Appendix F. DDT Characterization

A screening-level assessment was conducted to characterize the level of impact that would result from 0.1% DDT contamination in the dicofol product formulations.

Modeling Exposure - DDT

As trace amounts of DDT (<0.1%) have been measured in dicofol products given its use in the manufacture of dicofol, a screening-level modeling effort was used to estimate aquatic EECs for DDT. Table 1 depicts the input parameters used in GENEEC2 for modeling DDT.

Table 1. Summary of GENEEC environmental fate data used for aquatic exposure inputs for DDT.

Fate Property	**Value (unit)** **o,p'-DDT**	**Value (unit)** **p,p'-DDT**	**Source**	**Comment**
Solubility in Water (mg/L)	0.085	0.025	www.atsdr.cdc.gov/toxprofiles/tp35-c4.pdf	
Photolysis in Water	0	0		No data. Assumed stable
Aerobic Soil Metabolism Half-life (days)	18,600	18,600	Footprint database	3 times single value of 6,200 days
Aerobic Aquatic Metabolism (water column) (days)	37,200	37,200	Footprint database	2 times aerobic soil metabolism
Koc (mL/g)	223,872	151,356	www.atsdr.cdc.gov/toxprofiles/tp35-c4.pdf	

GENEEC2 runs were conducted using crops with the highest, median, and lowest application rates, in order to estimate the range of EECs possible. As such, pome fruits (3 lbs ai/A), mint (1.25 lbs ai/A), and Bermuda grass (0.4 lbs ai/A) were selected. For o,p'-DDT modeling, application rates of 0.0005 (3 lbs ai/A dicofol x 0.1% DDT/dicofol x 1 g o,p'DDT/5.5 g total DDT), 0.0002, and 0.0001 lbs ai/acre were used for pome fruits, mint, and Bermuda grass, respectively. For p,p'-DDT modeling, application rates of 0.0025 (3 lbs ai/A dicofol x 0.1% DDT/dicofol x 4.5 g p,p'DDT/5.5 g total DDT), 0.001, and 0.0003 lbs ai/acre were used for pome fruits, mint, and Bermuda grass, respectively. Both aerial and ground applications were modeled using the default selections in GENEEC2. Aerial applications were modeled using a fine to medium droplet size and a 150-foot buffer (as per the label). Ground applications were modeled using a high-boom, fine droplet size distribution and a 25-foot buffer zone (as per the label).

Table 2 presents the aquatic EECs for the high-, median-, and low-end application rates for the DDT component of dicofol based on DDT residues at ≤0.1%. Detailed results from PRZM/EXAMS modeling are provided in Appendix E. Output and input files from GENEEC2 used to estimate DDT EECs are provided at the end of this appendix.

Table 2. Aquatic EECs (µg/L) for DDT in Dicofol at ≤0.1% for Uses in California.

Crop	Application Rate lbs/acre	Peak EEC	21-day average EEC	60-day average EEC	90-day average EEC
Pome Fruit	0.003	0.00858	0.00181	0.00065	0.00045
Mint	0.0012	0.00343	0.00072	0.00026	0.00017
Bermuda grass	0.0004	0.00113	0.00024	0.00009	0.00006

Accumulation of DDT in the Soil

An analysis of DDT accumulation in soil was included, as trace levels (≤0.1%) of DDT are potentially present in dicofol formulations.

Ground application to pome fruits was selected for the screening analysis, as it was expected to result in highest soil concentrations of DDT compared to any other use (based on the highest application rate and application efficiency). Aerial application to strawberries was selected for the screening analysis, as this scenario produced the highest levels of EECs in the aquatic exposure assessment for dicofol. PRZM/EXAMS runs were conducted and total soil concentrations were estimated for the upper 10 cm soil horizon. As with the aquatic exposure assessment, both the o,p'- and p,p' isomers of DDT were run separately and the results combined in a postprocessor. The 1-in-10-year peak concentrations in the soil for DDT were 74.5 and 47.0 mg/m^3 for pome fruits and strawberries, respectively. The 1-in-10-year peak concentrations in the pore water for DDT were 0.05 and 0.03 mg/m^3 for pome fruits and strawberries, respectively. DDT soil concentrations, however, continued to increase over the entire 30 year simulation (Figure 1 and Figure 2).

