Attachment 4-1

Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs)

Exposure Factors and Bioaccumulation Models for Derivation of Wildlife Eco-SSLs

OSWER Directive 9285.7-55

Issued November 2003
Revised February 2005
Revised April 2007

This page intentionally left blank

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

1.1 Basic Equations

As discussed in Chapter 4 of the Eco-SSL guidance, wildlife receptors may be exposed to contaminants in soil by two main pathways: incidental ingestion of soil while feeding, and ingestion of food items that have become contaminated due to uptake from soil. The general equation used to estimate the risk from exposure via these two pathways is:

$$HQ_j = \frac{[FIR * (Soil_j * P_s + B_{ij})]}{TRV_j} \qquad \textit{Equation 4-2}$$

where:

HQ_j	=	Hazard Quotient for contaminant (j) (unitless)
$Soil_j$	=	Concentration of contaminant (j) in soil (mg/kg dry weight)
FIR	=	Food intake rate (kg of food [dry weight] per kg body weight per day)
P_s	=	Proportion of total food intake that is soil (kg soil/kg food)
B_{ij}	=	Concentration of contaminant in biota type "i" (mg/kg dry weight)
TRV_j	=	Toxicity Reference Value for contaminant (j) (mg chemical/kg body weight per day)

As described in Chapter 4, the concentration of contaminant (j) in biota or food type type (i) (B_{ij}) was related to the concentration in soil ($Soil_j$) by an uptake model which has one of the following forms:

Case 1) $B_{ij} = BAF_{ij} * Soil_j$ (constant)
Case 2) $\ln(B_{ij}) = I_{ij} + S_{ij} * \ln(Soil_j)$ (log-linear)
Case 3) $B_{ij} = I_{ij} + S_{ij} * Soil_j$ (linear)

where:

BAF_{ij}	=	Soil-to-biota Bioaccumulation factor (BAF) for contaminant (j) for biota type (i)
I_{ij}	=	Intercept from bioaccumulation model for contaminant (j) for food type (i)
S_{ij}	=	Slope from bioaccumulation model for contaminant (j) for food type (i)

In instances where it was necessary to estimate small mammal tissue concentrations (B_i) based on dietary based BAFs or regressions, the uptake model may have one of the following forms:

Case 4) $B_{ij} = C_{diet} * BAF_{dm}$

Case 5) $\ln(B_{ij}) = I_{ij} + S_{ij} * \ln(C_{diet})$
Case 6) $B_{ij} = I_{ij} + S_{ij} * C_{diet}$

where:

BAF_{dm} = Diet-to-biota BAF for contaminant (j) in mammal or bird tissue
B_{ij} = Concentration of contaminant (j) in food type (i) (where i = small mammal)
C_{diet} = Concentration of contaminant (j) in diet where diet is 100% earthworms estimated as in Case 1, 2 or 3, above.

Given appropriate input values for TRV, FIR , P_s, and B_i, Eco-SSLs are calculated by solving the equation above to find the soil concentration ($Soil_j$) that corresponds to an HQ value of 1.

1.2 Dealing with Variability

In the equations above, most of the input terms are not constants but are variables whose values differ between different individuals within a species and between different species. As discussed in Section 4, the basic strategy used to deal with this variability is as follows:

- Divide wildlife receptors into six groups:

    1. Mammalian herbivores
    2. Mammalian carnivores
    3. Mammalian insectivores
    4. Avian granivores
    5. Avian carnivores
    6. Avian insectivores

- For each group of receptors, calculate a group-specific Eco-SSL based on exposure parameters for a surrogate species that is expected to be at the high end (most exposed) of the exposure distribution for the group, and a TRV that is expected to be at the low end (i.e., most sensitive) of the toxicity distribution for the group. Because the surrogate species is at the high end of the exposure distribution for the group and the TRV is at the low end of the distribution for the group, the species-specific Eco-SSL is expected to provide a high degree of protection to nearly all members of the group.

- Select the lowest group-specific Eco-SSL as the final Eco-SSL. This is expected to provide protection to nearly all types of wildlife (birds and mammals) receptors.

2.0 CALCULATION OF GROUP-SPECIFIC ECO-SSLs

As discussed in Section 4.2 of the Eco-SSL guidance, a surrogate species was selected to represent each group of wildlife receptors. The choice of surrogate species was based on a consideration of body weight (a low body weight is associated with high food intake per unit body weight) and behavior (dietary sources, amount of soil ingested). The surrogates selected are summarized below:

Group	Surrogate Species
Mammalian herbivores	Meadow vole
Mammalian carnivores	Long-tailed weasel
Mammalian insectivores	Short-tailed shrew
Avian granivores	Mourning dove
Avian carnivores	Red-tailed hawk
Avian insectivores	American woodcock

As noted above, calculation of an Eco-SSL for a surrogate species representing each group requires input on four variables:

- TRV
- Food Intake Rate (FIR)
- Proportion of total food intake that is soil (P_s)
- Concentration in Diet (B_i)

Attachments 4-2 thru 4-4 of the Eco-SSL guidance document the details of the approach used to derive the TRV for each group of receptors. The following sections detail the selection of the most appropriate inputs for FIR, P_s, and dietary concentration for each selected surrogate species.

2.1 Food Ingestion Rate (FIR)

Data on typical and high end food intake rate for each of the surrogate species were complied from the Wildlife Exposure Factors Handbook (WEFH) (USEPA, 1993) and from other available sources. These data are summarized in Table 1. Raw data reported in units of wet weight (g wet wt/g bw/day) were converted to units of dry weight (g dw/g bw/day) using actual dietary water content (if reported) or assumed water content for dietary items as provided in the WEFH:

Dietary Type	Water Content
Plant Foliage	85%
Earthworms	84%
Seeds	9.3%
Small Mammals	68%

In order to ensure that the Eco-SSL for each surrogate will protect most of the individuals within the species, an effort was made to select a high-end point estimate of FIR for each species. Depending on the data available from each study, the high-end was estimated either as the high-end value reported in the study, by assuming the distribution of intakes was normal and by calculating the 90th percentile (90th = mean + 1.282 $\times$ stdev), or by assuming the high end was 1.25 times higher than the typical value. This is based on the observation that a typical coefficient of variation (CV) for food intake is approximately 15-20% for birds and mammals (Nagy, 2004)[1]. An evaluation of CVs for food intake across multiple bird and mammal species, as calculated from data provided in the WEFH, also supports this estimate (USEPA, 1993).

Based on these alternative high-end estimates of FIR for each study in each surrogate species, a point estimate of FIR was selected based on the arithmetic mean across all high-end estimates. This final point estimate for each surrogate species is shown in the right-hand column of Table 1.

2.2 Soil Intake (P_s)

As noted above, ingestion of soil by wildlife species is usually estimated as a fraction of the dietary food ingestion rate:

$$\text{Soil Intake} = P_s \times \text{FIR}$$

Beyer et al. (1994) estimated the value of P_s by measuring the ash content of diet and scat in a number of different species, and calculating P_s using the following model:

$$P_s = (b - y + a \times y) / (a \times y - c + b)$$

where:

P_s = proportion of soil in diet (g soil per g dry mass)

a = digestibility of food (g absorbed per g dry mass ingested)

[1] CV = standard deviation/mean

b	=	concentration of acid-insoluble ash in food (g per g dry mass)
c	=	concentration of acid-insoluble ash in soil (g per g dry mass)
y	=	concentration of acid-insoluble ash in scat (g per g dry mass)

As above, in order to ensure that the calculation of the species-specific Eco-SSL is protective for a majority of all individuals in the surrogate species, it is necessary to estimate a high-end value for P_s for each surrogate species. This can be done by assigning a Probability Distribution Function (PDF) to each of the variables in the equation above (a, b, c, y) and using Monte Carlo simulation to estimate the 90th percentile of P_s. The distributions selected are summarized in Table 2.

Correlations among parameters in the soil ingestion model are possible. For example, the concentration of acid-insoluble ash in scat (y) is likely to be positively correlated with both ash in food (b) and ash in soil (c). Similarly, digestibility of food (a) is likely to be inversely related to both ash in food (b) and ash in scat (y). The potential importance of accounting for these correlations was investigated by performing Monte Carlo analyses with and without assumed correlations among variables, as follows:

Assumed Correlations	
Pair	**r**
a and b	-0.8
a and c	0
a and y	-0.6
b and c	0
b and y	0.6
c and y	0.8

Comparison of distributions resulting from Monte Carlo analyses with correlated and uncorrelated variables indicated no significant differences. Consequently, soil ingestion distributions resulting from the uncorrelated Monte Carlo analyses were used. The results are shown in Table 3. The 90th percentile value of the estimated distribution of P_s for each species is selected as the most appropriate high-end point estimate value to use in the calculation of Eco-SSL values.

3.0 ESTIMATING BIOACCUMULATION

As noted in Section 1, different forms of uptake models were used to predict the concentration of contaminants in dietary tissues as a function of the concentration in soil. Tables 4a to 4c summarize the bioaccumulation equations for plants, earthworms, and small mammals which were used for inorganics, non-ionic organics, and pentachlorophenol, respectively. A detailed discussion of the derivation and selection of each of these models is presented in the following subsections.

3.1 Uptake of Inorganics

Soil-to-biota bioaccumulation uptake equations, both as simple ratios (bioaccumulation factors (BAFs)) or as regression equations, have recently been developed from published data for earthworms, terrestrial plants, and small mammals, and are presented in Sample et al. (1999), Sample et al. (1998a), Sample et al. (1998b), and Bechtel-Jacobs (1998). Bioaccumulation equations presented in these reports were selected as the primary means for estimation of concentrations of inorganic contaminants in wildlife dietary items. If both a chemical-specific BAF and a chemical-specific regression equation were available for a given contaminant, the regression equation was selected for application provided the equation was significant (i.e., the slope differed significantly [p#0.05] from 0) and the coefficient of determination (R^2) was greater than or equal to 0.2. If these criteria were not met, the median BAF was used to estimate bioaccumulation.

Table 4a summarizes the uptake equations that were used to estimate inorganic concentrations in plants, earthworms, and small mammals for all inorganics on the initial Eco-SSL list. Soil-to-biota bioaccumulation models were available from the sources referenced in the preceding paragraphs with some exceptions. The following subsections describe the values selected for antimony, beryllium, barium and nickel that could not be identified from the available sources.

3.1.1 Antimony

The available sources reviewed did not contain any bioaccumulation factors for antimony. Based on limited data presented in Bechtel-Jacobs (1998) and a recently published study by Baroni et al. (2000), a log-linear regression equation was developed for antimony uptake into plants (Figure 1; Appendix A). Because no earthworm bioaccumulation data were located for antimony, a default BAF of 1 was assumed.

Diet-to-biota factors (F_f) for cattle are provided in Baes et al. (1984). Use of uptake factors specific for beef is not optimal for estimating uptake into small mammals; however, these values are used where no other data were available. The BAF factors for antimony for small mammalian prey species (e.g., mouse), are derived from the F_f values in Baes et al. (1984) as follows:

$$BAF_{diet\text{-}to\text{-}beef} = F_f \text{ (d/kg tissue)} \times \text{Food intake (kg food/day)}$$

For cattle, the food (plant) intake rate assumed by Baes et al. (1984) was 50 kg/day. Thus:

$$BAF_{diet\text{-}to\text{-}beef} = 50 \times F_f$$

Combining this equation with the soil-to-plant BAF (or soil-to-diet BAF) yields:

$$BAF_{soil\text{-}to\text{-}beef} = BAF_{soil\text{-}to\text{-}diet} \times 50 \times F_f$$

3.1.2 Beryllium

The available sources reviewed did not contain any BAF values for the uptake of beryllium from soils by plants or small mammals. Based on a limited review of literature information (search of Toxline), a regression equation was developed for beryllium uptake into plants (Figure 2; Appendix A). The uptake of beryllium from soils into small mammals was estimated using the diet-to-biota factors (F_f) for cattle provided in Baes et al. (1984) as previously described for antimony in Section 3.1.1.

3.1.3 Barium

The available sources reviewed did not contain any BAF values for the uptake of barium from soils into small mammals. The uptake of barium from soils into small mammals was estimated using the diet-to-biota factors (F_f) for cattle provided in Baes et al. (1984) as previously described for antimony in Section 3.1.1.

3.1.4 Nickel

Between 1998 and 1999, authors (Sample et al., 1998b and Sample et al., 1999) attempted to develop a regression model to predict the bioaccumulation of nickel from soil by earthworms. Their analyses concluded that soil concentrations alone did not accurately predict nickel uptake in earthworms. This conclusion was supported by the contradiction of other studies. Neuhauser et al. (1995) indicated a significant positive relationship between soil nickel and concentrations in earthworm tissues while studies by Abdul Rada and Bouche (1995) and Beyer et al., (1982) indicate a negative relationship. An analysis of the Neuhauser et al. (1995) data combined with data from other studies also shows a negative relationship (Sample et al., 1999). The authors conclude that the uptake of nickel is influenced by pH but this factor did not completely explain uptake and that more research is needed to understand the factors that influence bioaccumulation. The overall conclusion was that an accurate regression model could not be identified.

3.2 Uptake of Non-Ionic Organics

Soil-to-biota bioaccumulation uptake equations for earthworms, terrestrial plants, and small mammals were not available from the literature. For the non-ionic organic chemicals on the Eco-SSL contaminant of concern (COC) list (dieldrin, DDD, DDE, DDT, RDX, TNT and polycyclic aromatic hydrocarbons (PAHs)), data were compiled from the literature and an uptake value was derived.

A limited literature search was completed for bioaccumulation data (paired chemical concentrations for soil and food type). This included paired data for soil-to-plant, soil-to-soil invertebrate, soil-to-mammal, soil-to-bird, diet-to-mammal and diet-to-bird. The general search process included the following steps:

1) Review of information from existing reports that collected bioaccumulation data. These reports included Efroymson (1998), Sample et al. (1998a) and Sample et al. (1998b).

2) Review of existing soil screening level guidelines including the Canadian Soil Quality Guidelines (CCME), and the Dutch Maximum Permissible Concentrations and Negligible Concentrations.

3) Search of the World Wide Web. The Web was searched for information on bioaccumulation in an attempt to identify other efforts to collect bioaccumulation data or other regulatory uses of bioaccumulation data.

4) Literature searches were performed in the Colorado Alliance of Research Libraries, an on-line computer system and through AGRICOLA, an on-line literature search engine. Searches were conducted using different combinations of the following keywords: bioaccumulation factor, bioaccumulation, bioaccumulate, bioaccumulative, bioaccumulated, biomagnify, biomagnification, accumulate, accumulation, accumulated, dieldrin, DDT, DDD, DDE, pentachlorophenol, and PAH.

5) Review of the literature identified in the search for toxicity data on wildlife (Attachment 4-1).

6) Chemical-specific observations of uptake of organic compounds from soil into plant tissue were assembled based on a review of the literature cited in Travis and Arms (1988).

7) In 2007, EPA completed the Eco-SSL document for PAHs and a decision was made to derive Eco-SSLs for two groups of PAHs as low molecular weight PAHs with aromatic rings of 3 or less and high molecular weight PAHs with aromatic rings of 4 or higher. The data for uptake of PAHs from soils into plant foliage was then segregated into LMW and HMW groups.

Table 4b summarizes the uptake equations for the non-ionic organic COCs on the initial Eco-SSL list (RDX, TNT, DDT, dieldrin, and PAHs) that were used to estimate concentrations in plants, earthworms, and small mammals. The following subsections provide a detailed discussion of the derivation of these equations for plants, earthworms, and small mammals. These subsections also serve as examples of how bioaccumulation can be evaluated for other contaminants not on the initial Eco-SSL list. For any additional contaminants, bioaccumulation data will be included in contaminant specific Eco-SSL documents.

3.2.1 Plants

Appendix B provides a summary of all the plant uptake data for non-ionic organic chemicals that were compiled as part of the Eco-SSL effort based on a review of the literature search results. Chemical-specific uptake data were used to derive an uptake equation for each Eco-SSL non-ionic organic COC. First a chemical-specific regression was attempted relating the transformed concentration in soil to the transformed concentration in plant. This regression is used to estimate bioaccumulation if it was identified as significant (i.e., the slope differed significantly [p#0.05] from 0) and R^2 is greater than or equal to 0.2. If both of these criteria were not met, the median BAF was used to estimate bioaccumulation. These analyses are provided in Appendix C and the resulting uptake equations are summarized in Table 4b.

It was anticipated that the derivation of Eco-SSLs for PAHs would require the estimation of PAHs as a total in plants. Figure 3 presents correlation figures for the uptake of PAHs into unrinsed foliage (Panel A) and rinsed foliage (Panel B). The regression for rinsed foliage data is significant while the regression for unrinsed foliage is not. Uptake into rinsed foliage was considered appropriate for calculation of the Eco-SSLs as ingestion of soil particles or dust on leaves is included in the fraction of exposure associated with incidental soil ingestion. The data for uptake of PAHs from soils into plant foliage segregated into LMW and HMW groups are plotted in Figure 4.

The procedures provided in the Eco-SSL guidance are intended to be transparent for potential use in deriving Eco-SSLs for chemicals not on the initial Eco-SSL COC list. The use of chemical-specific empirical data is preferred for estimating uptake, however if data are unavailable then an inter-chemical extrapolation approach which relates log K_{ow} to log BAF can be used. Using this approach, a BAF (expressed as concentration in plant divided by the concentration in soil on a dry weight basis) is estimated from the log K_{ow} for the chemical of interest. Based on the data collected and reviewed in Appendix B, Figure 5 presents equations that can be used to predict a BAF based on the log K_{ow} for non-ionic organic chemicals with log K_{ow} values ranging from 3 to 8. This method was used to estimate a BAF value for acenaphthylene in Table 4b.

3.2.2 Earthworms

Uptake equations for non-ionic organic chemicals from soils into earthworm (soil invertebrate tissue) are either derived from chemical-specific empirical data or estimated using models. In the cases where empirical data were unavailable, uptake was estimated based on available models.

Empirical Data

Appendix D and E provide compilations of the soil invertebrate uptake data for DDT, DDD, DDE and dieldrin, respectively, compiled as part of the Eco-SSL effort. These chemical-specific uptake data were used to derive an uptake equation for each chemical. First a chemical-specific regression was attempted relating the transformed concentration in soil to the transformed concentration in soil invertebrate. Uptake regressions for DDT and metabolites from soil into soil invertebrates were derived for DDT, DDD and DDE separately and combined as provided in Figure 6. The uptake regression for dieldrin from soil into soil invertebrates is provided as Figure 7. The regression was used to estimate bioaccumulation if it is significant (i.e., the slope differed significantly [p#0.05] from 0) and R^2 is greater than or equal to 0.2). If both of these criteria are not met, the median BAF is used to estimate bioaccumulation.

In cases where the back calculation of the Eco-SSL using the significant regression equations resulted in soil concentrations (Eco-SSL values) lower than the range of data used to derive the regressions, the median BAF was used to estimate bioaccumulation. This was the case for Total DDT (DDT, DDD and DDE) and dieldrin. The resulting selected uptake equations are summarized in Table 4b.

Models

Concentrations of non-ionic organic contaminants from soil into earthworms are assumed to be a function of partitioning between soil pore water and the earthworm tissues (Connell and Markwell 1990, Sample et al. 1997, Jager 1998):

$$C_{worm} = K_{ww} \cdot C_w$$

where:

C_{worm}	=	concentration in worm (mg/kg dry weight)
K_{ww}	=	biota to soil water partitioning coefficient (L soil pore water/kg ww tissue)
C_w	=	concentration in soil pore water (mg/L)

For lipophilic chemicals, K_{ww} is a function of the octanol-water partition coefficient (K_{ow}) and the fraction lipid content of the organism. Jager (1998) derived the following regression equation for K_{ww} (L soil pore water/kg ww tissue) in earthworms based on data for 69 lipophilic chemicals (with log K_{ow} values ranging from 2 to 8):

$$\log(K_{ww}) = 0.87 \cdot \log(K_{ow}) - 2.0$$

K_{ww} (L soil pore water/kg ww tissue) was converted to L soil pore water/kg dw tissue by assuming 16% solids and dividing K_{ww} by 0.16.

The concentration of a chemical in soil pore water (C_w) is related to the concentration in soil as follows:

$$C_w = C_s / K_d$$

where:

C_s	=	concentration in soil (mg/kg soil)
K_d	=	soil to water partitioning coefficient (L soil pore water / kg dw soil)

For non-ionic organic compounds, K_d may be estimated as:

$$K_d = f_{oc} \cdot K_{oc}$$

where

f_{oc}	=	fraction of organic carbon in soil (kg organic carbon/kg soil)
K_{oc}	=	soil organic carbon to water partitioning coefficient (L soil pore water / kg organic carbon)

In cases where K_{ow} but not K_{oc} is available, the value of K_{oc} can be estimated using the class-specific models presented in Gerstl (1990). Table 5 provides a summary of the input parameters used to calculate BAFs for the uptake of non-ionic organic chemicals from soil into earthworms.

3.2.3 Small Mammals and Birds

The uptake of non-ionic organic chemicals from soil into small mammals or birds was estimated for the Eco-SSL COCs based on chemical-specific empirical data. Appendix D and E provide respective compilations of the mammal and bird uptake data for DDT, DDD, DDE and dieldrin compiled as part of the Eco-SSL effort. The data compiled represent the uptake of these organic chemicals from the diet into either whole body or carcass tissues. These chemical-specific uptake data were used to derive an uptake equation for each chemical. First a chemical-specific regression was attempted relating the transformed concentration in diet to transformed concentration in either bird or mammal carcass or whole body tissue. This regression was used to estimate bioaccumulation if it was considered significant (i.e., the slope differed significantly [p#0.05] from 0) and R^2 is greater than or equal to 0.2. The uptake regressions for DDT from diet into mammals and birds (DDT, and DDE separate and combined) are provided as Figure 8. The uptake regression for dieldrin from diet into mammals and birds is provided as Figure 9.

In cases where the back calculation of the Eco-SSL using the significant regression equations resulted in soil concentrations (Eco-SSL values) lower than the range of data used to derive the regressions, the median BAF was used to estimate bioaccumulation. This was the case for Total DDT (DDT, DDD and DDE) and dieldrin.

No suitable mammalian bioaccumulation data were located for PAHs, RDX or TNT. However, due to the rapid metabolism of these compounds after ingestion by birds and mammals, bioaccumulation is expected to be minimal.

3.3 Uptake of Pentachlorophenol

Pentachlorophenol (PCP) can exist in soil as either a non-ionic species or as an organic anion. In the pH range relevant to most environmental scenarios, PCP can exist as both a neutral species and as an anionic species; however, the primary form is as the organic anion (Lee et al., 1990). The ionic form of PCP has a greater tendency relative to the neutral PCP to remain in the soil pore water, similar to metal anions. Because of this, PCP was evaluated separately from the non-ionic organic chemicals. Table 4c summarizes the uptake equations that were used to estimate PCP concentrations in plants, earthworms, and small mammals for PCP. The following subsections provide a detailed discussion of the derivation of these uptake equations.

3.3.1 Plants and Earthworms

Data on PCP uptake from soil into plants and earthworms were compiled from studies identified as part of the literature search previously described. Appendix F provides a summary of the bioaccumulation data for PCP in plants and earthworms. These data were used to derive an uptake regression from soil to earthworm (Figure 10) and a median BAF for the uptake of PCP from soil into plants (Appendix F).

In cases where the back calculation of the Eco-SSL using the significant regression equations resulted in soil concentrations (Eco-SSL values) lower than the range of data used to derive the regressions, the median BAF was used to estimate bioaccumulation. This was the case for PCP.

3.3.2 Small Mammals

No data were located on the uptake of PCP into small mammal tissues. However, a study by Stedman et al. (1980) provides an uptake regression from diet into the chicken.

$$C_{chicken} = 0.00452 \cdot C_{diet} + 0.198$$

where:

$C_{chicken}$ = concentration in the chicken (mg/kg dw)
C_{diet} = concentration in the diet of the chicken (mg/kg dw)

Assuming uptake into mammals is similar to that reported for chickens, and by assuming that the diet of the chicken consists primarily of earthworms, this equation was used to estimate PCP tissue concentrations in small mammals.

EPA has provided detailed bioaccumulation data and the derivation of uptake equations in this Attachment for the subset of initial Eco-SSL COCs that are non-ionic and ionic organic chemicals. Any additional bioaccumulation data used to derive Eco-SSLs should be summarized and provided as part of the contaminant specific documents.

4.0 REFERENCES

Abdul Rada, A. M. M., and M. B. Bouche. 1995. Earthworm contribution to ecotoxicological assessments. *Acta Zool Fenn.* 196: 307-310.

Baes, C.F., R. Sharp, A. Sjoreen and R. Shor. 1984. *A Review and Analysis of Parameters for Assessing Transport of Environmentally Released Radionuclides through Agriculture*. Prepared by Oak Ridge National Laboratory for U.S. Dept. of Energy. 150 pp.

Barrett, G.W., and K.L. Stueck. 1976. Caloric ingestion rate and assimilation efficiency of the short-tailed shrew, *Blarina brevicauda*. *Ohio J. Sci*. 76: 25-26.

Baroni F., A. Boscagli, G. Protano, and F. Riccobono. 2000. Antimony accumulation in *Achillea ageratum, Plantago lanceolata,* and *Silene vulgaris* growing in an old Sb-mining area. *Environ. Poll*. 109: 347-352.

Bechtel Jacobs Company LLC. 1998. *Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants*. Bechtel Jacobs Company LLC, Oak Ridge, Tennessee. BJC/OR-133.

Beyer, W. N., R. L. Chaney, and B. M. Mulhern. 1982. Heavy metal concentration in earthworms from soil amended with sewage sludge. *J. Environ. Qual*. 11: 381-385.

Beyer, W. N., E. Conner, and S. Gerould. 1994. Estimates of soil ingestion by wildlife. *J. Wildl. Manage*. 58:375-382.

Brown, J.H., and R.C. Lasiewski. 1972. Metabolism of weasels: the cost of being long and thin. *Ecology*. 53: 939-943.

Connell, D. W. and R. D. Markwell. 1990. Bioaccumulation in the soil to earthworm system. *Chemosphere.* 20(1-2): 91-100.

Craighead, J. C. and F. C. Craighead. 1956. *Hawks, Owls and Wildlife*. Harrisburg PA, the Stackpole Co. and Washington DC Wildl. Manage Inst.

Dark, J., I. Zucker and G. Wade, 1983. Photoperiodic regulation of body mass, food intake, and reproduction in meadow voles. *Am. J. Physiology*. 245: R334-R338
.

Duke, G. E., O. A. Evanson, and A. Jegers. 1976. Metal to pellet intervals in 14 species of captive raptors. *Comp. Biochm. Physiol.* 43A: 1-6.

Fagerstone, K.A. 1987. Black-footed ferret, long-tailed weasel, short-tailed weasel and least weasel. In: *Wild Fur Bearer Management and Conservation*, Novak et al., Ontario Ministry of Natural Resources.

Gerstl, Z. 1990. Estimation of organic chemical sorption by soils. *J. Contam. Hydrology*. 6: 357- 375.

Hanson, H. C. and C. W. Kosssack. 1957. Methods and criteria for aging incubated eggs and nestlings of the Mourning dove. *Wilson Bulletin*. 69(1): 91-101.

Innes D.G.L., and J.S. Millar. 1981. Body weight, litter size, and energetics of reproduction in *Clethrionomys gapperi* and *Microtus pennsylvanicus*. *Can. J. Zool*. 59: 785-789.

Jager, T. 1998. Mechanistic approach for estimating bioconcentration of organic chemicals in earthworms. *Environ. Toxicol. Chem*. 17: 2080-2090.

Lee, L. S., P. S. C. Rao, P. Nkedi-Kizza, and J. J. Delfino. 1990. Influence of solvent and sorbent characteristics on distribution of pentachlorophenol in octanol-water and soil-water systems. *Environ. Sci. Tech.* 24: 654-661.

Morrison, P.R., M. Pierce, and F.A. Ryser. 1957. Food consumption and body weight in the masked and short-tailed shrews (genus *Blarina*) in Kansas, Iowa and Missouri. *Ann. Carnegie Mus.* 51: 111-128.

Nagy, K.A. 2004. Personal communication.

Nagy, K.A., I.A. Girard, and T.K. Brown. 1999. Energetics of free-ranging mammals, reptiles, and birds. *Ann. Rev. Nutr*. 19: 247-277.

Neuhauser, E. F., Z. V. Cukic, M. R. Malecki, R. C. Loehr, and P. R. Durkin. 1995. Bioconcentration and biokinetics of heavy metals in the earthworm. *Environ. Pollut.* 89: 293-301.

Ognev. S.I. 1950. *Mammals of the U.S.S.R. and adjacent countries.* Translated from Russian by : Israel Program for Scientific Translations (1964) Jerusalem 626 pp. (as cited in US EPA 1993)

Quick, H. F. 1951. Notes on the ecology of weasels in Gunnison County, Colorado. *Journal of Mammology*. 33 (5): 281-290.

Randolph, J. C. 1973. Ecological energetics of a homothermic predator, the short-tailed shrew. *Ecology*. 54(5): 1166-1187.

Richardson. 1973. Locomotery and feeding activity of the shrews, *Blarina brevicauda* and *Suncus murinus*. *Am. Midl. Nat*. 90: 224-227.

Sample, B., J.J. Beauchamp, R. Efroymson, and G.W. Suter, II. 1999. Literature-derived Bioaccumulation Models for Earthworms: Development and Validation. *Environmental Toxicology and Chemistry*. 18: 2110-2120.

Sample, B., J.J. Beauchamp, R. Efroymson, G.W. Suter, II, and T. Ashwood. 1998a. *Development and Validation of Bioaccumulation Models for Small Mammals.* Oak Ridge National Laboratory. ES/ER/TM-219.

Sample, B., J.J. Beauchamp, R. Efroymson, G.W. Suter, II, and T. Ashwood. 1998b. *Development and Validation of Bioaccumulation Models for Earthworms*. Oak Ridge National Laboratory. ES/ER/TM-220.

Sanderson, G. C. 1949. Growth and behavior of a litter of captive long-tailed weasel. *Journal of Mammology*. 39(4): 412-415.

Sheldon, W. G. 1967. *The Book of the American Woodcock.* Amherst, MA: University of Massachusetts Press.

Stedman, T.M., Jr., N. H. Booth, P.B. Bush, R.K. Page, D.D. Goetsch. 1980. Toxicity and bioaccumulation of pentachlorophenol in broiler chickens. *Poult. Sci*. 59: 1018-1026.

Stickel, W. H., D. W. Hayne, and L. F. Stickel. 1965. Effects of heptachlor-contaminaed earthworms on woodcocks. *J. Wildl. Manage.* 29: 132-146.

Syracuse Research Corporation (SRC). Physical Properties Database. http://esc.syrres.com/interkow/PhysProp.htm

Tabor, W. B. 1928. A method to determine the weight of food digested daily by birds. *Auk.* Volume XLV: 339-340.

Travis, C.C., and A.D. Arms. 1988. Bioconcentration of organics in beef, milk and vegetation. *Environ. Sci. Technol.* 22: 271-274.

United States Environmental Protection Agency (U.S. EPA). 1995. *Internal report on summary of measured, calculated, and recommended Log K_{ow} values*. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 38 pp.

United States Environmental Protection Agency (U.S. EPA). 1996. Soil Screening Guidance: Technical Background Document. EPA/540/R-95/128

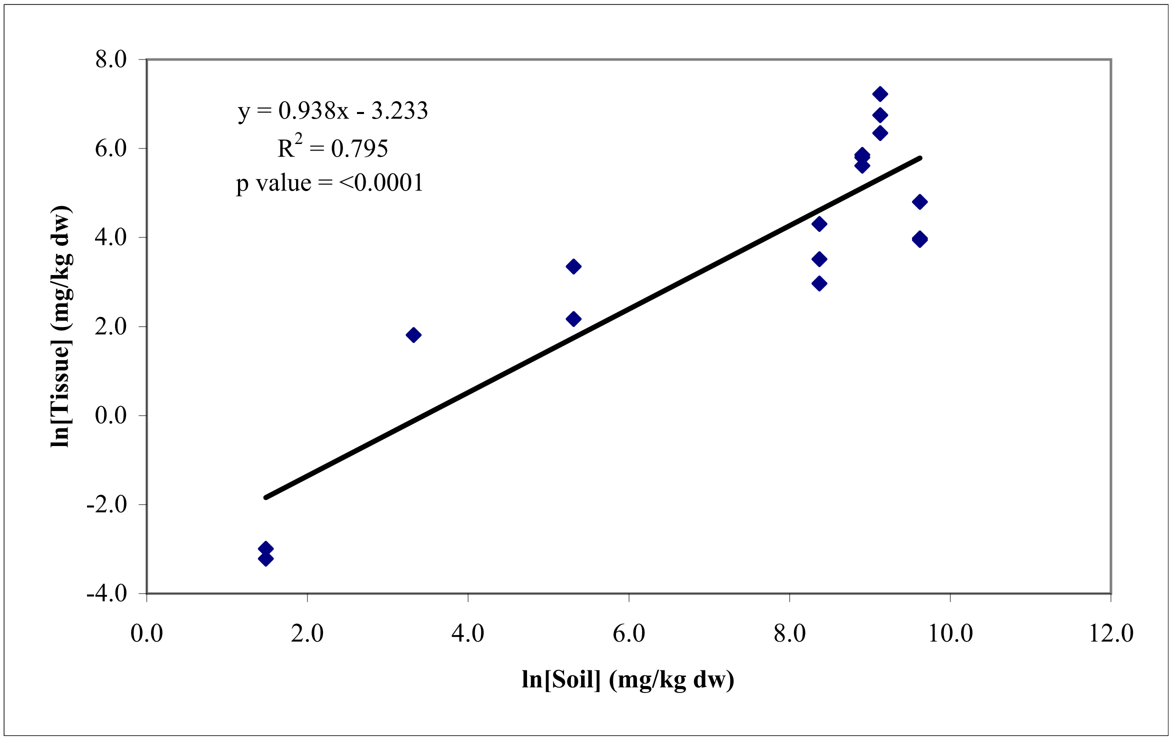
United States Environmental Protection Agency (U.S. EPA). 1993. *Wildlife Exposure Factors Handbook*. EPA/600/R-93/1987a. Volumes I & II.

Eco-SSL Attachment 4-1
Figures

February 2005
Revised April 2007

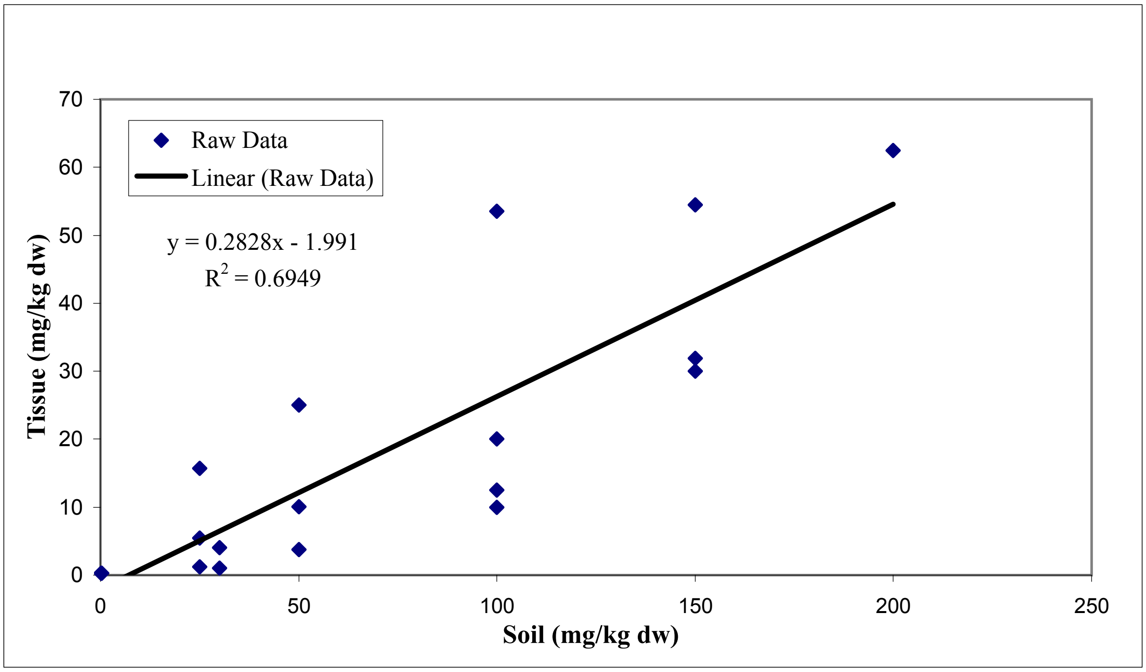
This page intentionally left blank

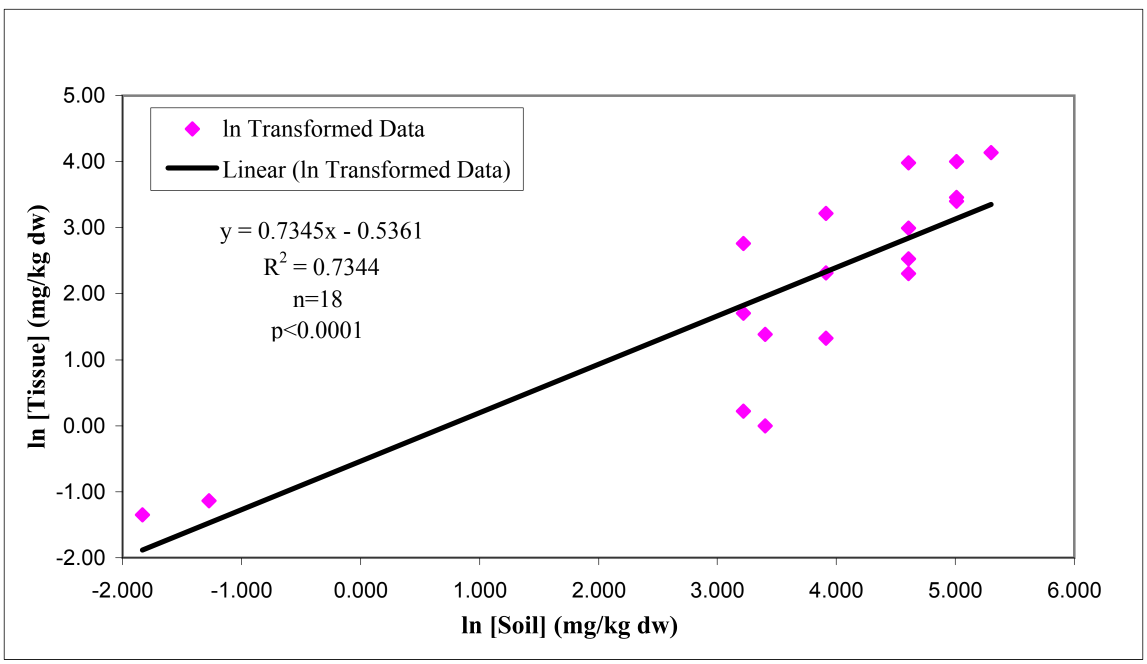
Figure 1. Uptake of Antimony from Soil into Plant Foliage



Raw data are provided in Appendix A.

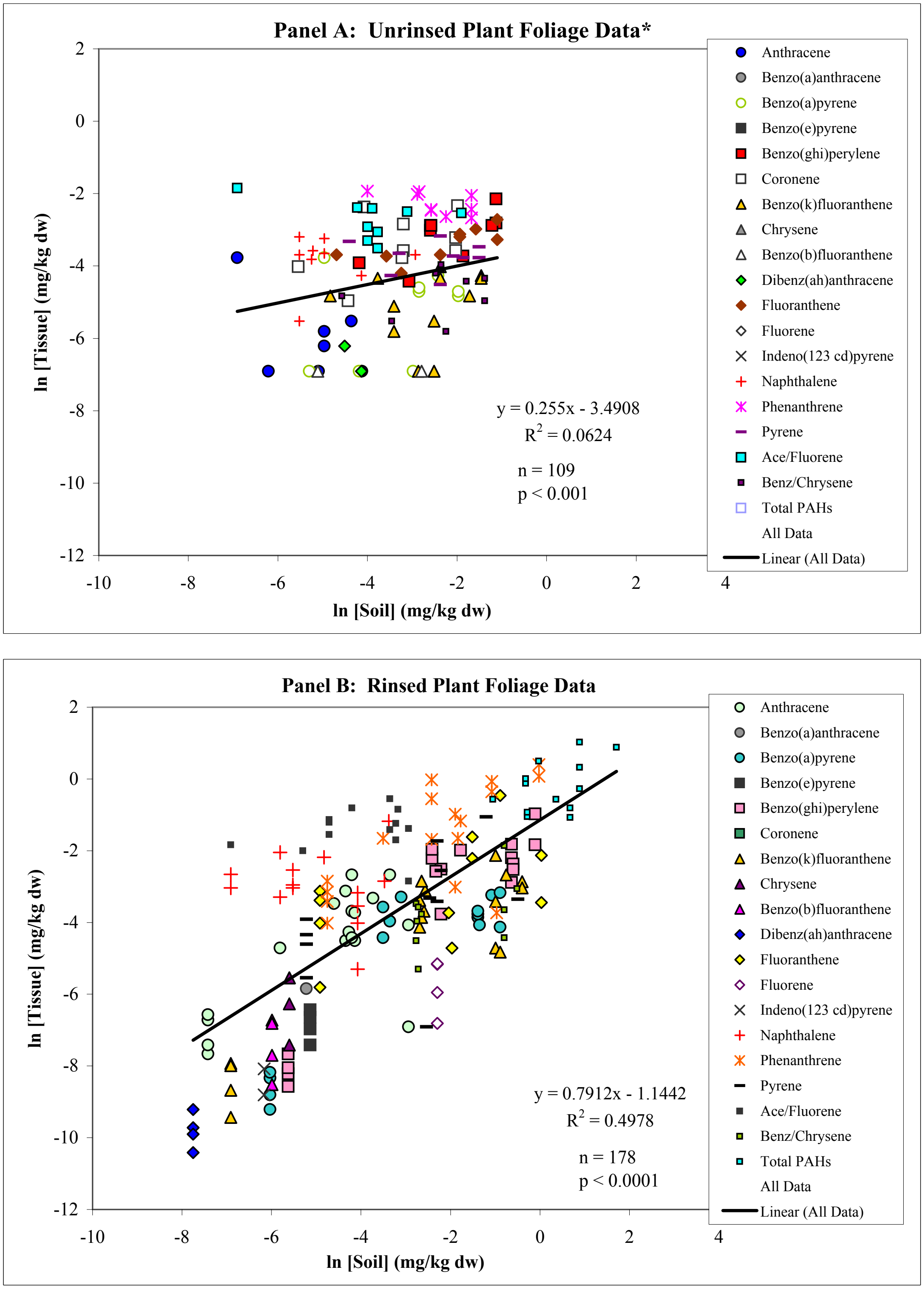
Figure 2
Uptake of Beryllium from Soil into Plant Foliage





Raw data provided in Appendix A.

Figure 3. Uptake of PAHs from Soil into Plant Foliage for Unrinsed (Panel A) and Rinsed (Panel B) Plant Foliage



* Includes data for studies where rinsed status was not specified. Raw data provided in Appendix B.

Figure 4. Uptake of PAHs from Soil into Plant Foliage
Low versus High Molecular Weight PAHs

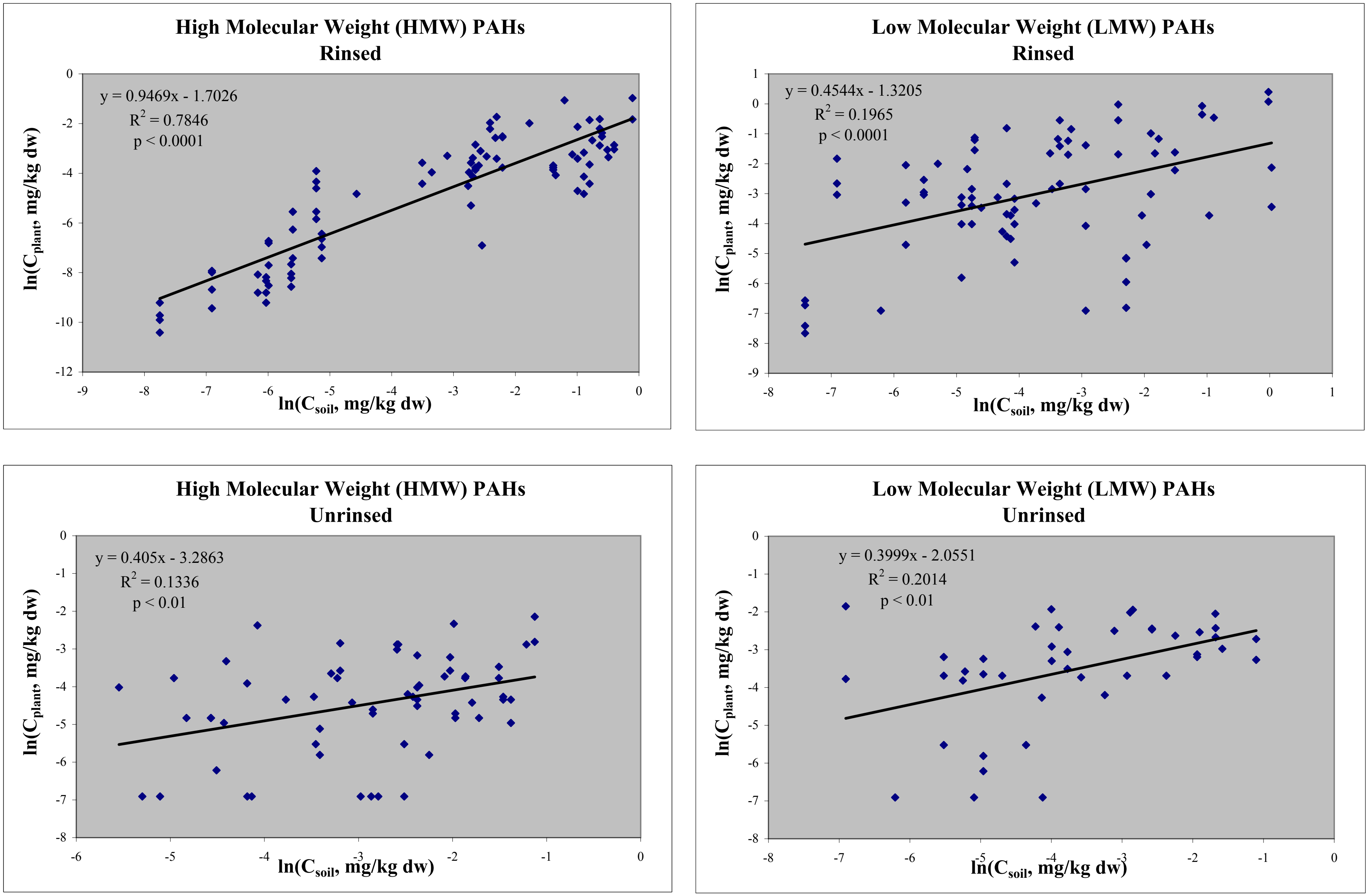
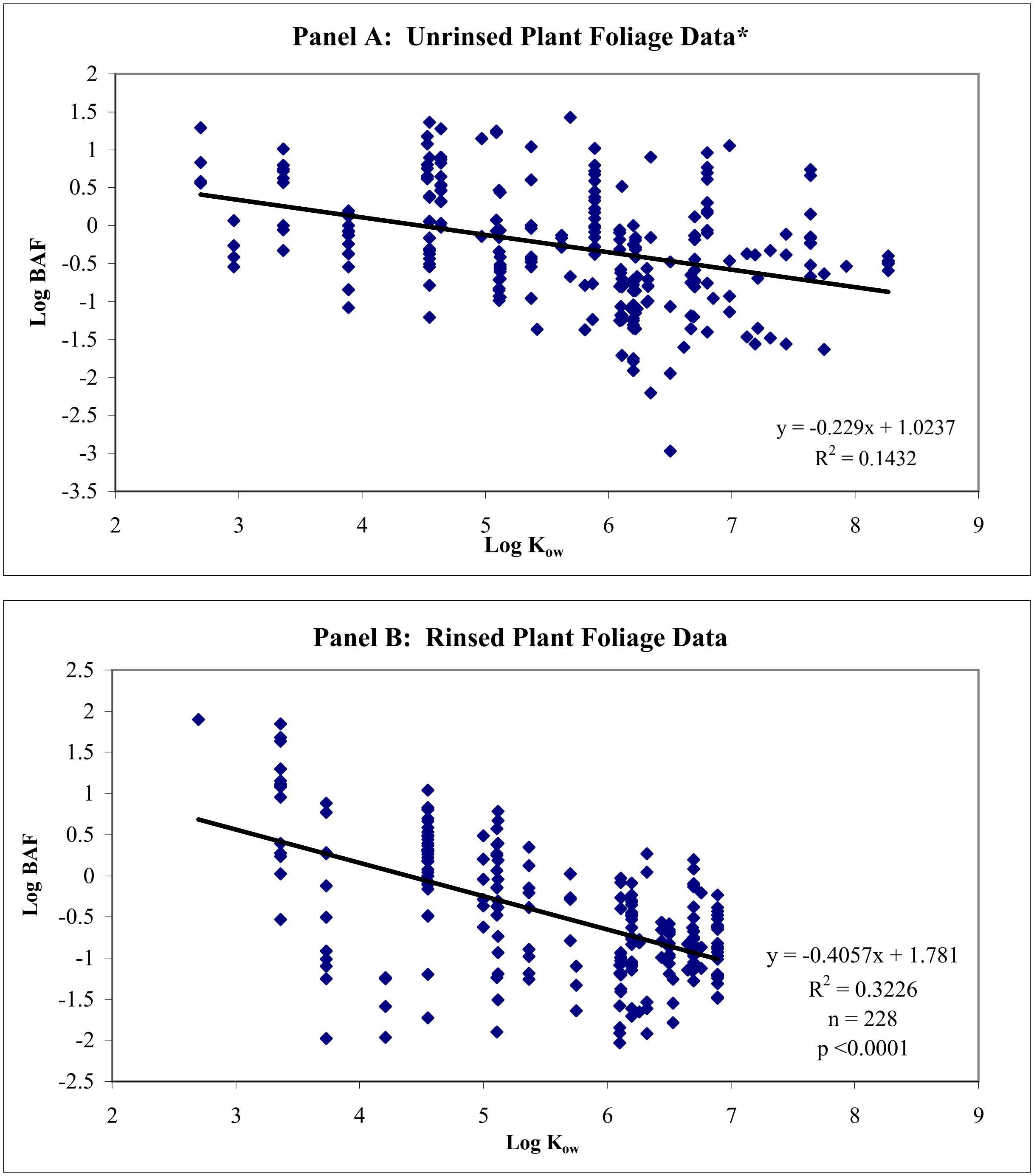
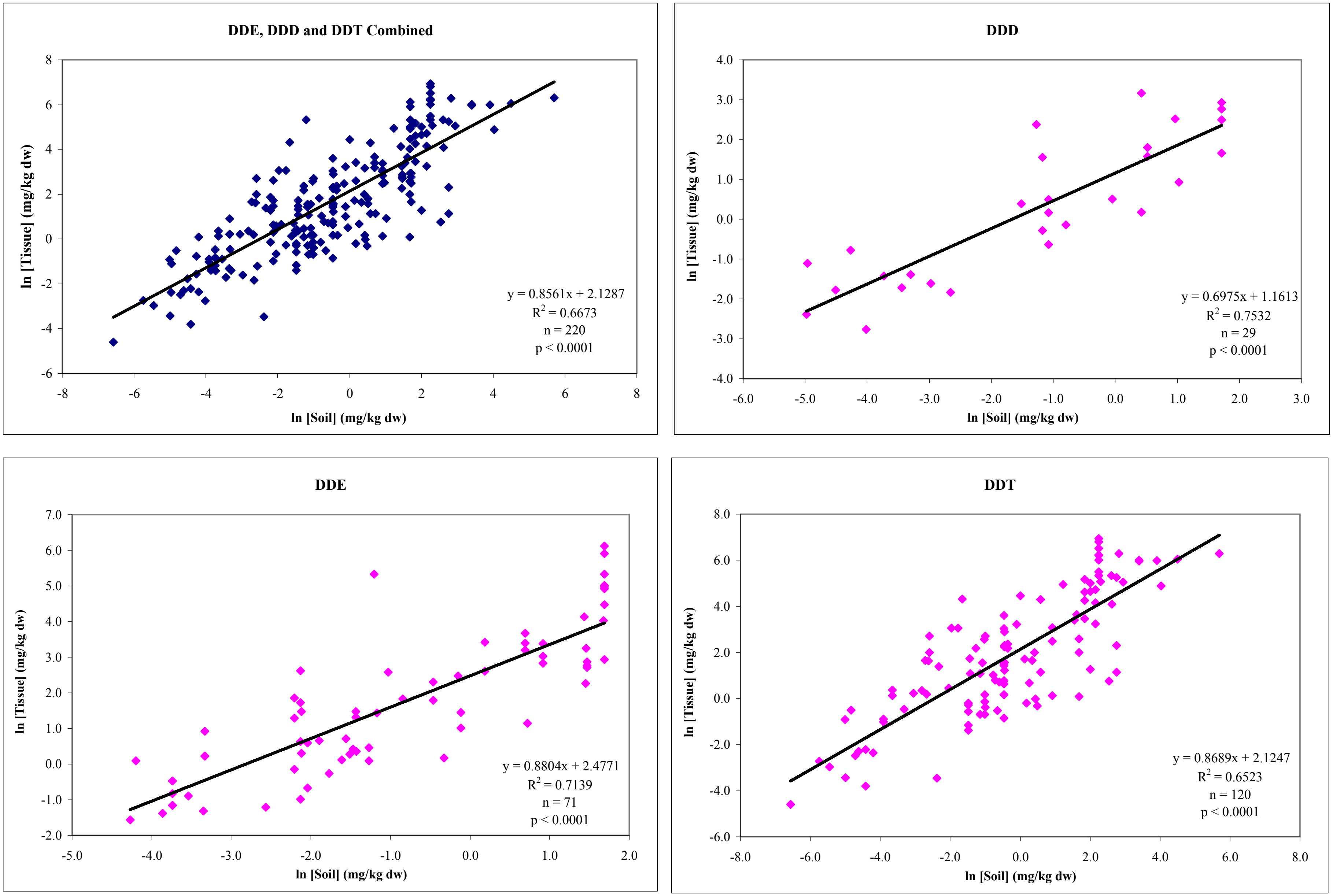


Figure 5. Log K_{ow} versus Log BAF for Non-Ionic Organics in Unrinsed (Panel A) and Rinsed (Panel B) Plant Foliage



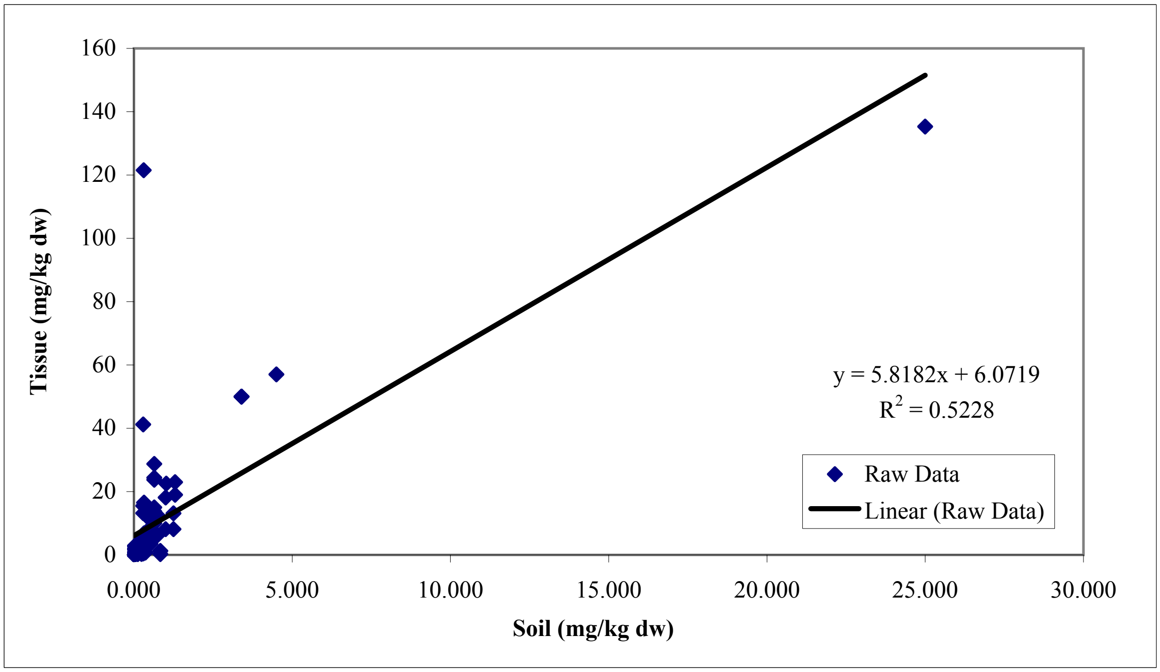
* Includes data for studies where rinsed status was not reported. Raw data provided in Appendix B.

