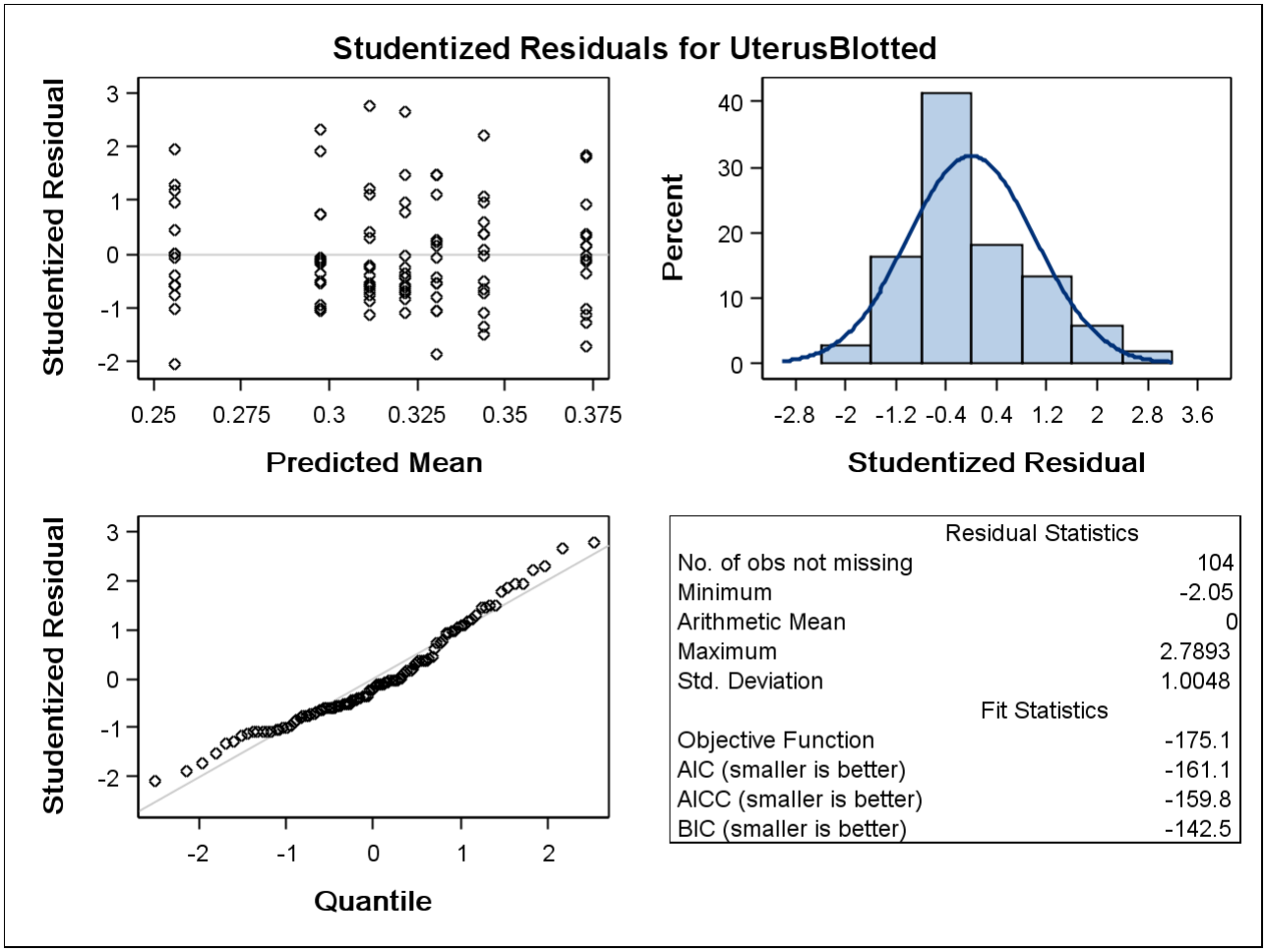
Pubertal Study - Argus: Females
Outlier Screens
ThyroidBlotted

The Mixed Procedure



Pubertal Study - Argus: Females
Outlier Screens
UterusBlotted

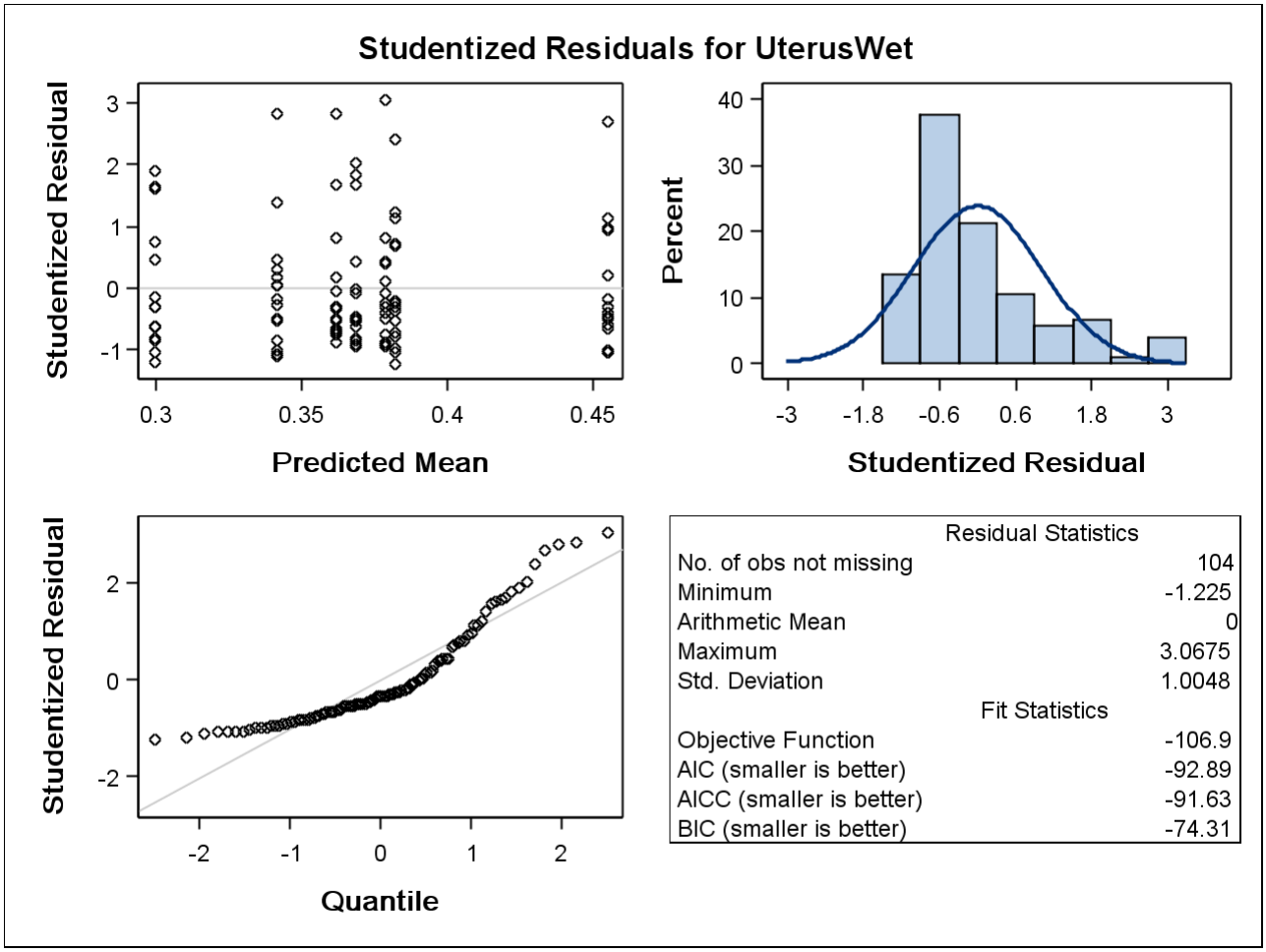
The Mixed Procedure



Residual Statistics	
No. of obs not missing	104
Minimum	-2.05
Arithmetic Mean	0
Maximum	2.7893
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-175.1
AIC (smaller is better)	-161.1
AICC (smaller is better)	-159.8
BIC (smaller is better)	-142.5

Pubertal Study - Argus: Females
Outlier Screens
UterusWet

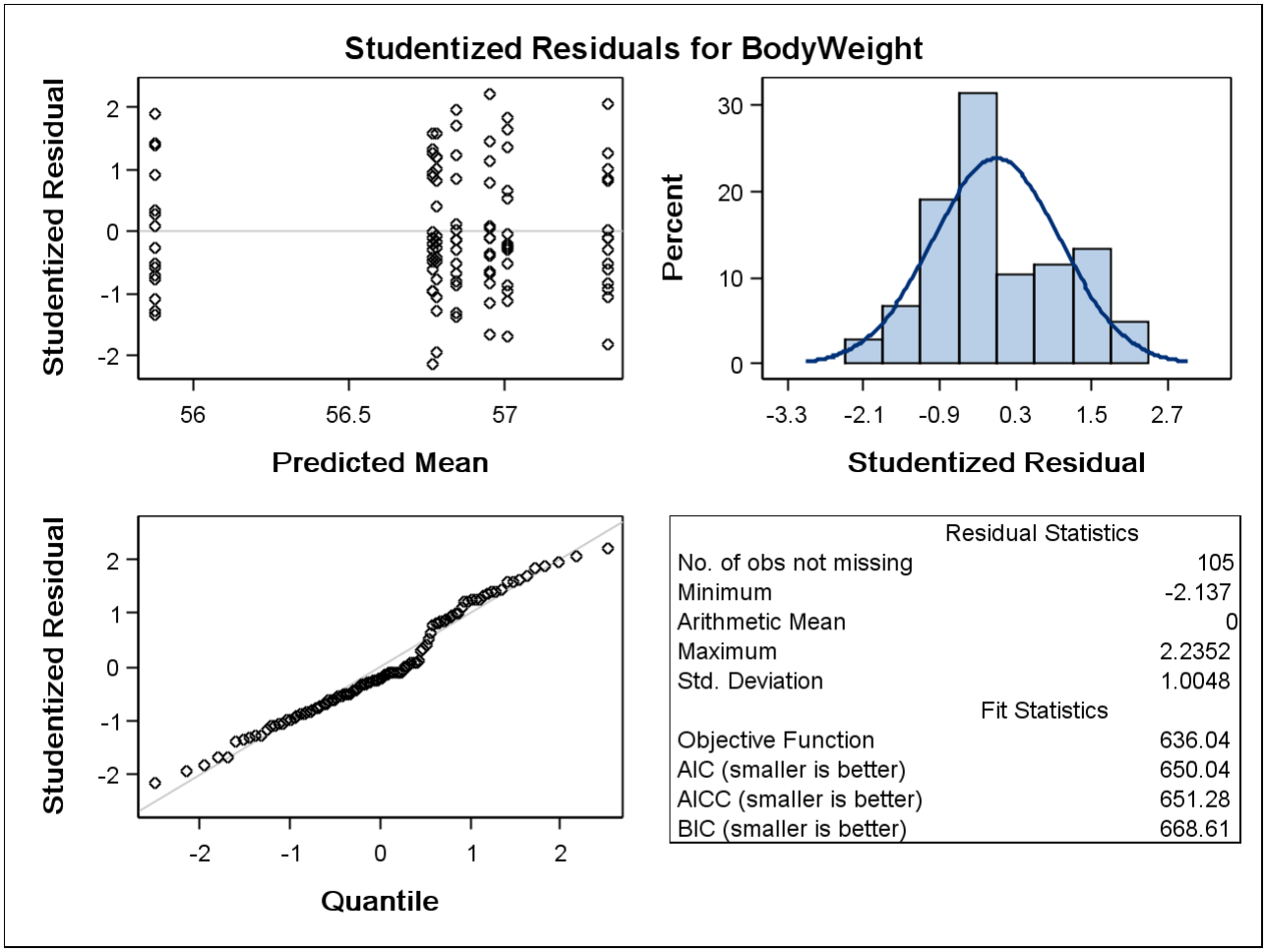
The Mixed Procedure



Residual Statistics	
No. of obs not missing	104
Minimum	-1.225
Arithmetic Mean	0
Maximum	3.0675
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-106.9
AIC (smaller is better)	-92.89
AICC (smaller is better)	-91.63
BIC (smaller is better)	-74.31

Pubertal Study - Argus: Females
Outlier Screens
Initial BodyWeight

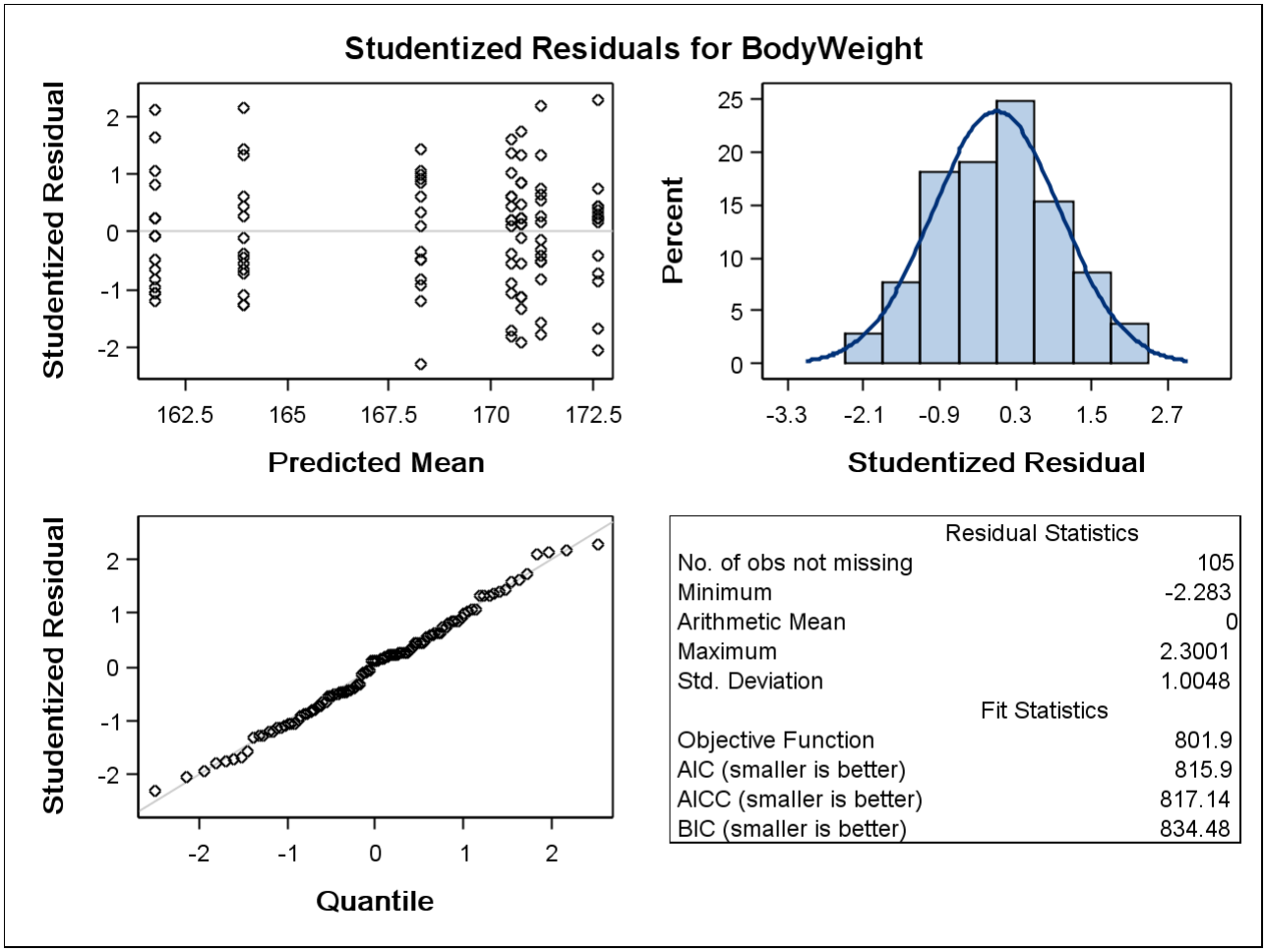
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.137
Arithmetic Mean	0
Maximum	2.2352
Std. Deviation	1.0048
Fit Statistics	
Objective Function	636.04
AIC (smaller is better)	650.04
AICC (smaller is better)	651.28
BIC (smaller is better)	668.61

Pubertal Study - Argus: Females
Outlier Screens
Final BodyWeight

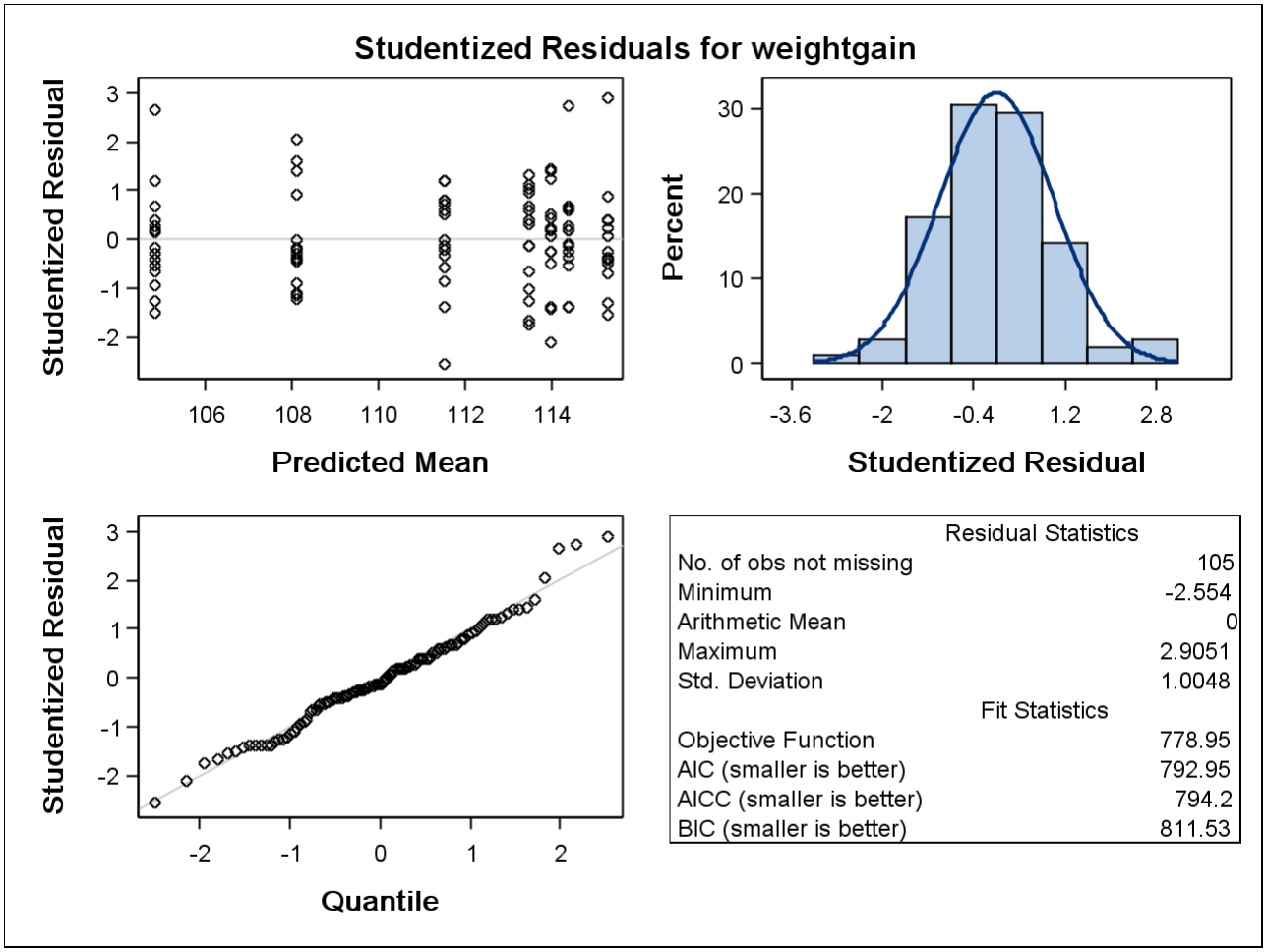
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.283
Arithmetic Mean	0
Maximum	2.3001
Std. Deviation	1.0048
Fit Statistics	
Objective Function	801.9
AIC (smaller is better)	815.9
AICC (smaller is better)	817.14
BIC (smaller is better)	834.48

Pubertal Study - Argus: Females
Outlier Screens
BodyWeight Gain

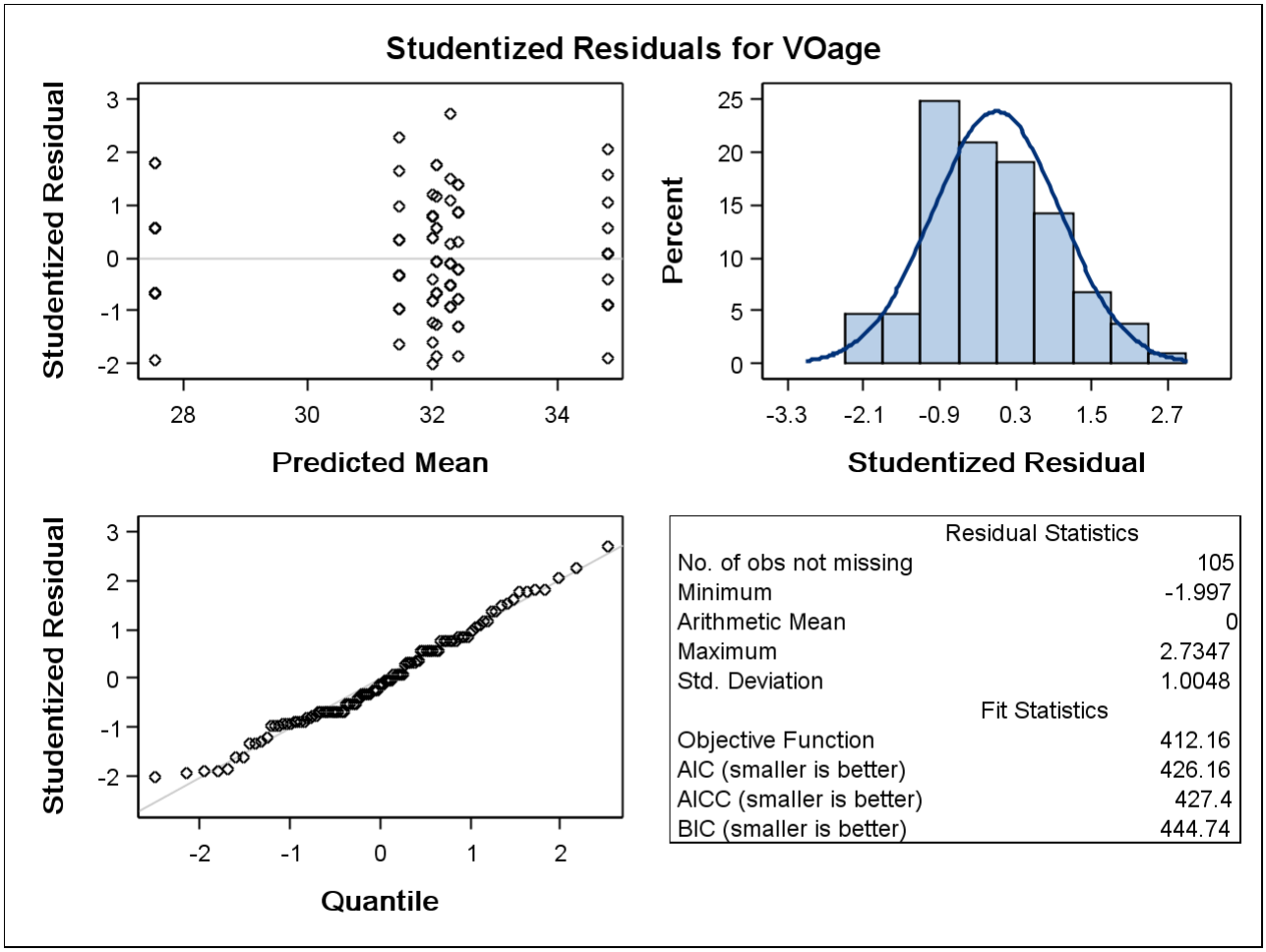
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.554
Arithmetic Mean	0
Maximum	2.9051
Std. Deviation	1.0048
Fit Statistics	
Objective Function	778.95
AIC (smaller is better)	792.95
AICC (smaller is better)	794.2
BIC (smaller is better)	811.53

Pubertal Study - Argus: Females
Outlier Screens
Age at VO

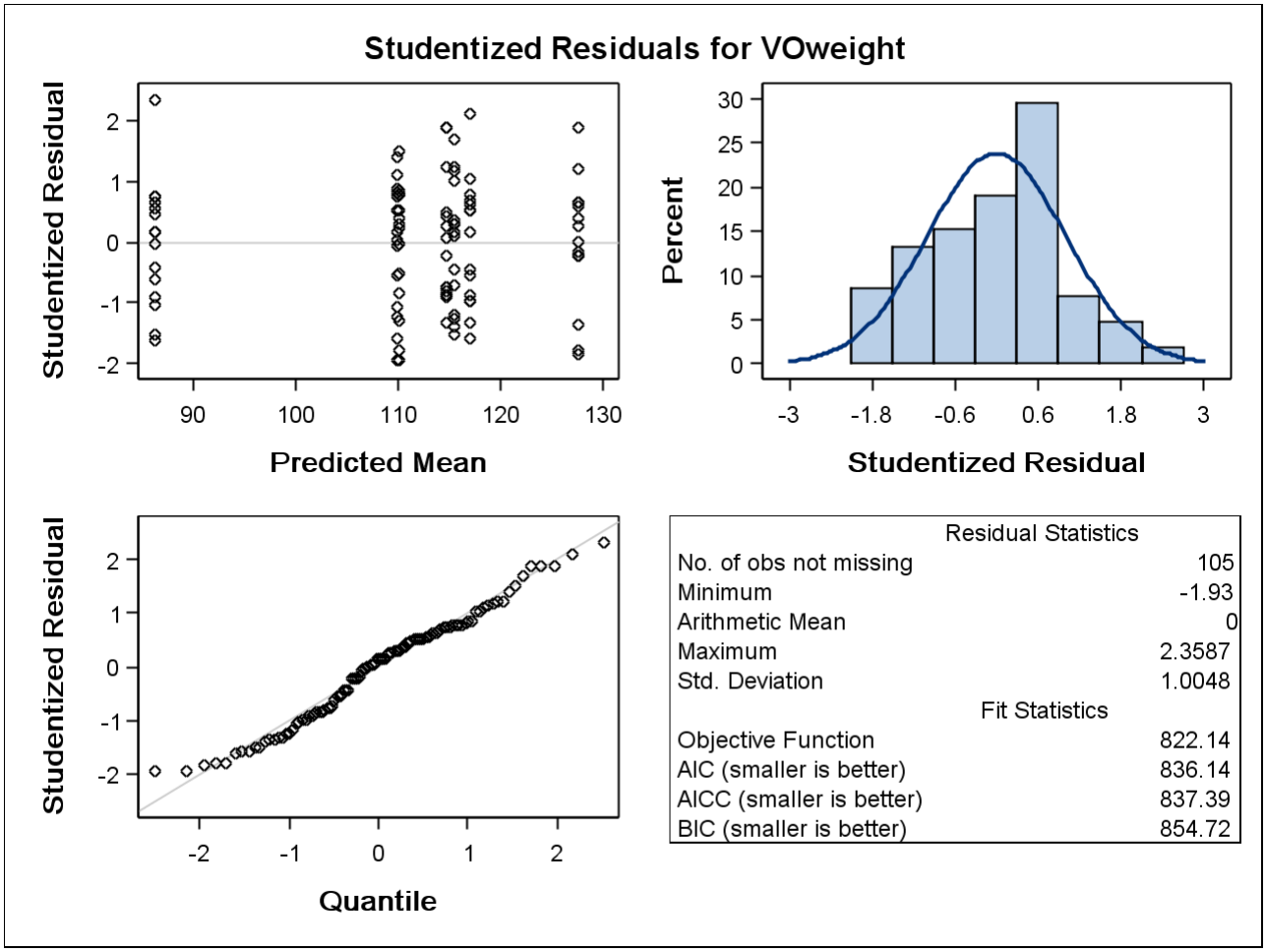
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.997
Arithmetic Mean	0
Maximum	2.7347
Std. Deviation	1.0048
Fit Statistics	
Objective Function	412.16
AIC (smaller is better)	426.16
AICC (smaller is better)	427.4
BIC (smaller is better)	444.74