Monitoring Data - DDT (and its degradates DDD and DDE)

The following section discusses the surface water and sediment sampling results obtained from various sources with regards to DDT, DDD, and DDE. It should be noted that the original source of the DDT, DDT, and DDE detections (e.g., where the active ingredient came from) is unknown. The detections could be the result of historical (legacy) uses of DDT or DDE as active ingredients, or perhaps from uses of dicofol particularly since dicofol historically contained up to 10% DDT residues. Even at reduced DDT residues levels (<0.1%) in current formulations of dicofol, these formulations still constitute a source of environmental loading for DDT, DDD and DDE.

NAWQA data were available for DDT, DDD, and DDE. Although this monitoring does not target specific chemicals, DDE was estimated or measured in 50% of 500 surface water samples from 1990-2006, with a maximum concentration of 0.062 µg/L. Surface water monitoring samples were all non-detect (<0.01 ug/L) for DDT (12 samples) and DDD (12 samples). Nine sediment samples collected from 1990-2006 did contain levels of DDT (maximum 106 µg/kg), DDD (maximum 71 µg/kg), and DDE (maximum 251 µg/kg). NAQWA data are defined by the landcover composition of the watershed of the surface waters from which samples were taken. For the purposes of this assessment, monitoring data from watersheds with agricultural landcovers were most relevant to dicofol use patterns in California. It should be noted that despite the low number of samples reported in the NAWQA database, roughly 96% of aquatic biota and 86% of bed sediment sampled throughout the United States had detections of DDT, even though the agricultural uses in the United States had ceased in the 1970s (USGS, 2000).

From 1990-2006, 1,838 samples from CA surface waters were analyzed for DDE. Of these, DDE was detected in 153 (8.3%) of the samples, with a maximum concentration of 0.57 µg/L. Detected samples were limited to Stanislaus, Merced, Monterey, Santa Cruz, and San Joaquin counties, of which 8 were collected in a CRLF core areas and critical habitat area (Merced). The maximum concentration, measured in Santa Cruz County, was 0.57 µg/L. Between August and November 2004, 24 sediment samples were assessed for DDT, DDD, and DDE. DDT was detected in 23 (96%) of the samples, with a maximum concentration of 32 µg/kg. DDD was detected in 3 (12%) of the samples, with a maximum concentration of 3.3 µg/kg. DDE was detected in 10 (42%) of the samples, with a maximum concentration of 4.9 µg/kg.

Uncertainties in Exposure Modeling of DDT, DDD and DDE

In modeling the aquatic concentrations for DDT, it was assumed that the amount applied was 0.1% of the dicofol amount applied. Since dicofol formulations are limited so that DDT represents <0.1% of the overall formulation, this is considered the upper bound of the levels of DDT. The modeling approach was intended to derive maximum EECs of DDT resulting from dicofol applications. This approach did not account for DDT's total residues of concern (i.e., DDE and DDD). In this approach, the EECs of DDT account for the persistent nature of DDT in the environment (i.e., the modeled half-lives are ≥34 years). If the total residues of DDT were accounted for in deriving EECs of DDT in the aquatic environment, the half-life parameter values would be extended beyond 34 years, and EECs may increase.

If RQ values were derived for acute exposures of aquatic-phase CRLF to DDT using peak estimates of exposure derived using GENEEC2 (**Error! Reference source not found.**) and the most sensitive DDT acute toxicity data for fish (LC_{50}=1.5 **µg/L)** as reported by Mayer and Ellersieck. Resulting acute RQ values for all uses of dicofol would be <0.006; therefore, acute RQs for the CRLF exposed to DDT from dicofol applications would not exceed the LOC (0.05).

In the total residue approach for dicofol, total residues of concern included dicofol, as well 4 of its major degradates (DCBP, FW-152, DCBH and OH-DCBP). Residues of DDT, DDD and DDE were not included in the total residue approach due to the uncertainty associated with the concentration of DDT present in the formulation (i.e., <0.1%). To account for this, upper bound EECs for DDT were modeled separately. If total residues of dicofol included DDT, EECs and resulting RQ values would not differ substantially from those included in the risk estimation, since EECs for DDT alone, since EECs representing total residues of dicofol were several orders of magnitude greater than EECs for DDT.

Long Range Transport of DDT, DDD, and DDE

If 0.1% of the dicfol applied contained DDT, this would mean approximately between 2 and 20 lbs/year of DDT would be available for long-range transport on an annual basis.