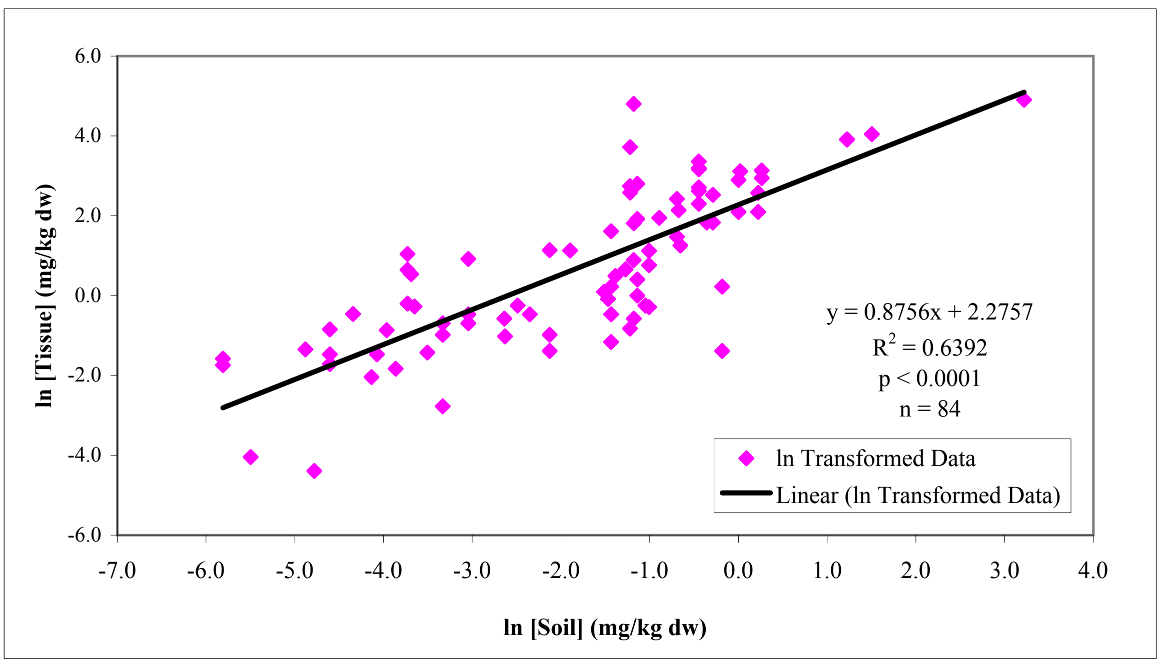
Figure 6
Uptake of DDT, DDD and DDE from Soil by Soil Invertebrates



Raw data provided in Appendix D.

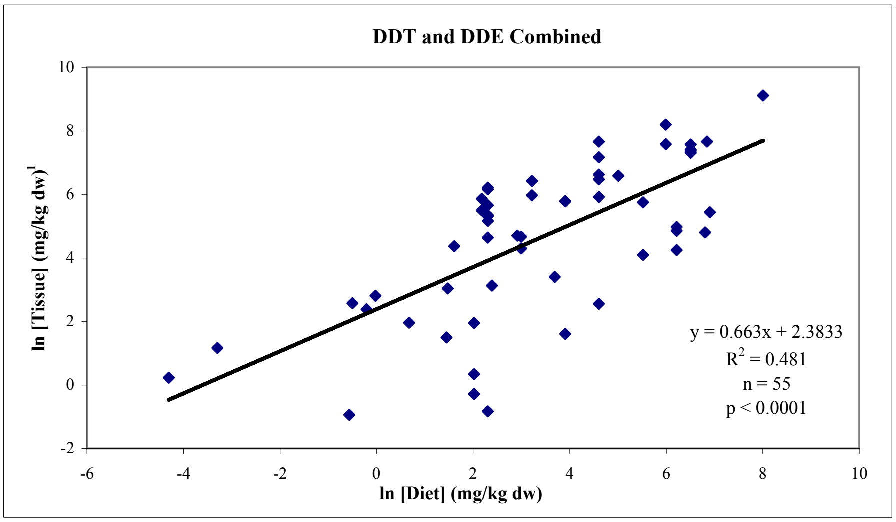
Figure 7
Uptake of Dieldrin from Soil by Soil Invertebrates

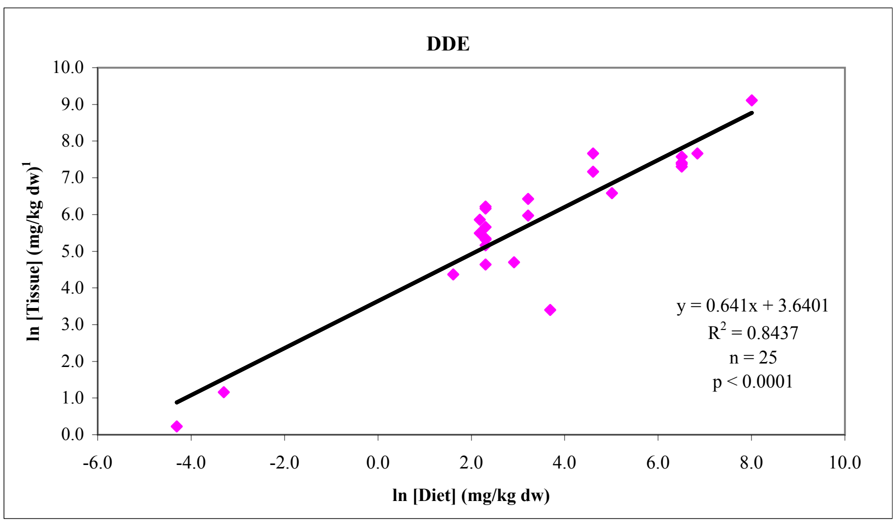


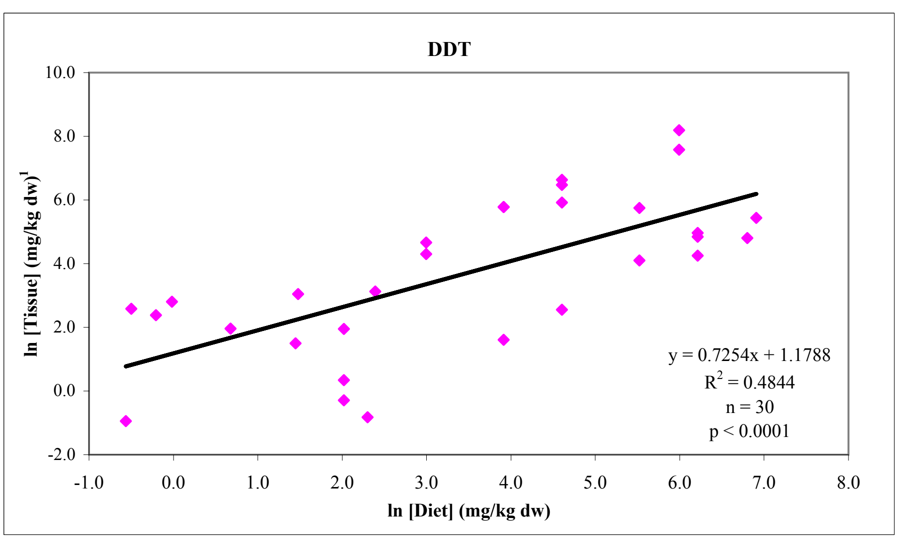


Raw data provided in Appendix E.

Figure 8
Concentration of DDT, and DDT in Diet versus
Mammal and Bird Whole Body or CarcassTissue

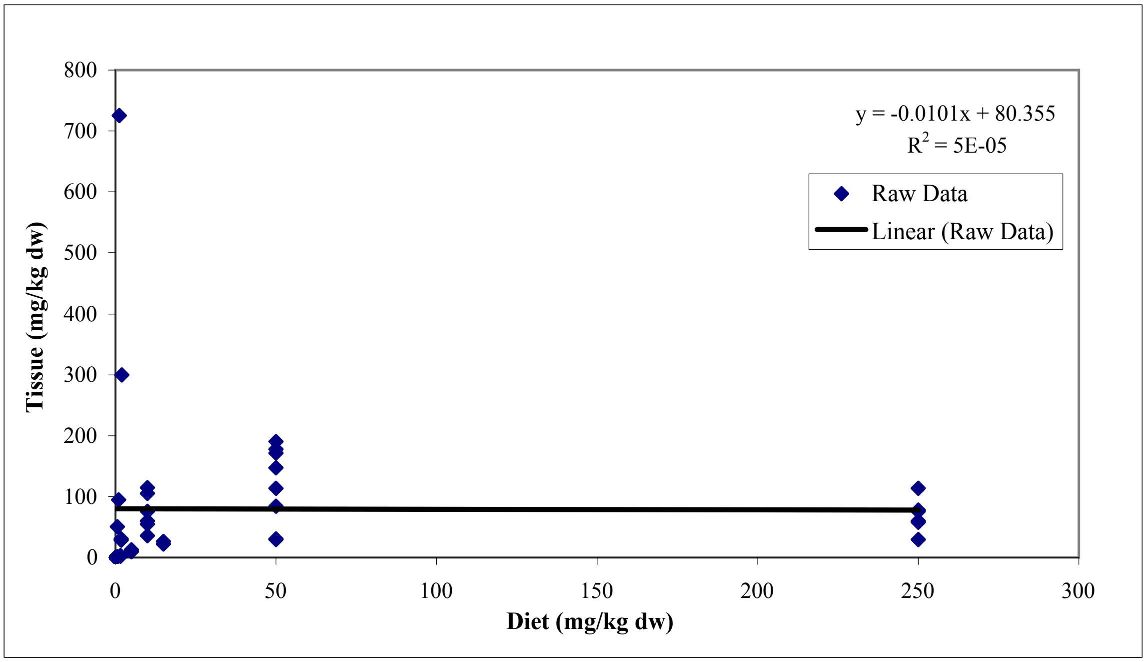


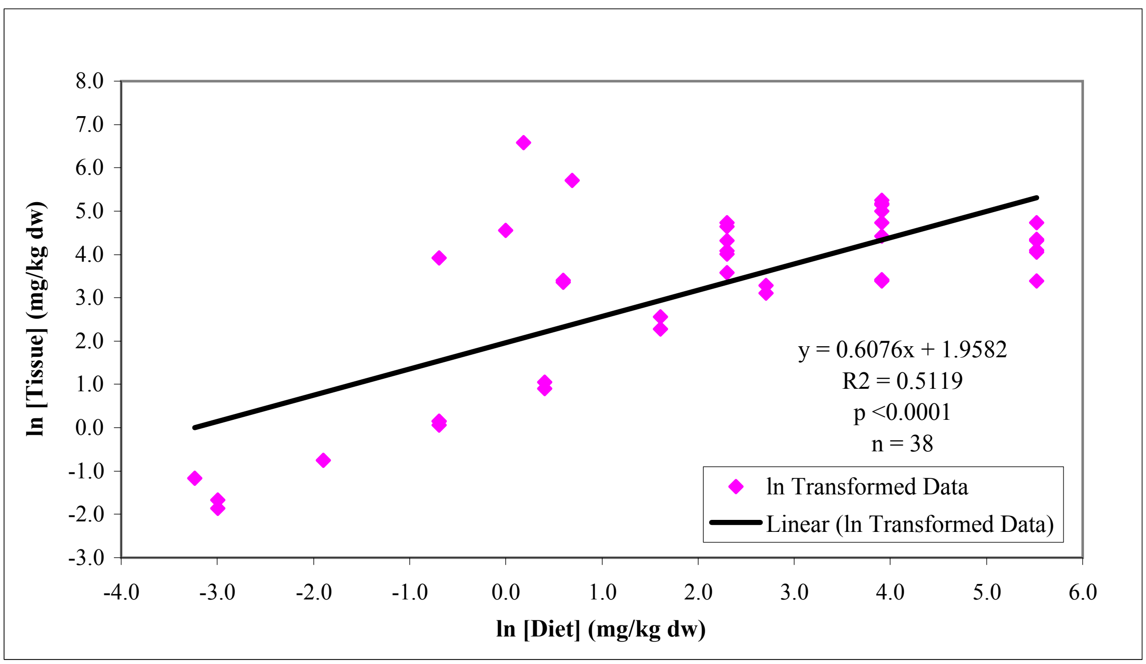




[1] Tissue type is either whole body or carcass. Raw data is provided in Appendix D.

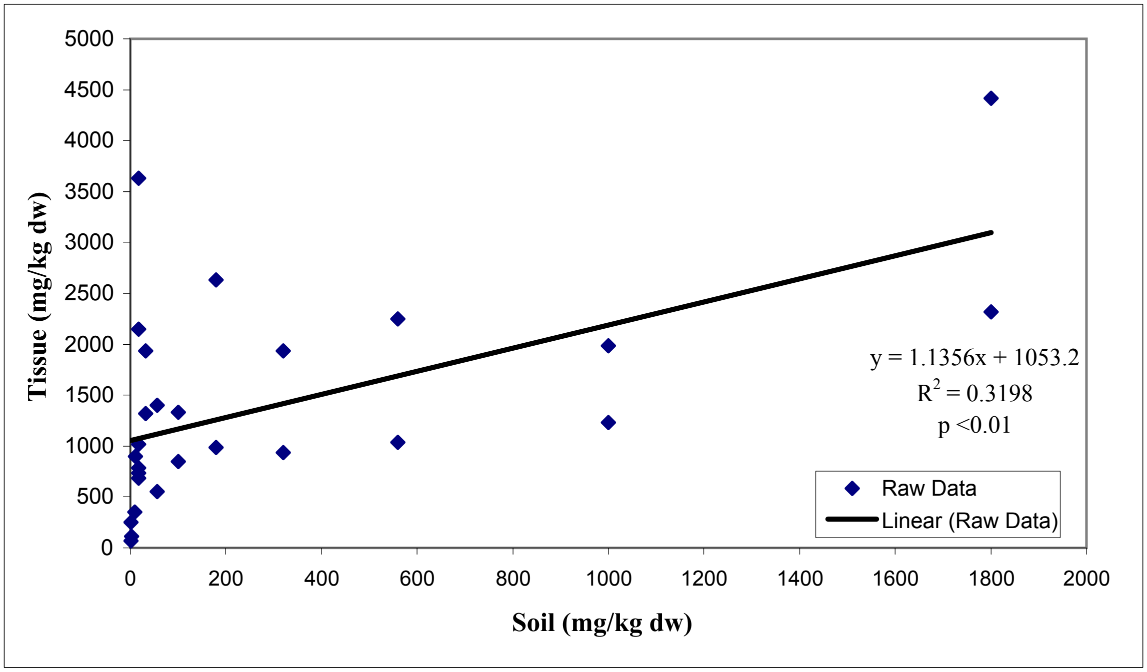
Figure 9
Concentration of Dieldrin in Diet versus
Mammal or Bird Whole Body or Carcass Tissue

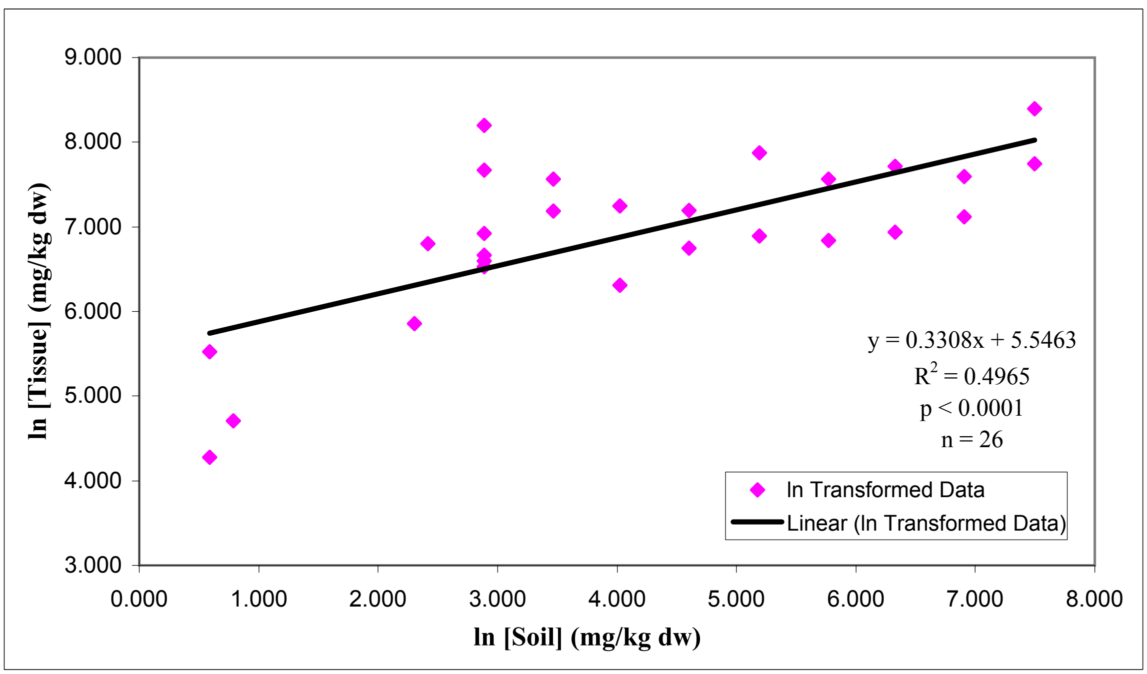




Raw data provided in Appendix E.

Figure 10
Uptake of Pentachlorophenol (PCP) from Soil by Soil Invertebrates





Raw Data Provided in Appendix F.

Eco-SSL Attachment 4-1
Tables

February 2005
Revised April 2007

This page intentionally left blank

Table 1. Food Intake Data for Surrogate Species

Surrogate Species	Source	Raw Data Food Ingestion Rate (FIR) (g/g bw/day)						% Moisture		Food Intake Rate (g dw/g bw/d)		Comments	High End Point Est (e)
		Typical	N	SEM	Stdev	High end	Weight Basis	Value	Source	Mean	High end		(g dw/g bw/d)
Meadow Vole	Ognev (1950)	0.30 - 0.35	--	--	--	0.35	wet wt	85	reported in study	0.049	0.053 b	low and high ends of a range (cited in Johnson & Johnson 1982)	0.0875
	Dark et al. (1983)	0.095	9	0.002	0.006 a	--	dry wt	--		0.095	0.103 c	14 hr/day	
	Dark et al. (1983)	0.085	12	0.005	0.017 a	--	dry wt	--		0.085	0.107 c	10 hr/day	
Short-tailed Shrew	Morrison et al. (1957)	0.62	7	--	--	--	wet wt	80	assumed	0.124	0.155 d	fed beef liver; mean for adult M&F at 25^{o}C	0.209
	Morrison et al. (1957)	0.77	7	--	--	--	wet wt	80	assumed	0.154	0.193 d	fed beef liver; mean for adult M&F at 5^{o}C	
	Morrison et al. (1957)	0.96	7	--	--	--	wet wt	68	WEFH, mice	0.307	0.384 d	fed newborn rats; mean for adult M&F at 25^{o}C	
	Richarson (1973)	0.54	10	--	--	--	wet wt	68	assumed	0.173	0.216 d	food type not described; mean	
	Barrett and Stuek (1976)	0.49	4	--	0.073	--	wet wt	84	WEFH, earthworm	0.078	0.098 c	mealworm diet; FIR calculated as IR/BW; each assumed normal, mean and stdev reported. Stdev FIR estimated by Monte Carlo assuming R=0.8 (professional judgement)	
Long-tailed Weasel	Quick (1951)	0.40	3	--	--	--	wet wt	68	WEFH, mice	0.128	0.160 d	calculated based on 4 mice/day @ 30g/mice and bw = 300 g	0.130
	Brown and Lasiewski (1972)	0.08	--	--	--	--	wet wt	68	WEFH, mice	0.026	0.032 d	calculated from caloric requirements and assumed diet	
	Fagerstone (1987)	0.17 - 0.33	--	--	--	0.7	wet wt	68	WEFH, mice	0.080	0.224 b		
	Sanderson (1949)	0.18 - 0.24	7	--	--	0.4	wet wt	74	assumed	0.05	0.104 b	captive animals	
Mourning Dove	Hanson and Kossack (1957a)	0.14	--	--	--	--	wet wt	9.3	WEFH, seeds	0.128	0.161 d	based on 17 g/day and body weight = 120 g	0.190
	Taber (1928)	0.16	22	--	--	0.241	wet wt	9.3	WEFH, seeds	0.146	0.219 b		
Red-Tailed Hawk	Craighead & Craighead (1956)	0.112	1	--	--	--	wet wt	68	WEFH, mice	0.036	0.045 d	mean for adult female hawk across 68 days (winter)	0.0353
	Craighead & Craighead (1956)	0.102	1	--	--	--	wet wt	68	WEFH, mice	0.033	0.041 d	mean for adult male hawk across 106 days (winter)	
	Craighead & Craighead (1956)	0.086	1	--	--	--	wet wt	68	WEFH, mice	0.028	0.034 d	mean for adult male hawk across 29 days (summer)	
	Duke et al. (1976)	0.013	6	--	0.007	--	dry wt	--		0.013	0.021 c	fed at 0900 hrs for 94 days	
	Duke et al. (1976)	0.021	6	--	0.009	--	dry wt	--		0.021	0.032 c	fed at 1100 hrs for 78 days	
	Duke et al. (1976)	0.055	--	--	--	--	wet wt	68	WEFH, mice			adult mean, value could not be corroborated	
American Woodcock	Sheldon (1967)	1.0	--	--	--	--	wet wt	84	WEFH, earthworm	0.160	0.200 d	mean for adult M&F (summer)	0.214
	Stickel et al. (1965)	0.77	23	--	--	1.43	wet wt	84	WEFH, earthworm	0.123	0.229 b	mean for treated M&F in heptachlor dosing study (winter)	

SEM = Standard Error on Mean
Stdev = Standard Deviation
WEFH = Wildlife Exposure Factors Handbook (USEPA, 1993)

(a) Calculated as SEM * SQRT(N)
(b) Reported
(c) Calculated as Typical + 1.282 * Stdev (estimated to be the 90th percentile assuming a normal distribution)
(d) High end assumed (estimated as Typical * 1.25)
(e) High end point estimate based on arithmetic mean of alternate high end values

Table 2. Input Parameters for the Estimation of Soil Ingestion Rate

Parameter	Variable	Assumed Distribution	vole	shrew	weasel[1]	dove[2]	hawk[1]	woodcock	Source Notes
digestibility of food	**a**	Normal(mean,std)	mean=0.76 std=0.076	mean[3]=0.82 std[3]=0.048	mean=0.84 std=0.065	mean=0.59 std=0.13	mean=0.78 std=0.052	mean=0.72 std=0.051	Mean and stdev digestibility values taken from USEPA (1993) (Table 4-3) unless noted.
concentration of acid-insoluble ash in food	**b**	Uniform(min,max)	min=0 max=0.02	min=0 max=0.02	min=0 max=0.02	min=0 max=0.02	min=0 max=0.02	min=0 max=0.02	Assumed; based on Beyer et al. (1994)
concentration of acid-insoluble ash in soil	**c**	Uniform(min,max)	min=0.9 max=1.0	min=0.9 max=1.0	min=0.9 max=1.0	min=0.9 max=1.0	min=0.9 max=1.0	min=0.9 max=1.0	Assumed; based on Beyer et al. (1994)
concentration of acid-insoluble ash in scat	**y**	Normal(mean,std)	mean = 0.089 std = 0.032	mean[4] = 0.104 std[5] = 0.052	mean = 0.14 std = 0.069	mean = 0.16 std = 0.087	mean = 0.14 std = 0.069	mean = 0.22 std = 0.146	Mean and stdev are measured values from Beyer et al. (1994) unless noted.

[1] Soil ingestion data assumed to be comparable to the red fox reported in Beyer et al. (1994).

[2] Soil ingestion data assumed to be comparable to the wild turkey reported in Beyer et al. (1994).

[3] Provided by Randolph (1973).

[4] Acid insoluble ash in GI tracts of shrews from unpublished data provided by C. Garten, Oak Ridge National Laboratory.

[5] Standard deviation estimated using an assumed coefficient of variation (CV) of 50% (selected based on the average CV of 51% across all other receptors).

Table 3. Estimated Distribution of P_S Values

Statistic	vole	shrew	weasel	dove	hawk	woodcock
Mean	1.3%	1.1%	1.6%	6.8%	2.6%	7.5%
Stdev	1.4%	1.5%	2.1%	5.3%	2.3%	6.9%
5th Percentile	-0.8%	-1.1%	-1.2%	-0.6%	-0.7%	-1.6%
10th Percentile	-0.4%	-0.7%	-0.8%	0.6%	-0.1%	-0.2%
15th Percentile	-0.1%	-0.4%	-0.4%	1.5%	0.3%	0.9%
20th Percentile	0.1%	-0.2%	-0.1%	2.2%	0.6%	1.9%
25th Percentile	0.3%	0.0%	0.1%	2.9%	1.0%	2.7%
30th Percentile	0.5%	0.2%	0.4%	3.6%	1.3%	3.4%
35th Percentile	0.7%	0.4%	0.6%	4.2%	1.5%	4.2%
40th Percentile	0.9%	0.6%	0.8%	4.8%	1.8%	4.9%
45th Percentile	1.0%	0.8%	1.1%	5.5%	2.1%	5.7%
50th Percentile	1.2%	0.9%	1.3%	6.1%	2.4%	6.4%
55th Percentile	1.4%	1.1%	1.5%	6.7%	2.6%	7.2%
60th Percentile	1.6%	1.3%	1.8%	7.4%	2.9%	8.1%
65th Percentile	1.7%	1.5%	2.1%	8.2%	3.3%	9.0%
70th Percentile	1.9%	1.7%	2.4%	9.0%	3.6%	10.0%
75th Percentile	2.2%	2.0%	2.7%	9.9%	4.0%	11.2%
80th Percentile	2.4%	2.3%	3.2%	11.0%	4.5%	12.5%
85th Percentile	2.7%	2.6%	3.7%	12.3%	5.0%	14.2%
90th Percentile	3.2%	3.0%	4.3%	13.9%	5.7%	16.4%
95th Percentile	3.8%	3.7%	5.4%	16.6%	6.9%	20.1%

Results based on Monte Carlo simulation with 100,000 iterations.

Table 4a. Uptake Equations for Inorganics

Analyte	Soil to Plants		Soil to Earthworms		Soil to Small Mammals	
	Equation	Source	Equation	Source	Equation	Source
Antimony	$\ln(C_p) = 0.938 * \ln(C_s) - 3.233$	a	$C_e = C_s$	g	$C_m = 0.001 * 50 * C_d$	f
Arsenic	$C_p = 0.03752 * C_s$	b	$\ln(C_e) = 0.706 * \ln(C_s) - 1.421$	e	$\ln(C_m) = 0.8188 * \ln(C_s) - 4.8471$	d
Barium	$C_p = 0.156 * C_s$	b	$C_e = 0.091 * C_s$	c	$C_m = 0.00015 * 50 * C_d$	f
Beryllium	$\ln(C_p) = 0.7345 * \ln(C_s) - 0.5361$	h	$C_e = 0.045 * C_s$	c	$C_m = 0.001 * 50 * C_d$	f
Cadmium	$\ln(C_p) = 0.546 * \ln(C_s) - 0.475$	b	$\ln(C_e) = 0.795 * \ln(C_s) + 2.114$	e	$\ln(C_m) = 0.4723 * \ln(C_s) - 1.2571$	d
Chromium	$C_p = 0.041 * C_s$	b	$C_e = 0.306 * C_s$	e	$\ln(C_m) = 0.7338 * \ln(C_s) - 1.4599$	d
Cobalt	$C_p = 0.0075 * C_s$	b	$C_e = 0.122 * C_s$	c	$\ln(C_m) = 1.307 * \ln(C_s) - 4.4669$	d
Copper	$\ln(C_p) = 0.394 * \ln(C_s) + 0.668$	b	$C_e = 0.515 * C_s$	e	$\ln(C_m) = 0.1444 * \ln(C_s) + 2.042$	d
Lead	$\ln(C_p) = 0.561 * \ln(C_s) - 1.328$	b	$\ln(C_e) = 0.807 * \ln(C_s) - 0.218$	e	$\ln(C_m) = 0.4422 * \ln(C_s) + 0.0761$	d
Manganese	$C_p = 0.079 * C_s$	b	$\ln(C_e) = 0.682 * \ln(C_s) - 0.809$	e	$C_m = 0.0205 * C_s$	d
Nickel	$\ln(C_p) = 0.748 * \ln(C_s) - 2.223$	b	Not available	i	$\ln(C_m) = 0.4658 * \ln(C_s) - 0.2462$	d
Selenium	$\ln(C_p) = 1.104 * \ln(C_s) - 0.677$	b	$\ln(C_e) = 0.733 * \ln(C_s) - 0.075$	e	$\ln(C_m) = 0.3764 * \ln(C_s) - 0.4158$	d
Silver	$C_p = 0.014 * C_s$	b	$C_e = 2.045 * C_s$	c	$C_m = 0.004 * C_s$	d
Vanadium	$C_p = 0.00485 * C_s$	b	$C_e = 0.042 * C_s$	c	$C_m = 0.0123 * C_s$	d
Zinc	$\ln(C_p) = 0.554 * \ln(C_s) + 1.575$	b	$\ln(C_e) = 0.328 * \ln(C_s) + 4.449$	e	$\ln(C_m) = 0.0706 * \ln(C_s) + 4.3632$	d

Source:
a. Regression derived from measured data [Appendix A]
b. Bechtel-Jacobs 1998
c. Sample et al. 1998b
d. Sample et al. 1998a
e. Sample et al. 1999
f. Baes et al. 1984
g. Assumed
h. Regression derived from measured data [Appendix A].
i. A reliable uptake equation could not be identified (see text)

Abbreviations:
C_s = Concentration in soil (mg/kg)
C_p = Concentration in plant tissue (mg/kg dry weight)
C_e = Concentration in earthworm (mg/kg dry weight)
C_m = Concentration in small mammal tissue (mg/kg dry weight)
C_d = Concentration in diet (mg/kg dry weight)
where small mammal diet is assumed to be 100% earthworms

Table 4b. Uptake Equations for Non-Ionic Organics

Chemical	Soil to Plants Equation	Soil to Plants Source	Soil to Earthworms Equation	Soil to Earthworms Source	Soil to Small Mammals Equation	Soil to Small Mammals Source
Non-PAHs						
Dieldrin	$C_p = 0.41 * C_s$	a	$C_e = 14.7 * C_s$	h	$C_m = 1.2 * C_d$	h
DDT, DDD and DDE Combined	$\ln(C_p) = 0.7524 * \ln(C_s) - 2.5119$	b	$C_e = 11.2 * C_s$	h	$C_m = 4.83 * C_d$	h
DDT	*Not Available*		$\ln(C_e) = 0.8689 * \ln(C_s) + 2.1247$	b	$\ln(C_m) = 0.7254 * \ln(C_d) + 1.1788$	b
DDD	*Not Available*		$\ln(C_e) = 0.6975 * \ln(C_s) + 1.1613$	b	*Not Available*	
DDE	*Not Available*		$\ln(C_e) = 0.8804 * \ln(C_s) + 2.4771$	b	$\ln(C_m) = 0.641 * \ln(C_d) + 3.6401$	b
TNT	$C_p = 4.23 * C_s$	c	*Not Available*		$C_m = 0$	f
RDX	$C_p = 0.43 * C_s$	c	*Not Available*		$C_m = 0$	f
Low Molecular Weight (LMW) PAHs						
Total LMW PAHs	$\ln(C_p) = 0.4544 * \ln(C_s) - 1.3205$	d	$C_e = 3.04 * C_s$	i	$C_m = 0$	f
Acenaphthene	$\ln(C_p) = -0.8556 * \ln(C_s) - 5.562$	d	$C_e = 1.47 * C_s$	e	$C_m = 0$	f
Acenaphthylene	$\ln(C_p) = 0.791 * \ln(C_s) -1.144$	g	$C_e = 22.9 * C_s$	e	$C_m = 0$	f
Anthracene	$\ln(C_p) = 0.7784 * \ln(C_s) - 0.9887$	d	$C_e = 2.42 * C_s$	e	$C_m = 0$	f
Fluoranthene	$C_p = 0.50 * C_s$	c	$C_e = 3.04 * C_s$	e	$C_m = 0$	f
Fluorene	$\ln(C_p) = -0.8556 * \ln(C_s) - 5.562$	d	$C_e = 9.57 * C_s$	e	$C_m = 0$	f
Naphthalene	$C_p = 12.2 * C_s$	c	$C_e = 4.40 * C_s$	e	$C_m = 0$	f
Phenanthrene	$\ln(C_p) = 0.6203 * \ln(C_s) - 0.1665$	d	$C_e = 1.72 * C_s$	e	$C_m = 0$	f
High Molecular Weight (HMW) PAHs						
Total HMW PAHs	$\ln(C_p) = 0.9469 * \ln(C_s) - 1.7026$	d	$C_e = 2.6 * C_s$	i	$C_m = 0$	f
Benzo(a)anthracene	$\ln(C_p) = 0.5944 * \ln(C_s) - 2.7078$	d	$C_e = 1.59 * C_s$	e	$C_m = 0$	f
Benzo(a)pyrene	$\ln(C_p) = 0.9750 * \ln(C_s) - 2.0615$	d	$C_e = 1.33 * C_s$	e	$C_m = 0$	f
Benzo(b)fluoranthene	$C_p = 0.310 * C_s$	c	$C_e = 2.60 * C_s$	e	$C_m = 0$	f
Benzo(e)pyrene	$C_p = 0.19 * C_s$	c	$C_e = 2.76 * C_s$	e	$C_m = 0$	f
Benzo(ghi)perylene	$\ln(C_p) = 1.1829 * \ln(C_s) - 0.9313$	d	$C_e = 2.94 * C_s$	e	$C_m = 0$	f
Benzo(k)fluoranthene	$\ln(C_p) = 0.8595 * \ln(C_s) - 2.1579$	d	$C_e = 2.60 * C_s$	e	$C_m = 0$	f
Chrysene	$\ln(C_p) = 0.5944 * \ln(C_s) - 2.7078$	d	$C_e = 2.29 * C_s$	e	$C_m = 0$	f
Coronene	$C_p = 0.68 * C_s$	c	$C_e = 3.72 * C_s$	e	$C_m = 0$	f
Dibenz(ah)anthracene	$C_p = 0.13 * C_s$	c	$C_e = 2.31 * C_s$	e	$C_m = 0$	f
Indeno(123 cd)pyrene	$C_p = 0.11 * C_s$	c	$C_e = 2.86 * C_s$	e	$C_m = 0$	f
Pyrene	$C_p = 0.72 * C_s$	c	$C_e = 1.75 * C_s$	e	$C_m = 0$	f

Source:

a. Regression derived from measured data [Appendix E].

b. Regression derived from measured data [Appendix D].

c. Median BAF calculated from measured data [Appendix C].

d. Regression derived from measured data [Appendix C or Figure 4.

e. Modeled from K_{ow} based on Jager (1998) [Table 5].

f. Assumed to be negligible

g. Modeled using the rinsed PAH-specific equation [Figure 3]

h. Regression derived from measured data was significant but backcalculation of Eco-SSLs using the regression(s) resulted in a soil concentration lower than those used to derive the regression(s). Median BAF then used. The regressions are provided in Figures 6, 7, 8 and 9.

i. Median of values estimated for either HMW or LMW PAHs in Table 5.

Abbreviations:

C_s = Concentration in soil (mg/kg)

C_p = Concentration in plant tissue (mg/kg dry weight)

C_e = Concentration in earthworm (mg/kg dry weight)

C_m = Concentration in small mammal or bird tissue (mg/kg dry weight)

C_d = Concentration in diet (mg/kg dw) where diet is assumed to be 100% earthworms.

Table 4c. Uptake Equations for Pentachlorophenol (PCP)

Chemical	Soil to Plants		Soil to Earthworms		Soil to Small Mammals	
	Equation	Source	Equation	Source	Equation	Source
Pentachlorophenol	$C_p = 5.93 * C_s$	a	$C_e = 14.63 * C_s$	b	$C_m = 0.00452 * C_d + 0.198$	c

Source:

a. Median BAF calculated from measured data in Appendix F.

b. Regression derived from measured data was significant but backcalculation of Eco-SSLs using the regression resulted in a soil concentration lower than those used to derive the regression. Median BAF then used. The regressions is provided in Figure 10.

c. Based on uptake from diet into chicken (Stedman et al. 1980).

Abbreviations:

C_s = Concentration in soil (mg/kg)

C_p = Concentration in plant tissue (mg/kg dry weight)

C_e = Concentration in earthworm (mg/kg dry weight)

C_m = Concentration in small mammal tissue (mg/kg dry weight)

C_d = Concentration in diet (mg/kg dry weight)
where small mammal diet is assumed to be 100% earthworms

Table 5. Estimation of Soil to Earthworm Bioaccumulation Factors for Non-Ionic Organic Contaminants.

Chemical	K_{ow}: octanol to water partitioning coefficient			K_{ww}: worm to soil water partitioning coefficient			K_{oc}: water to soil organic carbon partitioning coefficient					K_d: soil to water partitioning coefficient	Soil to Earthworm BAF[5]
	log K_{ow}	K_{ow}	Source	log K_{ww}[1]	K_{ww} (L/kg worm ww)	K_{ww}[2] (L/kg worm dw)	slope	intercept	log K_{oc}	K_{oc}[3]	Source	K_d[4] (L/kg soil dw)	
Low Molecular Weight (LMW) Polynuclear Aromatic Hydrocarbons (PAHs)													
Benzo(a)anthracene	5.7	5.01E+05	EPA 1996	2.96	9.10E+02	5.69E+03			5.55	3.58E+05	EPA 1996	3.58E+03	1.59
Benzo(a)pyrene	6.11	1.29E+06	EPA 1996	3.32	2.07E+03	1.29E+04			5.99	9.69E+05	EPA 1996	9.69E+03	1.33
Benzo(b)fluoranthene	6.2	1.58E+06	EPA 1996	3.39	2.48E+03	1.55E+04	0.762	1.051	5.78	5.96E+05	estimated (a)	5.96E+03	2.60
Benzo(e)pyrene	6.44	2.75E+06	SRC, PP	3.60	4.01E+03	2.50E+04	0.762	1.051	5.96	9.08E+05	estimated (a)	9.08E+03	2.76
Benzo(ghi)perylene	6.7	5.01E+06	EPA 1995	3.83	6.75E+03	4.22E+04	0.762	1.051	6.16	1.43E+06	estimated (a)	1.43E+04	2.94
Benzo(k)fluoranthene	6.2	1.58E+06	EPA 1996	3.39	2.48E+03	1.55E+04	0.762	1.051	5.78	5.96E+05	estimated (a)	5.96E+03	2.60
Chrysene	5.7	5.01E+05	EPA 1996	2.96	9.10E+02	5.69E+03	0.762	1.051	5.39	2.48E+05	estimated (a)	2.48E+03	2.29
Coronene	7.64	4.37E+07	SRC, PP	4.65	4.43E+04	2.77E+05	0.762	1.051	6.87	7.46E+06	estimated (a)	7.46E+04	3.72
Dibenzo(ah)anthracene	6.69	4.90E+06	EPA 1996	3.82	6.61E+03	4.13E+04			6.25	1.79E+06	EPA 1996	1.79E+04	2.31
Indeno(123 cd)pyrene	6.584	3.84E+06	SRC, PP	3.73	5.35E+03	3.34E+04	0.762	1.051	6.07	1.17E+06	estimated (a)	1.17E+04	2.86
Pyrene	4.88	7.59E+04	SRC, PP	2.25	1.76E+02	1.10E+03			4.80	6.27E+04	SRC, CF	6.27E+02	1.75
High Molecular Weight (HMW) Polynuclear Aromatic Hydrocarbons (PAHs)													
Acenaphthene	3.92	8.32E+03	EPA 1996	1.41	2.57E+01	1.61E+02	0.762	1.051	4.04	1.09E+04	estimated (a)	1.09E+02	1.47
Acenaphthylene	4.07	1.17E+04	SRC, PP	1.54	3.47E+01	2.17E+02			2.98	9.47E+02	SRC, CF	9.47E+00	22.9
Anthracene	4.55	3.55E+04	EPA 1996	1.96	9.09E+01	5.68E+02			4.37	2.35E+04	EPA 1996	2.35E+02	2.42
Fluoranthene	4.95	8.91E+04	SRC, PP	2.31	2.03E+02	1.27E+03			4.62	4.17E+04	SRC, CF	4.17E+02	3.04
Fluorene	4.18	1.51E+04	SRC, PP	1.64	4.33E+01	2.71E+02			3.45	2.83E+03	SRC, CF	2.83E+01	9.57
Naphthalene	3.36	2.29E+03	EPA 1996	0.92	8.38E+00	5.24E+01			3.08	1.19E+03	EPA 1996	1.19E+01	4.40
Phenanthrene	4.55	3.55E+04	EPA 1995	1.96	9.09E+01	5.68E+02	0.762	1.051	4.52	3.30E+04	estimated (a)	3.30E+02	1.72

[1] $\log K_{ww} = 0.87 * \log K_{ow} - 2.0$ [model from Jager, 1998]

[2] Converted from wet weight to dry weight assuming 16% solids (Jager, 1998)

[3] Measured K_{oc} values from SRC Chem Fate Database or EPA, 1996 ($n > 2$).
If no measured K_{oc} values available, values modeled based on chemical class-specific models from Gerstl (1990).
where: $\log K_{oc} = slope * \log K_{ow} + intercept$
(a) slope and intercept for PAHs

[4] $K_d = f_{oc} * K_{oc}$ (assumes an f_{oc} of 1% [0.01])

[5] BAF = K_{ww} (L/kg worm dw) / K_d (L/kg soil dw)

Source Citations:

EPA (1995) = Internal report on summary of measured, calculated, and recommended Log Kow values. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 38 pp.
EPA (1996) = Soil Screening Guidance: Technical Background Document. EPA/540/R-95/128
SRC, PP = Syracuse Research Corp. Physical Properties Database. http://esc.syrres.com/interkow/PhysProp.htm
SRC, CF = Syracuse Research Corp. Chem Fate Database. http://www.syrres.com/esc/chemfate.htm

This page intentionally left blank

Eco-SSL Attachment 4-1
Appendix A
Bioaccumulation Data for Antimony and Beryllium in Plants

February 2005
April 2007

This page intentionally left blank

Appendix A-1. Summary of Bioaccumulation Data for Uptake of Antimony from Soil into Plant Foliage

Soil Conc, (mg/kg dw)	ln(Soil)	Soil pH	Species	Tissue type	Plant Conc. (mg/kg dw)	ln(Tissue)	Reference
4.4	1.5	6.6	*Ambrosia artemisiifolia*	stem/leaf	0.04	-3.2	PTI 1995
4.4	1.5	6.6	*Bidens polylepsis*	stem/leaf	0.05	-3.0	PTI 1995
27.74	3.3	.	*Achillea ageratum*	leaves	6.09	1.8	Baroni et al. 2000
202.8	5.3	.	*Achillea ageratum*	leaves	8.75	2.2	Baroni et al. 2000
15112.94	9.6	.	*Achillea ageratum*	leaves	121.35	4.8	Baroni et al. 2000
4317.21	8.4	.	*Achillea ageratum*	leaves	74.27	4.3	Baroni et al. 2000
9197.5	9.1	.	*Achillea ageratum*	leaves	1367.29	7.2	Baroni et al. 2000
7364.27	8.9	.	*Achillea ageratum*	leaves	329.51	5.8	Baroni et al. 2000
202.8	5.3	.	*Plantago lanceolata*	leaves	28.45	3.3	Baroni et al. 2000
15112.94	9.6	.	*Plantago lanceolata*	leaves	53.64	4.0	Baroni et al. 2000
4317.21	8.4	.	*Plantago lanceolata*	leaves	33.58	3.5	Baroni et al. 2000
9197.5	9.1	.	*Plantago lanceolata*	leaves	569.34	6.3	Baroni et al. 2000
7364.27	8.9	.	*Plantago lanceolata*	leaves	274.63	5.6	Baroni et al. 2000
15112.94	9.6	.	*Silene vulgaris*	leaves	51.77	3.9	Baroni et al. 2000
4317.21	8.4	.	*Silene vulgaris*	leaves	19.45	3.0	Baroni et al. 2000
9197.5	9.1	.	*Silene vulgaris*	leaves	853.75	6.7	Baroni et al. 2000
7364.27	8.9	.	*Silene vulgaris*	leaves	349.62	5.9	Baroni et al. 2000

ln(tissue) = slope * ln(soil) + intercept

slope	0.938
intercept	-3.233
R^2	0.795
p value	1.57E-06

Appendix A-2 Bioaccumulation Data for Uptake of Beryllium from Soil into Plant Foliage

Species Information	Exposure		Plant Tissue Information										Soil Information						BAF		
Common Name (Genus/Species)	**Field (F)/ Lab (L)**	**Duration**	**Tissue Type**	**Reported Tissue Conc.**	**Reported Tissue Conc. Units**	**Wet weight or Dry Weight?[1]**	**% Moisture Tissue[2]**	**Conversion Factor to mg/kg dw**	**Tissue Conc. (mg/kg dw)**	**ln (Tissue Conc. mg/kg dw)**	**Rinsed?**	**Reported Soil Conc.**	**Reported Soil Conc. Units**	**Wet Weight or Dry Weight?**	**% Moisture Soil[3]**	**Conversion Factor to mg/kg dw**	**Soil Conc. (mg/kg dw)**	**ln (Soil Conc. mg/kg dw)**	**R/C**	**BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))**	**Reference**
Soybean (*Glycine max*)	L	60 d	Foliage	1.25	mg/kg	dw	NR	1	1.25	0.22	NR	25	mg/kg	NR	NR	1	25	3.219	C	0.050	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	3.75	mg/kg	dw	NR	1	3.75	1.32	NR	50	mg/kg	NR	NR	1	50	3.912	C	0.075	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	12.5	mg/kg	dw	NR	1	12.5	2.53	NR	100	mg/kg	NR	NR	1	100	4.605	C	0.125	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	30	mg/kg	dw	NR	1	30	3.40	NR	150	mg/kg	NR	NR	1	150	5.011	C	0.200	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	15.75	mg/kg	dw	NR	1	15.75	2.76	NR	25	mg/kg	NR	NR	1	25	3.219	C	0.630	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	25	mg/kg	dw	NR	1	25	3.22	NR	50	mg/kg	NR	NR	1	50	3.912	C	0.500	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	53.5	mg/kg	dw	NR	1	53.5	3.98	NR	100	mg/kg	NR	NR	1	100	4.605	C	0.535	Sajwan et al., 1996
Soybean (*Glycine max*)	L	60 d	Foliage	54.5	mg/kg	dw	NR	1	54.5	4.00	NR	150	mg/kg	NR	NR	1	150	5.011	C	0.363	Sajwan et al., 1996
Collard (*Brassica oleracea*)	L	98 d	Foliage	5.5	mg/kg	dw	NR	1	5.5	1.70	NR	25	mg/kg	NR	NR	1	25	3.219	C	0.220	Kaplan et al., 1990
Collard (*Brassica oleracea*)	L	98 d	Foliage	10.1	mg/kg	dw	NR	1	10.1	2.31	NR	50	mg/kg	NR	NR	1	50	3.912	C	0.202	Kaplan et al., 1990
Collard (*Brassica oleracea*)	L	98 d	Foliage	31.9	mg/kg	dw	NR	1	31.9	3.46	NR	150	mg/kg	NR	NR	1	150	5.011	C	0.213	Kaplan et al., 1990
Collard (*Brassica oleracea*)	L	98 d	Foliage	62.5	mg/kg	dw	NR	1	62.5	4.14	NR	200	mg/kg	NR	NR	1	200	5.298	C	0.313	Kaplan et al., 1990
Grass	F	NR	Foliage	0.32	mg/kg	dw	NR	1	0.32	-1.14	NR	0.28	mg/kg	NR	NR	1	0.28	-1.273	C	1.143	Meehan and Smythe, 1967
Grass	F	NR	Foliage	0.26	mg/kg	dw	NR	1	0.26	-1.35	NR	0.16	mg/kg	NR	NR	1	0.16	-1.833	C	1.625	Meehan and Smythe, 1967
Oats (*Avena sativa*)	L	NR	Foliage	1	mg/kg	dw	NR	1	1	0.00	NR	30	mg/kg	NR	NR	1	30	3.401	C	0.033	Bohn and Seekamp, 1979
Oats (*Avena sativa*)	L	NR	Foliage	20	mg/kg	dw	NR	1	20	3.00	NR	100	mg/kg	NR	NR	1	100	4.605	C	0.200	Bohn and Seekamp, 1979
Oats (*Avena sativa*)	L	NR	Foliage	10	mg/kg	dw	NR	1	10	2.30	NR	100	mg/kg	NR	NR	1	100	4.605	C	0.100	Bohn and Seekamp, 1979
Oats (*Avena sativa*)	L	NR	Foliage	4	mg/kg	dw	NR	1	4	1.39	NR	30	mg/kg	NR	NR	1	30	3.401	C	0.133	Bohn and Seekamp, 1979

[1] If not reported, assumed to be wet weight (ww).
[2] If not reported, assumed to be 15% dry matter.
[3] If not reported, assumed to be dry weight (dw).

C = BAF calculated
d = day
dw = dry weight

NR = Not Reported
R = Reported
R/C = BAF reported and either tissue concentration or soil concentration calculated
ww = wet weight

ln(tissue) = slope * ln(soil) + intercept

slope	0.7345
intercept	-0.536
R^2	0.7344
p value	<0.0001

Appendix A Antimony and Beryllium References

Baroni F., A. Boscagli, G. Protano, and F. Riccobono. 2000. Antimony accumulation in *Achillea ageratum, Plantago lanceolata,* and *Silene vulgaris* growing in an old Sb-mining area. *Environ. Poll*. 109: 347-352.

Bohn, H. L. and Seekamp, G. 1979. Beryllium effects on potatoes and otas in acid soil. *Water and Soil Pollution* 11: 319.

Kaplan, D. I., K. S. Sajwan, D. C. Adriano, and S. Gettier. 1990. Phytoavailability and toxicity of beryllium and vanadium. *Water, Air and Soil Pollution*. 53: 203-212.

Meehan, W. R. and L. E. Smythe. 1967. Occurrence of beryllium as a trace element in environmental materials. *Environ. Science and Technology*. 1(10): 839-844.

PTI Environmental Services (PTI). 1995. National Zinc Site Remedial Investigation Feasibility Study. Volume IV. Ecological Risk Assessment -- Operable Unit 2. Prepared for City of Bartlesville, Oklahoma, Cyprus Amax Minerals Company, Salomon Inc.

Sajwan, K. S., W. H. Ornes, and T. V. Youngblood. 1996. Beryllium phytotoxicity to soybeans. *Water, Air and Soil Pollution.* 86: 117-124.

