UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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Chemical: tau-fluvalinate
PC Code: 109302
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MEMORANDUM

Subject: Tier II Estimated Environmental Concentration for the Use of Tau-Fluvalinate for Apiary Uses, Carrots for Seed (24-C SLNs), Building Perimeters, Nurseries, Ornamentals, Indoor Landscapes and Honey for the Human Health Drinking Water Risk Assessment

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Summary

This memorandum transmits the Environmental Fate and Effects Division's (EFED) drinking water exposure assessment for (RS)-α-cyano-3-phenoxybenzyl (R)-2-(2-chloro-4-trifluoromethylanilino)-3-methylbutanoate (tau-fluvalinate). The Health Effects Division (HED) of the Office of Pesticide Programs (OPP) has determined that none of the degradates of tau-fluvalinate detected in the environmental fate studies are of toxicological concern and therefore, no degradates are included in this assessment.

Based on modeling results, the estimated surface water drinking water concentrations for tau-

fluvalinate are:

1.31 ug/l for the 1 in 10 year annual peak concentration
0.65 ug/l for the 1 in 10 year annual mean concentration, and
0.62 ug/l for the 30 year annual mean concentration

The maximum 1 in 10 year annual peak aggregate, 1 in 10 year annual mean, and 30-year annual mean aggregate concentrations result from modeling tau-fluvalinate use on ornamentals in Oregon.

The SCIGROW model estimate of tau-fluvalinate concentration in drinking water from shallow groundwater sources is **0.0025 ug/l**. This concentration can be considered as both the peak and annual average value.

Introduction

Tau-fluvalinate ((RS)-α-cyano-3-phenoxybenzyl (R)-2-(2-chloro-4-trifluoromethylanilino)-3-methylbutanoate), also referred to as "Half Resolved fluvalinate" (a mixture of two insecticidally active isomers) is used as an insecticide and miticide for empty beehives, eugenia, pepper tree, greenhouses, building perimeters, flower and foliage cuttings, interior landscapes, ant mounds, and ornamentals. There is a 24(c) Special Local Need (SLN) registration for carrots grown for seed in California, and the registrant has reportedly dropped the SLN use for carrot seeds in Oregon. Based on the available pesticide usage information for the years of 1992 through 2001, as received from the registrant and agreed to by the Agency, total annual domestic usage of tau-fluvalinate averaged approximately 11,000 pounds of active ingredient (a.i.) for less than 30,000 acres treated. Formulation types include flowable concentrate and impregnated strip. Application methods include aerial (in six California counties only), dipping, spray, fogger, crack and crevice treatment, by spoon, and by drench.

This drinking water assessment is for tau-fluvalinate. There are three versions of fluvalinate which have been tested or proposed for testing since the late 1970's. These forms are racemic fluvalinate consisting of four diastereoisomers (designated as R-2R, R-2S, S-2R and S-2S), half resolved fluvalinate consisting of two diastereoisomers (R-2R and S-2R), and fully resolved fluvalinate consisting of a single diastereoisomer (S-2R). Initial testing conducted up until the mid-1980's was conducted using racemic fluvalinate. Beginning in the mid-1980's and until recently, environmental fate tests were conducted using the half resolved fluvalinate, also known as tau-fluvalinate. For environmental fate data, initial testing was conducted using the racemic form of fluvalinate. However, in 1989 the registrant proposed a bridging strategy for relying on racemic fluvalinate data to support the registration of tau-fluvalinate. The Agency agreed in a memorandum dated January 31, 1990 that racemic fluvalinate data for the abiotic processes could be used to support tau-fluvalinate. However, additional data would need to be submitted for tau-fluvalinate for biotic processes (aerobic soil metabolism, anaerobic soil metabolism, and terrestrial field dissipation).

Based on all acceptable and supplemental data (both bridged racemic data and data for tau-fluvalinate) the major routes of degradation for tau-fluvalinate in laboratory studies are by abiotic processes (photodegradation in water and soil, and pH dependent hydrolysis) and biotic processes under aerobic conditions. Tau-fluvalinate is expected to be rapidly degraded in both soil and aquatic environments under aerobic conditions but is expected to be stable under anaerobic conditions. Tau-fluvalinate is stable to hydrolysis under acidic conditions but is rapidly hydrolyzed under alkaline conditions with a half life at pH 9 of 1.13 days. Tau-fluvalinate degraded rapidly by aqueous photolysis with a half life of 1 day but was slightly more stable to soil photolysis with a half life of 18 days. Tau-fluvalinate degraded in an aerobic soil metabolism study with half lives of 8 and 15 days, and had half lives of 63 days in a supplemental terrestrial field dissipation study. In an anaerobic aquatic metabolism study tau-fluvalinate degraded with half lives of 255 and 413 days in the whole system. Tau-fluvalinate is highly immobile, with K_d values between 853 and 1,708 and corresponding K_{oc} values between 110,000 and 370,000, respectively. Finally, tau-fluvalinate is insoluble in sterile water at 12 micrograms per liter (ug/l) and has a low potential for bioaccumulation with a reported Kow of 18,000 (MRID 41889711)

and bioconcentration factors (BCF) of 120, 660, and 360 for the edible, non-edible and whole fish tissues, respectively

Typically, the Environmental Fate and Effects Division (EFED) evaluates the potential for human exposure to pesticides in drinking water through an assessment of available surface water and groundwater monitoring data and modeling. For tau-fluvalinate, no monitoring data were available for use in this drinking water assessment. Therefore, potential human exposure to tau-fluvalinate in drinking water was evaluated through modeling.

Modeling Assessment

To estimate concentrations of tau-fluvalinate in surface water or groundwater, modeling was used in the absence of surface water or groundwater monitoring data. Typically, Tier I drinking water assessments (FIRST) are completed by EFED for chemicals without higher tier scenarios or as a screening level assessment. In the case of tau-fluvalinate, higher Tier II scenarios were available for modeling of the labeled use for tau-fluvalinate on carrots and ornamentals. Therefore, drinking water exposure assessments were completed using Tier II model predictions.

The registrant supported uses represented in this exposure assessment are apiary uses, building perimeters, nurseries, ornamentals, indoor landscapes and honey. Carrots grown for seed use is being supported under a special local need (SLN) Section 24-C request but is being assessed concurrently with this risk assessment. This risk assessment covers the technical tau-fluvalinate with 87.2% active ingredient (ai), and all formulated end use products (eup). EFED believes that these proposed uses are unlikely to limit the geographic extent of tau-fluvalinate use to a specific area with the exception of the Section 24-C use on carrots grown for seed which is restricted to California and Oregon. Therefore a national risk assessment has been conducted.

Surface water concentrations were estimated using the Tier II model PRZM version 3.12/ EXAMS version 2.98.04 and ground water concentrations were estimated using the Tier I model SCIGROW version 2.3. A total of three scenarios each were modeled for tau-fluvalinate use based on individual EFED standard surface water scenarios. The scenarios modeled were carrots in Florida, vegetables in California, and ornamentals in Oregon. The scenarios selected for use in this assessment were chosen to estimate the concentration of tau-fluvalinate in surface drinking water over a geographically dispersed range of areas representative of crops proposed for tau-fluvalinate use. The Florida carrot scenario was modeled as a surrogate for carrots in the Section 24-C requests. The California coastal vegetable scenario was modeled for comparison with this Florida scenario and represents a general vegetable scenario in an area where carrots are likely grown in California. The two scenarios together should provide a reasonable exposure scenario for this SLN use. The scenarios chosen for this assessment represent all available PRZM/EXAMS scenarios for the use of tau-fluvalinate, including the Oregon ornamental which was developed specifically for the cumulative OP assessment. The scenarios developed for the cumulative OP assessment were developed in order to represent the maximum use area for the OP's and may not necessarily represent the most vulnerable setting for a particular crop. However, EFED believes that for this particular assessment the use of this OP scenario, in conjunction with selected

standard scenarios, provide a reasonable representation of the potential tau-fluvalinate use pattern. Tau-fluvalinate may be applied by aerial, ground or chemigation as per the label for this product. All scenarios were modeled with aerial application which results in the highest amount of spray drift.
PRZM 3.12/ EXAMS 2.98.04 modeling was performed with index reservoir (IR) scenarios and percent cropped area (PCA) adjustment factors. For a description of the IR/PCA scenarios and the uncertainties associated with them see R.D. Jones et al (March 21, 2000). For all scenarios, a PCA adjustment of 0.87 was applied to the model results, which is the default PCA for crops without specific PCAs. Input parameters used in Tier I groundwater (SCI-GROW) and Tier II surface water modeling (PRZM/EXAMS) were selected using EFED guidance ("*Guidance for Chemistry and Management Practice Input Parameters for Use in Modeling the Environmental Fate and Transport of Pesticides"* dated February 28, 2002 with an interim update dated November 11, 2004).

Estimated exposure concentrations (EECs) for tau-fluvalinate in surface water are presented in Table 1, while model inputs are presented in Table 2. Representative copies of PRZM/EXAMS model input and output files are presented in Appendix A.