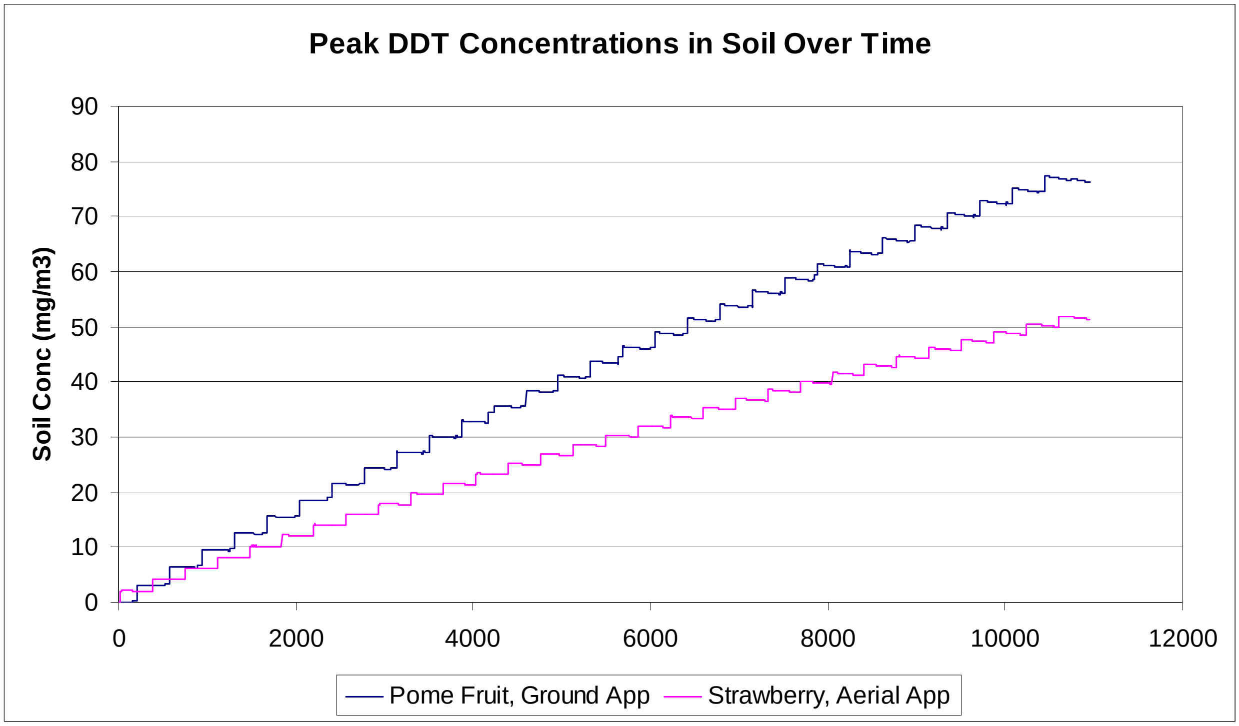

Figure 1. Concentration of total residues of DDT in soil treated with dicofol contaminated with DDT for 30 years. X axis represents time in days. Soil modeled in PRZM using CA strawberries and CA fruit scenarios.