Pubertal Study - Argus: Females
Outlier Screens
BodyWeight at VO

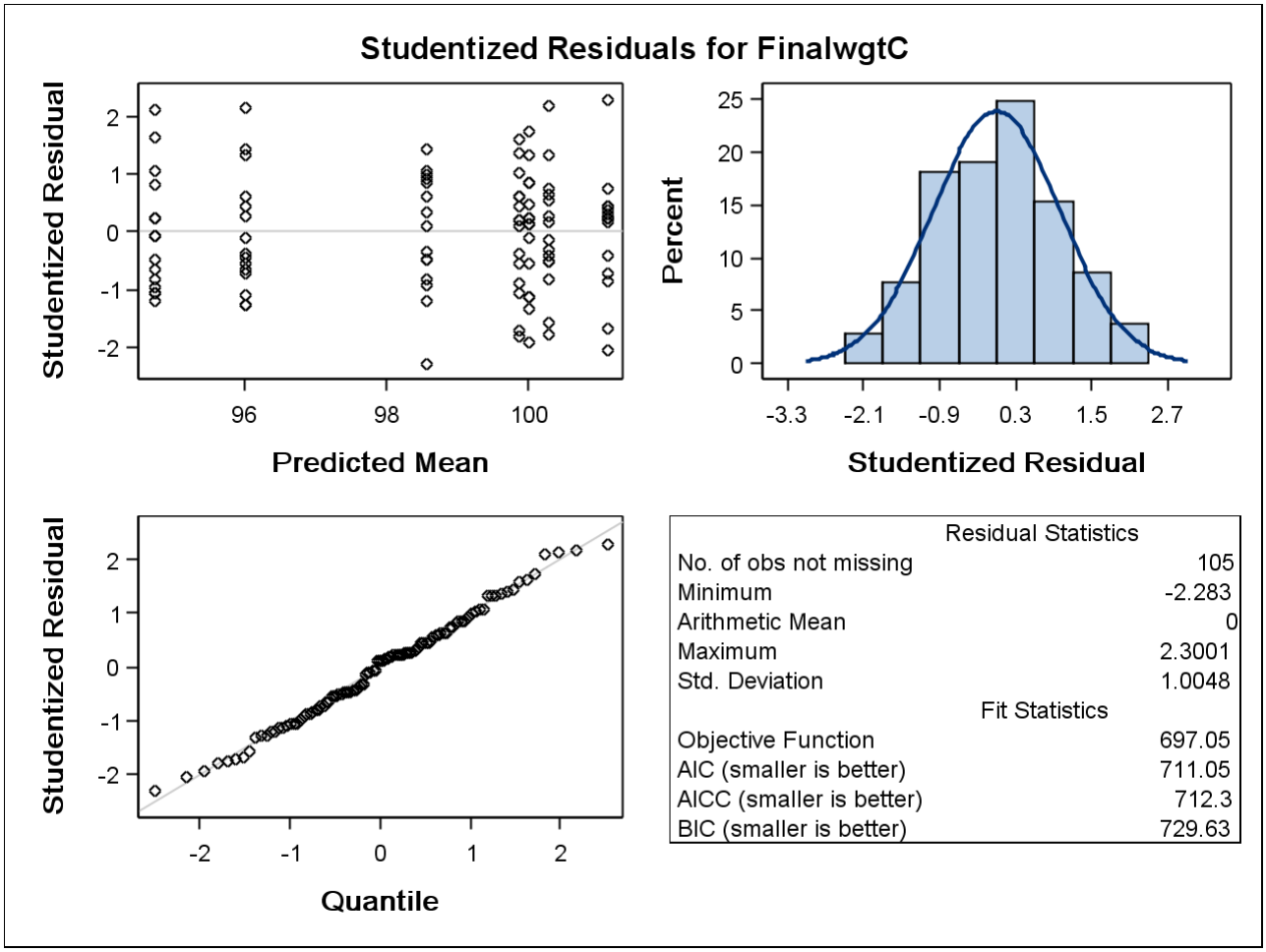
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.93
Arithmetic Mean	0
Maximum	2.3587
Std. Deviation	1.0048
Fit Statistics	
Objective Function	822.14
AIC (smaller is better)	836.14
AICC (smaller is better)	837.39
BIC (smaller is better)	854.72

Pubertal Study - Argus: Females
Outlier Screens
Final Body Weight as percent of control

The Mixed Procedure

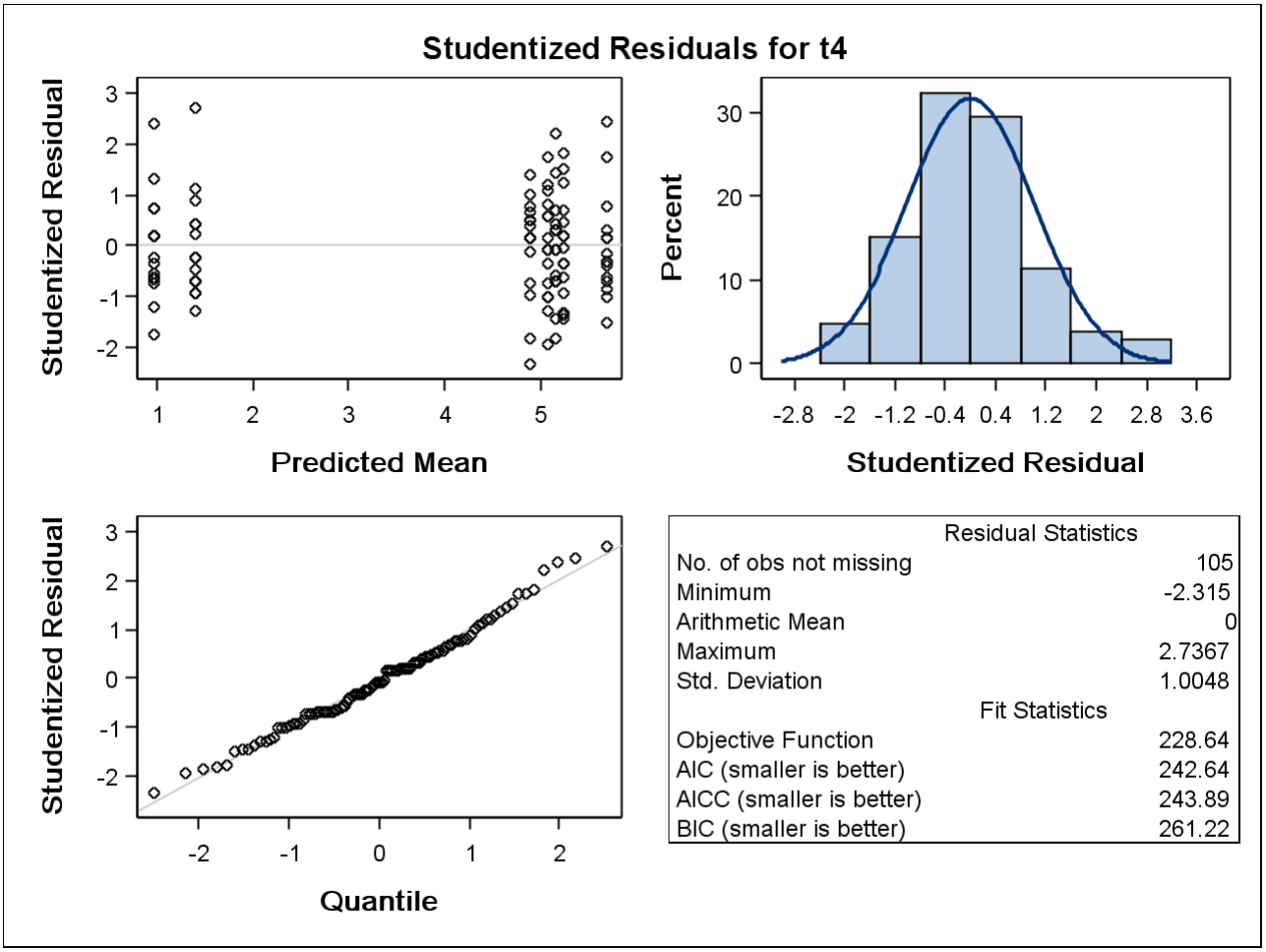


Residual Statistics	
No. of obs not missing	105
Minimum	-2.283
Arithmetic Mean	0
Maximum	2.3001
Std. Deviation	1.0048
Fit Statistics	
Objective Function	697.05
AIC (smaller is better)	711.05
AICC (smaller is better)	712.3
BIC (smaller is better)	729.63

Figure Group A-2 Quantile-Quantile Plots of Studentized Residuals for Each Response within WIL Laboratories.

Female Pubertal Assay

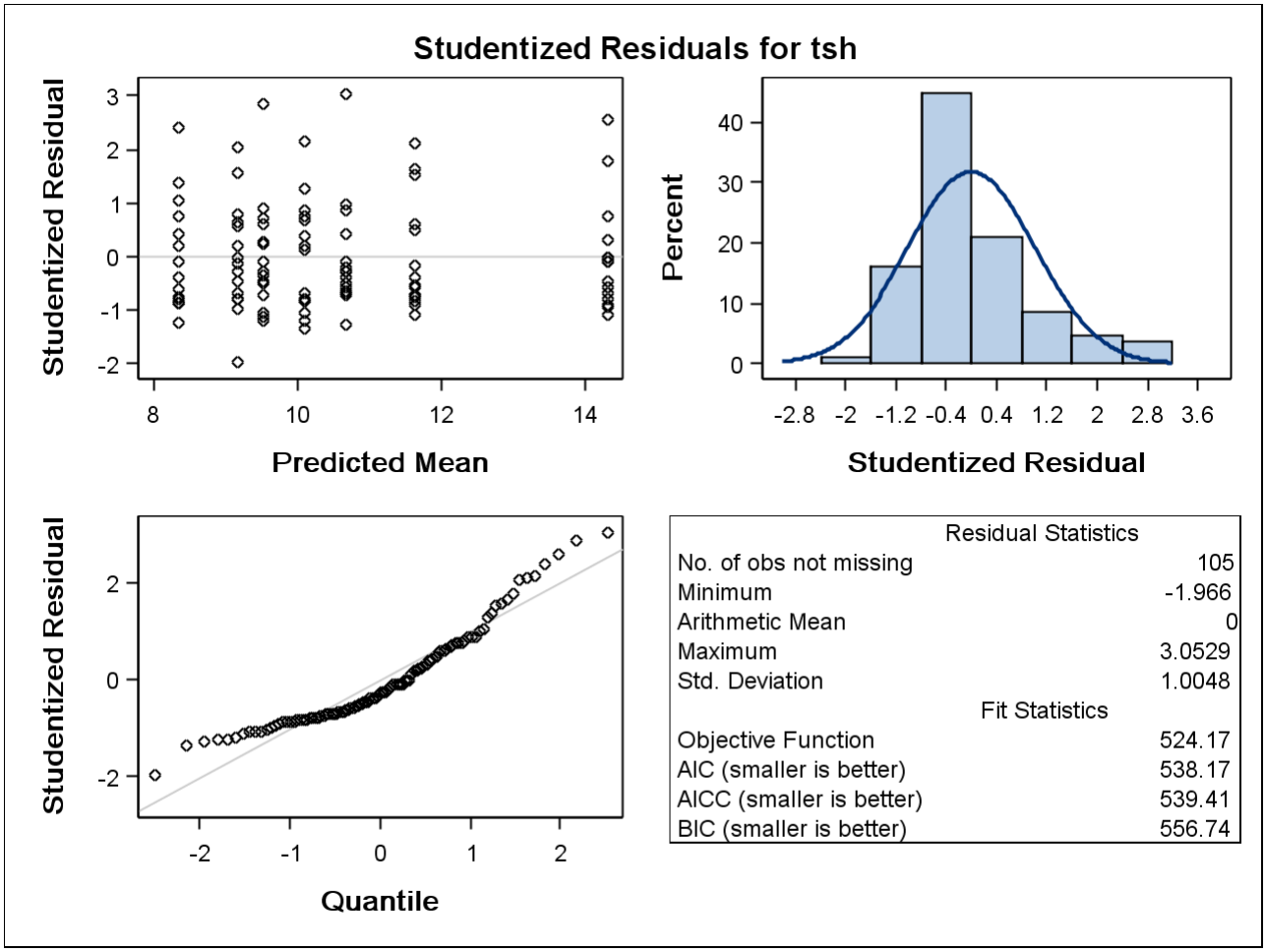
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.315
Arithmetic Mean	0
Maximum	2.7367
Std. Deviation	1.0048
Fit Statistics	
Objective Function	228.64
AIC (smaller is better)	242.64
AICC (smaller is better)	243.89
BIC (smaller is better)	261.22

Pubertal Study - Wil: Females
Outlier Screens
TSH

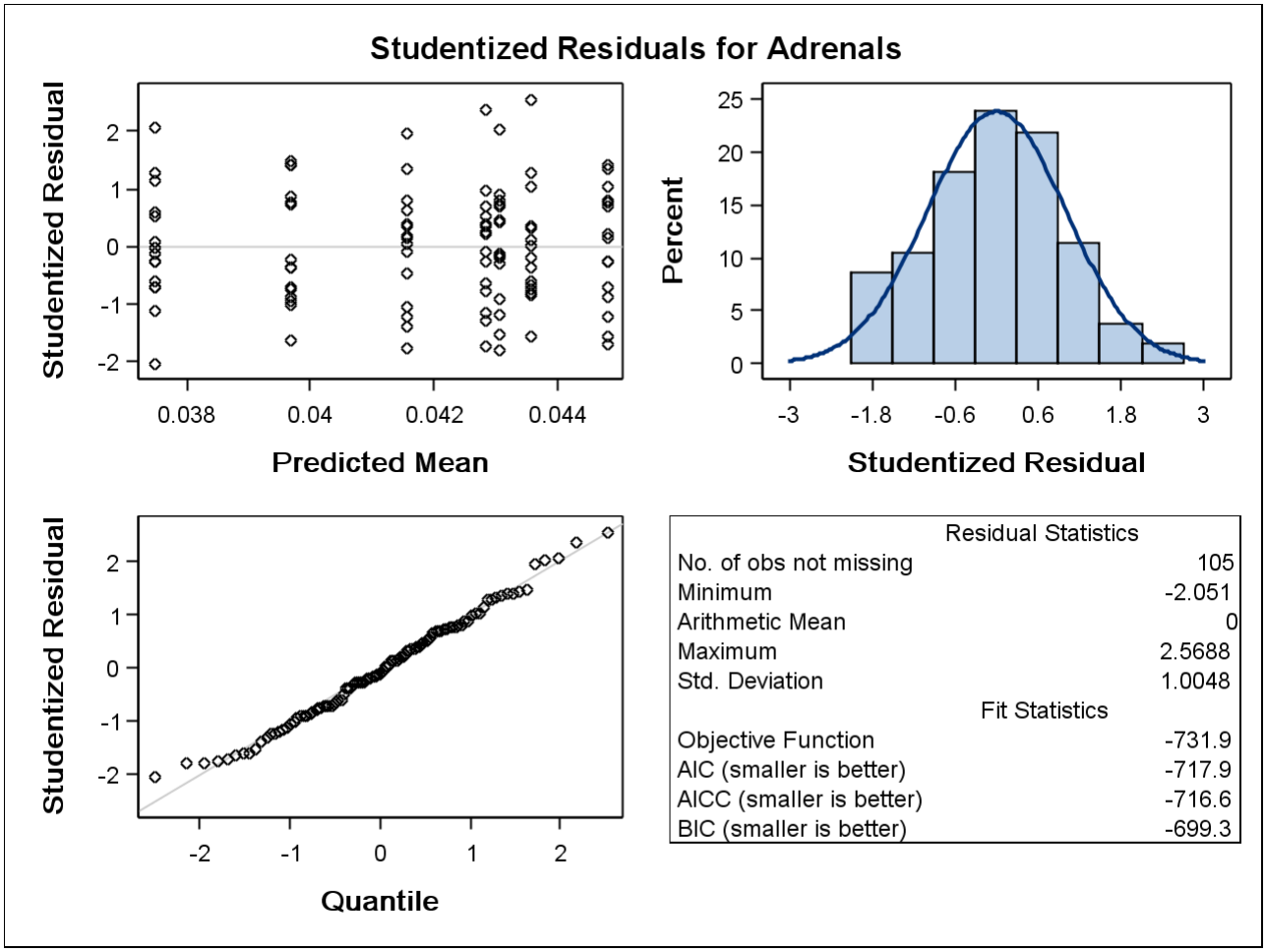
The Mixed Procedure



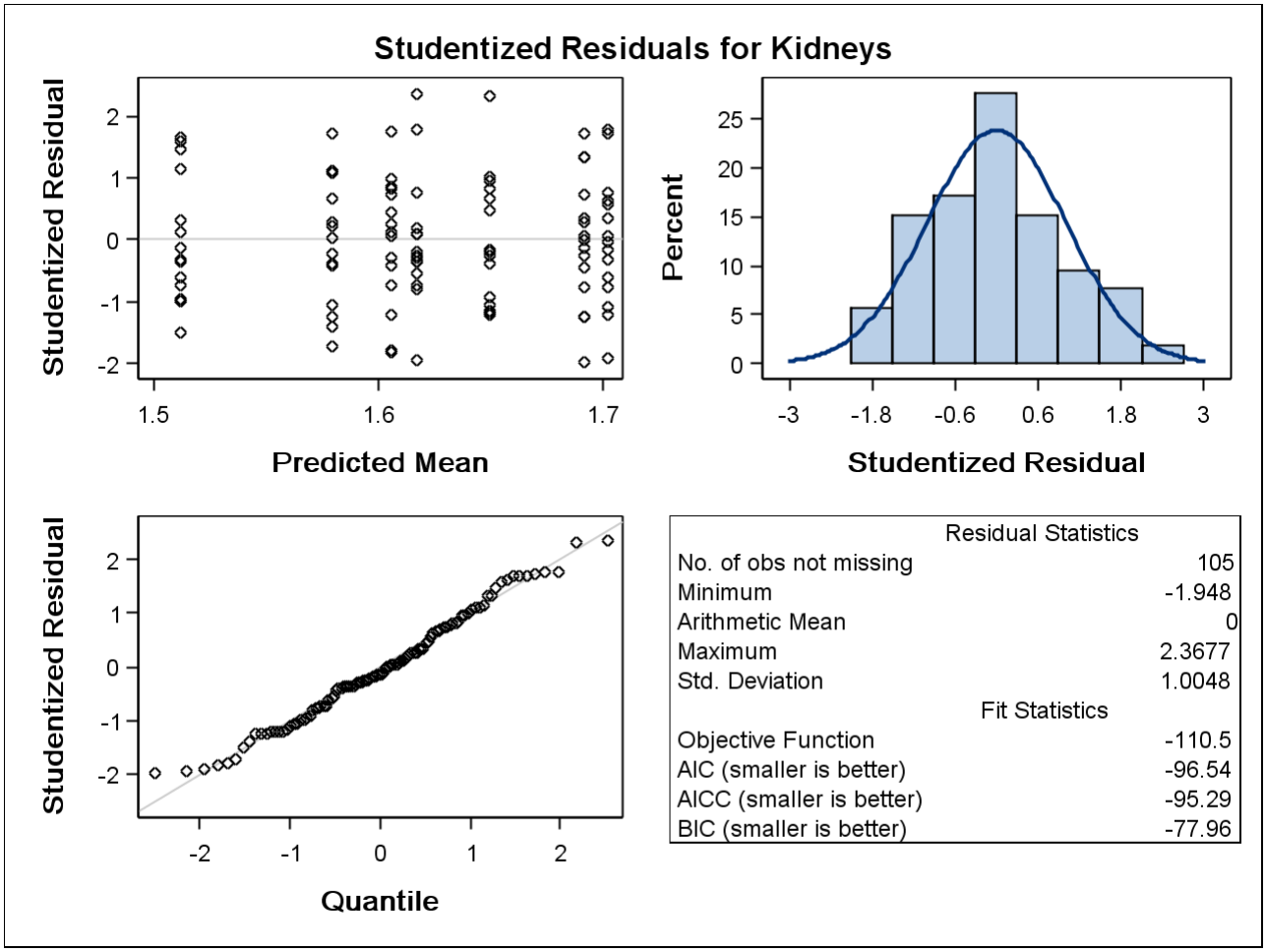
Residual Statistics	
No. of obs not missing	105
Minimum	-1.966
Arithmetic Mean	0
Maximum	3.0529
Std. Deviation	1.0048
Fit Statistics	
Objective Function	524.17
AIC (smaller is better)	538.17
AICC (smaller is better)	539.41
BIC (smaller is better)	556.74

Pubertal Study - Wil: Females
Outlier Screens
Adrenals

The Mixed Procedure



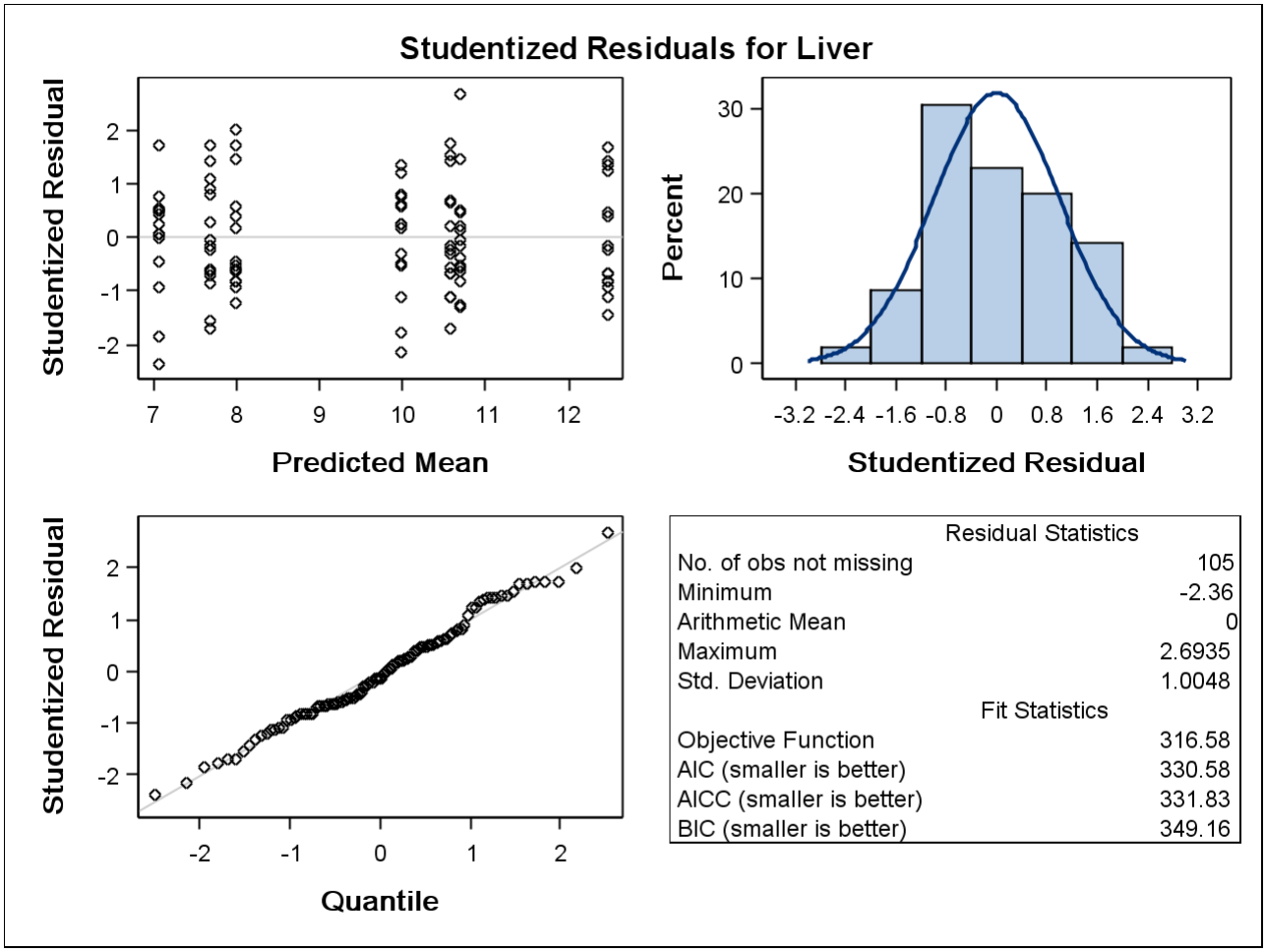
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.948
Arithmetic Mean	0
Maximum	2.3677
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-110.5
AIC (smaller is better)	-96.54
AICC (smaller is better)	-95.29
BIC (smaller is better)	-77.96

Pubertal Study - Wil: Females
Outlier Screens
Liver

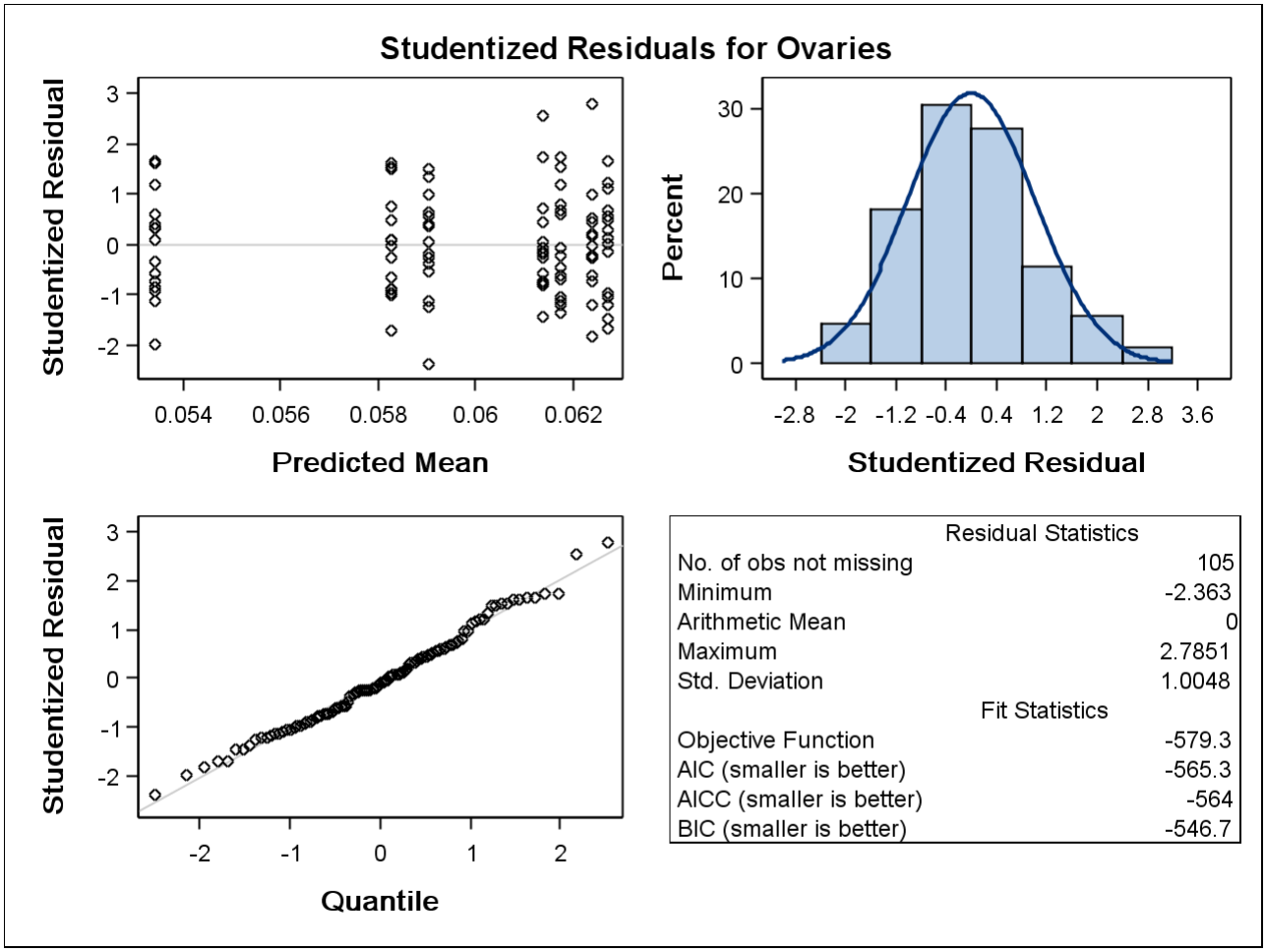
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.36
Arithmetic Mean	0
Maximum	2.6935
Std. Deviation	1.0048
Fit Statistics	
Objective Function	316.58
AIC (smaller is better)	330.58
AICC (smaller is better)	331.83
BIC (smaller is better)	349.16

Pubertal Study - Wil: Females
Outlier Screens
Ovaries

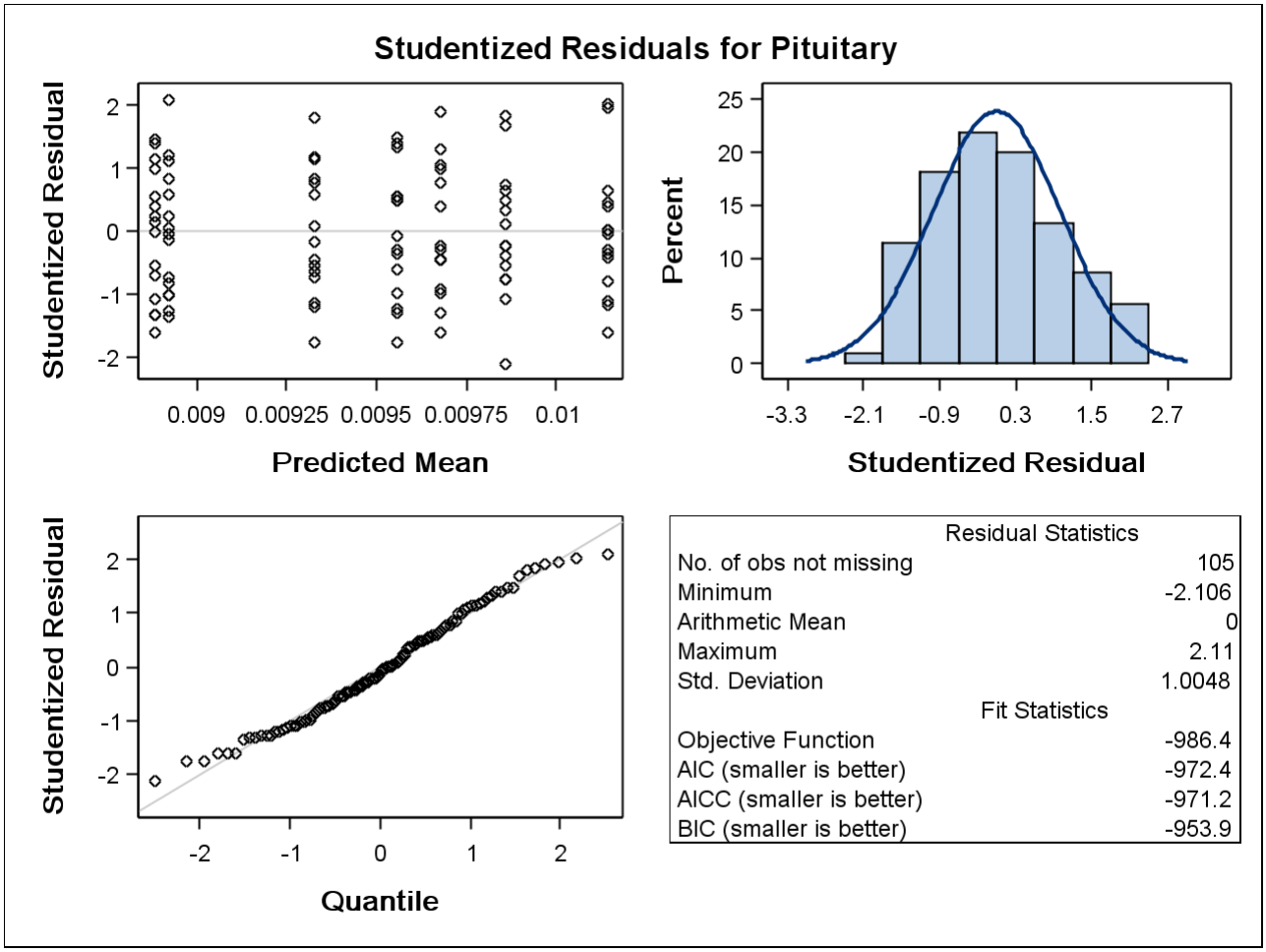
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.363
Arithmetic Mean	0
Maximum	2.7851
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-579.3
AIC (smaller is better)	-565.3
AICC (smaller is better)	-564
BIC (smaller is better)	-546.7