TABLE 1 Tier II Concentrations of tau-fluvalinate in Surface Water Using IR/PCA PRZM/EXAMS Scenarios							
Crop	**Application Rate per Acre lbs/acre (label #)**	**# of Applications (intervals)**	**First Application**	**PCA**	**1/10 Peak Annual (ug/l)**	**1/10 Yearly Annual (ug/l)**	**30 Year Annual Mean (ug/l)**
FL carrots	0.15	2 (5 day interval)	May 1	0.87	1.14	0.13	0.10
CA carrots (vegetable as surrogate)	0.15	2 (5 day interval)	May 1	0.87	1.07	0.11	0.11
OR ornamental	0.34	12 (14 day intervals)	May 1	0.87	**1.31**	**0.65**	**0.62**

Table 2. PRZM/EXAMS Input Parameters for tau-fluvalinate for IR/PCA Drinking Water Assessment			
Model Parameter	**Value**	**Comments**	**Source**
Application Information	**carrots** 9.6 fl oz (0.15 lbs ai/acre) repeat as needed (1 to 2 applications typical with 5 to 21 day intervals) - aerial and ground applications **woody ornamentals** 9.6 fl oz (0.15 lbs ai/acre) up to 24 per year @ 7 to 28 day intervals - ground applications		Product Labels
Spray Drift by Scenario	aerial - 16% ground - 6.4%	Default Assumption[1]	
Aerobic Soil Metabolism $t_{½}$	22.2 days[2]	estimated upper 90 th percentile	MRID 45769201 (addendum to 41889715)
Anaerobic Soil Metabolism $t_{½}$	stable	no data	
Aerobic Aquatic Degradation $t_{½}$ (KBACW)	stable	no data	
Anaerobic Aquatic Degradation $t_{½}$ (KBACS)	577 days[3]	estimated upper 90 th percentile	MRID 00126102, 41996201, & 419301314
Aqueous Photolysis $t_{½}$	1 day	single value	MRID 45769203, 41597305, & 41597306

Table 2. PRZM/EXAMS Input Parameters for tau-fluvalinate for IR/PCA Drinking Water Assessment			
Model Parameter	**Value**	**Comments**	**Source**
Hydrolysis $t_{½}$	pH 5 - 48 days pH 7 - 22.5 days pH 9 - 1.12 days		MRID 45769202 (addendum to 41597303)
Kd/Koc	244,000	Average value[4]	MRID 45769204 (addendum to 41597309)
Molecular Weight	502.91		Product Chemistry
Foliar Extraction (FEXTR)	0.5	Default value[1]	
Foliar Decay Rate	stable	Default value[1]	
Water Solubility	0.120 ppm	10 times estimated value[1]	Product Chemistry
Vapor Pressure	1×10^{-7} torr		Product Chemistry

1- From "*Guidance for Chemistry and Management Practice Input Parameters for Use in Modeling the Environmental Fate and Transport of Pesticides"* dated February 28, 2002.
2 - Upper 90th Percentile based on acceptable aerobic metabolism half lives of 8 and 15 days.
3 - Upper 90th Percentile based on acceptable aerobic metabolism half lives of 255 and 413 days.
4 - Average of acceptable Koc values of 110000, 280000, 190000, 270000, and 370000.

Daily Time Series

Historically, EFED has provided single point estimates using the 1 in 10 year return frequency as provided in Table 1 for comparison against a drinking water level of comparison (DWLOC) prepared by HED. However, recently HED has incorporated new models into the human health risk assessment process including DEEMS, CALENDEX, LIFELINE, and CARES. Each of these models requires a daily time series of EECs, although some maintain the temporal correlation between daily values and some require a distribution without temporal correlation. Also, use of a single daily time series does not account for the spatial variability that will occur between use patterns and geography. All of these factors must be considered when incorporating the daily time series results into a dietary model. HED will need to consider the requirements of the individual dietary exposure model when deciding which daily time series to use.

EFED's Tier I drinking water model (FIRST) does not provide these daily time series estimates. However, EFED's Tier II drinking water model (PRZM/EXAMS) does generate daily values. For this assessment, EFED has relied on the PRZM/EXAMS model to predict EECs as described previously. In addition to this, EFED is providing daily time series for each of the scenarios modeled. The principal difference between the point estimate and the daily time series is that the daily time series provides information on seasonality (what time of year the peak concentration occurs), duration of exposure (how long the peaks occur), and the cumulative impact of multiple applications on exposure (how does each application extend the duration of exposure). None of these factors are captured when relying on the point estimate for comparison against the DWLOC. Figure 1 provides a comparison of the daily time series for a single year for each tau-fluvalinate scenario. This comparison demonstrates how selection of a particular time series distribution may impact dietary modeling results.

For example, a review of Figure 1 indicates that the Oregon ornamental scenario predicts the highest exposure while the two carrot scenarios are predicting higher concentrations relative to the ornamental use earlier in the growing season. Such timing of exposures may be critical in the dietary exposure if other time-sensitive routes of exposure, such as residential use, are also important. This fact would be missed if choosing a distribution simply based on the point estimate. Additionally, for both use patterns (carrots and ornamentals) the peak exposure shows a very "spiky" nature in that the peak concentration quickly decreases to an asymptotic value. However, because the ornamental use allows for multiple applications with a 14 day interval, the time series data for ornamentals suggest that while individual peaks quickly decline, the overall trend during the application window is increasing peak concentrations. The distribution for ornamentals also suggests that there is carryover from one year to the next which will influence the magnitude of individual peak concentrations and explains why the long term (chronic) concentrations are greater for this use.

This is one representative example of how incorporation of daily time series provides more information on potential exposure to pesticides in drinking water. In this example, the actual data consist of 30 years of daily variations which vary in magnitude from year to year. Estimated

concentrations are highly influenced by different climatic conditions and are sensitive to variations in application timing. EFED currently selects a single application date at random from within a window of time within which the pesticide is likely applied. However, recent investigations of the variability surrounding this suggest that which application date is selected can vary the 1 in 10 year peak and average concentrations by as much as a factor of 2 to 3. This effect is likely to be seen in the daily time series results as well. Given these facts, it may be best for HED to run all daily time series to determine which scenario predicts the greatest risk when considered in conjunction with food and residential/occupational exposures.

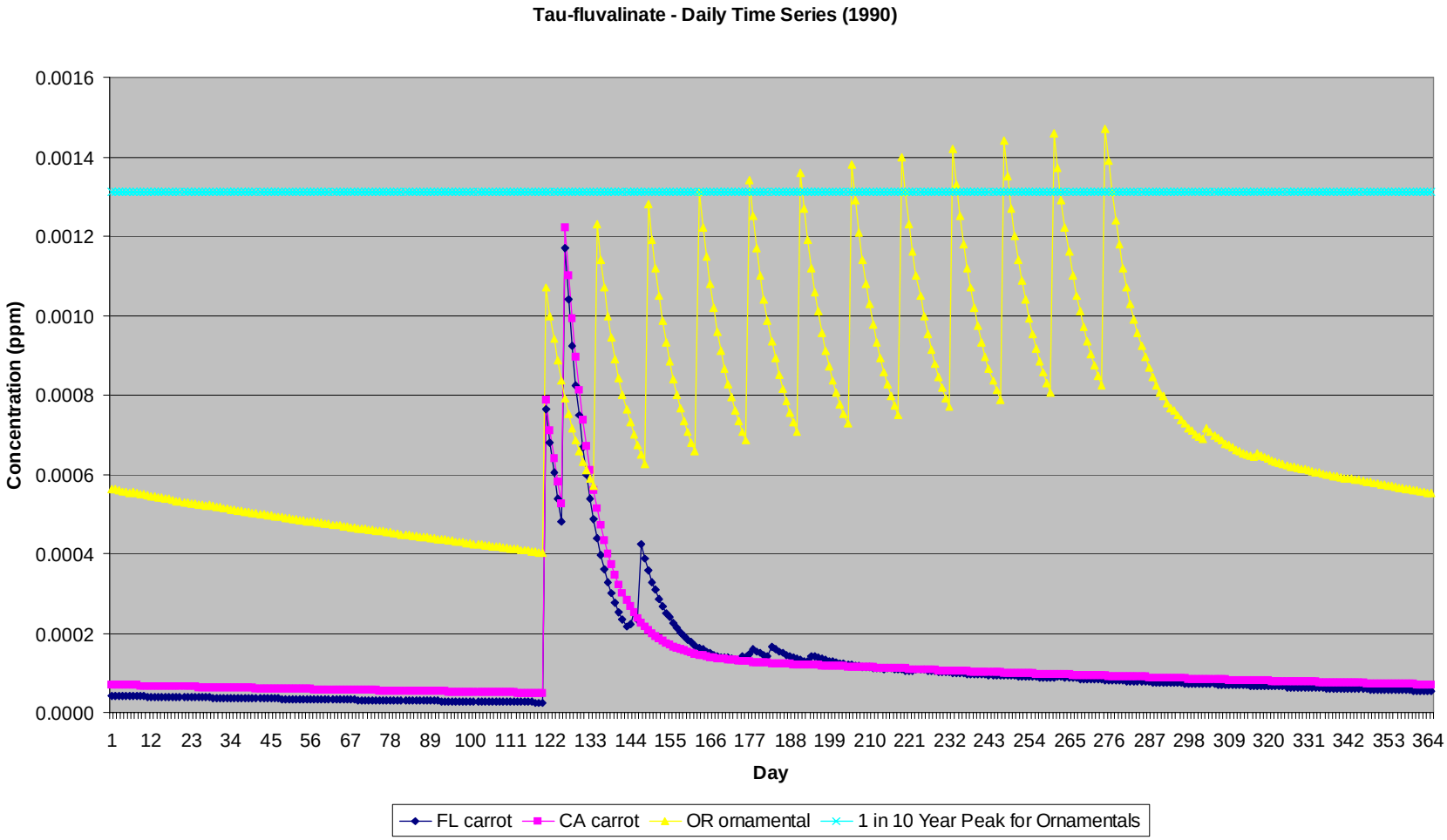

Figure 1. Representative Daily Time Series for 1990 for Tau-Fluvalinate for each PRZM/EXAMS Scenario Relative to the 1 in 10 Year Peak Concentration for Ornamentals over the 30-Year Period.