This Page Intentionally Left Blank

Eco-SSL Attachment 4-1
Appendix B
Bioaccumulation Data for Non-Ionic Organic Contaminants in Plants

February 2005
Revised April 2007

Appendix B
Bioaccumulation Data for Uptake of Non-Ionic Organic Chemicals from Soil into Plant Foliage

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Weber and Mrozek 1979	Aroclors	Aroclor 1254	11097691	6.5	SRC	NS	Fescue	52	day	field	potted plants in growth chambers, tr	Table 3	20	ppm	Not Stated dry assumed	none	20	able 3, 0 Carbc	0.034	ppm	wet weight	1	6.67	0.23	0.011	-1.95
Weber and Mrozek 1979	Aroclors	Aroclor 1254	11097691	6.5	SRC	NS	Soybean	16	day	field	potted plants in growth chambers, tr	Table 3	20	ppm	Not Stated dry assumed	none	20	able 3, 0 Carbc	0.0032	ppm	wet weight	1	6.67	0.02133	0.0011	-2.97
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Corn	1	season	field		Figure 1	0.26	mg/kg	dry weight	none	0.26	Figure 1	0.38	mg/kg	dry weight	1	1	0.38	1.5	0.16
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Corn	1	season	field		Figure 1	0.066	mg/kg	dry weight	none	0.0660	Figure 1	0.39	mg/kg	dry weight	1	1	0.39	5.9	0.77
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Corn	1	season	field		Figure 1	0.37	mg/kg	dry weight	none	0.37	Figure 1	0.58	mg/kg	dry weight	1	1	0.58	1.6	0.20
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Corn	1	season	field		Figure 1	1.2	mg/kg	dry weight	none	1.2	Figure 1	0.95	mg/kg	dry weight	1	1	0.95	0.79	-0.10
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Corn	1	season	field		Table 1	0.22	mg/kg	dry weight	none	0.22	Figure 1	1.1	mg/kg	dry weight	1	1	1.1	5.0	0.70
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Corn	1	season	field		Table 1	0.24	mg/kg	dry weight	none	0.24	Figure 1	2.2	mg/kg	dry weight	1	1	2.2	9.2	0.96
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Weeds	1	season	field		Figure 1	0.05	mg/kg	dry weight	none	0.0500	Figure 1	0.1	mg/kg	dry weight	1	1	0.10	2.0	0.30
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Weeds	1	season	field		Figure 1	0.31	mg/kg	dry weight	none	0.31	Figure 1	0.27	mg/kg	dry weight	1	1	0.27	0.87	-0.06
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Weeds	1	season	field		Figure 1	0.27	mg/kg	dry weight	none	0.27	Figure 1	0.54	mg/kg	dry weight	1	1	0.54	2.0	0.30
Greichus and Dohman 1980	Aroclors	Aroclor 1260	11096825	6.8	ATSDR1989	NS	Weeds	1	season	field		Figure 1	0.22	mg/kg	dry weight	none	0.22	Figure 1	0.9	mg/kg	dry weight	1	1	0.90	4.1	0.61
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Collards	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.04	mg/kg	dry weight	1	1	0.040	0.57	-0.24
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Collards	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.09	mg/kg	dry weight	1	1	0.090	0.75	-0.12
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Grass	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.11	mg/kg	dry weight	1	1	0.11	1.6	0.20
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Grass	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.17	mg/kg	dry weight	1	1	0.17	1.4	0.15
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Pintobeans	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.02	mg/kg	dry weight	1	1	0.020	0.29	-0.54
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Pintobeans	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.03	mg/kg	dry weight	1	1	0.030	0.43	-0.37
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Pintobeans	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.03	mg/kg	dry weight	1	1	0.030	0.43	-0.37
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Pintobeans	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.1	mg/kg	dry weight	1	1	0.10	0.83	-0.08
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Pintobeans	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.12	mg/kg	dry weight	1	1	0.12	1.0	0.00
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Pintobeans	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.16	mg/kg	dry weight	1	1	0.16	1.3	0.12
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Radish	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.09	mg/kg	dry weight	1	1	0.090	0.75	-0.12
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Radish	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.16	mg/kg	dry weight	1	1	0.16	1.3	0.12
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Weeds	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.06	mg/kg	dry weight	1	1	0.060	0.86	-0.07
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Wheat	1	season	Field	July 1976, 10 applications	Table VI	0.12	mg/kg	dry weight	none	0.12	Table V	0.01	mg/kg	dry weight	1	1	0.010	0.083	-1.08
Bull and Ivie, 1978	Benzophenylureas	Diflubenzuron	35367385	3.89	USFS 1989	NS	Wheat	1	season	Field	July 1976, 6 applications	Table VI	0.07	mg/kg	dry weight	none	0.0700	Table V	0.01	mg/kg	dry weight	1	1	0.010	0.14	-0.85
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 5, 3.4 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.13	mg/kg	Not Stated wet assumed	1	6.67	0.87	29	1.46
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 1, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.14	mg/kg	Not Stated wet assumed	1	6.67	0.93	23	1.37
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 1, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.16	mg/kg	Not Stated wet assumed	1	6.67	1.1	27	1.43
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 5, 3.4 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.24	mg/kg	Not Stated wet assumed	1	6.67	1.6	53	1.73
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 3, 15 kg application	Table IV	0.05	mg/kg	Not Stated dry assumed	none	0.0500	Table III	0.26	mg/kg	Not Stated wet assumed	1	6.67	1.7	35	1.54
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 2, 15 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.34	mg/kg	Not Stated wet assumed	1	6.67	2.3	76	1.88
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 3, 15 kg application	Table IV	0.05	mg/kg	Not Stated dry assumed	none	0.0500	Table III	0.43	mg/kg	Not Stated wet assumed	1	6.67	2.9	57	1.76
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 4, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	0.61	mg/kg	Not Stated wet assumed	1	6.67	4.1	203	2.31
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 4, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	0.76	mg/kg	Not Stated wet assumed	1	6.67	5.1	253	2.40
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 1, 15 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.89	mg/kg	Not Stated wet assumed	1	6.67	5.9	148	2.17
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 1, 15 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.89	mg/kg	Not Stated wet assumed	1	6.67	5.9	148	2.17
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 5, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	1.37	mg/kg	Not Stated wet assumed	1	6.67	9.1	457	2.66
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 2, 15 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	1.47	mg/kg	Not Stated wet assumed	1	6.67	9.8	327	2.51
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 5, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	8.37	mg/kg	Not Stated wet assumed	1	6.67	56	2790	3.45
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 1, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.02	mg/kg	Not Stated wet assumed	1	6.67	0.13	3.3	0.52
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 5, 3.4 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.06	mg/kg	Not Stated wet assumed	1	6.67	0.40	13	1.12
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 4, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	0.23	mg/kg	Not Stated wet assumed	1	6.67	1.5	77	1.88
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 3, 15 kg application	Table IV	0.05	mg/kg	Not Stated dry assumed	none	0.0500	Table III	0.37	mg/kg	Not Stated wet assumed	1	6.67	2.5	49	1.69
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 1, 15 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.64	mg/kg	Not Stated wet assumed	1	6.67	4.3	107	2.03
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 2, 15 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.92	mg/kg	Not Stated wet assumed	1	6.67	6.1	204	2.31
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 5, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	1.55	mg/kg	Not Stated wet assumed	1	6.67	10	517	2.71
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mustard	55	d	Field	1980, rep 2, 15 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.26	mg/kg	Not Stated wet assumed	1	6.67	1.7	58	1.76
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mustard	55	d	Field	1980, rep 3, 15 kg application	Table IV	0.05	mg/kg	Not Stated dry assumed	none	0.0500	Table III	0.4	mg/kg	Not Stated wet assumed	1	6.67	2.7	53	1.73
Iwata et al., 1977	Carbamates	Aldicarb	116063	1.13	SRC	NS	Orange	35	d	Field	March 1975, 35 days post-trtment, 2	Table II	0.69	mg/kg	Not Stated dry assumed	none	0.69	Table II	3.4	mg/kg	Not Stated wet assumed	1	6.67	23	33	1.52
Iwata et al., 1977	Carbamates	Aldicarb	116063	1.13	SRC	NS	Orange	35	d	Field	March 1975, 35 days post-trtment, 1	Table II	0.52	mg/kg	Not Stated dry assumed	none	0.52	Table II	3.7	mg/kg	Not Stated wet assumed	1	6.67	25	47	1.68
Iwata et al., 1977	Carbamates	Aldicarb	116063	1.13	SRC	NS	Orange	118	d	Field	March 1975, 118 days post-trtment,	Table II	0.2	mg/kg	Not Stated dry assumed	none	0.20	Table II	5.4	mg/kg	Not Stated wet assumed	1	6.67	36	180	2.26
Iwata et al., 1977	Carbamates	Aldicarb	116063	1.13	SRC	NS	Orange	118	d	Field	March 1975, 118 days post-trtment,	Table II	0.23	mg/kg	Not Stated dry assumed	none	0.23	Table II	6.7	mg/kg	Not Stated wet assumed	1	6.67	45	194	2.29
Iwata et al., 1977	Carbamates	Aldicarb	116063	1.13	SRC	NS	Orange	35	d	Field	March 1975, 35 days post-trtment, 2	Table II	1.2	mg/kg	Not Stated dry assumed	none	1.2	Table II	10	mg/kg	Not Stated wet assumed	1	6.67	67	56	1.74
Iwata et al., 1977	Carbamates	Aldicarb	116063	1.13	SRC	NS	Orange	118	d	Field	March 1975, 118 days post-trtment,	Table II	0.42	mg/kg	Not Stated dry assumed	none	0.42	Table II	15	mg/kg	Not Stated wet assumed	1	6.67	100	238	2.38
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 1, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	7.65	mg/kg	Not Stated wet assumed	1	6.67	51	1275	3.11
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 1, 3.4 kg application	Table IV	0.06	mg/kg	Not Stated dry assumed	none	0.0600	Table III	7.65	mg/kg	Not Stated wet assumed	1	6.67	51	850	2.93
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 2, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	7.93	mg/kg	Not Stated wet assumed	1	6.67	53	1322	3.12
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 3, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	8.11	mg/kg	Not Stated wet assumed	1	6.67	54	1352	3.13
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 4, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	8.74	mg/kg	Not Stated wet assumed	1	6.67	58	1457	3.16
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 5, 3.4 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	9.6	mg/kg	Not Stated wet assumed	1	6.67	64	2133	3.33
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 5, 3.4 kg application	Table IV	0.14	mg/kg	Not Stated dry assumed	none	0.14	Table III	9.6	mg/kg	Not Stated wet assumed	1	6.67	64	457	2.66
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 2, 15 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	14.9	mg/kg	Not Stated wet assumed	1	6.67	99	3311	3.52
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 2, 15 kg application	Table IV	0.14	mg/kg	Not Stated dry assumed	none	0.14	Table III	14.9	mg/kg	Not Stated wet assumed	1	6.67	99	710	2.85
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 1, 15 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	19.3	mg/kg	Not Stated wet assumed	1	6.67	129	3217	3.51
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 1, 15 kg application	Table IV	0.14	mg/kg	Not Stated dry assumed	none	0.14	Table III	19.3	mg/kg	Not Stated wet assumed	1	6.67	129	919	2.96
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 4, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	19.4	mg/kg	Not Stated wet assumed	1	6.67	129	6467	3.81
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 4, 15 kg application	Table IV	0.13	mg/kg	Not Stated dry assumed	none	0.13	Table III	19.4	mg/kg	Not Stated wet assumed	1	6.67	129	995	3.00
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 3, 15 kg application	Table IV	0.05	mg/kg	Not Stated dry assumed	none	0.0500	Table III	20.8	mg/kg	Not Stated wet assumed	1	6.67	139	2773	3.44
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 3, 15 kg application	Table IV	0.13	mg/kg	Not Stated dry assumed	none	0.13	Table III	20.8	mg/kg	Not Stated wet assumed	1	6.67	139	1067	3.03
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 5, 15 kg application	Table IV	0.02	mg/kg	Not Stated dry assumed	none	0.0200	Table III	22.6	mg/kg	Not Stated wet assumed	1	6.67	151	7533	3.88
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	70	d	Field	1979, rep 5, 15 kg application	Table IV	0.21	mg/kg	Not Stated dry assumed	none	0.21	Table III	22.6	mg/kg	Not Stated wet assumed	1	6.67	151	717	2.86
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Radish	55	d	Field	1980, rep 1, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.08	mg/kg	Not Stated wet assumed	1	6.67	0.53	13	1.12
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Radish	55	d	Field	1980, rep 3, 15 kg application	Table IV	0.05	mg/kg	Not Stated dry assumed	none	0.0500	Table III	0.18	mg/kg	Not Stated wet assumed	1	6.67	1.2	24	1.38
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Radish	55	d	Field	1980, rep 2, 15 kg application	Table IV	0.03	mg/kg	Not Stated dry assumed	none	0.0300	Table III	0.27	mg/kg	Not Stated wet assumed	1	6.67	1.8	60	1.78
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Radish	55	d	Field	1980, rep 1, 15 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	0.27	mg/kg	Not Stated wet assumed	1	6.67	1.8	45	1.65
Weisgerber et al., 1974	Cyclodienes	Aldrin	309002	6.5	EPA 1995	NS	Corn	154	d	Field	1973 (?), Birlinghoven Germany, 2.9	Table I	0.78	mg/kg	Not Stated dry assumed	none	0.78	Table I	0.01	mg/kg	Not Stated wet assumed	1	6.67	0.067	0.085	-1.07
Weisgerber et al., 1974	Cyclodienes	Aldrin	309002	6.5	EPA 1995	NS	Wheat	112	d	Field	1973 (?), Sittingbourne England, 3.2	Table II	2	mg/kg	Not Stated dry assumed	none	2.0	Table II	0.1	mg/kg	Not Stated wet assumed	1	6.67	0.67	0.33	-0.48
Dorough and Pass, 1972	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	NS	Corn	102	d	Field	May 1970, 1 lb HCS3260/acre	Table 1	0.196	mg/kg	dry weight	none	0.20	Table 2	0.017	mg/kg	dry weight	1	1	0.017	0.087	-1.06
Dorough and Pass, 1972	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	NS	Corn	102	d	Field	May 1970, 1 lb chlordane/acre	Table 1	0.08	mg/kg	dry weight	none	0.0800	Table 2	0.019	mg/kg	dry weight	1	1	0.019	0.24	-0.62
Dorough and Pass, 1972	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	NS	Corn	102	d	Field	May 1970, 2 lb chlordane/acre	Table 1	0.079	mg/kg	dry weight	none	0.0790	Table 2	0.021	mg/kg	dry weight	1	1	0.021	0.27	-0.58
Dorough and Pass, 1972	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	NS	Corn	102	d	Field	May 1970, 2 lb HCS 3260/acre	Table 1	0.426	mg/kg	dry weight	none	0.43	Table 2	0.028	mg/kg	dry weight	1	1	0.028	0.066	-1.18
Weisgerber et al., 1974	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Corn	111	1	Field	1973 (?), Sevilla Spain, 3.0 kg/ha	Table I	0.6	mg/kg	Not Stated dry assumed	none	0.60	Table I	0.01	mg/kg	Not Stated wet assumed	1	6.67	0.067	0.11	-0.95
Weisgerber et al., 1974	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Corn	154	d	Field	1973 (?), Birlinghoven Germany, 2.9	Table I	0.55	mg/kg	Not Stated dry assumed	none	0.55	Table I	0.03	mg/kg	Not Stated wet assumed	1	6.67	0.20	0.36	-0.44
Weisgerber et al., 1974	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Corn	90	d	Field	1973 (?), Modesto California, 3.0 kg	Table I	1.17	mg/kg	Not Stated dry assumed	none	1.2	Table I	0.05	mg/kg	Not Stated wet assumed	1	6.67	0.33	0.28	-0.55
Weisgerber et al., 1974	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Corn	151	d	Field	1973 (?), Sittingbourne England, 3.0	Table I	0.72	mg/kg	Not Stated dry assumed	none	0.72	Table I	0.1	mg/kg	Not Stated wet assumed	1	6.67	0.67	0.93	-0.03
Weisgerber et al., 1974	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Wheat	112	d	Field	1973 (?), Sittingbourne England, 3.2	Table II	0.42	mg/kg	Not Stated dry assumed	none	0.42	Table II	0.69	mg/kg	Not Stated wet assumed	1	6.67	4.6	11	1.04
Dorough and Pass, 1972	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	NS	Corn	102	d	Field	May 1970, 1 lb HCS3260/acre	Table 1	0.074	mg/kg	dry weight	none	0.0740	Table 2	0.012	mg/kg	dry weight	1	1	0.012	0.16	-0.79
Dorough and Pass, 1972	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	NS	Corn	102	d	Field	May 1970, 1 lb chlordane/acre	Table 1	0.066	mg/kg	dry weight	none	0.0660	Table 2	0.013	mg/kg	dry weight	1	1	0.013	0.20	-0.71

Appendix B
Bioaccumulation Data for Uptake of Non-Ionic Organic Chemicals from Soil into Plant Foliage

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Dorough and Pass, 1972	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	NS	Corn	102	d	Field	May 1970, 2 lb chlordane/acre	Table 1	0.082	mg/kg	dry weight	none	0.0820	Table 2	0.013	mg/kg	dry weight	1	1	0.013	0.16	-0.80
Dorough and Pass, 1972	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	NS	Corn	102	d	Field	May 1970, 2 lb HCS 3260/acre	Table 1	0.148	mg/kg	dry weight	none	0.15	Table 2	0.015	mg/kg	dry weight	1	1	0.015	0.10	-0.99
Viswanathan et al., 1978	Nitro/Chloro-aromatics	3,4-Dichloroanaline	95761	2.69	SRC	NS	Barley	1	season	Field	1.43 kg/ha	Table 2	0.83	ug/g	dry weight	none	0.83	Table 2	0.45	ug/g ww	wet weight	1	6.67	3.0	3.6	0.56
Viswanathan et al., 1978	Nitro/Chloro-aromatics	3,4-Dichloroanaline	95761	2.69	SRC	NS	Potato	1	season	Field	1.43 kg/ha	Table 4	0.66	ug/g	dry weight	none	0.66	Table 2	0.67	ug/g ww	wet weight	1	6.67	4.5	6.8	0.83
Viswanathan et al., 1978	Nitro/Chloro-aromatics	3,4-Dichloroanaline	95761	2.69	SRC	NS	Weeds	1	season	Field	1.43 kg/ha	Table 4	0.66	ug/g	dry weight	none	0.66	Table 2	0.38	ug/g ww	wet weight	1	6.67	2.533	3.838	0.58
Viswanathan et al., 1978	Nitro/Chloro-aromatics	3,4-Dichloroanaline	95761	2.69	SRC	NS	Weeds	1	season	Field	1.43 kg/ha	Table 2	0.83	ug/g	dry weight	none	0.83	Table 2	2.43	ug/g ww	wet weight	1	6.67	16.20	19.52	1.29
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Dicloran	99309	2.96	SRC	No	Lettuce	85	d	Lab	Exp 6 - 8 Apr 74 harvest	Table I	2	mg/kg	Not Stated dry assumed	none	2.0	Table II	0.086	mg/kg ww	wet weight	1	6.67	0.6	0.3	-0.54
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Dicloran	99309	2.96	SRC	No	Lettuce	71	d	Lab	Exp 6 - 25 Mar 74 harvest	Table I	2.25	mg/kg	Not Stated dry assumed	none	2.3	Table II	0.13	mg/kg ww	wet weight	1	6.67	0.9	0.4	-0.41
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Dicloran	99309	2.96	SRC	No	Lettuce	85	d	Lab	Exp 7 - 8 Apr 74 harvest	Table I	1.82	mg/kg	Not Stated dry assumed	none	1.8	Table II	0.15	mg/kg ww	wet weight	1	6.67	1.0	0.5	-0.26
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Dicloran	99309	2.96	SRC	No	Lettuce	71	d	Lab	Exp 7 - 25 Mar 74 harvest	Table I	1.72	mg/kg	Not Stated dry assumed	none	1.7	Table II	0.3	mg/kg ww	wet weight	1	6.67	2.0	1.2	0.07
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 6 - 8 Apr 74 harvest	Table I	0.073	mg/kg	Not Stated dry assumed	none	0.0730	Table II	0.009	mg/kg ww	wet weight	1	6.67	0.06	0.8	-0.09
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 1 - 25 Mar 74 harvest	Table I	0.007	mg/kg	Not Stated dry assumed	none	0.0070	Table II	0.011	mg/kg ww	wet weight	1	6.67	0.07	10	1.02
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 3 - 25 Mar 74 harvest	Table I	0.015	mg/kg	Not Stated dry assumed	none	0.0150	Table II	0.014	mg/kg ww	wet weight	1	6.67	0.09	6	0.79
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 2 - 25 Mar 74 harvest	Table I	0.019	mg/kg	Not Stated dry assumed	none	0.0190	Table II	0.015	mg/kg ww	wet weight	1	6.67	0.10	5	0.72
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 7 - 8 Apr 74 harvest	Table I	0.068	mg/kg	Not Stated dry assumed	none	0.0680	Table II	0.017	mg/kg ww	wet weight	1	6.67	0.11	1.7	0.22
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 6 - 25 Mar 74 harvest	Table I	0.073	mg/kg	Not Stated dry assumed	none	0.0730	Table II	0.026	mg/kg ww	wet weight	1	6.67	0.17	2.4	0.38
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 7 - 25 Mar 74 harvest	Table I	0.075	mg/kg	Not Stated dry assumed	none	0.0750	Table II	0.032	mg/kg ww	wet weight	1	6.67	0.21	3	0.45
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 4 - 8 Apr 74 harvest	Table I	0.17	mg/kg	Not Stated dry assumed	none	0.17	Table II	0.032	mg/kg ww	wet weight	1	6.67	0.21	1.3	0.10
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 5 - 8 Apr 74 harvest	Table I	0.14	mg/kg	Not Stated dry assumed	none	0.14	Table II	0.045	mg/kg ww	wet weight	1	6.67	0.3	2.1	0.33
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 4 - 25 Mar 74 harvest	Table I	0.19	mg/kg	Not Stated dry assumed	none	0.19	Table II	0.11	mg/kg ww	wet weight	1	6.67	0.7	4	0.59
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	71	d	Lab	Exp 5 - 25 Mar 74 harvest	Table I	0.17	mg/kg	Not Stated dry assumed	none	0.17	Table II	0.12	mg/kg ww	wet weight	1	6.67	0.8	5	0.67
Beall, 1976	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	NS	Zoysiagrass	19	month	Lab	Aerially applied, 4 treatment types c	Table 1	0.189	mg/kg	dry weight	none	0.19	Table 1	0.0792	mg/kg	dry weight	1	1	0.079	0.42	-0.38
Beall, 1976	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	NS	Zoysiagrass	365	d	Lab	Aerially applied, 4 treatment types c	Table 1	0.2654	mg/kg	dry weight	none	0.27	Table 1	0.1401	mg/kg	dry weight	1	1	0.14	0.53	-0.28
Beall, 1976	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	NS	Zoysiagrass	302	d	Lab	Aerially applied, 4 treatment types c	Table 1	0.3198	mg/kg	dry weight	none	0.32	Table 1	0.3185	mg/kg	dry weight	1	1	0.32	1.00	0.00
Beall, 1976	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	NS	Zoysiagrass	156	d	Lab	Aerially applied, 4 treatment types c	Table 1	0.5135	mg/kg	dry weight	none	0.51	Table 1	0.4798	mg/kg	dry weight	1	1	0.48	0.93	-0.03
Beall, 1976	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	NS	Zoysiagrass	198	d	Lab	Aerially applied, 4 treatment types c	Table 1	0.4404	mg/kg	dry weight	none	0.44	Table 1	0.6616	mg/kg	dry weight	1	1	0.66	1.5	0.18
Beall, 1976	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	NS	Zoysiagrass	93	d	Lab	Aerially applied, 4 treatment types c	Table 1	1.2507	mg/kg	dry weight	none	1.3	Table 1	0.8761	mg/kg	dry weight	1	1	0.88	0.70	-0.15
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 1 - 8 Apr 74 harvest	Table I	0.11	mg/kg	Not Stated dry assumed	none	0.11	Table II	0.11	mg/kg ww	wet weight	1	6.67	0.7	7	0.82
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 3 - 8 Apr 74 harvest	Table I	0.32	mg/kg	Not Stated dry assumed	none	0.32	Table II	0.16	mg/kg ww	wet weight	1	6.67	1.1	3	0.52
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 2 - 8 Apr 74 harvest	Table I	0.44	mg/kg	Not Stated dry assumed	none	0.44	Table II	0.19	mg/kg ww	wet weight	1	6.67	1.3	3	0.46
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 6 - 8 Apr 74 harvest	Table I	2.23	mg/kg	Not Stated dry assumed	none	2.2	Table II	0.36	mg/kg ww	wet weight	1	6.67	2.4	1.1	0.03
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 1 - 25 Mar 74 harvest	Table I	0.13	mg/kg	Not Stated dry assumed	none	0.13	Table II	0.37	mg/kg ww	wet weight	1	6.67	2.5	19	1.28
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 2 - 25 Mar 74 harvest	Table I	0.44	mg/kg	Not Stated dry assumed	none	0.44	Table II	0.49	mg/kg ww	wet weight	1	6.67	3	7	0.87
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 3 - 25 Mar 74 harvest	Table I	0.49	mg/kg	Not Stated dry assumed	none	0.49	Table II	0.59	mg/kg ww	wet weight	1	6.67	4	8	0.90
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 7 - 8 Apr 74 harvest	Table I	2.35	mg/kg	Not Stated dry assumed	none	2.4	Table II	0.73	mg/kg ww	wet weight	1	6.67	5	2.1	0.32
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 4 - 8 Apr 74 harvest	Table I	6.18	mg/kg	Not Stated dry assumed	none	6.2	Table II	0.89	mg/kg ww	wet weight	1	6.67	6	1.0	-0.02
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 6 - 25 Mar 74 harvest	Table I	2.96	mg/kg	Not Stated dry assumed	none	3.0	Table II	0.92	mg/kg ww	wet weight	1	6.67	6	2.1	0.32
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 7 - 25 Mar 74 harvest	Table I	2.45	mg/kg	Not Stated dry assumed	none	2.5	Table II	1.28	mg/kg ww	wet weight	1	6.67	9	3	0.54
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	85	d	Lab	Exp 5 - 8 Apr 74 harvest	Table I	4.9	mg/kg	Not Stated dry assumed	none	4.9	Table II	1.56	mg/kg ww	wet weight	1	6.67	10	2.1	0.33
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 4 - 25 Mar 74 harvest	Table I	6.03	mg/kg	Not Stated dry assumed	none	6.0	Table II	2.67	mg/kg ww	wet weight	1	6.67	18	3	0.47
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	PCNB	82688	4.64	EPA 1995	No	Lettuce	71	d	Lab	Exp 5 - 25 Mar 74 harvest	Table I	6.28	mg/kg	Not Stated dry assumed	none	6.3	Table II	4.19	mg/kg ww	wet weight	1	6.67	28	4	0.65
Wild et al. 1991, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	7	ug/kg	Not Stated dry assumed	0.001	0.0070	Table 2	2	ug/kg	dry weight	0.001	1	0.0020	0.29	-0.54
Wild et al. 1991, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	16.2	ug/kg	Not Stated dry assumed	0.001	0.0162	Table 2	1	ug/kg	dry weight	0.001	1	0.0010	0.062	-1.21
Wild et al. 1991, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	7	ug/kg	Not Stated dry assumed	0.001	0.0070	Table 2	3	ug/kg	dry weight	0.001	1	0.0030	0.43	-0.37
Wild et al. 1991, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	12.8	ug/kg	Not Stated dry assumed	0.001	0.0128	Table 2	4	ug/kg	dry weight	0.001	1	0.0040	0.31	-0.51
Wild et al. 1991, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	1	ug/kg	Not Stated dry assumed	0.001	0.0010	Table 2	23	ug/kg	dry weight	0.001	1	0.023	23	1.36
Wild and Jones 1992	PAHs	Anthracene	120127	4.55	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	2.013	ug/kg	dry weight	0.001	0.0020	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.50	-0.30
Wild and Jones 1992	PAHs	Anthracene	120127	4.55	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	6.138	ug/kg	dry weight	0.001	0.0061	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.16	-0.79
Wild et al. 1991, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	139.4	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	8	ug/kg	dry weight	0.001	1	0.0080	0.057	-1.24
Wild et al. 1991, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	58	ug/kg	Not Stated dry assumed	0.001	0.0580	Table 2	9	ug/kg	dry weight	0.001	1	0.0090	0.16	-0.81
Wild et al. 1991, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	139.4	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	9	ug/kg	dry weight	0.001	1	0.0090	0.065	-1.19
Wild et al. 1991, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	58	ug/kg	Not Stated dry assumed	0.001	0.0580	Table 2	10	ug/kg	dry weight	0.001	1	0.010	0.17	-0.76
Wild et al. 1991, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	88.8	ug/kg	Not Stated dry assumed	0.001	0.0888	Table 2	14	ug/kg	dry weight	0.001	1	0.014	0.16	-0.80
Wild et al. 1991, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	7	ug/kg	Not Stated dry assumed	0.001	0.0070	Table 2	23	ug/kg	dry weight	0.001	1	0.023	3.3	0.52
Wild and Jones 1992	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	5.002	ug/kg	dry weight	0.001	0.0050	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.20	-0.70
Wild and Jones 1992	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	15.252	ug/kg	dry weight	0.001	0.0153	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.066	-1.18
Wild and Jones 1992	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	50.922	ug/kg	dry weight	0.001	0.0509	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.020	-1.71
Wild and Jones 1992	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	6.039	ug/kg	dry weight	0.001	0.0060	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.17	-0.78
Wild and Jones 1992	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	61.479	ug/kg	dry weight	0.001	0.0615	Table 5	1	ug/kg	dry weight	0.001	1	0.0010	0.016	-1.79
Wild et al. 1991, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	75	ug/kg	Not Stated dry assumed	0.001	0.0750	Table 2	56	ug/kg	dry weight	0.001	1	0.056	0.75	-0.13
Wild et al. 1991, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	324.2	ug/kg	Not Stated dry assumed	0.001	0.32	Table 2	117	ug/kg	dry weight	0.001	1	0.12	0.36	-0.44
Wild et al. 1991, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	75	ug/kg	Not Stated dry assumed	0.001	0.0750	Table 2	49	ug/kg	dry weight	0.001	1	0.049	0.65	-0.18
Wild et al. 1991, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	324.2	ug/kg	Not Stated dry assumed	0.001	0.32	Table 2	60	ug/kg	dry weight	0.001	1	0.060	0.19	-0.73
Wild et al. 1991, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	76	ug/kg	Not Stated dry assumed	0.001	0.0760	Table 2	56	ug/kg	dry weight	0.001	1	0.056	0.74	-0.13
Wild et al. 1991, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	296.8	ug/kg	Not Stated dry assumed	0.001	0.30	Table 2	56	ug/kg	dry weight	0.001	1	0.056	0.19	-0.72
Wild and Jones 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	46.5	ug/kg	dry weight	0.001	0.0465	Table 5	12	ug/kg	dry weight	0.001	1	0.012	0.26	-0.59
Wild and Jones 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	15.25	ug/kg	dry weight	0.001	0.0153	Table 5	20	ug/kg	dry weight	0.001	1	0.020	1.3	0.12
Wild and Jones 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	155.25	ug/kg	dry weight	0.001	0.16	Table 5	24	ug/kg	dry weight	0.001	1	0.024	0.15	-0.81
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	81	ug/kg	Not Stated dry assumed	0.001	0.0810	Table 2	4	ug/kg	dry weight	0.001	1	0.0040	0.049	-1.31
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	33	ug/kg	Not Stated dry assumed	0.001	0.0330	Table 2	6	ug/kg	dry weight	0.001	1	0.0060	0.18	-0.74
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	232	ug/kg	Not Stated dry assumed	0.001	0.23	Table 2	14	ug/kg	dry weight	0.001	1	0.014	0.060	-1.22
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	93	ug/kg	Not Stated dry assumed	0.001	0.0930	Table 2	18	ug/kg	dry weight	0.001	1	0.018	0.19	-0.71
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	81	ug/kg	Not Stated dry assumed	0.001	0.0810	Table 2	1	ug/kg	dry weight	0.001	1	0.0010	0.012	-1.91
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	33	ug/kg	Not Stated dry assumed	0.001	0.0330	Table 2	3	ug/kg	dry weight	0.001	1	0.0030	0.091	-1.04
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	93	ug/kg	Not Stated dry assumed	0.001	0.0930	Table 2	13	ug/kg	dry weight	0.001	1	0.013	0.14	-0.85
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	232	ug/kg	Not Stated dry assumed	0.001	0.23	Table 2	13	ug/kg	dry weight	0.001	1	0.013	0.056	-1.25
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	57	ug/kg	Not Stated dry assumed	0.001	0.0570	Table 2	1	ug/kg	dry weight	0.001	1	0.0010	0.018	-1.76
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	8	ug/kg	Not Stated dry assumed	0.001	0.0080	Table 2	8	ug/kg	dry weight	0.001	1	0.0080	1.0	0.00
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	179.2	ug/kg	Not Stated dry assumed	0.001	0.18	Table 2	8	ug/kg	dry weight	0.001	1	0.0080	0.045	-1.35
Wild et al. 1991, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	23	ug/kg	Not Stated dry assumed	0.001	0.0230	Table 2	13	ug/kg	dry weight	0.001	1	0.013	0.57	-0.25
Wild et al. 1991, 1992	PAHs	Coronene	191071	7.64	SRC	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	41	ug/kg	Not Stated dry assumed	0.001	0.0410	Table 2	28	ug/kg	dry weight	0.001	1	0.028	0.68	-0.17
Wild et al. 1991, 1992	PAHs	Coronene	191071	7.64	SRC	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	131.8	ug/kg	Not Stated dry assumed	0.001	0.13	Table 2	28	ug/kg	dry weight	0.001	1	0.028	0.21	-0.67
Wild et al. 1991, 1992	PAHs	Coronene	191071	7.64	SRC	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	131.8	ug/kg	Not Stated dry assumed	0.001	0.13	Table 2	40	ug/kg	dry weight	0.001	1	0.040	0.30	-0.52
Wild et al. 1991, 1992	PAHs	Coronene	191071	7.64	SRC	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	41	ug/kg	Not Stated dry assumed	0.001	0.0410	Table 2	58	ug/kg	dry weight	0.001	1	0.058	1.4	0.15
Wild et al. 1991, 1992	PAHs	Coronene	191071	7.64	SRC	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	17	ug/kg	Not Stated dry assumed	0.001	0.0170	Table 2	93	ug/kg	dry weight	0.001	1	0.093	5.5	0.74
Wild et al. 1991, 1992	PAHs	Coronene	191071	7.64	SRC	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	137.2	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	97	ug/kg	dry weight	0.001	1	0.097	0.71	-0.15
Wild and Jones 1992	PAHs	Coronene	191071	7.64	SRC	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	11.904	ug/kg	dry weight	0.001	0.0119	Table 5	7	ug/kg	dry weight	0.001	1	0.0070	0.59	-0.23
Wild and Jones 1992	PAHs	Coronene	191071	7.64	SRC	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	3.904	ug/kg	dry weight	0.001	0.0039	Table 5	18	ug/kg	dry weight	0.001	1	0.018	4.6	0.66
Wild and Jones 1992	PAHs	Coronene	191071	7.64	SRC	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	39.744	ug/kg	dry weight	0.001	0.0397	Table 5	23	ug/kg	dry weight	0.001	1	0.023	0.58	-0.24
Wild et al. 1991, 1992	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	16	ug/kg	Not Stated dry assumed	0.001	0.0160	Table 2	1	ug/kg	dry weight	0.001	1	0.0010	0.063	-1.20

Reference	Chemical Class	Chemical Name	CAS No	$\log K_{ow}$	$\log K_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Wild et al. 1991, 1992	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	11	ug/kg	Not Stated dry assumed	0.001	0.0110	Table 2	2	ug/kg	dry weight	0.001	1	0.0020	0.18	-0.74
Wild et al. 1991, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	144	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	44	ug/kg	dry weight	0.001	1	0.044	0.31	-0.51
Wild et al. 1991, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	331.8	ug/kg	Not Stated dry assumed	0.001	0.33	Table 2	66	ug/kg	dry weight	0.001	1	0.066	0.20	-0.70
Wild et al. 1991, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	331.8	ug/kg	Not Stated dry assumed	0.001	0.33	Table 2	38	ug/kg	dry weight	0.001	1	0.038	0.11	-0.94
Wild et al. 1991, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	144	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	41	ug/kg	dry weight	0.001	1	0.041	0.28	-0.55
Wild et al. 1991, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	39	ug/kg	Not Stated dry assumed	0.001	0.0390	Table 2	15	ug/kg	dry weight	0.001	1	0.015	0.38	-0.41
Wild et al. 1991, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	205.4	ug/kg	Not Stated dry assumed	0.001	0.21	Table 2	51	ug/kg	dry weight	0.001	1	0.051	0.25	-0.61
Wild and Jones 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	27.9	ug/kg	dry weight	0.001	0.0279	Table 5	24	ug/kg	dry weight	0.001	1	0.024	0.86	-0.07
Wild and Jones 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	9.15	ug/kg	dry weight	0.001	0.0092	Table 5	25	ug/kg	dry weight	0.001	1	0.025	2.7	0.44
Wild and Jones 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	93.15	ug/kg	dry weight	0.001	0.0932	Table 5	25	ug/kg	dry weight	0.001	1	0.025	0.27	-0.57
Wild et al. 1991, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	7	ug/kg	Not Stated dry assumed	0.001	0.0070	Table 2	39	ug/kg	dry weight	0.001	1	0.039	5.6	0.75
Wild et al. 1991, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	41	ug/kg	dry weight	0.001	1	0.041	10	1.01
Wild et al. 1991, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	25	ug/kg	dry weight	0.001	1	0.025	6.3	0.80
Wild et al. 1991, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	7	ug/kg	Not Stated dry assumed	0.001	0.0070	Table 2	26	ug/kg	dry weight	0.001	1	0.026	3.7	0.57
Wild et al. 1991, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	4	ug/kg	dry weight	0.001	1	0.0040	1.0	0.00
Wild et al. 1991, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	5.4	ug/kg	Not Stated dry assumed	0.001	0.0054	Table 2	28	ug/kg	dry weight	0.001	1	0.028	5.2	0.71
Wild and Jones 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	15.996	ug/kg	dry weight	0.001	0.0160	Table 5	14	ug/kg	dry weight	0.001	1	0.014	0.88	-0.06
Wild and Jones 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	5.246	ug/kg	dry weight	0.001	0.0052	Table 5	22	ug/kg	dry weight	0.001	1	0.022	4.2	0.62
Wild and Jones 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	53.406	ug/kg	dry weight	0.001	0.0534	Table 5	25	ug/kg	dry weight	0.001	1	0.025	0.47	-0.33
Wild et al. 1991, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	76	ug/kg	Not Stated dry assumed	0.001	0.0760	Table 2	87	ug/kg	dry weight	0.001	1	0.087	1.1	0.06
Wild et al. 1991, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	186.8	ug/kg	Not Stated dry assumed	0.001	0.19	Table 2	88	ug/kg	dry weight	0.001	1	0.088	0.47	-0.33
Wild et al. 1991, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	186.8	ug/kg	Not Stated dry assumed	0.001	0.19	Table 2	69	ug/kg	dry weight	0.001	1	0.069	0.37	-0.43
Wild et al. 1991, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	76	ug/kg	Not Stated dry assumed	0.001	0.0760	Table 2	85	ug/kg	dry weight	0.001	1	0.085	1.1	0.05
Wild et al. 1991, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	105.6	ug/kg	Not Stated dry assumed	0.001	0.11	Table 2	72	ug/kg	dry weight	0.001	1	0.072	0.68	-0.17
Wild et al. 1991, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	58	ug/kg	Not Stated dry assumed	0.001	0.0580	Table 2	143	ug/kg	dry weight	0.001	1	0.14	2.5	0.39
Wild and Jones 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	186.3	ug/kg	dry weight	0.001	0.19	Table 5	129	ug/kg	dry weight	0.001	1	0.13	0.69	-0.16
Wild and Jones 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	55.8	ug/kg	dry weight	0.001	0.0558	Table 5	133	ug/kg	dry weight	0.001	1	0.13	2.4	0.38
Wild and Jones 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	18.3	ug/kg	dry weight	0.001	0.0183	Table 5	145	ug/kg	dry weight	0.001	1	0.15	7.9	0.90
Wild et al. 1991, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	93	ug/kg	Not Stated dry assumed	0.001	0.0930	Table 2	11	ug/kg	dry weight	0.001	1	0.011	0.12	-0.93
Wild et al. 1991, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	221.4	ug/kg	Not Stated dry assumed	0.001	0.22	Table 2	31	ug/kg	dry weight	0.001	1	0.031	0.14	-0.85
Wild et al. 1991, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	221.4	ug/kg	Not Stated dry assumed	0.001	0.22	Table 2	23	ug/kg	dry weight	0.001	1	0.023	0.10	-0.98
Wild et al. 1991, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	93	ug/kg	Not Stated dry assumed	0.001	0.0930	Table 2	42	ug/kg	dry weight	0.001	1	0.042	0.45	-0.35
Wild et al. 1991, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	31	ug/kg	Not Stated dry assumed	0.001	0.0310	Table 2	14	ug/kg	dry weight	0.001	1	0.014	0.45	-0.35
Wild et al. 1991, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	154.6	ug/kg	Not Stated dry assumed	0.001	0.15	Table 2	23	ug/kg	dry weight	0.001	1	0.023	0.15	-0.83
Wild and Jones 1992	PAHs	Pyrene	129000	5.11	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	124.2	ug/kg	dry weight	0.001	0.12	Table 5	24	ug/kg	dry weight	0.001	1	0.024	0.19	-0.71
Wild and Jones 1992	PAHs	Pyrene	129000	5.11	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	37.2	ug/kg	dry weight	0.001	0.0372	Table 5	26	ug/kg	dry weight	0.001	1	0.026	0.70	-0.16
Wild and Jones 1992	PAHs	Pyrene	129000	5.11	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	12.2	ug/kg	dry weight	0.001	0.0122	Table 5	36	ug/kg	dry weight	0.001	1	0.036	3.0	0.47
Moza et al. 1979	PCBs	2,2',4,4',6-Pentachlorobiphenyl	39485831	6.98	SRC	NS	Carrot	4	month	Lab	Outdoor plywood boxes	Procedure - and	0.25125	mg/kg	Not Stated dry assumed	none	0.25	Table VI	0.426	ppm	wet weight	1	6.67	2.8	11	1.05
Moza et al. 1979	PCBs	2,2',4,4',6-Pentachlorobiphenyl	39485831	6.98	SRC	NS	SugarBeet	4	month	Lab	Outdoor plywood boxes	'rocedure - and T	0.481	mg/kg	Not Stated dry assumed	none	0.48	Table VI	0.025	ppm	wet weight	1	6.67	0.1667	0.3465	-0.46
Shane and Bush 1989	PCBs	2,2'-Dichlorobiphenyl	13029088	4.97	SRC	NS	Soybean	1-2.5	month	field	Control plot of alluvial mud	Table 3	0.4	ng/g	Not Stated dry assumed	0.001	0.00040	Table 1	0.84	ng/g	Not stated wet assumed	0.001	6.67	0.0056	14	1.15
Moza et al. 1976	PCBs	2,2'-Dichlorophenyl	13029088	4.97	SRC	NS	Carrot	6	month	Lab	1973, Outdoor plywood boxes	Text - Procedure	1	ppm	dry weight	none	1.0	Table II	0.108	ppm	wet weight	1	6.67	0.72	0.72	-0.14
Shane and Bush 1989	PCBs	2,2'-Dichlorobiphenyl	13029088	4.97	SRC	NS	Corn	1-2.5	month	field	Control plot of alluvial mud	Table 3	0.4	ng/g	Not Stated dry assumed	0.001	0.00040	Table 1	0.84	ng/g	Not stated wet assumed	0.001	6.67	0.0056	14	1.15
Shane and Bush 1989	PCBs	2,3,6,4'-Tetrachlorobiphenyl	52663588	6.34	SRC	NS	Soybean	1-2.5	month	field	Control plot of alluvial mud	Table 3	0.3	ng/g	Not Stated dry assumed	0.001	0.00030	Table 1	0.36	ng/g	Not stated wet assumed	0.001	6.67	0.0024	8.0	0.90
Shane and Bush 1989	PCBs	2,3,6,4'-Tetrachlorobiphenyl	52663588	6.34	SRC	NS	Soybean	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	4.3	ng/g	Not Stated dry assumed	0.001	0.0043	Table 1	0.45	ng/g	Not stated wet assumed	0.001	6.67	0.0030	0.70	-0.16
Shane and Bush 1989	PCBs	2,4,4'-Trichlorbiphenyl	7012375	5.62	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	5.8	ng/g	Not Stated dry assumed	0.001	0.0058	Table 1	0.6	ng/g	Not stated wet assumed	0.001	6.67	0.0040	0.69	-0.16
Shane and Bush 1989	PCBs	2,4,4'-Trichlorbiphenyl	7012375	5.62	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	5.8	ng/g	Not Stated dry assumed	0.001	0.0058	Table 1	0.65	ng/g	Not stated wet assumed	0.001	6.67	0.0043	0.75	-0.13
Shane and Bush 1989	PCBs	2,4,4'-Trichlorbiphenyl	7012375	5.62	SRC	NS	Pintobeans	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	5.8	ng/g	Not Stated dry assumed	0.001	0.0058	Table 1	0.45	ng/g	Not stated wet assumed	0.001	6.67	0.0030	0.52	-0.29
Shane and Bush 1989	PCBs	2,4,4'-Trichlorbiphenyl	7012375	5.62	SRC	NS	Strngbean	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	5.8	ng/g	Not Stated dry assumed	0.001	0.0058	Table 1	0.48	ng/g	Not stated wet assumed	0.001	6.67	0.0032	0.55	-0.26
Moza et al. 1979	PCBs	2,4',5-Trichlorbiphenyl	16606023	5.69	SRC	NS	Carrot	4	month	Lab	Outdoor plywood boxes	Procedure - and	0.2875625	mg/kg	Not Stated dry assumed	none	0.29	Table IV	1.149	ppm	wet weight	1	6.67	7.7	27	1.43
Moza et al. 1979	PCBs	2,4',5-Trichlorbiphenyl	16606023	5.69	SRC	NS	SugarBeet	4	month	Lab	Outdoor plywood boxes	'rocedure - and T	0.252	mg/kg	Not Stated dry assumed	none	0.25	Table IV	0.008	ppm	wet weight	1	6.67	0.05333	0.2116	-0.67
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	4.4	ng/g	Not Stated dry assumed	0.001	0.0044	Table 1	2.88	ng/g	Not stated wet assumed	0.001	6.67	0.019	4.4	0.64
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	4.4	ng/g	Not Stated dry assumed	0.001	0.0044	Table 1	2.99	ng/g	Not stated wet assumed	0.001	6.67	0.020	4.5	0.66
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Corn	1-2.5	month	field	Control plot of alluvial mud	Table 3	1.8	ng/g	Not Stated dry assumed	0.001	0.0018	Table 1	4.06	ng/g	Not stated wet assumed	0.001	6.67	0.027	15	1.18
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Pintobeans	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	4.4	ng/g	Not Stated dry assumed	0.001	0.0044	Table 1	4.2	ng/g	Not stated wet assumed	0.001	6.67	0.028	6.4	0.80
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Soybean	1-2.5	month	field	Control plot of alluvial mud	Table 3	1.8	ng/g	Not Stated dry assumed	0.001	0.0018	Table 1	3.24	ng/g	Not stated wet assumed	0.001	6.67	0.022	12	1.08
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Soybean	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	4.4	ng/g	Not Stated dry assumed	0.001	0.0044	Table 1	3.75	ng/g	Not stated wet assumed	0.001	6.67	0.025	5.7	0.75
Shane and Bush 1989	PCBs	2-Chlorobiphenyl	2051607	4.53	SRC	NS	Strngbean	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	4.4	ng/g	Not Stated dry assumed	0.001	0.0044	Table 1	2.76	ng/g	Not stated wet assumed	0.001	6.67	0.018	4.2	0.62
Bi et al 2002	PCBs	PCB 101	3768732	6.8	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	59.2	ng/g	dry weight	0.001	0.0592	Table 4	2.35	ng/g	dry weight	0.001	1	0.0024	0.040	-1.40
Bi et al 2002	PCBs	PCB 101	3768732	6.8	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	28.8	ng/g	dry weight	0.001	0.0288	Table 4	5	ng/g	dry weight	0.001	1	0.0050	0.17	-0.76
Bi et al 2002	PCBs	PCB 110	38380039	6.22	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	62.8	ng/g	dry weight	0.001	0.0628	Table 4	2.74	ng/g	dry weight	0.001	1	0.0027	0.044	-1.36
Bi et al 2002	PCBs	PCB 110	38380039	6.22	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	26.9	ng/g	dry weight	0.001	0.0269	Table 4	5.3	ng/g	dry weight	0.001	1	0.0053	0.20	-0.71
Bi et al 2002	PCBs	PCB 128	38380073	7.31	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	4.84	ng/g	dry weight	0.001	0.0048	Table 4	0.16	ng/g	dry weight	0.001	1	0.00016	0.033	-1.48
Bi et al 2002	PCBs	PCB 128	38380073	7.31	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.4	ng/g	dry weight	0.001	0.0014	Table 4	0.66	ng/g	dry weight	0.001	1	0.00066	0.47	-0.33
Bi et al 2002	PCBs	PCB 137	35694065	7.44	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.18	ng/g	dry weight	0.001	0.00018	Table 4	0.14	ng/g	dry weight	0.001	1	0.00014	0.78	-0.11
Bi et al 2002	PCBs	PCB 138	35065282	7.44	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	32.6	ng/g	dry weight	0.001	0.0326	Table 4	0.9	ng/g	dry weight	0.001	1	0.00090	0.028	-1.56
Bi et al 2002	PCBs	PCB 138	35065282	7.44	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	8.7	ng/g	dry weight	0.001	0.0087	Table 4	3.6	ng/g	dry weight	0.001	1	0.0036	0.41	-0.38
Bi et al 2002	PCBs	PCB 141	52712046	7.19	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	3.63	ng/g	dry weight	0.001	0.0036	Table 4	0.1	ng/g	dry weight	0.001	1	0.00010	0.028	-1.56
Bi et al 2002	PCBs	PCB 141	52712046	7.19	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.92	ng/g	dry weight	0.001	0.00092	Table 4	0.38	ng/g	dry weight	0.001	1	0.00038	0.41	-0.38
Bi et al 2002	PCBs	PCB 146	51908168	7.12	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	17.2	ng/g	dry weight	0.001	0.0172	Table 4	0.59	ng/g	dry weight	0.001	1	0.00059	0.034	-1.46
Bi et al 2002	PCBs	PCB 146	51908168	7.12	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	4.7	ng/g	dry weight	0.001	0.0047	Table 4	2	ng/g	dry weight	0.001	1	0.0020	0.43	-0.37
Bi et al 2002	PCBs	PCB 153	35065271	7.75	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	23.2	ng/g	dry weight	0.001	0.0232	Table 4	0.54	ng/g	dry weight	0.001	1	0.00054	0.023	-1.63
Bi et al 2002	PCBs	PCB 153	35065271	7.75	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	5.6	ng/g	dry weight	0.001	0.0056	Table 4	1.3	ng/g	dry weight	0.001	1	0.0013	0.23	-0.63
Bi et al 2002	PCBs	PCB 170	35065306	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.3	ng/g	dry weight	0.001	0.0013	Table 4	0.41	ng/g	dry weight	0.001	1	0.00041	0.32	-0.50
Bi et al 2002	PCBs	PCB 174	38411252	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.41	ng/g	dry weight	0.001	0.00041	Table 4	0.14	ng/g	dry weight	0.001	1	0.00014	0.34	-0.47
Bi et al 2002	PCBs	PCB 175	40186707	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.8	ng/g	dry weight	0.001	0.0018	Table 4	0.46	ng/g	dry weight	0.001	1	0.00046	0.26	-0.59
Bi et al 2002	PCBs	PCB 177	52663704	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.93	ng/g	dry weight	0.001	0.00093	Table 4	0.37	ng/g	dry weight	0.001	1	0.00037	0.40	-0.40
Bi et al 2002	PCBs	PCB 178	52663679	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1	ng/g	dry weight	0.001	0.0010	Table 4	0.34	ng/g	dry weight	0.001	1	0.00034	0.34	-0.47
Bi et al 2002	PCBs	PCB 180	35065293	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.1	ng/g	dry weight	0.001	0.0011	Table 4	0.35	ng/g	dry weight	0.001	1	0.00035	0.32	-0.50
Bi et al 2002	PCBs	PCB 185	52712057	7.93	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.48	ng/g	dry weight	0.001	0.00048	Table 4	0.14	ng/g	dry weight	0.001	1	0.00014	0.29	-0.54
Bi et al 2002	PCBs	PCB 22	38444858	5.42	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	17.9	ng/g	dry weight	0.001	0.0179	Table 4	0.77	ng/g	dry weight	0.001	1	0.00077	0.043	-1.37
Bi et al 2002	PCBs	PCB 33	38444869	5.87	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	3	ng/g	dry weight	0.001	0.0030	Table 4	0.52	ng/g	dry weight	0.001	1	0.00052	0.17	-0.76
Bi et al 2002	PCBs	PCB 33	38444869	5.87	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	36.4	ng/g	dry weight	0.001	0.0364	Table 4	2.1	ng/g	dry weight	0.001	1	0.0021	0.058	-1.24
Bi et al 2002	PCBs	PCB 40	38444938	6.18	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.1	ng/g	dry weight	0.001	0.0011	Table 4	0.09	ng/g	dry weight	0.001	1	0.000090	0.082	-1.09
Bi et al 2002	PCBs	PCB 44	41464395	5.81	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	12.1	ng/g	dry weight	0.001	0.0121	Table 4	0.51	ng/g	dry weight	0.001	1	0.00051	0.042	-1.38
Bi et al 2002	PCBs	PCB 44	41464395	5.81	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	58.4	ng/g	dry weight	0.001	0.0584	Table 4	9.6	ng/g	dry weight	0.001	1	0.0096	0.16	-0.78
Bi et al 2002	PCBs	PCB 45	70362457	6.34	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	12.8	ng/g	dry weight	0.001	0.0128	Table 4	0.08	ng/g	dry weight	0.001	1	0.000080	0.0063	-2.20
Shane and Bush 1989	PCBs	PCB 49	41464408	6.22	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	6.2	ng/g	Not Stated dry assumed	0.001	0.0062	Table 1	0.36	ng/g	Not stated wet assumed	0.001	6.67	0.0024	0.39	-0.41
Shane and Bush 1989	PCBs	PCB 49	41464408	6.22	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	6.2	ng/g	Not Stated dry assumed	0.001	0.0062	Table 1	0.65	ng/g	Not stated wet assumed	0.001	6.67	0.0043	0.70	-0.16
Shane and Bush 1989	PCBs	PCB 49	41464408	6.22	SRC	NS	Pintobeans	1-2.5	month	field	Experimental plot of alluvial mud ne	Table 3	6.2	ng/g	Not Stated dry assumed	0.001	0.0062	Table 1	0.6	ng/g	Not stated wet assumed	0.001	6.67	0.0040	0.65	-0.19
Bi et al 2002	PCBs	PCB 49	41464408	6.22	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	8.1	ng/g	dry weight	0.001	0.0081	Table 4	0.57	ng/g	dry weight	0.001	1	0.00057	0.070	-1.15