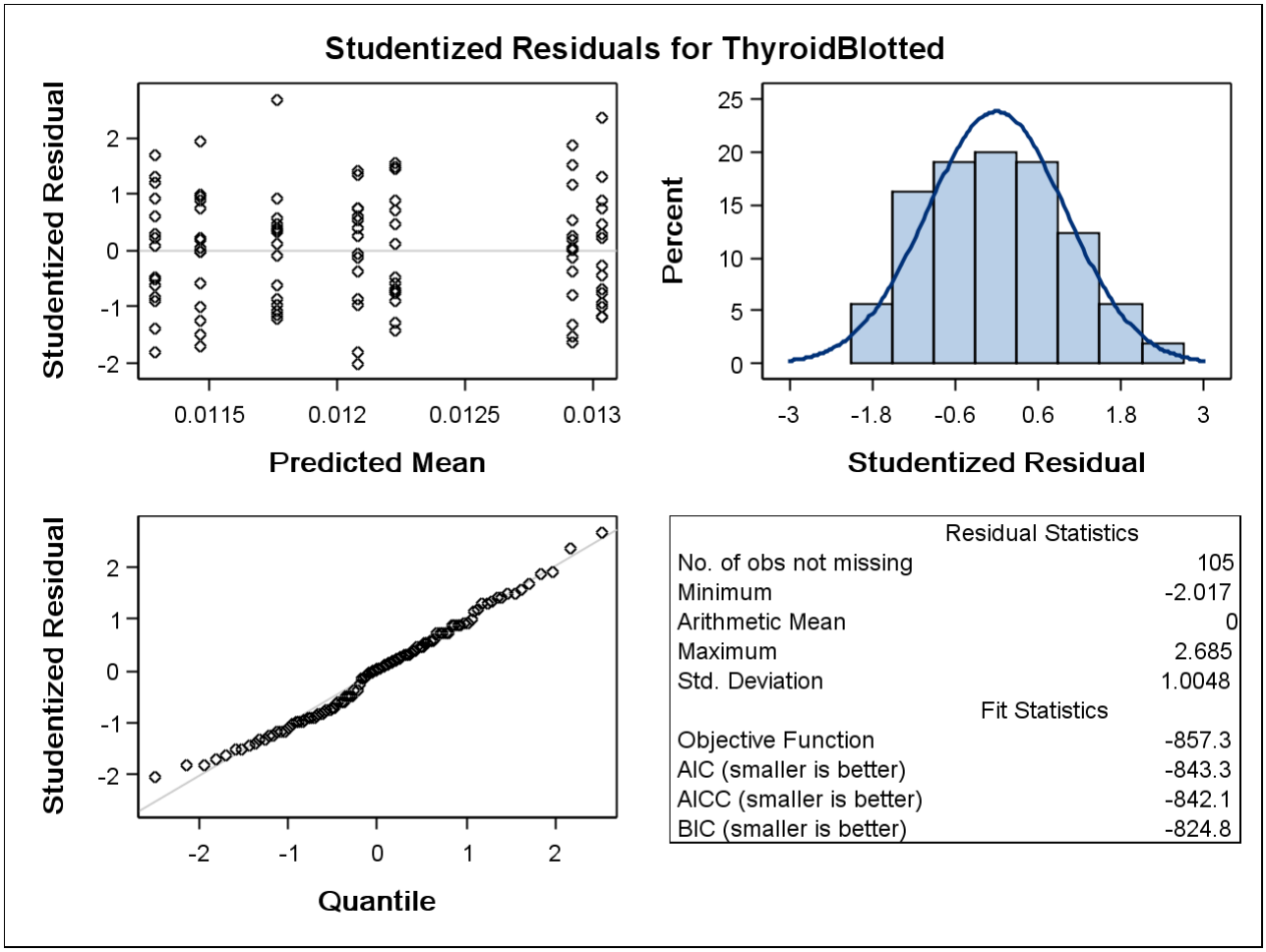
Pubertal Study - Wil: Females
Outlier Screens
Pituitary

The Mixed Procedure



Pubertal Study - Wil: Females
Outlier Screens
ThyroidBlotted

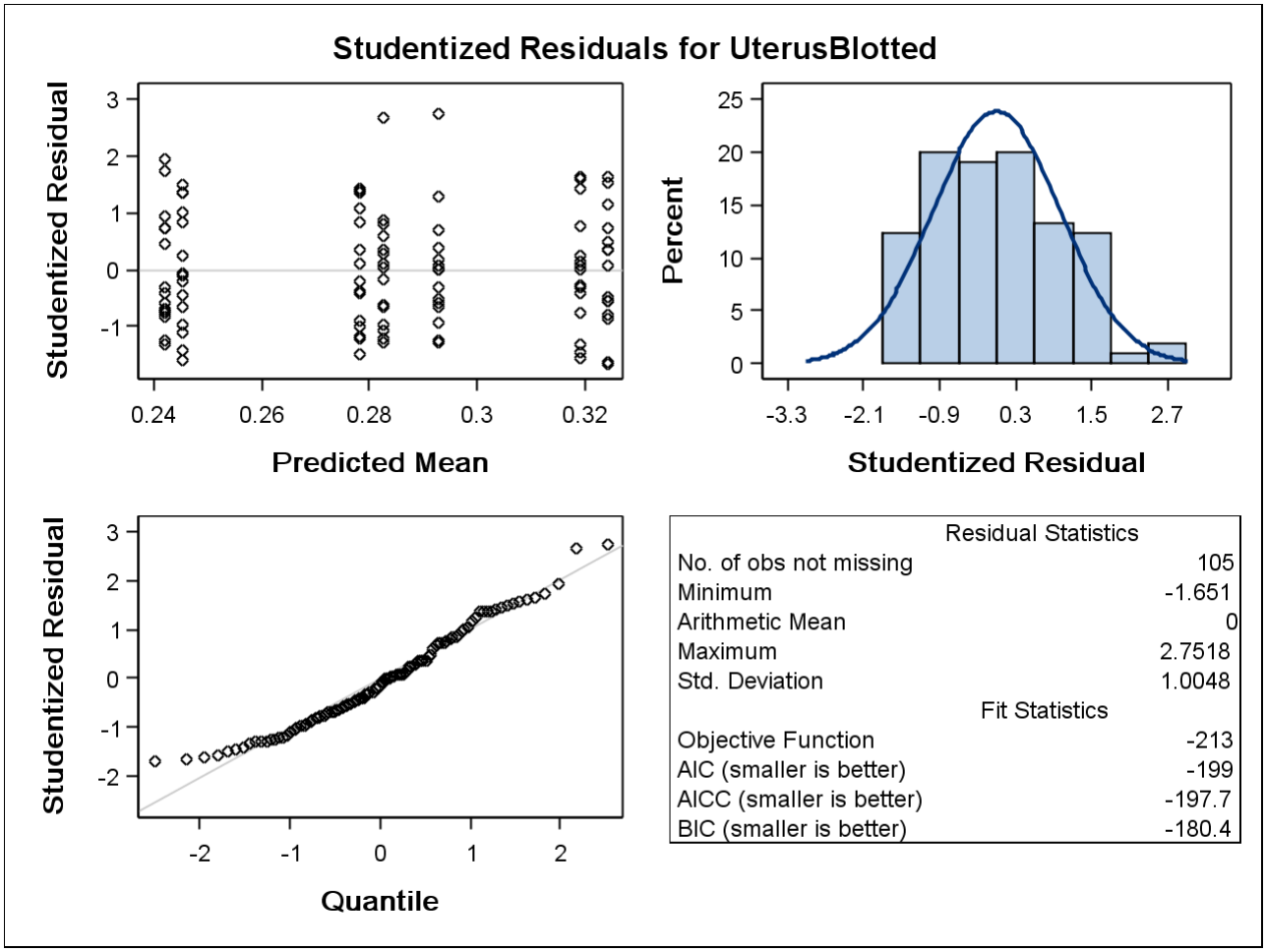
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.017
Arithmetic Mean	0
Maximum	2.685
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-857.3
AIC (smaller is better)	-843.3
AICC (smaller is better)	-842.1
BIC (smaller is better)	-824.8

Pubertal Study - Wil: Females
Outlier Screens
UterusBlotted

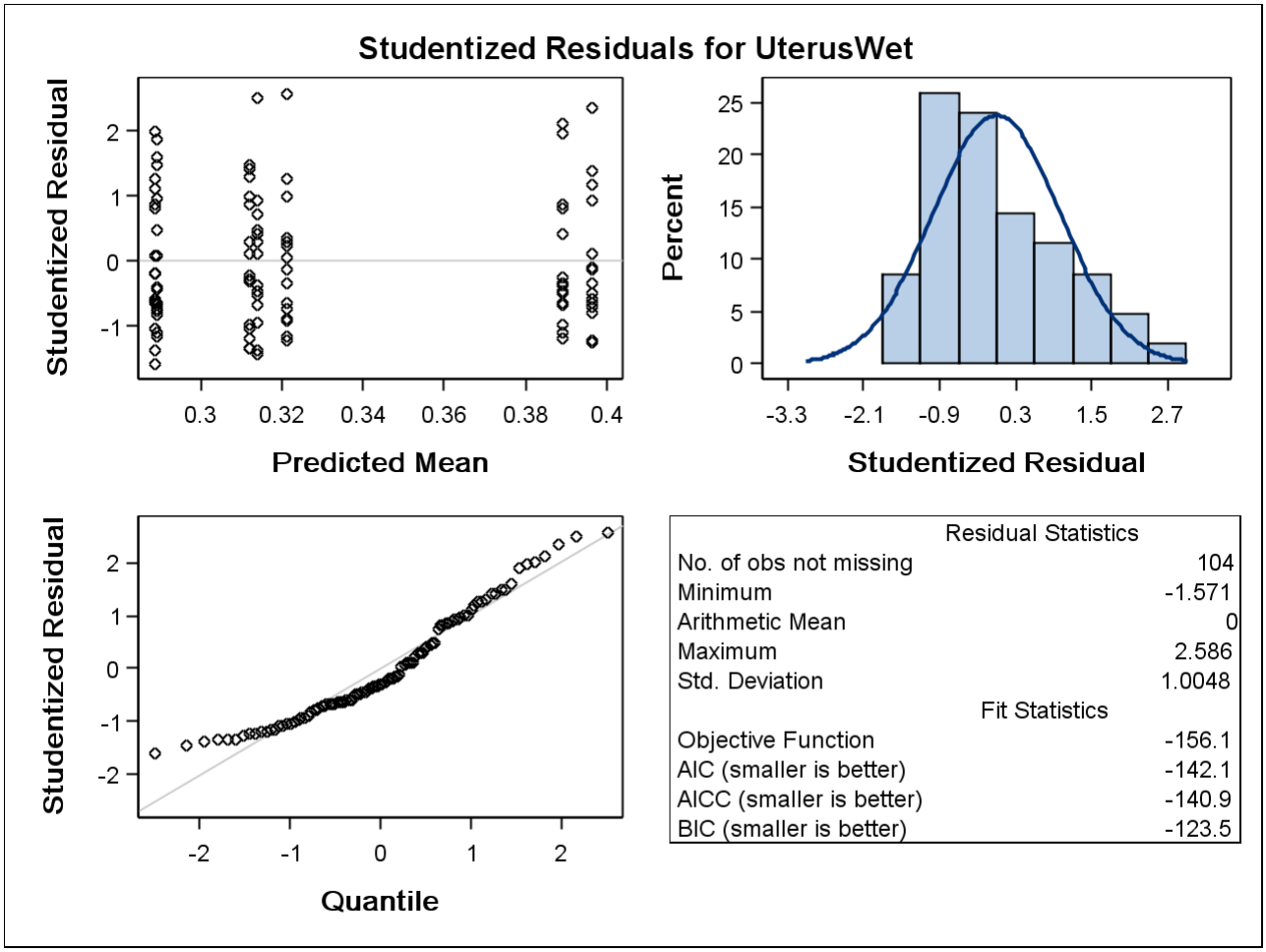
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.651
Arithmetic Mean	0
Maximum	2.7518
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-213
AIC (smaller is better)	-199
AICC (smaller is better)	-197.7
BIC (smaller is better)	-180.4

Pubertal Study - Wil: Females
Outlier Screens
UterusWet

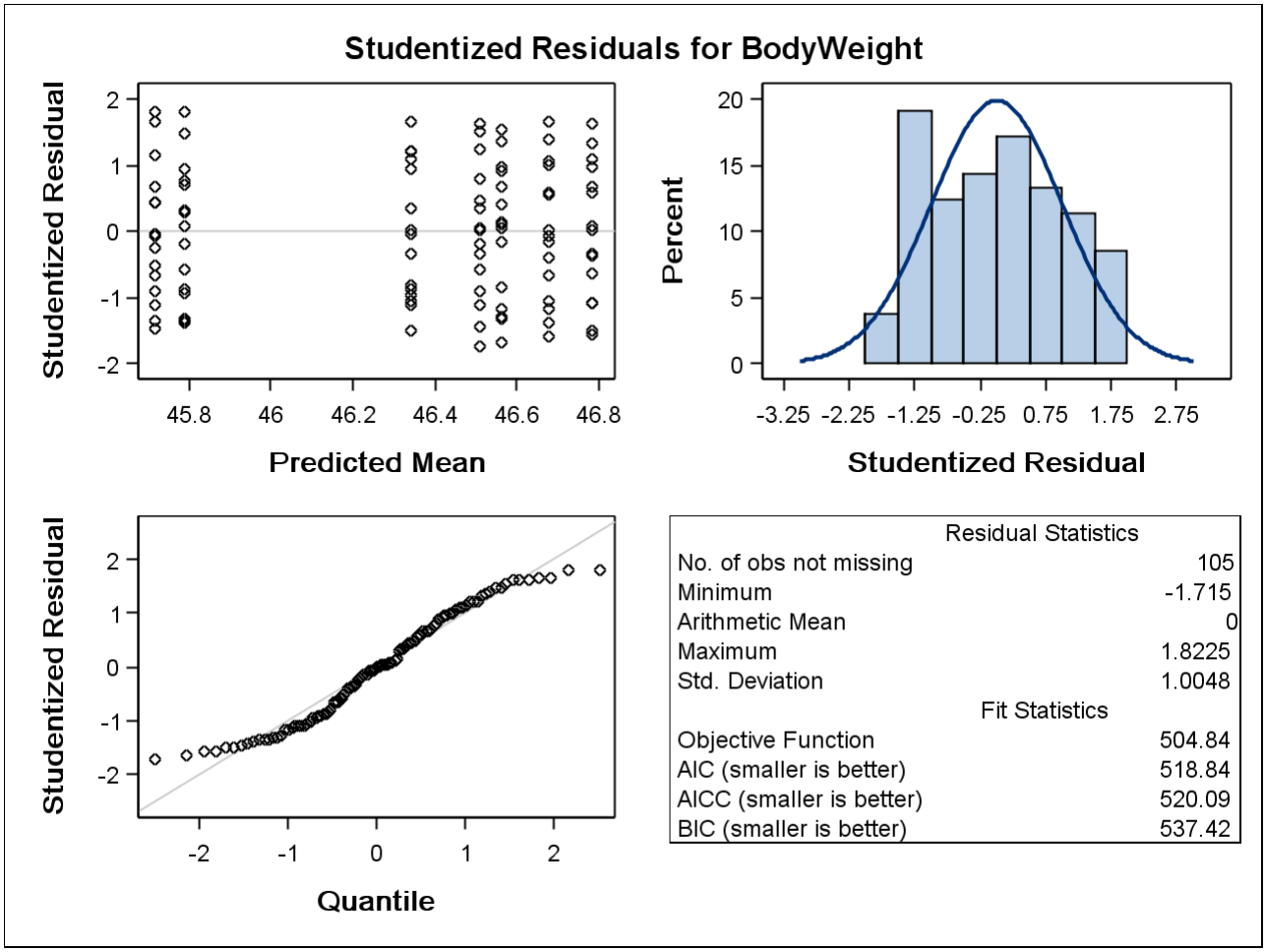
The Mixed Procedure



Residual Statistics	
No. of obs not missing	104
Minimum	-1.571
Arithmetic Mean	0
Maximum	2.586
Std. Deviation	1.0048
Fit Statistics	
Objective Function	-156.1
AIC (smaller is better)	-142.1
AICC (smaller is better)	-140.9
BIC (smaller is better)	-123.5

Pubertal Study - Wil: Females
Outlier Screens
Initial BodyWeight

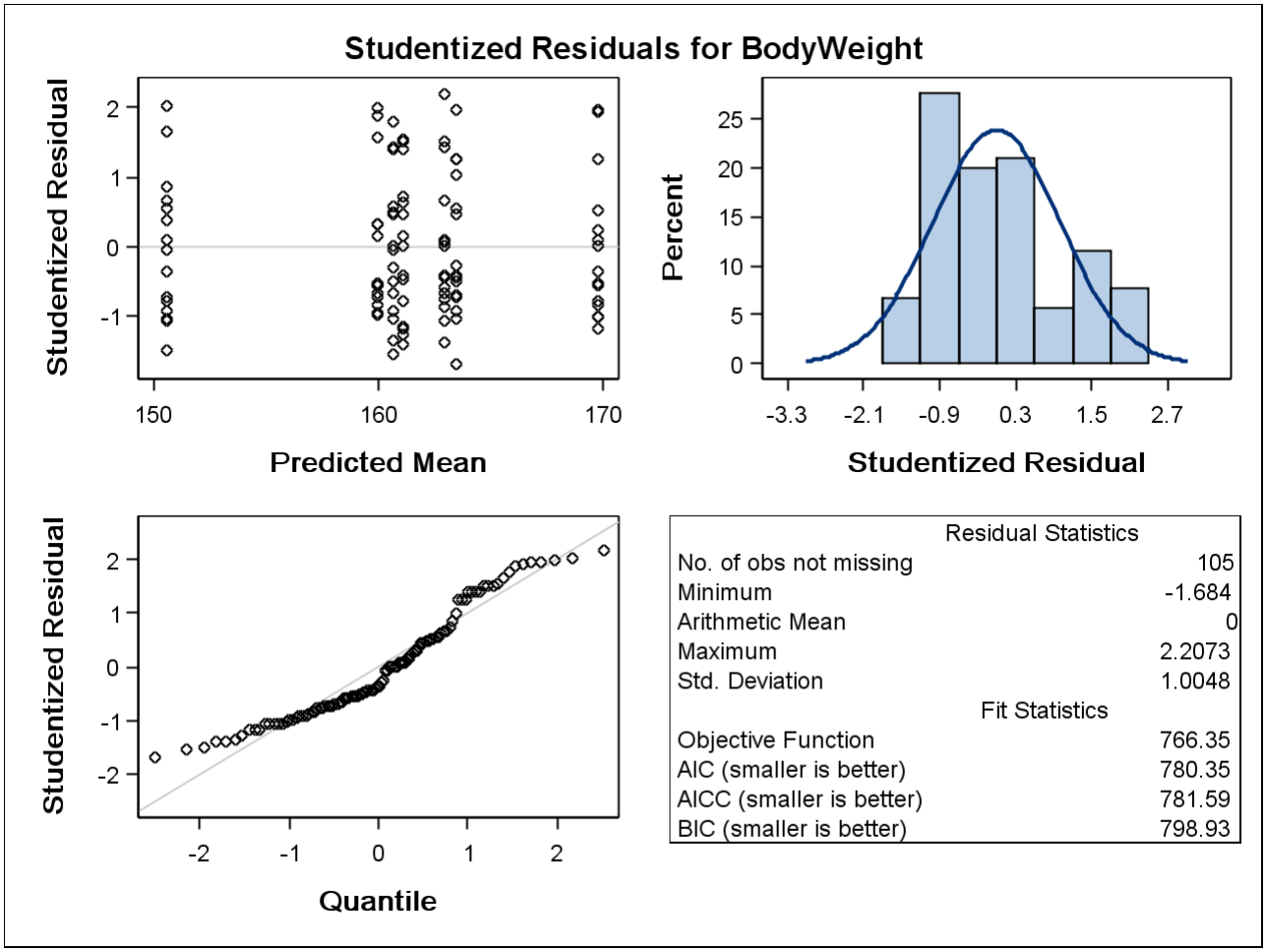
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.715
Arithmetic Mean	0
Maximum	1.8225
Std. Deviation	1.0048
Fit Statistics	
Objective Function	504.84
AIC (smaller is better)	518.84
AICC (smaller is better)	520.09
BIC (smaller is better)	537.42

Pubertal Study - Wil: Females
Outlier Screens
Final BodyWeight

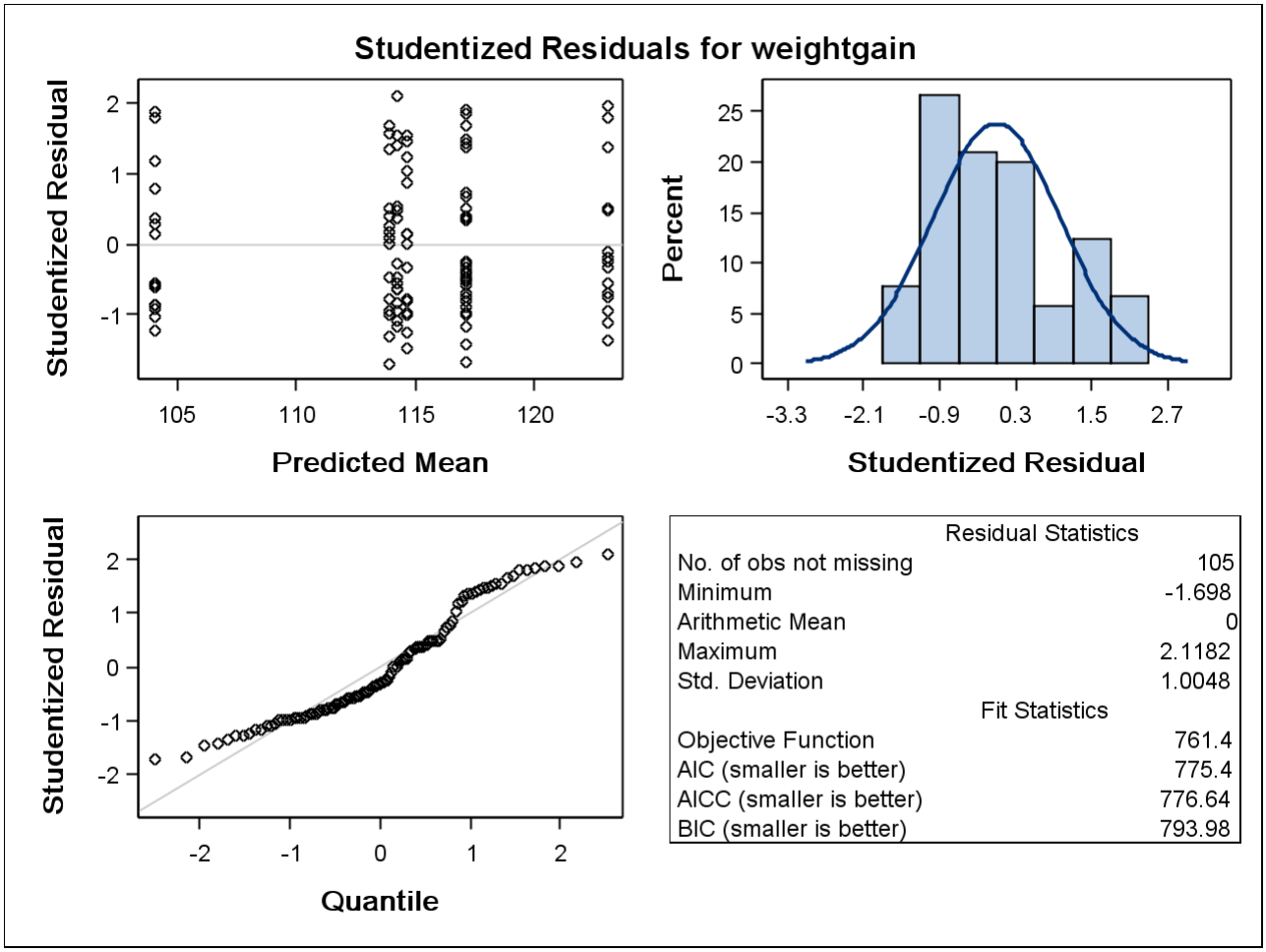
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.684
Arithmetic Mean	0
Maximum	2.2073
Std. Deviation	1.0048
Fit Statistics	
Objective Function	766.35
AIC (smaller is better)	780.35
AICC (smaller is better)	781.59
BIC (smaller is better)	798.93

Pubertal Study - Wil: Females
Outlier Screens
BodyWeight Gain

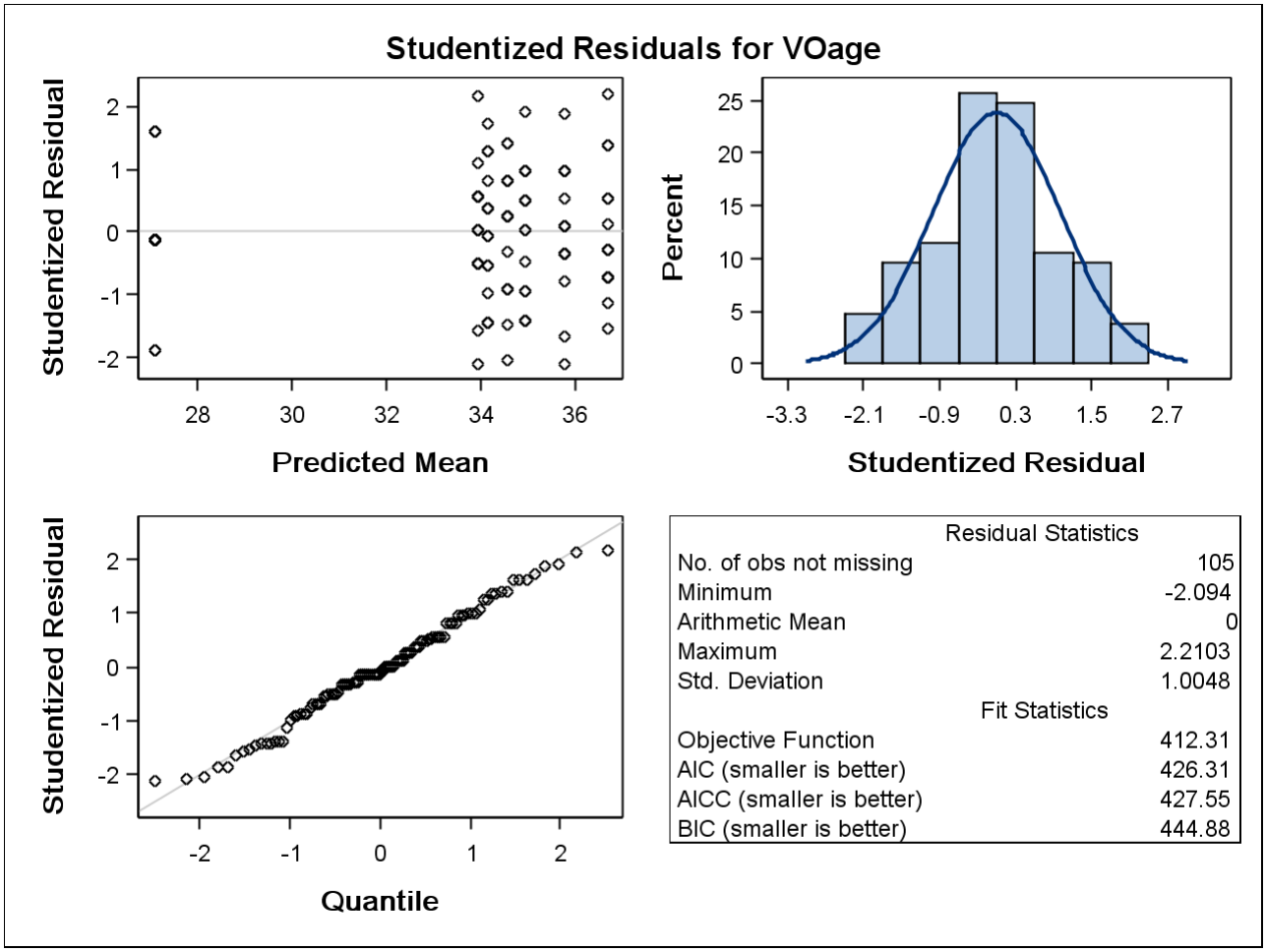
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.698
Arithmetic Mean	0
Maximum	2.1182
Std. Deviation	1.0048
Fit Statistics	
Objective Function	761.4
AIC (smaller is better)	775.4
AICC (smaller is better)	776.64
BIC (smaller is better)	793.98