Groundwater Modeling of Parent Tau-Fluvalinate

SCIGROW modeling estimates the acute and chronic concentration of tau-fluvalinate in shallow groundwater based on the maximum application rate and maximum number of applications per crop. The maximum EEC for groundwater is **2.5×10^{-2} ug/l** for ornamental uses. Note that SCIGROW was developed using data from a suite of registrant submitted prospective groundwater studies with K_{oc} values ranging from 32-180 L $kg_{o.c.}^{-1}$ and half-lives from 13-1000 days. Extrapolation beyond these values (as in this example with an average Koc of 270000) will increase the uncertainty of the ground water EEC. However, given the high Koc, for all practical purposes tau-fluvalinate is not expected to reach groundwater. Input parameters for SCIGROW are in Table 3. The predicted EECs from SCIGROW for all tau-fluvalinate uses are presented in Table 4. SCIGROW output files are presented in Appendix B.

Table 3. SCIGROW Input Parameters for tau-fluvalinate			
Model Input Parameters	**Input Value**	**Comments**	**Source**
Aerobic Soil Metabolism $t_{1/2}$	11.5 days[1]	Average[2]	MRID 45769201 (addendum to 41889715)
K_{OC}	270,000[3]	Median[2]	MRID 45769204 (addendum to 41597309)
Application Rate	**carrots (CA & OR)** 0.15 lbs ai/acre **woody ornamentals** 0.34 lbs ai/acre		Product Labels
Max. Number of Application Per Season	**carrots (CA & OR)** repeat as needed (1 to 2 applications typical with 5 to 21 day intervals) - aerial and ground applications **woody ornamentals** up to 24 per year @ 7 to 28 day intervals - ground applications		Product Labels

1- Average based on acceptable aerobic metabolism half lives of 8 and 15 days.

2- From "*Guidance for Chemistry and Management Practice Input Parameters for Use in Modeling the Environmental Fate and Transport of Pesticides"* dated February 28, 2002.

3 -Median based on acceptable Koc values of 110000, 280000, 190000, 270000, and 370000..

TABLE 4 Tier I Concentrations of Tau-Fluvalinate in Groundwater Using SCI-GROW			
Crop	**Application Rate (lbs/acre)**	**# of Applications**	**EEC (ug/l)**
carrots	0.15 lbs/acre	2	1.8×10^{-3}
ornamentals	0.34 lbs/acre	12	**2.5×10^{-2}**