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Bi et al 2002	PCBs	PCB 49	41464408	6.22	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	47.5	ng/g	dry weight	0.001	0.0475	Table 4	6.6	ng/g	dry weight	0.001	1	0.0066	0.14	-0.86
Shane and Bush 1989	PCBs	PCB 49	41464408	6.22	SRC	NS	Soybean	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	6.2	ng/g	Not Stated dry assumed	0.001	0.0062	Table 1	0.45	ng/g	Not stated wet assumed	0.001	6.67	0.0030	0.48	-0.32
Shane and Bush 1989	PCBs	PCB 49	41464408	6.22	SRC	NS	Strngbean	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	6.2	ng/g	Not Stated dry assumed	0.001	0.0062	Table 1	0.48	ng/g	Not stated wet assumed	0.001	6.67	0.0032	0.52	-0.29
Shane and Bush 1989	PCBs	PCB 52	35693993	6.09	SRC	NS	Corn	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	4.9	ng/g	Not Stated dry assumed	0.001	0.0049	Table 1	0.36	ng/g	Not stated wet assumed	0.001	6.67	0.0024	0.49	-0.31
Shane and Bush 1989	PCBs	PCB 52	35693993	6.09	SRC	NS	Soybean	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	4.9	ng/g	Not Stated dry assumed	0.001	0.0049	Table 1	0.65	ng/g	Not stated wet assumed	0.001	6.67	0.0043	0.88	-0.05
Shane and Bush 1989	PCBs	PCB 52	35693993	6.09	SRC	NS	Pintobeans	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	4.9	ng/g	Not Stated dry assumed	0.001	0.0049	Table 1	0.6	ng/g	Not stated wet assumed	0.001	6.67	0.0040	0.82	-0.09
Bi et al 2002	PCBs	PCB 52	35693993	6.09	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	13.7	ng/g	dry weight	0.001	0.0137	Table 4	0.77	ng/g	dry weight	0.001	1	0.00077	0.056	-1.25
Bi et al 2002	PCBs	PCB 52	35693993	6.09	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	73	ng/g	dry weight	0.001	0.0730	Table 4	11.6	ng/g	dry weight	0.001	1	0.012	0.16	-0.80
Shane and Bush 1989	PCBs	PCB 52	35693993	6.09	SRC	NS	Soybean	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	4.9	ng/g	Not Stated dry assumed	0.001	0.0049	Table 1	0.6	ng/g	Not stated wet assumed	0.001	6.67	0.0040	0.82	-0.09
Shane and Bush 1989	PCBs	PCB 52	35693993	6.09	SRC	NS	Strngbean	1-2.5	month	field	Experimental plot of alluvial mud nea	Table 3	4.9	ng/g	Not Stated dry assumed	0.001	0.0049	Table 1	0.48	ng/g	Not stated wet assumed	0.001	6.67	0.0032	0.65	-0.19
Bi et al 2002	PCBs	PCB 66	32598100	6.31	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	17.4	ng/g	dry weight	0.001	0.0174	Table 4	1.72	ng/g	dry weight	0.001	1	0.0017	0.099	-1.01
Bi et al 2002	PCBs	PCB 66	32598100	6.31	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	72.5	ng/g	dry weight	0.001	0.0725	Table 4	19.7	ng/g	dry weight	0.001	1	0.020	0.27	-0.57
Bi et al 2002	PCBs	PCB 70	32598111	6.23	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	10.2	ng/g	dry weight	0.001	0.0102	Table 4	0.82	ng/g	dry weight	0.001	1	0.00082	0.080	-1.09
Bi et al 2002	PCBs	PCB 70	32598111	6.23	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	56.3	ng/g	dry weight	0.001	0.0563	Table 4	12.1	ng/g	dry weight	0.001	1	0.012	0.21	-0.67
Bi et al 2002	PCBs	PCB 74	32690930	6.67	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	11.3	ng/g	dry weight	0.001	0.0113	Table 4	0.73	ng/g	dry weight	0.001	1	0.00073	0.065	-1.19
Bi et al 2002	PCBs	PCB 74	32690930	6.67	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	46.5	ng/g	dry weight	0.001	0.0465	Table 4	8.3	ng/g	dry weight	0.001	1	0.0083	0.18	-0.75
Shane and Bush 1989	PCBs	PCB 8	34883437	5.09	SRC	NS	Corn	1-2.5	month	field	Control plot of alluvial mud	Table 3	0.5	ng/g	Not Stated dry assumed	0.001	0.00050	Table 1	1.26	ng/g	Not stated wet assumed	0.001	6.67	0.0084	17	1.23
Bi et al 2002	PCBs	PCB 8	34883437	5.09	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.625	ng/g	dry weight	0.001	0.00063	Table 4	0.53	ng/g	dry weight	0.001	1	0.00053	0.85	-0.07
Bi et al 2002	PCBs	PCB 8	34883437	5.09	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.85	ng/g	dry weight	0.001	0.00085	Table 4	1	ng/g	dry weight	0.001	1	0.0010	1.2	0.07
Shane and Bush 1989	PCBs	PCB 8	34883437	5.09	SRC	NS	Soybean	1-2.5	month	field	Control plot of alluvial mud	Table 3	0.5	ng/g	Not Stated dry assumed	0.001	0.00050	Table 1	1.32	ng/g	Not stated wet assumed	0.001	6.67	0.0088	18	1.25
Bi et al 2002	PCBs	PCB 82	52663624	6.98	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	5.9	ng/g	dry weight	0.001	0.0059	Table 4	0.69	ng/g	dry weight	0.001	1	0.00069	0.12	-0.93
Bi et al 2002	PCBs	PCB 82	52663624	6.98	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	20.6	ng/g	dry weight	0.001	0.0206	Table 4	1.51	ng/g	dry weight	0.001	1	0.0015	0.073	-1.13
Bi et al 2002	PCBs	PCB 85	65510454	6.61	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	63.8	ng/g	dry weight	0.001	0.0638	Table 4	1.6	ng/g	dry weight	0.001	1	0.0016	0.025	-1.60
Bi et al 2002	PCBs	PCB 87	38380028	6.85	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	48.8	ng/g	dry weight	0.001	0.0488	Table 4	5.37	ng/g	dry weight	0.001	1	0.0054	0.11	-0.96
Bi et al 2002	PCBs	PCB 97	41464511	6.67	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	30.9	ng/g	dry weight	0.001	0.0309	Table 4	1.35	ng/g	dry weight	0.001	1	0.0014	0.044	-1.36
Bi et al 2002	PCBs	PCB 97	41464511	6.67	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	9.4	ng/g	dry weight	0.001	0.0094	Table 4	2.1	ng/g	dry weight	0.001	1	0.0021	0.22	-0.65
Bi et al 2002	PCBs	PCB 99	38380017	7.21	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	38.3	ng/g	dry weight	0.001	0.0383	Table 4	1.7	ng/g	dry weight	0.001	1	0.0017	0.044	-1.35
Bi et al 2002	PCBs	PCB 99	38380017	7.21	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	16.3	ng/g	dry weight	0.001	0.0163	Table 4	3.3	ng/g	dry weight	0.001	1	0.0033	0.20	-0.69
Beynon et al. 1972	Triazines	Cyanazine	21725462	2.22	SRC	NS	Corn	139	d	Field	Peat	Table 4	0.9	mg/kg	wet weight	none	0.90	Table 6	0.02	mg/kg	Not Stated wet assumed	1	6.67	0.13	0.15	-0.83
Beynon et al. 1972	Triazines	Cyanazine	21725462	2.22	SRC	NS	Corn	139	d	Field	Clay Loam	Table 4	0.42	mg/kg	wet weight	none	0.42	Table 6	0.03	mg/kg	Not Stated wet assumed	1	6.67	0.20	0.48	-0.32
Beynon et al. 1972	Triazines	Cyanazine	21725462	2.22	SRC	NS	Corn	139	d	Field	Sandy Loam	Table 4	0.41	mg/kg	wet weight	none	0.41	Table 6	0.06	mg/kg	Not Stated wet assumed	1	6.67	0.40	0.98	-0.01
Beynon et al. 1972	Triazines	Cyanazine	21725462	2.22	SRC	NS	Corn	139	d	Field	Medium Loam	Table 4	0.62	mg/kg	wet weight	none	0.62	Table 6	0.08	mg/kg	Not Stated wet assumed	1	6.67	0.53	0.86	-0.07
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	2	month	field	1972 - Plot B (Four replicate field pl	m of peak residu	321	ppm	dry weight	none	321	- Sum of peak	5.3	ppm	wet weight	1	6.67	35	0.11	-0.96
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	2	month	field	1972 - Plot A (Four replicate field pl	m of peak residu	438	ppm	dry weight	none	438	- Sum of peak	5.61	ppm	wet weight	1	6.67	37	0.085	-1.07
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	2	month	field	1972 - Plot D (Four replicate field pl	m of peak resid	322	ppm	dry weight	none	322	- Sum of peak	7.29	ppm	wet weight	1	6.67	49	0.15	-0.82
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	2	month	field	1972 - Plot C (Four replicate field pl	m of peak resid	405	ppm	dry weight	none	405	- Sum of peak	8.23	ppm	wet weight	1	6.67	55	0.14	-0.87
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	2	month	field	1973 - Plot D (Four replicate field pl	m of peak residu	366	ppm	dry weight	none	366	- Sum of peak	10.7	ppm	wet weight	1	6.67	71	0.19	-0.71
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	3	month	field	1973 - Plot D (Four replicate field pl	m of peak residu	366	ppm	dry weight	none	366	- Sum of peak	11.4	ppm	wet weight	1	6.67	76	0.21	-0.68
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	3	month	field	1973 - Plot C (Four replicate field pl	m of peak residu	425	ppm	dry weight	none	425	- Sum of peak	13.3	ppm	wet weight	1	6.67	89	0.21	-0.68
Iwata and Gunther 1976	Aroclors	Aroclor 1254	11097691	6.5	SRC	Yes	Carrot	2	month	field	1973 - Plot C (Four replicate field pl	m of peak residu	425	ppm	dry weight	none	425	- Sum of peak	16.7	ppm	wet weight	1	6.67	111	0.26	-0.58
Lichenstein, 1960	Cyclodienes	Aldrin	309002	6.5	EPA 1995	Yes	Lettuce	60	d	Field	1959, 25 lb/acre	Table II	3.1	mg/kg	dry weight	none	3.1	Table II	0.03	mg/kg	wet weight	1	6.67	0.20	0.06	-1.19
Lichenstein, 1960	Cyclodienes	Aldrin	309002	6.5	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 5 lb/acre	Table I	1.21	mg/kg	dry weight	none	1.2	Table I	0.04	mg/kg	wet weight	1	6.67	0.3	0.22	-0.66
Lichenstein, 1960	Cyclodienes	Aldrin	309002	6.5	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 25 lb/acre	Table I	9.77	mg/kg	dry weight	none	9.8	Table I	0.15	mg/kg	wet weight	1	6.67	1.0	0.10	-0.99
Tafuri et al., 1977	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	Yes	Alfalfa	60	d	Field	April 1975, 0 kg/ha, alpha-chlordane	Table III	0.136	mg/kg	Not Stated dry assumed	none	0.14	Table V	1.333	ug/kg	Not Stated wet assumed	0.001	6.67	0.0089	0.065	-1.18
Tafuri et al., 1977	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	Yes	Alfalfa	150	d	Field	April 1975, 0 kg/ha, alpha-chlordane	Table III	0.136	mg/kg	Not Stated dry assumed	none	0.14	Table V	1.667	ug/kg	Not Stated wet assumed	0.001	6.67	0.011	0.082	-1.09
Tafuri et al., 1977	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	Yes	Alfalfa	150	d	Field	April 1975, 3 kg/ha, alpha-chlordane	Table III	1.863	mg/kg	Not Stated dry assumed	none	1.9	Table V	4	ug/kg	Not Stated wet assumed	0.001	6.67	0.027	0.014	-1.84
Tafuri et al., 1977	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	Yes	Alfalfa	150	d	Field	April 1975, 6 kg/ha, alpha-chlordane	Table III	3.794	mg/kg	Not Stated dry assumed	none	3.8	Table V	5.333	ug/kg	Not Stated wet assumed	0.001	6.67	0.036	0.0094	-2.03
Tafuri et al., 1977	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	Yes	Alfalfa	60	d	Field	April 1975, 6 kg/ha, alpha-chlordane	Table III	3.794	mg/kg	Not Stated dry assumed	none	3.8	Table V	7	ug/kg	Not Stated wet assumed	0.001	6.67	0.047	0.012	-1.91
Tafuri et al., 1977	Cyclodienes	alpha-Chlordane	5103719	6.1	SRC	Yes	Alfalfa	60	d	Field	April 1975, 3 kg/ha, alpha-chlordane	Table III	1.863	mg/kg	Not Stated dry assumed	none	1.9	Table V	7.333	ug/kg	Not Stated wet assumed	0.001	6.67	0.049	0.026	-1.58
Lichenstein, 1960	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 5 lb/acre	Table III	0.98	mg/kg	dry weight	none	0.98	Table III	0.06	mg/kg	wet weight	1	6.67	0.40	0.41	-0.39
Lichenstein, 1960	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 25 lb/acre	Table III	4.18	mg/kg	dry weight	none	4.2	Table III	0.08	mg/kg	wet weight	1	6.67	0.53	0.13	-0.89
Voerman and Besemer, 1975	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	0.77	ug/g	dry weight	none	0.77	Table 1	0.05	ug/g	dry weight	1	1	0.050	0.065	-1.19
Voerman and Besemer, 1975	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	1.73	ug/g	dry weight	none	1.7	Table 1	0.18	ug/g	dry weight	1	1	0.18	0.10	-0.98
Voerman and Besemer, 1975	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	7.3	ug/g	dry weight	none	7.3	Table 1	0.4	ug/g	dry weight	1	1	0.40	0.055	-1.26
Lichenstein, 1960	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Lettuce	60	d	Field	1959, 5 lb/acre	Table II	0.66	mg/kg	dry weight	none	0.66	Table II	0.07	mg/kg	wet weight	1	6.67	0.47	0.7	-0.15
Lichenstein, 1960	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 5 lb/acre	Table I	0.36	mg/kg	dry weight	none	0.36	Table I	0.12	mg/kg	wet weight	1	6.67	0.8	2.2	0.35
Lichenstein, 1960	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Lettuce	60	d	Field	1959, 25 lb/acre	Table II	1.83	mg/kg	dry weight	none	1.8	Table II	0.17	mg/kg	wet weight	1	6.67	1.1	0.6	-0.21
Lichenstein, 1960	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 25 lb/acre	Table I	1.31	mg/kg	dry weight	none	1.3	Table I	0.26	mg/kg	wet weight	1	6.67	1.7	1.3	0.12
Tafuri et al., 1977	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	Yes	Alfalfa	60	d	Field	April 1975, 0 kg/ha, gamma-chlorda	Table III	0.006	mg/kg	Not Stated dry assumed	none	0.0060	Table VI	1	ug/kg	Not Stated wet assumed	0.001	6.67	0.0067	1.1	0.05
Tafuri et al., 1977	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	Yes	Alfalfa	150	d	Field	April 1975, 0 kg/ha, gamma-chlorda	Table III	0.006	mg/kg	Not Stated dry assumed	none	0.0060	Table VI	1.667	ug/kg	Not Stated wet assumed	0.001	6.67	0.011	1.9	0.27
Tafuri et al., 1977	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	Yes	Alfalfa	60	d	Field	April 1975, 6 kg/ha, gamma-chlorda	Table III	1.29	mg/kg	Not Stated dry assumed	none	1.3	Table VI	2.33	ug/kg	Not Stated wet assumed	0.001	6.67	0.016	0.012	-1.92
Tafuri et al., 1977	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	Yes	Alfalfa	60	d	Field	April 1975, 3 kg/ha, gamma-chlorda	Table III	0.612	mg/kg	Not Stated dry assumed	none	0.61	Table VI	2.667	ug/kg	Not Stated wet assumed	0.001	6.67	0.018	0.029	-1.54
Tafuri et al., 1977	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	Yes	Alfalfa	150	d	Field	April 1975, 3 kg/ha, gamma-chlorda	Table III	0.612	mg/kg	Not Stated dry assumed	none	0.61	Table VI	2.667	ug/kg	Not Stated wet assumed	0.001	6.67	0.018	0.029	-1.54
Tafuri et al., 1977	Cyclodienes	gamma-Chlordane	57749	6.32	EPA 1995	Yes	Alfalfa	150	d	Field	April 1975, 6 kg/ha, gamma-chlorda	Table III	1.29	mg/kg	Not Stated dry assumed	none	1.3	Table VI	4.667	ug/kg	Not Stated wet assumed	0.001	6.67	0.031	0.024	-1.62
Lichenstein, 1960	Cyclodienes	Heptachlor	76448	6.26	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 25 lb/acre	Table III	5.98	mg/kg	dry weight	none	6.0	Table III	0.02	mg/kg	wet weight	1	6.67	0.13	0.022	-1.65
Lichenstein, 1960	Cyclodienes	Heptachlor	76448	6.26	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 5 lb/acre	Table I	2.17	mg/kg	dry weight	none	2.2	Table I	0.05	mg/kg	wet weight	1	6.67	0.3	0.15	-0.81
Lichenstein, 1960	Cyclodienes	Heptachlor	76448	6.26	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 25 lb/acre	Table I	10.78	mg/kg	dry weight	none	11	Table I	0.27	mg/kg	wet weight	1	6.67	1.8	0.17	-0.78
Lichenstein, 1960	Cyclodienes	Heptachlor Epoxide	1024573	5	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 25 lb/acre	Table III	2.53	mg/kg	dry weight	none	2.5	Table III	0.09	mg/kg	wet weight	1	6.67	0.60	0.24	-0.62
Lichenstein, 1960	Cyclodienes	Heptachlor Epoxide	1024573	5	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 5 lb/acre	Table III	0.74	mg/kg	dry weight	none	0.74	Table III	0.1	mg/kg	wet weight	1	6.67	0.67	0.90	-0.05
Lichenstein, 1960	Cyclodienes	Heptachlor Epoxide	1024573	5	EPA 1995	Yes	Lettuce	60	d	Field	1959, 5 lb/acre	Table II	0.39	mg/kg	dry weight	none	0.39	Table II	0.03	mg/kg	wet weight	1	6.67	0.20	0.5	-0.29
Lichenstein, 1960	Cyclodienes	Heptachlor Epoxide	1024573	5	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 5 lb/acre	Table I	0.21	mg/kg	dry weight	none	0.21	Table I	0.05	mg/kg	wet weight	1	6.67	0.3	1.6	0.20
Lichenstein, 1960	Cyclodienes	Heptachlor Epoxide	1024573	5	EPA 1995	Yes	Lettuce	60	d	Field	1959, 25 lb/acre	Table II	0.78	mg/kg	dry weight	none	0.78	Table II	0.05	mg/kg	wet weight	1	6.67	0.3	0.4	-0.37
Lichenstein, 1960	Cyclodienes	Heptachlor Epoxide	1024573	5	EPA 1995	Yes	Lettuce	60	d	Field	May 1958, 25 lb/acre	Table I	0.63	mg/kg	dry weight	none	0.63	Table I	0.29	mg/kg	wet weight	1	6.67	1.9	3	0.49
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	GrdnBean	4	wk	Lab	Treated with 0.3 ppm mirex in soil	Table 1	0.3	mg/kg	dry weight	none	0.30	Table 1	0.01	mg/kg	dry weight	1	1	0.010	0.033	-1.48
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	GrdnBean	4	wk	Lab	Treated with 0.31 ppm mirex in loam	Table 1	0.31	mg/kg	dry weight	none	0.31	Table 1	0.01	mg/kg	dry weight	1	1	0.010	0.032	-1.49
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	GrdnBean	4	wk	Lab	Treated with 0.8 ppm mirex in soil	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.11	mg/kg	dry weight	1	1	0.11	0.14	-0.86
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	GrdnBean	4	wk	Lab	Treated with 0.8 ppm mirex in loamy	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.19	mg/kg	dry weight	1	1	0.19	0.24	-0.62
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	GrdnBean	4	wk	Lab	Treated with 3.5 ppm mirex in soil	Table 1	3.5	mg/kg	dry weight	none	3.5	Table 1	0.2	mg/kg	dry weight	1	1	0.20	0.057	-1.24
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	GrdnBean	4	wk	Lab	Treated with 3.4 ppm mirex in loamy	Table 1	3.4	mg/kg	dry weight	none	3.4	Table 1	0.4	mg/kg	dry weight	1	1	0.40	0.12	-0.93
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Sorghum	4	wk	Lab	Treated with 0.3 ppm mirex in soil	Table 1	0.3	mg/kg	dry weight	none	0.30	Table 1	0.11	mg/kg	dry weight	1	1	0.11	0.37	-0.44
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Sorghum	4	wk	Lab	Treated with 0.31 ppm mirex in loam	Table 1	0.31	mg/kg	dry weight	none	0.31	Table 1	0.18	mg/kg	dry weight	1	1	0.18	0.58	-0.24
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Sorghum	4	wk	Lab	Treated with 0.8 ppm mirex in soil	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.2	mg/kg	dry weight	1	1	0.20	0.25	-0.60
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Sorghum	4	wk	Lab	Treated with 3.5 ppm mirex in soil	Table 1	3.5	mg/kg	dry weight	none	3.5	Table 1	0.22	mg/kg	dry weight	1	1	0.22	0.063	-1.20
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Sorghum	4	wk	Lab	Treated with 0.8 ppm mirex in loamy	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.33	mg/kg	dry weight	1	1	0.33	0.41	-0.38
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Sorghum	4	wk	Lab	Treated with 3.4 ppm mirex in loamy	Table 1	3.4	mg/kg	dry weight	none	3.4	Table 1	0.4	mg/kg	dry weight	1	1	0.40	0.12	-0.93
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Soybean	4	wk	Lab	Treated with 0.31 ppm mirex in loam	Table 1	0.31	mg/kg	dry weight	none	0.31	Table 1	0.03	mg/kg	dry weight	1	1	0.030	0.097	-1.01
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Soybean	4	wk	Lab	Treated with 0.3 ppm mirex in soil	Table 1	0.3	mg/kg	dry weight	none	0.30	Table 1	0.1	mg/kg	dry weight	1	1	0.10	0.33	-0.48
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Soybean	4	wk	Lab	Treated with 0.8 ppm mirex in soil	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.12	mg/kg	dry weight	1	1	0.12	0.15	-0.82
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Soybean	4	wk	Lab	Treated with 0.8 ppm mirex in loamy	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.18	mg/kg	dry weight	1	1	0.18	0.23	-0.65
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Soybean	4	wk	Lab	Treated with 3.5 ppm mirex in soil	Table 1	3.5	mg/kg	dry weight	none	3.5	Table 1	0.21	mg/kg	dry weight	1	1	0.21	0.060	-1.22

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Soybean	4	wk	Lab	Treated with 3.4 ppm mirex in loamy	Table 1	3.4	mg/kg	dry weight	none	3.4	Table 1	0.36	mg/kg	dry weight	1	1	0.36	0.11	-0.98
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Wheat	4	wk	Lab	Treated with 0.31 ppm mirex in loam	Table 1	0.31	mg/kg	dry weight	none	0.31	Table 1	0.04	mg/kg	dry weight	1	1	0.040	0.13	-0.89
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Wheat	4	wk	Lab	Treated with 0.3 ppm mirex in soil	Table 1	0.3	mg/kg	dry weight	none	0.30	Table 1	0.09	mg/kg	dry weight	1	1	0.090	0.30	-0.52
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Wheat	4	wk	Lab	Treated with 3.5 ppm mirex in soil	Table 1	3.5	mg/kg	dry weight	none	3.5	Table 1	0.17	mg/kg	dry weight	1	1	0.17	0.049	-1.31
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Wheat	4	wk	Lab	Treated with 0.8 ppm mirex in soil	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.18	mg/kg	dry weight	1	1	0.18	0.23	-0.65
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Wheat	4	wk	Lab	Treated with 0.8 ppm mirex in loamy	Table 1	0.8	mg/kg	dry weight	none	0.80	Table 1	0.19	mg/kg	dry weight	1	1	0.19	0.24	-0.62
De La Cruz and Rajanna, 1975	Cyclodienes	Mirex	2385855	6.89	EPA 1995	Yes	Wheat	4	wk	Lab	Treated with 3.4 ppm mirex in loamy	Table 1	3.4	mg/kg	dry weight	none	3.4	Table 1	0.21	mg/kg	dry weight	1	1	0.21	0.062	-1.21
Voerman and Besemer, 1975	DDTanalog	DDE	72559	6.76	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	0.44	ug/g	dry weight	none	0.44	Table 1	0.06	ug/g	dry weight	1	1	0.060	0.14	-0.87
Voerman and Besemer, 1975	DDTanalog	DDE	72559	6.76	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	1.2	ug/g	dry weight	none	1.2	Table 1	0.09	ug/g	dry weight	1	1	0.090	0.075	-1.12
Voerman and Besemer, 1975	DDTanalog	DDE	72559	6.76	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	4.5	ug/g	dry weight	none	4.5	Table 1	2.79	ug/g	dry weight	1	1	2.79	0.62	-0.21
Voerman and Besemer, 1975	DDTanalog	DDT	50293	6.53	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	2.45	ug/g	dry weight	none	2.5	Table 1	0.04	ug/g	dry weight	1	1	0.040	0.016	-1.79
Voerman and Besemer, 1975	DDTanalog	DDT	789026	5.75	Verschueren2001	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	0.63	ug/g	dry weight	none	0.63	Table 1	0.05	ug/g	dry weight	1	1	0.050	0.079	-1.10
Voerman and Besemer, 1975	DDTanalog	DDT	789026	5.75	Verschueren2001	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	1.5	ug/g	dry weight	none	1.5	Table 1	0.07	ug/g	dry weight	1	1	0.070	0.047	-1.33
Voerman and Besemer, 1975	DDTanalog	DDT	789026	5.75	Verschueren2001	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	12.2	ug/g	dry weight	none	12	Table 1	0.28	ug/g	dry weight	1	1	0.28	0.023	-1.64
Voerman and Besemer, 1975	DDTanalog	DDT	50293	6.53	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	5.8	ug/g	dry weight	none	5.8	Table 1	0.32	ug/g	dry weight	1	1	0.32	0.055	-1.26
Voerman and Besemer, 1975	DDTanalog	DDT	50293	6.53	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	42.5	ug/g	dry weight	none	43	Table 1	1.2	ug/g	dry weight	1	1	1.2	0.028	-1.55
Eschel et al., 1978	Nitro/Chloro-aromatics	Ethofumesate	26225796	2.7	SRC	Yes	SugarBeet	20	d	Lab	Laboratory test using plastic pots, s	Text Sect 2.3	1	mg/kg	Not Stated dry assumed	none	1.0	Table 1	11.96	mg/kg ww	wet weight	1	6.67	79.73	79.73	1.90
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Cabbage	1	season	Field	1956 sandy loam 10 lbs added	Table I	1.33	mg/kg	Not Stated dry assumed	none	1.3	Table I	0.37	mg/kg	Not Stated wet assumed	1	6.67	2.5	1.9	0.27
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Cabbage	1	season	Field	1956 muck 10 lbs added	Table I	7.58	mg/kg	Not Stated dry assumed	none	7.6	Table I	0.09	mg/kg	Not Stated wet assumed	1	6.67	0.60	0.079	-1.10
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Cabbage	1	season	Field	1956 muck 100 lbs added	Table I	94.5	mg/kg	Not Stated dry assumed	none	95	Table I	0.15	mg/kg	Not Stated wet assumed	1	6.67	1.0	0.011	-1.98
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Cabbage	1	season	Field	1956 Miami silt loam 100 lbs added	Table I	17.1	mg/kg	Not Stated dry assumed	none	17	Table I	0.31	mg/kg	Not Stated wet assumed	1	6.67	2.1	0.12	-0.92
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Cabbage	1	season	Field	1956 sandy loam 100 lbs added	Table I	20.85	mg/kg	Not Stated dry assumed	none	21	Table I	2.37	mg/kg	Not Stated wet assumed	1	6.67	16	0.76	-0.12
Voerman and Besemer, 1975	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	0.32	ug/g	dry weight	none	0.32	Table 1	0.1	ug/g	dry weight	1	1	0.10	0.31	-0.51
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Pea	1	season	Field	1956 muck 10 lbs added	Table I	7.58	mg/kg	Not Stated dry assumed	none	7.6	Table I	0.11	mg/kg	Not Stated wet assumed	1	6.67	0.73	0.097	-1.01
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Pea	1	season	Field	1956 muck 100 lbs added	Table I	94.5	mg/kg	Not Stated dry assumed	none	95	Table I	0.79	mg/kg	Not Stated wet assumed	1	6.67	5.3	0.056	-1.25
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Pea	1	season	Field	1956 sandy loam 10 lbs added	Table I	1.33	mg/kg	Not Stated dry assumed	none	1.3	Table I	1.52	mg/kg	Not Stated wet assumed	1	6.67	10	7.6	0.88
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Pea	1	season	Field	1956 Miami silt loam 100 lbs added	Table I	17.1	mg/kg	Not Stated dry assumed	none	17	Table I	4.92	mg/kg	Not Stated wet assumed	1	6.67	33	1.9	0.28
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Pea	1	season	Field	1956 sandy loam 100 lbs added	Table I	20.85	mg/kg	Not Stated dry assumed	none	21	Table I	18.4	mg/kg	Not Stated wet assumed	1	6.67	123	5.9	0.77
Schneider et al 1995	Nitro/Chloro-aromatics	TNT	118967		SRC	Yes	blacklocust	999	Resident	field	Field collected resident plants at an	Table B.1	13.8	mg/kg	dry weight	none	14	Table B.1	4.4	mg/kg	dry weight	1	1	4.4	0.32	-0.50
Schneider et al 1995	Nitro/Chloro-aromatics	TNT	118967		SRC	Yes	moothbromegras	999	Resident	field	Field collected resident plants at an	Table B.1	11000	mg/kg	dry weight	none	11,000	Table B.1	0.76	mg/kg	dry weight	1	1	0.76	0.000069	-4.16
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	13	ug/kg	Not Stated dry assumed	0.001	0.0130	Table 2	11	ug/kg	dry weight	0.001	1	0.011	0.85	-0.07
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	15	ug/kg	Not Stated dry assumed	0.001	0.0150	Table 2	12	ug/kg	dry weight	0.001	1	0.012	0.80	-0.10
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	53	ug/kg	Not Stated dry assumed	0.001	0.0530	Table 2	17	ug/kg	dry weight	0.001	1	0.017	0.32	-0.49
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	16	ug/kg	Not Stated dry assumed	0.001	0.0160	Table 2	24	ug/kg	dry weight	0.001	1	0.024	1.5	0.18
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	15	ug/kg	Not Stated dry assumed	0.001	0.0150	Table 2	69	ug/kg	dry weight	0.001	1	0.069	4.6	0.66
Kipopoulou et al. 1999	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	0.6	ug/kg	dry weight	0.001	0.00060	Table 1	0.6	ug/kg	dry weight	0.001	1	0.00060	1.0	0.00
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	53	ug/kg	Not Stated dry assumed	0.001	0.0530	Table 2	1	ug/kg	dry weight	0.001	1	0.0010	0.019	-1.72
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	16	ug/kg	Not Stated dry assumed	0.001	0.0160	Table 2	11	ug/kg	dry weight	0.001	1	0.011	0.69	-0.16
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	15	ug/kg	Not Stated dry assumed	0.001	0.0150	Table 2	25	ug/kg	dry weight	0.001	1	0.025	1.7	0.22
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	13	ug/kg	Not Stated dry assumed	0.001	0.0130	Table 2	44	ug/kg	dry weight	0.001	1	0.044	3.4	0.53
Kipopoulou et al. 1999	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	endive	1	season	field	na	Table 2	0.6	ug/kg	dry weight	0.001	0.00060	Table 1	1.2	ug/kg	dry weight	0.001	1	0.0012	2.0	0.30
Kipopoulou et al. 1999	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	leek	1	season	field	na	Table 2	0.6	ug/kg	dry weight	0.001	0.00060	Table 1	0.47	ug/kg	dry weight	0.001	1	0.00047	0.78	-0.11
Kipopoulou et al. 1999	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	0.6	ug/kg	dry weight	0.001	0.00060	Table 1	1.4	ug/kg	dry weight	0.001	1	0.0014	2.3	0.37
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	35	ug/kg	Not Stated dry assumed	0.001	0.0350	Table 2	69	ug/kg	dry weight	0.001	1	0.069	2.0	0.29
Edwards et al. 1982	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Soybean	4	d	Lab	Flooded soil	Table 2	14	ug/kg	dry weight	0.001	0.0140	Table 2	14	ug/kg	dry weight	0.001	1	0.014	1.0	0.00
Edwards et al. 1982	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Soybean	4	d	Lab	moist soil	Table 2	10	ug/kg	dry weight	0.001	0.0100	Table 2	31	ug/kg	dry weight	0.001	1	0.031	3.1	0.49
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	3	ug/kg	Not Stated dry assumed	0.001	0.0030	Table 2	9	ug/kg	dry weight	0.001	1	0.0090	3.0	0.48
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	24	ug/kg	Not Stated dry assumed	0.001	0.0240	Table 2	36	ug/kg	dry weight	0.001	1	0.036	1.5	0.18
Kipopoulou et al. 1999	PAHs	Benzo(a)anthracene	56553	5.7	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	5.4	ug/kg	dry weight	0.001	0.0054	Table 1	2.9	ug/kg	dry weight	0.001	1	0.0029	0.54	-0.27
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	35	ug/kg	Not Stated dry assumed	0.001	0.0350	Table 2	19	ug/kg	dry weight	0.001	1	0.019	0.54	-0.27
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	250	ug/kg	Not Stated dry assumed	0.001	0.25	Table 2	23	ug/kg	dry weight	0.001	1	0.023	0.092	-1.04
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	250	ug/kg	Not Stated dry assumed	0.001	0.25	Table 2	25	ug/kg	dry weight	0.001	1	0.025	0.10	-1.00
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	30	ug/kg	Not Stated dry assumed	0.001	0.0300	Table 2	28	ug/kg	dry weight	0.001	1	0.028	0.93	-0.03
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	410	ug/kg	Not Stated dry assumed	0.001	0.41	Table 2	42	ug/kg	dry weight	0.001	1	0.042	0.10	-0.99
Kipopoulou et al. 1999	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	2.4	ug/kg	dry weight	0.001	0.0024	Table 1	0.1	ug/kg	dry weight	0.001	1	0.00010	0.042	-1.38
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	30	ug/kg	Not Stated dry assumed	0.001	0.0300	Table 2	12	ug/kg	dry weight	0.001	1	0.012	0.40	-0.40
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	410	ug/kg	Not Stated dry assumed	0.001	0.41	Table 2	16	ug/kg	dry weight	0.001	1	0.016	0.039	-1.41
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	250	ug/kg	Not Stated dry assumed	0.001	0.25	Table 2	21	ug/kg	dry weight	0.001	1	0.021	0.084	-1.08
Kipopoulou et al. 1999	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	Yes	endive	1	season	field	na	Table 2	2.4	ug/kg	dry weight	0.001	0.0024	Table 1	0.24	ug/kg	dry weight	0.001	1	0.00024	0.10	-1.00
Kipopoulou et al. 1999	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	Yes	leek	1	season	field	na	Table 2	2.4	ug/kg	dry weight	0.001	0.0024	Table 1	0.15	ug/kg	dry weight	0.001	1	0.00015	0.063	-1.20
Kipopoulou et al. 1999	PAHs	Benzo(a)pyrene	50328	6.11	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	2.4	ug/kg	dry weight	0.001	0.0024	Table 1	0.28	ug/kg	dry weight	0.001	1	0.00028	0.12	-0.93
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	260	ug/kg	Not Stated dry assumed	0.001	0.26	Table 2	17	ug/kg	dry weight	0.001	1	0.017	0.065	-1.18
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	45	ug/kg	Not Stated dry assumed	0.001	0.0450	Table 2	37	ug/kg	dry weight	0.001	1	0.037	0.82	-0.09
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	340	ug/kg	Not Stated dry assumed	0.001	0.34	Table 2	39	ug/kg	dry weight	0.001	1	0.039	0.11	-0.94
Kipopoulou et al. 1999	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	2.5	ug/kg	dry weight	0.001	0.0025	Table 1	0.2	ug/kg	dry weight	0.001	1	0.00020	0.080	-1.10
Kipopoulou et al. 1999	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	Yes	endive	1	season	field	na	Table 2	2.5	ug/kg	dry weight	0.001	0.0025	Table 1	1.2	ug/kg	dry weight	0.001	1	0.0012	0.48	-0.32
Kipopoulou et al. 1999	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	Yes	leek	1	season	field	na	Table 2	2.5	ug/kg	dry weight	0.001	0.0025	Table 1	0.45	ug/kg	dry weight	0.001	1	0.00045	0.18	-0.74
Kipopoulou et al. 1999	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	2.5	ug/kg	dry weight	0.001	0.0025	Table 1	1.1	ug/kg	dry weight	0.001	1	0.0011	0.44	-0.36
Kipopoulou et al. 1999	PAHs	benzo(e)pyrene	192972	6.44	SRC	Yes	Cabbage	1	season	field	na	Table 2	5.9	ug/kg	dry weight	0.001	0.0059	Table 1	0.6	ug/kg	dry weight	0.001	1	0.00060	0.10	-0.99
Kipopoulou et al. 1999	PAHs	benzo(e)pyrene	192972	6.44	SRC	Yes	endive	1	season	field	na	Table 2	5.9	ug/kg	dry weight	0.001	0.0059	Table 1	1.3	ug/kg	dry weight	0.001	1	0.0013	0.22	-0.66
Kipopoulou et al. 1999	PAHs	benzo(e)pyrene	192972	6.44	SRC	Yes	leek	1	season	field	na	Table 2	5.9	ug/kg	dry weight	0.001	0.0059	Table 1	0.94	ug/kg	dry weight	0.001	1	0.00094	0.16	-0.80
Kipopoulou et al. 1999	PAHs	benzo(e)pyrene	192972	6.44	SRC	Yes	Lettuce	1	season	field	na	Table 2	5.9	ug/kg	dry weight	0.001	0.0059	Table 1	1.6	ug/kg	dry weight	0.001	1	0.0016	0.27	-0.57
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	110	ug/kg	Not Stated dry assumed	0.001	0.11	Table 2	23	ug/kg	dry weight	0.001	1	0.023	0.21	-0.68
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	530	ug/kg	Not Stated dry assumed	0.001	0.53	Table 2	56	ug/kg	dry weight	0.001	1	0.056	0.11	-0.98
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	90	ug/kg	Not Stated dry assumed	0.001	0.0900	Table 2	140	ug/kg	dry weight	0.001	1	0.14	1.6	0.19
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	900	ug/kg	Not Stated dry assumed	0.001	0.90	Table 2	160	ug/kg	dry weight	0.001	1	0.16	0.18	-0.75
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	530	ug/kg	Not Stated dry assumed	0.001	0.53	Table 2	162	ug/kg	dry weight	0.001	1	0.16	0.31	-0.51
Kipopoulou et al. 1999	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	3.6	ug/kg	dry weight	0.001	0.0036	Table 1	0.32	ug/kg	dry weight	0.001	1	0.00032	0.089	-1.05
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	110	ug/kg	Not Stated dry assumed	0.001	0.11	Table 2	81	ug/kg	dry weight	0.001	1	0.081	0.74	-0.13
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	90	ug/kg	Not Stated dry assumed	0.001	0.0900	Table 2	109	ug/kg	dry weight	0.001	1	0.11	1.2	0.08
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	530	ug/kg	Not Stated dry assumed	0.001	0.53	Table 2	111	ug/kg	dry weight	0.001	1	0.11	0.21	-0.68
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	900	ug/kg	Not Stated dry assumed	0.001	0.90	Table 2	378	ug/kg	dry weight	0.001	1	0.38	0.42	-0.38
Kipopoulou et al. 1999	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	endive	1	season	field	na	Table 2	3.6	ug/kg	dry weight	0.001	0.0036	Table 1	0.27	ug/kg	dry weight	0.001	1	0.00027	0.075	-1.12
Kipopoulou et al. 1999	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	leek	1	season	field	na	Table 2	3.6	ug/kg	dry weight	0.001	0.0036	Table 1	0.47	ug/kg	dry weight	0.001	1	0.00047	0.13	-0.88
Kipopoulou et al. 1999	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	3.6	ug/kg	dry weight	0.001	0.0036	Table 1	0.19	ug/kg	dry weight	0.001	1	0.00019	0.053	-1.28
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	550	ug/kg	Not Stated dry assumed	0.001	0.55	Table 2	93	ug/kg	dry weight	0.001	1	0.093	0.17	-0.77
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	170	ug/kg	Not Stated dry assumed	0.001	0.17	Table 2	137	ug/kg	dry weight	0.001	1	0.14	0.81	-0.09
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	98	ug/kg	Not Stated dry assumed	0.001	0.0980	Table 2	76	ug/kg	dry weight	0.001	1	0.076	0.78	-0.11
Wild et al. 1990, 1992	PAHs	Benzo(ghi)perylene	191242	6.7	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	550	ug/kg	Not Stated dry assumed	0.001	0.55	Table 2	80	ug/kg	dry weight	0.001	1	0.080	0.15	-0.84
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	370	ug/kg	Not Stated dry assumed	0.001	0.37	Table 2	9	ug/kg	dry weight	0.001	1	0.0090	0.024	-1.61

Appendix B
Bioaccumulation Data for Uptake of Non-Ionic Organic Chemicals from Soil into Plant Foliage

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	370	ug/kg	Not Stated dry assumed	0.001	0.37	Table 2	33	ug/kg	dry weight	0.001	1	0.033	0.089	-1.05
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	68	ug/kg	Not Stated dry assumed	0.001	0.0680	Table 2	34	ug/kg	dry weight	0.001	1	0.034	0.50	-0.30
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	670	ug/kg	Not Stated dry assumed	0.001	0.67	Table 2	57	ug/kg	dry weight	0.001	1	0.057	0.085	-1.07
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	71	ug/kg	Not Stated dry assumed	0.001	0.0710	Table 2	58	ug/kg	dry weight	0.001	1	0.058	0.82	-0.09
Kipopoulou et al. 1999	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	1	ug/kg	dry weight	0.001	0.0010	Table 1	0.08	ug/kg	dry weight	0.001	1	0.000080	0.080	-1.10
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	68	ug/kg	Not Stated dry assumed	0.001	0.0680	Table 2	16	ug/kg	dry weight	0.001	1	0.016	0.24	-0.63
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	71	ug/kg	Not Stated dry assumed	0.001	0.0710	Table 2	21	ug/kg	dry weight	0.001	1	0.021	0.30	-0.53
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	670	ug/kg	Not Stated dry assumed	0.001	0.67	Table 2	48	ug/kg	dry weight	0.001	1	0.048	0.072	-1.14
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	370	ug/kg	Not Stated dry assumed	0.001	0.37	Table 2	119	ug/kg	dry weight	0.001	1	0.12	0.32	-0.49
Kipopoulou et al. 1999	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	endive	1	season	field	na	Table 2	1	ug/kg	dry weight	0.001	0.0010	Table 1	0.36	ug/kg	dry weight	0.001	1	0.00036	0.36	-0.44
Kipopoulou et al. 1999	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	leek	1	season	field	na	Table 2	1	ug/kg	dry weight	0.001	0.0010	Table 1	0.17	ug/kg	dry weight	0.001	1	0.00017	0.17	-0.77
Kipopoulou et al. 1999	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	1	ug/kg	dry weight	0.001	0.0010	Table 1	0.34	ug/kg	dry weight	0.001	1	0.00034	0.34	-0.47
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	410	ug/kg	Not Stated dry assumed	0.001	0.41	Table 2	8	ug/kg	dry weight	0.001	1	0.0080	0.020	-1.71
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	75	ug/kg	Not Stated dry assumed	0.001	0.0750	Table 2	25	ug/kg	dry weight	0.001	1	0.025	0.33	-0.48
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	77	ug/kg	Not Stated dry assumed	0.001	0.0770	Table 2	45	ug/kg	dry weight	0.001	1	0.045	0.58	-0.23
Wild et al. 1990, 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	470	ug/kg	Not Stated dry assumed	0.001	0.47	Table 2	69	ug/kg	dry weight	0.001	1	0.069	0.15	-0.83
Kipopoulou et al. 1999	PAHs	Chrysene	218019	5.7	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	3.7	ug/kg	dry weight	0.001	0.0037	Table 1	0.6	ug/kg	dry weight	0.001	1	0.00060	0.16	-0.79
Kipopoulou et al. 1999	PAHs	Chrysene	218019	5.7	EPA 1995	Yes	endive	1	season	field	na	Table 2	3.7	ug/kg	dry weight	0.001	0.0037	Table 1	3.9	ug/kg	dry weight	0.001	1	0.0039	1.1	0.02
Kipopoulou et al. 1999	PAHs	Chrysene	218019	5.7	EPA 1995	Yes	leek	1	season	field	na	Table 2	3.7	ug/kg	dry weight	0.001	0.0037	Table 1	1.9	ug/kg	dry weight	0.001	1	0.0019	0.51	-0.29
Kipopoulou et al. 1999	PAHs	Chrysene	218019	5.7	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	3.7	ug/kg	dry weight	0.001	0.0037	Table 1	3.9	ug/kg	dry weight	0.001	1	0.0039	1.1	0.02
Kipopoulou et al. 1999	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	0.43	ug/kg	dry weight	0.001	0.00043	Table 1	0.1	ug/kg	dry weight	0.001	1	0.00010	0.23	-0.63
Kipopoulou et al. 1999	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	Yes	endive	1	season	field	na	Table 2	0.43	ug/kg	dry weight	0.001	0.00043	Table 1	0.06	ug/kg	dry weight	0.001	1	0.000060	0.14	-0.86
Kipopoulou et al. 1999	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	Yes	leek	1	season	field	na	Table 2	0.43	ug/kg	dry weight	0.001	0.00043	Table 1	0.05	ug/kg	dry weight	0.001	1	0.000050	0.12	-0.93
Kipopoulou et al. 1999	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	0.43	ug/kg	dry weight	0.001	0.00043	Table 1	0.03	ug/kg	dry weight	0.001	1	0.000030	0.070	-1.16
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	140	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	9	ug/kg	dry weight	0.001	1	0.0090	0.064	-1.19
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	1030	ug/kg	Not Stated dry assumed	0.001	1.0	Table 2	32	ug/kg	dry weight	0.001	1	0.032	0.031	-1.51
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	220	ug/kg	Not Stated dry assumed	0.001	0.22	Table 2	198	ug/kg	dry weight	0.001	1	0.20	0.90	-0.05
Kipopoulou et al. 1999	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	7.3	ug/kg	dry weight	0.001	0.0073	Table 1	3	ug/kg	dry weight	0.001	1	0.0030	0.41	-0.39
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	220	ug/kg	Not Stated dry assumed	0.001	0.22	Table 2	109	ug/kg	dry weight	0.001	1	0.11	0.50	-0.30
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	1030	ug/kg	Not Stated dry assumed	0.001	1.0	Table 2	119	ug/kg	dry weight	0.001	1	0.12	0.12	-0.94
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	410	ug/kg	Not Stated dry assumed	0.001	0.41	Table 2	631	ug/kg	dry weight	0.001	1	0.63	1.5	0.19
Kipopoulou et al. 1999	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	endive	1	season	field	na	Table 2	7.3	ug/kg	dry weight	0.001	0.0073	Table 1	44	ug/kg	dry weight	0.001	1	0.044	6.0	0.78
Kipopoulou et al. 1999	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	leek	1	season	field	na	Table 2	7.3	ug/kg	dry weight	0.001	0.0073	Table 1	18	ug/kg	dry weight	0.001	1	0.018	2.5	0.39
Kipopoulou et al. 1999	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	7.3	ug/kg	dry weight	0.001	0.0073	Table 1	34	ug/kg	dry weight	0.001	1	0.034	4.7	0.67
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	130	ug/kg	Not Stated dry assumed	0.001	0.13	Table 2	24	ug/kg	dry weight	0.001	1	0.024	0.18	-0.73
Kipopoulou et al. 1999	PAHs	fluorene	86737	4.21	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	101	ug/kg	dry weight	0.001	0.10	Table 1	1.1	ug/kg	dry weight	0.001	1	0.0011	0.011	-1.96
Kipopoulou et al. 1999	PAHs	fluorene	86737	4.21	EPA 1995	Yes	endive	1	season	field	na	Table 2	101	ug/kg	dry weight	0.001	0.10	Table 1	5.7	ug/kg	dry weight	0.001	1	0.0057	0.056	-1.25
Kipopoulou et al. 1999	PAHs	fluorene	86737	4.21	EPA 1995	Yes	leek	1	season	field	na	Table 2	101	ug/kg	dry weight	0.001	0.10	Table 1	2.6	ug/kg	dry weight	0.001	1	0.0026	0.026	-1.59
Kipopoulou et al. 1999	PAHs	fluorene	86737	4.21	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	101	ug/kg	dry weight	0.001	0.10	Table 1	5.8	ug/kg	dry weight	0.001	1	0.0058	0.057	-1.24
Kipopoulou et al. 1999	PAHs	Indeno(123 cd)pyrene	193395	6.65	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	2.1	ug/kg	dry weight	0.001	0.0021	Table 1	0.15	ug/kg	dry weight	0.001	1	0.00015	0.071	-1.15
Kipopoulou et al. 1999	PAHs	Indeno(123 cd)pyrene	193395	6.65	EPA 1995	Yes	endive	1	season	field	na	Table 2	2.1	ug/kg	dry weight	0.001	0.0021	Table 1	0.31	ug/kg	dry weight	0.001	1	0.00031	0.15	-0.83
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	52	ug/kg	dry weight	0.001	1	0.052	13	1.11
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	31	ug/kg	Not Stated dry assumed	0.001	0.0310	Table 2	58	ug/kg	dry weight	0.001	1	0.058	1.9	0.27
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	1	ug/kg	Not Stated dry assumed	0.001	0.0010	Table 2	70	ug/kg	dry weight	0.001	1	0.070	70	1.85
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	79	ug/kg	dry weight	0.001	1	0.079	20	1.30
Kipopoulou et al. 1999	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	17	ug/kg	dry weight	0.001	0.0170	Table 1	5	ug/kg	dry weight	0.001	1	0.0050	0.29	-0.53
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	1	ug/kg	Not Stated dry assumed	0.001	0.0010	Table 2	48	ug/kg	dry weight	0.001	1	0.048	48	1.68
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	48	ug/kg	dry weight	0.001	1	0.048	12	1.08
Kipopoulou et al. 1999	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	endive	1	season	field	na	Table 2	17	ug/kg	dry weight	0.001	0.0170	Table 1	29	ug/kg	dry weight	0.001	1	0.029	1.7	0.23
Kipopoulou et al. 1999	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	leek	1	season	field	na	Table 2	17	ug/kg	dry weight	0.001	0.0170	Table 1	18	ug/kg	dry weight	0.001	1	0.018	1.1	0.02
Kipopoulou et al. 1999	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	17	ug/kg	dry weight	0.001	0.0170	Table 1	42	ug/kg	dry weight	0.001	1	0.042	2.5	0.39
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	3	ug/kg	Not Stated dry assumed	0.001	0.0030	Table 2	129	ug/kg	dry weight	0.001	1	0.13	43	1.63
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	34	ug/kg	Not Stated dry assumed	0.001	0.0340	Table 2	308	ug/kg	dry weight	0.001	1	0.31	9.1	0.96
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	3	ug/kg	Not Stated dry assumed	0.001	0.0030	Table 2	37	ug/kg	dry weight	0.001	1	0.037	12	1.09
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	8	ug/kg	Not Stated dry assumed	0.001	0.0080	Table 2	113	ug/kg	dry weight	0.001	1	0.11	14	1.15
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	89	ug/kg	Not Stated dry assumed	0.001	0.0890	Table 2	185	ug/kg	dry weight	0.001	1	0.19	2.1	0.32
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	150	ug/kg	Not Stated dry assumed	0.001	0.15	Table 2	373	ug/kg	dry weight	0.001	1	0.37	2.5	0.40
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	89	ug/kg	Not Stated dry assumed	0.001	0.0890	Table 2	577	ug/kg	dry weight	0.001	1	0.58	6.5	0.81
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	340	ug/kg	Not Stated dry assumed	0.001	0.34	Table 2	700	ug/kg	dry weight	0.001	1	0.70	2.1	0.31
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	980	ug/kg	Not Stated dry assumed	0.001	0.98	Table 2	1074	ug/kg	dry weight	0.001	1	1.1	1.1	0.04
Kipopoulou et al. 1999	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	8.6	ug/kg	dry weight	0.001	0.0086	Table 1	18	ug/kg	dry weight	0.001	1	0.018	2.1	0.32
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	150	ug/kg	Not Stated dry assumed	0.001	0.15	Table 2	49	ug/kg	dry weight	0.001	1	0.049	0.33	-0.49
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	340	ug/kg	Not Stated dry assumed	0.001	0.34	Table 2	930	ug/kg	dry weight	0.001	1	0.93	2.7	0.44
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	89	ug/kg	Not Stated dry assumed	0.001	0.0890	Table 2	977	ug/kg	dry weight	0.001	1	0.98	11	1.04
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	980	ug/kg	Not Stated dry assumed	0.001	0.98	Table 2	1485	ug/kg	dry weight	0.001	1	1.5	1.5	0.18
Kipopoulou et al. 1999	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	endive	1	season	field	na	Table 2	8.6	ug/kg	dry weight	0.001	0.0086	Table 1	43	ug/kg	dry weight	0.001	1	0.043	5.0	0.70
Kipopoulou et al. 1999	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	leek	1	season	field	na	Table 2	8.6	ug/kg	dry weight	0.001	0.0086	Table 1	33	ug/kg	dry weight	0.001	1	0.033	3.8	0.58
Kipopoulou et al. 1999	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	8.6	ug/kg	dry weight	0.001	0.0086	Table 1	58	ug/kg	dry weight	0.001	1	0.058	6.7	0.83
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	380	ug/kg	Not Stated dry assumed	0.001	0.38	Table 2	24	ug/kg	dry weight	0.001	1	0.024	0.063	-1.20
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	160	ug/kg	Not Stated dry assumed	0.001	0.16	Table 2	191	ug/kg	dry weight	0.001	1	0.19	1.2	0.08
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	30	ug/kg	Not Stated dry assumed	0.001	0.0300	Table 2	191	ug/kg	dry weight	0.001	1	0.19	6.4	0.80
Wild et al. 1990, 1992	PAHs	Phenanthrene	85018	4.55	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	170	ug/kg	Not Stated dry assumed	0.001	0.17	Table 2	310	ug/kg	dry weight	0.001	1	0.31	1.8	0.26
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	110	ug/kg	Not Stated dry assumed	0.001	0.11	Table 2	78	ug/kg	dry weight	0.001	1	0.078	0.71	-0.15
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	100	ug/kg	Not Stated dry assumed	0.001	0.10	Table 2	177	ug/kg	dry weight	0.001	1	0.18	1.8	0.25
Kipopoulou et al. 1999	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Cabbage	1	season	field	na	Table 2	5.4	ug/kg	dry weight	0.001	0.0054	Table 1	3.9	ug/kg	dry weight	0.001	1	0.0039	0.72	-0.14
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	100	ug/kg	Not Stated dry assumed	0.001	0.10	Table 2	33	ug/kg	dry weight	0.001	1	0.033	0.33	-0.48
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	610	ug/kg	Not Stated dry assumed	0.001	0.61	Table 2	35	ug/kg	dry weight	0.001	1	0.035	0.057	-1.24
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	300	ug/kg	Not Stated dry assumed	0.001	0.30	Table 2	346	ug/kg	dry weight	0.001	1	0.35	1.2	0.06
Kipopoulou et al. 1999	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	endive	1	season	field	na	Table 2	5.4	ug/kg	dry weight	0.001	0.0054	Table 1	13	ug/kg	dry weight	0.001	1	0.013	2.4	0.38
Kipopoulou et al. 1999	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	leek	1	season	field	na	Table 2	5.4	ug/kg	dry weight	0.001	0.0054	Table 1	10	ug/kg	dry weight	0.001	1	0.010	1.9	0.27
Kipopoulou et al. 1999	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Lettuce	1	season	field	na	Table 2	5.4	ug/kg	dry weight	0.001	0.0054	Table 1	20	ug/kg	dry weight	0.001	1	0.020	3.7	0.57
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	85	ug/kg	Not Stated dry assumed	0.001	0.0850	Table 2	36	ug/kg	dry weight	0.001	1	0.036	0.42	-0.37
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	79	ug/kg	Not Stated dry assumed	0.001	0.0790	Table 2	1	ug/kg	dry weight	0.001	1	0.0010	0.013	-1.90
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	blacklocust	999	Resident	field	Field collected resident plants at an	Table B.1	1.6	mg/kg	dry weight	none	1.6	Table B.1	17.2	mg/kg	dry weight	1	1	17	11	1.03
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	blacklocust	999	Resident	field	Field collected resident plants at an	Table B.1	114	mg/kg	dry weight	none	114	Table B.1	38.6	mg/kg	dry weight	1	1	39	0.34	-0.47
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	goldenrod	999	Resident	field	Field collected resident plants at an	Table B.1	46.1	mg/kg	dry weight	none	46	Table B.1	5.64	mg/kg	dry weight	1	1	5.6	0.12	-0.91
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	goldenrod	999	Resident	field	Field collected resident plants at an	Table B.1	9	mg/kg	dry weight	none	9.0	Table B.1	23.6	mg/kg	dry weight	1	1	24	2.6	0.42
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	goldenrod	999	Resident	field	Field collected resident plants at an	Table B.1	57.1	mg/kg	dry weight	none	57	Table B.1	35	mg/kg	dry weight	1	1	35	0.61	-0.21
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	goldenrod	999	Resident	field	Field collected resident plants at an	Table B.1	1100	mg/kg	dry weight	none	1,100	Table B.1	37.9	mg/kg	dry weight	1	1	38	0.034	-1.46
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	Grass	999	Resident	field	Field collected resident plants at an	Table B.1	19.4	mg/kg	dry weight	none	19	Table B.1	10.1	mg/kg	dry weight	1	1	10	0.52	-0.28