Pubertal Study - Wil: Females
Outlier Screens
Age at VO

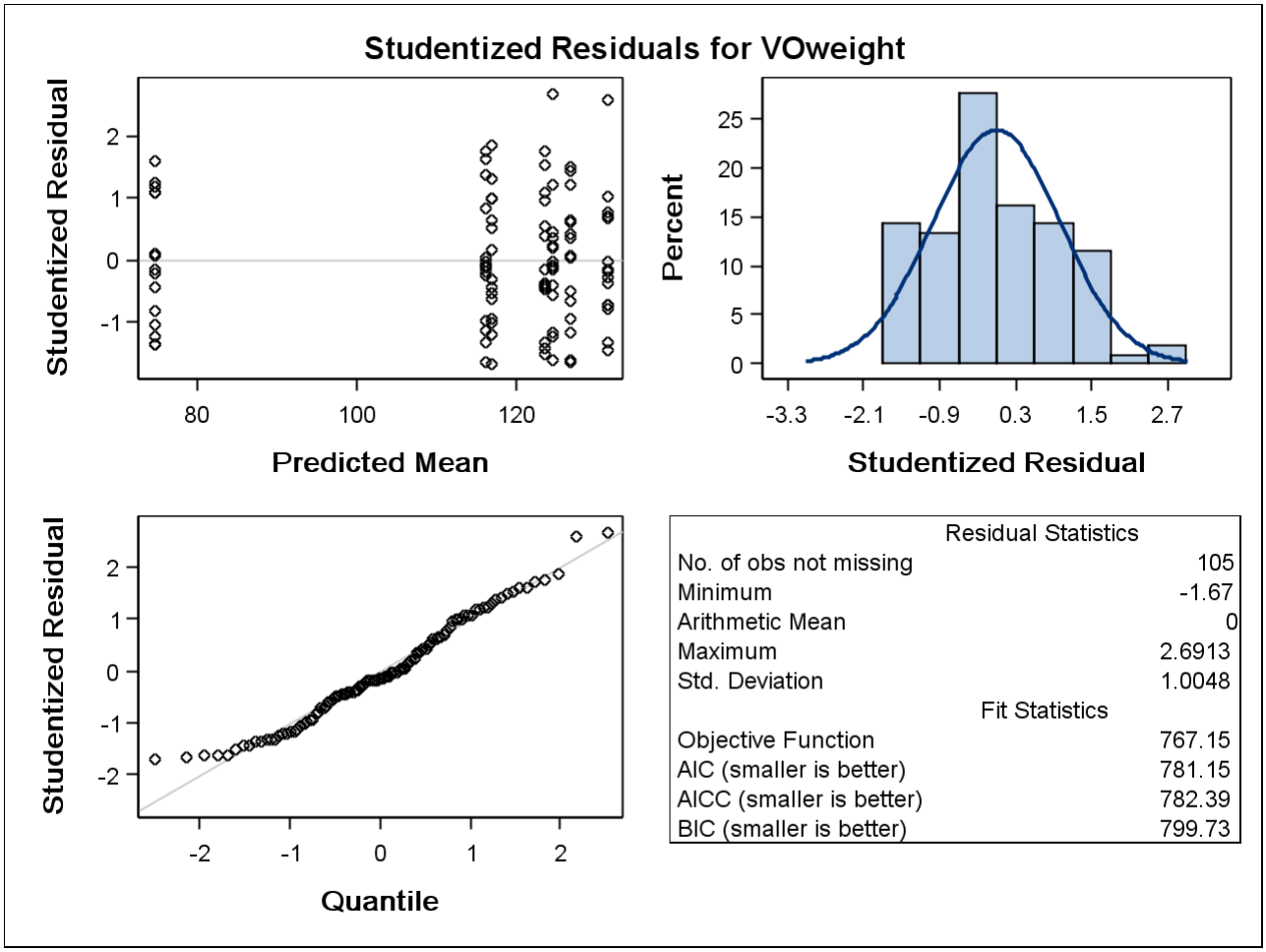
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-2.094
Arithmetic Mean	0
Maximum	2.2103
Std. Deviation	1.0048
Fit Statistics	
Objective Function	412.31
AIC (smaller is better)	426.31
AICC (smaller is better)	427.55
BIC (smaller is better)	444.88

Pubertal Study - Wil: Females
Outlier Screens
BodyWeight at VO

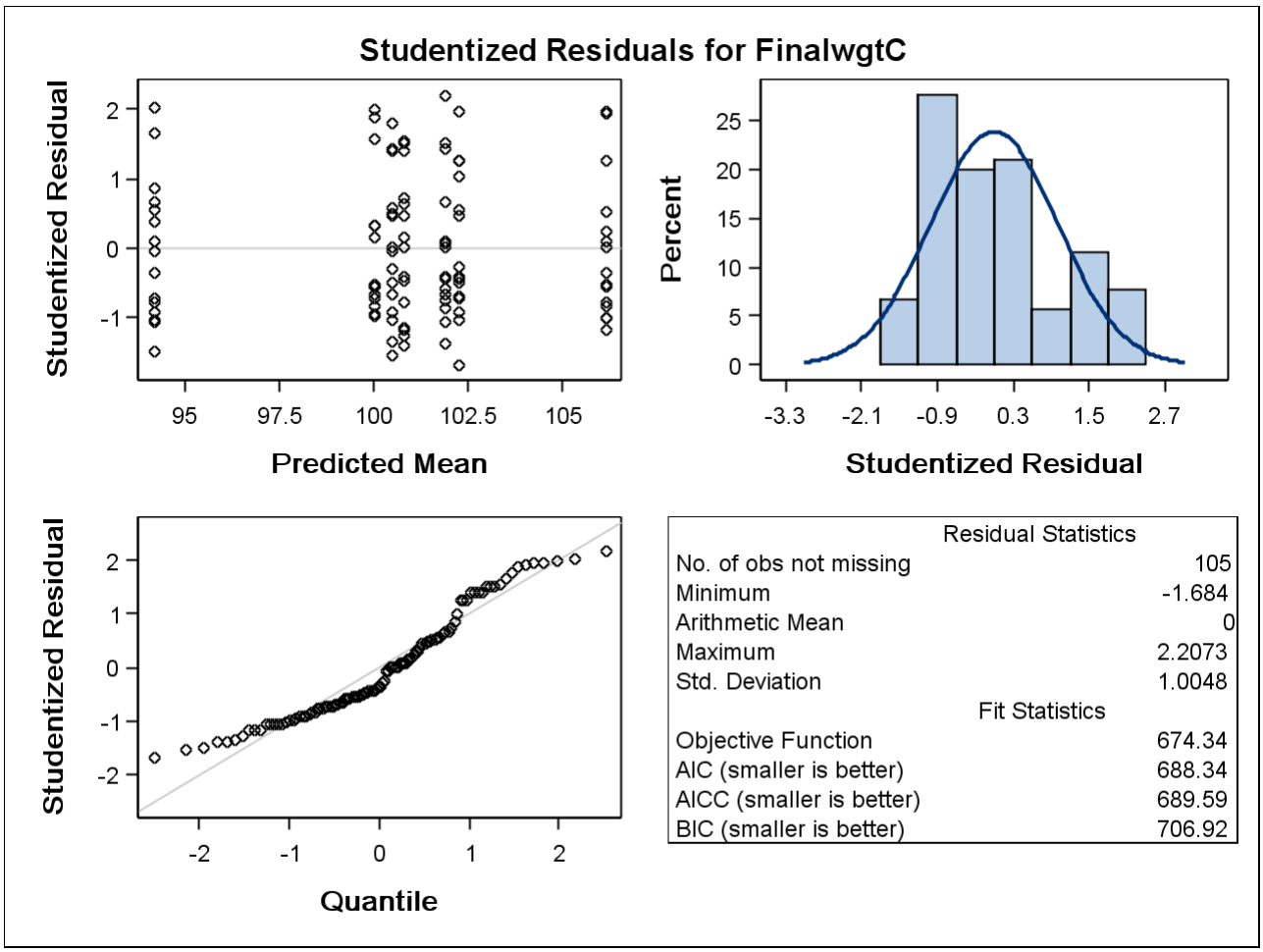
The Mixed Procedure



Residual Statistics	
No. of obs not missing	105
Minimum	-1.67
Arithmetic Mean	0
Maximum	2.6913
Std. Deviation	1.0048
Fit Statistics	
Objective Function	767.15
AIC (smaller is better)	781.15
AICC (smaller is better)	782.39
BIC (smaller is better)	799.73

Pubertal Study - Wil: Females
Outlier Screens
Final Body Weight as Percent of Control

The Mixed Procedure



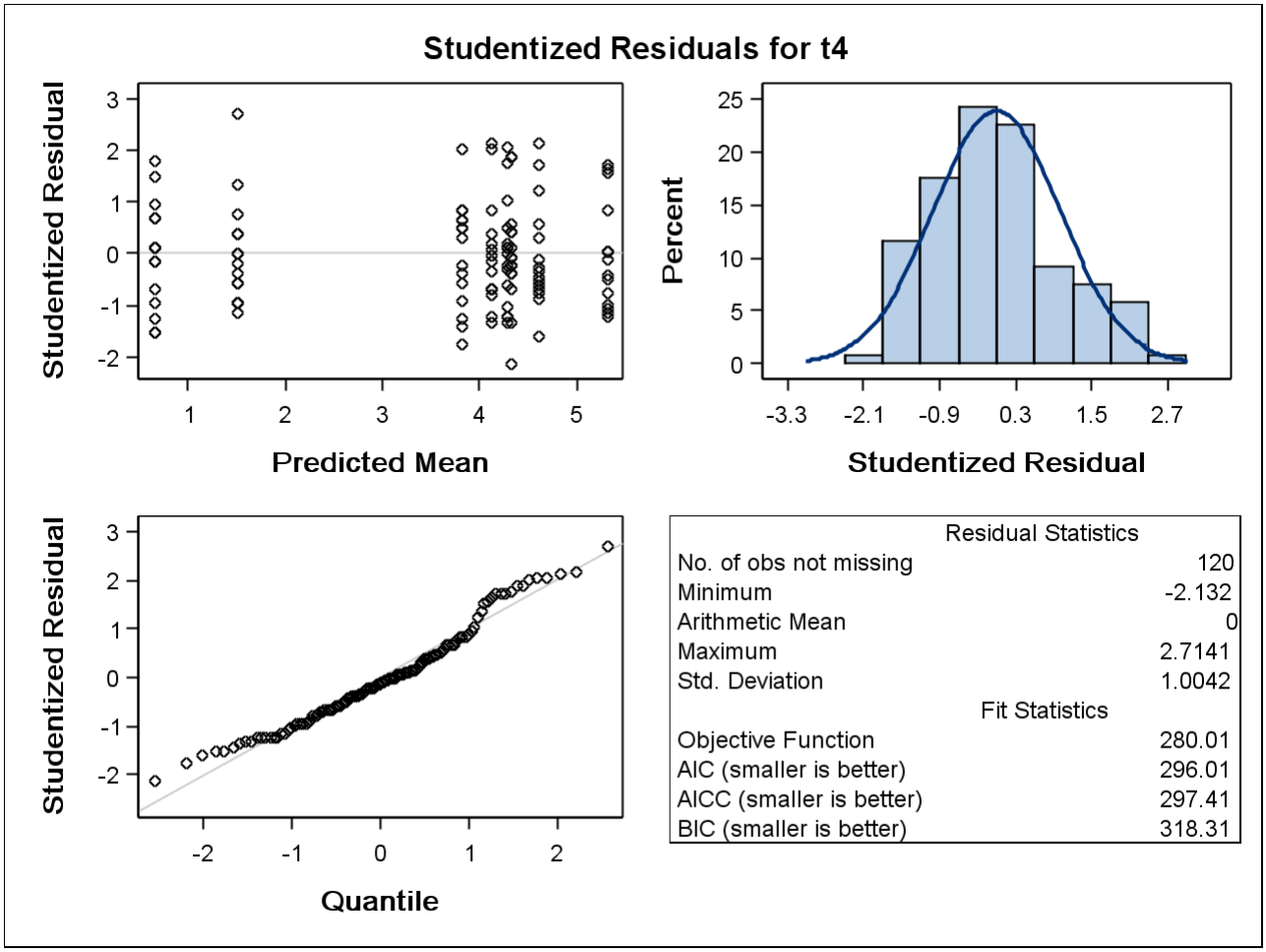
Residual Statistics	
No. of obs not missing	105
Minimum	-1.684
Arithmetic Mean	0
Maximum	2.2073
Std. Deviation	1.0048
Fit Statistics	
Objective Function	674.34
AIC (smaller is better)	688.34
AICC (smaller is better)	689.59
BIC (smaller is better)	706.92

Figure Group A-3 Each **Quantile-Quantile Plots of Studentized Residuals for Response within Huntingdon Laboratories.**

Female Pubertal Assay

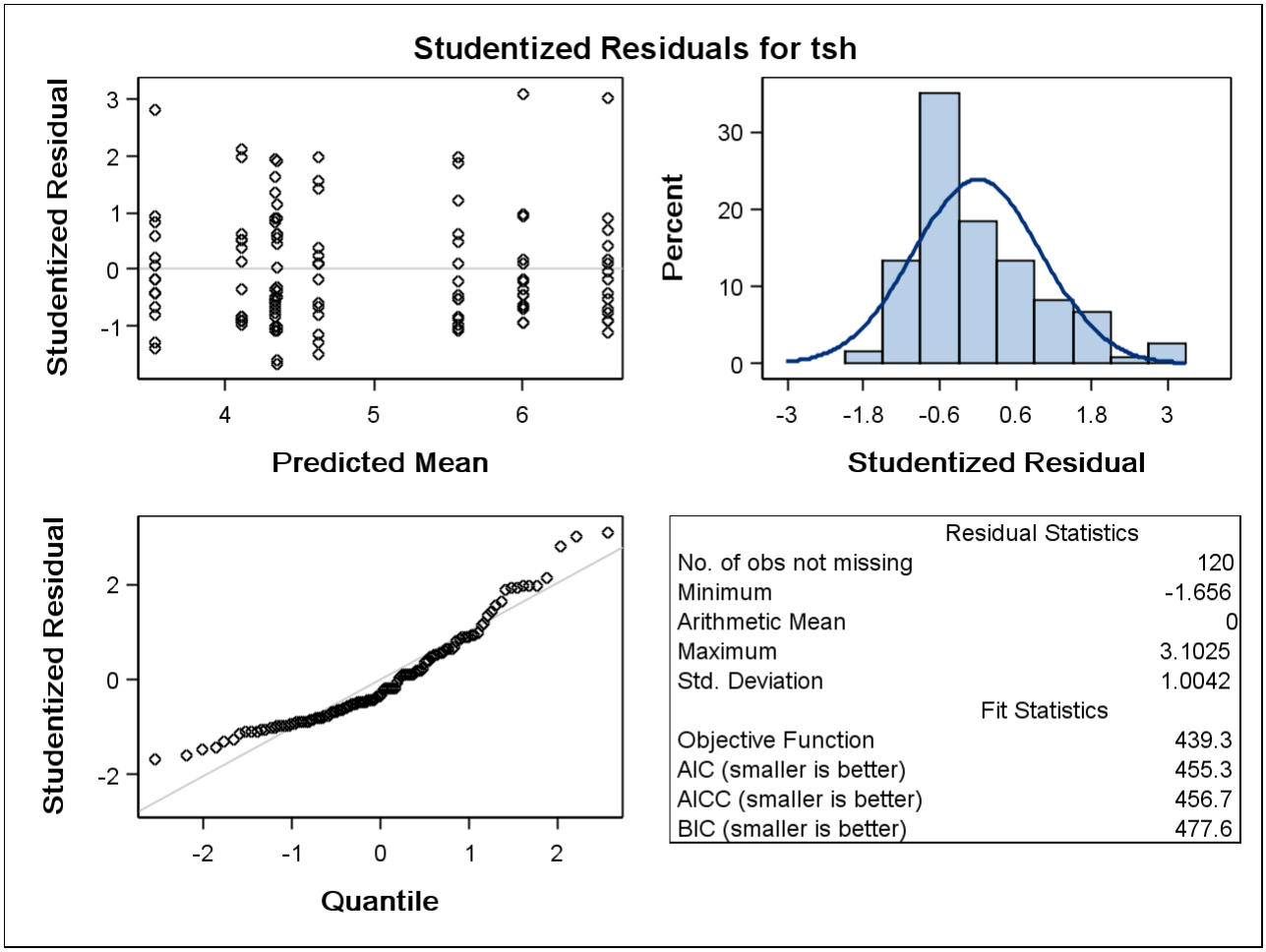
Pubertal Study - Huntingdon: Females
Outlier Screens
t4

The Mixed Procedure



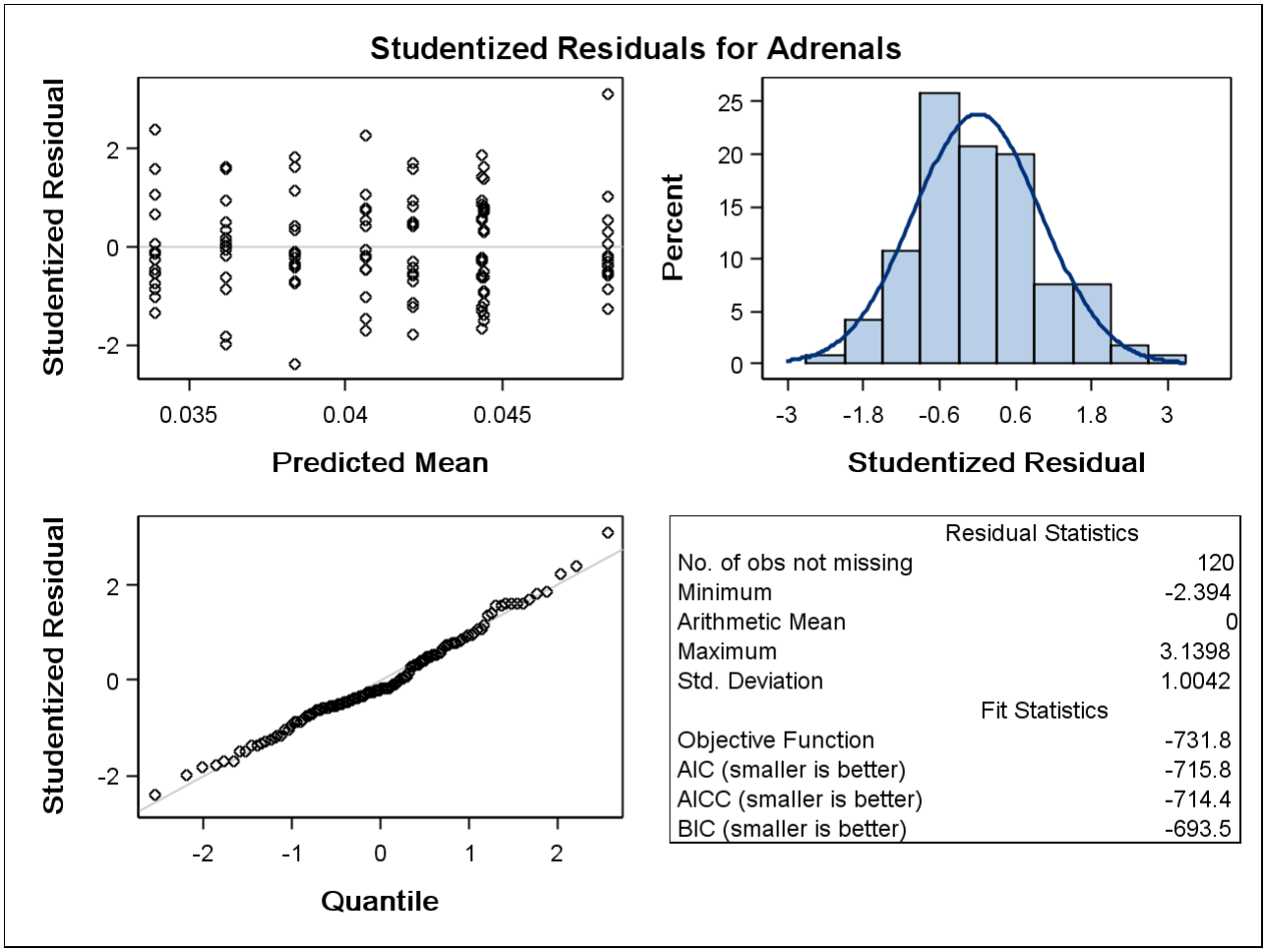
Residual Statistics	
No. of obs not missing	120
Minimum	-2.132
Arithmetic Mean	0
Maximum	2.7141
Std. Deviation	1.0042
Fit Statistics	
Objective Function	280.01
AIC (smaller is better)	296.01
AICC (smaller is better)	297.41
BIC (smaller is better)	318.31

The Mixed Procedure



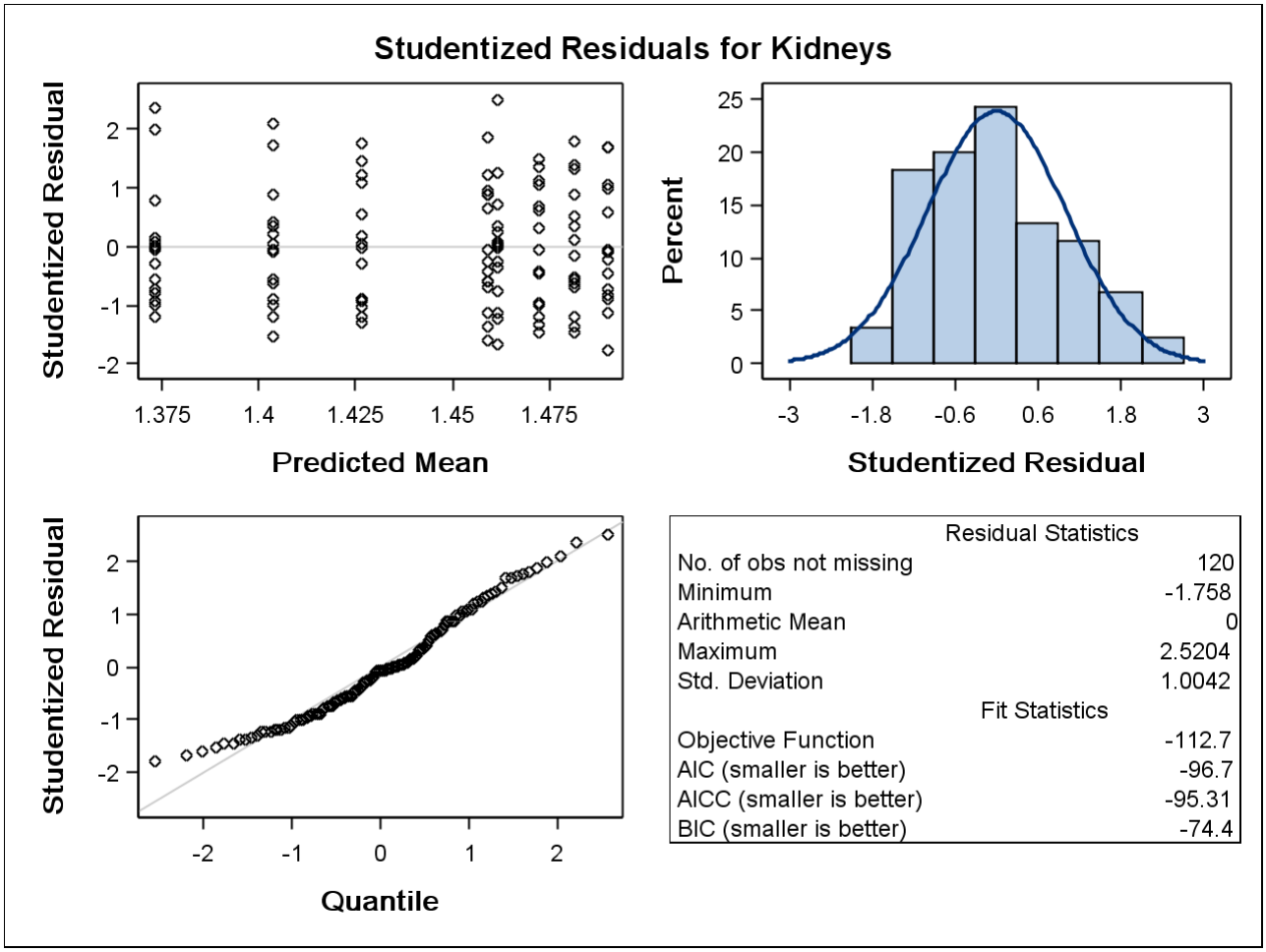
Residual Statistics	
No. of obs not missing	120
Minimum	-1.656
Arithmetic Mean	0
Maximum	3.1025
Std. Deviation	1.0042
Fit Statistics	
Objective Function	439.3
AIC (smaller is better)	455.3
AICC (smaller is better)	456.7
BIC (smaller is better)	477.6

The Mixed Procedure



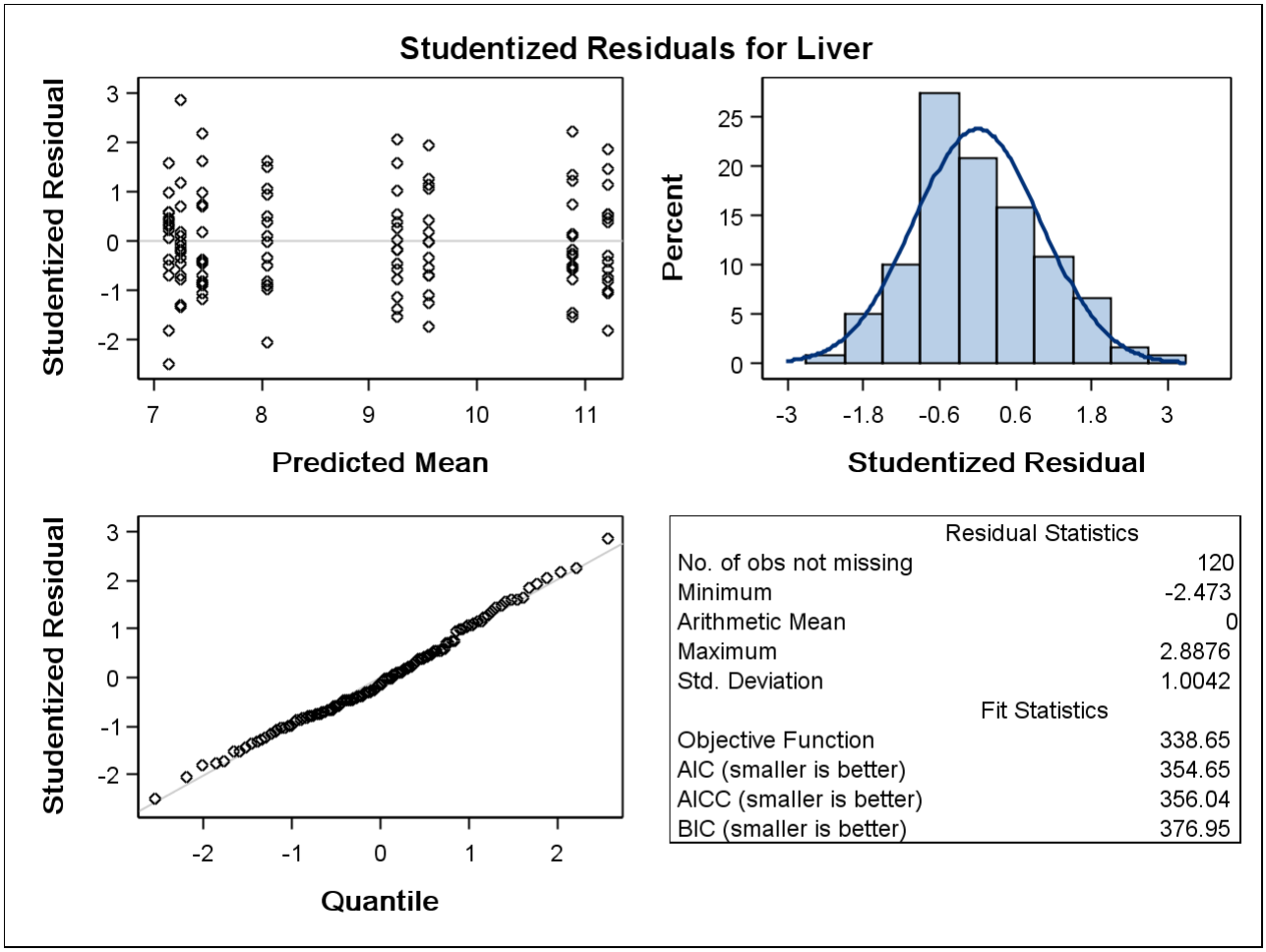
Residual Statistics	
No. of obs not missing	120
Minimum	-2.394
Arithmetic Mean	0
Maximum	3.1398
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-731.8
AIC (smaller is better)	-715.8
AICC (smaller is better)	-714.4
BIC (smaller is better)	-693.5