APPENDIX A: EXAMPLE PRZM/EXAMS INPUT & OUTPUT FILES

```
ORXmastree; 11/8/2001
"Benton Co. OR MLRA A2; Metfile: W24232.dvf (old: Met2.met),"
*** Record 3:
    0.73    0.16       0      17       1       2
*** Record 6 -- ERFLAG
       4
*** Record 7:
    0.37    0.69       1   172.8               2       4     600
*** Record 8
       1
*** Record 9
       1    0.25     120      40       2  80  72  77       0     250
*** Record 9a-d
       1      24
0101 1601 0102 1602 0103 1603 0104 1604 0105 1605 0106 1606 0107 1607 0108
1608
.009 .010 .015 .016 .023 .029 .034 .038 .041 .039 .038 .034 .029 .024 .021
.021
.040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040
.040
0109 1609 0110 1610 0111 1611 0112 1612
.023 .024 .027 .029 .006 .007 .007 .008
.040 .040 .040 .040 .040 .040 .040 .040
*** Record 10 -- NCPDS, the number of cropping periods
      30
*** Record 11
  150461  150861  301061       1
  150462  150862  301062       1
  150463  150863  301063       1
  150464  150864  301064       1
  150465  150865  301065       1
  150466  150866  301066       1
  150467  150867  301067       1
  150468  150868  301068       1
  150469  150869  301069       1
  150470  150870  301070       1
  150471  150871  301071       1
  150472  150872  301072       1
  150473  150873  301073       1
  150474  150874  301074       1
  150475  150875  301075       1
  150476  150876  301076       1
  150477  150877  301077       1
  150478  150878  301078       1
  150479  150879  301079       1
  150480  150880  301080       1
  150481  150881  301081       1
  150482  150882  301082       1
  150483  150883  301083       1
  150484  150884  301084       1
  150485  150885  301085       1
  150486  150886  301086       1
  150487  150887  301087       1
  150488  150888  301088       1
  150489  150889  301089       1
  150490  150890  301090       1
*** Record 12 -- PTITLE
```

```
Fluvalinate - 12 applications @ 0.381 kg/ha
*** Record 13
     360       1       0       0
*** Record 15 -- PSTNAM
Fluvalinate
*** Record 16
  010561  0 1  0.0 0.381 0.990.064
  150561  0 1  0.0 0.381 0.990.064
  290561  0 1  0.0 0.381 0.990.064
  120661  0 1  0.0 0.381 0.990.064
  260661  0 1  0.0 0.381 0.990.064
  100761  0 1  0.0 0.381 0.990.064
  240761  0 1  0.0 0.381 0.990.064
  070861  0 1  0.0 0.381 0.990.064
  210861  0 1  0.0 0.381 0.990.064
  040961  0 1  0.0 0.381 0.990.064
  180961  0 1  0.0 0.381 0.990.064
  021061  0 1  0.0 0.381 0.990.064
  010562  0 1  0.0 0.381 0.990.064
  150562  0 1  0.0 0.381 0.990.064
  290562  0 1  0.0 0.381 0.990.064
  120662  0 1  0.0 0.381 0.990.064
  260662  0 1  0.0 0.381 0.990.064
  100762  0 1  0.0 0.381 0.990.064
  240762  0 1  0.0 0.381 0.990.064
  070862  0 1  0.0 0.381 0.990.064
  210862  0 1  0.0 0.381 0.990.064
  040962  0 1  0.0 0.381 0.990.064
  180962  0 1  0.0 0.381 0.990.064
  021062  0 1  0.0 0.381 0.990.064
  010563  0 1  0.0 0.381 0.990.064
  150563  0 1  0.0 0.381 0.990.064
  290563  0 1  0.0 0.381 0.990.064
  120663  0 1  0.0 0.381 0.990.064
  260663  0 1  0.0 0.381 0.990.064
  100763  0 1  0.0 0.381 0.990.064
  240763  0 1  0.0 0.381 0.990.064
  070863  0 1  0.0 0.381 0.990.064
  210863  0 1  0.0 0.381 0.990.064
  040963  0 1  0.0 0.381 0.990.064
  180963  0 1  0.0 0.381 0.990.064
  021063  0 1  0.0 0.381 0.990.064
  010564  0 1  0.0 0.381 0.990.064
  150564  0 1  0.0 0.381 0.990.064
  290564  0 1  0.0 0.381 0.990.064
  120664  0 1  0.0 0.381 0.990.064
  260664  0 1  0.0 0.381 0.990.064
  100764  0 1  0.0 0.381 0.990.064
  240764  0 1  0.0 0.381 0.990.064
  070864  0 1  0.0 0.381 0.990.064
  210864  0 1  0.0 0.381 0.990.064
  040964  0 1  0.0 0.381 0.990.064
  180964  0 1  0.0 0.381 0.990.064
  021064  0 1  0.0 0.381 0.990.064
  010565  0 1  0.0 0.381 0.990.064
  150565  0 1  0.0 0.381 0.990.064
  290565  0 1  0.0 0.381 0.990.064
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260665  0 1  0.0 0.381 0.990.064
100765  0 1  0.0 0.381 0.990.064
240765  0 1  0.0 0.381 0.990.064
070865  0 1  0.0 0.381 0.990.064
210865  0 1  0.0 0.381 0.990.064
040965  0 1  0.0 0.381 0.990.064
180965  0 1  0.0 0.381 0.990.064
021065  0 1  0.0 0.381 0.990.064
010566  0 1  0.0 0.381 0.990.064
150566  0 1  0.0 0.381 0.990.064
290566  0 1  0.0 0.381 0.990.064
120666  0 1  0.0 0.381 0.990.064
260666  0 1  0.0 0.381 0.990.064
100766  0 1  0.0 0.381 0.990.064
240766  0 1  0.0 0.381 0.990.064
070866  0 1  0.0 0.381 0.990.064
210866  0 1  0.0 0.381 0.990.064
040966  0 1  0.0 0.381 0.990.064
180966  0 1  0.0 0.381 0.990.064
021066  0 1  0.0 0.381 0.990.064
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150567  0 1  0.0 0.381 0.990.064
290567  0 1  0.0 0.381 0.990.064
120667  0 1  0.0 0.381 0.990.064
260667  0 1  0.0 0.381 0.990.064
100767  0 1  0.0 0.381 0.990.064
240767  0 1  0.0 0.381 0.990.064
070867  0 1  0.0 0.381 0.990.064
210867  0 1  0.0 0.381 0.990.064
040967  0 1  0.0 0.381 0.990.064
180967  0 1  0.0 0.381 0.990.064
021067  0 1  0.0 0.381 0.990.064
010568  0 1  0.0 0.381 0.990.064
150568  0 1  0.0 0.381 0.990.064
290568  0 1  0.0 0.381 0.990.064
120668  0 1  0.0 0.381 0.990.064
260668  0 1  0.0 0.381 0.990.064
100768  0 1  0.0 0.381 0.990.064
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210868  0 1  0.0 0.381 0.990.064
040968  0 1  0.0 0.381 0.990.064
180968  0 1  0.0 0.381 0.990.064
021068  0 1  0.0 0.381 0.990.064
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150569  0 1  0.0 0.381 0.990.064
290569  0 1  0.0 0.381 0.990.064
120669  0 1  0.0 0.381 0.990.064
260669  0 1  0.0 0.381 0.990.064
100769  0 1  0.0 0.381 0.990.064
240769  0 1  0.0 0.381 0.990.064
070869  0 1  0.0 0.381 0.990.064
210869  0 1  0.0 0.381 0.990.064
040969  0 1  0.0 0.381 0.990.064
180969  0 1  0.0 0.381 0.990.064
021069  0 1  0.0 0.381 0.990.064
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010570  0 1  0.0 0.381 0.990.064
150570  0 1  0.0 0.381 0.990.064
290570  0 1  0.0 0.381 0.990.064
120670  0 1  0.0 0.381 0.990.064
260670  0 1  0.0 0.381 0.990.064
100770  0 1  0.0 0.381 0.990.064
240770  0 1  0.0 0.381 0.990.064
070870  0 1  0.0 0.381 0.990.064
210870  0 1  0.0 0.381 0.990.064
040970  0 1  0.0 0.381 0.990.064
180970  0 1  0.0 0.381 0.990.064
021070  0 1  0.0 0.381 0.990.064
010571  0 1  0.0 0.381 0.990.064
150571  0 1  0.0 0.381 0.990.064
290571  0 1  0.0 0.381 0.990.064
120671  0 1  0.0 0.381 0.990.064
260671  0 1  0.0 0.381 0.990.064
100771  0 1  0.0 0.381 0.990.064
240771  0 1  0.0 0.381 0.990.064
070871  0 1  0.0 0.381 0.990.064
210871  0 1  0.0 0.381 0.990.064
040971  0 1  0.0 0.381 0.990.064
180971  0 1  0.0 0.381 0.990.064
021071  0 1  0.0 0.381 0.990.064
010572  0 1  0.0 0.381 0.990.064
150572  0 1  0.0 0.381 0.990.064
290572  0 1  0.0 0.381 0.990.064
120672  0 1  0.0 0.381 0.990.064
260672  0 1  0.0 0.381 0.990.064
100772  0 1  0.0 0.381 0.990.064
240772  0 1  0.0 0.381 0.990.064
070872  0 1  0.0 0.381 0.990.064
210872  0 1  0.0 0.381 0.990.064
040972  0 1  0.0 0.381 0.990.064
180972  0 1  0.0 0.381 0.990.064
021072  0 1  0.0 0.381 0.990.064
010573  0 1  0.0 0.381 0.990.064
150573  0 1  0.0 0.381 0.990.064
290573  0 1  0.0 0.381 0.990.064
120673  0 1  0.0 0.381 0.990.064
260673  0 1  0.0 0.381 0.990.064
100773  0 1  0.0 0.381 0.990.064
240773  0 1  0.0 0.381 0.990.064
070873  0 1  0.0 0.381 0.990.064
210873  0 1  0.0 0.381 0.990.064
040973  0 1  0.0 0.381 0.990.064
180973  0 1  0.0 0.381 0.990.064
021073  0 1  0.0 0.381 0.990.064
010574  0 1  0.0 0.381 0.990.064
150574  0 1  0.0 0.381 0.990.064
290574  0 1  0.0 0.381 0.990.064
120674  0 1  0.0 0.381 0.990.064
260674  0 1  0.0 0.381 0.990.064
100774  0 1  0.0 0.381 0.990.064
240774  0 1  0.0 0.381 0.990.064
070874  0 1  0.0 0.381 0.990.064
210874  0 1  0.0 0.381 0.990.064
```

```
040974  0 1  0.0 0.381 0.990.064
180974  0 1  0.0 0.381 0.990.064
021074  0 1  0.0 0.381 0.990.064
010575  0 1  0.0 0.381 0.990.064
150575  0 1  0.0 0.381 0.990.064
290575  0 1  0.0 0.381 0.990.064
120675  0 1  0.0 0.381 0.990.064
260675  0 1  0.0 0.381 0.990.064
100775  0 1  0.0 0.381 0.990.064
240775  0 1  0.0 0.381 0.990.064
070875  0 1  0.0 0.381 0.990.064
210875  0 1  0.0 0.381 0.990.064
040975  0 1  0.0 0.381 0.990.064
180975  0 1  0.0 0.381 0.990.064
021075  0 1  0.0 0.381 0.990.064
010576  0 1  0.0 0.381 0.990.064
150576  0 1  0.0 0.381 0.990.064
290576  0 1  0.0 0.381 0.990.064
120676  0 1  0.0 0.381 0.990.064
260676  0 1  0.0 0.381 0.990.064
100776  0 1  0.0 0.381 0.990.064
240776  0 1  0.0 0.381 0.990.064
070876  0 1  0.0 0.381 0.990.064
210876  0 1  0.0 0.381 0.990.064
040976  0 1  0.0 0.381 0.990.064
180976  0 1  0.0 0.381 0.990.064
021076  0 1  0.0 0.381 0.990.064
010577  0 1  0.0 0.381 0.990.064
150577  0 1  0.0 0.381 0.990.064
290577  0 1  0.0 0.381 0.990.064
120677  0 1  0.0 0.381 0.990.064
260677  0 1  0.0 0.381 0.990.064
100777  0 1  0.0 0.381 0.990.064
240777  0 1  0.0 0.381 0.990.064
070877  0 1  0.0 0.381 0.990.064
210877  0 1  0.0 0.381 0.990.064
040977  0 1  0.0 0.381 0.990.064
180977  0 1  0.0 0.381 0.990.064
021077  0 1  0.0 0.381 0.990.064
010578  0 1  0.0 0.381 0.990.064
150578  0 1  0.0 0.381 0.990.064
290578  0 1  0.0 0.381 0.990.064
120678  0 1  0.0 0.381 0.990.064
260678  0 1  0.0 0.381 0.990.064
100778  0 1  0.0 0.381 0.990.064
240778  0 1  0.0 0.381 0.990.064
070878  0 1  0.0 0.381 0.990.064
210878  0 1  0.0 0.381 0.990.064
040978  0 1  0.0 0.381 0.990.064
180978  0 1  0.0 0.381 0.990.064
021078  0 1  0.0 0.381 0.990.064
010579  0 1  0.0 0.381 0.990.064
150579  0 1  0.0 0.381 0.990.064
290579  0 1  0.0 0.381 0.990.064
120679  0 1  0.0 0.381 0.990.064
260679  0 1  0.0 0.381 0.990.064
100779  0 1  0.0 0.381 0.990.064
```

```
240779  0 1  0.0 0.381 0.990.064
070879  0 1  0.0 0.381 0.990.064
210879  0 1  0.0 0.381 0.990.064
040979  0 1  0.0 0.381 0.990.064
180979  0 1  0.0 0.381 0.990.064
021079  0 1  0.0 0.381 0.990.064
010580  0 1  0.0 0.381 0.990.064
150580  0 1  0.0 0.381 0.990.064
290580  0 1  0.0 0.381 0.990.064
120680  0 1  0.0 0.381 0.990.064
260680  0 1  0.0 0.381 0.990.064
100780  0 1  0.0 0.381 0.990.064
240780  0 1  0.0 0.381 0.990.064
070880  0 1  0.0 0.381 0.990.064
210880  0 1  0.0 0.381 0.990.064
040980  0 1  0.0 0.381 0.990.064
180980  0 1  0.0 0.381 0.990.064
021080  0 1  0.0 0.381 0.990.064
010581  0 1  0.0 0.381 0.990.064
150581  0 1  0.0 0.381 0.990.064
290581  0 1  0.0 0.381 0.990.064
120681  0 1  0.0 0.381 0.990.064
260681  0 1  0.0 0.381 0.990.064
100781  0 1  0.0 0.381 0.990.064
240781  0 1  0.0 0.381 0.990.064
070881  0 1  0.0 0.381 0.990.064
210881  0 1  0.0 0.381 0.990.064
040981  0 1  0.0 0.381 0.990.064
180981  0 1  0.0 0.381 0.990.064
021081  0 1  0.0 0.381 0.990.064
010582  0 1  0.0 0.381 0.990.064
150582  0 1  0.0 0.381 0.990.064
290582  0 1  0.0 0.381 0.990.064
120682  0 1  0.0 0.381 0.990.064
260682  0 1  0.0 0.381 0.990.064
100782  0 1  0.0 0.381 0.990.064
240782  0 1  0.0 0.381 0.990.064
070882  0 1  0.0 0.381 0.990.064
210882  0 1  0.0 0.381 0.990.064
040982  0 1  0.0 0.381 0.990.064
180982  0 1  0.0 0.381 0.990.064
021082  0 1  0.0 0.381 0.990.064
010583  0 1  0.0 0.381 0.990.064
150583  0 1  0.0 0.381 0.990.064
290583  0 1  0.0 0.381 0.990.064
120683  0 1  0.0 0.381 0.990.064
260683  0 1  0.0 0.381 0.990.064
100783  0 1  0.0 0.381 0.990.064
240783  0 1  0.0 0.381 0.990.064
070883  0 1  0.0 0.381 0.990.064
210883  0 1  0.0 0.381 0.990.064
040983  0 1  0.0 0.381 0.990.064
180983  0 1  0.0 0.381 0.990.064
021083  0 1  0.0 0.381 0.990.064
010584  0 1  0.0 0.381 0.990.064
150584  0 1  0.0 0.381 0.990.064
290584  0 1  0.0 0.381 0.990.064
```

```
120684  0 1  0.0 0.381 0.990.064
260684  0 1  0.0 0.381 0.990.064
100784  0 1  0.0 0.381 0.990.064
240784  0 1  0.0 0.381 0.990.064
070884  0 1  0.0 0.381 0.990.064
210884  0 1  0.0 0.381 0.990.064
040984  0 1  0.0 0.381 0.990.064
180984  0 1  0.0 0.381 0.990.064
021084  0 1  0.0 0.381 0.990.064
010585  0 1  0.0 0.381 0.990.064
150585  0 1  0.0 0.381 0.990.064
290585  0 1  0.0 0.381 0.990.064
120685  0 1  0.0 0.381 0.990.064
260685  0 1  0.0 0.381 0.990.064
100785  0 1  0.0 0.381 0.990.064
240785  0 1  0.0 0.381 0.990.064
070885  0 1  0.0 0.381 0.990.064
210885  0 1  0.0 0.381 0.990.064
040985  0 1  0.0 0.381 0.990.064
180985  0 1  0.0 0.381 0.990.064
021085  0 1  0.0 0.381 0.990.064
010586  0 1  0.0 0.381 0.990.064
150586  0 1  0.0 0.381 0.990.064
290586  0 1  0.0 0.381 0.990.064
120686  0 1  0.0 0.381 0.990.064
260686  0 1  0.0 0.381 0.990.064
100786  0 1  0.0 0.381 0.990.064
240786  0 1  0.0 0.381 0.990.064
070886  0 1  0.0 0.381 0.990.064
210886  0 1  0.0 0.381 0.990.064
040986  0 1  0.0 0.381 0.990.064
180986  0 1  0.0 0.381 0.990.064
021086  0 1  0.0 0.381 0.990.064
010587  0 1  0.0 0.381 0.990.064
150587  0 1  0.0 0.381 0.990.064
290587  0 1  0.0 0.381 0.990.064
120687  0 1  0.0 0.381 0.990.064
260687  0 1  0.0 0.381 0.990.064
100787  0 1  0.0 0.381 0.990.064
240787  0 1  0.0 0.381 0.990.064
070887  0 1  0.0 0.381 0.990.064
210887  0 1  0.0 0.381 0.990.064
040987  0 1  0.0 0.381 0.990.064
180987  0 1  0.0 0.381 0.990.064
021087  0 1  0.0 0.381 0.990.064