Appendix B
Bioaccumulation Data for Uptake of Non-Ionic Organic Chemicals from Soil into Plant Foliage

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	milkweed	999	Resident	field	Field collected resident plants at an	Table B.1	46.1	mg/kg	dry weight	none	46	Table B.1	88.6	mg/kg	dry weight	1	1	89	1.9	0.28
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	Pigweed	999	Resident	field	Field collected resident plants at an	Table B.1	59.7	mg/kg	dry weight	none	60	Table B.1	3.6	mg/kg	dry weight	1	1	3.6	0.060	-1.22
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	Pigweed	999	Resident	field	Field collected resident plants at an	Table B.1	3.8	mg/kg	dry weight	none	3.8	Table B.1	10.7	mg/kg	dry weight	1	1	11	2.8	0.45
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	Ragweed	999	Resident	field	Field collected resident plants at an	Table B.1	166	mg/kg	dry weight	none	166	Table B.1	33.4	mg/kg	dry weight	1	1	33	0.20	-0.70
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	Ragweed	999	Resident	field	Field collected resident plants at an	Table B.1	702	mg/kg	dry weight	none	702	Table B.1	73.9	mg/kg	dry weight	1	1	74	0.11	-0.98
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	redcedar	999	Resident	field	Field collected resident plants at an	Table B.1	16.8	mg/kg	dry weight	none	17	Table B.1	42	mg/kg	dry weight	1	1	42	2.5	0.40
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	smartweed	999	Resident	field	Field collected resident plants at an	Table B.1	3.2	mg/kg	dry weight	none	3.2	Table B.1	5.03	mg/kg	dry weight	1	1	5.0	1.6	0.20
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	smartweed	999	Resident	field	Field collected resident plants at an	Table B.1	2.5	mg/kg	dry weight	none	2.5	Table B.1	51.2	mg/kg	dry weight	1	1	51	20	1.31
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	moothbromegras	999	Resident	field	Field collected resident plants at an	Table B.1	1800	mg/kg	dry weight	none	1,800	Table B.1	41.5	mg/kg	dry weight	1	1	42	0.023	-1.64
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	moothbromegras	999	Resident	field	Field collected resident plants at an	Table B.1	5010	mg/kg	dry weight	none	5,010	Table B.1	72.1	mg/kg	dry weight	1	1	72	0.014	-1.84
Schneider et al 1995	Triazines	RDX	121824	0.87	SRC	Yes	sunflower	999	Resident	field	Field collected resident plants at an	Table B.1	46.1	mg/kg	dry weight	none	46	Table B.1	8.61	mg/kg	dry weight	1	1	8.6	0.19	-0.73
Trapp et al. 1990	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Barley	1	w	Lab			2.075	mg/kg	dry weight	none	2.08		1.24	mg/kg	Not Stated wet assumed	1	6.67	8.267	4.0	0.60
Saha et al., 1968	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Legume	NR	NR	NR			0.05	mg/kg	Not Stated dry assumed	none	0.0500		0.0025	mg/kg	Not Stated wet assumed	1	6.67	0.0167	0.3	-0.48
Edwards 1970	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Wheat	NR	NR	NR			1.13	mg/kg	Not Stated dry assumed	none	1.13		0.17	mg/kg	Not Stated wet assumed	1	6.67	1.133	1.0	0.00
Edwards 1970	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Wheat	NR	NR	NR			18.39	mg/kg	Not Stated dry assumed	none	18.39		1.07	mg/kg	Not Stated wet assumed	1	6.67	7.133	0.4	-0.41
Data Excluded																										
Wild and Jones 1992	PAHs	Ace/Fluorene		..		NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	14.64	ug/kg	dry weight	0.001	0.0146	Table 5	92	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Ace/Fluorene		..		NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	44.64	ug/kg	dry weight	0.001	0.0446	Table 5	82	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Ace/Fluorene		..		NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	149.04	ug/kg	dry weight	0.001	0.15	Table 5	79	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	40	ug/kg	Not Stated dry assumed	0.001	0.0400	Table 2	183	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	53	ug/kg	Not Stated dry assumed	0.001	0.0530	Table 2	250	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	9	ug/kg	Not Stated dry assumed	0.001	0.0090	Table 2	299	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	35	ug/kg	Not Stated dry assumed	0.001	0.0350	Table 2	243	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	9	ug/kg	Not Stated dry assumed	0.001	0.0090	Table 2	213	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	40	ug/kg	Not Stated dry assumed	0.001	0.0400	Table 2	290	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	53	ug/kg	Not Stated dry assumed	0.001	0.0530	Table 2	58	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	35	ug/kg	Not Stated dry assumed	0.001	0.0350	Table 2	577	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	9	ug/kg	Not Stated dry assumed	0.001	0.0090	Table 2	323	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Ace/Fluorene		..		No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	23	ug/kg	Not Stated dry assumed	0.001	0.0230	Table 2	30	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Ace/Fluorene		..		No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	18.4	ug/kg	Not Stated dry assumed	0.001	0.0184	Table 2	37	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Ace/Fluorene		..		No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	23	ug/kg	Not Stated dry assumed	0.001	0.0230	Table 2	47	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Ace/Fluorene		..		No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	18.4	ug/kg	Not Stated dry assumed	0.001	0.0184	Table 2	54	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	42	ug/kg	Not Stated dry assumed	0.001	0.0420	Table 2	428	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	5	ug/kg	Not Stated dry assumed	0.001	0.0050	Table 2	135	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	1	ug/kg	Not Stated dry assumed	0.001	0.0010	Table 2	160	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Ace/Fluorene		..		Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	15	ug/kg	Not Stated dry assumed	0.001	0.0150	Table 2	444	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Ace/Fluorene		..		No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	1	ug/kg	Not Stated dry assumed	0.001	0.0010	Table 2	157	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Ace/Fluorene		..		No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	20.4	ug/kg	Not Stated dry assumed	0.001	0.0204	Table 2	90	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Benz/Chrysene		..		NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	10.37	ug/kg	dry weight	0.001	0.0104	Table 5	8	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Benz/Chrysene		..		NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	31.62	ug/kg	dry weight	0.001	0.0316	Table 5	4	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Benz/Chrysene		..		NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	105.57	ug/kg	dry weight	0.001	0.11	Table 5	3	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	63	ug/kg	Not Stated dry assumed	0.001	0.0630	Table 2	31	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	790	ug/kg	Not Stated dry assumed	0.001	0.79	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	450	ug/kg	Not Stated dry assumed	0.001	0.45	Table 2	12	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	66	ug/kg	Not Stated dry assumed	0.001	0.0660	Table 2	28	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	450	ug/kg	Not Stated dry assumed	0.001	0.45	Table 2	26	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	63	ug/kg	Not Stated dry assumed	0.001	0.0630	Table 2	11	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	790	ug/kg	Not Stated dry assumed	0.001	0.79	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	66	ug/kg	Not Stated dry assumed	0.001	0.0660	Table 2	5	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	450	ug/kg	Not Stated dry assumed	0.001	0.45	Table 2	156	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Benz/Chrysene		..		No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	95	ug/kg	Not Stated dry assumed	0.001	0.0950	Table 2	17	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Benz/Chrysene		..		No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	251.8	ug/kg	Not Stated dry assumed	0.001	0.25	Table 2	13	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Benz/Chrysene		..		No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	251.8	ug/kg	Not Stated dry assumed	0.001	0.25	Table 2	7	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Benz/Chrysene		..		No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	95	ug/kg	Not Stated dry assumed	0.001	0.0950	Table 2	19	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, cont	Table III	64	ug/kg	Not Stated dry assumed	0.001	0.0640	Table 2	19	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	490	ug/kg	Not Stated dry assumed	0.001	0.49	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, cont	Table III	71	ug/kg	Not Stated dry assumed	0.001	0.0710	Table 2	23	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benz/Chrysene		..		Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	600	ug/kg	Not Stated dry assumed	0.001	0.60	Table 2	47	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Benz/Chrysene		..		No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	84	ug/kg	Not Stated dry assumed	0.001	0.0840	Table 2	15	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Benz/Chrysene		..		No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	166.6	ug/kg	Not Stated dry assumed	0.001	0.17	Table 2	12	ug/kg	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 118/PCB 108		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	17.9	ng/g	dry weight	0.001	0.0179	Table 4	5.9	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 118/PCB 108		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	60.5	ng/g	dry weight	0.001	0.0605	Table 4	2.19	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 16/32		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	32.1	ng/g	dry weight	0.001	0.0321	Table 4	1.2	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 16/32		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.24	ng/g	dry weight	0.001	0.0012	Table 4	0.14	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 18/17		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	110.6	ng/g	dry weight	0.001	0.11	Table 4	0.55	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 18/17		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	6.86	ng/g	dry weight	0.001	0.0069	Table 4	0.37	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 187/PCB 159		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.4	ng/g	dry weight	0.001	0.00040	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 187/PCB 159		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.5	ng/g	dry weight	0.001	0.0015	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 26/PCB 25		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	31.4	ng/g	dry weight	0.001	0.0314	Table 4	1.8	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 26/PCB 25		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	2.7	ng/g	dry weight	0.001	0.0027	Table 4	0.2	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 31/28		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	102.1	ng/g	dry weight	0.001	0.10	Table 4	1.9	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 31/28		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	30.6	ng/g	dry weight	0.001	0.0306	Table 4	2.77	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 37/PCB 42		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	36.2	ng/g	dry weight	0.001	0.0362	Table 4	3.4	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 37/PCB 42		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	7.96	ng/g	dry weight	0.001	0.0080	Table 4	0.33	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 41/PCB 64		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	65	ng/g	dry weight	0.001	0.0650	Table 4	6.8	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 41/PCB 64		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	13.6	ng/g	dry weight	0.001	0.0136	Table 4	0.84	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 47/PCB 48		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	37.7	ng/g	dry weight	0.001	0.0377	Table 4	4.5	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 47/PCB 48		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	8.4	ng/g	dry weight	0.001	0.0084	Table 4	0.4	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 60/PCB 56		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	37.9	ng/g	dry weight	0.001	0.0379	Table 4	0.64	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 60/PCB 56		..		NS	Rice	1	season	field	Field collected resident plants from a	Table 2	6.21	ng/g	dry weight	0.001	0.0062	Table 4	0.84	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 83	60145202	..	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.7	ng/g	dry weight	0.001	0.0017	Table 4	0.25	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 83	60145202	..	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	ND	ng/g	dry weight	0.001	ND	Table 4	ND	ng/g	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Beet	1	season	field	1963, Woburn Market Garden, cont	Table III	971	ug/kg	Not Stated dry assumed	0.001	0.97	Table 2	1675	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	5527	ug/kg	Not Stated dry assumed	0.001	5.5	Table 2	1719	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	2427	ug/kg	Not Stated dry assumed	0.001	2.4	Table 2	1382	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Beet	1	season	field	1984, Woburn Market Garden, cont	Table III	727	ug/kg	Not Stated dry assumed	0.001	0.73	Table 2	888	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	2427	ug/kg	Not Stated dry assumed	0.001	2.4	Table 2	760	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Carrot	1	season	field	1963, Woburn Market Garden, contr	Table III	971	ug/kg	Not Stated dry assumed	0.001	0.97	Table 2	1641	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	5527	ug/kg	Not Stated dry assumed	0.001	5.5	Table 2	2415	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Carrot	1	season	field	1984, Woburn Market Garden, cont	Table III	727	ug/kg	Not Stated dry assumed	0.001	0.73	Table 2	1004	ug/kg	dry weight					

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Carrot	1	season	field	1984, Woburn Market Garden, sewa	Table III	2427	ug/kg	Not Stated dry assumed	0.001	2.4	Table 2	2800	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Total PAHs		..		No	Clover	1	season	field	1977, Lee Valley, control plot	Table 2	753	ug/kg	Not Stated dry assumed	0.001	0.75	Table 2	351	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Total PAHs		..		No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	1957.8	ug/kg	Not Stated dry assumed	0.001	2.0	Table 2	446	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Total PAHs		..		No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	1957.8	ug/kg	Not Stated dry assumed	0.001	2.0	Table 2	341	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	3131	ug/kg	Not Stated dry assumed	0.001	3.1	Table 2	1090	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Total PAHs		..		No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	753	ug/kg	Not Stated dry assumed	0.001	0.75	Table 2	395	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	Ryegrass	1	season	field	1982, Woburn Market Gardern, cont	Table III	735	ug/kg	Not Stated dry assumed	0.001	0.74	Table 2	940	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	SugarBeet	1	season	field	1970, Woburn Market Gardern, cont	Table III	503	ug/kg	Not Stated dry assumed	0.001	0.50	Table 2	608	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Total PAHs		..		Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	3117	ug/kg	Not Stated dry assumed	0.001	3.1	Table 2	1177	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Total PAHs		..		No	Tim_grass	1	season	field	1976, Luddington, control plot	Table 3	349	ug/kg	Not Stated dry assumed	0.001	0.35	Table 2	568	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Total PAHs		..		No	Tim_grass	1	season	field	1976, Luddington, treated in 1968 w	Table 3	1430	ug/kg	Not Stated dry assumed	0.001	1.4	Table 2	568	ug/kg	dry weight					
Bi et al 2002	PCBs/Aroclors	Total PCBs	1336363	..	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1101.4	ng/g	dry weight	0.001	1.1	Table 8	129	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	Total PCBs	1336363	..	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	4.69	ng/g	dry weight	0.001	0.0047	Table 14	32.08	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 180	35065293	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	ND	ng/g	dry weight	0.001	ND	Table 4	0.08	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 87	38380028	6.85	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	ND	ng/g	dry weight	0.001	ND	Table 4	1.8	ng/g	dry weight					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 2, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.02	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mustard	55	d	Field	1980, rep 2, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.03	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 2, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.04	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 3, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.05	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 3, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.05	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Radish	55	d	Field	1980, rep 3, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.05	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Radish	55	d	Field	1980, rep 2, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.07	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mustard	55	d	Field	1980, rep 3, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.08	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 3, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.09	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mint	114	d	Field	1980, rep 4, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.1	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	103	d	Field	1980, rep 4, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.14	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 4, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	0.24	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 2, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	7.93	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 3, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	8.11	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Potato (leaves)	64	d	Field	1980, rep 4, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	8.74	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Alfalfa	114	d	Field	1980, rep 2, 3.4 kg application	Table IV	ND	mg/kg	Not Stated dry assumed	none	ND	Table III	ND	mg/kg	Not Stated wet assumed					
Voerman and Besemer, 1975	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	ND	ug/g	dry weight	none	ND	Table 1	ND	ug/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 19	38444734	5.48	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	ND	ng/g	dry weight	0.001	ND	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 22	38444858	5.42	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.45	ng/g	dry weight	0.001	0.00045	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 45	70362457	6.34	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	0.93	ng/g	dry weight	0.001	0.00093	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 137	35694065	7.44	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.4	ng/g	dry weight	0.001	0.0014	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 174	38411252	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	1.83	ng/g	dry weight	0.001	0.0018	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 177	52663704	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	2.29	ng/g	dry weight	0.001	0.0023	Table 4	ND	ng/g	dry weight					
Wild and Jones 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	NS	Carrot	82	d	Lab	6.1 g sewage sludge/kg soil added	Table 3	2.928	ug/kg	dry weight	0.001	0.0029	Table 5	ND	ug/kg	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 178	52663679	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	3.22	ng/g	dry weight	0.001	0.0032	Table 4	ND	ng/g	dry weight					
Wild et al. 1990, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Gardern, cont	Table III	4	ug/kg	Not Stated dry assumed	0.001	0.0040	Table 2	ND	ug/kg	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 85	65510454	6.61	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	4.55	ng/g	dry weight	0.001	0.0046	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 170	35065306	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	4.67	ng/g	dry weight	0.001	0.0047	Table 4	ND	ng/g	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 185	52712057	7.93	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	4.84	ng/g	dry weight	0.001	0.0048	Table 4	ND	ng/g	dry weight					
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 1 - 8 Apr 74 harvest	Table I	0.006	mg/kg	Not Stated dry assumed	none	0.0060	Table II	ND	mg/kg ww	wet weight					
Bi et al 2002	PCBs/Aroclors	PCB 175	40186707	8.27	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	7.46	ng/g	dry weight	0.001	0.0075	Table 4	ND	ng/g	dry weight					
Wild and Jones 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	8.928	ug/kg	dry weight	0.001	0.0089	Table 5	ND	ug/kg	dry weight					
Bi et al 2002	PCBs/Aroclors	PCB 19	38444734	5.48	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	9.7	ng/g	dry weight	0.001	0.0097	Table 4	ND	ng/g	dry weight					
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 3 - 8 Apr 74 harvest	Table I	0.01	mg/kg	Not Stated dry assumed	none	0.0100	Table II	ND	mg/kg ww	wet weight					
Bi et al 2002	PCBs/Aroclors	PCB 40	38444938	6.18	SRC	NS	Rice	1	season	field	Field collected resident plants from a	Table 2	10	ng/g	dry weight	0.001	0.0100	Table 4	ND	ng/g	dry weight					
Wild et al. 1991, 1992	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, control plot	Table 2	11	ug/kg	Not Stated dry assumed	0.001	0.0110	Table 2	ND	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Dibenz(ah)anthracene	53703	6.69	EPA 1995	No	Ryegrass	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	16	ug/kg	Not Stated dry assumed	0.001	0.0160	Table 2	ND	ug/kg	dry weight					
Wild et al. 1991, 1992	PAHs	Anthracene	120127	4.55	EPA 1995	No	Clover	1	season	field	1977, Lee Valley, treated in 1968 wi	Table 2	16.2	ug/kg	Not Stated dry assumed	0.001	0.0162	Table 2	ND	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Benzo(b)fluoranthene	205992	6.2	EPA 1995	NS	Carrot	82	d	Lab	18.6 g sewage sludge/kg soil added	Table 3	18.414	ug/kg	dry weight	0.001	0.0184	Table 5	ND	ug/kg	dry weight					
Dejonckheere et al., 1975	Nitro/Chloro-aromatics	Hexachlorobenzene	118741	5.89	EPA 1995	No	Lettuce	85	d	Lab	Exp 2 - 8 Apr 74 harvest	Table I	0.019	mg/kg	Not Stated dry assumed	none	0.0190	Table II	ND	mg/kg ww	wet weight					
Wild and Jones 1992	PAHs	Anthracene	120127	4.55	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	20.493	ug/kg	dry weight	0.001	0.0205	Table 5	ND	ug/kg	dry weight					
Wild and Jones 1992	PAHs	Benzo(k)fluoranthene	207089	6.2	EPA 1995	NS	Carrot	82	d	Lab	62.1 g sewage sludge/kg soil added	Table 3	29.808	ug/kg	dry weight	0.001	0.0298	Table 5	ND	ug/kg	dry weight					
Voerman and Besemer, 1975	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Grass	6	month	Field	Initial application in January 1969, V	Table 1	0.03	ug/g	dry weight	none	0.0300	Table 1	ND	ug/g	dry weight					
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Carrot	1	season	field	1963, Woburn Market Garden, sew	Table III	31	ug/kg	Not Stated dry assumed	0.001	0.0310	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Gardern, cont	Table III	35	ug/kg	Not Stated dry assumed	0.001	0.0350	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Benzo(a)pyrene	50628	6.11	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Gardern, cont	Table III	39	ug/kg	Not Stated dry assumed	0.001	0.0390	Table 2	ND	ug/kg	dry weight					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mustard	55	d	Field	1980, rep 1, 3.4 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	ND	mg/kg	Not Stated wet assumed					
Maitlen and Powell, 1982	Carbamates	Aldicarb	116063	1.13	SRC	NS	Mustard	55	d	Field	1980, rep 1, 15 kg application	Table IV	0.04	mg/kg	Not Stated dry assumed	none	0.0400	Table III	ND	mg/kg	Not Stated wet assumed					
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Gardern, cont	Table III	96	ug/kg	Not Stated dry assumed	0.001	0.0960	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Gardern, cont	Table III	110	ug/kg	Not Stated dry assumed	0.001	0.11	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Gardern, cont	Table III	140	ug/kg	Not Stated dry assumed	0.001	0.14	Table 2	ND	ug/kg	dry weight					
Moza et al. 1976	PCBs/Aroclors	2,2'-Dichlorophenyl	13029088	4.97	SRC	NS	SugarBeet	6	month	Lab	1974, Outdoor plywood boxes	Table II	0.216	ppm	dry weight	none	0.22	Table III	ND	ppm	wet weight					
Lichenstein, 1960	Cyclodienes	Aldrin	309002	6.5	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 5 lb/acre	Table III	0.22	mg/kg	dry weight	none	0.22	Table III	ND	mg/kg	wet weight					
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	300	ug/kg	Not Stated dry assumed	0.001	0.30	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	300	ug/kg	Not Stated dry assumed	0.001	0.30	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	390	ug/kg	Not Stated dry assumed	0.001	0.39	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	400	ug/kg	Not Stated dry assumed	0.001	0.40	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Beet	1	season	field	1983, Woburn Market Garden, sewa	Table III	410	ug/kg	Not Stated dry assumed	0.001	0.41	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Garden, sewa	Table III	410	ug/kg	Not Stated dry assumed	0.001	0.41	Table 2	ND	ug/kg	dry weight					
Weisgerber et al., 1974	Cyclodienes	Aldrin	309002	6.5	EPA 1995	NS	Corn	90	d	Field	1973 (?), Modesto California, 3.0 kg	Table I	0.5	mg/kg	Not Stated dry assumed	none	0.50	Table I	ND	mg/kg	Not Stated wet assumed					
Weisgerber et al., 1974	Cyclodienes	Dieldrin	60571	5.37	EPA 1995	NS	Wheat	141	d	Field	1973 (?), Birlinghoven Germany, 2.9	Table II	0.52	mg/kg	Not Stated dry assumed	none	0.52	Table II	ND	mg/kg	Not Stated wet assumed					
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	Ryegrass	1	season	field	1982, Woburn Market Garden, sewa	Table III	540	ug/kg	Not Stated dry assumed	0.001	0.54	Table 2	ND	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Fluoranthene	206440	5.12	EPA 1995	Yes	SugarBeet	1	season	field	1970, Woburn Market Garden, sewa	Table III	540	ug/kg	Not Stated dry assumed	0.001	0.54	Table 2	ND	ug/kg	dry weight					
Lichenstein, 1960	Cyclodienes	Heptachlor	76448	6.26	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 5 lb/acre	Table III	0.6	mg/kg	dry weight	none	0.60	Table III	ND	mg/kg	wet weight					
Wild et al. 1990, 1992	PAHs	Pyrene	129000	5.11	EPA 1995	Yes	Beet	1	season	field	1963, Woburn Market Garden, sewa	Table III	610	ug/kg	Not Stated dry assumed	0.001	0.61	Table 2	ND	ug/kg	dry weight					
Weisgerber et al., 1974	Cyclodienes	Aldrin	309002	6.5	EPA 1995	NS	Corn	111	d	Field	1973 (?), Sevilla Spain, 3.0 kg/ha	Table I	0.83	mg/kg	Not Stated dry assumed	none	0.83	Table I	ND	mg/kg	Not Stated wet assumed					
Weisgerber et al., 1974	Cyclodienes	Aldrin	309002	6.5	EPA 1995	NS	Wheat	141	d	Field	1973 (?), Birlinghoven Germany, 2.9	Table II	1.09	mg/kg	Not Stated dry assumed	none	1.1	Table II	ND	mg/kg	Not Stated wet assumed					
Weisgerber et al., 1974	Cyclodienes	Aldrin	309002	6.5	EPA 1995	NS	Corn	151	d	Field	1973 (?), Sittingbourne England, 3.0	Table I	1.3	mg/kg	Not Stated dry assumed	none	1.3	Table I	ND	mg/kg	Not Stated wet assumed					
Businelli et al., 1975		Benfluralin	1861401	5.29	SRC	NS	Carrot	106	d	Field	Exp I - March 1974, Perugia Italy, 1.	Text Sect 3.3	1300	ng/g	Not Stated dry assumed	0.001	1.3	Text Sect 3.4	ND	ng/g	wet weight					
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Cabbage	1	season	Field	1956 Miami silt loam 10 lbs added	Table I	1.615	mg/kg	Not Stated dry assumed	none	1.6	Table I	ND	mg/kg	Not Stated wet assumed					
Lichenstein, 1959	Nitro/Chloro-aromatics	Lindane	58899	3.73	EPA 1995	Yes	Pea	1	season	Field	1956 Miami silt loam 10 lbs added	Table I	1.615	mg/kg	Not Stated dry assumed	none	1.6	Table I	ND	mg/kg	Not Stated wet assumed					
Lichenstein, 1960	Cyclodienes	Aldrin	309002	6.5	EPA 1995	Yes	Lettuce	60	d	Field	1959, 5 lb/acre	Table II	1.78	mg/kg	dry weight	none	1.8	Table II	ND	mg/kg	wet weight					
Businelli et al., 1975		Benfluralin	1861401	5.29	SRC	NS	Carrot	106	d	Field	Exp I - March 1974, Perugia Italy, 1.	Text Sect 3.3	1900	ng/g	Not Stated dry assumed	0.001	1.9	Text Sect 3.4	ND	ng/g	wet weight					
Lichenstein, 1960	Cyclodienes	Heptachlor	76448	6.26	EPA 1995	Yes	Lettuce	60	d	Field	1959, 5 lb/acre	Table II	2	mg/kg	dry weight	none	2.0	Table II	ND	mg/kg	wet weight					
Lichenstein, 1960	Cyclodienes	Aldrin	309002	6.5	EPA 1995	Yes	Alfalfa	60	d	Field	May 1958, 25 lb/acre	Table III	4.04	mg/kg	dry weight	none	4.0	Table III	ND	mg/kg	wet weight					

Appendix B
Bioaccumulation Data for Uptake of Non-Ionic Organic Chemicals from Soil into Plant Foliage

Reference	Chemical Class	Chemical Name	CAS No	$logK_{ow}$	$logK_{ow}$ Ref	Rinsed?	Plant Species	Exposure Duration	Exposure Units	Field/Lab	Exp / Test	Source of Soil Data	Reported organic conc in Soil	Reported Units for Soil	Wet or Dry Weight	Conversion Factor to mg/kg	Organic Conc in Soil (mg/kg dw)	Source of Vegetation Data	Reported organic conc in Vegetation	Reported Units for Vegetation	Wet or Dry Weight	Conversion Factor to mg/kg	Conversion factor to dw	Organic Conc in Plant (mg/kg dw)	BAF (Tissue/Soil)	logBAF
Lichenstein, 1960	Cyclodienes	Heptachlor	76448	6.26	EPA 1995	Yes	Lettuce	60	d	Field	1959, 25 lb/acre	Table II	4.22	mg/kg	dry weight	none	4.2	Table II	ND	mg/kg	wet weight					
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Beet	1	season	field	1984, Woburn Market Gardern, cont	Table III	0	ug/kg	Not Stated dry assumed	0.001	0	Table 2	60	ug/kg	dry weight					
Wild et al. 1990, 1992	PAHs	Naphthalene	91203	3.36	EPA 1995	Yes	Carrot	1	season	field	1984, Woburn Market Gardern, cont	Table III	0	ug/kg	Not Stated dry assumed	0.001	0	Table 2	1	ug/kg	dry weight					

This Page Intentionally Left Blank

Appendix B References

Beall, M.L. Jr. Persistence of aerially applied hexachlorobenzene on grass and soil. 1976. *Journal of Environmental Quality.* 5: 367-369.

Beynon, K.I., G. Stoydin, and A.N. Wright. 1972. The breakdown of the triazine herbicide cyanizine in soils and maize. *Pesticide Science*. 3:293-305.

Bi, X., S. Chu, Q. Meng, and X. Xu. 2002. Movement and retention of polychlorinated biphenyls in a paddy field of WenTai area in China. Agriculture. *Ecosystems and Environment*. 89: 241-252.

Bull, D. L., and G. W. Ivie. 1978. Fate of diflubenzuran in cotton, soil, and rotational crops. *Journal of Agricultural and Food Chemistry.* 26(3): 515-520.

Businelli, M., F. Tafuri, L. Scarponi, and C. Maucchini. 1975. Persistence of benafluralin in soils and its uptake by carrots. *Pesticide Science.* 6: 475-480.

Dejonckheere, W., W. Steurbaut, and R.H. Kips. 1975. Residues of quintozene, hexachlorobenzene, dichloran and pentachloroaniline in soil and lettuce. *Bulletin of Environmental Contamination and Toxicology*. 13: 720-729.

De La Cruz, A.A. and B. Rajanna. 1975. Mirex incorporation and in the environment: uptake and distribution in crop seedlings. *Bulletin of Environmental Contamination and Toxicology.* 14: 38-42.

Dorough, H.W. and B.C. Pass. 1972. Residues in corn and soils treated with technical chlordane and high-purity chlordane (HCS 3260). *Journal of Economic Entomology.* 65: 976-979.

Edwards, C.A. 1970. *Persistent Pesticides in the Environment*. CRC Press, Cleveland, OH.

Edwards, N. T., R. M. Ross-Todd, E. G. Garver. 1982. Uptake and metabolism of 14C anthracene by soybean (*Glycine max*). *Environ. Exp. Bot.* 22(3): 349-357.

Eshel, J., R.L. Zimdahl, and E.E. Schweizer. 1978. Uptake and translocation of ethofumesate in sugar-beet plants. *Pesticide Science*. 9:301-304.

Greichus, Y.A. and B.A. Dohman. 1980. Polychlorinated biphenyl contamination of areas surrounding two transfer salvage companies, Colman, South Dakota-September 1977. *Pesticide Monitoring Journal*. 14:26-30.

Iwata, Y., W.E. Westlake, J.H. Barkley, G.E. Carman, and F.A. Gunther. 1977. Aldicarb residues in oranges, citrus by-products, orange leaves, and soil after an aldicarb soil-application in an orange grove. *Journal of Agricultural and Food Chemistry*. 25: 933-937.

Iwata, Y. and F.A. Gunther. 1976. Translocation of the polychlorinated biphenyl aroclor 1254 from soil into carrots under field conditions. *Archives of Environmental Contamination and Toxicology*. 4: 44-59.

Kipopoulou, A.M., E. Manoli, and C. Samara. 1999. Bioconcentration of polyaromatic hydrocarbons in vegetables grown in an industrial area. *Environmental Pollution*. 106: 369-380.

Lichenstein, E.P. 1960. Insecticidal residues in various crops grown in soils treated with abnormal rates of aldrin and heptachlor. *Journal of Agricultural and Food Chemistry*. 8:448-451.

Lichenstein, E.P. 1959. Absorption of some chlorinated hydrocarbon insecticides from soils into various crops. *Journal of Agricultural and Food Chemistry.* 7: 430-433.

Maitlen, J.C. and D. M. Powell. 1982. Persistence of aldicarb in soil relative to the carry-over of residues into crops. *Journal of Agricultural and Food Chemistry.* 30: 589-892.

Moza, P. I. Weisgerber, and W. Klein. 1976. Fate of 2,2'-dichlorobiphenyl-14C in carrots, sugar beets, and soil under outdoor conditions. *Journal of Agricultural and Food Chemistry.* 24 (4). 1976 881-885.

Moza P, Scheunert I, Klein W, Korte F. 1979. Studies with 2,4',5-trichlorobiphenyl-14C and 2,2',4,4',6-pentachlorobiphenyl-14C in carrots, sugar beets, and soil. *Journal of Agricultural and Food Chemistry*. 1979. 27(5):1120-4.

Saha, J. G., C. H. Craig, and W. K. Janzen. 1968. Organochlorine insecticide residues in agricultural soil and legume crops in northeastern Saskatchewan. *Journal of Agricultural and Food Chemistry.* 16(4): 617-619.

Schneider, J.F., S.D. Zellmer, N.A. Tomczyk, J.R. Rastorfer, D. Chen, and W.L. Banwart. 1995. *Uptake of Explosives from Contaminated Soil by Existing Vegetation at the Iowa Army Ammunition Plant. U.S. Army Environmental Center, Environmental Technology Division, Program Management Branch, Safety Office. Aberdeen Proving Ground, Maryland.* Report No. SFIM-AEC-ET-CR-95013. February, 1995.

Shane, L.A. and B. Bush. 1989. Accumulation of polychlorobiphenyl congeners and p,p'-DDE at environmental concentrations by corn and beans. *Ecotoxicology and Environmental Safety*. 17:

38-46.

Tafuri, F., M. Businelli, L. Scarponi, and C. Marucchini. 1977. Decline and movement of AG chlordane in soil and its residues in alfalfa. *Journal of Agricultural and Food Chemistry*. 25: 353-356.

Trapp, S., M. Matthies, I. Scheunert and E. M. Topp. 1990. Modeling the Bioconcentration of Organic Chemicals in Plants*.* *Environmental Science and Technology*. 24(8): 1246-1252.

Travis, C.C. and A.D. Arms. 1988. Bioconcentration of organics in beef, milk, and vegetation. *Environmental Science and Technology.* 22: 271-274.

Viswanathan, R., I. Scheunert, J. Kohli, W. Klein, and F. Korte. 1978. Long-term studies on the fate of 3,4-dichloroaniline-14C in a plant-soil-system under outdoor conditions. *Journal of Environmental Health and Safety.* B13: 243-259.

Voerman, S. and A.F.H. Besemer. 1975. Persistence of dieldrin, lindane, and DDT in a light sandy soil and their uptake by grass. *Bulletin of Environmental Contamination and Toxicology*. 13: 501-505.

Weber, J. B. and E. Mrozek Jr. 1979. Polychlorinated biphenyls: phytotoxicity, absorption and translocation by plants, and inactivation by activated carbon. *Bulletin of Environmental Toxicology and Chemistry*. 23:412-417.

Weisgerber, I., J. Kohli, R. Kaul, W. Klein, and F. Korte. 1974. Fate of aldrin-14C in maize, wheat, and soils under outdoor conditions. *Journal of Agricultural and Food Chemistry.* 22:609-646.

Wild, S.R. and K.C. Jones. 1992. Polynuclear aromatic hydrocarbon uptake by carrots grown in sludge-amended soil. *Journal of Environmental Quality*. 21:217-225.

Wild, S.R., M.L. Berrow, S.P. McGrath, and K.C. Jones. 1992. Polynuclear aromatic hydrocarbons in crops from long-term field experiments amended with sewage sludge. *Environmental Pollution*. 76:25-32.

Wild, S.R., M.L. Berrow, and K.C. Jones. 1991a. The persistence of polynuclear aromatic hydrocarbons (PAHs) in sewage sludge amended agricultural soils. *Environmental Pollution*. 72:141-157.

Wild, S.R., J.P. Obbard, C.I. Munn, M.L. Berrow, and K.C. Jones. 1991b. The long-term persistence of polynuclear aromatic hydrocarbons (PAHs) in an agricultural soil amended with metal-contaminated sewage sludges. *The Science of the Total Environment*. 101-235-253.

Wild, S.R., K.S. Waterhouse, S.P. McGrath, and K.C. Jones. 1990. Organic contaminants in an agricultural soil with a known history of sewage sludge amendments: polynuclear aromatic hydrocarbons. *Environmental Science and Technology.* 24:1706-1711.

Eco-SSL Attachment 4-1
Appendix C
Bioaccumulation Factors (BAFs) and Regression Equations for the Uptake of Eco-SSL Non-Ionic Organic Contaminants into Plant Foliage

February 2005
Revised April 1007

Appendix C
Bioaccumulation Factors (BAF) and Regression Equations Soil to Plant Foliage for Non-Ionic Organic Chemicals

Chemical Name	Rinsed/ Unrinsed	Plant Species	Soil Conc (mg/kg dw)	ln(C_{soil}, mg/kg dw)	Plant Conc[1] (mg/kg dw)	ln(C_{plant}, mg/kg dw)	BAF (Plant/Soil)	Median BAF (Plant/Soil)		Regression statistics ln(C_{plant}) versus ln (C_{soil}) Slope	Intercept	R2	p value
DDE	Rinsed	Grass	0.44	-0.8	0.060	-2.81	0.14	0.136	R	0.7524	-2.5119	0.5334	< 0.05
DDE	Rinsed	Grass	1.2	0.2	0.090	-2.41	0.075						
DDE	Rinsed	Grass	4.5	1.5	2.8	1.03	0.62						
DDT	Rinsed	Grass	2.5	0.9	0.040	-3.22	0.016	0.037	R				
DDT	Rinsed	Grass	0.63	-0.5	0.050	-3.00	0.079						
DDT	Rinsed	Grass	1.5	0.4	0.070	-2.66	0.047						
DDT	Rinsed	Grass	12	2.5	0.28	-1.27	0.023						
DDT	Rinsed	Grass	5.8	1.8	0.32	-1.14	0.055						
DDT	Rinsed	Grass	43	3.7	1.2	0.18	0.028						
Dieldrin	Rinsed	Alfalfa	0.98	0.0	0.400	-0.92	0.4	0.41	R	0.0728	-0.8566	0.0042	NC
Dieldrin	Rinsed	Alfalfa	4.18	1.4	0.533	-0.63	0.13						
Dieldrin	Rinsed	Grass	0.77	-0.3	0.050	-3.00	0.1						
Dieldrin	Rinsed	Grass	1.73	0.5	0.180	-1.71	0.10						
Dieldrin	Rinsed	Grass	7.30	2.0	0.40	-0.92	0.05						
Dieldrin	Rinsed	Lettuce	0.66	-0.4	0.47	-0.76	0.71						
Dieldrin	Rinsed	Lettuce	0.36	-1.0	0.800	-0.22	2.222						
Dieldrin	Rinsed	Lettuce	1.8	0.6	1.13	0.13	0.62						
Dieldrin	Rinsed	Lettuce	1.3	0.3	1.73	0.55	1.323						
Dieldrin	Not Specified	Corn	0.60	-0.5	0.067	-2.71	0.11	0.39	U	1.0307	-0.3073	0.5573	NC
Dieldrin	Not Specified	Corn	0.55	-0.6	0.20	-1.61	0.36						
Dieldrin	Not Specified	Corn	1.2	0.2	0.33	-1.10	0.28						
Dieldrin	Not Specified	Corn	0.72	-0.3	0.67	-0.41	0.93						
Dieldrin	Not Specified	Wheat	0.42	-0.9	4.6	1.53	11.0						
Dieldrin	Not Specified	Barley	2.08	0.7	8.3	2.11	4.0						
Dieldrin	Not Specified	Legume	0.05	-3.0	0.0	-4.09	0.3						
Dieldrin	Not Specified	Wheat	1.1	0.1	1.1	0.13	1.0						
Dieldrin	Not Specified	Wheat	18.4	2.9	7.1	1.96	0.4						
TNT	Rinsed	blacklocust	1	-0.7	4.4	1.48	8.46	4.23	R				
TNT	Rinsed	smoothbromegrass	11,000	9.3	0.76	-0.27	0.000069						
RDX	Rinsed	blacklocust	1.6	0.5	17	2.84	11	0.430	R	0.1888	2.3829	0.1981	NC
RDX	Rinsed	blacklocust	114	4.7	39	3.65	0.34						
RDX	Rinsed	goldenrod	46	3.8	5.6	1.73	0.12						
RDX	Rinsed	goldenrod	9.0	2.2	24	3.16	2.6						
RDX	Rinsed	goldenrod	57	4.0	35	3.56	0.61						
RDX	Rinsed	goldenrod	1,100	7.0	38	3.63	0.034						
RDX	Rinsed	Grass	19	3.0	10	2.31	0.52						
RDX	Rinsed	milkweed	46	3.8	89	4.48	1.9						
RDX	Rinsed	Pigweed	60	4.1	3.6	1.28	0.060						
RDX	Rinsed	Pigweed	3.8	1.3	11	2.37	2.8						
RDX	Rinsed	Ragweed	166	5.1	33	3.51	0.20						
RDX	Rinsed	Ragweed	702	6.6	74	4.30	0.11						
RDX	Rinsed	redcedar	17	2.8	42	3.74	2.5						
RDX	Rinsed	smartweed	3.2	1.2	5.0	1.62	1.6						
RDX	Rinsed	smartweed	2.5	0.9	51	3.94	20						
RDX	Rinsed	smoothbromegrass	1,800	7.5	42	3.73	0.023						
RDX	Rinsed	smoothbromegrass	5,010	8.5	72	4.28	0.014						
RDX	Rinsed	sunflower	46	3.8	8.6	2.15	0.19						

Appendix C
Bioaccumulation Factors (BAF) and Regression Equations Soil to Plant Foliage for Non-Ionic Organic Chemicals

Chemical Name	Rinsed/ Unrinsed	Plant Species	Soil Conc (mg/kg dw)	ln(C_{soil}, mg/kg dw)	Plant Conc[1] (mg/kg dw)	ln(C_{plant}, mg/kg dw)	BAF (Plant/Soil)	Median BAF (Plant/Soil)		Regression statistics ln(C_{plant}) versus ln (C_{soil})			
										Slope	Intercept	R2	p value
Acenapthene/Fluorene	Unrinsed	Clover	0.0230	-3.8	0.030	-3.51	1.3	2.0	U	-0.1632	-3.3635	0.1710	NC
Acenapthene/Fluorene	Unrinsed	Clover	0.0184	-4.0	0.037	-3.30	2.0						
Acenapthene/Fluorene	Unrinsed	Ryegrass	0.0230	-3.8	0.047	-3.06	2.0						
Acenapthene/Fluorene	Unrinsed	Ryegrass	0.0184	-4.0	0.054	-2.92	2.9						
Acenapthene/Fluorene	Unrinsed	Tim_grass	0.0010	-6.9	0.157	-1.85	157						
Acenapthene/Fluorene	Unrinsed	Tim_grass	0.0204	-3.9	0.090	-2.41	4.4						
Acenapthene/Fluorene	Not Specified	Carrot	0.0146	-4.2	0.092	-2.39	6.3						
Acenapthene/Fluorene	Not Specified	Carrot	0.0446	-3.1	0.082	-2.50	1.8						
Acenapthene/Fluorene	Not Specified	Carrot	0.15	-1.9	0.079	-2.54	0.53						
Acenapthene/Fluorene	Rinsed	Beet	0.0400	-3.2	0.183	-1.70	4.6	7.3	R	-0.8556	-5.5620	0.2998	< 0.001
Acenapthene/Fluorene	Rinsed	Beet	0.0530	-2.9	0.250	-1.39	4.7						
Acenapthene/Fluorene	Rinsed	Beet	0.0090	-4.7	0.299	-1.21	33						
Acenapthene/Fluorene	Rinsed	Beet	0.0350	-3.4	0.243	-1.41	6.9						
Acenapthene/Fluorene	Rinsed	Beet	0.0090	-4.7	0.213	-1.55	24						
Acenapthene/Fluorene	Rinsed	Carrot	0.0400	-3.2	0.290	-1.24	7.3						
Acenapthene/Fluorene	Rinsed	Carrot	0.0530	-2.9	0.058	-2.85	1.1						
Acenapthene/Fluorene	Rinsed	Carrot	0.0350	-3.4	0.577	-0.55	16						
Acenapthene/Fluorene	Rinsed	Carrot	0.0090	-4.7	0.323	-1.13	36						
Acenapthene/Fluorene	Rinsed	Ryegrass	0.0420	-3.2	0.428	-0.85	10						
Acenapthene/Fluorene	Rinsed	Ryegrass	0.0050	-5.3	0.135	-2.00	27						
Acenapthene/Fluorene	Rinsed	SugarBeet	0.0010	-6.9	0.160	-1.83	160						
Acenapthene/Fluorene	Rinsed	SugarBeet	0.0150	-4.2	0.444	-0.81	30						
Fluorene	Rinsed	Cabbage	0.10	-2.3	0.0011	-6.81	0.011						
Fluorene	Rinsed	endive	0.10	-2.3	0.0057	-5.17	0.056						
Fluorene	Rinsed	leek	0.10	-2.3	0.0026	-5.95	0.026						
Fluorene	Rinsed	Lettuce	0.10	-2.3	0.0058	-5.15	0.057						
Anthracene	Unrinsed	Clover	0.0070	-5.0	0.0020	-6.21	0.29	0.31	U	-0.6027	-9.1585	0.2776	NC
Anthracene	Unrinsed	Ryegrass	0.0162	-4.1	0.0010	-6.91	0.062						
Anthracene	Unrinsed	Ryegrass	0.0070	-5.0	0.0030	-5.81	0.43						
Anthracene	Unrinsed	Tim_grass	0.0128	-4.4	0.0040	-5.52	0.31						
Anthracene	Unrinsed	Tim_grass	0.0010	-6.9	0.023	-3.77	23						
Anthracene	Not Specified	Carrot	0.0020	-6.2	0.0010	-6.91	0.50						
Anthracene	Not Specified	Carrot	0.0061	-5.1	0.0010	-6.91	0.16						
Anthracene	Rinsed	Beet	0.0020	-6.2	0.001	-6.91	0.50	1.50	R	0.7784	-0.9887	0.5188	< 0.001
Anthracene	Rinsed	Beet	0.0150	-4.2	0.012	-4.42	0.80						
Anthracene	Rinsed	Beet	0.0530	-2.9	0.017	-4.07	0.32						
Anthracene	Rinsed	Beet	0.0160	-4.1	0.024	-3.73	1.5						
Anthracene	Rinsed	Beet	0.0150	-4.2	0.069	-2.67	4.6						
Anthracene	Rinsed	Cabbage	0.00060	-7.4	0.00060	-7.42	1.0						
Anthracene	Rinsed	Carrot	0.0530	-2.9	0.0010	-6.91	0.019						
Anthracene	Rinsed	Carrot	0.0160	-4.1	0.011	-4.51	0.69						
Anthracene	Rinsed	Carrot	0.0150	-4.2	0.025	-3.69	1.7						
Anthracene	Rinsed	Carrot	0.0130	-4.3	0.044	-3.12	3.4						
Anthracene	Rinsed	endive	0.00060	-7.4	0.0012	-6.73	2.0						
Anthracene	Rinsed	leek	0.00060	-7.4	0.00047	-7.66	0.78						
Anthracene	Rinsed	Lettuce	0.00060	-7.4	0.0014	-6.57	2.3						
Anthracene	Rinsed	Ryegrass	0.0350	-3.4	0.069	-2.67	2.0						
Anthracene	Rinsed	Soybean	0.0140	-4.3	0.014	-4.27	1.0						
Anthracene	Rinsed	Soybean	0.0100	-4.6	0.031	-3.47	3.1						
Anthracene	Rinsed	SugarBeet	0.0030	-5.8	0.0090	-4.71	3.0						
Anthracene	Rinsed	SugarBeet	0.0240	-3.7	0.036	-3.32	1.5						

Appendix C
Bioaccumulation Factors (BAF) and Regression Equations Soil to Plant Foliage for Non-Ionic Organic Chemicals

Chemical Name	Rinsed/ Unrinsed	Plant Species	Soil Conc (mg/kg dw)	ln(C_{soil}, mg/kg dw)	Plant Conc[1] (mg/kg dw)	ln(C_{plant}, mg/kg dw)	BAF (Plant/Soil)	Median BAF (Plant/Soil)		Regression statistics ln(C_{plant}) versus ln (C_{soil})			
										Slope	Intercept	R2	p value
Benzo(a)anthracene/Chrysene	Unrinsed	Clover	0.0104	-4.6	0.008	-4.83	0.77	0.13	U	0.1101	-4.4680	0.0500	NC
Benzo(a)anthracene/Chrysene	Unrinsed	Clover	0.25	-1.4	0.013	-4.34	0.052						
Benzo(a)anthracene/Chrysene	Unrinsed	Ryegrass	0.25	-1.4	0.007	-4.96	0.028						
Benzo(a)anthracene/Chrysene	Unrinsed	Ryegrass	0.0950	-2.4	0.019	-3.96	0.20						
Benzo(a)anthracene/Chrysene	Unrinsed	Tim_grass	0.0840	-2.5	0.015	-4.20	0.18						
Benzo(a)anthracene/Chrysene	Unrinsed	Tim_grass	0.17	-1.8	0.012	-4.42	0.072						
Benzo(a)anthracene/Chrysene	Not Specified	Carrot	0.0104	-4.6	0.008	-4.83	0.77						
Benzo(a)anthracene/Chrysene	Not Specified	Carrot	0.0316	-3.5	0.004	-5.52	0.13						
Benzo(a)anthracene/Chrysene	Not Specified	Carrot	0.11	-2.2	0.003	-5.81	0.028						
Benzo(a)anthracene/Chrysene	Rinsed	Beet	0.0104	-4.6	0.008	-4.83	0.77	0.32	R	0.5944	-2.7078	0.7007	< 0.0001
Benzo(a)anthracene/Chrysene	Rinsed	Beet	0.45	-0.8	0.012	-4.42	0.027						
Benzo(a)anthracene/Chrysene	Rinsed	Beet	0.0660	-2.7	0.028	-3.58	0.42						
Benzo(a)anthracene/Chrysene	Rinsed	Beet	0.45	-0.8	0.026	-3.65	0.058						
Benzo(a)anthracene/Chrysene	Rinsed	Carrot	0.0630	-2.8	0.011	-4.51	0.17						
Benzo(a)anthracene/Chrysene	Rinsed	Carrot	0.0660	-2.7	0.005	-5.30	0.076						
Benzo(a)anthracene/Chrysene	Rinsed	Carrot	0.45	-0.8	0.156	-1.86	0.35						
Benzo(a)anthracene/Chrysene	Rinsed	Ryegrass	0.0640	-2.7	0.019	-3.96	0.30						
Benzo(a)anthracene/Chrysene	Rinsed	SugarBeet	0.0710	-2.6	0.023	-3.77	0.32						
Benzo(a)anthracene/Chrysene	Rinsed	SugarBeet	0.60	-0.5	0.047	-3.06	0.078						
Chrysene	Rinsed	Cabbage	0.0037	-5.6	0.00060	-7.42	0.16						
Chrysene	Rinsed	endive	0.0037	-5.6	0.0039	-5.55	1.05						
Chrysene	Rinsed	leek	0.0037	-5.6	0.0019	-6.27	0.51						
Chrysene	Rinsed	Lettuce	0.0037	-5.6	0.0039	-5.55	1.05						
Benzo(a)anthracene	Rinsed	Lettuce	0.0054	-5.2	0.0029	-5.84	0.54						
Benzo(a)pyrene	Unrinsed	Clover	0.14	-2.0	0.0080	-4.83	0.057	0.16	U	0.3620	-4.1052	0.1290	NC
Benzo(a)pyrene	Unrinsed	Clover	0.0580	-2.8	0.0090	-4.71	0.16						
Benzo(a)pyrene	Unrinsed	Ryegrass	0.14	-2.0	0.0090	-4.71	0.065						
Benzo(a)pyrene	Unrinsed	Ryegrass	0.0580	-2.8	0.010	-4.61	0.17						
Benzo(a)pyrene	Unrinsed	Tim_grass	0.0888	-2.4	0.014	-4.27	0.16						
Benzo(a)pyrene	Unrinsed	Tim_grass	0.0070	-5.0	0.023	-3.77	3.3						
Benzo(a)pyrene	Not Specified	Carrot	0.0050	-5.3	0.0010	-6.91	0.20						
Benzo(a)pyrene	Not Specified	Carrot	0.0153	-4.2	0.0010	-6.91	0.066						
Benzo(a)pyrene	Not Specified	Carrot	0.0509	-3.0	0.0010	-6.91	0.020						
Benzo(a)pyrene	Rinsed	Beet	0.0350	-3.4	0.019	-3.96	0.54	0.10	R	0.9750	-2.0615	0.7954	< 0.0001
Benzo(a)pyrene	Rinsed	Beet	0.25	-1.4	0.023	-3.77	0.092						
Benzo(a)pyrene	Rinsed	Beet	0.25	-1.4	0.025	-3.69	0.10						
Benzo(a)pyrene	Rinsed	Beet	0.0300	-3.5	0.028	-3.58	0.93						
Benzo(a)pyrene	Rinsed	Beet	0.41	-0.9	0.042	-3.17	0.10						
Benzo(a)pyrene	Rinsed	Cabbage	0.0024	-6.0	0.00010	-9.21	0.042						
Benzo(a)pyrene	Rinsed	Carrot	0.0300	-3.5	0.012	-4.42	0.40						
Benzo(a)pyrene	Rinsed	Carrot	0.41	-0.9	0.016	-4.14	0.039						
Benzo(a)pyrene	Rinsed	Carrot	0.25	-1.4	0.021	-3.86	0.084						
Benzo(a)pyrene	Rinsed	endive	0.0024	-6.0	0.00024	-8.33	0.10						
Benzo(a)pyrene	Rinsed	leek	0.0024	-6.0	0.00015	-8.80	0.063						
Benzo(a)pyrene	Rinsed	Lettuce	0.0024	-6.0	0.00028	-8.18	0.12						
Benzo(a)pyrene	Rinsed	Ryegrass	0.26	-1.3	0.017	-4.07	0.065						
Benzo(a)pyrene	Rinsed	SugarBeet	0.0450	-3.1	0.037	-3.30	0.82						
Benzo(a)pyrene	Rinsed	SugarBeet	0.34	-1.1	0.039	-3.24	0.11						
Benzo(b)fluoranthene	Not Specified	Carrot	0.0060	-5.1	0.0010	-6.91	0.17	0.091	U	NC	NC	NC	NC
Benzo(b)fluoranthene	Not Specified	Carrot	0.0615	-2.8	0.0010	-6.91	0.016						
Benzo(b)fluoranthene	Rinsed	Cabbage	0.0025	-6.0	0.00020	-8.52	0.080	0.310	R	NC	NC	NC	NC
Benzo(b)fluoranthene	Rinsed	endive	0.0025	-6.0	0.0012	-6.73	0.48						
Benzo(b)fluoranthene	Rinsed	leek	0.0025	-6.0	0.00045	-7.71	0.18						
Benzo(b)fluoranthene	Rinsed	Lettuce	0.0025	-6.0	0.0011	-6.81	0.44						
Benzo(e)pyrene	Rinsed	Cabbage	0.0059	-5.1	0.00060	-7.42	0.10	0.19	R	NC	NC	NC	NC
Benzo(e)pyrene	Rinsed	endive	0.0059	-5.1	0.0013	-6.65	0.22						
Benzo(e)pyrene	Rinsed	leek	0.0059	-5.1	0.00094	-6.97	0.16						
Benzo(e)pyrene	Rinsed	Lettuce	0.0059	-5.1	0.0016	-6.44	0.27						
Benzo(ghi)perylene	Unrinsed	Clover	0.0750	-2.6	0.056	-2.88	0.75	0.361	U	0.4530	-2.1637	0.4492	NC
Benzo(ghi)perylene	Unrinsed	Clover	0.32	-1.1	0.12	-2.15	0.36						
Benzo(ghi)perylene	Unrinsed	Ryegrass	0.0750	-2.6	0.049	-3.02	0.65						
Benzo(ghi)perylene	Unrinsed	Ryegrass	0.32	-1.1	0.060	-2.81	0.19						
Benzo(ghi)perylene	Unrinsed	Tim_grass	0.0760	-2.6	0.056	-2.88	0.74						
Benzo(ghi)perylene	Unrinsed	Tim_grass	0.30	-1.2	0.056	-2.88	0.19						
Benzo(ghi)perylene	Not Specified	Carrot	0.0465	-3.1	0.012	-4.42	0.26						
Benzo(ghi)perylene	Not Specified	Carrot	0.0153	-4.2	0.020	-3.91	1.3						
Benzo(ghi)perylene	Not Specified	Carrot	0.16	-1.9	0.024	-3.73	0.15						