The Mixed Procedure



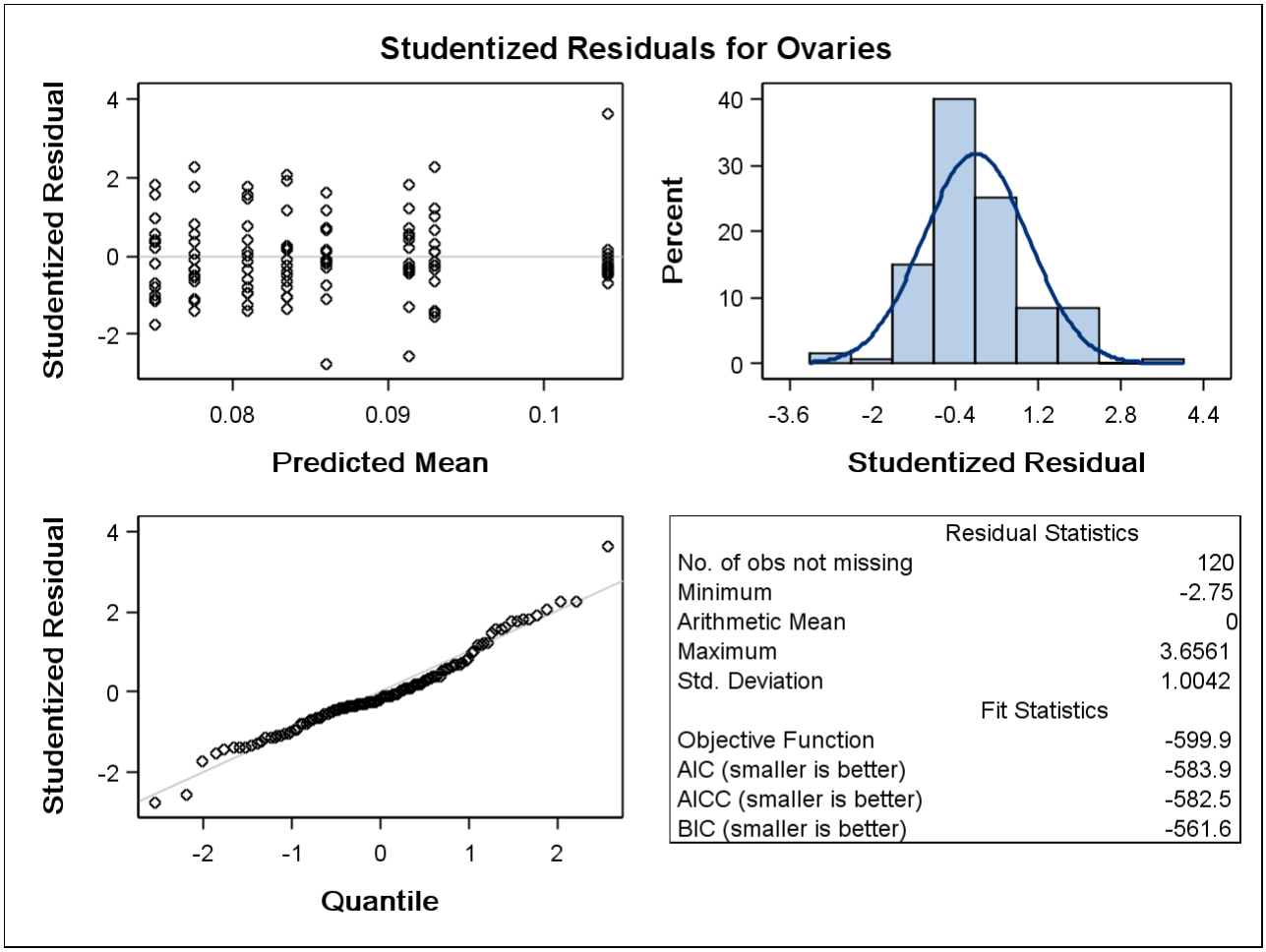
Residual Statistics	
No. of obs not missing	120
Minimum	-1.758
Arithmetic Mean	0
Maximum	2.5204
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-112.7
AIC (smaller is better)	-96.7
AICC (smaller is better)	-95.31
BIC (smaller is better)	-74.4

The Mixed Procedure



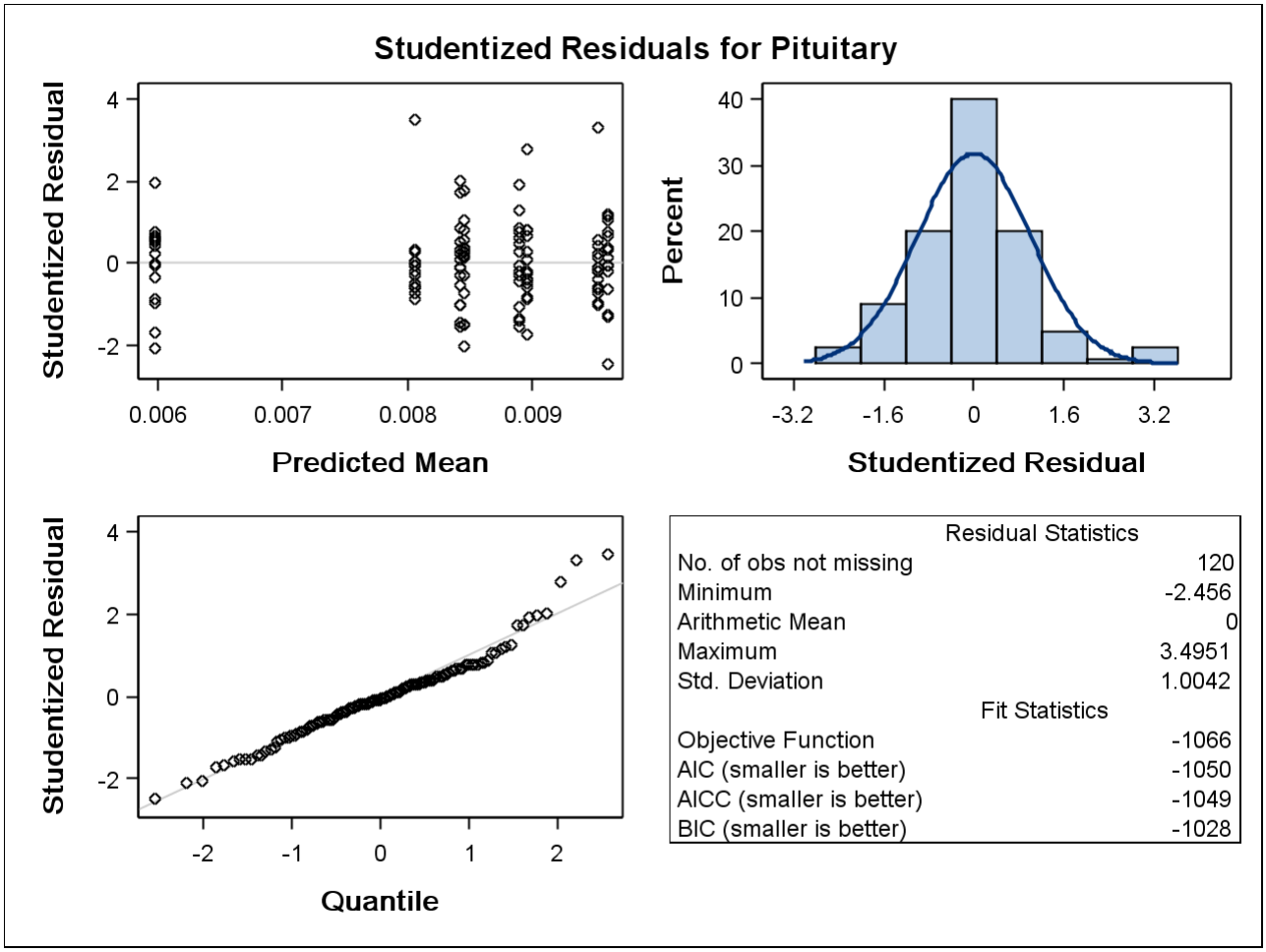
Residual Statistics	
No. of obs not missing	120
Minimum	-2.473
Arithmetic Mean	0
Maximum	2.8876
Std. Deviation	1.0042
Fit Statistics	
Objective Function	338.65
AIC (smaller is better)	354.65
AICC (smaller is better)	356.04
BIC (smaller is better)	376.95

The Mixed Procedure



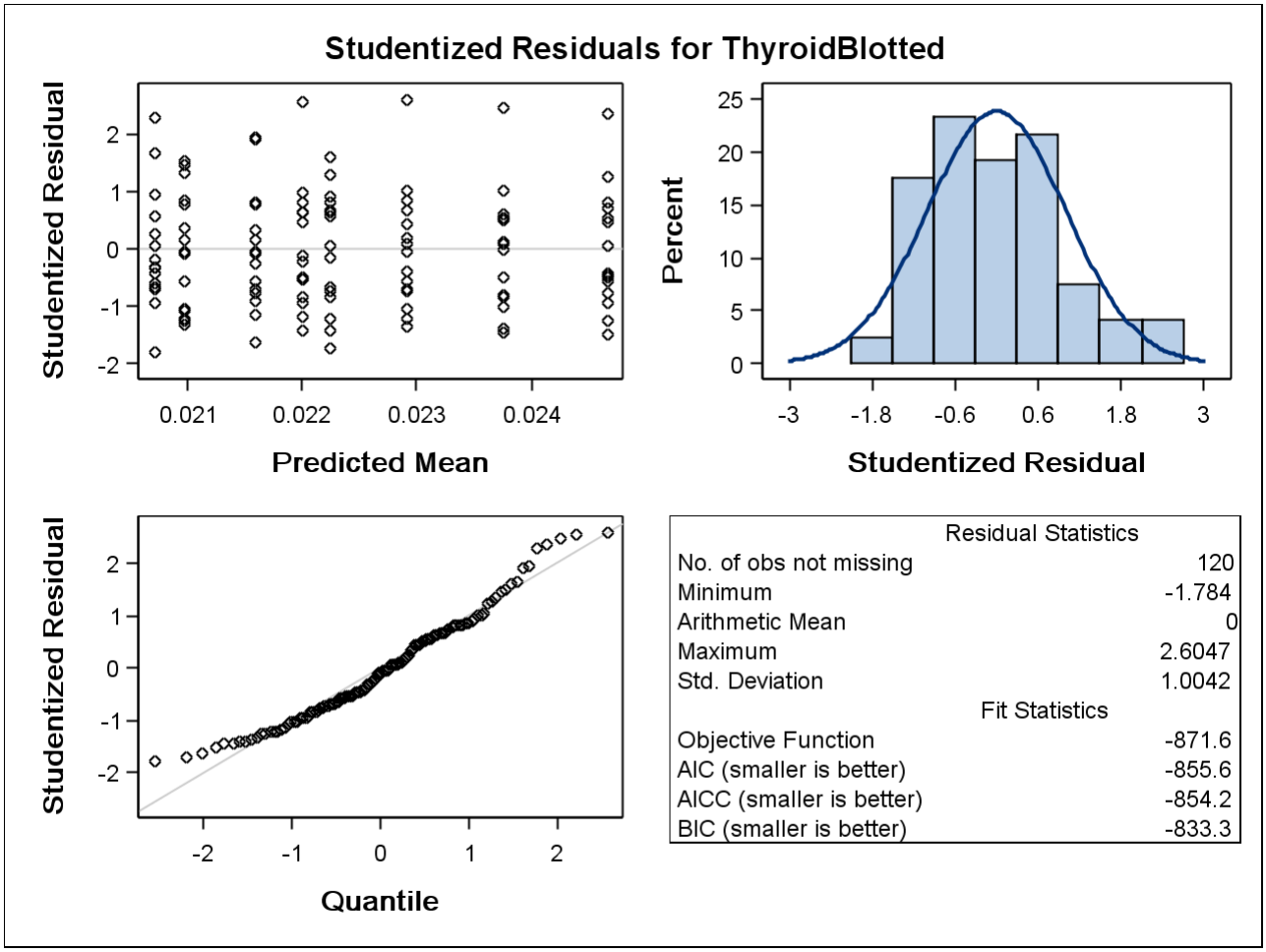
Residual Statistics	
No. of obs not missing	120
Minimum	-2.75
Arithmetic Mean	0
Maximum	3.6561
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-599.9
AIC (smaller is better)	-583.9
AICC (smaller is better)	-582.5
BIC (smaller is better)	-561.6

The Mixed Procedure



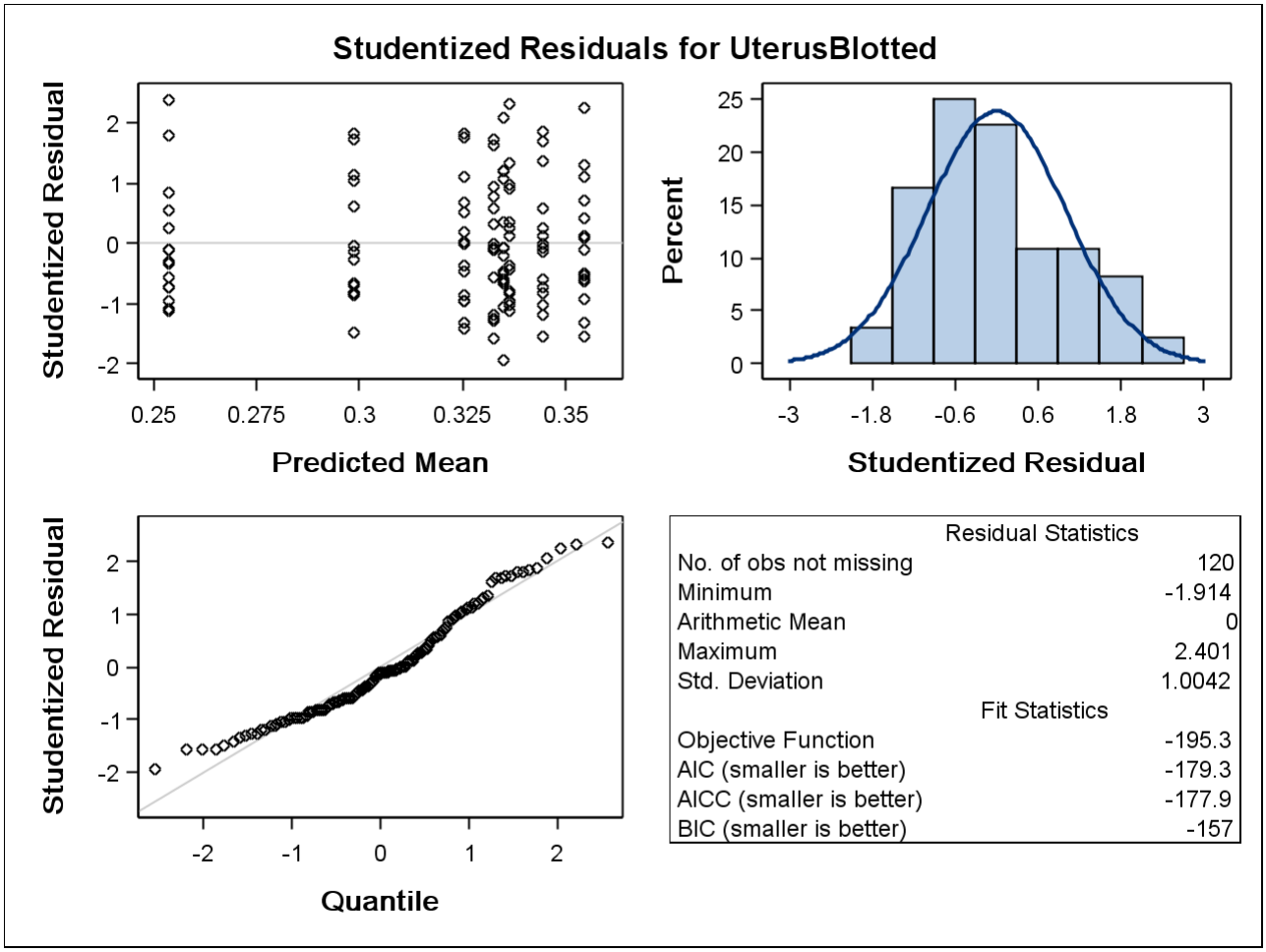
Residual Statistics	
No. of obs not missing	120
Minimum	-2.456
Arithmetic Mean	0
Maximum	3.4951
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-1066
AIC (smaller is better)	-1050
AICC (smaller is better)	-1049
BIC (smaller is better)	-1028

The Mixed Procedure



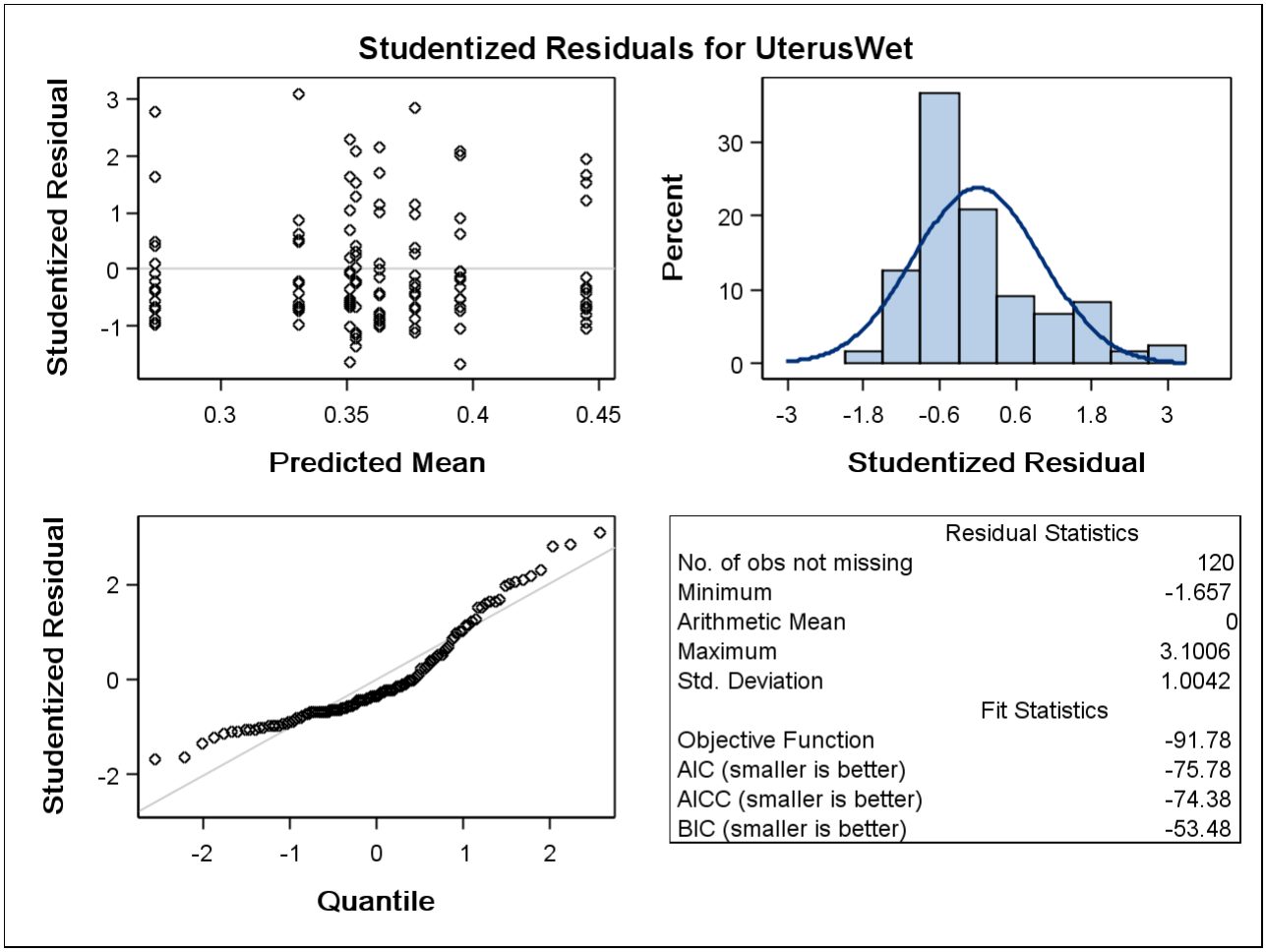
Residual Statistics	
No. of obs not missing	120
Minimum	-1.784
Arithmetic Mean	0
Maximum	2.6047
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-871.6
AIC (smaller is better)	-855.6
AICC (smaller is better)	-854.2
BIC (smaller is better)	-833.3

The Mixed Procedure



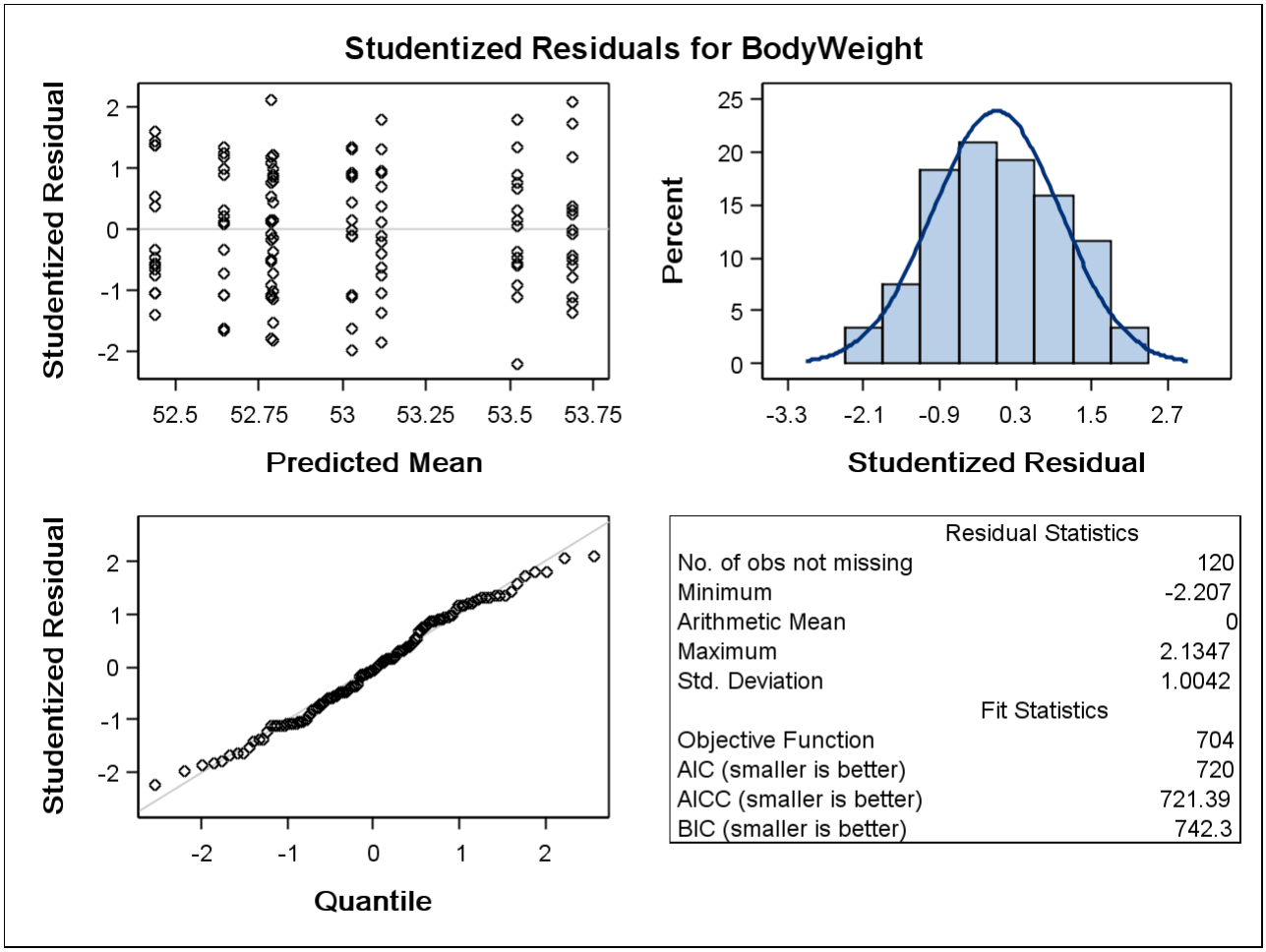
Residual Statistics	
No. of obs not missing	120
Minimum	-1.914
Arithmetic Mean	0
Maximum	2.401
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-195.3
AIC (smaller is better)	-179.3
AICC (smaller is better)	-177.9
BIC (smaller is better)	-157

The Mixed Procedure



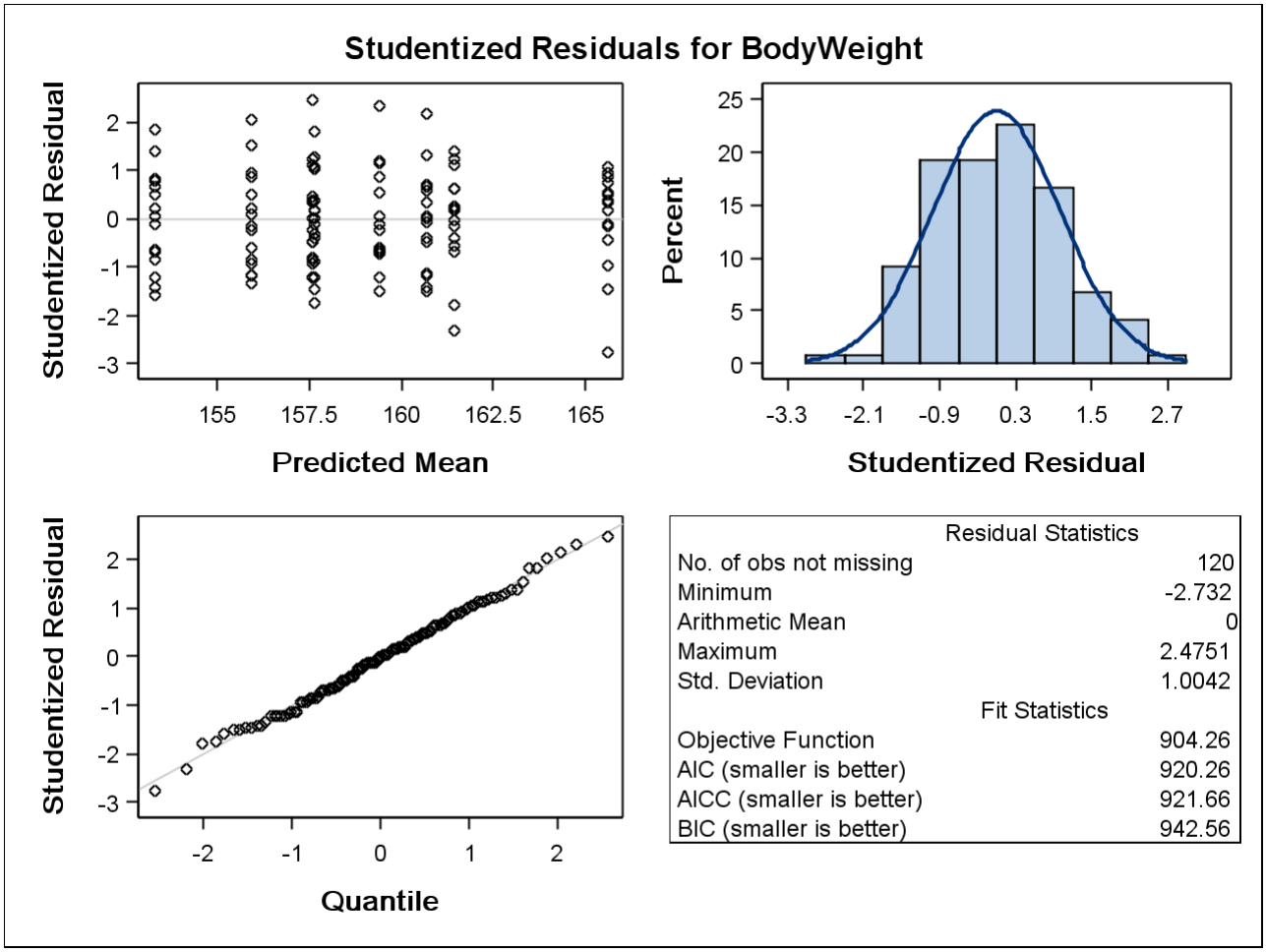
Residual Statistics	
No. of obs not missing	120
Minimum	-1.657
Arithmetic Mean	0
Maximum	3.1006
Std. Deviation	1.0042
Fit Statistics	
Objective Function	-91.78
AIC (smaller is better)	-75.78
AICC (smaller is better)	-74.38
BIC (smaller is better)	-53.48