010588  0 1  0.0 0.381 0.990.064
150588  0 1  0.0 0.381 0.990.064
290588  0 1  0.0 0.381 0.990.064
120688  0 1  0.0 0.381 0.990.064
260688  0 1  0.0 0.381 0.990.064
100788  0 1  0.0 0.381 0.990.064
240788  0 1  0.0 0.381 0.990.064
070888  0 1  0.0 0.381 0.990.064
210888  0 1  0.0 0.381 0.990.064
040988  0 1  0.0 0.381 0.990.064
180988  0 1  0.0 0.381 0.990.064
021088  0 1  0.0 0.381 0.990.064
```

```
  010589  0 1  0.0 0.381 0.990.064
  150589  0 1  0.0 0.381 0.990.064
  290589  0 1  0.0 0.381 0.990.064
  120689  0 1  0.0 0.381 0.990.064
  260689  0 1  0.0 0.381 0.990.064
  100789  0 1  0.0 0.381 0.990.064
  240789  0 1  0.0 0.381 0.990.064
  070889  0 1  0.0 0.381 0.990.064
  210889  0 1  0.0 0.381 0.990.064
  040989  0 1  0.0 0.381 0.990.064
  180989  0 1  0.0 0.381 0.990.064
  021089  0 1  0.0 0.381 0.990.064
  010590  0 1  0.0 0.381 0.990.064
  150590  0 1  0.0 0.381 0.990.064
  290590  0 1  0.0 0.381 0.990.064
  120690  0 1  0.0 0.381 0.990.064
  260690  0 1  0.0 0.381 0.990.064
  100790  0 1  0.0 0.381 0.990.064
  240790  0 1  0.0 0.381 0.990.064
  070890  0 1  0.0 0.381 0.990.064
  210890  0 1  0.0 0.381 0.990.064
  040990  0 1  0.0 0.381 0.990.064
  180990  0 1  0.0 0.381 0.990.064
  021090  0 1  0.0 0.381 0.990.064
*** Record 17
       0       1       0
*** Record 19 -- STITLE
Pilchuck
*** Record 20
     150           0   0   0   0   0   0   0   0   0
*** Record 26
       0       0       0
*** Record 33
       4
       1      10    1.55   0.123       0       0       0
        0.0312230.031223       0
             0.1   0.123   0.033    1.16    1154
       2      40     1.7   0.123       0       0       0
        0.0312230.031223       0
              2   0.123   0.033    1.16    1154
       3      50     1.8   0.069       0       0       0
        0.0312230.031223       0
              5   0.069   0.019   0.174    1154
       4      50     1.8   0.046       0       0       0
        0.0312230.031223       0
              5   0.046   0.016   0.116    1154
***Record 40
       0
            YEAR      10            YEAR      10            YEAR      10   1
       1
       1  -----
       7    YEAR
    PRCP    TCUM   0   0
    RUNF    TCUM   0   0
    INFL    TCUM   1   1
    ESLS    TCUM   0   0  1.0E3
    RFLX    TCUM   0   0  1.0E5
```

```
EFLX    TCUM   0   0  1.0E5
RZFX    TCUM   0   0  1.0E5
```

```
FL Carrots (General Root and Tuber Vegetable Scenario); 1/21/2003
"Western Palm Beach County; MLRA: 156B; Metfile: W12844.dvf (old:
Met156B.met),  "
*** Record 3:
    0.78       0       0      33       1       1
*** Record 6 -- ERFLAG
       4
*** Record 7:
    0.03     0.2       1   172.8               4       1     600
*** Record 8
       1
*** Record 9
       1    0.25     100      30       3  91  87  88       0     100
*** Record 9a-d
       1      27
0101 1601 0102 1602 0103 1603 0104 1604 0105 1505 1605 2505 0106 1606 0107
1607
.813 .830 .846 .859 .870 .878 .881 .881 .880 .836 .849 .938 .840 .572 .285
.177
.011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011
.011
0108 1008 1608 0109 1609 0110 1610 0111 1611 0112 1612
.162 .210 .291 .422 .547 .636 .683 .715 .743 .768 .793
.011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011
*** Record 10 -- NCPDS, the number of cropping periods
      30
*** Record 11
  151060  150161  220161       1
  151061  150162  220162       1
  151062  150163  220163       1
  151063  150164  220164       1
  151064  150165  220165       1
  151065  150166  220166       1
  151066  150167  220167       1
  151067  150168  220168       1
  151068  150169  220169       1
  151069  150170  220170       1
  151070  150171  220171       1
  151071  150172  220172       1
  151072  150173  220173       1
  151073  150174  220174       1
  151074  150175  220175       1
  151075  150176  220176       1
  151076  150177  220177       1
  151077  150178  220178       1
  151078  150179  220179       1
  151079  150180  220180       1
  151080  150181  220181       1
  151081  150182  220182       1
  151082  150183  220183       1
  151083  150184  220184       1
  151084  150185  220185       1
  151085  150186  220186       1
  151086  150187  220187       1
  151087  150188  220188       1
  151088  150189  220189       1
  151089  150190  220190       1
```

```
*** Record 12 -- PTITLE
Fluvalinate - 2 applications @ 0.168 kg/ha
*** Record 13
      60       1       0       0
*** Record 15 -- PSTNAM
Fluvalinate
*** Record 16
  010561  0 1  0.0 0.168 0.95 0.16
  060561  0 1  0.0 0.168 0.95 0.16
  010562  0 1  0.0 0.168 0.95 0.16
  060562  0 1  0.0 0.168 0.95 0.16
  010563  0 1  0.0 0.168 0.95 0.16
  060563  0 1  0.0 0.168 0.95 0.16
  010564  0 1  0.0 0.168 0.95 0.16
  060564  0 1  0.0 0.168 0.95 0.16
  010565  0 1  0.0 0.168 0.95 0.16
  060565  0 1  0.0 0.168 0.95 0.16
  010566  0 1  0.0 0.168 0.95 0.16
  060566  0 1  0.0 0.168 0.95 0.16
  010567  0 1  0.0 0.168 0.95 0.16
  060567  0 1  0.0 0.168 0.95 0.16
  010568  0 1  0.0 0.168 0.95 0.16
  060568  0 1  0.0 0.168 0.95 0.16
  010569  0 1  0.0 0.168 0.95 0.16
  060569  0 1  0.0 0.168 0.95 0.16
  010570  0 1  0.0 0.168 0.95 0.16
  060570  0 1  0.0 0.168 0.95 0.16
  010571  0 1  0.0 0.168 0.95 0.16
  060571  0 1  0.0 0.168 0.95 0.16
  010572  0 1  0.0 0.168 0.95 0.16
  060572  0 1  0.0 0.168 0.95 0.16
  010573  0 1  0.0 0.168 0.95 0.16
  060573  0 1  0.0 0.168 0.95 0.16
  010574  0 1  0.0 0.168 0.95 0.16
  060574  0 1  0.0 0.168 0.95 0.16
  010575  0 1  0.0 0.168 0.95 0.16
  060575  0 1  0.0 0.168 0.95 0.16
  010576  0 1  0.0 0.168 0.95 0.16
  060576  0 1  0.0 0.168 0.95 0.16
  010577  0 1  0.0 0.168 0.95 0.16
  060577  0 1  0.0 0.168 0.95 0.16
  010578  0 1  0.0 0.168 0.95 0.16
  060578  0 1  0.0 0.168 0.95 0.16
  010579  0 1  0.0 0.168 0.95 0.16
  060579  0 1  0.0 0.168 0.95 0.16
  010580  0 1  0.0 0.168 0.95 0.16
  060580  0 1  0.0 0.168 0.95 0.16
  010581  0 1  0.0 0.168 0.95 0.16
  060581  0 1  0.0 0.168 0.95 0.16
  010582  0 1  0.0 0.168 0.95 0.16
  060582  0 1  0.0 0.168 0.95 0.16
  010583  0 1  0.0 0.168 0.95 0.16
  060583  0 1  0.0 0.168 0.95 0.16
  010584  0 1  0.0 0.168 0.95 0.16
  060584  0 1  0.0 0.168 0.95 0.16
  010585  0 1  0.0 0.168 0.95 0.16
  060585  0 1  0.0 0.168 0.95 0.16
```

```
  010586  0 1  0.0 0.168 0.95 0.16
  060586  0 1  0.0 0.168 0.95 0.16
  010587  0 1  0.0 0.168 0.95 0.16
  060587  0 1  0.0 0.168 0.95 0.16
  010588  0 1  0.0 0.168 0.95 0.16
  060588  0 1  0.0 0.168 0.95 0.16
  010589  0 1  0.0 0.168 0.95 0.16
  060589  0 1  0.0 0.168 0.95 0.16
  010590  0 1  0.0 0.168 0.95 0.16
  060590  0 1  0.0 0.168 0.95 0.16
*** Record 17
       0       1       0
*** Record 19 -- STITLE
Riviera Sand; HYDG: C
*** Record 20
     100           0   0   0   0   0   0   0   0   0
*** Record 26
       0       0       0
*** Record 33
       3
       1      10    1.65   0.073       0       0       0
        0.0312230.031223       0
             0.1   0.073   0.023    1.16    1154
       2      62    1.65   0.073       0       0       0
        0.0312230.031223       0
               2   0.073   0.023    1.16    1154
       3      28     1.7   0.211       0       0       0
        0.0312230.031223       0
               2   0.211   0.091   0.174    1154
***Record 40
       0
            YEAR      10            YEAR      10            YEAR      10   1
       1
       1  -----
       7    YEAR
    PRCP    TCUM   0   0
    RUNF    TCUM   0   0
    INFL    TCUM   1   1
    ESLS    TCUM   0   0  1.0E3
    RFLX    TCUM   0   0  1.0E5
    EFLX    TCUM   0   0  1.0E5
    RZFX    TCUM   0   0  1.0E5
```

```
"CaLettuceC, August 12, 2004"
Monterey County; MLRA C-14, CA Coastal Valley; Metfile: W23273.dvf
*** Record 3:
    0.79     0.3       0      17       1       1
*** Record 6 -- ERFLAG
       4
*** Record 7:
    0.37    0.88     0.5   172.8               1       9     600
*** Record 8
       1
*** Record 9
       1    0.25      12      80       3  94  89  94       0      20
*** Record 9a-d
       1      26
0101 1601 0102 1602 0103 1603 0104 1604 0105 1605 0106 1606 0107 1007 1607
0108
.632 .318 .186 .188 .190 .191 .527 .558 .569 .572 .574 .575 .634 .796 .750
.602
.011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011 .011
.011
1608 0109 1609 0110 1610 0111 1611 0112 1012 1612
.302 .176 .176 .177 .178 .505 .560 .634 .803 .767
.011 .011 .011 .011 .011 .011 .011 .011 .011 .011
*** Record 10 -- NCPDS, the number of cropping periods
      30
*** Record 11
  100261  050561  120561       1
  100262  050562  120562       1
  100263  050563  120563       1
  100264  050564  120564       1
  100265  050565  120565       1
  100266  050566  120566       1
  100267  050567  120567       1
  100268  050568  120568       1
  100269  050569  120569       1
  100270  050570  120570       1
  100271  050571  120571       1
  100272  050572  120572       1
  100273  050573  120573       1
  100274  050574  120574       1
  100275  050575  120575       1
  100276  050576  120576       1
  100277  050577  120577       1
  100278  050578  120578       1
  100279  050579  120579       1
  100280  050580  120580       1
  100281  050581  120581       1
  100282  050582  120582       1
  100283  050583  120583       1
  100284  050584  120584       1
  100285  050585  120585       1
  100286  050586  120586       1
  100287  050587  120587       1
  100288  050588  120588       1
  100289  050589  120589       1
  100290  050590  120590       1
*** Record 12 -- PTITLE
```

```
Fluvalinate - 2 applications @ 0.168 kg/ha
*** Record 13
      60       1       0       0
*** Record 15 -- PSTNAM
Fluvalinate
*** Record 16
  010561  0 1  0.0 0.168 0.95 0.16
  060561  0 1  0.0 0.168 0.95 0.16
  010562  0 1  0.0 0.168 0.95 0.16
  060562  0 1  0.0 0.168 0.95 0.16
  010563  0 1  0.0 0.168 0.95 0.16
  060563  0 1  0.0 0.168 0.95 0.16
  010564  0 1  0.0 0.168 0.95 0.16
  060564  0 1  0.0 0.168 0.95 0.16
  010565  0 1  0.0 0.168 0.95 0.16
  060565  0 1  0.0 0.168 0.95 0.16
  010566  0 1  0.0 0.168 0.95 0.16
  060566  0 1  0.0 0.168 0.95 0.16
  010567  0 1  0.0 0.168 0.95 0.16
  060567  0 1  0.0 0.168 0.95 0.16
  010568  0 1  0.0 0.168 0.95 0.16
  060568  0 1  0.0 0.168 0.95 0.16
  010569  0 1  0.0 0.168 0.95 0.16
  060569  0 1  0.0 0.168 0.95 0.16
  010570  0 1  0.0 0.168 0.95 0.16
  060570  0 1  0.0 0.168 0.95 0.16
  010571  0 1  0.0 0.168 0.95 0.16
  060571  0 1  0.0 0.168 0.95 0.16
  010572  0 1  0.0 0.168 0.95 0.16
  060572  0 1  0.0 0.168 0.95 0.16
  010573  0 1  0.0 0.168 0.95 0.16
  060573  0 1  0.0 0.168 0.95 0.16
  010574  0 1  0.0 0.168 0.95 0.16
  060574  0 1  0.0 0.168 0.95 0.16
  010575  0 1  0.0 0.168 0.95 0.16
  060575  0 1  0.0 0.168 0.95 0.16
  010576  0 1  0.0 0.168 0.95 0.16
  060576  0 1  0.0 0.168 0.95 0.16
  010577  0 1  0.0 0.168 0.95 0.16
  060577  0 1  0.0 0.168 0.95 0.16
  010578  0 1  0.0 0.168 0.95 0.16
  060578  0 1  0.0 0.168 0.95 0.16
  010579  0 1  0.0 0.168 0.95 0.16
  060579  0 1  0.0 0.168 0.95 0.16
  010580  0 1  0.0 0.168 0.95 0.16
  060580  0 1  0.0 0.168 0.95 0.16
  010581  0 1  0.0 0.168 0.95 0.16
  060581  0 1  0.0 0.168 0.95 0.16
  010582  0 1  0.0 0.168 0.95 0.16
  060582  0 1  0.0 0.168 0.95 0.16
  010583  0 1  0.0 0.168 0.95 0.16
  060583  0 1  0.0 0.168 0.95 0.16
  010584  0 1  0.0 0.168 0.95 0.16
  060584  0 1  0.0 0.168 0.95 0.16
  010585  0 1  0.0 0.168 0.95 0.16
  060585  0 1  0.0 0.168 0.95 0.16
  010586  0 1  0.0 0.168 0.95 0.16
```

```
  060586  0 1  0.0 0.168 0.95 0.16
  010587  0 1  0.0 0.168 0.95 0.16
  060587  0 1  0.0 0.168 0.95 0.16
  010588  0 1  0.0 0.168 0.95 0.16
  060588  0 1  0.0 0.168 0.95 0.16
  010589  0 1  0.0 0.168 0.95 0.16
  060589  0 1  0.0 0.168 0.95 0.16
  010590  0 1  0.0 0.168 0.95 0.16
  060590  0 1  0.0 0.168 0.95 0.16
*** Record 17
      0       1       0
*** Record 19 -- STITLE
Placentia sandy loam; Hydrologic Group D  Placentia sandy loam; Hydrologic
Group D
*** Record 20
     171           0   0   0   0   0   0   0   0   0
*** Record 26
      0       0       0
*** Record 33
      5
      1      10   1.575   0.295       0       0       0
       0.0312230.031223       0
            0.1   0.295    0.17   0.725    1154
      2      22   1.575   0.295       0       0       0
       0.0312230.031223       0
             2   0.295    0.17   0.725    1154
      3      40   1.475   0.347       0       0       0
       0.0312230.031223       0
             5   0.347   0.242   0.058    1154
      4      77   1.725   0.224       0       0       0
       0.0312230.031223       0
            5.5   0.224   0.139   0.058    1154
      5      22    1.75   0.214       0       0       0
       0.0312230.031223       0
            5.5   0.214   0.089   0.058    1154
***Record 40
      0
           YEAR      10            YEAR      10            YEAR      10   1
      1
      1  -----
      7    YEAR
   PRCP    TCUM   0   0
   RUNF    TCUM   0   0
   INFL    TCUM   1   1
   ESLS    TCUM   0   0  1.0E3
   RFLX    TCUM   0   0  1.0E5
   EFLX    TCUM   0   0  1.0E5
   RZFX    TCUM   0   0  1.0E5
```