Appendix C
Bioaccumulation Factors (BAF) and Regression Equations Soil to Plant Foliage for Non-Ionic Organic Chemicals

Chemical Name	Rinsed/ Unrinsed	Plant Species	Soil Conc (mg/kg dw)	$\ln(C_{soil}$, mg/kg dw)	Plant Conc[1] (mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)	BAF (Plant/Soil)	Median BAF (Plant/Soil)		Regression statistics $\ln(C_{plant})$ versus $\ln(C_{soil})$			
										Slope	Intercept	R2	p value
Benzo(ghi)perylene	Rinsed	Beet	0.11	-2.2	0.023	-3.77	0.21	0.21	R	1.1829	-0.9313	0.8693	< 0.0001
Benzo(ghi)perylene	Rinsed	Beet	0.53	-0.6	0.056	-2.88	0.11						
Benzo(ghi)perylene	Rinsed	Beet	0.0900	-2.4	0.14	-1.97	1.6						
Benzo(ghi)perylene	Rinsed	Beet	0.90	-0.1	0.16	-1.83	0.18						
Benzo(ghi)perylene	Rinsed	Beet	0.53	-0.6	0.16	-1.82	0.31						
Benzo(ghi)perylene	Rinsed	Cabbage	0.0036	-5.6	0.00032	-8.05	0.089						
Benzo(ghi)perylene	Rinsed	Carrot	0.11	-2.2	0.081	-2.51	0.74						
Benzo(ghi)perylene	Rinsed	Carrot	0.0900	-2.4	0.11	-2.22	1.2						
Benzo(ghi)perylene	Rinsed	Carrot	0.53	-0.6	0.11	-2.20	0.21						
Benzo(ghi)perylene	Rinsed	Carrot	0.90	-0.1	0.38	-0.97	0.42						
Benzo(ghi)perylene	Rinsed	endive	0.0036	-5.6	0.00027	-8.22	0.075						
Benzo(ghi)perylene	Rinsed	leek	0.0036	-5.6	0.00047	-7.66	0.13						
Benzo(ghi)perylene	Rinsed	Lettuce	0.0036	-5.6	0.00019	-8.57	0.053						
Benzo(ghi)perylene	Rinsed	Ryegrass	0.55	-0.6	0.093	-2.38	0.17						
Benzo(ghi)perylene	Rinsed	Ryegrass	0.17	-1.8	0.14	-1.99	0.81						
Benzo(ghi)perylene	Rinsed	SugarBeet	0.0980	-2.3	0.076	-2.58	0.78						
Benzo(ghi)perylene	Rinsed	SugarBeet	0.55	-0.6	0.080	-2.53	0.15						
Benzo(k)fluoranthene	Unrinsed	Clover	0.0810	-2.5	0.0040	-5.52	0.049	0.076	U	0.1668	-4.6482	0.0280	NC
Benzo(k)fluoranthene	Unrinsed	Clover	0.0330	-3.4	0.0060	-5.12	0.18						
Benzo(k)fluoranthene	Unrinsed	Clover	0.23	-1.5	0.014	-4.27	0.060						
Benzo(k)fluoranthene	Unrinsed	Clover	0.0930	-2.4	0.018	-4.02	0.19						
Benzo(k)fluoranthene	Unrinsed	Ryegrass	0.0810	-2.5	0.0010	-6.91	0.012						
Benzo(k)fluoranthene	Unrinsed	Ryegrass	0.0330	-3.4	0.0030	-5.81	0.091						
Benzo(k)fluoranthene	Unrinsed	Ryegrass	0.0930	-2.4	0.013	-4.34	0.14						
Benzo(k)fluoranthene	Unrinsed	Ryegrass	0.23	-1.5	0.013	-4.34	0.056						
Benzo(k)fluoranthene	Unrinsed	Tim_grass	0.0570	-2.9	0.0010	-6.91	0.018						
Benzo(k)fluoranthene	Unrinsed	Tim_grass	0.0080	-4.8	0.0080	-4.83	1.0						
Benzo(k)fluoranthene	Unrinsed	Tim_grass	0.18	-1.7	0.0080	-4.83	0.045						
Benzo(k)fluoranthene	Unrinsed	Tim_grass	0.0230	-3.8	0.013	-4.34	0.57						
Benzo(k)fluoranthene	Rinsed	Beet	0.37	-1.0	0.0090	-4.71	0.024	0.235	R	0.8595	-2.1579	0.8146	< 0.0001
Benzo(k)fluoranthene	Rinsed	Beet	0.37	-1.0	0.033	-3.41	0.089						
Benzo(k)fluoranthene	Rinsed	Beet	0.0680	-2.7	0.034	-3.38	0.50						
Benzo(k)fluoranthene	Rinsed	Beet	0.67	-0.4	0.057	-2.86	0.085						
Benzo(k)fluoranthene	Rinsed	Beet	0.0710	-2.6	0.058	-2.85	0.82						
Benzo(k)fluoranthene	Rinsed	Cabbage	0.0010	-6.9	0.000080	-9.43	0.080						
Benzo(k)fluoranthene	Rinsed	Carrot	0.0680	-2.7	0.016	-4.14	0.24						
Benzo(k)fluoranthene	Rinsed	Carrot	0.0710	-2.6	0.021	-3.86	0.30						
Benzo(k)fluoranthene	Rinsed	Carrot	0.67	-0.4	0.048	-3.04	0.072						
Benzo(k)fluoranthene	Rinsed	Carrot	0.37	-1.0	0.12	-2.13	0.32						
Benzo(k)fluoranthene	Rinsed	endive	0.0010	-6.9	0.00036	-7.93	0.36						
Benzo(k)fluoranthene	Rinsed	leek	0.0010	-6.9	0.00017	-8.68	0.17						
Benzo(k)fluoranthene	Rinsed	Lettuce	0.0010	-6.9	0.00034	-7.99	0.34						
Benzo(k)fluoranthene	Rinsed	Ryegrass	0.41	-0.9	0.0080	-4.83	0.020						
Benzo(k)fluoranthene	Rinsed	Ryegrass	0.0750	-2.6	0.025	-3.69	0.33						
Benzo(k)fluoranthene	Rinsed	SugarBeet	0.0770	-2.6	0.045	-3.10	0.58						
Benzo(k)fluoranthene	Rinsed	SugarBeet	0.47	-0.8	0.069	-2.67	0.15						
Coronene	Unrinsed	Clover	0.0410	-3.2	0.028	-3.58	0.68	0.68	U	0.3171	-2.3620	0.2161	NC
Coronene	Unrinsed	Clover	0.13	-2.0	0.028	-3.58	0.21						
Coronene	Unrinsed	Ryegrass	0.13	-2.0	0.040	-3.22	0.30						
Coronene	Unrinsed	Ryegrass	0.0410	-3.2	0.058	-2.85	1.4						
Coronene	Unrinsed	Tim_grass	0.0170	-4.1	0.093	-2.38	5.5						
Coronene	Unrinsed	Tim_grass	0.14	-2.0	0.097	-2.33	0.71						
Coronene	Not Specified	Carrot	0.0119	-4.4	0.0070	-4.96	0.59						
Coronene	Not Specified	Carrot	0.0039	-5.5	0.018	-4.02	4.6						
Coronene	Not Specified	Carrot	0.0397	-3.2	0.023	-3.77	0.58						

Appendix C
Bioaccumulation Factors (BAF) and Regression Equations Soil to Plant Foliage for Non-Ionic Organic Chemicals

Chemical Name	Rinsed/ Unrinsed	Plant Species	Soil Conc (mg/kg dw)	$\ln(C_{soil}$, mg/kg dw)	Plant Conc[1] (mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)	BAF (Plant/Soil)	Median BAF (Plant/Soil)		Regression statistics $\ln(C_{plant})$ versus $\ln(C_{soil})$			
										Slope	Intercept	R2	p value
Dibenz(ah)anthracene	Unrinsed	Clover	0.0160	-4.1	0.0010	-6.91	0.063	0.12	U	NC	NC	NC	NC
Dibenz(ah)anthracene	Unrinsed	Clover	0.0110	-4.5	0.0020	-6.21	0.18						
Dibenz(ah)anthracene	Rinsed	Cabbage	0.00043	-7.8	0.00010	-9.21	0.23	0.13	R	NC	NC	NC	NC
Dibenz(ah)anthracene	Rinsed	endive	0.00043	-7.8	0.000060	-9.72	0.14						
Dibenz(ah)anthracene	Rinsed	leek	0.00043	-7.8	0.000050	-9.90	0.12						
Dibenz(ah)anthracene	Rinsed	Lettuce	0.00043	-7.8	0.000030	-10.41	0.070						
Fluoranthene	Unrinsed	Clover	0.14	-1.9	0.044	-3.12	0.31	0.28	U	0.2825	-2.7221	0.5567	NC
Fluoranthene	Unrinsed	Clover	0.33	-1.1	0.066	-2.72	0.20						
Fluoranthene	Unrinsed	Ryegrass	0.33	-1.1	0.038	-3.27	0.11						
Fluoranthene	Unrinsed	Ryegrass	0.14	-1.9	0.041	-3.19	0.28						
Fluoranthene	Unrinsed	Tim_grass	0.0390	-3.2	0.015	-4.20	0.38						
Fluoranthene	Unrinsed	Tim_grass	0.21	-1.6	0.051	-2.98	0.25						
Fluoranthene	Not Specified	Carrot	0.0279	-3.6	0.024	-3.73	0.86						
Fluoranthene	Not Specified	Carrot	0.0092	-4.7	0.025	-3.69	2.7						
Fluoranthene	Not Specified	Carrot	0.0932	-2.4	0.025	-3.69	0.27						
Fluoranthene	Rinsed	Beet	0.14	-2.0	0.0090	-4.71	0.064	0.50	R	0.4008	-2.1454	0.2981	> 0.05
Fluoranthene	Rinsed	Beet	1.0	0.0	0.032	-3.44	0.031						
Fluoranthene	Rinsed	Beet	0.22	-1.5	0.20	-1.62	0.90						
Fluoranthene	Rinsed	Cabbage	0.0073	-4.9	0.0030	-5.81	0.41						
Fluoranthene	Rinsed	Carrot	0.22	-1.5	0.11	-2.22	0.50						
Fluoranthene	Rinsed	Carrot	1.0	0.0	0.12	-2.13	0.12						
Fluoranthene	Rinsed	Carrot	0.41	-0.9	0.63	-0.46	1.5						
Fluoranthene	Rinsed	endive	0.0073	-4.9	0.044	-3.12	6.0						
Fluoranthene	Rinsed	leek	0.0073	-4.9	0.018	-4.02	2.5						
Fluoranthene	Rinsed	Lettuce	0.0073	-4.9	0.034	-3.38	4.7						
Fluoranthene	Rinsed	Ryegrass	0.13	-2.0	0.024	-3.73	0.18						
Indeno(123 cd)pyrene	Rinsed	Cabbage	0.0021	-6.2	0.00015	-8.80	0.071	0.11	R	NC	NC	NC	NC
Indeno(123 cd)pyrene	Rinsed	endive	0.0021	-6.2	0.00031	-8.08	0.15						
Naphthalene	Unrinsed	Clover	0.0070	-5.0	0.039	-3.24	5.6	5.4	U	0.0646	-3.5336	0.0062	NC
Naphthalene	Unrinsed	Clover	0.0040	-5.5	0.041	-3.19	10						
Naphthalene	Unrinsed	Ryegrass	0.0040	-5.5	0.025	-3.69	6.3						
Naphthalene	Unrinsed	Ryegrass	0.0070	-5.0	0.026	-3.65	3.7						
Naphthalene	Unrinsed	Tim_grass	0.0040	-5.5	0.0040	-5.52	1.0						
Naphthalene	Unrinsed	Tim_grass	0.0054	-5.2	0.028	-3.58	5.2						
Naphthalene	Not Specified	Carrot	0.0160	-4.1	0.014	-4.27	0.88						
Naphthalene	Not Specified	Carrot	0.0052	-5.3	0.022	-3.82	4.2						
Naphthalene	Not Specified	Carrot	0.0534	-2.9	0.025	-3.69	0.47						
Naphthalene	Rinsed	Beet	0.0040	-5.5	0.052	-2.96	13	12.2	R	-0.0987	-3.4794	0.0145	> 0.05
Naphthalene	Rinsed	Beet	0.0310	-3.5	0.058	-2.85	1.9						
Naphthalene	Rinsed	Beet	0.0010	-6.9	0.070	-2.66	70						
Naphthalene	Rinsed	Beet	0.0040	-5.5	0.079	-2.54	20						
Naphthalene	Rinsed	Cabbage	0.0170	-4.1	0.0050	-5.30	0.29						
Naphthalene	Rinsed	Carrot	0.0010	-6.9	0.048	-3.04	48						
Naphthalene	Rinsed	Carrot	0.0040	-5.5	0.048	-3.04	12						
Naphthalene	Rinsed	endive	0.0170	-4.1	0.029	-3.54	1.7						
Naphthalene	Rinsed	leek	0.0170	-4.1	0.018	-4.02	1.1						
Naphthalene	Rinsed	Lettuce	0.0170	-4.1	0.042	-3.17	2.5						
Naphthalene	Rinsed	Ryegrass	0.0030	-5.8	0.13	-2.05	43						
Naphthalene	Rinsed	Ryegrass	0.0340	-3.4	0.31	-1.18	9.1						
Naphthalene	Rinsed	SugarBeet	0.0030	-5.8	0.037	-3.30	12						
Naphthalene	Rinsed	SugarBeet	0.0080	-4.8	0.11	-2.18	14						
Phenanthrene	Unrinsed	Clover	0.0760	-2.6	0.087	-2.44	1.1	1.1	U	-0.2295	-2.8525	0.3384	NC
Phenanthrene	Unrinsed	Clover	0.19	-1.7	0.088	-2.43	0.47						
Phenanthrene	Unrinsed	Ryegrass	0.19	-1.7	0.069	-2.67	0.37						
Phenanthrene	Unrinsed	Ryegrass	0.0760	-2.6	0.085	-2.47	1.1						
Phenanthrene	Unrinsed	Tim_grass	0.11	-2.2	0.072	-2.63	0.68						
Phenanthrene	Unrinsed	Tim_grass	0.0580	-2.8	0.14	-1.94	2.5						
Phenanthrene	Not Specified	Carrot	0.19	-1.7	0.13	-2.05	0.69						
Phenanthrene	Not Specified	Carrot	0.0558	-2.9	0.13	-2.02	2.4						
Phenanthrene	Not Specified	Carrot	0.0183	-4.0	0.15	-1.93	7.9						

Appendix C

Bioaccumulation Factors (BAF) and Regression Equations Soil to Plant Foliage for Non-Ionic Organic Chemicals

Chemical Name	Rinsed/ Unrinsed	Plant Species	Soil Conc (mg/kg dw)	$\ln(C_{soil}$, mg/kg dw)	Plant Conc[1] (mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)	BAF (Plant/Soil)	Median BAF (Plant/Soil)		Regression statistics $\ln(C_{plant})$ versus $\ln(C_{soil})$			
										Slope	Intercept	R2	p value
Phenanthrene	Rinsed	Beet	0.0890	-2.4	0.19	-1.69	2.1	2.1	R	0.6203	-0.1665	0.4642	< 0.01
Phenanthrene	Rinsed	Beet	0.15	-1.9	0.37	-0.99	2.5						
Phenanthrene	Rinsed	Beet	0.0890	-2.4	0.58	-0.55	6.5						
Phenanthrene	Rinsed	Beet	0.34	-1.1	0.70	-0.36	2.1						
Phenanthrene	Rinsed	Beet	0.98	0.0	1.1	0.07	1.1						
Phenanthrene	Rinsed	Cabbage	0.0086	-4.8	0.018	-4.02	2.1						
Phenanthrene	Rinsed	Carrot	0.15	-1.9	0.049	-3.02	0.33						
Phenanthrene	Rinsed	Carrot	0.34	-1.1	0.93	-0.07	2.7						
Phenanthrene	Rinsed	Carrot	0.0890	-2.4	0.98	-0.02	11						
Phenanthrene	Rinsed	Carrot	0.98	0.0	1.5	0.40	1.5						
Phenanthrene	Rinsed	endive	0.0086	-4.8	0.043	-3.15	5.0						
Phenanthrene	Rinsed	leek	0.0086	-4.8	0.033	-3.41	3.8						
Phenanthrene	Rinsed	Lettuce	0.0086	-4.8	0.058	-2.85	6.7						
Phenanthrene	Rinsed	Ryegrass	0.38	-1.0	0.024	-3.73	0.063						
Phenanthrene	Rinsed	Ryegrass	0.16	-1.8	0.19	-1.66	1.2						
Phenanthrene	Rinsed	SugarBeet	0.0300	-3.5	0.19	-1.66	6.4						
Phenanthrene	Rinsed	SugarBeet	0.17	-1.8	0.31	-1.17	1.8						
Pyrene	Unrinsed	Clover	0.0930	-2.4	0.011	-4.51	0.12	0.19	U	-0.0204	-3.7931	0.0022	NC
Pyrene	Unrinsed	Clover	0.22	-1.5	0.031	-3.47	0.14						
Pyrene	Unrinsed	Ryegrass	0.22	-1.5	0.023	-3.77	0.10						
Pyrene	Unrinsed	Ryegrass	0.0930	-2.4	0.042	-3.17	0.45						
Pyrene	Unrinsed	Tim_grass	0.0310	-3.5	0.014	-4.27	0.45						
Pyrene	Unrinsed	Tim_grass	0.15	-1.9	0.023	-3.77	0.15						
Pyrene	Not Specified	Carrot	0.12	-2.1	0.024	-3.73	0.19						
Pyrene	Not Specified	Carrot	0.0372	-3.3	0.026	-3.65	0.70						
Pyrene	Not Specified	Carrot	0.0122	-4.4	0.036	-3.32	3.0						
Pyrene	Rinsed	Beet	0.11	-2.2	0.078	-2.55	0.71	0.72	R	0.4756	-2.2170	0.2565	> 0.05
Pyrene	Rinsed	Beet	0.10	-2.3	0.18	-1.73	1.8						
Pyrene	Rinsed	Cabbage	0.0054	-5.2	0.0039	-5.55	0.72						
Pyrene	Rinsed	Carrot	0.10	-2.3	0.033	-3.41	0.33						
Pyrene	Rinsed	Carrot	0.61	-0.5	0.035	-3.35	0.057						
Pyrene	Rinsed	Carrot	0.30	-1.2	0.35	-1.06	1.2						
Pyrene	Rinsed	endive	0.0054	-5.2	0.013	-4.34	2.4						
Pyrene	Rinsed	leek	0.0054	-5.2	0.010	-4.61	1.9						
Pyrene	Rinsed	Lettuce	0.0054	-5.2	0.020	-3.91	3.7						
Pyrene	Rinsed	Ryegrass	0.0850	-2.5	0.036	-3.32	0.42						
Pyrene	Rinsed	SugarBeet	0.0790	-2.5	0.0010	-6.91	0.013						
Total PAHs	Unrinsed	Clover	0.75	-0.3	0.351	-1.05	0.47	0.43	U	-0.1062	-0.8303	0.1006	
Total PAHs	Unrinsed	Clover	2.0	0.7	0.446	-0.81	0.23						
Total PAHs	Unrinsed	Ryegrass	2.0	0.7	0.341	-1.08	0.17						
Total PAHs	Unrinsed	Ryegrass	0.75	-0.3	0.395	-0.93	0.52						
Total PAHs	Unrinsed	Tim_grass	0.35	-1.1	0.568	-0.57	1.6						
Total PAHs	Unrinsed	Tim_grass	1.4	0.4	0.568	-0.57	0.40						
Total PAHs	Rinsed	Beet	0.97	0.0	1.675	0.52	1.7	1.2	R	0.3015	0.0830	0.3103	< 0.05
Total PAHs	Rinsed	Beet	5.5	1.7	1.719	0.54	0.31						
Total PAHs	Rinsed	Beet	2.4	0.9	1.382	0.32	0.57						
Total PAHs	Rinsed	Beet	0.73	-0.3	0.888	-0.12	1.2						
Total PAHs	Rinsed	Beet	2.4	0.9	0.760	-0.27	0.31						
Total PAHs	Rinsed	Carrot	0.97	0.0	1.641	0.50	1.7						
Total PAHs	Rinsed	Carrot	5.5	1.7	2.415	0.88	0.44						
Total PAHs	Rinsed	Carrot	0.73	-0.3	1.004	0.00	1.4						
Total PAHs	Rinsed	Carrot	2.4	0.9	2.800	1.03	1.2						
Total PAHs	Rinsed	Ryegrass	3.1	1.1	1.090	0.09	0.35						
Total PAHs	Rinsed	Ryegrass	0.74	-0.3	0.940	-0.06	1.3						
Total PAHs	Rinsed	SugarBeet	0.50	-0.7	0.608	-0.50	1.2						
Total PAHs	Rinsed	SugarBeet	3.1	1.1	1.177	0.16	0.38						

Entire Non-Ionic Organic Raw Data Set is provided in Appendix B. Shading indicates selected value.

NC = Not Calculated. A regression analysis was performed only if n > 5. A p value was calculated only for rinsed data sets if R^2 >0.2.

R = Rinsed; U = Unrinsed

Where rinsed status was unknown, the data was grouped with the unrinsed data. This was based on the distribution of data as plotted in Figure C-1.

Values were selected, if available, from rinsed data sets.

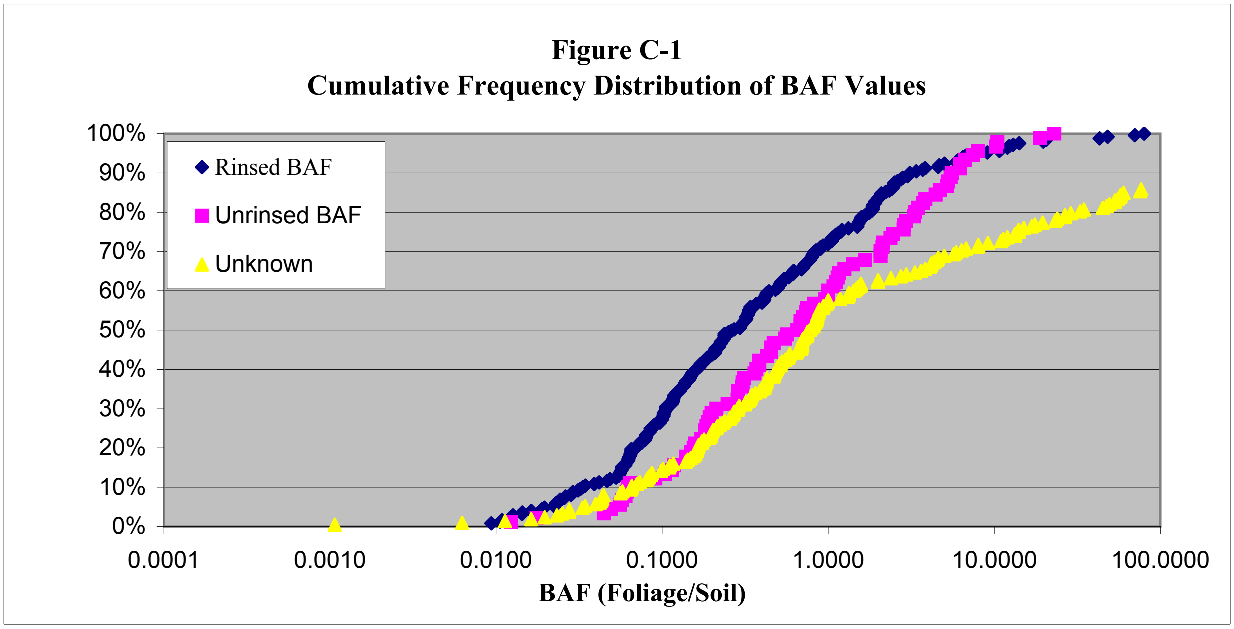
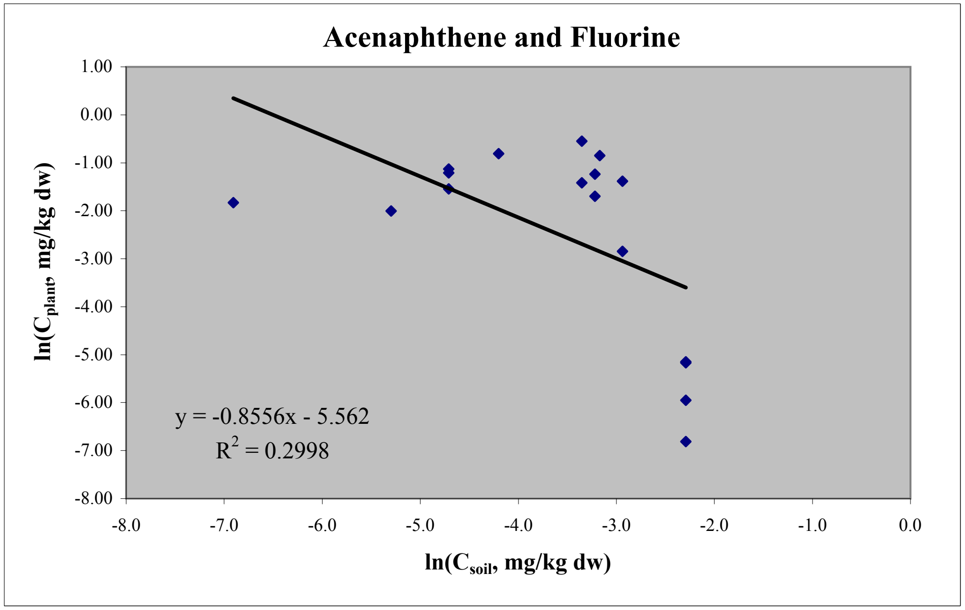


Figure C-1
Cumulative Frequency Distribution of BAF Values
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Rinsed BAF
Unrinsed BAF
Unknown
0.0001
0.0010
0.0100
0.1000
1.0000
10.0000
100.0000
BAF (Foliage/Soil)

This Page Intentionally Left Blank



ln(Csoil, mg/kg dw)	ln(Cplant, mg/kg dw)
-3.2	-1.70
-2.9	-1.39
-4.7	-1.21
-3.4	-1.41
-4.7	-1.55
-3.2	-1.24
-2.9	-2.85
-3.4	-0.55
-4.7	-1.13
-3.2	-0.85
-5.3	-2.00
-6.9	-1.83
-4.2	-0.81
-2.3	-6.81
-2.3	-5.17
-2.29	-5.95
-2.293	-5.15

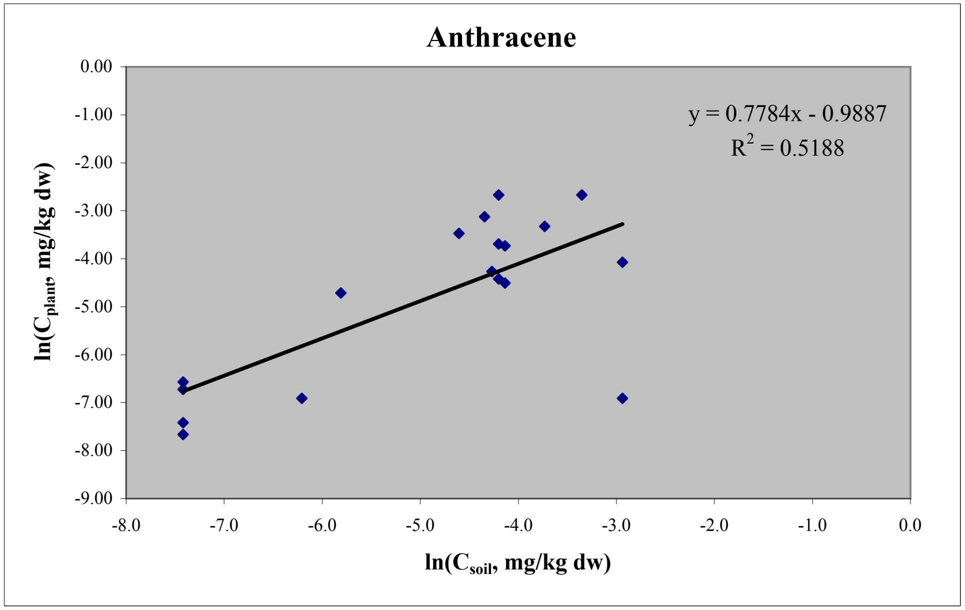
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.547516532
R Square	0.299774353
Adjusted R Square	0.253092643
Standard Error	1.727224424
Observations	17

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	19.15778345	19.15778	6.421666	0.02290831
Residual	15	44.74956315	2.983304		
Total	16	63.9073466			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-5.562017641	1.298732294	-4.28265	0.000654	-8.33019999	-2.79384	-8.3302	-2.7938353
X Variable 1	-0.855612699	0.337639589	-2.5341	0.022908	-1.57527444	-0.13595	-1.5752744	-0.13595095



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-6.2	-6.91
-4.2	-4.42
-2.9	-4.07
-4.1	-3.73
-4.2	-2.67
-7.4	-7.42
-2.9	-6.91
-4.1	-4.51
-4.2	-3.69
-4.3	-3.12
-7.4	-6.73
-7.4	-7.66
-7.4	-6.57
-3.4	-2.67
-4.27	-4.27
-4.605	-3.47
-5.809	-4.71

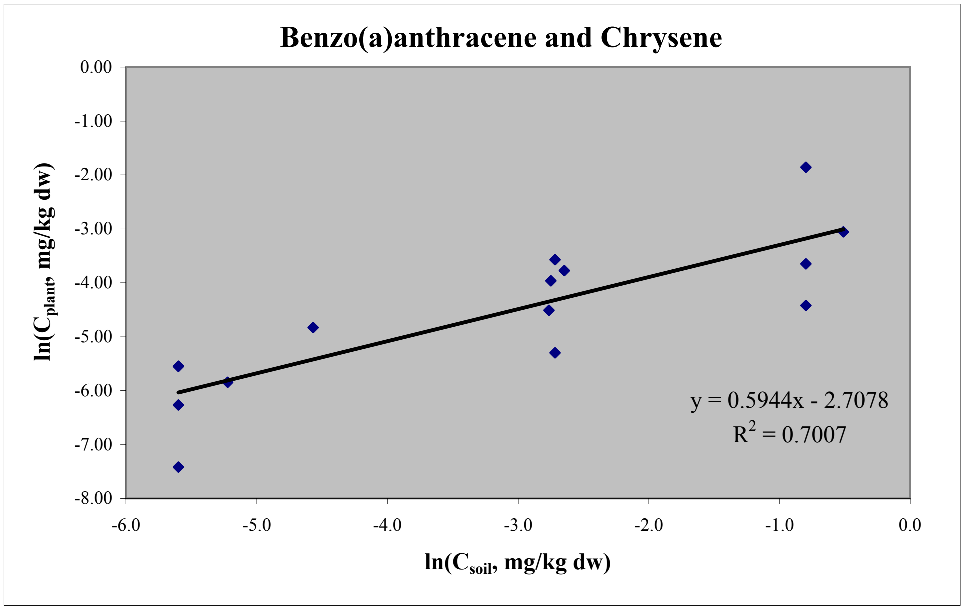
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.720289655
R Square	0.518817188
Adjusted R Square	0.488743262
Standard Error	1.22604928
Observations	18

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	25.93224315	25.93224	17.2514	0.00074786
Residual	16	24.0511494	1.503197		
Total	17	49.98339255			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.988716072	0.968007462	-1.02139	0.322265	-3.04080021	1.063368	-3.0408002	1.06336806
X Variable 1	0.778394279	0.187407738	4.15348	0.000748	0.38110762	1.175681	0.3811076	1.17568093



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-4.6	-4.83
-0.8	-4.42
-2.7	-3.58
-0.8	-3.65
-2.8	-4.51
-2.7	-5.30
-0.8	-1.86
-2.7	-3.96
-2.6	-3.77
-0.5	-3.06
-5.6	-7.42
-5.6	-5.55
-5.6	-6.27
-5.6	-5.55
-5.2	-5.84

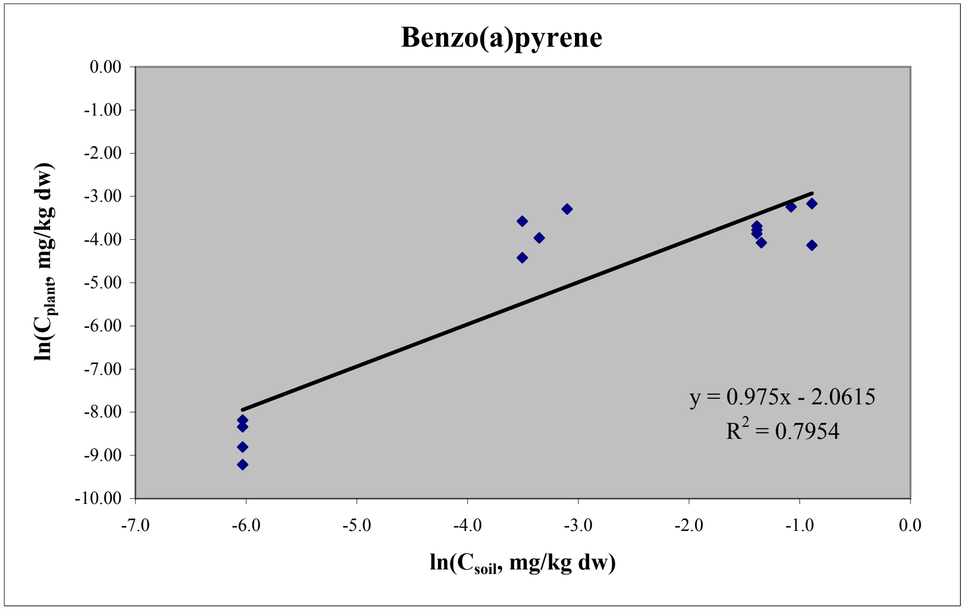
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.729492059
R Square	0.532158664
Adjusted R Square	0.510893149
Standard Error	0.806873825
Observations	24

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	16.29207805	16.29208	25.02449	5.2373E-05
Residual	22	14.32299814	0.651045		
Total	23	30.61507619			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-3.204568852	0.338645676	-9.4629	3.26E-09	-3.906877	-2.50226	-3.906877	-2.50226071
X Variable 1	0.487240432	0.097400392	5.002448	5.24E-05	0.28524438	0.689236	0.2852444	0.68923648



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-3.4	-3.96
-1.4	-3.77
-1.4	-3.69
-3.5	-3.58
-0.9	-3.17
-6.0	-9.21
-3.5	-4.42
-0.9	-4.14
-1.4	-3.86
-6.0	-8.33
-6.0	-8.80
-6.0	-8.18
-1.3	-4.07
-3.1	-3.30
-1.1	-3.24

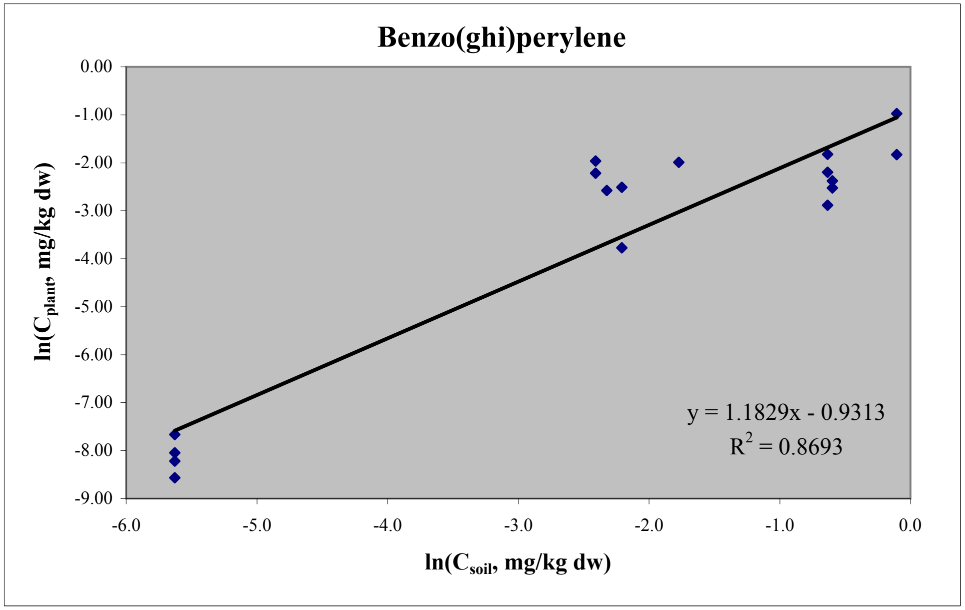
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.891839745
R Square	0.79537813
Adjusted R Square	0.779637986
Standard Error	1.066763516
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	57.50442387	57.50442	50.53182	7.9494E-06
Residual	13	14.7937972	1.137984		
Total	14	72.29822107			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2.061528487	0.502501933	-4.10253	0.001247	-3.14711791	-0.97594	-3.1471179	-0.97593906
X Variable 1	0.97500356	0.137158816	7.108574	7.95E-06	0.67868995	1.271317	0.67869	1.27131717



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-2.2	-3.77
-0.6	-2.88
-2.4	-1.97
-0.1	-1.83
-0.6	-1.82
-5.6	-8.05
-2.2	-2.51
-2.4	-2.22
-0.6	-2.20
-0.1	-0.97
-5.6	-8.22
-5.6	-7.66
-5.6	-8.57
-0.6	-2.38
-1.77	-1.99
-2.323	-2.58
-0.598	-2.53

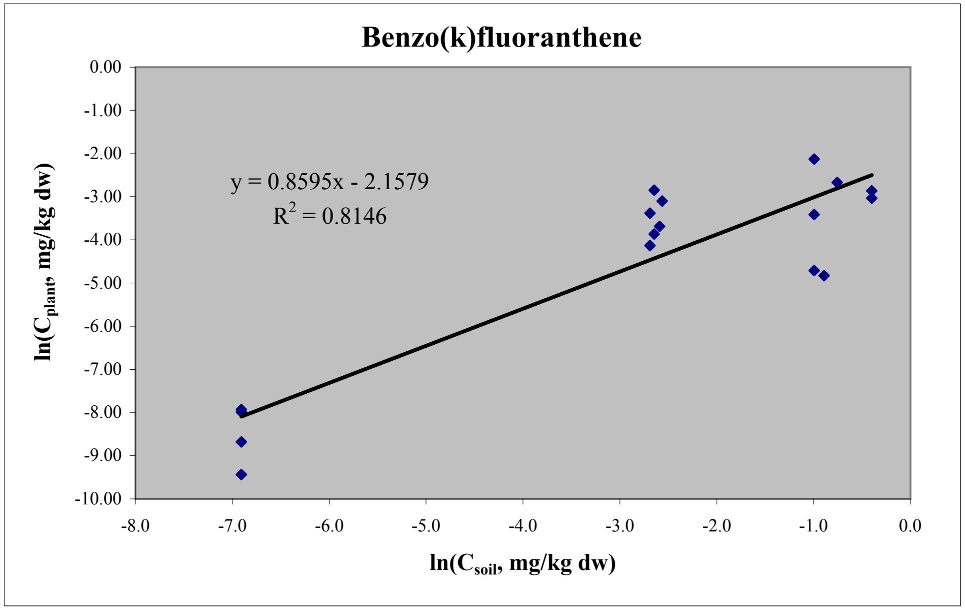
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.93234326
R Square	0.869263954
Adjusted R Square	0.860548218
Standard Error	0.979163541
Observations	17

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	95.62205092	95.62205	99.735	5.0849E-08
Residual	15	14.38141861	0.958761		
Total	16	110.0034695			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.931299783	0.361637942	-2.57523	0.021114	-1.70211281	-0.16049	-1.7021128	-0.16048676
X Variable 1	1.182915248	0.118448574	9.986741	5.08E-08	0.93044809	1.435382	0.9304481	1.43538241



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-1.0	-4.71
-1.0	-3.41
-2.7	-3.38
-0.4	-2.86
-2.6	-2.85
-6.9	-9.43
-2.7	-4.14
-2.6	-3.86
-0.4	-3.04
-1.0	-2.13
-6.9	-7.93
-6.9	-8.68
-6.9	-7.99
-0.9	-4.83
-2.59	-3.69
-2.564	-3.10
-0.755	-2.67

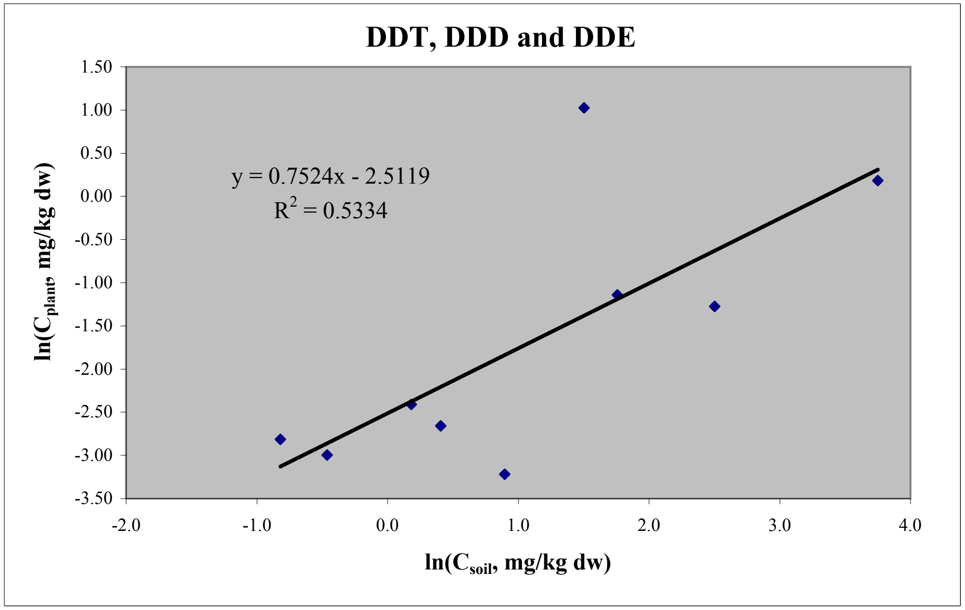
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.902579601
R Square	0.814649936
Adjusted R Square	0.802293265
Standard Error	1.040939846
Observations	17

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	71.43660592	71.43661	65.92795	7.1692E-07
Residual	15	16.25333645	1.083556		
Total	16	87.68994237			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2.157869032	0.395465007	-5.45654	6.62E-05	-3.00078274	-1.31496	-3.0007827	-1.31495533
X Variable 1	0.859537607	0.105859566	8.119603	7.17E-07	0.63390328	1.085172	0.6339033	1.08517193



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-0.8	-2.81
0.2	-2.41
1.5	1.03
0.9	-3.22
-0.5	-3.00
0.4	-2.66
2.5	-1.27
1.8	-1.14
3.7	0.18

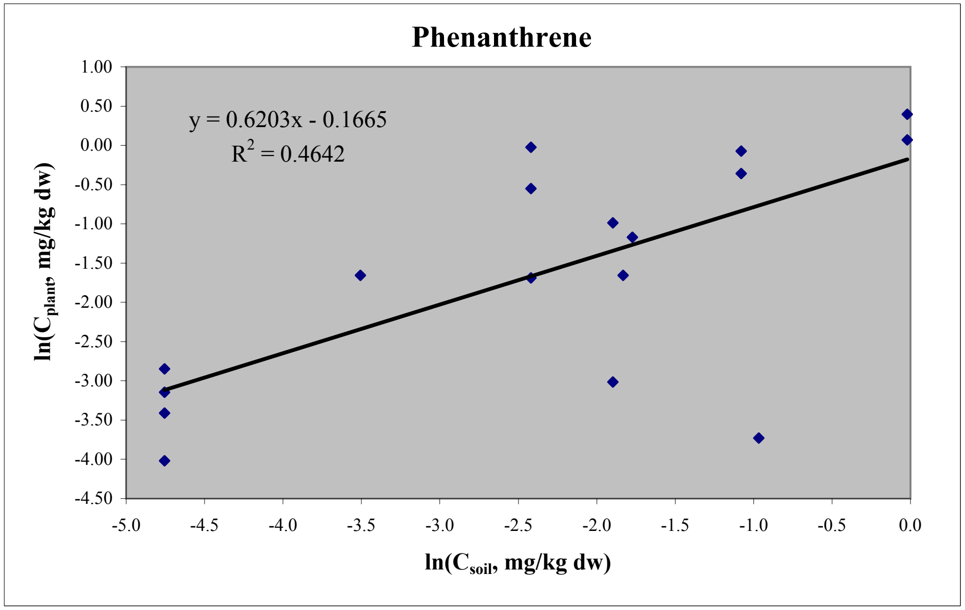
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.730321659
R Square	0.533369725
Adjusted R Square	0.466708258
Standard Error	1.098986582
Observations	9

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	9.663584966	9.663585	8.00117	0.02545601
Residual	7	8.454400559	1.207772		
Total	8	18.11798553			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2.511937879	0.465410395	-5.39725	0.001011	-3.61245858	-1.41142	-3.6124586	-1.41141717
X Variable 1	0.752355338	0.265978334	2.828634	0.025456	0.12341652	1.381294	0.1234165	1.38129416



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
-2.4	-1.69
-1.9	-0.99
-2.4	-0.55
-1.1	-0.36
0.0	0.07
-4.8	-4.02
-1.9	-3.02
-1.1	-0.07
-2.4	-0.02
0.0	0.40
-4.8	-3.15
-4.8	-3.41
-4.8	-2.85
-1.0	-3.73
-1.8	-1.66
-3.51	-1.66
-1.772	-1.17

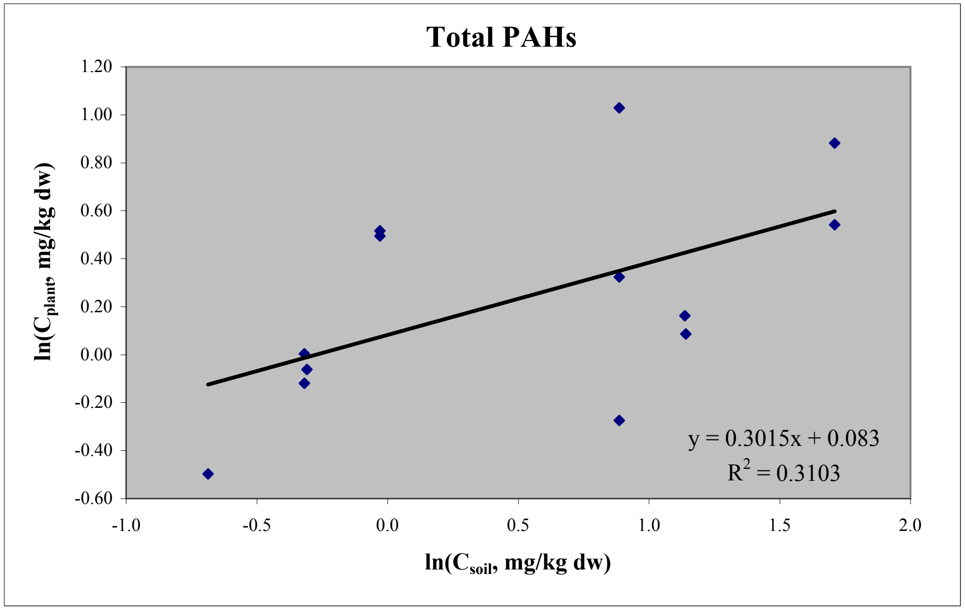
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.681293808
R Square	0.464161253
Adjusted R Square	0.428438669
Standard Error	1.108606538
Observations	17

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	15.96911685	15.96912	12.9935	0.00260075
Residual	15	18.43512685	1.229008		
Total	16	34.4042437			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.16651164	0.488996405	-0.34052	0.738189	-1.2087828	0.87576	-1.2087828	0.87575952
X Variable 1	0.620257058	0.172071404	3.604649	0.002601	0.25349554	0.987019	0.2534955	0.98701857



$\ln(C_{soil}$, mg/kg dw)	$\ln(C_{plant}$, mg/kg dw)
0.0	0.52
1.7	0.54
0.9	0.32
-0.3	-0.12
0.9	-0.27
0.0	0.50
1.7	0.88
-0.3	0.00
0.9	1.03
1.1	0.09
-0.3	-0.06
-0.7	-0.50
1.1	0.16

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.557010992
R Square	0.310261245
Adjusted R Square	0.247557722
Standard Error	0.386981558
Observations	13

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.740996445	0.740996	4.948067	0.04799237
Residual	11	1.647301988	0.149755		
Total	12	2.388298432			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.082971219	0.127862385	0.64891	0.529711	-0.19845199	0.364394	-0.198452	0.36439443
X Variable 1	0.301466221	0.135525452	2.224425	0.047992	0.00317671	0.599756	0.0031767	0.59975573

Eco-SSL Attachment 4-1
Appendix D
Bioaccumulation Data for DDT, DDD and DDE

February 2005
Revised April 2007

This page intentionally left blank

Appendix D-1 Bioaccumulation Data for the Uptake of DDT, DDD and DDE from Soil into Invertebrates