The Mixed Procedure



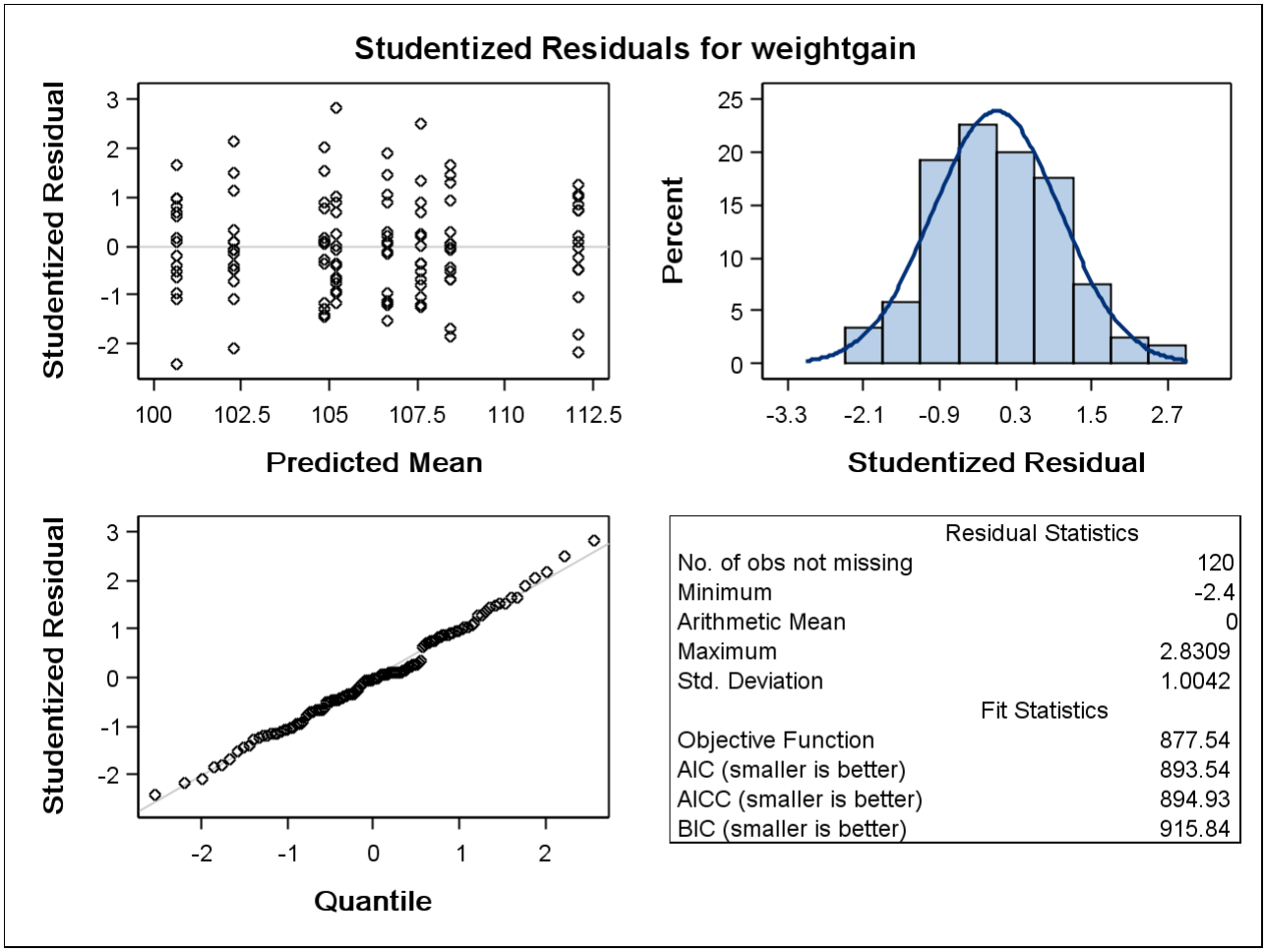
Residual Statistics	
No. of obs not missing	120
Minimum	-2.207
Arithmetic Mean	0
Maximum	2.1347
Std. Deviation	1.0042
Fit Statistics	
Objective Function	704
AIC (smaller is better)	720
AICC (smaller is better)	721.39
BIC (smaller is better)	742.3

The Mixed Procedure



Residual Statistics	
No. of obs not missing	120
Minimum	-2.732
Arithmetic Mean	0
Maximum	2.4751
Std. Deviation	1.0042
Fit Statistics	
Objective Function	904.26
AIC (smaller is better)	920.26
AICC (smaller is better)	921.66
BIC (smaller is better)	942.56

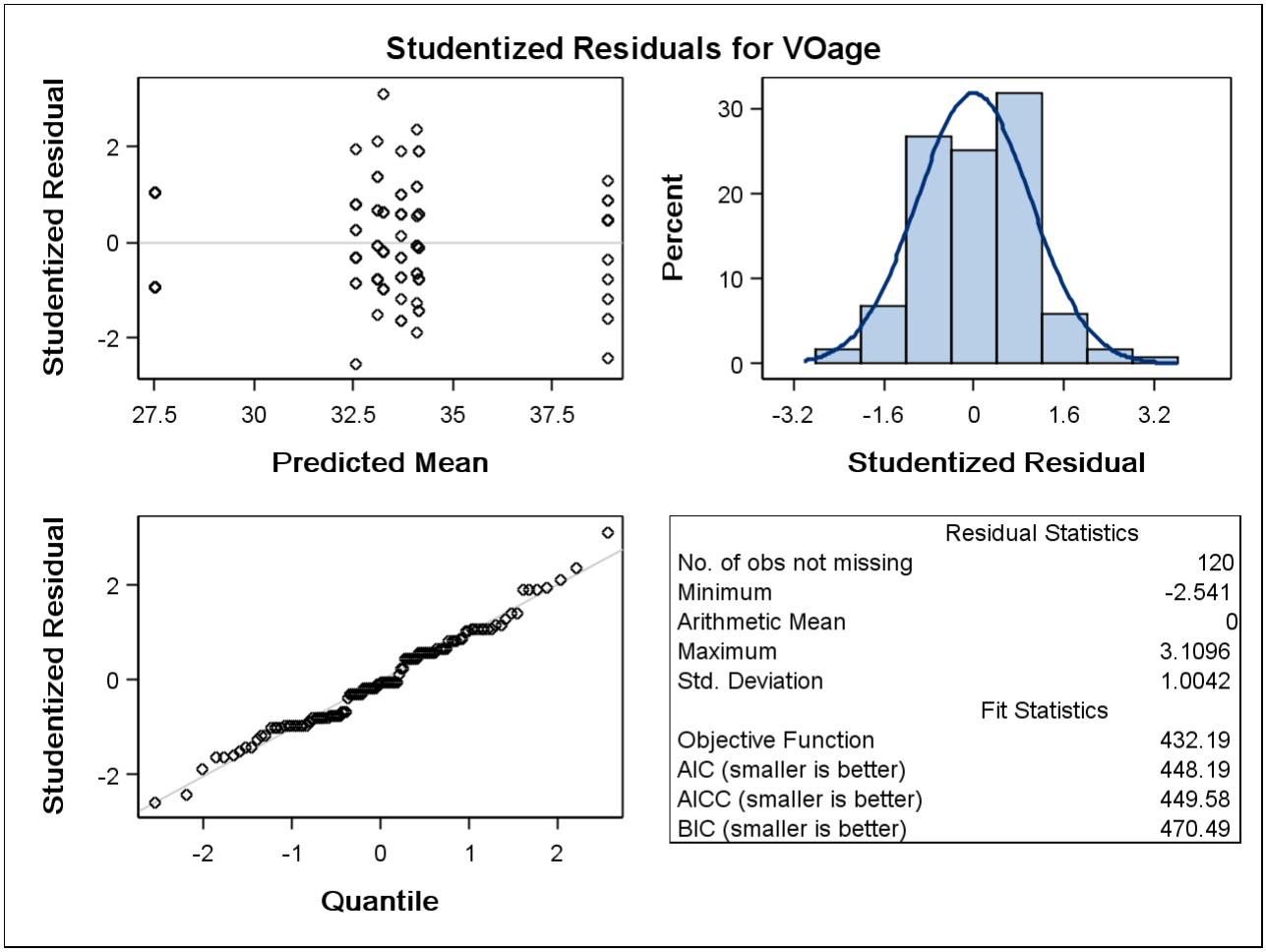
The Mixed Procedure



Residual Statistics	
No. of obs not missing	120
Minimum	-2.4
Arithmetic Mean	0
Maximum	2.8309
Std. Deviation	1.0042
Fit Statistics	
Objective Function	877.54
AIC (smaller is better)	893.54
AICC (smaller is better)	894.93
BIC (smaller is better)	915.84

Pubertal Study - Huntingdon: Females
Outlier Screens
Age at VO

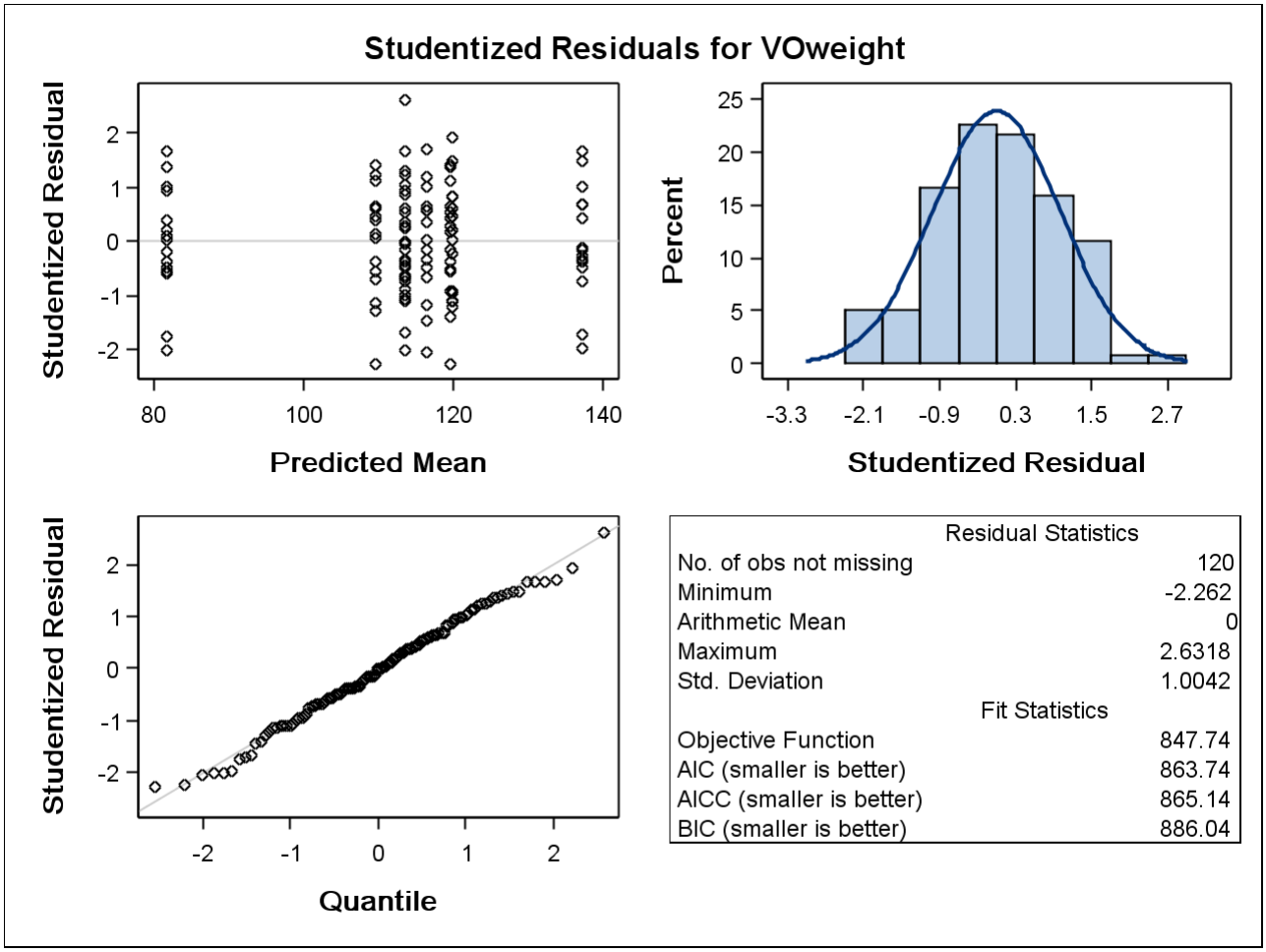
The Mixed Procedure



Residual Statistics	
No. of obs not missing	120
Minimum	-2.541
Arithmetic Mean	0
Maximum	3.1096
Std. Deviation	1.0042
Fit Statistics	
Objective Function	432.19
AIC (smaller is better)	448.19
AICC (smaller is better)	449.58
BIC (smaller is better)	470.49

Pubertal Study - Huntingdon: Females
Outlier Screens
BodyWeight at VO

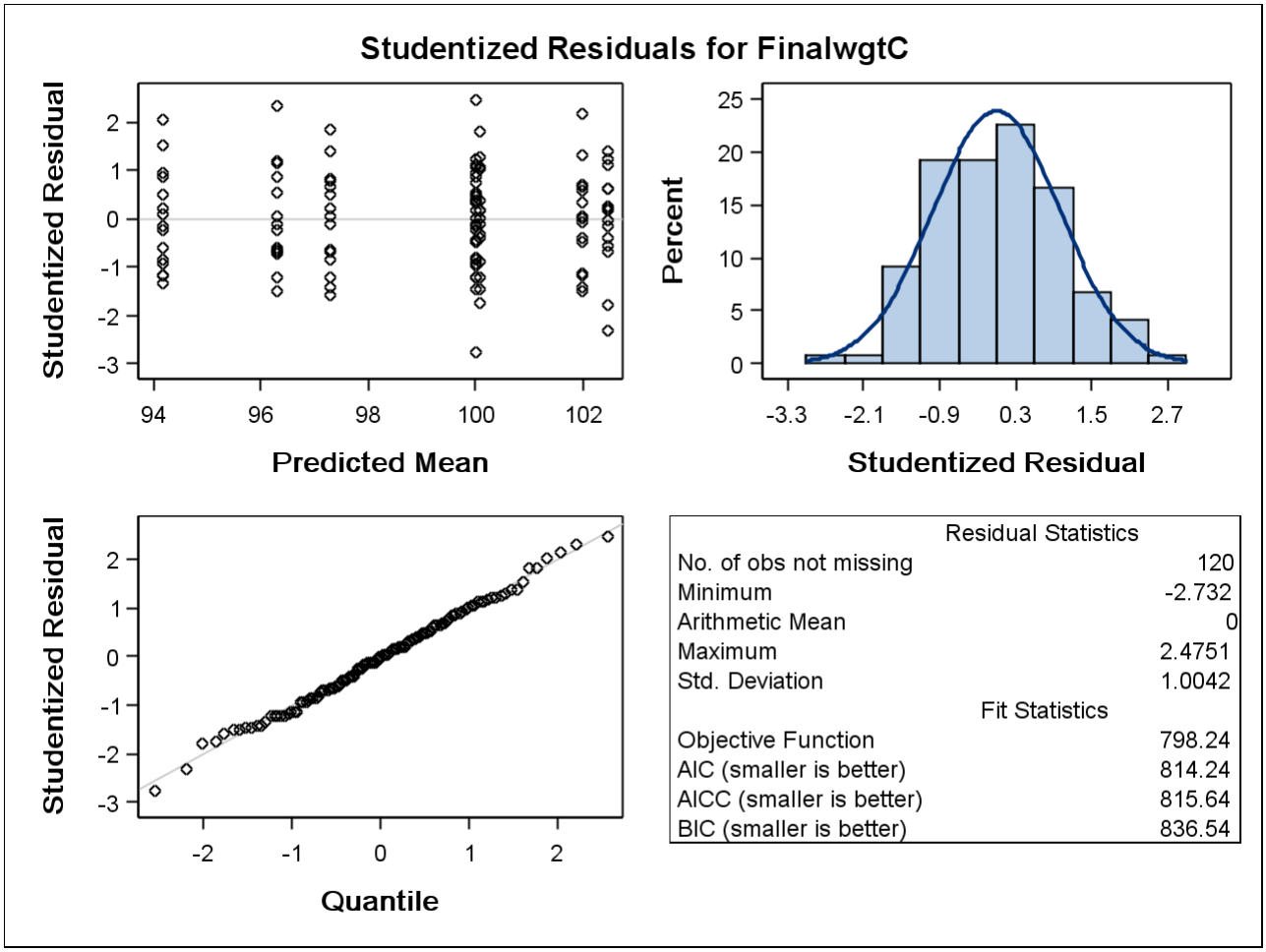
The Mixed Procedure



Residual Statistics	
No. of obs not missing	120
Minimum	-2.262
Arithmetic Mean	0
Maximum	2.6318
Std. Deviation	1.0042
Fit Statistics	
Objective Function	847.74
AIC (smaller is better)	863.74
AICC (smaller is better)	865.14
BIC (smaller is better)	886.04

Pubertal Study - Huntingdon: Females
Outlier Screens
Final Body Weight as percent of control

The Mixed Procedure



Residual Statistics	
No. of obs not missing	120
Minimum	-2.732
Arithmetic Mean	0
Maximum	2.4751
Std. Deviation	1.0042
Fit Statistics	
Objective Function	798.24
AIC (smaller is better)	814.24
AICC (smaller is better)	815.64
BIC (smaller is better)	836.54

APPENDIX B

COMPARISONS OF THE TWO VEHICLE CONTROL GROUPS WITHIN HUNTINGDON LABORATORIES

The TTEST Procedure

Statistics					
Variable	**TreatmentGroup**	**N**	**Mean**	**Std Dev**	**Std Err**
t4	**1**	15	5.3133	1.2889	0.3328
t4	**2**	15	4.6067	1.2389	0.3199
t4	**Diff (1-2)**		0.7067	1.2642	0.4616
tsh	**1**	15	4.34	1.2123	0.313
tsh	**2**	15	3.52	0.8377	0.2163
tsh	**Diff (1-2)**		0.82	1.042	0.3805
Adrenals	**1**	15	0.0421	0.0091	0.0023
Adrenals	**2**	15	0.0483	0.0092	0.0024
Adrenals	**Diff (1-2)**		-0.006	0.0091	0.0033
Kidneys	**1**	15	1.4722	0.1455	0.0376
Kidneys	**2**	15	1.4899	0.1266	0.0327
Kidneys	**Diff (1-2)**		-0.018	0.1364	0.0498
Liver	**1**	15	7.4507	1.1347	0.293
Liver	**2**	15	8.0534	0.677	0.1748
Liver	**Diff (1-2)**		-0.603	0.9343	0.3412
Ovaries	**1**	15	0.0929	0.0156	0.004
Ovaries	**2**	15	0.1041	0.0427	0.011
Ovaries	**Diff (1-2)**		-0.011	0.0321	0.0117
Pituitary	**1**	15	0.0089	0.0015	0.0004
Pituitary	**2**	15	0.0096	0.0019	0.0005
Pituitary	**Diff (1-2)**		-71E-5	0.0017	0.0006
ThyroidBlotted	**1**	15	0.0216	0.0024	0.0006
ThyroidBlotted	**2**	15	0.0222	0.0068	0.0018
ThyroidBlotted	**Diff (1-2)**		-65E-5	0.0051	0.0019
UterusBlotted	**1**	15	0.3324	0.0696	0.018
UterusBlotted	**2**	15	0.3443	0.0831	0.0215
UterusBlotted	**Diff (1-2)**		-0.012	0.0767	0.028
UterusWet	**1**	15	0.3534	0.0893	0.0231
UterusWet	**2**	15	0.3949	0.1786	0.0461
UterusWet	**Diff (1-2)**		-0.042	0.1412	0.0516
Initial BodyWeight	**1**	15	55.127	4.3431	1.1214
Initial BodyWeight	**2**	15	56.067	5.5256	1.4267
Initial BodyWeight	**Diff (1-2)**		-0.94	4.9696	1.8147

Pubertal Study - Females
Comparisons of Two Control Groups within Huntingdon

The TTEST Procedure

Statistics					
Variable	**TreatmentGroup**	**N**	**Mean**	**Std Dev**	**Std Err**
Final BodyWeight	**1**	15	157.57	15.276	3.9442
Final BodyWeight	**2**	15	165.59	12.535	3.2365
Final BodyWeight	**Diff (1-2)**		-8.013	13.973	5.1021
Body Weight Gain	**1**	15	105.14	13.77	3.5554
Body Weight Gain	**2**	15	112.07	12.054	3.1124
Body Weight Gain	**Diff (1-2)**		-6.927	12.941	4.7252
VO Age	**1**	15	33.067	1.4376	0.3712
VO Age	**2**	15	33.667	2.3503	0.6068
VO Age	**Diff (1-2)**		-0.6	1.9481	0.7114
VO Body Weight	**1**	15	113.38	9.6046	2.4799
VO Body Weight	**2**	15	119.55	12.105	3.1255
VO Body Weight	**Diff (1-2)**		-6.173	10.927	3.9898
Final Body Weight as % of Control	**1**	15	100	9.6943	2.5031
Final Body Weight as % of Control	**2**	15	100	7.5701	1.9546
Final Body Weight as % of Control	**Diff (1-2)**		14E-15	8.6973	3.1758

The TTEST Procedure

T-Tests					
Variable	**Method**	**Variances**	**DF**	**t Value**	**Pr > |t|**
t4	**Pooled**	Equal	28	1.53	0.1370
t4	**Satterthwaite**	Unequal	28	1.53	0.1370
Tsh	**Pooled**	Equal	28	2.16	0.0399
Tsh	**Satterthwaite**	Unequal	24.9	2.16	0.0410
Adrenals	**Pooled**	Equal	28	-1.86	0.0740
Adrenals	**Satterthwaite**	Unequal	28	-1.86	0.0740
Kidneys	**Pooled**	Equal	28	-0.35	0.7254
Kidneys	**Satterthwaite**	Unequal	27.5	-0.35	0.7255
Liver	**Pooled**	Equal	28	-1.77	0.0882
Liver	**Satterthwaite**	Unequal	22.8	-1.77	0.0907
Ovaries	**Pooled**	Equal	28	-0.95	0.3494
Ovaries	**Satterthwaite**	Unequal	17.7	-0.95	0.3541
Pituitary	**Pooled**	Equal	28	-1.16	0.2559
Pituitary	**Satterthwaite**	Unequal	26.6	-1.16	0.2565
ThyroidBlotted	**Pooled**	Equal	28	-0.35	0.7288
ThyroidBlotted	**Satterthwaite**	Unequal	17.5	-0.35	0.7303
UterusBlotted	**Pooled**	Equal	28	-0.43	0.6734
UterusBlotted	**Satterthwaite**	Unequal	27.2	-0.43	0.6735
UterusWet	**Pooled**	Equal	28	-0.81	0.4274
UterusWet	**Satterthwaite**	Unequal	20.6	-0.81	0.4299
Initial BodyWeight	**Pooled**	Equal	28	-0.52	0.6085
Initial BodyWeight	**Satterthwaite**	Unequal	26.5	-0.52	0.6087
Final BodyWeight	**Pooled**	Equal	28	-1.57	0.1275
Final BodyWeight	**Satterthwaite**	Unequal	27	-1.57	0.1279
Body Weight Gain	**Pooled**	Equal	28	-1.47	0.1538
Body Weight Gain	**Satterthwaite**	Unequal	27.5	-1.47	0.1540
VO Age	**Pooled**	Equal	28	-0.84	0.4061
VO Age	**Satterthwaite**	Unequal	23.2	-0.84	0.4076
VO Body Weight	**Pooled**	Equal	28	-1.55	0.1330
VO Body Weight	**Satterthwaite**	Unequal	26.6	-1.55	0.1336
Final Body Weight as % of Control	**Pooled**	Equal	28	0.00	1.0000
Final Body Weight as % of Control	**Satterthwaite**	Unequal	26.4	0.00	1.0000

Appendix C. Adult Female Pubertal Assay. Coefficient of Variation for Controls Versus Endpoint. By Laboratory. Percent of Control for Body Weight, Organ Weights and Hormonal Assay.

- **Table C-0: Coefficient of Variation (%) for Controls by Laboratory (Estimates Based on Controls Only).**

- **Table C-5A Through Table C-7C: Percent of Control for Unadjusted and Body Weight Adjusted Organ Weights By Laboratory. Separately for Each Test Chemical. (Table Numbering Corresponds to the Table Numbering in the Main Report)**

- **Table C-14 Through Table C-16: Percent of Control for Unadjusted and Body Weight Adjusted Organ Weights Across Laboratories. Separately for Each Test Chemical. (Table Numbering Corresponds to the Table Numbering in the Main Report)**

- **Table C-20A Through Table C-22C (Outliers Excluded): Percent of Control for Unadjusted and Body Weight Adjusted Organ Weights by Laboratory. Separately for Each Test Chemical. (Table Numbering Corresponds to the Table Numbering in the Main Report)**

- **Table C-23 Through Table C-25 (Outliers Excluded): Percent of Control for Unadjusted and Body Weight Adjusted Organ Weights Across Laboratories. Separately for Each Test Chemical. (Table Numbering Corresponds to the Table Numbering in the Main Report)**

- **Figure C-0: Coefficient of Variation (%) for Controls by Laboratory (Estimates Based on Controls Only)**

- **Figure C-1: Coefficient of Variation (%) for Controls by Laboratory (Estimates based on Analysis of Variance).**

- **Figure C-2 through Figure C-4: Percent of Control for Final Body Weight and Adjusted Organ Weights, and Hormonal Assay by Dose Level and Laboratory. Separately for Each Test Chemical.**

- **Figure C-5 through Figure C-7: Percent of Control for Final Body Weight and Adjusted Organ Weights, and Hormonal Assay by Laboratory and Dose Level. Separately for Each Test Chemical.**

Table C-0. Female Pubertal Assay Coefficient of Variation for Controls for Each Endpoint By Laboratory. Estimates Based on Controls Only [1,2,3,4].

Parameter	Laboratory	N	Mean	Standard Deviation	CV (%)
Initial BodyWeight	Argus	15	56.767	5.8944	10.4
	WIL	15	45.713	3.3434	7.3
	Huntingdon1	15	52.425	3.7738	7.2
	Huntingdon2	15	53.519	6.0438	11.3
Final BodyWeight	Argus	15	170.733	17.1858	10.1
	WIL	15	159.907	13.2422	8.3
	Huntingdon1	15	157.255	15.0054	9.5
	Huntingdon2	15	165.733	12.7936	7.7
BodyWeight Gain	Argus	15	113.967	14.1250	12.4
	WIL	15	114.193	13.5885	11.9
	Huntingdon1	15	104.830	13.3947	12.8
	Huntingdon2	15	112.214	12.2819	10.9
Age at VO	Argus	15	31.467	1.5976	5.1
	WIL	15	34.133	2.2949	6.7
	Huntingdon1	15	33.116	1.2628	3.8
	Huntingdon2	15	33.670	2.4385	7.2
Adj Age at VO	Argus	15	31.467	1.5996	5.1
	WIL	15	34.133	2.3763	7.0
	Huntingdon1	15	33.116	1.3113	4.0
	Huntingdon2	15	33.669	2.4293	7.2
BodyWeight at VO	Argus	15	110.067	12.9088	11.7
	WIL	15	116.000	10.5411	9.1
	Huntingdon1	15	113.390	9.9658	8.8
	Huntingdon2	15	119.562	12.5613	10.5
Adj BodyWeight at VO	Argus	15	110.067	10.7565	9.8
	WIL	15	116.000	10.7447	9.3
	Huntingdon1	15	113.406	7.0674	6.2
	Huntingdon2	15	119.562	12.9608	10.8
Liver	Argus	15	8.491	1.3875	16.3
	WIL	15	7.968	1.2226	15.3

Parameter	Laboratory	N	Mean	Standard Deviation	CV (%)
	Huntingdon1	15	7.435	1.1498	15.5
	Huntingdon2	15	8.078	0.5761	7.1
Adj Liver	Argus	15	8.491	1.2488	14.7
	WIL	15	7.968	1.2639	15.9
	Huntingdon1	15	7.436	1.0857	14.6
	Huntingdon2	15	8.078	0.5990	7.4
Kidneys	Argus	15	1.660	0.3308	19.9
	WIL	15	1.617	0.1809	11.2
	Huntingdon1	15	1.472	0.1510	10.3
	Huntingdon2	15	1.494	0.1162	7.8
Adj Kidneys	Argus	15	1.660	0.3104	18.7
	WIL	15	1.617	0.1820	11.3
	Huntingdon1	15	1.473	0.1436	9.8
	Huntingdon2	15	1.494	0.0896	6.0
Adrenals	Argus	15	0.046	0.0102	22.2
	WIL	15	0.042	0.0037	8.9
	Huntingdon1	15	0.042	0.0094	22.3
	Huntingdon2	15	0.048	0.0093	19.2
Adj Adrenals	Argus	15	0.046	0.0097	20.9
	WIL	15	0.042	0.0035	8.4
	Huntingdon1	15	0.042	0.0093	22.1
	Huntingdon2	15	0.048	0.0092	18.9
Pituitary	Argus	14	0.013	0.0023	17.6
	WIL	15	0.010	0.0016	16.3
	Huntingdon1	15	0.009	0.0015	17.0
	Huntingdon2	15	0.010	0.0019	19.8
Adj Pituitary	Argus	14	0.013	0.0022	16.7
	WIL	15	0.010	0.0016	16.0
	Huntingdon1	15	0.009	0.0015	16.8
	Huntingdon2	15	0.010	0.0016	16.6
Ovaries	Argus	15	0.082	0.0211	25.7
	WIL	15	0.062	0.0137	22.0

Parameter	Laboratory	N	Mean	Standard Deviation	CV (%)
	Huntingdon1	15	0.093	0.0162	17.5
	Huntingdon2	14	0.094	0.0091	9.7
Adj Ovaries	Argus	15	0.082	0.0219	26.6
	WIL	15	0.062	0.0142	22.8
	Huntingdon1	15	0.093	0.0146	15.8
	Huntingdon2	14	0.094	0.0095	10.1
UterusWet	Argus	15	0.368	0.1287	35.0
	WIL	15	0.321	0.1077	33.5
	Huntingdon1	15	0.355	0.0902	25.4
	Huntingdon2	15	0.394	0.1852	46.9
Adj UterusWet	Argus	15	0.368	0.1335	36.3
	WIL	15	0.321	0.0948	29.5
	Huntingdon1	15	0.355	0.0929	26.2
	Huntingdon2	15	0.394	0.1855	47.0
UterusBlotted	Argus	15	0.321	0.0940	29.2
	WIL	15	0.282	0.0917	32.5
	Huntingdon1	15	0.333	0.0718	21.6
	Huntingdon2	15	0.345	0.0857	24.9
Adj UterusBlotted	Argus	15	0.321	0.0965	30.0
	WIL	15	0.282	0.0829	29.3
	Huntingdon1	15	0.333	0.0746	22.4
	Huntingdon2	15	0.345	0.0847	24.6
ThyroidBlotted	Argus	15	0.019	0.0042	22.0
	WIL	15	0.013	0.0026	20.4
	Huntingdon1	15	0.022	0.0019	8.5
	Huntingdon2	15	0.022	0.0071	31.7
Adj ThyroidBlotted	Argus	15	0.019	0.0043	22.4
	WIL	15	0.013	0.0025	19.4
	Huntingdon1	15	0.022	0.0017	7.7
	Huntingdon2	15	0.022	0.0071	32.1
T4	Argus	15	8.031	1.3466	16.8
	WIL	15	5.227	1.3977	26.7

Parameter	Laboratory	N	Mean	Standard Deviation	CV (%)
	Huntingdon1	15	5.296	1.3096	24.7
	Huntingdon2	15	4.584	1.2326	26.9
TSH	Argus	15	3.606	1.1951	33.1
	WIL	15	8.327	2.1302	25.6
	Huntingdon1	15	4.298	1.0637	24.7
	Huntingdon2	15	3.500	0.8077	23.1

1. All calculation was carried out after excluding the extreme values (listed under "Leave out Completely" in Table A-1).
2. Body-weight adjusted values were calculated based on a simple regression model with initial body weights as a regressor.
3. For Hungtindon Laboratories, all estimates were calculated after adjusting for the block factor, accounting for the two different necropsy days, PND42 and PND43.
4. For the final body weight endpoint, final body weight at PND42 was summarized whether the animals were necropsied at PND42 or PND43.