stored as CAcarrotIR.out
Chemical: Fluvalinate
PRZM environment: calettuceC.txt modified Thuday, 12 August 2004 at 10:03:24
EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:11
Metfile: w23273.dvf modified Tueday, 12 March 2002 at 15:44:06
Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	1.166	0.9504	0.5746	0.2818	0.2148	0.07881
1962	1.204	0.9867	0.6099	0.3138	0.2452	0.1083
1963	1.216	0.9996	0.6228	0.3253	0.2558	0.1181
1964	1.218	1.001	0.6244	0.3273	0.258	0.1208
1965	1.22	1.003	0.6256	0.3285	0.2592	0.1222
1966	1.22	1.004	0.6269	0.3293	0.2597	0.1225
1967	1.22	1.003	0.6258	0.3288	0.2594	0.1224
1968	1.219	1.002	0.6247	0.3276	0.2583	0.1215
1969	1.219	1.002	0.6254	0.3284	0.259	0.1219
1970	1.218	1.001	0.6243	0.3274	0.2582	0.1217
1971	1.22	1.003	0.6257	0.3469	0.2756	0.13
1972	1.224	1.007	0.6297	0.3324	0.2629	0.1261
1973	1.222	1.005	0.6282	0.3306	0.261	0.1238
1974	1.22	1.003	0.6261	0.329	0.2596	0.1228
1975	1.22	1.003	0.6263	0.3291	0.2598	0.1227
1976	1.219	1.002	0.6253	0.3281	0.2587	0.1228
1977	1.387	1.182	0.7783	0.4285	0.3429	0.1594
1978	1.239	1.021	0.6441	0.3461	0.276	0.1406
1979	1.227	1.01	0.6334	0.3357	0.2659	0.1288
1980	1.222	1.005	0.6282	0.3307	0.2612	0.1239
1981	1.22	1.003	0.6262	0.3288	0.2592	0.1223
1982	1.22	1.004	0.6268	0.3294	0.2598	0.1222
1983	1.219	1.002	0.6246	0.3276	0.2582	0.1212
1984	1.217	0.9989	0.6218	0.3252	0.2562	0.1195
1985	1.219	1.002	0.6252	0.3278	0.2583	0.1208
1986	1.218	1	0.6232	0.3264	0.2572	0.1208
1987	1.219	1.002	0.6254	0.3281	0.2587	0.1215
1988	1.217	0.9987	0.6217	0.3252	0.2562	0.1201
1989	1.217	0.9996	0.6226	0.3258	0.2566	0.1203
1990	1.218	1	0.6234	0.3265	0.2572	0.1204