Species Information	Exposure				Invertebrate Tissue Information								Soil Information							BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Chemical Form	Group	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet Weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Beetle (*Agonum sp*.)	F	p,p'-DDE	DDE	Resident	0.1	mg/kg	ww	NR	6.25	0.6	-0.4700	NR	0.02	mg/kg	ww	16-23	1.19	0.024	-3.7377	C	26.3	Davis, 1968
Beetle (*Agonum sp*.)	F	p,p'-DDE	DDE	Resident	0.4	mg/kg	ww	NR	6.25	2.5	0.9163	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.3322	C	70.0	Davis, 1968
Beetle (*Agonum sp*.)	F	p,p'-DDE	DDE	Resident	0.06	mg/kg	ww	NR	6.25	0.4	-0.9808	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.1282	C	3.2	Davis, 1968
Beetle (*Agonum sp*.)	F	p,p'-DDE	DDE	Resident	0.7	mg/kg	ww	NR	6.25	4.4	1.4759	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.4351	C	18.4	Davis, 1968
Beetle (*Harpalus rufipes*)	L	Total DDT	DDT	84 d	3.5	mg/kg	NR	NA	6.25	21.9	3.0853	No	2.5	mg/kg	NR	NR	1	2.5	0.9163	C	8.75	Dempster, 1968
Beetle (*Harpalus rufipes*)	L	Total DDT	DDT	84 d	6.1	mg/kg	NR	NA	6.25	38.1	3.6409	No	5	mg/kg	NR	NR	1	5	1.6094	C	7.63	Dempster, 1968
Beetle (*Harpalus rufipes*)	L	Total DDT	DDT	84 d	25.4	mg/kg	NR	NA	6.25	158.8	5.0673	No	10	mg/kg	NR	NR	1	10	2.3026	C	15.9	Dempster, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDE	DDE	Resident	0.3	mg/kg	ww	NR	6.25	1.9	0.6286	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.1282	C	15.8	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDE	DDE	Resident	0.07	mg/kg	ww	NR	6.25	0.4	-0.8267	NR	0.02	mg/kg	ww	16-23	1.19	0.024	-3.7377	C	18.4	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDE	DDE	Resident	0.1	mg/kg	ww	NR	6.25	0.6	-0.4700	NR	0.02	mg/kg	ww	16-23	1.19	0.024	-3.7377	C	26.3	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDE	DDE	Resident	0.2	mg/kg	ww	NR	6.25	1.3	0.2231	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.3322	C	35.0	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDE	DDE	Resident	2.2	mg/kg	ww	NR	6.25	13.8	2.6210	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.1282	C	116	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDE	DDE	Resident	0.6	mg/kg	ww	NR	6.25	3.8	1.3218	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.4351	C	15.8	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDT	DDT	Resident	0.5	mg/kg	ww	NR	6.25	3.1	1.1394	NR	1.5	mg/kg	ww	16-23	1.19	1.786	0.5798	C	1.8	Davis, 1968
Beetle (*Harpulus aeneus*)	F	p,p'-DDT	DDT	Resident	0.5	mg/kg	ww	NR	6.25	3.1	1.1394	NR	13.3	mg/kg	ww	16-23	1.19	15.833	2.7621	C	0.2	Davis, 1968
Beetle (*Poecilius chalcites*)	F	Total DDT	DDT	resident	0.19	mg/kg	ww	NA	6.25	1.19	0.1719	NR	0.08	mg/kg	ww	78.05	4.56	0.364	-1.0093	C	3.26	Korschgen, 1970
Beetle (*Poecilius chalcites*)	F	Total DDT	DDT	resident	0.47	mg/kg	ww	NA	6.25	2.94	1.0776	NR	0.07	mg/kg	ww	78.05	4.56	0.319	-1.1429	C	9.21	Korschgen, 1970
Beetle (*Poecilius chalcites*)	F	Total DDT	DDT	resident	0.09	mg/kg	ww	NA	6.25	0.56	-0.5754	NR	0.05	mg/kg	ww	78.05	4.56	0.228	-1.4793	C	2.47	Korschgen, 1970
Beetle (unidentified)	F	p,p'-DDE	DDE	Resident	0.05	mg/kg	ww	NR	6.25	0.3	-1.1632	NR	0.02	mg/kg	ww	16-23	1.19	0.024	-3.7377	C	13.1	Davis, 1968
Beetle (unidentified)	F	p,p'-DDE	DDE	Resident	0.05	mg/kg	ww	NR	6.25	0.3	-1.1632	NR	0.02	mg/kg	ww	16-23	1.19	0.024	-3.7377	C	13.1	Davis, 1968
Beetle (unidentified)	F	p,p'-DDE	DDE	Resident	0.2	mg/kg	ww	NR	6.25	1.3	0.2231	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.3322	C	35.0	Davis, 1968
Beetle (unidentified)	F	p,p'-DDE	DDE	Resident	0.2	mg/kg	ww	NR	6.25	1.3	0.2231	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.3322	C	35.0	Davis, 1968
Beetles	F	p,p'-DDT	DDT	NR	0.095	mg/kg	NR	84	7.14	0.679	-0.3878	NR	0.37	mg/kg	NR	NA	1	0.37	-0.9943	C	1.83	Davis and Harrison, 1966
Beetles	F	p,p'-DDT	DDT	NR	0.5	mg/kg	NR	84	7.14	3.57	1.2730	NR	7.4	mg/kg	NR	NA	1	7.4	2.0015	C	0.48	Davis and Harrison, 1966
Beetles	F	p,p'-DDE	DDE	NR	3.6	mg/kg	NR	84	7.14	25.7	3.2470	NR	4.3	mg/kg	NR	NA	1	4.3	1.4586	C	5.98	Davis and Harrison, 1966
Cricket (*Gryllius assimilis*)	F	Total DDT	DDT	resident	0.12	mg/kg	ww	NA	6.25	0.75	-0.2877	NR	0.05	mg/kg	ww	78.05	4.56	0.228	-1.4793	C	3.29	Korschgen, 1970
Cricket (*Gryllius assimilis*)	F	Total DDT	DDT	resident	0.08	mg/kg	ww	NA	6.25	0.5	-0.6931	NR	0.08	mg/kg	ww	78.05	4.56	0.364	-1.0093	C	1.37	Korschgen, 1970
Cricket (*Gryllius assimilis*)	F	Total DDT	DDT	resident	0.08	mg/kg	ww	NA	6.25	0.5	-0.6931	NR	0.07	mg/kg	ww	78.05	4.56	0.319	-1.1429	C	1.57	Korschgen, 1970
Cricket (*Gryllius assimilis*)	F	Total DDT	DDT	resident	0.04	mg/kg	ww	NA	6.25	0.25	-1.3863	NR	0.05	mg/kg	ww	78.05	4.56	0.228	-1.4793	C	1.10	Korschgen, 1970
Earthworm	F	p,p'-DDT	DDT	NR	2.1	mg/kg	NR	84	7.14	15	2.7081	NR	0.37	mg/kg	NR	NA	1	0.37	-0.9943	C	40.5	Davis and Harrison, 1966
Earthworm	F	o,p'-DDT	DDT	NR	0.2	mg/kg	NR	84	7.14	1.43	0.3567	NR	0.06	mg/kg	NR	NA	1	0.06	-2.8134	C	23.8	Davis and Harrison, 1966
Earthworm		DDT	DDT	NR	157	mg/kg	dw	NR	1	157	5.0562	NR	19	mg/kg	dw	NA	1	19	2.9444	C	8.26	Dustman and Stickel, 1966
Earthworm	F	Total DDT	DDT	11 yr	28.8	mg/kg	NR	84	7.14	206	5.3265	NR	13.6	mg/kg	dw	NA	1	13.6	2.6101	C	15.1	Collett and Harrison, 1968
Earthworm	F	p,p'-DDT	DDT	Resident	2.1	mg/kg	ww	NR	6.25	13.1	2.5745	NR	0.3	mg/kg	ww	16-23	1.19	0.357	-1.0296	C	36.8	Davis, 1968
Earthworm	F	Total DDT	DDT	8 yr	0.315	mg/kg	NR	NR	6.25	1.969	0.6774	NR	1.3	mg/kg	NR	NR	1	1.3	0.2624	C	1.51	Dimond, 1970
Earthworm	F	Total DDT	DDT	6 yr	0.13	mg/kg	NR	NR	6.25	0.813	-0.2076	NR	1.2	mg/kg	NR	NR	1	1.2	0.1823	C	0.68	Dimond, 1970
Earthworm	F	Total DDT	DDT	3 yr	0.157	mg/kg	NR	NR	6.25	0.981	-0.0189	NR	1.55	mg/kg	NR	NR	1	1.55	0.4383	C	0.63	Dimond, 1970
Earthworm	F	DDE	DDE	6 yr	0.77	mg/kg	dw	NA	1	0.77	-0.2614	NR	0.17	mg/kg	dw	NA	1	0.17	-1.7720	C	4.53	Gish, 1970
Earthworm	F	p,p'-DDE	DDE	NR	0.9	mg/kg	NR	84	7.14	6.43	1.8608	NR	0.11	mg/kg	NR	NA	1	0.11	-2.2073	C	58.4	Davis and Harrison, 1966
Earthworm	F	p,p'-DDT	DDT	Resident	11.7	mg/kg	ww	NR	6.25	73.1	4.2922	NR	1.5	mg/kg	ww	16-23	1.19	1.79	0.5798	C	41.0	Davis, 1968
Earthworm	F	p,p'-DDT	DDT	Resident	30.4	mg/kg	ww	NR	6.25	190	5.2470	NR	13.3	mg/kg	ww	16-23	1.19	15.83	2.7621	C	12.0	Davis, 1968
Earthworm	F	DDT	DDT	6 yr	0.36	mg/kg	dw	NA	1	0.36	-1.0217	NR	0.02	mg/kg	dw	NA	1	0.02	-3.9120	C	18.0	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.81	mg/kg	dw	NA	1	1.81	0.5933	NR	0.13	mg/kg	dw	NA	1	0.13	-2.0402	C	13.9	Gish, 1970
Earthworm	F	p,p'-DDT	DDT	NR	21.05	mg/kg	NR	84	7.14	150.4	5.0130	NR	7.4	mg/kg	NR	NA	1	7.4	2.0015	C	20.3	Davis and Harrison, 1966
Earthworm	F	o,p'-DDT	DDT	NR	1.25	mg/kg	NR	84	7.14	8.93	2.1893	NR	0.7	mg/kg	NR	NA	1	0.7	-0.3567	C	12.8	Davis and Harrison, 1966
Earthworm	F	p,p'-DDE	DDE	NR	4.3	mg/kg	NR	84	7.14	30.71	3.4247	NR	1.20	mg/kg	NR	NA	1	1.2	0.1823	C	25.6	Davis and Harrison, 1966
Earthworm	F	DDD	DDD	1 yr	1.18	mg/kg	dw	NA	1	1.18	0.1655	NR	0.34	mg/kg	dw	NA	1	0.34	-1.0788	C	3.47	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	21.33	mg/kg	dw	NA	1	21.33	3.0601	NR	0.14	mg/kg	dw	NA	1	0.14	-1.9661	C	152	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.1	mg/kg	dw	NA	1	1.1	0.0953	NR	0.28	mg/kg	dw	NA	1	0.28	-1.2730	C	3.93	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	1.47	mg/kg	dw	NA	1	1.47	0.3853	NR	0.22	mg/kg	dw	NA	1	0.22	-1.5141	C	6.68	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	1.57	mg/kg	dw	NA	1	1.57	0.4511	NR	0.13	mg/kg	dw	NA	1	0.13	-2.0402	C	12.1	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	4.2	mg/kg	dw	NA	1	4.2	1.4351	NR	0.31	mg/kg	dw	NA	1	0.31	-1.1712	C	13.5	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	8.86	mg/kg	dw	NA	1	8.86	2.1815	NR	0.28	mg/kg	dw	NA	1	0.28	-1.2730	C	31.6	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	3.14	mg/kg	dw	NA	1	3.14	1.1442	NR	2.06	mg/kg	dw	NA	1	2.06	0.7227	C	1.52	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	2.52	mg/kg	dw	NA	1	2.52	0.9243	NR	2.8	mg/kg	dw	NA	1	2.8	1.0296	C	0.90	Gish, 1970
Earthworm	F	DDE	DDE	NR	1.1	mg/kg	dw	NA	1	1.1	0.0953	NR	0.015	mg/kg	dw	NA	1	0.015	-4.1997	C	73.3	Gish, 1970
Earthworm	F	DDE	DDE	NR	6.19	mg/kg	dw	NA	1	6.19	1.8229	NR	0.43	mg/kg	dw	NA	1	0.43	-0.8440	C	14.4	Gish, 1970
Earthworm	F	DDD	DDD	NR	12.33	mg/kg	dw	NA	1	12.33	2.5120	NR	2.63	mg/kg	dw	NA	1	2.63	0.9670	C	4.69	Gish, 1970
Earthworm	F	DDT	DDT	NR	140.74	mg/kg	dw	NA	1	140.74	4.9469	NR	3.43	mg/kg	dw	NA	1	3.43	1.2326	C	41.0	Gish, 1970

Appendix D-1 Bioaccumulation Data for the Uptake of DDT, DDD and DDE from Soil into Invertebrates

Species Information	Exposure				Invertebrate Tissue Information								Soil Information							BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Chemical Form	Group	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet Weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Earthworm	F	DDD	DDD	NR	0.17	mg/kg	dw	NA	1	0.17	-1.7720	NR	0.011	mg/kg	dw	NA	1	0.011	-4.5099	C	15.5	Gish, 1970
Earthworm	F	DDT	DDT	NR	0.4	mg/kg	dw	NA	1	0.4	-0.9163	NR	0.0067	mg/kg	dw	NA	1	0.0067	-5.0056	C	59.7	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	0.21	mg/kg	dw	NA	1	0.21	-1.5606	NR	0.014	mg/kg	dw	NA	1	0.014	-4.2687	C	15.0	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	0.24	mg/kg	dw	NA	1	0.24	-1.4271	NR	0.024	mg/kg	dw	NA	1	0.024	-3.7297	C	10.0	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	0.6	mg/kg	dw	NA	1	0.6	-0.5108	NR	0.008	mg/kg	dw	NA	1	0.008	-4.8283	C	75.0	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	0.25	mg/kg	dw	NA	1	0.25	-1.3863	NR	0.021	mg/kg	dw	NA	1	0.021	-3.8632	C	11.9	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	0.18	mg/kg	dw	NA	1	0.18	-1.7148	NR	0.032	mg/kg	dw	NA	1	0.032	-3.4420	C	5.63	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	1.14	mg/kg	dw	NA	1	1.14	0.1310	NR	0.026	mg/kg	dw	NA	1	0.026	-3.6497	C	43.85	Gish, 1970
Earthworm	F	DDE	DDE	3 yr	2.03	mg/kg	dw	NA	1	2.03	0.7080	NR	0.21	mg/kg	dw	NA	1	0.21	-1.5606	C	9.67	Gish, 1970
Earthworm	F	DDT	DDT	3 yr	1.21	mg/kg	dw	NA	1	1.21	0.1906	NR	0.069	mg/kg	dw	NA	1	0.069	-2.6736	C	17.5	Gish, 1970
Earthworm	F	DDT	DDT	NR	0.11	mg/kg	dw	NA	1	0.11	-2.2073	NR	0.012	mg/kg	dw	NA	1	0.012	-4.4228	C	9.17	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	0.86	mg/kg	dw	NA	1	0.86	-0.1508	NR	0.11	mg/kg	dw	NA	1	0.11	-2.2073	C	7.82	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	0.25	mg/kg	dw	NA	1	0.25	-1.3863	NR	0.037	mg/kg	dw	NA	1	0.037	-3.2968	C	6.76	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	0.41	mg/kg	dw	NA	1	0.41	-0.8916	NR	0.02	mg/kg	dw	NA	1	0.02	-3.9120	C	20.5	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	0.33	mg/kg	dw	NA	1	0.33	-1.1087	NR	0.007	mg/kg	dw	NA	1	0.007	-4.9618	C	47.1	Gish, 1970
Earthworm	F	DDT	DDT	10 yr	0.1	mg/kg	dw	NA	1	0.1	-2.3026	NR	0.0099	mg/kg	dw	NA	1	0.0099	-4.6152	C	10.1	Gish, 1970
Earthworm	F	DDE	DDE	NR	11.85	mg/kg	dw	NA	1	11.85	2.4723	NR	0.86	mg/kg	dw	NA	1	0.86	-0.1508	C	13.8	Gish, 1970
Earthworm	F	DDD	DDD	NR	23.8	mg/kg	dw	NA	1	23.8	3.1697	NR	1.52	mg/kg	dw	NA	1	1.52	0.4187	C	15.7	Gish, 1970
Earthworm	F	DDT	DDT	NR	75.54	mg/kg	dw	NA	1	75.54	4.3247	NR	0.19	mg/kg	dw	NA	1	0.19	-1.6607	C	398	Gish, 1970
Earthworm	F	DDE	DDE	NR	0.3	mg/kg	dw	NA	1	0.3	-1.2040	NR	0.077	mg/kg	dw	NA	1	0.077	-2.5639	C	3.90	Gish, 1970
Earthworm	F	DDD	DDD	NR	0.16	mg/kg	dw	NA	1	0.16	-1.8326	NR	0.07	mg/kg	dw	NA	1	0.07	-2.6593	C	2.29	Gish, 1970
Earthworm	F	DDT	DDT	NR	0.63	mg/kg	dw	NA	1	0.63	-0.4620	NR	0.036	mg/kg	dw	NA	1	0.036	-3.3242	C	17.5	Gish, 1970
Earthworm	F	DDD	DDD	2.5 yr	0.063	mg/kg	dw	NA	1	0.063	-2.7646	NR	0.018	mg/kg	dw	NA	1	0.018	-4.0174	C	3.50	Gish, 1970
Earthworm	F	DDD	DDD	NR	0.092	mg/kg	dw	NA	1	0.092	-2.3860	NR	0.0069	mg/kg	dw	NA	1	0.0069	-4.9762	C	13.3	Gish, 1970
Earthworm	F	DDE	DDE	NR	0.41	mg/kg	dw	NA	1	0.41	-0.8916	NR	0.029	mg/kg	dw	NA	1	0.029	-3.5405	C	14.1	Gish, 1970
Earthworm	F	DDD	DDD	NR	0.46	mg/kg	dw	NA	1	0.46	-0.7765	NR	0.014	mg/kg	dw	NA	1	0.014	-4.2687	C	32.9	Gish, 1970
Earthworm	F	DDT	DDT	NR	0.083	mg/kg	dw	NA	1	0.083	-2.4889	NR	0.009	mg/kg	dw	NA	1	0.009	-4.7105	C	9.22	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	17.63	mg/kg	dw	NA	1	17.63	2.8696	NR	4.36	mg/kg	dw	NA	1	4.36	1.4725	C	4.04	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	18.76	mg/kg	dw	NA	1	18.76	2.9317	NR	5.56	mg/kg	dw	NA	1	5.56	1.7156	C	3.37	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	1.09	mg/kg	dw	NA	1	1.09	0.0862	NR	5.38	mg/kg	dw	NA	1	5.38	1.6827	C	0.20	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	9.58	mg/kg	dw	NA	1	9.58	2.2597	NR	4.28	mg/kg	dw	NA	1	4.28	1.4540	C	2.24	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	5.23	mg/kg	dw	NA	1	5.23	1.6544	NR	5.56	mg/kg	dw	NA	1	5.56	1.7156	C	0.94	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	0.73	mg/kg	dw	NA	1	0.73	-0.3147	NR	1.64	mg/kg	dw	NA	1	1.64	0.4947	C	0.45	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	2.74	mg/kg	dw	NA	1	2.74	1.0080	NR	0.89	mg/kg	dw	NA	1	0.89	-0.1165	C	3.08	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	1.13	mg/kg	dw	NA	1	1.13	0.1222	NR	2.5	mg/kg	dw	NA	1	2.5	0.9163	C	0.45	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.13	mg/kg	dw	NA	1	1.13	0.1222	NR	0.2	mg/kg	dw	NA	1	0.2	-1.6094	C	5.65	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	0.59	mg/kg	dw	NA	1	0.59	-0.5276	NR	0.52	mg/kg	dw	NA	1	0.52	-0.6539	C	1.13	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.31	mg/kg	dw	NA	1	1.31	0.2700	NR	0.22	mg/kg	dw	NA	1	0.22	-1.5141	C	5.95	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	2.03	mg/kg	dw	NA	1	2.03	0.7080	NR	0.55	mg/kg	dw	NA	1	0.55	-0.5978	C	3.69	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	56.01	mg/kg	dw	NA	1	56.01	4.0255	NR	5.33	mg/kg	dw	NA	1	5.33	1.6734	C	10.5	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	2.12	mg/kg	dw	NA	1	2.12	0.7514	NR	12.73	mg/kg	dw	NA	1	12.73	2.5440	C	0.17	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.19	mg/kg	dw	NA	1	1.19	0.1740	NR	0.72	mg/kg	dw	NA	1	0.72	-0.3285	C	1.65	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	1.66	mg/kg	dw	NA	1	1.66	0.5068	NR	0.95	mg/kg	dw	NA	1	0.95	-0.0513	C	1.75	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	5.56	mg/kg	dw	NA	1	5.56	1.7156	NR	1.14	mg/kg	dw	NA	1	1.14	0.1310	C	4.88	Gish, 1970
Earthworm	F	DDE	DDE	NR	0.27	mg/kg	dw	NA	1	0.27	-1.3093	NR	0.035	mg/kg	dw	NA	1	0.035	-3.3524	C	7.71	Gish, 1970
Earthworm	F	DDD	DDD	NR	0.2	mg/kg	dw	NA	1	0.2	-1.6094	NR	0.051	mg/kg	dw	NA	1	0.051	-2.9759	C	3.92	Gish, 1970
Earthworm	F	DDT	DDT	NR	1.45	mg/kg	dw	NA	1	1.45	0.3716	NR	0.026	mg/kg	dw	NA	1	0.026	-3.6497	C	55.8	Gish, 1970
Earthworm	F	DDE	DDE	NR	0.51	mg/kg	dw	NA	1	0.51	-0.6733	NR	0.13	mg/kg	dw	NA	1	0.13	-2.0402	C	3.92	Gish, 1970
Earthworm	F	DDT	DDT	NR	4.7	mg/kg	dw	NA	1	4.7	1.5476	NR	0.34	mg/kg	dw	NA	1	0.34	-1.0788	C	13.8	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.94	mg/kg	dw	NA	1	1.94	0.6627	NR	0.15	mg/kg	dw	NA	1	0.15	-1.8971	C	12.9	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	1.63	mg/kg	dw	NA	1	1.63	0.4886	NR	0.34	mg/kg	dw	NA	1	0.34	-1.0788	C	4.79	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	21.39	mg/kg	dw	NA	1	21.39	3.0629	NR	0.17	mg/kg	dw	NA	1	0.17	-1.7720	C	126	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	5.99	mg/kg	dw	NA	1	5.99	1.7901	NR	0.63	mg/kg	dw	NA	1	0.63	-0.4620	C	9.51	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	4.86	mg/kg	dw	NA	1	4.86	1.5810	NR	1.68	mg/kg	dw	NA	1	1.68	0.5188	C	2.89	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	20.85	mg/kg	dw	NA	1	20.85	3.0374	NR	0.63	mg/kg	dw	NA	1	0.63	-0.4620	C	33.1	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.35	mg/kg	dw	NA	1	1.35	0.3001	NR	0.12	mg/kg	dw	NA	1	0.12	-2.1203	C	11.3	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	0.75	mg/kg	dw	NA	1	0.75	-0.2877	NR	0.31	mg/kg	dw	NA	1	0.31	-1.1712	C	2.42	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	7.37	mg/kg	dw	NA	1	7.37	1.9974	NR	0.075	mg/kg	dw	NA	1	0.075	-2.5903	C	98.3	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.43	mg/kg	dw	NA	1	1.43	0.3577	NR	0.24	mg/kg	dw	NA	1	0.24	-1.4271	C	5.96	Gish, 1970

Appendix D-1 Bioaccumulation Data for the Uptake of DDT, DDD and DDE from Soil into Invertebrates

Species Information	Exposure				Invertebrate Tissue Information								Soil Information								BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Chemical Form	Group	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet Weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Earthworm	F	DDD	DDD	1 yr	0.53	mg/kg	dw	NA	1	0.53	-0.6349	NR	0.34	mg/kg	dw	NA	1	0.34	-1.0788	C	1.56	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	4.02	mg/kg	dw	NA	1	4.02	1.3913	NR	0.097	mg/kg	dw	NA	1	0.097	-2.3330	C	41.4	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.59	mg/kg	dw	NA	1	1.59	0.4637	NR	0.28	mg/kg	dw	NA	1	0.28	-1.2730	C	5.68	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	1.19	mg/kg	dw	NA	1	1.19	0.1740	NR	1.52	mg/kg	dw	NA	1	1.52	0.4187	C	0.78	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	9.36	mg/kg	dw	NA	1	9.36	2.2364	NR	0.64	mg/kg	dw	NA	1	0.64	-0.4463	C	14.6	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	3.64	mg/kg	dw	NA	1	3.64	1.2920	NR	0.11	mg/kg	dw	NA	1	0.11	-2.2073	C	33.1	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	10.71	mg/kg	dw	NA	1	10.71	2.3712	NR	0.28	mg/kg	dw	NA	1	0.28	-1.2730	C	38.3	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	5.25	mg/kg	dw	NA	1	5.25	1.6582	NR	0.066	mg/kg	dw	NA	1	0.066	-2.7181	C	79.5	Gish, 1970
Earthworm	F	DDE	DDE	1 yr	1.53	mg/kg	dw	NA	1	1.53	0.4253	NR	0.23	mg/kg	dw	NA	1	0.23	-1.4697	C	6.65	Gish, 1970
Earthworm	F	DDD	DDD	1 yr	0.87	mg/kg	dw	NA	1	0.87	-0.1393	NR	0.45	mg/kg	dw	NA	1	0.45	-0.7985	C	1.93	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	5.07	mg/kg	dw	NA	1	5.07	1.6233	NR	0.073	mg/kg	dw	NA	1	0.073	-2.6173	C	69.5	Gish, 1970
Earthworm	F	DDT	DDT	1 yr	2.93	mg/kg	dw	NA	1	2.93	1.0750	NR	0.24	mg/kg	dw	NA	1	0.24	-1.4271	C	12.2	Gish, 1970
Earthworm	F	Total DDT	DDT		2.8	mg/kg	dw	NA	1	2.8	1.0296	N	0.46	mg/kg	dw	NR	1	0.46	-0.7765		6.1	Beyer and Gish, 1980
Earthworm	F	Total DDT	DDT		2.2	mg/kg	dw	NA	1	2.2	0.7885	N	0.49	mg/kg	dw	NA	1	0.49	-0.7133		4.5	Beyer and Gish, 1980
Earthworm	F	Total DDT	DDT		5.2	mg/kg	dw	NA	1	5.2	1.6487	N	1.4	mg/kg	dw	NA	1	1.4	0.3365		3.7	Beyer and Gish, 1980
Earthworm	F	Total DDT	DDT		7.4	mg/kg	dw	NA	1	7.4	2.0015	N	1.5	mg/kg	dw	NA	1	1.5	0.4055		4.9	Beyer and Gish, 1980
Earthworm	F	Total DDT	DDT		30	mg/kg	dw	NA	1	30	3.4012	N	4.7	mg/kg	dw	NA	1	4.7	1.5476		6.4	Beyer and Gish, 1980
Earthworm	F	Total DDT	DDT		32	mg/kg	dw	NA	1	32	3.4657	N	6.3	mg/kg	dw	NA	1	6.3	1.8405		5.1	Beyer and Gish, 1980
Earthworm	F	p,p'-DDE	DDE	Resident	0.9	mg/kg	ww	NR	6.25	5.6	1.7272	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.1282	C	47.3	Davis, 1968
Earthworm	F	p,p'-DDE	DDE	Resident	2.1	mg/kg	ww	NR	6.25	13.1	2.5745	NR	0.3	mg/kg	ww	16-23	1.19	0.357	-1.0296	C	36.8	Davis, 1968
Earthworm	F	o,p'-DDT	DDT	Resident	0.2	mg/kg	ww	NR	6.25	1.3	0.2231	NR	0.04	mg/kg	ww	16-23	1.19	0.048	-3.0445	C	26.3	Davis, 1968
Earthworm	F	o,p'-DDT	DDT	Resident	0.9	mg/kg	ww	NR	6.25	5.6	1.7272	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.4351	C	23.6	Davis, 1968
Earthworm	F	o,p'-DDT	DDT	Resident	1.6	mg/kg	ww	NR	6.25	10.0	2.3026	NR	13.3	mg/kg	ww	16-23	1.19	15.833	2.7621	C	0.63	Davis, 1968
Earthworm (*Allolobophora* caliginosa)	F	DDT	DDT	Resident	28	mg/kg	ww	NR	6.25	175	5.1648	NR	6.3	mg/kg	dw	NR	1	6.3	1.8405	C	27.8	Hunt and Sacho, 1969
Earthworm (*Allolobophora* caliginosa)	F	DDE	DDE	Resident	6.3	mg/kg	ww	NR	6.25	39.38	3.6731	NR	2.0	mg/kg	dw	NR	1	2	0.6931	C	19.7	Hunt and Sacho, 1969
Earthworm (*Allolobophora caliginosa*)	F	DDT	DDT	Resident	18	mg/kg	ww	NR	6.25	112.5	4.7230	NR	8.6	mg/kg	dw	NR	1	8.6	2.1518	C	13.1	Hunt and Sacho, 1969
Earthworm (*Allolobophora caliginosa*)	F	DDE	DDE	Resident	4.7	mg/kg	ww	NR	6.25	29.38	3.3801	NR	2.5	mg/kg	dw	NR	1	2.5	0.9163	C	11.8	Hunt and Sacho, 1969
Earthworm *(Allolobophora calignosa)*	F	p,p'-DDT	DDT	NR	1.5	mg/kg	NR	NA	6.25	9.38	2.2380	NR	0.64	mg/kg	dw	NA	1	0.640	-0.4463	R/C	14.6	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora calignosa)*	F	p,p'-DDT	DDT	NR	2.9	mg/kg	NR	NA	6.25	18.13	2.8973	NR	0.64	mg/kg	dw	NA	1	0.640	-0.4463	R/C	28.3	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora calignosa)*	F	o,p'-DDT	DDT	NR	0.35	mg/kg	NR	NA	6.25	2.19	0.7828	NR	0.14	mg/kg	ww	NA	1	0.63	-0.4620	R/C	28.8	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora chlorotica)*	F	o,p'-DDT	DDT	NR	0.72	mg/kg	NR	NA	6.25	4.50	1.5041	NR	0.14	mg/kg	ww	NA	1	0.63	-0.4620	R/C	3.47	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora longa)*	F	p,p'-DDT	DDT	NR	0.77	mg/kg	NR	NA	6.25	4.81	1.5712	NR	0.64	mg/kg	dw	NA	1	0.640	-0.4463	R/C	7.52	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora longa)*	F	o,p'-DDT	DDT	NR	0.19	mg/kg	NR	NA	6.25	1.19	0.1719	NR	0.14	mg/kg	ww	NA	1	0.63	-0.4620	R/C	7.64	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora rosea)*	F	p,p'-DDT	DDT	NR	1.6	mg/kg	NR	NA	6.25	10	2.3026	NR	0.64	mg/kg	ww	NA	1	0.64	-0.4463	R/C	1.86	Wheatley and Hardeman, 1968
Earthworm *(Allolobophora rosea)*	F	o,p'-DDT	DDT	NR	0.3	mg/kg	NR	NA	6.25	1.88	0.6286	NR	0.14	mg/kg	ww	NA	1	0.63	-0.4620	R/C	15.9	Wheatley and Hardeman, 1968
Earthworm (*H. caliginosis trapezoides*)	F	DDE	DDE	NR	14	ug/g	ww	NR	6.25	87.5	4.4716	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	16.2	Barker, 1958
Earthworm (*H. caliginosis trapezoides*)	F	DDT	DDT	NR	39	ug/g	ww	NR	6.25	243.8	5.4961	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	25.7	Barker, 1958
Earthworm (*Helodrilus zeteki*)	F	DDE	DDE	NR	33	ug/g	ww	NR	6.25	206.3	5.3291	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	38.2	Barker, 1958
Earthworm (*Helodrilus zeteki*)	F	DDT	DDT	NR	164	ug/g	ww	NR	6.25	1025.0	6.9324	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	108	Barker, 1958
Earthworm (*L. terrestris and A. caliginosa*)	F	DDT	DDT	NR	21	mg/kg	NR	NR	6.25	131.25	4.8771	NR	56	mg/kg	NR	NR	1	56	4.0254		2.34	Doane, 1962
Earthworm (Lumbricidae)	F	Total DDT	DDT	Resident	0.05	mg/kg	ww	NA	6.25	0.3125	-1.1632	NR	0.05	mg/kg	ww	78.05	4.56	0.228	-1.4793	C	1.37	Korschgen, 1970
Earthworm (Lumbricidae)	F	Total DDT	DDT	Resident	0.14	mg/kg	ww	NA	6.25	0.875	-0.1335	NR	0.08	mg/kg	ww	78.05	4.56	0.364	-1.0093	C	2.40	Korschgen, 1970
Earthworm (Lumbricidae)	F	Total DDT	DDT	Resident	0.13	mg/kg	ww	NA	6.25	0.8125	-0.2076	NR	0.05	mg/kg	ww	78.05	4.56	0.228	-1.4793	C	3.57	Korschgen, 1970
Earthworm (*Lumbricus rubellus*)	F	DDE	DDE	NR	59	ug/g	ww	NR	6.25	368.8	5.9101	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	68.3	Barker, 1958
Earthworm (*Lumbricus rubellus*)	F	DDT	DDT	NR	145	ug/g	ww	NR	6.25	906.3	6.8093	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	95.4	Barker, 1958
Earthworm *(Lumbricus rubellus)*	F	p,p'-DDT	DDT	Resident	260	ug/kg fat	NR	NA	0.000125	0.0325	-3.4265	Y	6.8	ug/kg	dw	NA	0.001	0.0068	-4.9908		4.78	Hendriks et al. 1995
Earthworm *(Lumbricus rubellus)*	F	p,p'-DDT	DDT	Resident	80.0	ug/kg fat	NR	NA	0.000125	0.0100	-4.6052	Y	1.4	ug/kg	dw	NA	0.001	0.0014	-6.5713		7.14	Hendriks et al. 1995
Earthworm *(Lumbricus rubellus)*	F	o,p'-DDT	DDT	Resident	410.0	ug/kg fat	NR	NA	0.000125	0.0513	-2.9710	Y	4.3	ug/kg	dw	NA	0.001	0.0043	-5.4491		11.9	Hendriks et al. 1995
Earthworm *(Lumbricus rubellus)*	F	p,p'-DDT	DDT	Resident	520.0	ug/kg fat	NR	NA	0.000125	0.0650	-2.7334	Y	3.2	ug/kg	dw	NA	0.001	0.0032	-5.7446		20.3	Hendriks et al. 1995
Earthworm *(Lumbricus rubellus)*	F	p,p'-DDT	DDT	Resident	180.0	ug/kg fat	NR	NA	0.000125	0.0225	-3.7942	Y	12	ug/kg	dw	NA	0.001	0.012	-4.4228		1.88	Hendriks et al. 1995
Earthworm *(Lumbricus rubellus)*	F	Total DDT	DDT	Resident	750.0	ug/kg fat	NR	NA	0.000125	0.0938	-2.3671	Y	15	ug/kg	dw	NA	0.001	0.015	-4.1997		6.25	Hendriks et al. 1995
Earthworm *(Lumbricus rubellus)*	F	Total DDT	DDT	Resident	250.0	ug/kg fat	NR	NA	0.000125	0.0313	-3.4657	Y	92	ug/kg	dw	NA	0.001	0.092	-2.3860		0.34	Hendriks et al. 1995
Earthworm (*Lumbricus sp*)	F	DDT	DDT	Resident	16.2	mg/kg	ww	NR	6.25	101.3	4.6176	NR	6.3	mg/kg	dw	NR	1	6.3	1.8405	C	16.1	Hunt and Sacho, 1969
Earthworm (*Lumbricus sp*)	F	DDE	DDE	Resident	3.9	mg/kg	ww	NR	6.25	24.38	3.1936	NR	2.0	mg/kg	dw	NR	1	2	0.6931	C	12.2	Hunt and Sacho, 1969
Earthworm (*Lumbricus sp.*)	F	DDT	DDT	Resident	10.2	mg/kg	ww	NR	6.25	63.75	4.1550	NR	8.6	mg/kg	dw	NR	1	8.6	2.1518	C	7.41	Hunt and Sacho, 1969
Earthworm (*Lumbricus sp.*)	F	DDE	DDE	Resident	3.3	mg/kg	ww	NR	6.25	20.63	3.0265	NR	2.5	mg/kg	dw	NR	1	2.5	0.9163	C	8.25	Hunt and Sacho, 1969
Earthworm (*Lumbricus terrestris*)	F	DDE	DDE	NR	24	ug/g	ww	NR	6.25	150	5.0106	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	27.8	Barker, 1958
Earthworm (*Lumbricus terrestris*)	F	DDT	DDT	NR	33	ug/g	ww	NR	6.25	206.3	5.3291	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	21.7	Barker, 1958
Earthworm (*Helodrilus caliginosus*)	F	DDT	DDT	2 yr	64.8	ug/g	NR	NA	6.25	405.0	6.0039	NR	30.1	ug/g	NR	NA	1	30.1	3.4045	C	13.5	Boykins, 1966

Appendix D-1 Bioaccumulation Data for the Uptake of DDT, DDD and DDE from Soil into Invertebrates

Species Information	Exposure				Invertebrate Tissue Information								Soil Information							BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Chemical Form	Group	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet Weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Earthworm (*Lumbricus terrestris*)	F	p,p'-DDT	DDT	NR	0.54	mg/kg	NR	NR	6.25	3.38	1.2164	NR	0.64	mg/kg	dw	NA	1	0.635	-0.4537	R/C	5.31	Wheatley and Hardeman, 1968
Earthworm (*Lumbricus terrestris*)	F	o,p'-DDT	DDT	NR	0.068	mg/kg	NR	NA	6.25	0.43	-0.8557	NR	0.14	mg/kg	ww	NA	1	0.63	-0.4620	R/C	5.36	Wheatley and Hardeman, 1968
Earthworm (*Lumbricus terrestris*)	F	DDT	DDT	Resident	9.5	mg/kg	ww	NR	6.25	59.38	4.0839	NR	13.8	mg/kg	dw	NR	1	13.8	2.6247	C	4.30	Hunt and Sacho, 1969
Earthworm (*Lumbricus terrestris*)	F	DDE	DDE	Resident	10	mg/kg	ww	NR	6.25	62.5	4.1352	NR	4.2	mg/kg	dw	NR	1	4.2	1.4351	C	14.9	Hunt and Sacho, 1969
Earthworm (*Lumbricus terrestris*)	F	DDT	DDT	Resident	11.3	mg/kg	ww	NR	6.25	70.63	4.2574	NR	6.3	mg/kg	dw	NR	1	6.3	1.8405	C	11.2	Hunt and Sacho, 1969
Earthworm (*Lumbricus terrestris*)	F	DDE	DDE	Resident	4.8	mg/kg	ww	NR	6.25	30	3.4012	NR	2.0	mg/kg	dw	NR	1	2	0.6931	C	15.0	Hunt and Sacho, 1969
Earthworm (*Lumbricus terrestris*)	L	DDT	DDT	6 mo	4	ug/g	NR	NA	6.25	25	3.2189	Y	0.9	ug/g	NR	NR	1	0.9	-0.1054	C	27.8	Edwards and Jeffs, 1974
Earthworm (*Lumbricus terrestris*)	F	DDT	DDT	Resident	4.1	mg/kg	ww	NR	6.25	25.63	3.2436	NR	8.6	mg/kg	dw	NR	1	8.6	2.1518	C	2.98	Hunt and Sacho, 1969
Earthworm (*Lumbricus terrestris*)	F	DDE	DDE	Resident	2.7	mg/kg	ww	NR	6.25	16.88	2.8258	NR	2.5	mg/kg	dw	NR	1	2.5	0.9163	C	6.75	Hunt and Sacho, 1969
Earthworm (*mixed*)	F	DDE	DDE	NR	73	ug/g	ww	NR	6.25	456.3	6.1230	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	84.5	Barker, 1958
Earthworm (*mixed*)	F	DDT	DDT	NR	79	ug/g	ww	NR	6.25	493.8	6.2020	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	52.0	Barker, 1958
Earthworm *(Octalaium cyaneum)*	F	p,p'-DDT	DDT	NR	0.67	mg/kg	NR	NA	6.25	4.19	1.4321	NR	0.64	mg/kg	ww	NA	1	0.63	-0.4620	R/C	784	Wheatley and Hardeman, 1968
Earthworm *(Octalaium cyaneum)*	F	o,p'-DDT	DDT	NR	0.19	mg/kg	NR	NA	6.25	1.19	0.1719	NR	0.14	mg/kg	ww	NA	1	0.63	-0.4620	R/C	6.65	Wheatley and Hardeman, 1968
Earthworm (*Octolasium lacteum*)	F	DDE	DDE	NR	22	ug/g	ww	NR	6.25	137.5	4.9236	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	25.5	Barker, 1958
Earthworm (*Octolasium lacteum*)	F	DDT	DDT	NR	82	ug/g	ww	NR	6.25	512.5	6.2393	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	53.9	Barker, 1958
Earthworm *(Pheretima posthuma)*	L	Total DDT	DDT	10 w	12	mg/kg	NR	NR	7.14	85.71	4.4510	Yes	1	mg/kg	NR	NR	1	1	0.0000	C	85.7	Yadav et al. 1976
Earthworm (unidentified)	F	DDE	DDE	NR	3	ug/g	ww	NR	6.25	18.8	2.9312	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	3.47	Barker, 1958
Earthworm (unidentified)	F	DDT	DDT	2 w	87.0	ug/g	NR	NR	6.25	543.8	6.2985	NR	298.1	ug/g	NR	NR	1	298.1	5.6974	C	1.82	Boykins, 1966
Earthworm (unidentified)	F	DDT	DDT	1 yr	67.7	ug/g	NR	NA	6.25	423.1	6.0477	NR	90.1	ug/g	NR	NA	1	90.1	4.5009	C	4.70	Boykins, 1966
Earthworm (unidentified)	F	DDT	DDT	1.5 yr	63.6	ug/g	NR	NA	6.25	397.5	5.9852	NR	50.1	ug/g	NR	NA	1	50.1	3.9140	C	7.93	Boykins, 1966
Earthworm (*Lumbricus terrestris*)	F	DDT	DDT	1.5 yr	62.9	ug/g	NR	NA	6.25	393.1	5.9741	NR	30.1	ug/g	NR	NA	1	30.1	3.4045	C	13.1	Boykins, 1966
Earthworm (*unidentified*)	F	DDT	DDT	NR	65	ug/g	ww	NR	6.25	406.3	6.0070	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	42.8	Barker, 1958
Earthworm (*unidentified*)	F	DDE	DDE	NR	23	ug/g	ww	NR	6.25	143.8	4.9681	NR	5.4	ug/g	dw	NR	1	5.4	1.6864	C	26.6	Barker, 1958
Earthworm (*unidentified*)	F	DDT	DDT	NR	109	ug/g	ww	NR	6.25	681.3	6.5239	NR	9.5	ug/g	dw	NR	1	9.5	2.2513	C	71.7	Barker, 1958
Earthworm (unidentified)	F	DDE	DDE	NR	33	ug/g	ww	NR	6.25	206.3	5.3291	NR	0.3	ug/g	dw	NR	1	0.3	-1.2040	C	688	Barker, 1958
Earthworm (unidentified)	F	DDT	DDT	NR	86	ug/g	ww	NR	6.25	537.5	6.2869	NR	16.9	ug/g	dw	NR	1	16.9	2.8273	C	31.8	Barker, 1958
Slugs	F	p,p'-DDT	DDT	NR	14.55	mg/kg	NR	84	7.14	103.9	4.6437	NR	7.40	mg/kg	NR	NA	1	7.4	2.0015	C	14.0	Davis and Harrison, 1966
Slugs	F	o,p'-DDT	DDT	NR	1.5	mg/kg	NR	84	7.14	10.7	2.3716	NR	0.70	mg/kg	NR	NA	1	0.7	-0.3567	C	15.3	Davis and Harrison, 1966
Slugs	F	p,p'-DDE	DDE	NR	1.9	mg/kg	NR	84	7.14	13.6	2.6080	NR	1.20	mg/kg	NR	NA	1	1.2	0.1823	C	11.3	Davis and Harrison, 1966
Slugs	F	DDE	DDE	1 yr	14.96	mg/kg	dw	NA	1	14.96	2.7054	NR	4.36	mg/kg	dw	NA	1	4.36	1.4725	C	3.43	Gish, 1970
Slugs	F	DDD	DDD	1 yr	12.18	mg/kg	dw	NA	1	12.18	2.4998	NR	5.56	mg/kg	dw	NA	1	5.56	1.7156	C	2.19	Gish, 1970
Slugs	F	DDT	DDT	1 yr	7.33	mg/kg	dw	NA	1	7.33	1.9920	NR	5.38	mg/kg	dw	NA	1	5.38	1.6827	C	1.36	Gish, 1970
Slugs	F	DDE	DDE	1 yr	15.93	mg/kg	dw	NA	1	15.93	2.7682	NR	4.36	mg/kg	dw	NA	1	4.36	1.4725	C	3.65	Gish, 1970
Slugs	F	DDD	DDD	1 yr	15.93	mg/kg	dw	NA	1	15.93	2.7682	NR	5.56	mg/kg	dw	NA	1	5.56	1.7156	C	2.87	Gish, 1970
Slugs	F	DDT	DDT	1 yr	13.26	mg/kg	dw	NA	1	13.26	2.5848	NR	5.38	mg/kg	dw	NA	1	5.38	1.6827	C	2.46	Gish, 1970
Slugs	F	DDE	DDE	1 yr	4.24	mg/kg	dw	NA	1	4.24	1.4446	NR	0.89	mg/kg	dw	NA	1	0.89	-0.1165	C	4.76	Gish, 1970
Slugs	F	DDT	DDT	1 yr	11.93	mg/kg	dw	NA	1	11.93	2.4791	NR	2.5	mg/kg	dw	NA	1	2.5	0.9163	C	4.77	Gish, 1970
Slugs	F	DDE	DDE	1 yr	10	mg/kg	dw	NA	1	10	2.3026	NR	0.63	mg/kg	dw	NA	1	0.63	-0.4620	C	15.9	Gish, 1970
Slugs	F	DDD	DDD	1 yr	6.03	mg/kg	dw	NA	1	6.03	1.7967	NR	1.68	mg/kg	dw	NA	1	1.68	0.5188	C	3.59	Gish, 1970
Slugs	F	DDT	DDT	1 yr	36.67	mg/kg	dw	NA	1	36.67	3.6020	NR	0.63	mg/kg	dw	NA	1	0.63	-0.4620	C	58.2	Gish, 1970
Slugs	F	DDE	DDE	1 yr	4.37	mg/kg	dw	NA	1	4.37	1.4748	NR	0.12	mg/kg	dw	NA	1	0.12	-2.1203	C	36.4	Gish, 1970
Slugs	F	DDD	DDD	1 yr	4.75	mg/kg	dw	NA	1	4.75	1.5581	NR	0.31	mg/kg	dw	NA	1	0.31	-1.1712	C	15.3	Gish, 1970
Slugs	F	DDT	DDT	1 yr	15	mg/kg	dw	NA	1	15	2.7081	NR	0.075	mg/kg	dw	NA	1	0.075	-2.5903	C	200	Gish, 1970

[1] If not reported, wet weight is assumed.
[2] If not reported, 16% solids assumed.
[3] If not reported, dry weight assumed.

NA = Not applicable
NR = Not reported
dw = dry weight

ww = wet weight
R = Reported
C = Calculated
d = days

ln(tissue) = slope * ln(soil) + intercept

slope 0.8561
intercept 2.1287
R^2 0.6673
p value <0.0001

Median BAF = 11.3

Appendix D-2 Bioaccumulation Data for Uptake of DDT, DDD or DDE from Diet into Mammals and Birds

Species Information	Exposure Information					Tissue Information								Oral Exposure Information							BAF		
Common Name (Genus/Species)	Field (F)/ Lab (L)	Chemical Form	Group	Exposure Route	Duration	Tissue Type	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet weight or Dry Weight?[1]	% Moisture Content Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc.)	Reported Diet Conc.	Reported Diet Conc. Units	Wet Weight or Dry Weight?[3]	Moisture Content Diet[4]	Conversion Factor to mg/kg dw	Oral Exposure (mg/kg dw)	ln(Diet) Exposure)	R/C	BAF (Tissue (mg/kg dw) / Diet (mg/kg dw))	Reference
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	NR	Carcass	35.3	mg/kg	ww	NR	3.125	110.3125	4.703	5.9	mg/kg	ww	NR	3.13	18.44	2.914	C	5.98	Rudolph et al., 1983
Barn owl (*Tyto alba*)	L	DDE	DDE	Diet	2 y	Carcass	112	mg/kg	ww	NR	3.125	350	5.858	2.83	mg/kg	ww	NR	3.125	8.844	2.180	C	39.6	Mendenhall et al., 1983
Barn owl (*Tyto alba*)	L	DDE	DDE	Diet	2 y	Carcass	78	mg/kg	ww	68	3.125	243.75	5.496	2.83	mg/kg	ww	NR	3.125	8.844	2.180	C	27.6	Mendenhall et al., 1983
Japanese Quail (*Coturnix coturnix*)	L	DDT	DDT	Diet	5 d	Carcass	1.6	ug/g	NR	NR	3.125	5.0	1.609	50	mg/kg	NR	NR	1	50	3.912	C	0.100	DeWitt et al, 1955
Japanese Quail (*Coturnix coturnix*)	L	DDT	DDT	Diet	5 d	Carcass	4.1	ug/g	NR	NR	3.125	12.8	2.550	100	mg/kg	NR	NR	1	100	4.605	C	0.128	DeWitt et al, 1955
Japanese Quail (*Coturnix coturnix*)	L	DDT	DDT	Diet	5 d	Carcass	19.3	ug/g	NR	NR	3.125	60.3	4.100	250	mg/kg	NR	NR	1	250	5.521	C	0.241	DeWitt et al, 1955
Japanese Quail (*Coturnix coturnix*)	L	DDT	DDT	Diet	5 d	Carcass	40.8	ug/g	NR	NR	3.125	127.5	4.848	500	mg/kg	NR	NR	1	500	6.215	C	0.255	DeWitt et al, 1955
Japanese Quail (*Coturnix coturnix*)	L	DDT	DDT	Diet	5 d	Carcass	73.2	ug/g	NR	NR	3.125	228.8	5.433	1000	mg/kg	NR	NR	1	1000	6.908	C	0.229	DeWitt et al, 1955
Pheasant	L	DDT	DDT	Diet	5 d	Carcass	100.3	ug/g	NR	NR	3.125	313.4	5.748	250	mg/kg	NR	NR	1	250	5.521	C	1.25	DeWitt et al, 1955
Black duck (*Anas rubripes*)	L	DDE	DDE	Diet	2 bs	Carcass	151.5	mg/kg	ww	NR	3.125	473.4	6.160	10	mg/kg	dw	NR	1	10	2.303	C	47.3	Longcore and Stendell, 1977
Black duck (*Anas rubripes*)	L	DDE	DDE	Diet	3 bs	Carcass	159.6	mg/kg	ww	NR	3.125	498.8	6.212	10	mg/kg	dw	NR	1	10	2.303	C	49.9	Longcore and Stendell, 1977
Mallard (*Anas platyrhynchos*)	L	DDT	DDT	Diet	10 d	Carcass	22.44	mg/kg	ww	NR	3.125	70.125	4.250	500	mg/kg	NR	NR	1	500	6.215	C	0.140	Friend and Trainer, 1974
Mallard (*Anas platyrhynchos*)	L	DDT	DDT	Diet	10 d	Carcass	38.86	mg/kg	ww	NR	3.125	121.4375	4.799	900	mg/kg	NR	NR	1	900	6.802	C	0.135	Friend and Trainer, 1974
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	3 m	Carcass	33	mg/kg	ww	NR	3.125	103.1	4.636	10	mg/kg	dw	NR	1	10	2.303	C	10.3	Wiemeyer et al., 1986
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	NR	Carcass	67	mg/kg	ww	NR	3.125	209.4	5.344	10	mg/kg	dw	NR	1	10	2.303	C	20.9	Wiemeyer et al., 1986
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	NR	Carcass	56	mg/kg	ww	NR	3.125	175	5.165	10	mg/kg	dw	NR	1	10	2.303	C	17.5	Wiemeyer et al., 1986
Brown-headed cowbird	L	p,p'-DDT	DDT	Diet	13 d	Carcass	119.28	mg/kg	ww	NR	3.125	373	5.921	100	mg/kg	NR	NR	1	100	4.605	C	3.73	Van Velzen et al. 1972
Cowbird (*Molothrus ater*)	L	p,p'-DDT	DDT	Diet	12 d	Carcass	46	mg/kg	ww	NR	3.125	144	4.968	500	mg/kg	NR	NR	1	500	6.215	C	0.288	Stickel et al., 1966
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	NR	Carcass	1.02	ug/g	ww	NR	3.125	3.19	1.159	0.037	mg/kg	NR	NR	1	0.037	-3.297	C	86.1	Lowe and Stendell, 1991
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	NR	Carcass	0.40	ug/g	ww	NR	3.125	1.25	0.223	0.0135	mg/kg	NR	NR	1	0.0135	-4.305	C	92.6	Lowe and Stendell, 1991
Japanese Quail (*Coturnix coturnix*)	L	DDE	DDE	Diet	12 w	Carcass	25.3	mg/kg	NR	68	3.125	79.1	4.370	5	mg/kg	dw	NR	1	5	1.609	C	15.8	Dieter, 1974
Japanese Quail (*Coturnix coturnix*)	L	DDE	DDE	Diet	12 w	Carcass	125.2	mg/kg	NR	68	3.125	391	5.969	25	mg/kg	dw	NR	1	25	3.219	C	15.7	Dieter, 1974
Japanese Quail (*Coturnix coturnix*)	L	DDE	DDE	Diet	12 w	Carcass	415.8	mg/kg	NR	68	3.125	1299	7.170	100	mg/kg	dw	NR	1	100	4.605	C	13.0	Dieter, 1974
Mallard (*Anas platyrhynchos*)	L	p,p'-DDE	DDE	Diet	96 d	Whole body	9.6	mg/kg	ww	NR	3.125	30	3.401	40	mg/kg	NR	NR	1	40	3.689	C	0.750	Haegele and Hudson, 1974
Starling (*Sturnus vulgaris*)	L	DDE	DDE	Diet	12 w	Carcass	197.6	mg/kg	NR	NR	3.125	618	6.426	25	mg/kg	NR	NR	1	25	3.219	C	24.7	Dieter, 1975
Starling (*Sturnus vulgaris*)	L	DDE	DDE	Diet	12 w	Carcass	680.9	mg/kg	NR	NR	3.125	2128	7.663	100	mg/kg	NR	NR	1	100	4.605	C	21.3	Dieter, 1975
Double-crested cormorants (*Phalacrocorax a. auritus*)	L	Total DDT	DDT	Diet	20 d	Carcass	23.6	mg/kg	ww	NR	3.125	73.8	4.301	5	mg/kg	ww	NR	4.0	20	2.996	C	3.69	Greichus and Hannon, 1973
Double-crested cormorants (*Phalacrocorax a. auritus*)	L	Total DDT	DDT	Diet	20 d	Carcass	34	mg/kg	ww	NR	3.125	106	4.666	5	mg/kg	ww	NR	4.0	20	2.996	C	5.31	Greichus and Hannon, 1973
Double-crested cormorants (*Phalacrocorax a. auritus*)	L	Total DDT	DDT	Diet	20 d	Carcass	104	mg/kg	ww	NR	3.125	325	5.784	12.5	mg/kg	ww	NR	4.0	50	3.912	C	6.50	Greichus and Hannon, 1973
Double-crested cormorants (*Phalacrocorax a. auritus*)	L	Total DDT	DDT	Diet	20 d	Carcass	103	mg/kg	ww	NR	3.125	322	5.774	12.5	mg/kg	ww	NR	4.0	50	3.912	C	6.44	Greichus and Hannon, 1973
Double-crested cormorants (*Phalacrocorax a. auritus*)	L	Total DDT	DDT	Diet	20 d	Carcass	242	mg/kg	ww	68	3.125	756	6.628	25	mg/kg	ww	NR	4.0	100	4.605	C	7.56	Greichus and Hannon, 1973
Double-crested cormorants (*Phalacrocorax a. auritus*)	L	Total DDT	DDT	Diet	20 d	Carcass	207	mg/kg	ww	68	3.125	647	6.472	25	mg/kg	ww	NR	4.0	100	4.605	C	6.47	Greichus and Hannon, 1973
Robin (*Turdus migratorius*)		DDT	DDT	Diet		Carcass	6.7	mg/kg	ww	68	3.125	20.9	3.042	0.7	mg/kg	ww	84	6.25	4.375	1.476	C	4.79	Johnson et 1976
Robin (*Turdus migratorius*)		DDT	DDT	Diet		Carcass	7.3	mg/kg	ww	68	3.125	22.8	3.127	1.75	mg/kg	ww	84	6.25	10.9375	2.392	C	2.09	Johnson et 1976
Robin (*Turdus migratorius*)	F	Total DDT	DDT	Diet	8 yr	Whole body	2.26	mg/kg	NR	68	3.125	7.06	1.955	0.315	mg/kg	NR	84	6.25	1.96875	0.677	C	3.59	Dimond et al., 1970
Robin (*Turdus migratorius*)	F	Total DDT	DDT	Diet	6 yr	Whole body	3.48	mg/kg	NR	68	3.125	10.9	2.386	0.13	mg/kg	NR	84	6.25	0.8125	-0.208	C	13.4	Dimond et al., 1970
Robin (*Turdus migratorius*)	F	Total DDT	DDT	Diet	3 yr	Whole body	5.29	mg/kg	NR	68	3.125	16.5	2.805	0.157	mg/kg	NR	84	6.25	0.98125	-0.019	C	16.8	Dimond et al., 1970
Robin (*Turdus migratorius*)	F	Total DDT	DDT	Diet	2 yr	Whole body	4.22	mg/kg	NR	68	3.125	13.2	2.579	0.097	mg/kg	NR	84	6.25	0.60625	-0.500	C	21.8	Dimond et al., 1970
American kestrel (*Falco sparverius*)	L	DDE	DDE	Diet	60 d	Carcass	232	mg/kg	ww	NR	3.125	725	6.586	48	mg/kg	NR	NR	3.125	150	5.011	C	4.83	Stendell et al, 1989
American kestrel (*Falco sparverius*)	L	p,p'-DDE	DDE	Diet	NR	Carcass	287.2	mg/lg	dw	NR	1	287	5.660	10	mg/kg	dw	NR	1	10	2.303	C	28.7	Porter and Wiemeyer, 1972
American kestrel (*Falco sparverius*)	L	p,p'-DDE	DDE	Diet	NR	Carcass	204.2	mg/lg	dw	NR	1	204	5.319	10	mg/kg	dw	NR	1	10	2.303	C	20.4	Porter and Wiemeyer, 1972
Short-tailed shrew (*Blarina brevicauda*)	L	DDT	DDT	Diet	7-17 d	Carcass	1159.1	mg/kg	ww	NR	3.13	3622	8.195	400	mg/kg	dw	NR	1.000	400	5.991	C	9.06	Blus, 1978
Short-tailed shrew (*Blarina brevicauda*)	L	DDT	DDT	Diet	NR	Carcass	626.7	mg/kg	ww	NR	3.13	1958	7.580	400	mg/kg	dw	NR	1.000	400	5.991	C	4.90	Blus, 1978
Brown bat (*Myotis lucifugus*)	L	DDE	DDE	Diet	40 d	Carcass	680	mg/kg	ww	NR	3.13	2125	7.662	150	mg/kg	NR	NR	6.25	938	6.843	C	2.27	Clark and Stafford, 1981
Brown bat (*Myotis lucifugus*)	L	DDE	DDE	Diet	40 d	Carcass	2900	mg/kg	ww	NR	3.13	9063	9.112	480	mg/kg	NR	NR	6.25	3000	8.006	C	3.02	Clark and Stafford, 1981
Free-tailed bat (*Tadarida brasiliensis*)	L	DDE	DDE	Diet	39 d	Carcass	623	mg/kg	ww	NR	3.13	1947	7.574	107	mg/kg	NR	NR	6.25	669	6.505	C	2.91	Clark and Kroll 1977
Free-tailed bat (*Tadarida brasiliensis*)	L	DDE	DDE	Diet	39 d	Carcass	509	mg/kg	ww	NR	3.13	1591	7.372	107	mg/kg	NR	NR	6.25	669	6.505	C	2.38	Clark and Kroll 1977
Free-tailed bat (*Tadarida brasiliensis*)	L	DDE	DDE	Diet	39 d	Carcass	530	mg/kg	ww	NR	3.13	1656	7.412	107	mg/kg	NR	NR	6.25	669	6.505	C	2.48	Clark and Kroll 1977
Free-tailed bat (*Tadarida brasiliensis*)	L	DDE	DDE	Diet	39 d	Carcass	478	mg/kg	ww	NR	3.13	1494	7.309	107	mg/kg	NR	NR	6.25	669	6.505	C	2.23	Clark and Kroll 1977
Rat (*Rattus norvegicus*)	L	Total DDT	DDT	Diet	120 d	Carcass	1.43	mg/kg	NR	NR	3.13	4.469	1.497	4.25	mg/kg	NR	NR	1	4.25	1.447		1.05	Martin et al., 1976
Rat (*Rattus norvegicus*)	L	Total DDT	DDT	Diet	120 d	Carcass	2.24	mg/kg	NR	NR	3.13	7.000	1.946	4.25	mg/kg	NR	NR	1	7.55	2.022		0.93	Martin et al., 1976
White-footed mouse (*Peromyscus maniculatus*)	F	Total DDT	DDT	Diet	Resident	Whole body	0.13	mg/kg	ww	66.5	2.99	0.388	-0.946596	0.0855	mg/kg	ww	NR	6.67	0.570	-0.562	C	0.681	Korschgen 1970
Rat (*Rattus norvegicus*)	L	o,p'-DDT	DDT	Diet	14 d	Whole Body	0.14	ug/g	NR	NR	3.13	0.438	-0.827	10	mg/kg	NR	NR	1	10	2.303		0.04	Wrenn et al., 1971
Rat (*Rattus norvegicus*)	L	o,p'-DDT	DDT	Diet	14 d	Whole Body	0.24	mg/kg	NR	NR	3.13	0.750	-0.288	20	mg/kg	NR	NR	1	7.55	2.022		0.10	Wrenn et al., 1971
Rat (*Rattus norvegicus*)	L	o,p'-DDT	DDT	Diet	14 d	Whole Body	0.45	mg/kg	NR	NR	3.13	1.406	0.341	40	mg/kg	NR	NR	1	7.55	2.022		0.19	Wrenn et al., 1971

[1] If not specified, wet weight is assumed
[2] If not reported, 32% solids is assumed.
[3] If not specified, dry weight is assumed

d = days
dw = dry weight
ww = wet weight

NA=Not Applicable
NR = Not Reported
C=Calculated

R=Reported

ln(tissue) = slope * ln(Diet) + intercept

slope	0.6630
intercept	2.3833
R^2	0.4810
p value	<0.0001

Median BAF = **4.83**

Appendix D DDT, DDD and DDE References

Barker, R.J. 1958. Notes on some ecological effects of DDT sprayed on elms. *J. Wildl. Manage*. 22: 269-274.