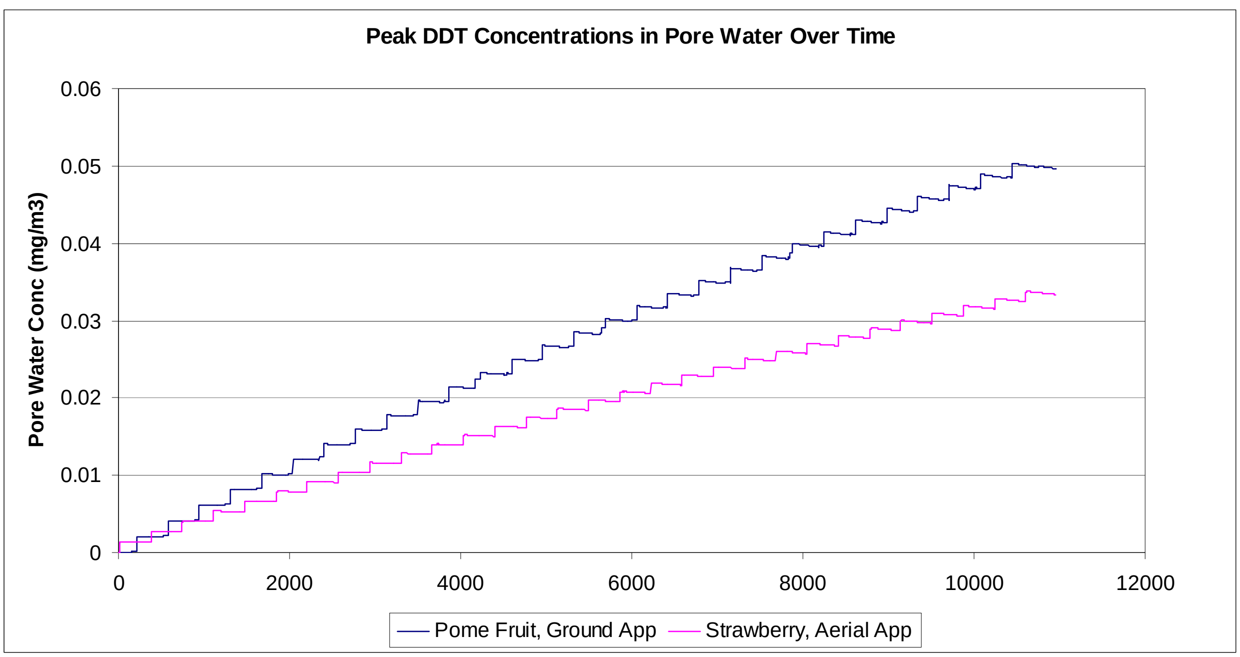

Figure 2. Concentration of total residues of DDT in pore water of soil treated with dicofol contaminated with DDT for 30 years. X axis represents time in days. Soil modeled in PRZM using CA strawberries and CA fruit scenarios.

GENEEC Runs for o,p'-DDT

```
RUN No.   1 FOR opDDT            ON   pome fruit    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.001(   .001)   1   1  223872.0   85.0   AERL_B(  3.7)  150.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2           N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
     1.30         .86           .23           .08           .05

RUN No.   2 FOR opDDT            ON   mint          * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.000(   .000)   1   1  223872.0   85.0   AERL_B(  3.7)  150.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2           N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
      .52         .35           .09           .03           .02
```

```
RUN No.   3 FOR opDDT            ON   bermudagra    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.000(   .000)   1   1  223872.0   85.0   AERL_B(  3.7)  150.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2           N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
      .26         .17            .05           .02           .01

RUN No.   4 FOR opDDT            ON   pome fruit    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.001(   .001)   1   1  223872.0   85.0   GRHIFI(  2.7)   25.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2           N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
     1.32         .88            .23           .08           .06
```

```
RUN No.   5 FOR opDDT            ON   mint          * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.000(   .000)   1   1  223872.0   85.0   GRHIFI(  2.7)   25.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
      .53         .35           .09           .03           .02

RUN No.   6 FOR opDDT            ON   bermudagra    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.000(   .000)   1   1  223872.0   85.0   GRHIFI(  2.7)   25.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
      .26         .18           .05           .02           .01
```

GENEEC Runs for p,p'-DDT

```
RUN No.   1 FOR ppDDT            ON   pome fruit    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.002(   .002)   1   1  151356.0   25.0   AERL_B(  3.7)  150.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
     7.17        5.21          1.57           .57           .38

RUN No.   2 FOR ppDDT            ON   mint          * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.001(   .001)   1   1  151356.0   25.0   AERL_B(  3.7)  150.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
     2.87        2.08           .63           .23           .15
```

```
RUN No.   3 FOR ppDDT            ON   bermudagra    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.000(   .000)   1   1  151356.0   25.0   AERL_B(  3.7)  150.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
      .86         .63            .19           .07           .05

RUN No.   4 FOR ppDDT            ON   pome fruit    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.002(   .002)   1   1  151356.0   25.0   GRHIFI(  2.7)   25.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
     7.26        5.25           1.58           .57           .39
```

```
RUN No.   5 FOR ppDDT            ON   mint          * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.001(   .001)   1   1  151356.0   25.0   GRHIFI(  2.7)   25.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
     2.90        2.10           .63           .23           .15

RUN No.   6 FOR ppDDT            ON   bermudagra    * INPUT VALUES *
--------------------------------------------------------------------
 RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE NO-SPRAY INCORP
  ONE(MULT)    INTERVAL    Koc   (PPB )    (%DRIFT)   (FT)     (IN)
--------------------------------------------------------------------
.000(   .000)   1   1  151356.0   25.0   GRHIFI(  2.7)   25.0    .0

FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
--------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
--------------------------------------------------------------------
*******        2          N/A       .00-     .00   ******   *******

GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
--------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
--------------------------------------------------------------------
      .87         .63           .19           .07           .05
```