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly	
0.032258064516129	1.387	1.182	0.7783	0.4285	0.3429		0.1594
0.0645161290322581	1.239	1.021	0.6441	0.3469	0.276	0.1406	

0.0967741935483871		1.227	1.01	0.6334	0.3461	0.2756	0.13
0.129032258064516	1.224	1.007	0.6297	0.3357	0.2659	0.1288	
0.161290322580645	1.222	1.005	0.6282	0.3324	0.2629	0.1261	
0.193548387096774	1.222	1.005	0.6282	0.3307	0.2612	0.1239	
0.225806451612903	1.22	1.004	0.6269	0.3306	0.261	0.1238	
0.258064516129032	1.22	1.004	0.6268	0.3294	0.2598	0.1228	
0.290322580645161	1.22	1.003	0.6263	0.3293	0.2598	0.1228	
0.32258064516129	1.22	1.003	0.6262	0.3291	0.2597	0.1227	
0.354838709677419	1.22	1.003	0.6261	0.329	0.2596	0.1225	
0.387096774193548	1.22	1.003	0.6258	0.3288	0.2594	0.1224	
0.419354838709677	1.22	1.003	0.6257	0.3288	0.2592	0.1223	
0.451612903225806	1.22	1.003	0.6256	0.3285	0.2592	0.1222	
0.483870967741936	1.219	1.002	0.6254	0.3284	0.259	0.1222	
0.516129032258065	1.219	1.002	0.6254	0.3281	0.2587	0.1219	
0.548387096774194	1.219	1.002	0.6253	0.3281	0.2587	0.1217	
0.580645161290323	1.219	1.002	0.6252	0.3278	0.2583	0.1215	
0.612903225806452	1.219	1.002	0.6247	0.3276	0.2583	0.1215	
0.645161290322581	1.219	1.002	0.6246	0.3276	0.2582	0.1212	
0.67741935483871	1.218	1.001	0.6244	0.3274	0.2582	0.1208	
0.709677419354839	1.218	1.001	0.6243	0.3273	0.258	0.1208	
0.741935483870968	1.218	1	0.6234	0.3265	0.2572	0.1208	
0.774193548387097	1.218	1	0.6232	0.3264	0.2572	0.1204	
0.806451612903226	1.217	0.9996	0.6228	0.3258	0.2566	0.1203	
0.838709677419355	1.217	0.9996	0.6226	0.3253	0.2562	0.1201	
0.870967741935484	1.217	0.9989	0.6218	0.3252	0.2562	0.1195	
0.903225806451613	1.216	0.9987	0.6217	0.3252	0.2558	0.1181	
0.935483870967742	1.204	0.9867	0.6099	0.3138	0.2452	0.1083	
0.967741935483871	1.166	0.9504	0.5746	0.2818	0.2148		
0.07881							
0.1	1.2267	1.0097	0.63303	0.34506	0.27463	0.12988	
			Average of yearly averages:		0.122273666666667		

Inputs generated by pe4.pl - 8-August-2003

Data used for this run:
Output File: CAcarrotIR
Metfile: w23273.dvf
PRZM scenario: calettuceC.txt
EXAMS environment file: ir298.exv
Chemical Name: Fluvalinate

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	502.91	g/mol	

Henry's Law Const.		henry		atm-m^3/mol		
Vapor Pressure		vapr	1.0E-7	torr		
Solubility	sol	0.12	mg/L			
Kd	Kd	1154	mg/L			
Koc	Koc	244000	mg/L			
Photolysis half-life		kdp	1	days	Half-life	
Aerobic Aquatic Metabolism		kbacw	0	days	Halfife	
Anaerobic Aquatic Metabolism			kbacs	577	days	Halfife
Aerobic Soil Metabolism			asm	22.2	days	Halfife
Hydrolysis:	pH 5	48	days	Half-life		
Hydrolysis:	pH 7	22.5	days	Half-life		
Hydrolysis:	pH 9	1.13	days	Half-life		
Method:	CAM	1	integer	See PRZM manual		
Incorporation Depth:		DEPI	0	cm		
Application Rate:		TAPP	0.168	kg/ha		
Application Efficiency:			APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond			
Application Date		Date	1-5	dd/mm or dd/mmm or dd-mm or dd-mmm		
Interval 1	interval		5	days	Set to 0 or delete line for single app.	
Record 17:	FILTRA					
	IPSCND	1				
	UPTKF					
Record 18:	PLVKRT					
	PLDKRT					
	FEXTRC	0.5				
Flag for Index Res. Run			IR	IR		
Flag for runoff calc.		RUNOFF	total	none, monthly or total(average of entire run)		

stored as FLcarrotIR.out
Chemical: Fluvalinate
PRZM environment: FLcarrotC.txt "modified Tueday, 28 January 2003 at 14:47:50"

EXAMS environment: ir298.exv "modified Thuday, 29 August 2002 at 14:34:11"

Metfile: w12844.dvf "modified Wedday, 3 July 2002 at 08:04:30"

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	1.141	0.9075	0.5315	0.2622	0.1978	0.06827
1962	1.254	1.003	0.5914	0.2925	0.2311	0.09224
1963	1.377	1.105	0.674	0.3366	0.2597	0.1058
1964	1.173	0.9396	0.6199	0.3716	0.2959	0.1253
1965	1.181	0.9463	0.5702	0.3102	0.2473	0.11
1966	1.175	0.9415	0.5638	0.3289	0.2737	0.1194
1967	1.18	0.9452	0.5675	0.2999	0.2376	0.1051
1968	1.176	0.9453	0.6063	0.4468	0.3633	0.1551
1969	1.312	1.057	0.6604	0.3722	0.3013	0.139
1970	1.184	0.9501	0.5723	0.3435	0.2731	0.1214
1971	1.193	0.9563	0.6506	0.3565	0.2835	0.1216
1972	1.178	0.9447	0.6853	0.4216	0.3392	0.1452
1973	1.188	0.9878	0.6242	0.3432	0.2725	0.1224
1974	1.177	0.9432	0.5679	0.2842	0.2222	0.09622
1975	1.169	0.9352	0.5622	0.3079	0.2422	0.1005
1976	1.182	0.9687	0.6153	0.3973	0.3152	0.1327
1977	1.513	1.216	0.7874	0.4798	0.3817	0.1651
1978	1.222	0.9827	0.5949	0.3364	0.2724	0.1268
1979	1.179	0.9452	0.597	0.3275	0.2583	0.1127
1980	1.176	0.9488	0.5785	0.3559	0.2806	0.1194
1981	1.178	0.9555	0.5763	0.3165	0.2473	0.1075
1982	1.209	0.9682	0.583	0.3448	0.276	0.1175
1983	1.178	0.944	0.5667	0.3366	0.2669	0.1163
1984	1.178	0.9436	0.5659	0.3583	0.2856	0.1233
1985	1.214	0.9732	0.5857	0.3066	0.243	0.1064
1986	1.173	0.9387	0.5627	0.2877	0.2264	0.09558
1987	1.168	0.9965	0.6558	0.34	0.2687	0.1104
1988	1.176	0.942	0.5715	0.3619	0.2945	0.1273
1989	1.181	0.9468	0.5695	0.2842	0.2212	0.09742
1990	1.168	0.9339	0.5606	0.3258	0.2612	0.1087