Beyer, W. N. and Gish, C. D. 1980. Persistence in Earthworms and Potential Hazards to Birds of Soil Applied DDT, Dieldrin and Heptachlor. *J. Appl. Ecol*. 17(2): 295-307.

Blus, L. J. 1978. Short-Tailed shrews: Toxicity and residue relationships of DDT, Dieldrin and Endrin. *Archives of Environ. Contam. and Toxic*. 7: 83-98.

Boykins, EA. 1966. DDT residues in the food chains of birds. *Atlantic Naturalist*. 21: 18-26.

Clark, D. R. and J. C. Kroll. 1977. Effects of DDE on experimentally poisoned Free-tailed bats (*Tadarida brasiliensis*): Lethal brain concentrations. *Journal of Toxicology and Environmental Health.* 3: 893-901.

Clark, D. R. and C. J. Stafford. 1981. Effects of DDE and PCBs (Aroclor 1260) on experimentally poisoned female little brown bats (*Myotis lucifugus*): Lethal brain concentrations. *Journal of Toxicology and Environmental Health.* 7: 925-934.

Collett, N. and D. L. Harrison. 1968. Some observations on the effects of using organochlorine sprays in an orchard. *New Zealand J. Sci*. 11: 371-379.

Davis, B. N. K. 1968. The soil macrofauna and organochlorine residues at twelve agricultural sites near Huntingdon. *Ann. Applied Biol*. 61: 29-45.

Davis, B. N. K. and R. B. Harrison. 1966. Organochlorine insecticide residues in soil invertebrates. *Nature*. 211: 1424-1425.

Dempster, J. P. 1968. The Control of Pieris rapae with DDT III. Some Changes in the Crop Fauna. *J. Appl. Ecol.* 5: 463-475.

De Witt, J. B., J. V. Derby, and J. F. Mangan. 1955. DDT vs. Wildlife. Relationships between quantities ingested, toxic effects and tissue storage. *Journal of the American Pharmaceutical Association*. XLIV(1): 22-24.

Dieter, M. P. 1974. Plasma enzyme activities in Coturnix quail fed graded doses of DDE, polychlorinated biphenyl, malathion, and mercuric chloride. *Toxicology and Applied Pharmacology*. 27: 86-98.

Dieter, M. P. 1975. Further studies on the use of enzyme profiles to monitor residue accumulation in wildlife: Plasma enzymes in starlings fed graded concentrations of Morsodren, DDE, Aroclor 1254, and Malathion. *Archives of Environ. Contam. and Toxicol.* 3(2): 142-150.

Dimond, JB, GY Belyea, RE Kadunce, SA Getchell, and JA Blease. 1970. DDT residues in robins and earthworms associated with contaminated forest soils. *Can. Entomol*. 102: 1122-1130.

Doane, C. C. 1962. Effects of Certain Insecticides on Earthworms. *J. Econ. Entomol.* 55(3): 416-418.

Dustman, E. H. and L. F. Stickel. 1966. Pesticide residues in the ecosystem. In Pesticides and their effects on soils and water, *Smer. Soc. Agron., Spec. Publ.* 8, 109-121.

Edwards, C. A. and Jeffs, K. 1974. The Rate of Uptake of DDT from Soils by Earthworms. *Nature*. 247: 157-158.

Friend, M. and D. O. Trainor. 1974. Experimental DDT-duck hepatitis virus interaction studies. *J. Wildlife Management.* 38(4): 887-895.

Gish, C.D. 1970. Organochlorine insecticide residues in soils and soil invertebrates from agricultural lands. *Pestic. Monit. J.* 3: 241-252.

Greichus, Y. A. and M. R. Hannon. 1973. Distribution and biochemical effects of DDT, DDD, and DDE in penned double-crested cormorants. *Toxicol. and Applied Pharmacology*. 26(4): 483-494.

Haegele, M. A. and R. H. Hudson. 1974. Eggshell thinning and residues in mallards one year after DDE exposure. *Archives of Environ. Contamination and Toxicology*. 2(4): 356-363.

Hendricks, A. J., W. C. Ma, J. J. Brouns, E. M. de Ruiter-Dijkman and R. Gast. 1995. Modelling and monitoring organochlorine and heavy metal accumulation in soils, earthworms, and shrews in Rhine-delta floodplains. *Archives of Environ. Contamination and Toxicology*. 29: 115-127.

Hunt, L. B. and R.J. Sacho. 1969. Response of robins to DDT and methoxychlor. *J. Wildl. Manage*. 33:336-345.

Johnson, E. V., L. M. Guilford, and D. Q. Thompson. 1976. The effects of orchard pesticide applications on breeding robins. *The Wilson Bulletin*. 88(1): 19-35.

Korschgen, L. J. 1970. Soil-food-chain-pesticide wildlife relationships in aldrin-treated fields. *J. Wildl. Manage.* 34: 186-199.

Longcore, J. R. and R. C. Stendall. 1977. Shell thinning and reproductive impairment in Black ducks after cessation of DDE dosage. *Archives of Environ. Contamination and Toxicology*. 6:

293-304.

Lowe, T. P., and R. C. Stendell. 1991. Eggshell modifications in captive American kestrels resulting from Aroclor 1248 in the diet. *Archives of Environ. Contamination and Toxicology*. 20: 519-522.

Martin, W. L., R. W. Rogers, H. W. Essig, H. W. Chambers, and L. B. Coons. 1976. Influence of dietary treatment on rat carcass DDT residues and toxicity parameters. *Journal of Animal Science*. 43(4): 786-791.

Mendenhall, V. M., E. E. Klaas, and M. A. McLanes. 1983. Breeding success of barn owls (*Tyto alba)* fed low levels of DDE and Dieldrin. *Arch Environ. Contam. Toxicol*. 12: 235-240.

Porter, R. D. and Wiemeyer, S. N. 1972. DDE at low dietary levels kills captive American Kestrels. *Bulletin of Environmental Contamination and Toxicology*. 8(4): 193-207.

Rudolf, R. W., D. W. Anderson and R. W. Resborough. 1983. Kestrel Predatory Behavior under Chronic Low-level exposure to DDE. *J. Environ. Pollution (Ser A)*. 32: 121-126.

Stendell, W., W. N. Beyer and R. A. Stehn. 1989. Accumulation of lead and organochlorine residues in captive americal kestrels fed pine voles from Apple Orchards. *Journal of Wildlife Diseases*. 25(3): 388-389.

Stickel, L. F., W. H. Stickel, and R. Christensen. 1966. Residues of DDT in brains and bodies of birds that died on dosage and in survivors. *Science.* 151 (3717): 1549-1551.

Wheatley, G. A. and J. A. Hardman. 1968. Organochlorine insecticide residues in earthworms from arable soils. *J. Sci. Food Agr*. 19:219-225.

Wiemeyer, S. N., R. D. Porter, G. L. Hensler, and J. R. Maestrelli. 1986. *DDE, DDT + Dieldrin: Residues in American Kestrels and Relations to Reproduction*. U.S. Fish and Wildlife Service Technical Report No. 6. 33 pp.

Wrenn, T. R., J. R. Weyant, G. F. Fries, and J. Bitman. 1971. Effect of several dietary levels of o,p'-DDT on reproduction and lactation in the rat. *Bulletin of Environ. Contam. and Toxicology*. 6(5): 471-480.

Yadav, D. V., Pillai, M. K. K., and Agarwal, H. C. 1976. Uptake and Metabolism of DDT and Lindane by the Earthworm, *Pheretima posthuma*. *Bull. Environ. Contam. Toxicol*. 16(5): 541-545.

This Page Intentionally Left Blank

Eco-SSL Attachment 4-1
Appendix E
Bioaccumulation Data for Dieldrin

February 2005
Revised April 2007

This page intentionally left blank

Appendix E-1 Bioaccumulation Data for Uptake of Dieldrin from Soil into Soil Invertebrates

Species Information	Exposure		Invertebrate Tissue Information								Soil Information							BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet weight or Dry Weight ?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil[4]	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Beetle (*Harpulus aeneus*)	F	Resident	0.05	mg/kg	ww	NR	6.25	0.3125	-1.163	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.435	C	1.3	Davis, 1968
Earthworm (*Lumbricus terrestris*)	F	NR	1.6	mg/kg	ww	NR	6.25	10.00	2.30258509	NR	0.640	mg/kg	dw	NR	1	0.64	-0.4462871	C	15.6	Wheatley & Hardman, 1968
Earthworm *(Allolobophora longa)*	F	NR	2.2	mg/kg	ww	NR	6.25	13.75	2.62103882	NR	0.640	mg/kg	dw	NR	1	0.64	-0.4462871	C	21.5	Wheatley & Hardman, 1968
Earthworm *(Allolobophora calignosa)*	F	NR	3.8	mg/kg	ww	NR	6.25	23.75	3.16758253	NR	0.640	mg/kg	dw	NR	1	0.64	-0.4462871	C	37.1	Wheatley & Hardman, 1968
Earthworm *(Allolobophora chlorotica)*	F	NR	4.6	mg/kg	ww	NR	6.25	28.75	3.35863777	NR	0.640	mg/kg	dw	NR	1	0.64	-0.4462871	C	44.9	Wheatley & Hardman, 1968
Earthworm *(Allolobophora rosea)*	F	NR	3.9	mg/kg	ww	NR	6.25	24.38	3.19355802	NR	0.640	mg/kg	dw	NR	1	0.64	-0.4462871	C	38.1	Wheatley & Hardman, 1968
Earthworm *(Octalaium cyaneum)*	F	NR	2.4	mg/kg	ww	NR	6.25	15.00	2.7080502	NR	0.640	mg/kg	dw	NR	1	0.64	-0.4462871	C	23.4	Wheatley & Hardman, 1968
Earthworm	F	Resident	0.98	mg/kg	ww	66.50	6.25	6.125	1.81238	NR	0.24	mg/kg	ww	21.95	1.281	0.307	-1.1793	C	19.92	Korschgen, 1970
Beetles	NR	Resident	0.105	mg/kg	NR	NR	7.14	0.75	-0.28768	NR	0.365	mg/kg	NR	NR	1	0.365	-1.0078579	R	2.05	Davis & Harrison, 1966
Beetle (*Harpulus aeneus*)	F	Resident	0.04	mg/kg	ww	NR	6.25	0.25	-1.386	NR	0.7	mg/kg	ww	16-23	1.19	0.833	-0.182	C	0.3	Davis, 1968
Beetle (*Harpulus aeneus*)	F	Resident	0.08	mg/kg	ww	NR	6.25	0.5	-0.693	NR	0.04	mg/kg	ww	16-23	1.19	0.048	-3.045	C	10.5	Davis, 1968
Beetle (*Harpulus aeneus*)	F	Resident	0.01	mg/kg	ww	NR	6.25	0.0625	-2.773	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.332	C	1.8	Davis, 1968
Beetle (*Harpulus aeneus*)	F	Resident	0.09	mg/kg	ww	NR	6.25	0.5625	-0.575	NR	0.06	mg/kg	ww	16-23	1.19	0.071	-2.639	C	7.9	Davis, 1968
Beetle (*Harpulus aeneus*)	F	Resident	0.04	mg/kg	ww	NR	6.25	0.25	-1.386	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.128	C	2.1	Davis, 1968
Beetle (*Agonum sp* .)	F	Resident	0.1	mg/kg	ww	NR	6.25	0.625	-0.470	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.435	C	2.6	Davis, 1968
Beetle (*Agonum sp* .)	F	Resident	0.2	mg/kg	ww	NR	6.25	1.25	0.223	NR	0.7	mg/kg	ww	16-23	1.19	0.833	-0.182	C	1.5	Davis, 1968
Beetle (*Agonum sp* .)	F	Resident	0.06	mg/kg	ww	NR	6.25	0.375	-0.981	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.332	C	10.5	Davis, 1968
Beetle (*Agonum sp* .)	F	Resident	0.06	mg/kg	ww	NR	6.25	0.375	-0.981	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.128	C	3.2	Davis, 1968
Beetle (*Agonum sp* .)	F	Resident	0.1	mg/kg	ww	NR	6.25	0.625	-0.470	NR	0.04	mg/kg	ww	16-23	1.19	0.048	-3.045	C	13.1	Davis, 1968
Beetle (Staphylinidae)	F	Resident	0.2	mg/kg	ww	NR	6.25	1.25	0.223	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.435	C	5.3	Davis, 1968
Beetle (Staphylinidae)	F	Resident	0.08	mg/kg	ww	NR	6.25	0.5	-0.693	NR	0.03	mg/kg	ww	16-23	1.19	0.036	-3.332	C	14.0	Davis, 1968
Earthworm	F	Resident	0.8	mg/kg	ww	NR	6.25	5	1.609	NR	0.2	mg/kg	ww	16-23	1.19	0.238	-1.435	C	21.0	Davis, 1968
Earthworm	F	Resident	0.4	mg/kg	ww	NR	6.25	2.5	0.916	NR	0.04	mg/kg	ww	16-23	1.19	0.048	-3.045	C	52.5	Davis, 1968
Earthworm	F	Resident	0.5	mg/kg	ww	NR	6.25	3.125	1.139	NR	0.1	mg/kg	ww	16-23	1.19	0.119	-2.128	C	26.3	Davis, 1968
Beetle (*Harpulus aeneus*)	F	Resident	0.1	mg/kg	ww	NR	6.25	0.625	-0.470	NR	0.08	mg/kg	ww	16-23	1.19	0.095	-2.351	C	6.6	Davis, 1968
Earthworm	F	1 yr	0.78	mg/kg	dw	NR	1	0.78	-0.2484614	NR	0.083	mg/kg	dw	NR	1	0.083	-2.4889147	C	9.40	Gish, 1970
Earthworm	F	Resident	2.48	mg/kg	ww	66.50	6.25	15.5	2.74084	NR	0.23	mg/kg	ww	21.95	1.281	0.295	-1.2219	C	52.60	Korschgen, 1970
Earthworm	F	Resident	1.09	mg/kg	ww	66.50	6.25	6.8125	1.91876	NR	0.25	mg/kg	ww	21.95	1.281	0.320	-1.1385	C	21.27	Korschgen, 1970
Cricket (*Gryllus assimilis*)	F	Resident	0.09	mg/kg	ww	68.37	6.25	0.5625	-0.57536	NR	0.24	mg/kg	ww	21.95	1.281	0.307	-1.1793	C	1.83	Korschgen, 1970
Earthworm	NR	Resident	0.43	mg/kg	NR	NR	7.14	3.07	1.12214	NR	0.365	mg/kg	NR	NR	1	0.365	-1.0078579	R	8.41	Davis & Harrison, 1966
Slugs	NR	Resident	0.3	mg/kg	NR	NR	7.14	2.14	0.76214	NR	0.365	mg/kg	NR	NR	1	0.365	-1.0078579	R	5.87	Davis & Harrison, 1966
Earthworm	F		7	mg/kg	dw	NR	1	7	1.94591015	N	0.41	mg/kg	dw	NR	1	0.41	-0.8915981	C	17.1	Beyer and Gish, 1980
Earthworm	F		8.5	mg/kg	dw	NR	1	8.5	2.14006616	N	0.51	mg/kg	dw	NR	1	0.51	-0.6733446	C	16.7	Beyer and Gish, 1980
Earthworm	F		19	mg/kg	dw	NR	1	19	2.94443898	N	1.3	mg/kg	dw	NR	1	1.3	0.26236426	C	14.6	Beyer and Gish, 1980
Earthworm *(Lumbricus rubellus)*	F	resident	140	ug/kg lipid	NR	NR	0.000125	0.0175	-4.0455544	Y	4.1	ug/kg	NR	NR	0.001	0.0041	-5.4967683	C	4.27	Hendricks et al 1995
Earthworm *(Lumbricus rubellus)*	F	resident	99	ug/kg lipid	NR	NR	0.000125	0.01238	-4.392077	Y	8.4	ug/kg	NR	NR	0.001	0.0084	-4.7795236	C	1.47	Hendricks et al 1995
Earthworm	F	1 yr	0.63	mg/kg	dw	NR	1	0.63	-0.4620355	NR	0.013	mg/kg	dw	NR	1	0.013	-4.3428059	C	48.46	Gish, 1970
Earthworm	F	1 yr	0.18	mg/kg	dw	NR	1	0.18	-1.7147984	NR	0.01	mg/kg	dw	NR	1	0.01	-4.6051702	C	18.00	Gish, 1970
Earthworm	F	1 yr	1.93	mg/kg	dw	NR	1	1.93	0.65752	NR	0.28	mg/kg	dw	NR	1	0.28	-1.2729657	C	6.89	Gish, 1970
Earthworm	F	3 yr	1.64	mg/kg	dw	NR	1	1.64	0.49469624	NR	0.25	mg/kg	dw	NR	1	0.25	-1.3862944	C	6.56	Gish, 1970
Earthworm	F	NR	0.13	mg/kg	dw	NR	1	0.13	-2.0402208	NR	0.016	mg/kg	dw	NR	1	0.016	-4.1351666	C	8.13	Gish, 1970
Earthworm	F	3 yr	0.26	mg/kg	dw	NR	1	0.26	-1.3470736	NR	0.0076	mg/kg	dw	NR	1	0.0076	-4.879607	C	34.21	Gish, 1970
Earthworm	F	1 yr	0.92	mg/kg	dw	NR	1	0.92	-0.083	NR	0.23	mg/kg	dw	NR	1	0.23	-1.469676	C	4.00	Gish, 1970
Earthworm	F	1 yr	3.1	mg/kg	dw	NR	1	3.1	1.131	NR	0.15	mg/kg	dw	NR	1	0.15	-1.89712	C	20.67	Gish, 1970
Earthworm	F	1 yr	3.5	mg/kg	dw	NR	1	3.5	1.253	NR	0.52	mg/kg	dw	NR	1	0.52	-0.6539265	C	6.73	Gish, 1970
Earthworm	F	1 yr	0.78	mg/kg	dw	NR	1	0.78	-0.248	NR	0.35	mg/kg	dw	NR	1	0.35	-1.0498221	C	2.23	Gish, 1970
Earthworm	F	2 yr	0.36	mg/kg	dw	NR	1	0.36	-1.022	NR	0.072	mg/kg	dw	NR	1	0.072	-2.6310892	C	5.00	Gish, 1970
Earthworm	F	NR	0.76	mg/kg	dw	NR	1	0.76	-0.274	NR	0.026	mg/kg	dw	NR	1	0.026	-3.6496587	C	29.23	Gish, 1970
Earthworm	F	1 yr	0.24	mg/kg	dw	NR	1	0.24	-1.427	NR	0.03	mg/kg	dw	NR	1	0.03	-3.5065579	C	8.00	Gish, 1970
Earthworm	F	1 yr	0.82	mg/kg	dw	NR	1	0.82	-0.198	NR	0.024	mg/kg	dw	NR	1	0.024	-3.7297014	C	34.17	Gish, 1970
Slugs	F	1 yr	2.84	mg/kg	dw	NR	1	2.84	1.044	NR	0.024	mg/kg	dw	NR	1	0.024	-3.7297014	C	118.33	Gish, 1970
Earthworm	F	1 yr	0.42	mg/kg	dw	NR	1	0.42	-0.868	NR	0.019	mg/kg	dw	NR	1	0.019	-3.9633163	C	22.11	Gish, 1970

Appendix E-1 Bioaccumulation Data for Uptake of Dieldrin from Soil into Soil Invertebrates

Species Information	Exposure		Invertebrate Tissue Information								Soil Information							BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet weight or Dry Weight ?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil[4]	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Earthworm	F	1 yr	0.16	mg/kg	dw	NR	1	0.16	-1.833	NR	0.021	mg/kg	dw	NR	1	0.021	-3.8632328	C	7.62	Gish, 1970
Earthworm	F	1 yr	22.54	mg/kg	dw	NR	1	22.5	3.115	NR	1.02	mg/kg	dw	NR	1	1.02	0.01980263	C	22.10	Gish, 1970
Earthworm	F	NR	1.71	mg/kg	dw	NR	1	1.71	0.536	NR	0.025	mg/kg	dw	NR	1	0.025	-3.6888795	C	68.40	Gish, 1970
Slugs	F	1 yr	0.43	mg/kg	dw	NR	1	0.43	-0.844	NR	0.01	mg/kg	dw	NR	1	0.01	-4.6051702	C	43.00	Gish, 1970
Earthworm	F	1 yr	0.23	mg/kg	dw	NR	1	0.23	-1.470	NR	0.01	mg/kg	dw	NR	1	0.01	-4.6051702	C	23.00	Gish, 1970
Earthworm	F	1 yr	0.23	mg/kg	dw	NR	1	0.23	-1.470	NR	0.017	mg/kg	dw	NR	1	0.017	-4.0745419	C	13.53	Gish, 1970
Earthworm	F	2 yr	1.91	mg/kg	dw	NR	1	1.91	0.647	NR	0.024	mg/kg	dw	NR	1	0.024	-3.7297014	C	79.58	Gish, 1970
Earthworm	F	2 yr	1.1	mg/kg	dw	NR	1	1.1	0.095	NR	0.22	mg/kg	dw	NR	1	0.22	-1.5141277	C	5.00	Gish, 1970
Earthworm	F		23	mg/kg	dw	NR	1	23	3.135	N	1.3	mg/kg	dw	NR	1	1.3	0.26236426	C	17.7	Beyer and Gish, 1980
Earthworm	F		57	mg/kg	dw	NR	1	57	4.043	N	4.5	mg/kg	dw	NR	1	4.5	1.5040774	C	12.7	Beyer and Gish, 1980
Earthworm	F		50	mg/kg	dw	NR	1	50	3.912	N	3.4	mg/kg	dw	NR	1	3.4	1.22377543	C	14.7	Beyer and Gish, 1980
Earthworm	F		50	mg/kg	dw	NR	1	50	3.912	N	3.4	mg/kg	dw	NR	1	3.4	1.22377543	C	14.7	Beyer and Gish, 1980
Earthworm	F		50	mg/kg	dw	NR	1	50	3.912	N	3.4	mg/kg	dw	NR	1	3.4	1.22377543	C	14.7	Beyer and Gish, 1980
Earthworm *(Lumbricus rubellus)*	L	30 d	1	ug/kg	ww	NR	6.25	6.25	1.833	N	0.7	mg/kg	dw	NR	1	0.7	-0.3566749	C	8.93	Lord et al., 1980
Earthworm	F	20 d	21.65	ug/kg	ww	NR	6.25	135	4.908	N	25	mg/kg	dw	NR	1	25	3.21887582	C	5.41	Jefferies and Davis, 1968
Earthworm *(Allolobophora longa)*	F	NR	0.033	mg/kg	ww	NR	6.25	0.21	-1.579	NR	0.003	mg/kg	dw	NR	1	0.003	-5.809143	C	68.8	Wheatley & Hardman, 1968
Earthworm *(Allolobophora chlorotica)*	F	NR	0.028	mg/kg	ww	NR	6.25	0.18	-1.743	NR	0.003	mg/kg	dw	NR	1	0.003	-5.809143	C	58.3	Wheatley & Hardman, 1968
Earthworm *(Allolobophora longa)*	F	NR	0.7	mg/kg	ww	NR	6.25	4.38	1.476	NR	0.500	mg/kg	dw	NR	1	0.5	-0.6931472	C	8.8	Wheatley & Hardman, 1968
Earthworm *(Allolobophora chlorotica)*	F	NR	1.8	mg/kg	ww	NR	6.25	11.25	2.420	NR	0.500	mg/kg	dw	NR	1	0.5	-0.6931472	C	22.5	Wheatley & Hardman, 1968
Earthworm *(Allolobophora longa)*	F	NR	1.0	mg/kg	ww	NR	6.25	6.25	1.833	NR	0.750	mg/kg	dw	NR	1	0.75	-0.2876821	C	8.3	Wheatley & Hardman, 1968
Earthworm *(Allolobophora chlorotica)*	F	NR	2.0	mg/kg	ww	NR	6.25	12.5	2.526	NR	0.750	mg/kg	dw	NR	1	0.75	-0.2876821	C	16.7	Wheatley & Hardman, 1968
Earthworm *(Allolobophora longa)*	F	NR	1.3	mg/kg	ww	NR	6.25	8.13	2.095	NR	1.00	mg/kg	dw	NR	1	1	0	C	8.1	Wheatley & Hardman, 1968
Earthworm *(Allolobophora chlorotica)*	F	NR	2.9	mg/kg	ww	NR	6.25	18.1	2.897	NR	1.00	mg/kg	dw	NR	1	1	0	C	18.1	Wheatley & Hardman, 1968
Earthworm *(Allolobophora longa)*	F	NR	1.3	mg/kg	ww	NR	6.25	8.13	2.095	NR	1.25	mg/kg	dw	NR	1	1.25	0.22314355	C	6.5	Wheatley & Hardman, 1968
Earthworm *(Allolobophora chlorotica)*	F	NR	2.1	mg/kg	ww	NR	6.25	13.1	2.575	NR	1.25	mg/kg	dw	NR	1	1.25	0.22314355	C	10.5	Wheatley & Hardman, 1968
Cricket (*Gryllus assimilis*)	F	Resident	0.07	mg/kg	ww	68.37	6.25	0.438	-0.827	NR	0.23	mg/kg	ww	21.95	1.281	0.295	-1.2219	C	1.48	Korschgen, 1970
Cricket (*Gryllus assimilis*)	F	Resident	0.16	mg/kg	ww	68.37	6.25	1.0	0.000	NR	0.25	mg/kg	ww	21.95	1.281	0.320	-1.1385	C	3.12	Korschgen, 1970
Beetle (*Harpalus pennsylvanicus*)	F	Resident	0.39	mg/kg	ww	59.95	6.25	2.44	0.891	NR	0.25	mg/kg	ww	21.95	1.281	0.307	-1.1809	C	7.94	Korschgen, 1970
Beetle (*Harpalus pennsylvanicus*)	F	Resident	2.11	mg/kg	ww	59.95	6.25	13.19	2.579	NR	0.25	mg/kg	ww	21.95	1.281	0.295	-1.2208	C	44.7	Korschgen, 1970
Beetle (*Harpalus pennsylvanicus*)	F	Resident	0.24	mg/kg	ww	59.95	6.25	1.5	0.405	NR	0.25	mg/kg	ww	21.95	1.281	0.320	-1.1394	C	4.69	Korschgen, 1970
Beetle (*Poecilus chalcites*)	F	Resident	19.44	mg/kg	ww	59.95	6.25	121.5	4.800	NR	0.25	mg/kg	ww	21.95	1.281	0.307	-1.1809	C	396	Korschgen, 1970
Beetle (*Poecilus chalcites*)	F	Resident	6.59	mg/kg	ww	59.95	6.25	41.19	3.718	NR	0.25	mg/kg	ww	21.95	1.281	0.295	-1.2208	C	140	Korschgen, 1970
Beetle (*Poecilus chalcites*)	F	Resident	2.64	mg/kg	ww	59.95	6.25	16.5	2.803	NR	0.25	mg/kg	ww	21.95	1.281	0.320	-1.1394	C	51.56	Korschgen, 1970

[1] If not reported, wet weight is assumed.
[2] If not reported, 16% solids assumed.
[3] If not reported, dry weight assumed.

NA = Not applicable
NR = Not reported
dw = dry weight

ww = wet weight
R = Reported
C = Calculated
d = days

ln(tissue) = slope * ln(soil) + intercept

slope	0.8756
intercept	2.276
R^2	0.6392
p value	<0.0001

Median = 14.71

Appendix E-2 Bioaccumulation Data for Uptake of Dieldrin from Diet into Mammals and Birds

Species Information	Exposure			Tissue Information								Oral Exposure Information							BAF		
Common Name (*Genus/Species*)	Field (F)/ Lab (L)	Exposure Route	Duration	Tissue Type	Reported Tissue Conc.	Reported Tissue Conc. Unitsa	Wet Weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln(Tissue Conc.)	Reported Diet Conc.	Reported Diet Conc. Units	Wet Weight or Dry Weight?	Moisture Content Diet[d]	Conversion Factor to mg/kg dw	Diet Exposure (mg/kg dw)	ln(Diet Exposure)	R/C	BAF (Tissue (mg/kg dw) / Oral Exposure (mg/kg dw))	Reference
Short-tailed shrew (*Blarina brevicauda*)	L	Diet	NR	Carcass	61	mg/kg	NR	NR	3.125	191	5.250	50	mg/kg	dw	NR	1	50	3.9120	C	3.8	Blus, 1978
Short-tailed shrew (*Blarina brevicauda*)	L	Diet	NR	Carcass	55	mg/kg	NR	NR	3.125	172	5.147	50	mg/kg	dw	NR	1	50	3.9120	C	3.4	Blus, 1978
Sheep (*Oris aries*)	L	Diet	1 yr	Carcass	110	mg/kg fat	dw	NA	0.456	50	3.915	0.5	mg/kg	dw	NR	1	0.5	-0.6931	C	100	Davison 1970
Sheep (*Oris aries*)	L	Diet	1 yr	Carcass	203	mg/kg fat	dw	NA	0.468	95	4.554	1	mg/kg	dw	NR	1	1	0.0000	C	95	Davison 1970
Sheep (*Oris aries*)	L	Diet	1 yr	Carcass	752	mg/kg fat	dw	NA	0.398	299	5.701	2	mg/kg	dw	NR	1	2	0.6931	C	150	Davison 1970
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	15.9	mg/kg	ww	73.55	3.781	60.1	4.096	250	mg/kg	NR	NR	1	250	5.521	C	0.24	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	17	mg/kg	ww	70.4	3.378	57.4	4.051	250	ppm	NR	NR	1	250	5.521	C	0.23	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	23.85	mg/kg	ww	69.2	3.247	77.4	4.349	250	ppm	NR	NR	1	250	5.521	C	0.31	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	8.04	mg/kg	ww	72.9	3.690	29.7	3.390	250	ppm	NR	NR	1	250	5.521	C	0.12	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	7.8	mg/kg	ww	73.73	3.807	29.7	3.391	50	ppm	NR	NR	1	50	3.912	C	0.59	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	25.4	mg/kg	ww	69.72	3.303	83.9	4.429	50	ppm	NR	NR	1	50	3.912	C	1.68	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	33.92	mg/kg	ww	70.17	3.352	113.7	4.734	50	ppm	NR	NR	1	50	3.912	C	2.27	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	9.95	mg/kg	ww	72.39	3.622	36.0	3.585	10	ppm	NR	NR	1	10	2.303	C	3.60	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	21.23	mg/kg	ww	71.78	3.544	75.2	4.321	10	ppm	NR	NR	1	10	2.303	C	7.52	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	30.4	mg/kg	ww	70.94	3.441	104.6	4.650	10	ppm	NR	NR	1	10	2.303	C	10.5	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	22.42	mg/kg	ww	70.28	3.365	75.4	4.323	250	ppm	NR	NR	1	250	5.521	C	0.30	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	34.72	mg/kg	ww	69.52	3.281	113.9	4.735	250	ppm	NR	NR	1	250	5.521	C	0.46	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	51.1	mg/kg	ww	71.29	3.483	178.0	5.182	50	ppm	NR	NR	1	50	3.912	C	3.56	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	9.43	mg/kg	ww	69.24	3.251	30.7	3.423	50	ppm	NR	NR	1	50	3.912	C	0.61	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	50.09	mg/kg	ww	65.98	2.939	147.2	4.992	50	ppm	NR	NR	1	50	3.912	C	2.94	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	35.71	mg/kg	ww	68.74	3.199	114.2	4.738	10	ppm	NR	NR	1	10	2.303	C	11.4	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	21.67	mg/kg	ww	63.69	2.754	59.7	4.089	10	ppm	NR	NR	1	10	2.303	C	5.97	Stickel et al., 1969
Japanese quail (*Corturnix coturnix*)	L	Diet	NR	Carcass	18.03	mg/kg	ww	67.04	3.034	54.7	4.002	10	ppm	NR	NR	1	10	2.303	C	5.47	Stickel et al., 1969
American kestrel (*Falco sparverius*)	L	Diet	NR	Carcass	0.1	ug/g	ww	NR	3.125	0.3125	-1.1631508	0.015	ug/g	ww	62	2.632	0.0395	-3.232	C	7.92	Lowe and Stendell, 1991
Barn owl (*Tyto alba*)	L	Diet	2 yr	Carcass	9.6	mg/kg	ww	NR	3.125	30.0	3.401	0.58	mg/kg	ww	NR	3.125	1.8125	0.595	C	5.297	Mendenhall et al. 1983
Barn owl (*Tyto alba*)	L	Diet	2 yr	Carcass	9.2	mg/kg	ww	NR	3.125	28.75	3.359	0.58	mg/kg	ww	NR	3.125	1.8125	0.595	C	5.076	Mendenhall et al. 1983
American kestrel (*Falco sparverius*)	L	Diet	60 d	Carcass	232	mg/kg	ww	NR	3.125	725	6.586	1.2	mg/kg	NR	NR	1	1.2	0.182	C	193	Stendell et al., 1989
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.06	mg/kg	NR	NR	3.125	0.1875	-1.674	0.05	mg/kg	NR	NR	1	0.05	-2.996	C	1.20	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.05	mg/kg	NR	NR	3.125	0.15625	-1.856	0.05	mg/kg	NR	NR	1	0.05	-2.996	C	1.00	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.34	mg/kg	NR	NR	3.125	1.0625	0.061	0.5	mg/kg	NR	NR	1	0.5	-0.693	C	0.68	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.37	mg/kg	NR	NR	3.125	1.15625	0.145	0.5	mg/kg	NR	NR	1	0.5	-0.693	C	0.74	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.37	mg/kg	NR	NR	3.125	1.15625	0.145	0.5	mg/kg	NR	NR	1	0.5	-0.693	C	0.74	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.91	mg/kg	NR	NR	3.125	2.84375	1.045	1.5	mg/kg	NR	NR	1	1.5	0.405	C	0.61	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.79	mg/kg	NR	NR	3.125	2.46875	0.904	1.5	mg/kg	NR	NR	1	1.5	0.405	C	0.53	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	4.12	mg/kg	NR	NR	3.125	12.875	2.555	5.0	mg/kg	NR	NR	1	5	1.609	C	0.82	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	3.13	mg/kg	NR	NR	3.125	9.78125	2.280	5.0	mg/kg	NR	NR	1	5	1.609	C	0.63	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	8.5	mg/kg	NR	NR	3.125	26.5625	3.280	15.0	mg/kg	NR	NR	1	15	2.708	C	0.57	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	7.1	mg/kg	NR	NR	3.125	22.1875	3.100	15.0	mg/kg	NR	NR	1	15	2.708	C	0.47	Wiese et al., 1968
Crowned Guinea-Fowl (*Numida meleagris L* .)	L	Diet	21 m	Carcass	0.15	mg/kg	NR	NR	3.125	0.46875	-0.758	0.15	mg/kg	NR	NR	1	0.15	-1.897	C	1.0	Wiese et al., 1968

[1] If not specified, wet weight is assumed
[2] If not reported, 32% solids is assumed.
[3] If not specified, dry weight is assumed

NA=Not Applicable
NR = Not Reported
C=Calculated

R=Reported

ln(tissue) = slope * ln(diet) + intercept

slope	0.6076
intercept	1.9582
R^2	0.5119
p value	<0.0001

Median BAF = 1.2

Appendix E Dieldrin References

Beyer, W. N. and Gish, C. D. 1980. Persistence in Earthworms and Potential Hazards to Birds of Soil Applied DDT, Dieldrin and Heptachlor. *J. Appl. Ecol*. 17(2): 295-307.

Blus, L. J. 1978. Short-Tailed shrews: Toxicity and residue relationships of DDT, Dieldrin and Endrin. *Archives of Environ. Contam. and Toxic*. 7: 83-98.

Davis, B. N. K. 1968. The soil macrofauna and organochlorine residues at twelve agricultural sites near Huntingdon. *Ann. Applied Biol*. 61: 29-45.

Davis, B. N. K. and R. B. Harrison. 1966. Organochlorine insecticide residues in soil invertebrates. *Nature*. 211: 1424-1425.

Davison, K.L. 1970. Dieldrin accumulation in tissues of sheep. *J. Agric. Food. Chem* 18: 1156-1160.

Gish, C.D. 1970. Organochlorine insecticide residues in soils and soil invertebrates from agricultural lands. *Pestic. Monit. J.* 3: 241-252.

Hendricks, A. J., W. C. Ma, J. J. Brouns, E. M. de Ruiter-Dijkman and R. Gast. 1995. Modelling and monitoring organochlorine and heavy metal accumulation in soils, earthworms, and shrews in Rhine-delta floodplains. *Archives of Environ. Contamination and Toxicology*. 29: 115-127.

Jefferies, D. J. and B. N. K. Davis. 1968. Dynamics of Dieldrin in soil, earthworms and song thrushes. *Journal of Wildlife Management*. 42(3): 441-455.

Korschgen, LJ. 1970. Soil-food-chain-pesticide wildlife relationships in aldrin-treated fields. *J. Wildl. Manage.* 34: 186-199.

Lord, K. A., G. G. Briggs, M. C. Neale, and R. Manlove. 1980. Uptake of pesticides from water and soil by earthworms. *Pesticide Science*. 11: 401-408.

Lowe, T. P., and R. C. Stendell. 1991. Eggshell modifications in captive American kestrels resulting from Aroclor 1248 in the diet. *Archives of Environ. Contamination and Toxicology*. 20: 519-522.

Mendenhall, V. M., E. E. Klaas, and M. A. McLanes. 1983. Breeding success of barn owls (*Tyto alba*) fed low levels of DDE and Dieldrin. *Arch Environ. Contam. Toxicol*. 12: 235-240.

Stendell, W., W. N. Beyer and R. A. Stehn. 1989. Accumulation of lead and organochlorine residues in captive americal kestrels fed pine voles from Apple Orchards. *Journal of Wildlife Diseases*. 25(3): 388-389.

Stickell, W. H., L. F. Stickel, and J. W. Spann. 1969. Tissue residues of Dieldrin in relation to mortality in birds and mammals. In: *Chemical Fallout Current Research on Pesticides*. Ed by M. W. Miller and G. G. Berg. Springfield, Charles C. Thomas Publishers.

Wheatley, GA and JA Hardman. 1968. Organochlorine insecticide residues in earthworms from arable soils. *J. Sci. Food Agr*. 19: 219-225.

Wiese, I.H., N. C. J. Basson, J. H. Van der Vyver, and J. H. Van der Merwe. 1968. Toxicology and dynamices of dieldrin in the Crowned Guinea-Fowl (*Numida meleagris L.*). *Phytophylactica*. 1: 161-176.

Eco-SSL Attachment 4-1
Appendix F
Bioaccumulation Data for Pentachlorophenol

February 2005
Revised April 2007

This page intentionally left blank

Appendix F-1 Bioaccumulation Data for Uptake of Pentachlorophenol from Soil into Plant Foliage

Species Information	Exposure		Plant Tissue Information										Soil Information							BAF		
Common Name (Genus/Species)	Field (F)/ Lab (L)	Duration	Tissue Type	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Rinsed?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?	% Moisture Soil[3]	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/C	BAF (Tissue (mg/kg dw) /Soil (mg/kg dw))	Reference
Fescue	F	NR	Foliage	0.03672	mg/kg	dw	NR	1	0.03672	-3.30	NR	5.1	mg/kg	dw	NR	1	5.1	1.629	C	0.0072	Bellin and O'Connor, 1990
Fescue	F	NR	Foliage	0.00051	mg/kg	dw	NR	1	0.00051	-7.58	NR	5.1	mg/kg	dw	NR	1	5.1	1.629	C	0.0001	Bellin and O'Connor, 1990
Soybean (*Glycine max*)	L	90 d	Foliage	5.21	ug/g	ww	NR	6.67	34.7	3.55	NR	10	mg/kg	NR	NR	1	10	2.303	C	3.47	Casterline et al., 1985
Soybean (*Glycine max*)	L	90 d	Foliage	3.47	ug/g	ww	NR	6.67	23.1	3.14	NR	10	mg/kg	NR	NR	1	10	2.303	C	2.31	Casterline et al., 1985
Soybean (*Glycine max*)	L	90 d	Foliage	11.74	ug/g	ww	NR	6.67	78.3	4.36	NR	10	mg/kg	NR	NR	1	10	2.303	C	7.83	Casterline et al., 1985
Spinach (*Spinacia oleracea*)	L	64 d	Foliage	9.3	ug/g	ww	NR	6.67	62.0	4.13	NR	10	mg/kg	NR	NR	1	10	2.303	C	6.20	Casterline et al., 1985
Barley (*Hordeum vulgare*)	L	7 d	Foliage	5.1	mg/kg	ww	NR	6.67	34.0	3.53	NR	6	mg/kg	dw	NR	1	6	1.792	C	5.67	Scheunert et al., 1986
Barley (*Hordeum vulgare*)	L	7 d	Foliage	2.1	mg/kg	ww	NR	6.67	14.0	2.64	NR	1	mg/kg	dw	NR	1	1	0.000	C	14.01	Scheunert et al., 1986
Corn (*Zea mays*)	L	7 d	Foliage	13.8	mg/kg	ww	NR	6.67	92.0	4.52	NR	2	mg/kg	dw	NR	1	2	0.693	C	46.02	Scheunert et al., 1986
Corn (*Zea mays*)	L	14 d	NR	1.008	mg/kg	NR	NR	6.67	6.7	1.91	NR	0.2375	mg/kg	dw	NR	1	0.2375	-1.438	C	28.31	Lu et al.,

[1] If not reported, assumed to be wet weight (ww).
[2] If not reported, assumed to be 15% dry matter.
[3] If not reported, assumed to be dry weight (dw).

C = BAF calculated
dw = dry weight
m = month
NA = Not Applicable
NR = Not Reported

R = Reported
R/C = BAF reported and either tissue concentration or soil concentration calculated
w = week
ww = wet weight

Median BAF	5.93

Regression statistics

slope	0.0787
intercept	1.5822
R^2	0.0006

Appendix F-2 Bioaccumulation Data for the Uptake of Pentachlorophenol from Soil into Soil Invertebrates

Species Information	Information		Invertebrate Tissue Information								Soil Information							BAF		
Common Name (Genus/Species)	Field (F)/ Lab (L)	Duration	Reported Tissue Conc.	Reported Tissue Conc. Units	Wet weight or Dry Weight?[1]	% Moisture Tissue[2]	Conversion Factor to mg/kg dw	Tissue Conc. (mg/kg dw)	ln (Tissue Conc. mg/kg dw)	Depurated?	Reported Soil Conc.	Reported Soil Conc. Units	Wet Weight or Dry Weight?[3]	% Moisture Soil	Conversion Factor to mg/kg dw	Soil Conc. (mg/kg dw)	ln (Soil Conc. mg/kg dw)	R/ C	BAF (Tissue (mg/kg/dw) /Soil (mg/kg dw))	Reference
Earthworm *(Lumbricus rubellus)*	L	NR	NR	NR	NR	NR		NR		NR	NR	NR	NR	NR	NR	NR		R	8.00	van Gestel and Ma, 1988
Earthworm *(Eisenia foetida andrei)*	L	NR	NR	NR	NR	NR		NR		NR	NR	NR	NR	NR	NR	NR		R	3.40	van Gestel and Ma, 1988
Earthworm *(Allolobophora caliginosa)*	L	14 d	17.7	ug/g	ww	NR	6.25	111	4.706	No	2.2	ug/g	dw	NR	1	2.2	0.788	C	50.3	Haque and Ebing, 1988
Earthworm *(Allolobophora caliginosa)*	L	14 d	144	ug/g	ww	NR	6.25	900	6.802	No	11.2	ug/g	dw	NR	1	11.2	2.416	C	80.4	Haque and Ebing, 1988
Earthworm *(Allolobophora caliginosa)*	L	131 d	11.5	ug/g	ww	NR	6.25	71.9	4.275	No	1.8	ug/g	NR	NR	1	1.8	0.588	C	39.9	Haque and Ebing, 1988
Earthworm *(Lumbricus terrestris)*	L	131 d	40	ug/g	ww	NR	6.25	250	5.521	No	1.8	ug/g	NR	NR	1	1.8	0.588	C	138.9	Haque and Ebing, 1988
Earthworm *(Eisenia foetida)*	L	28 d	2.65	mmol/kg	NR	NR	1666.66	4417	8.393	NR	1800	mg/kg	NR	NR	1	1800	7.496	C	2.45	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.74	mmol/kg	NR	NR	1666.66	1233	7.117	NR	1000	mg/kg	NR	NR	1	1000	6.908	C	1.23	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.62	mmol/kg	NR	NR	1666.66	1033	6.941	NR	560	mg/kg	NR	NR	1	560	6.328	C	1.85	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.56	mmol/kg	NR	NR	1666.66	933	6.839	NR	320	mg/kg	NR	NR	1	320	5.768	C	2.92	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.59	mmol/kg	NR	NR	1666.66	983	6.891	NR	180	mg/kg	NR	NR	1	180	5.193	C	5.46	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.8	mmol/kg	NR	NR	1666.66	1333	7.195	NR	100	mg/kg	NR	NR	1	100	4.605	C	13.3	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.33	mmol/kg	NR	NR	1666.66	550	6.310	NR	56	mg/kg	NR	NR	1	56	4.025	C	9.82	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.79	mmol/kg	NR	NR	1666.66	1317	7.183	NR	32	mg/kg	NR	NR	1	32	3.466	C	41.1	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.44	mmol/kg	NR	NR	1666.66	733	6.598	NR	18	mg/kg	NR	NR	1	18	2.890	C	40.7	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	0.21	mmol/kg	NR	NR	1666.66	350	5.858	NR	10	mg/kg	NR	NR	1	10	2.303	C	35.0	Fitzgerald et al. 1997
Earthworm *(Eisenia foetida)*	L	28 d	1.39	mmol/kg	NR	NR	1666.66	2317	7.748	NR	1800	mg/kg	NR	NR	1	1800	7.496	C	1.29	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	1.19	mmol/kg	NR	NR	1666.66	1983	7.593	NR	1000	mg/kg	NR	NR	1	1000	6.908	C	1.98	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	1.35	mmol/kg	NR	NR	1666.66	2250	7.719	NR	560	mg/kg	NR	NR	1	560	6.328	C	4.02	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	1.16	mmol/kg	NR	NR	1666.66	1933	7.567	NR	320	mg/kg	NR	NR	1	320	5.768	C	6.04	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	1.58	mmol/kg	NR	NR	1666.66	2633	7.876	NR	180	mg/kg	NR	NR	1	180	5.193	C	14.6	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	0.51	mmol/kg	NR	NR	1666.66	850	6.745	NR	100	mg/kg	NR	NR	1	100	4.605	C	8.50	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	0.84	mmol/kg	NR	NR	1666.66	1400	7.244	NR	56	mg/kg	NR	NR	1	56	4.025	C	25.0	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	1.16	mmol/kg	NR	NR	1666.66	1933	7.567	NR	32	mg/kg	NR	NR	1	32	3.466	C	60.4	Fitzgerald et al. 1996
Earthworm *(Eisenia foetida)*	L	28 d	1.29	mmol/kg	NR	NR	1666.66	2150	7.673	NR	18	mg/kg	NR	NR	1	18	2.890	C	119	Fitzgerald et al. 1996
Earthworm *(Eisenia eugeniae)*	L	28 d	0.41	mmol/kg	NR	NR	1666.66	683	6.527	NR	560	mg/kg	NR	NR	1	18	2.890	C	38.0	Fitzgerald et al. 1996
Earthworm *(Eisenia eugeniae)*	L	28 d	0.61	mmol/kg	NR	NR	1666.66	1017	6.924	NR	180	mg/kg	NR	NR	1	18	2.890	C	56.5	Fitzgerald et al. 1996
Earthworm *(L. terrestris)*	L	28 d	0.47	mmol/kg	NR	NR	1666.66	783	6.664	NR	560	mg/kg	NR	NR	1	18	2.890	C	43.5	Fitzgerald et al. 1996
Earthworm *(L. terrestris)*	L	28 d	2.18	mmol/kg	NR	NR	1666.66	3633	8.198	NR	180	mg/kg	NR	NR	1	18	2.890	C	201.9	Fitzgerald et al. 1996

[1] If not reported, wet weight is assumed.
[2] If not reported, 16% solids assumed.
[3] If not reported, dry weight assumed.

NA = Not applicable
NR = Not reported
dw = dry weight

ww = wet weight
R = Reported
C = Calculated
d = days

ln(tissue) = slope * ln(soil) + intercept

slope	0.3308
intercept	5.546
R^2	0.4965
p value	<0.0001

Median BAF = 14.6

Appendix F Pentachlorophenol References

Bellin, C.A. and O'Connor, G.A. 1990. Plant uptake of pentachlorophenol from sludge-amended soils. *J. Environ. Qual*. 19(3): 598-602.

Casterline, J.L., Barnett, N.M., and Ku, Y. 1985. Uptake, translocation, and transformation of pentachlorophenol in soybean and spinach plants. *Environ. Res*. 37: 101-118.

Fitzgerald, D.G., Lanno, R.P., Klee, U., Farwell, A., and Dixon, D.G. 1997. Critical body residues (CBRS): Applications in the assessment of pentachlorophenol toxicity to *Eisenia fetida* in artificial soil. *Soil Biol. Biochem*. 29(3-4): 685-688.

Fitzgerald, D.G., Warner, K.A., Lanno, R.P., and Dixon, G. 1996. Assessing the effects of modifying factors on pentachlorophenol toxicity to earthworms: Applications of body residues. *Environ. Tox. Chem.* 15(12): 2299-2304.

Gile, J.D., Collins, J.C., and Gillett, J.W. 1982. Fate and impact of wood preservatives in a terrestrial microcosm. *J. Agric. Food Chem*. 30: 295-301.

Haque, A., and W. Ebing. 1988. Uptake and accumulation of pentachlorophenol and sodium pentachlorophenol by earthworms from water and soil. *Sci. Total Environ*. 68:113-125.

Haque, A., Gruttke, H., Kratz, W., Kielhorn, U., Weigmann, G., Meyer, G., Bornkamm, R., Schuphan, I., and Ebing, W. 1988. Environmental fate and distribution of sodium [14C] pentachlorophenate in a section of urban wasteland ecosystem. *Sci. Total Environ*. 68: 127-139.

Haque, A., I. Scheunert and F. Korte. 1978. Isolation and identification of a metabolite of pentachlorophenol-14C in rice plants. *Chemosphere.* 1: 65-69.

Lu, P. Y., R. L. Metcalf and L. K. Cole. 1978. The environmental fate of 14C-pentachlorophenol in laboratory model ecosystems. In: Rao, K. (ed.), *Pentachlorophenol.* Plenum Press, New York. pp. 53-63.

Scheunert, I., Qiao, Z., Korte, F., 1986. Comparative studies of the fate of atrazine-14C and pentachlorophenol-14C in various laboratory and outdoor soil-plant systems. *J. Environ. Sci. Health, Part B*. 21(6): 457-485.

van Gestel, C.A.M., and W. Ma. 1988. Toxicity and bioaccumulation of chlorophenols in earthworms in relation to bioavailability in soil. *Ecotoxicol. Environ. Saf.* 15: 289-297.

Weiss, U. M., I. Scheunert, W. Klein, and F. Korte. 1982. Fate of pentachlorophenol-14C in soil under controlled conditions. *J. Agric. Food Chem.* 30: 1191-1194.