Table C-5A. Percent of Vehicle Control (Corn Oil) for Test Chemical DE-71 in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for Argus Laboratory[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.047	0.049	104.531	0.050	107.690
Kidneys	1.655	1.710	103.299	1.754	105.935
Liver	8.462	10.644	125.778	12.063	142.553
Ovaries	0.083	0.078	94.616	0.080	97.240
Pituitary	0.013	0.012	91.503	0.011	81.489
ThyroidBlotted	0.019	0.022	111.872	0.022	113.667
UterusBlotted	0.327	0.350	106.830	0.303	92.673
UterusWet	0.374	0.384	102.784	0.347	92.744
Adj. Adrenals	0.047	0.049	104.466	0.051	107.597
Adj. Kidneys	1.565	1.619	103.475	1.662	106.194
Adj. Liver	8.191	10.372	126.624	11.788	143.916
Adj. Ovaries	0.089	0.084	95.004	0.086	97.537
Adj. Pituitary	0.014	0.013	91.754	0.012	82.469
Adj. ThyroidBlotted	0.018	0.021	112.525	0.021	114.355
Adj. UterusBlotted	0.317	0.338	106.583	0.293	92.398
Adj. UterusWet	0.368	0.378	102.592	0.341	92.609

5. Least squares means are as listed in Table 5-A.

Table C-5B. Percent of Vehicle Control (Corn Oil) for Test Chemical DE-71 in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for WIL Laboratory[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.042	0.043	103.000	0.040	95.524
Kidneys	1.612	1.644	102.023	1.600	99.277
Liver	7.940	9.949	125.305	10.652	134.169
Ovaries	0.063	0.062	98.970	0.059	93.436
Pituitary	0.010	0.010	94.250	0.009	87.650
ThyroidBlotted	0.013	0.013	100.873	0.012	94.657
UterusBlotted	0.288	0.284	98.453	0.248	85.928
UterusWet	0.327	0.318	97.131	0.295	90.164
Adj. Adrenals	0.045	0.047	102.692	0.043	94.906
Adj. Kidneys	1.641	1.673	101.964	1.625	99.037
Adj. Liver	8.214	10.220	124.417	10.889	132.566
Adj. Ovaries	0.072	0.071	98.949	0.066	92.642
Adj. Pituitary	0.010	0.010	94.252	0.009	87.620
Adj. ThyroidBlotted	0.012	0.012	100.994	0.012	95.035
Adj. UterusBlotted	0.341	0.336	98.511	0.294	86.141
Adj. UterusWet	0.369	0.359	97.326	0.332	89.848

Least squares means are as listed in Table 5-B.

Table C-5C. Percent of Vehicle Control (Corn Oil) for Test Chemical DE-71 in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for Huntingdon Laboratory[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.041	0.040	96.241	0.037	90.740
Kidneys	1.481	1.468	99.101	1.490	100.613
Liver	7.501	9.588	127.814	10.922	145.592
Ovaries	0.092	0.085	92.423	0.083	89.784
Pituitary	0.009	0.009	100.684	0.008	94.530
ThyroidBlotted	0.021	0.023	106.175	0.025	114.273
UterusBlotted	0.322	0.324	100.730	0.325	101.179
UterusWet	0.343	0.340	99.257	0.352	102.696
Adj. Adrenals	0.041	0.040	95.872	0.037	90.315
Adj. Kidneys	1.481	1.458	98.445	1.478	99.861
Adj. Liver	7.497	9.519	126.974	10.844	144.637
Adj. Ovaries	0.092	0.085	91.843	0.082	89.118
Adj. Pituitary	0.009	0.009	99.983	0.008	93.724
Adj. ThyroidBlotted	0.021	0.023	105.255	0.024	113.224
Adj. UterusBlotted	0.322	0.323	100.456	0.324	100.865
Adj. UterusWet	0.343	0.340	99.266	0.352	102.705

Least squares means are as listed in Table 5-C.

Table C-6A. Percent of Vehicle Control (Corn Oil) for Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for Argus Laboratory[1].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.047	0.053	114.165	0.050	107.004
Kidneys	1.655	1.820	109.947	1.706	103.023
Liver	8.462	10.943	129.313	13.455	159.000
Ovaries	0.083	0.091	110.550	0.083	100.928
Pituitary	0.013	0.012	90.798	0.012	90.597
ThyroidBlotted	0.019	0.020	104.280	0.020	101.657
UterusBlotted	0.327	0.317	96.963	0.262	79.989
UterusWet	0.374	0.367	98.199	0.305	81.585
Adj. Adrenals	0.047	0.054	114.142	0.051	106.979
Adj. Kidneys	1.565	1.719	109.874	1.610	102.920
Adj. Liver	8.191	10.643	129.931	13.172	160.803
Adj. Ovaries	0.089	0.098	110.656	0.090	101.220
Adj. Pituitary	0.014	0.013	91.819	0.013	91.207
Adj. ThyroidBlotted	0.018	0.019	103.911	0.019	101.489
Adj. UterusBlotted	0.317	0.306	96.513	0.251	79.211
Adj. UterusWet	0.368	0.361	97.991	0.299	81.225

Least squares means are as listed in Table 6-A.

Table C-6B. Percent of Vehicle Control (Corn Oil) for Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for WIL Laboratory[1].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.042	0.044	104.746	0.038	90.286
Kidneys	1.612	1.697	105.289	1.687	104.646
Liver	7.940	10.526	132.575	12.435	156.621
Ovaries	0.063	0.063	100.499	0.054	85.672
Pituitary	0.010	0.010	97.190	0.009	88.042
ThyroidBlotted	0.013	0.012	91.061	0.012	88.749
UterusBlotted	0.288	0.299	103.581	0.251	87.147
UterusWet	0.327	0.320	97.802	0.294	90.036
Adj. Adrenals	0.045	0.047	103.252	0.041	90.252
Adj. Kidneys	1.641	1.721	104.891	1.712	104.365
Adj. Liver	8.214	10.755	130.928	12.680	154.364
Adj. Ovaries	0.072	0.071	98.487	0.062	86.183
Adj. Pituitary	0.010	0.010	97.139	0.009	88.021
Adj. ThyroidBlotted	0.012	0.011	91.364	0.011	88.608
Adj. UterusBlotted	0.341	0.343	100.671	0.298	87.581
Adj. UterusWet	0.369	0.358	96.896	0.332	90.037

Least squares means are as listed in Table 6-B.

Table C-6C. Percent of Vehicle Control (Corn Oil) for Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for Huntingdon Laboratory.

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.041	0.035	85.497	0.033	79.980
Kidneys	1.481	1.435	96.914	1.470	99.284
Liver	7.501	9.296	123.918	11.259	150.087
Ovaries	0.092	0.077	83.321	0.074	80.508
Pituitary	0.009	0.008	90.503	0.006	66.723
ThyroidBlotted	0.021	0.021	95.935	0.021	97.145
UterusBlotted	0.322	0.288	89.420	0.243	75.399
UterusWet	0.343	0.320	93.428	0.263	76.718
Adj. Adrenals	0.041	0.035	85.274	0.033	79.846
Adj. Kidneys	1.481	1.429	96.523	1.467	99.056
Adj. Liver	7.497	9.253	123.422	11.232	149.818
Adj. Ovaries	0.092	0.076	82.970	0.074	80.299
Adj. Pituitary	0.009	0.008	90.081	0.006	66.460
Adj. ThyroidBlotted	0.021	0.020	95.383	0.021	96.822
Adj. UterusBlotted	0.322	0.287	89.255	0.242	75.301
Adj. UterusWet	0.343	0.320	93.433	0.263	76.721

Least squares means are as listed in Table 6-C.

Table C-7A. Percent of Vehicle Control (Corn Oil) for Test Chemical Methoxychlor in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for Argus Laboratory[1].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.046	0.047	102.076	0.054	116.779
Kidneys	1.671	1.599	95.703	1.623	97.097
Liver	8.576	8.187	95.461	7.906	92.187
Ovaries	0.083	0.087	104.982	0.078	93.629
Pituitary	0.013	0.011	84.960	0.013	97.793
ThyroidBlotted	0.019	0.018	90.695	0.020	102.668
UterusBlotted	0.327	0.378	115.765	0.336	102.663
UterusWet	0.381	0.468	122.744	0.395	103.512
Adj. Adrenals	0.045	0.046	102.403	0.053	117.034
Adj. Kidneys	1.605	1.546	96.343	1.554	96.812
Adj. Liver	8.151	7.843	96.221	7.465	91.578
Adj. Ovaries	0.084	0.088	104.477	0.079	93.777
Adj. Pituitary	0.014	0.012	84.358	0.014	97.870
Adj. ThyroidBlotted	0.019	0.017	91.212	0.019	102.603
Adj. UterusBlotted	0.317	0.370	116.874	0.325	102.627
Adj. UterusWet	0.371	0.460	123.821	0.384	103.511

5. Least squares means are as listed in Table 7-A.

Table C-7B. Percent of Vehicle Control (Corn Oil) for Test Chemical Methoxychlor in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for WIL Laboratory[1].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.041	0.043	103.622	0.045	107.824
Kidneys	1.627	1.590	97.699	1.522	93.538
Liver	8.054	7.767	96.439	7.144	88.705
Ovaries	0.063	0.062	98.393	0.060	94.671
Pituitary	0.010	0.010	95.425	0.009	92.027
ThyroidBlotted	0.013	0.012	87.527	0.012	93.611
UterusBlotted	0.288	0.330	114.441	0.325	112.673
UterusWet	0.334	0.409	122.422	0.402	120.235
Adj. Adrenals	0.045	0.046	102.050	0.048	106.191
Adj. Kidneys	1.682	1.636	97.253	1.570	93.336
Adj. Liver	8.338	8.004	95.993	7.391	88.640
Adj. Ovaries	0.065	0.063	97.989	0.061	94.456
Adj. Pituitary	0.010	0.009	95.907	0.009	92.243
Adj. ThyroidBlotted	0.012	0.011	87.931	0.011	94.212
Adj. UterusBlotted	0.325	0.360	110.896	0.356	109.722
Adj. UterusWet	0.376	0.444	118.015	0.438	116.465

Least squares means are as listed in Table 7-B.

Table C-7C. Percent of Vehicle Control (Corn Oil) for Test Chemical Methoxychlor in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights for Huntingdon Laboratory[1].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.049	0.045	91.891	0.045	91.767
Kidneys	1.470	1.384	94.125	1.353	92.042
Liver	7.899	7.078	89.609	6.986	88.447
Ovaries	0.092	0.090	97.629	0.080	86.362
Pituitary	0.009	0.009	99.227	0.008	87.838
ThyroidBlotted	0.022	0.022	98.901	0.023	106.933
UterusBlotted	0.334	0.344	102.910	0.315	94.240
UterusWet	0.371	0.421	113.302	0.353	94.987
Adj. Adrenals	0.048	0.044	92.161	0.044	91.623
Adj. Kidneys	1.454	1.373	94.462	1.336	91.861
Adj. Liver	7.877	7.065	89.694	6.962	88.390
Adj. Ovaries	0.093	0.090	96.987	0.080	86.214
Adj. Pituitary	0.009	0.009	99.507	0.008	87.688
Adj. ThyroidBlotted	0.021	0.021	99.631	0.023	106.891
Adj. UterusBlotted	0.336	0.345	102.737	0.316	94.299
Adj. UterusWet	0.378	0.424	112.383	0.360	95.228

Least squares means are as listed in Table 7-C.

Table C-14. Percent of Vehicle Control (Corn Oil) for Test Chemical DE-71 in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights across Laboratories[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.044	0.044	101.703	0.042	95.985
Kidneys	1.598	1.610	100.707	1.604	100.329
Liver	7.985	10.070	126.112	11.203	140.296
Ovaries	0.079	0.076	95.649	0.074	93.026
Pituitary	0.011	0.010	96.492	0.010	90.500
ThyroidBlotted	0.018	0.019	105.066	0.019	105.335
UterusBlotted	0.312	0.319	102.025	0.292	93.518
UterusWet	0.347	0.344	99.123	0.326	93.991
Adj. Adrenals	0.045	0.046	101.575	0.043	95.310
Adj. Kidneys	1.576	1.582	100.367	1.580	100.247
Adj. Liver	7.970	10.029	125.830	11.161	140.038
Adj. Ovaries	0.085	0.081	95.341	0.078	91.813
Adj. Pituitary	0.011	0.011	96.340	0.010	90.442
Adj. ThyroidBlotted	0.018	0.018	105.160	0.019	105.960
Adj. UterusBlotted	0.322	0.327	101.743	0.299	93.097
Adj. UterusWet	0.354	0.353	99.692	0.333	94.148

Least squares means are as listed in Table 15.

Table C-15. Percent of Vehicle Control (Corn Oil) for Test Chemical 2-Chloronitrobenzene in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights across Laboratories, [1,2,3,4].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.044	0.044	101.705	0.039	90.277
Kidneys	1.598	1.629	101.897	1.631	102.032
Liver	7.985	10.250	128.370	12.345	154.604
Ovaries	0.079	0.075	95.005	0.068	85.501
Pituitary	0.011	0.010	96.216	0.009	86.905
ThyroidBlotted	0.018	0.018	96.670	0.017	95.434
UterusBlotted	0.312	0.301	96.411	0.252	80.617
UterusWet	0.347	0.335	96.625	0.296	85.302
Adj. Adrenals	0.045	0.045	100.922	0.041	89.995
Adj. Kidneys	1.576	1.591	100.944	1.602	101.651
Adj. Liver	7.970	10.171	127.622	12.277	154.048
Adj. Ovaries	0.085	0.079	93.221	0.072	85.135
Adj. Pituitary	0.011	0.011	95.979	0.010	86.844
Adj. ThyroidBlotted	0.018	0.017	96.553	0.017	95.409
Adj. UterusBlotted	0.322	0.308	95.768	0.260	80.711
Adj. UterusWet	0.354	0.344	97.249	0.305	86.205

5. Least squares means are as listed in Table 15.

Table C-16. Percent of Vehicle Control (Corn Oil) for Test Chemical Methoxychlor in Female Pubertal Assay for both Unadjusted and Body-Weight Adjusted Organ Weights across Laboratories[1].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.045	0.045	99.175	0.047	104.498
Kidneys	1.597	1.527	95.594	1.492	93.405
Liver	8.208	7.610	92.721	7.349	89.544
Ovaries	0.080	0.079	99.265	0.072	90.815
Pituitary	0.011	0.010	95.406	0.010	92.010
ThyroidBlotted	0.018	0.017	91.917	0.018	99.857
UterusBlotted	0.316	0.351	110.837	0.325	102.734
UterusWet	0.358	0.432	120.942	0.389	108.856
Adj. Adrenals	0.046	0.045	98.984	0.048	103.846
Adj. Kidneys	1.586	1.517	95.656	1.477	93.142
Adj. Liver	8.093	7.530	93.043	7.235	89.401
Adj. Ovaries	0.081	0.080	98.625	0.074	90.637
Adj. Pituitary	0.011	0.011	95.440	0.010	92.390
Adj. ThyroidBlotted	0.018	0.016	92.484	0.018	100.169
Adj. UterusBlotted	0.323	0.356	110.236	0.330	102.261
Adj. UterusWet	0.368	0.441	119.761	0.398	108.234

Least squares means are as listed in Table 16.

Table C-20A. Percent of Vehicle Control (Corn Oil) for DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for Argus Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
BodyWeight Gain	112.655	110.175	97.799	113.049	100.349
Adrenals	0.047	0.049	104.531	0.050	107.690
Kidneys	1.655	1.710	103.299	1.754	105.935
Ovaries	0.083	0.078	94.616	0.080	97.240
Pituitary	0.013	0.012	91.518	0.011	81.522
UterusWet	0.374	0.355	94.861	0.323	86.486
Adj. Adrenals	0.047	0.049	104.481	0.051	107.618
Adj. Kidneys	1.563	1.617	103.480	1.659	106.201
Adj. Ovaries	0.086	0.081	94.833	0.084	97.407
Adj. Pituitary	0.014	0.013	91.772	0.012	82.508
Adj. UterusWet	0.379	0.360	95.053	0.328	86.597

4. Least squares means are as listed in Table 20-A.

Table C-20B. Percent of Vehicle Control (Corn Oil) for DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for WIL Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.042	0.043	103.000	0.040	95.524
Kidneys	1.612	1.644	102.023	1.600	99.277
Ovaries	0.063	0.062	98.970	0.059	93.436
Pituitary	0.010	0.010	94.263	0.009	87.678
UterusWet	0.327	0.318	97.131	0.295	90.164
Adj. Adrenals	0.045	0.047	102.693	0.043	94.904
Adj. Kidneys	1.640	1.673	101.964	1.625	99.037
Adj. Ovaries	0.072	0.071	98.948	0.066	92.636
Adj. Pituitary	0.010	0.010	94.267	0.009	87.651
Adj. UterusWet	0.369	0.359	97.322	0.331	89.832

Least squares means are as listed in Table 20-B.

Table C-20C. Percent of Vehicle Control (Corn Oil) for DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for Huntingdon Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.041	0.040	96.241	0.037	90.740
Kidneys	1.481	1.468	99.101	1.490	100.613
Ovaries	0.092	0.085	92.423	0.083	89.784
Pituitary	0.009	0.009	100.687	0.008	94.503
UterusWet	0.343	0.340	99.257	0.352	102.696
Adj. Adrenals	0.041	0.040	95.871	0.037	90.313
Adj. Kidneys	1.480	1.457	98.445	1.478	99.861
Adj. Ovaries	0.092	0.085	91.840	0.082	89.114
Adj. Pituitary	0.009	0.009	100.108	0.008	93.837
Adj. UterusWet	0.343	0.340	99.266	0.352	102.705

Least squares means are as listed in Table 20-C.

Table C-21A. Percent of Vehicle Control (Corn Oil) for 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for Argus Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.047	0.051	108.437	0.046	98.865
Kidneys	1.655	1.820	109.947	1.825	110.218
Ovaries	0.083	0.091	110.550	0.075	90.341
Pituitary	0.013	0.012	90.815	0.012	90.614
UterusWet	0.374	0.367	98.199	0.305	81.585
Adj. Adrenals	0.047	0.051	108.525	0.047	98.948
Adj. Kidneys	1.563	1.717	109.877	1.732	110.845
Adj. Ovaries	0.086	0.095	110.618	0.078	90.696
Adj. Pituitary	0.014	0.013	91.837	0.013	91.226
Adj. UterusWet	0.379	0.373	98.378	0.310	81.898

Least squares means are as listed in Table 21-A.

Table C-21B. Percent of Vehicle Control (Corn Oil) for 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for WIL Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.042	0.044	104.746	0.038	90.286
Kidneys	1.612	1.697	105.289	1.687	104.646
Ovaries	0.063	0.063	100.499	0.054	85.672
Pituitary	0.010	0.010	97.197	0.009	88.069
UterusWet	0.327	0.320	97.802	0.294	90.036
Adj. Adrenals	0.045	0.047	103.254	0.041	90.248
Adj. Kidneys	1.640	1.721	104.892	1.712	104.365
Adj. Ovaries	0.072	0.071	98.486	0.062	86.172
Adj. Pituitary	0.010	0.010	97.147	0.009	88.051
Adj. UterusWet	0.369	0.357	96.891	0.332	90.022

1. Least squares means are as listed in Table 21-B.

Table C-21C. Percent of Vehicle Control (Corn Oil) for 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for Huntingdon Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.041	0.035	85.497	0.033	79.980
Kidneys	1.481	1.435	96.914	1.470	99.284
Ovaries	0.092	0.077	83.321	0.074	80.508
Pituitary	0.009	0.007	78.770	0.006	66.560
UterusWet	0.343	0.320	93.428	0.263	76.718
Adj. Adrenals	0.041	0.035	85.270	0.033	79.842
Adj. Kidneys	1.480	1.428	96.521	1.466	99.055
Adj. Ovaries	0.092	0.076	82.964	0.074	80.292
Adj. Pituitary	0.009	0.007	78.880	0.006	66.348
Adj. UterusWet	0.343	0.320	93.433	0.263	76.721

1. Least squares means are as listed in Table 21-C.

Table C-22A. Percent of Vehicle Control (Corn Oil) for Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for Argus Laboratory. Outliers Excluded[1].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.046	0.047	102.088	0.054	116.870
Kidneys	1.671	1.599	95.703	1.623	97.097
Ovaries	0.083	0.087	104.982	0.078	93.629
Pituitary	0.013	0.011	84.865	0.013	97.779
UterusWet	0.381	0.468	122.744	0.395	103.512
Adj. Adrenals	0.045	0.046	102.417	0.053	117.135
Adj. Kidneys	1.605	1.546	96.343	1.554	96.812
Adj. Ovaries	0.084	0.088	104.477	0.079	93.777
Adj. Pituitary	0.014	0.012	84.267	0.014	97.858
Adj. UterusWet	0.371	0.460	123.821	0.384	103.511

4. Least squares means are as listed in Table 22-A.

.

Table C-22B. Percent of Vehicle Control (Corn Oil) for Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for WIL Laboratory. Outliers Excluded[1,2,3].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.041	0.043	103.644	0.044	107.871
Kidneys	1.627	1.590	97.699	1.522	93.538
Ovaries	0.063	0.062	98.393	0.060	94.671
Pituitary	0.010	0.010	95.388	0.009	91.962
UterusWet	0.334	0.409	122.422	0.402	120.235
Adj. Adrenals	0.045	0.046	102.063	0.047	106.229
Adj. Kidneys	1.682	1.636	97.253	1.570	93.336
Adj. Ovaries	0.065	0.063	97.989	0.061	94.456
Adj. Pituitary	0.010	0.009	95.873	0.009	92.177
Adj. UterusWet	0.376	0.444	118.015	0.438	116.465

1. Least squares means and standard errors were estimated based on a mixed effect model applied to the data for control and two dosages of Methoxychlor.
2. Least squares means and standard errors for Adj. variable were estimated based on a mixed effect model with centered initial body weight as a covariate.
2. Within laboratory CV was calculated as residual standard deviation/LS Mean.

Table C-22C. Percent of Vehicle Control (Corn Oil) for Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights for Huntingdon Laboratory, Outliers Excluded[1,2,3].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.047	0.045	96.049	0.045	95.921
Kidneys	1.470	1.384	94.125	1.353	92.042
Ovaries	0.092	0.090	97.629	0.080	86.362
Pituitary	0.010	0.009	92.009	0.008	88.026
UterusWet	0.371	0.421	113.302	0.353	94.987
Adj. Adrenals	0.047	0.045	96.204	0.045	95.787
Adj. Kidneys	1.454	1.373	94.462	1.336	91.861
Adj. Ovaries	0.093	0.090	96.987	0.080	86.214
Adj. Pituitary	0.010	0.009	92.242	0.008	87.871
Adj. UterusWet	0.378	0.424	112.383	0.360	95.228

1. Least squares means are as listed in Table 22-C.

Table C-23. Percent of Vehicle Control (Corn Oil) for DE-71 in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights across Laboratories. Outliers Excluded[1].

Parameter	Corn Oil	DE-71 (30 mg/kg/day)		DE-71 (60 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
BodyWeight Gain	111.004	112.231	101.105	112.071	100.961
Adrenals	0.043	0.044	101.879	0.042	96.592
Kidneys	1.605	1.613	100.520	1.606	100.115
Ovaries	0.079	0.076	95.888	0.074	93.103
Pituitary	0.011	0.010	96.015	0.010	89.632
UterusWet	0.346	0.338	97.769	0.317	91.798
Adj. Adrenals	0.045	0.045	101.740	0.043	95.887
Adj. Kidneys	1.580	1.583	100.147	1.581	100.049
Adj. Ovaries	0.084	0.080	95.319	0.077	91.630
Adj. Pituitary	0.011	0.011	95.880	0.010	89.598
Adj. UterusWet	0.356	0.350	98.242	0.328	91.987

4. Least squares means are as listed in Table 23.

Table C-24. Percent of Vehicle Control (Corn Oil) for 2-Chloronitrobenzene in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights across Laboratories. Outliers Excluded[1].

Parameter	Corn Oil	2-Chloronitrobenzene (25 mg/kg/day)		2-Chloronitrobenzene (100 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.043	0.044	101.491	0.039	89.770
Kidneys	1.605	1.643	102.402	1.653	103.043
Ovaries	0.079	0.075	95.296	0.068	85.252
Pituitary	0.011	0.010	89.958	0.009	82.019
UterusWet	0.346	0.333	96.425	0.294	85.050
Adj. Adrenals	0.045	0.045	100.772	0.040	89.553
Adj. Kidneys	1.580	1.606	101.608	1.624	102.768
Adj. Ovaries	0.084	0.078	93.053	0.071	84.757
Adj. Pituitary	0.011	0.010	90.223	0.009	82.342
Adj. UterusWet	0.356	0.347	97.420	0.308	86.406

2. Least squares means are as listed in Table 24.

Table C-25. Percent of Vehicle Control (Corn Oil) for Methoxychlor in Female Pubertal Assay for Unadjusted and Body Weight Adjusted Organ Weights across Laboratories. Outliers Excluded[1].

Parameter	Corn Oil	Methoxychlor (12.5 mg/kg/day)		Methoxychlor (50 mg/kg/day)	
	LS Mean	LS Mean	Ratio to Vehicle (%)	LS Mean	Ratio to Vehicle (%)
Adrenals	0.045	0.045	100.470	0.047	105.049
Kidneys	1.597	1.527	95.594	1.492	93.405
Ovaries	0.080	0.079	99.265	0.072	90.815
Pituitary	0.011	0.010	93.137	0.010	91.352
UterusWet	0.358	0.432	120.942	0.389	108.856
Adj. Adrenals	0.045	0.045	100.109	0.047	104.210
Adj. Kidneys	1.586	1.517	95.656	1.477	93.142
Adj. Ovaries	0.081	0.080	98.625	0.074	90.637
Adj. Pituitary	0.011	0.010	93.288	0.010	91.654
Adj. UterusWet	0.368	0.441	119.761	0.398	108.234

1. Least squares means are as listed in Table 25.

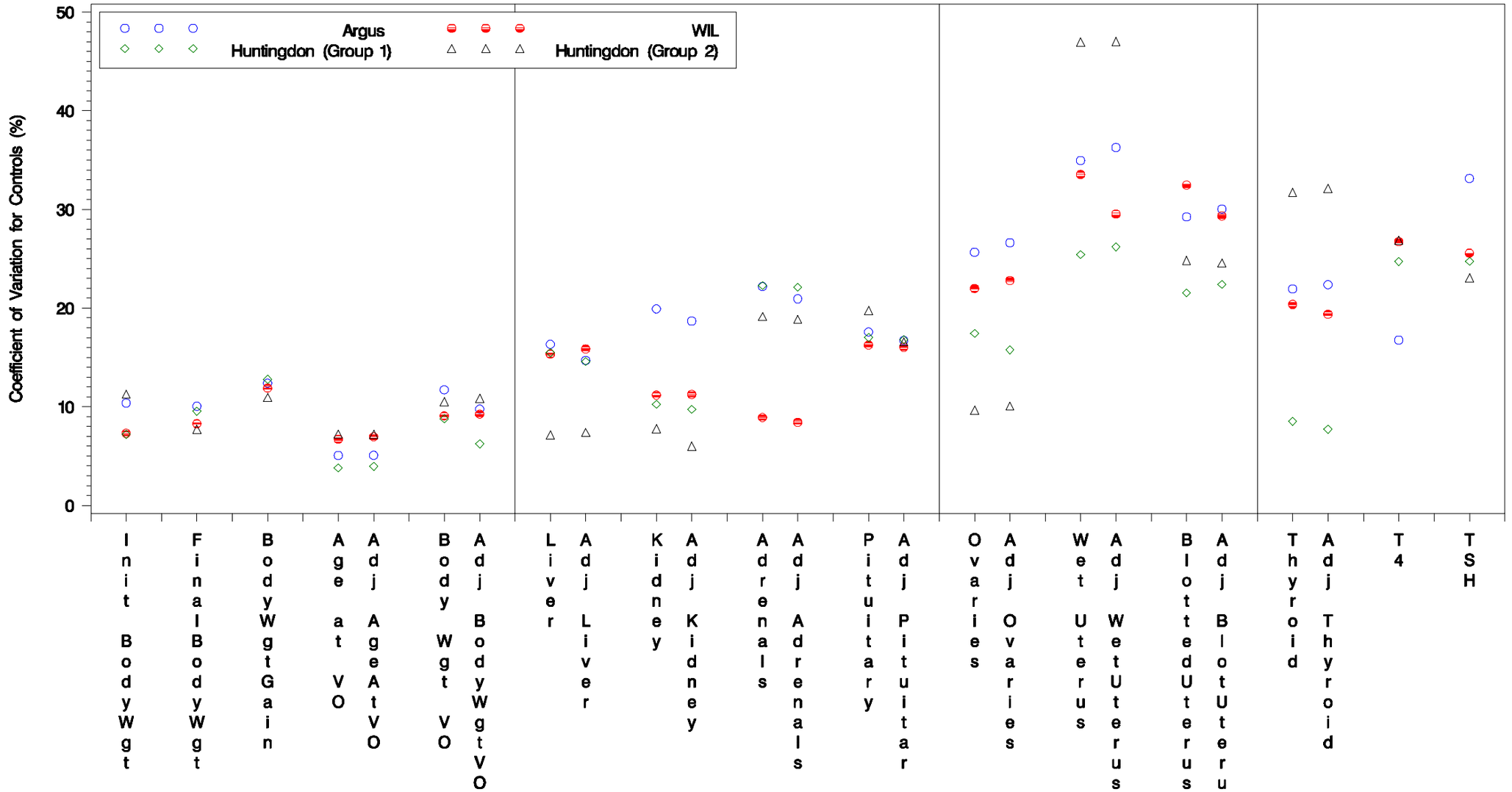


Figure C-0. **<u>Female Pubertal Assay</u> Coefficient of Variation for Controls Versus Endpoint. By Laboratory.**

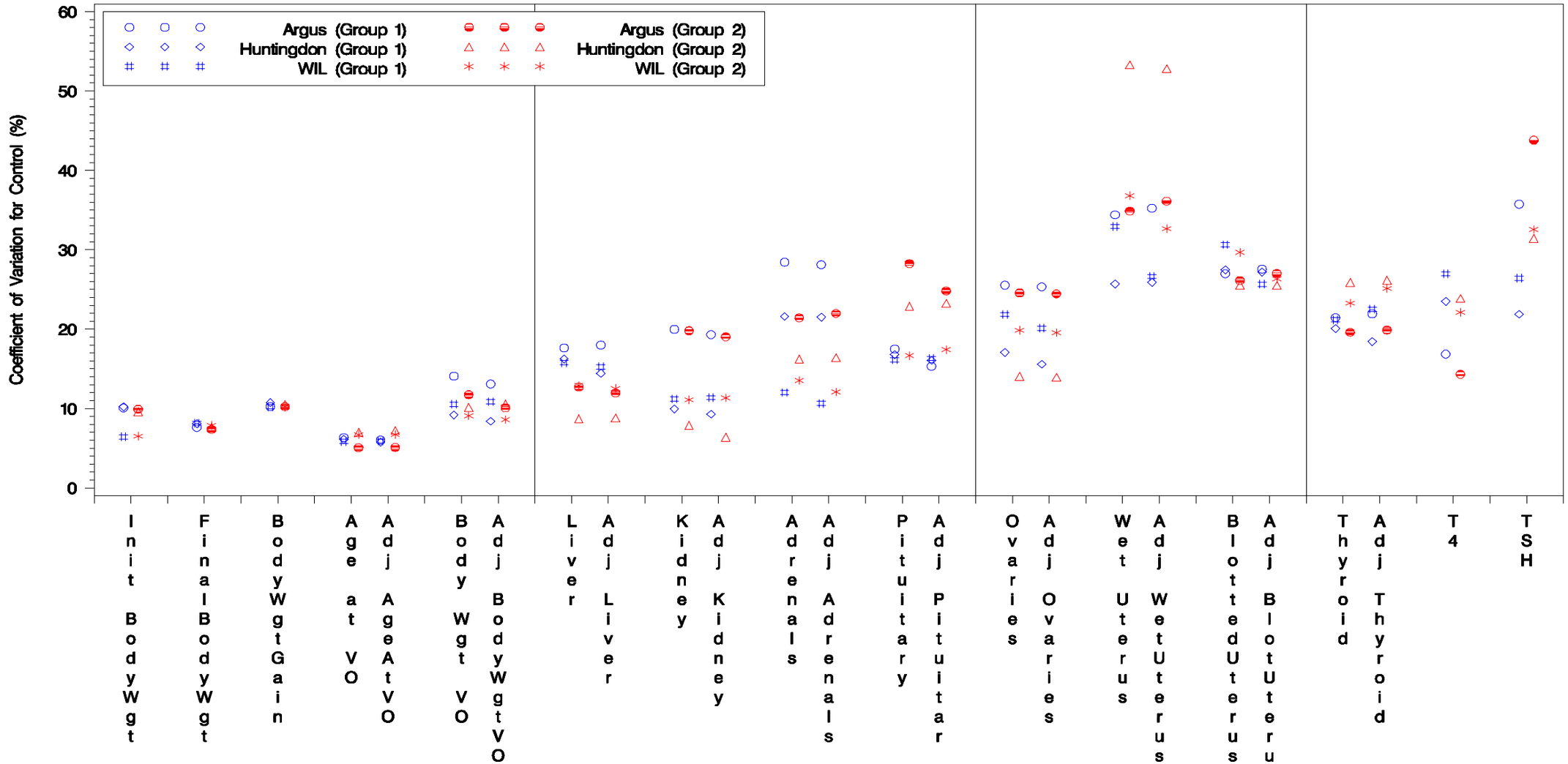


Figure C-1. **<u>Female Pubertal Assay</u> Coefficient of Variation for Controls Versus Endpoint. By Laboratory and Group. Estimates Based on Analysis of Variance within Groups (Group 1: Control, DE-71, and 2-Chloronitrobenzene; Group 2: Controls and Methoxychlor).**

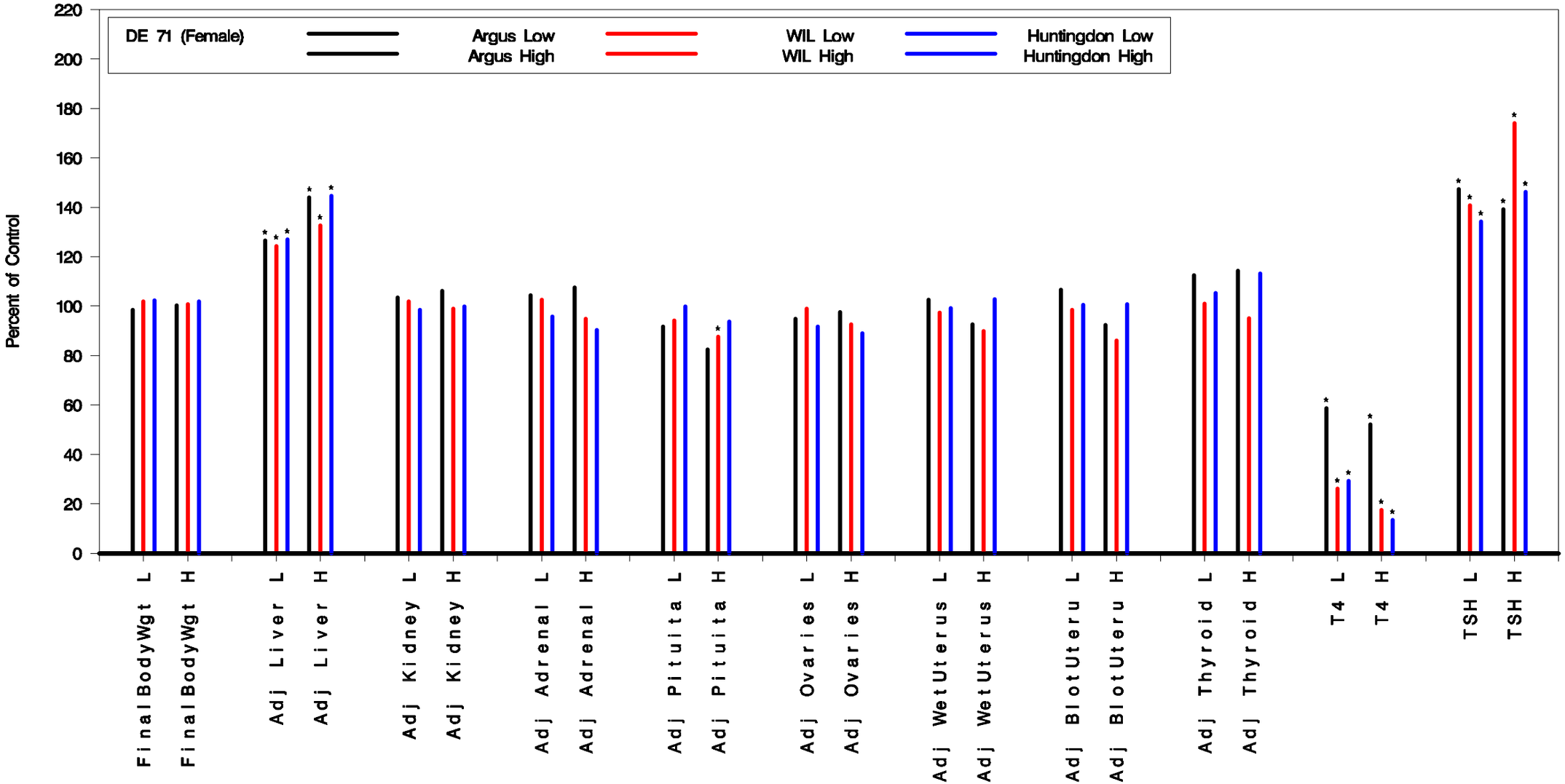


Figure C-2. **<u>Female Pubertal Assay</u> Percent of Controls for DE-71 versus Endpoints By Laboratory at the Low (30 mg/kg/day) and High (60 mg/kg/day) Dose Levels (Significant Differences from Vehicle Controls at the 0.05 Level are Marked by "*').**

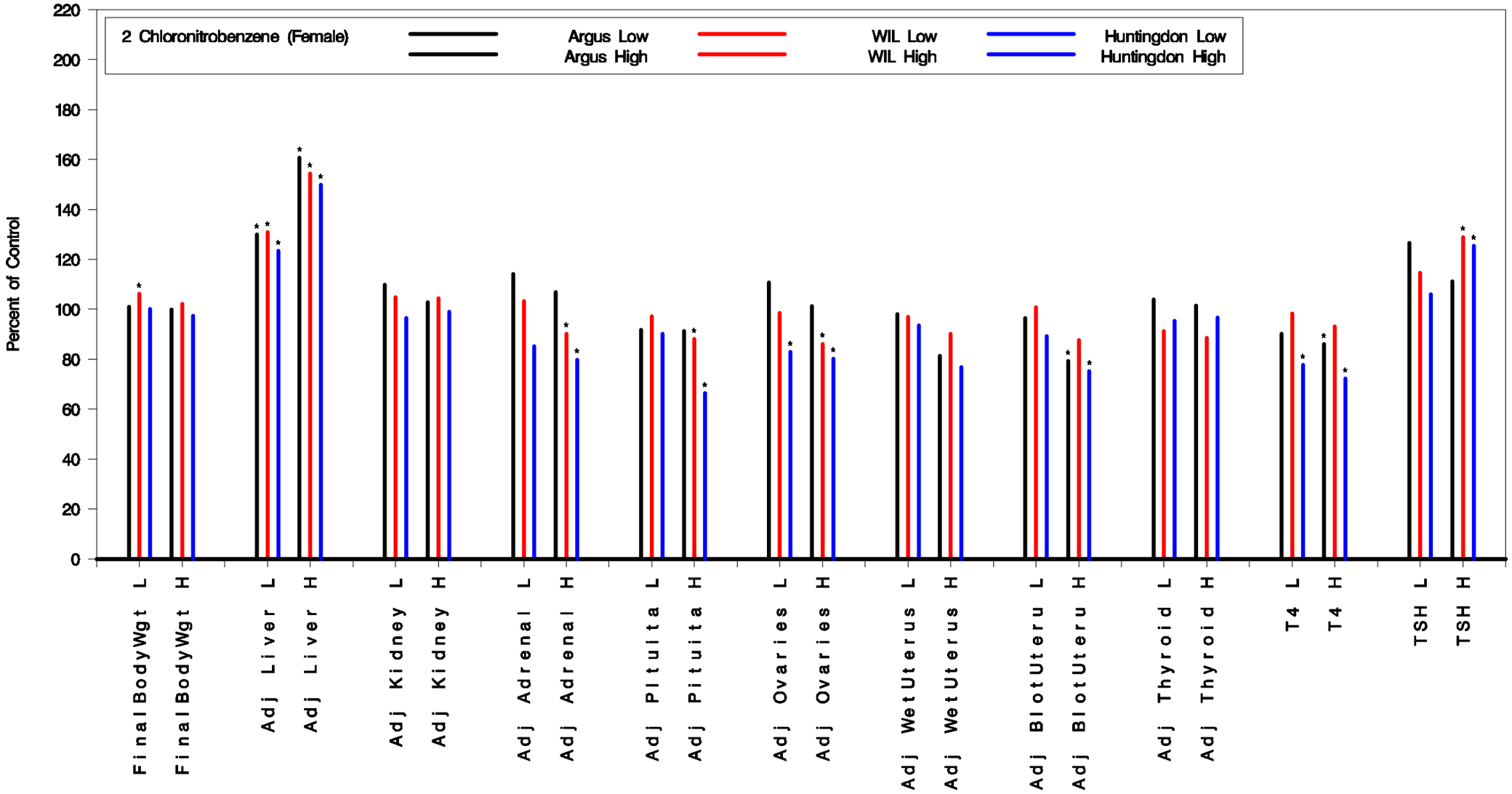


Figure C-3. **<u>Female Pubertal Assay</u> Percent of Controls for 2-Chloronitrobenzene versus Endpoints By Laboratory at the Low (25 mg/kg/day) and High (100 mg/kg/day) Dose Levels (Significant Differences from Vehicle Controls at the 0.05 Level are Marked by "*').**

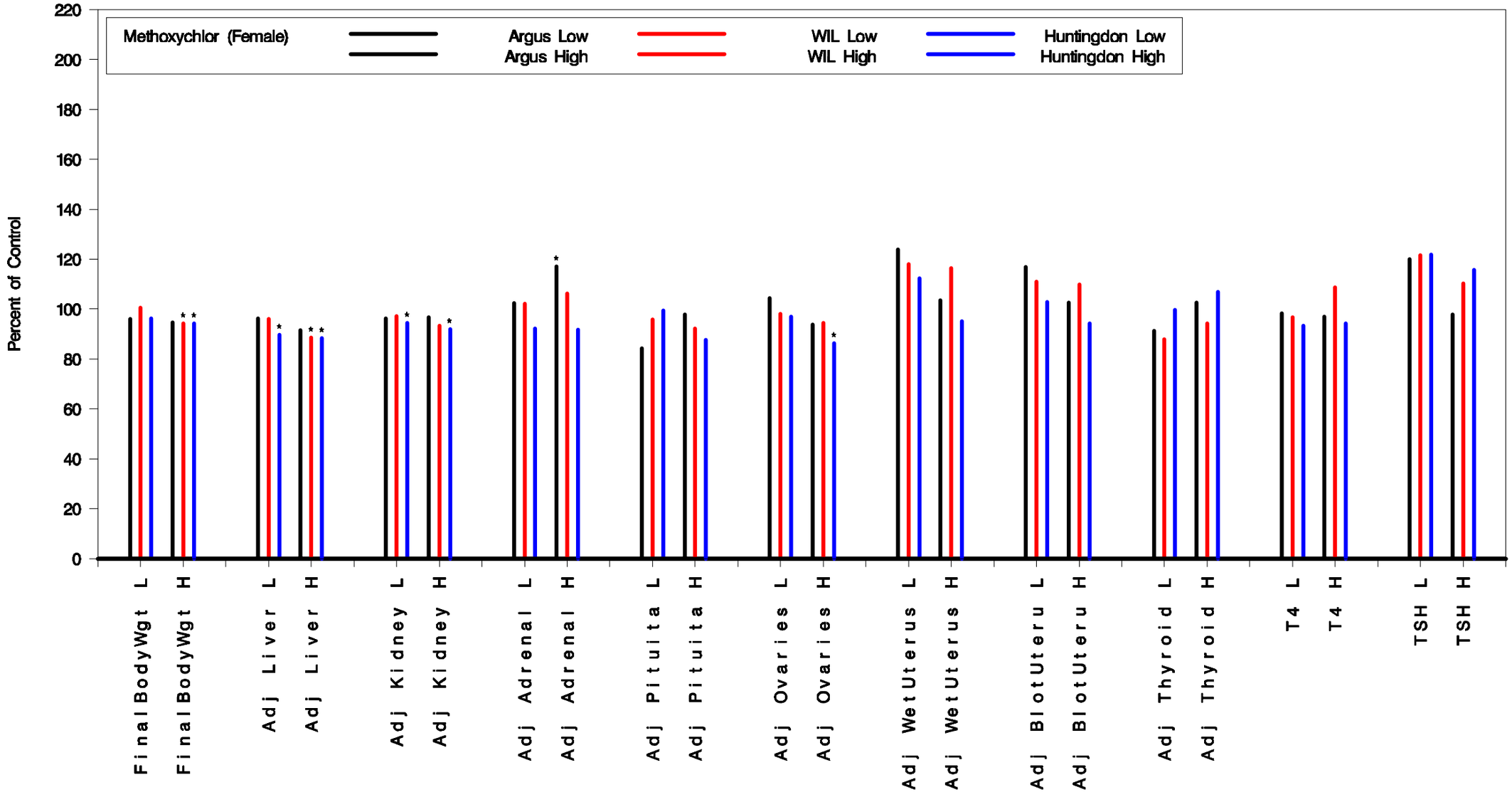


Figure C-4. **<u>Female Pubertal Assay</u> Percent of Controls for Methoxychlor versus Endpoints By Laboratory at the Low (12.5 mg/kg/day) and High (50 mg/kg/day) Dose Levels (Significant Differences from Vehicle Controls at the 0.05 Level are Marked by "*').**

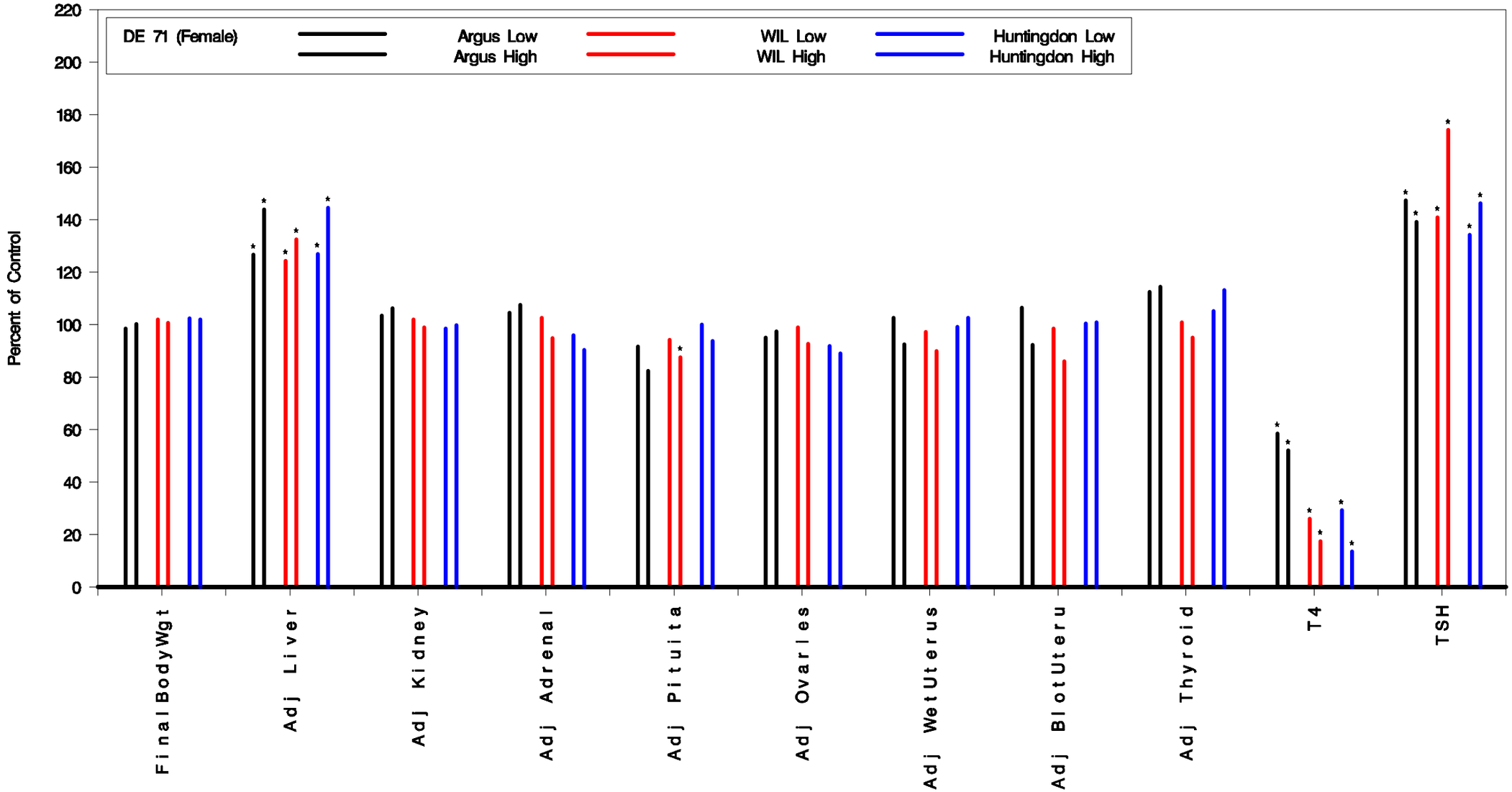


Figure C-5. **<u>Female Pubertal Assay</u> Percent of Controls for DE-71 versus Endpoints By Dose Level within each Laboratory. The Low is 30 mg/kg/day and the High is 60 mg/kg/day (Significant Differences from Vehicle Controls at the 0.05 Level are Marked by "*').**

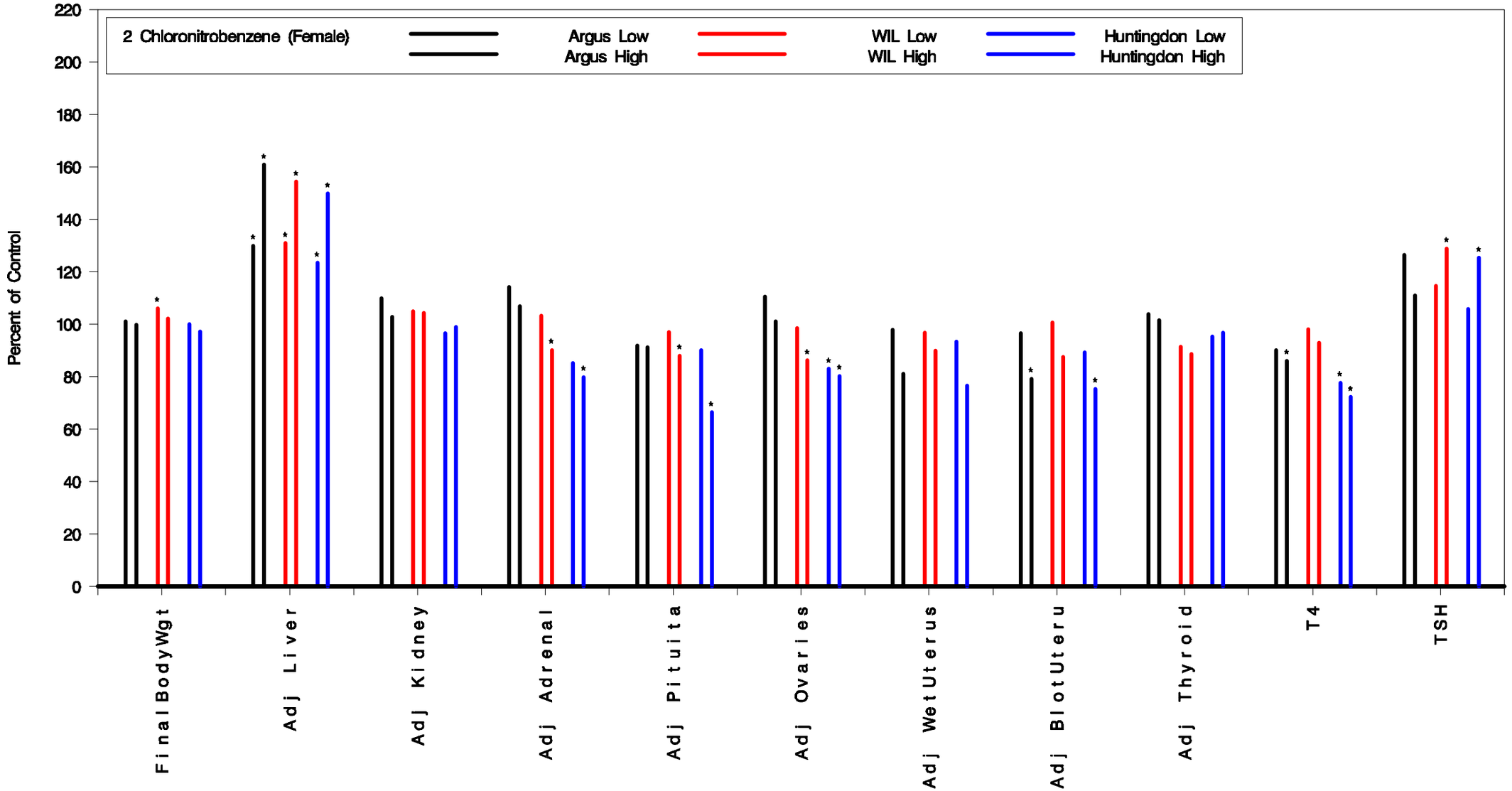


Figure C-6. **<u>Female Pubertal Assay</u> Percent of Controls for 2-Chloronitrobenzene versus Endpoints By Dose Level within each Laboratory. The Low is 25 mg/kg/day and the High is 100 mg/kg/day (Significant Differences from Vehicle Controls at the 0.05 Level are Marked by "*').**

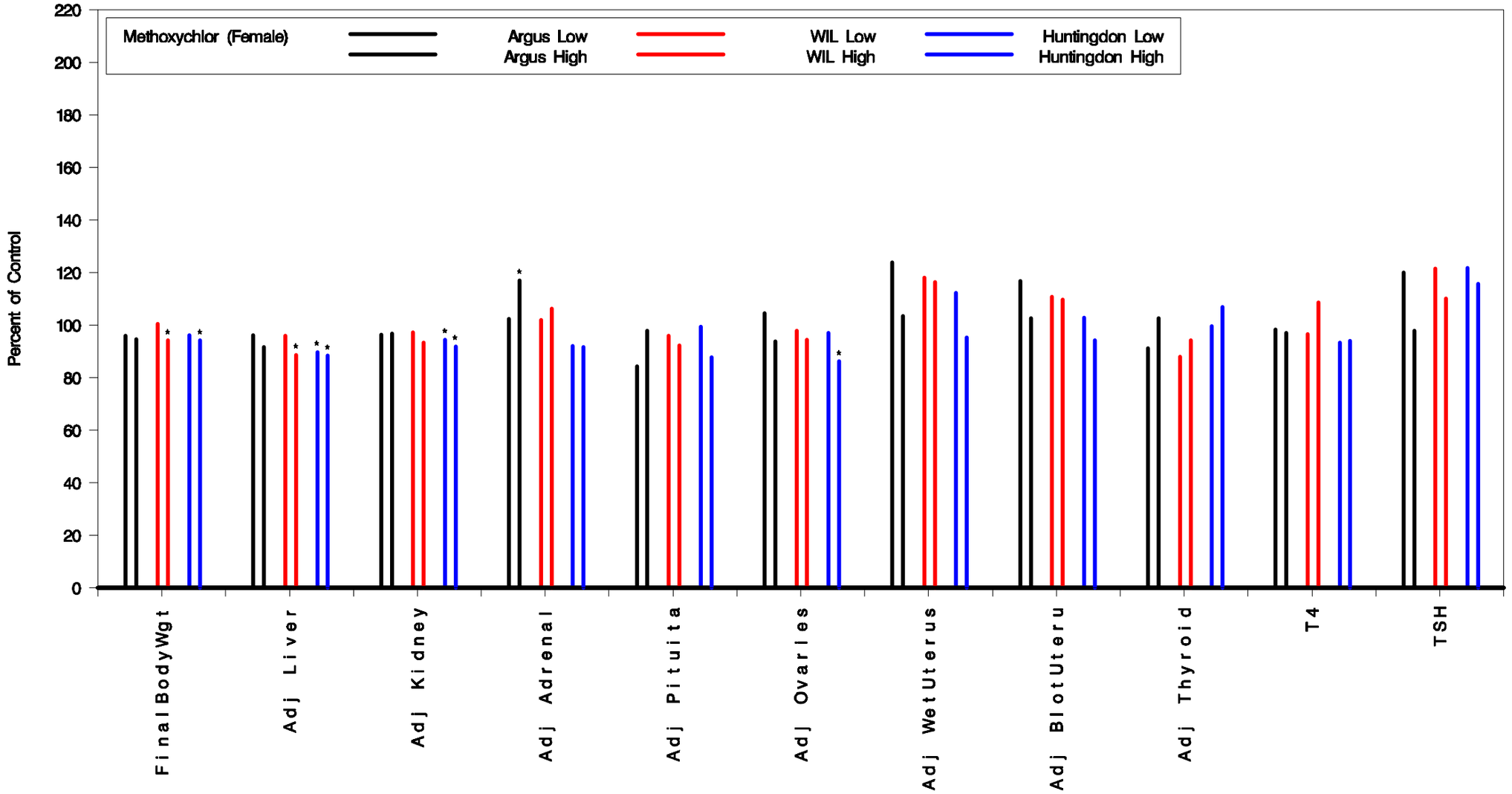


Figure C-7. **<u>Female Pubertal Assay</u> Percent of Controls for Methoxychlor versus Endpoints By Dose Level within each Laboratory. The Low is 25 mg/kg/day and the High is 100 mg/kg/day (Significant Differences from Vehicle Controls at the 0.05 Level are Marked by "*').**