Sorted results

Prob.	Peak	96 hr	21 Day		60 Day		90 Day		Yearly	
0.032258065	1.513	1.216	0.7874		0.4798		0.3817		0.1651	
0.064516129	1.377	1.105	0.6853		0.4468		0.3633		0.1551	
0.096774194	1.312	1.057	0.674	0.4216		0.3392		0.1452		
0.129032258	1.254	1.003	0.6604		0.3973		0.3152		0.139	
0.161290323	1.222	0.9965		0.6558		0.3722		0.3013		0.1327
0.193548387	1.214	0.9878		0.6506		0.3716		0.2959		0.1273
0.225806452	1.209	0.9827		0.6242		0.3619		0.2945		0.1268
0.258064516	1.193	0.9732		0.6199		0.3583		0.2856		0.1253
0.290322581	1.188	0.9687		0.6153		0.3565		0.2835		0.1233
0.322580645	1.184	0.9682		0.6063		0.3559		0.2806		0.1224
0.35483871	1.182	0.9563		0.597	0.3448		0.276	0.1216		
0.387096774	1.181	0.9555		0.5949		0.3435		0.2737		0.1214
0.419354839	1.181	0.9501		0.5914		0.3432		0.2731		0.1194
0.451612903	1.18	0.9488		0.5857		0.34	0.2725		0.1194	
0.483870968	1.179	0.9468		0.583	0.3366		0.2724		0.1175	
0.516129032	1.178	0.9463		0.5785		0.3366		0.2687		0.1163
0.548387097	1.178	0.9453		0.5763		0.3364		0.2669		0.1127
0.580645161	1.178	0.9452		0.5723		0.3289		0.2612		0.1104
0.612903226	1.178	0.9452		0.5715		0.3275		0.2597		0.11
0.64516129	1.177	0.9447		0.5702		0.3258		0.2583		0.1087
0.677419355	1.176	0.944	0.5695		0.3165		0.2473		0.1075	
0.709677419	1.176	0.9436		0.5679		0.3102		0.2473		0.1064
0.741935484	1.176	0.9432		0.5675		0.3079		0.243	0.1058	
0.774193548	1.175	0.942	0.5667		0.3066		0.2422		0.1051	
0.806451613	1.173	0.9415		0.5659		0.2999		0.2376		0.1005
0.838709677	1.173	0.9396		0.5638		0.2925		0.2311		0.09742
0.870967742	1.169	0.9387		0.5627		0.2877		0.2264		0.09622
0.903225806	1.168	0.9352		0.5622		0.2842		0.2222		0.09558
0.935483871	1.168	0.9339		0.5606		0.2842		0.2212		0.09224
0.967741935	1.141	0.9075		0.5315		0.2622		0.1978		0.06827
0.1	1.3062		1.0516		0.67264		0.41917		0.3368	0.14458
					Average of yearly averages:				0.116487667	
	1.14	0.91	0.59	0.36	0.29	0.13				
						0.10				

Inputs generated by pe4.pl - 8-August-2003

Data used for this run:
Output File: FLcarrotIR
Metfile: w12844.dvf

PRZM scenario: FLcarrotC.txt
EXAMS environment file: ir298.exv
Chemical Name: Fluvalinate

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	502.91	g/mol	
Henry's Law Const.	henry		atm-m^3/mol	
Vapor Pressure	vapr	1.00E-07	torr	
Solubility	sol	0.12	mg/L	
Kd	Kd	1154	mg/L	
Koc	Koc	244000	mg/L	
Photolysis half-life	kdp	1	days	Half-life
Aerobic Aquatic Metabolism	kbacw	0	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	577	days	Halfife
Aerobic Soil Metabolism	asm	22.2	days	Halfife
Hydrolysis:	pH 5	48	days	Half-life
Hydrolysis:	pH 7	22.5	days	Half-life
Hydrolysis:	pH 9	1.13	days	Half-life
Method:	CAM	1	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.168	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	5-Jan	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	5	days	Set to 0 or delete line for single app.
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT			
	FEXTRC	0.5		
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	"none, monthly or total(average of entire run)"	

stored as FLornamentalR.out
Chemical: Fluvalinate
PRZM environment: ORXmasTreeC.txt "modified Satday, 12 October 2002 at 16:23:10"

EXAMS environment: ir298.exv "modified Thuday, 29 August 2002 at 14:34:11"

Metfile: w24232.dvf "modified Wedday, 3 July 2002 at 08:06:10"

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day		60 Day		90 Day		Yearly
1961	1.228	1.071	0.8576		0.7713		0.7362		0.3788
1962	1.392	1.234	1.024	0.9474		0.9197		0.6055	
1963	1.457	1.299	1.09	1.022	0.9975		0.6954		
1964	1.473	1.315	1.106	1.037	1.013	0.717			
1965	1.477	1.319	1.11	1.043	1.019	0.7273			
1966	1.477	1.318	1.11	1.041	1.018	0.7267			
1967	1.469	1.311	1.102	1.035	1.013	0.7226			
1968	1.491	1.332	1.128	1.061	1.03	0.7339			
1969	1.508	1.348	1.147	1.065	1.04	0.7486			
1970	1.487	1.328	1.119	1.051	1.028	0.7385			
1971	1.503	1.334	1.127	1.063	1.036	0.7376			
1972	1.487	1.328	1.121	1.048	1.025	0.7318			
1973	1.481	1.322	1.114	1.044	1.02	0.7335			
1974	1.484	1.325	1.117	1.052	1.03	0.7391			
1975	1.478	1.321	1.112	1.046	1.023	0.7294			
1976	1.481	1.322	1.113	1.047	1.023	0.7249			
1977	1.479	1.32	1.112	1.041	1.018	0.7237			
1978	1.482	1.323	1.115	1.046	1.022	0.7273			
1979	1.501	1.332	1.122	1.056	1.027	0.7295			
1980	1.48	1.321	1.112	1.045	1.022	0.7294			
1981	1.517	1.354	1.151	1.056	1.033	0.7436			
1982	1.489	1.331	1.122	1.056	1.033	0.7422			
1983	1.484	1.326	1.118	1.052	1.028	0.7326			
1984	1.479	1.321	1.112	1.044	1.021	0.7326			
1985	1.486	1.327	1.119	1.05	1.027	0.736			
1986	1.478	1.32	1.111	1.042	1.019	0.7253			
1987	1.478	1.32	1.111	1.045	1.027	0.7257			
1988	1.475	1.317	1.108	1.04	1.018	0.7256			
1989	1.472	1.314	1.105	1.039	1.016	0.724			
1990	1.475	1.317	1.108	1.041	1.018	0.7274			

Sorted results

Prob.	Peak	96 hr	21 Day		60 Day		90 Day	Yearly	
0.032258065	1.517	1.354	1.151	1.065	1.04	0.7486			
0.064516129	1.508	1.348	1.147	1.063	1.036	0.7436			
0.096774194	1.503	1.334	1.128	1.061	1.033	0.7422			
0.129032258	1.501	1.332	1.127	1.056	1.033	0.7391			
0.161290323	1.491	1.332	1.122	1.056	1.03	0.7385			
0.193548387	1.489	1.331	1.122	1.056	1.03	0.7376			
0.225806452	1.487	1.328	1.121	1.052	1.028	0.736			
0.258064516	1.487	1.328	1.119	1.052	1.028	0.7339			
0.290322581	1.486	1.327	1.119	1.051	1.027	0.7335			
0.322580645	1.484	1.326	1.118	1.05	1.027	0.7326			
0.35483871	1.484	1.325	1.117	1.048	1.027	0.7326			
0.387096774	1.482	1.323	1.115	1.047	1.025	0.7318			
0.419354839	1.481	1.322	1.114	1.046	1.023	0.7295			
0.451612903	1.481	1.322	1.113	1.046	1.023	0.7294			
0.483870968	1.48	1.321	1.112	1.045	1.022	0.7294			
0.516129032	1.479	1.321	1.112	1.045	1.022	0.7274			
0.548387097	1.479	1.321	1.112	1.044	1.021	0.7273			
0.580645161	1.478	1.32	1.112	1.044	1.02	0.7273			
0.612903226	1.478	1.32	1.111	1.043	1.019	0.7267			
0.64516129	1.478	1.32	1.111	1.042	1.019	0.7257			
0.677419355	1.477	1.319	1.11	1.041	1.018	0.7256			
0.709677419	1.477	1.318	1.11	1.041	1.018	0.7253			
0.741935484	1.475	1.317	1.108	1.041	1.018	0.7249			
0.774193548	1.475	1.317	1.108	1.04	1.018	0.724			
0.806451613	1.473	1.315	1.106	1.039	1.016	0.7237			
0.838709677	1.472	1.314	1.105	1.037	1.013	0.7226			
0.870967742	1.469	1.311	1.102	1.035	1.013	0.717			
0.903225806	1.457	1.299	1.09	1.022	0.9975		0.6954		
0.935483871	1.392	1.234	1.024	0.9474		0.9197		0.6055	
0.967741935	1.228	1.071	0.8576		0.7713		0.7362		0.3788
0.1	1.5028		1.3338		1.1279		1.0605	1.033	0.74189
					Average of yearly averages:			0.71385	
	1.31	1.16	0.98	0.92	0.90	0.65			
						0.62			

Inputs generated by pe4.pl - 8-August-2003

Data used for this run:
Output File: FLornamentalR
Metfile: w24232.dvf

PRZM scenario: ORXmasTreeC.txt
EXAMS environment file: ir298.exv
Chemical Name: Fluvalinate

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	502.91	g/mol	
Henry's Law Const.	henry		atm-m^3/mol	
Vapor Pressure	vapr	1.00E-07	torr	
Solubility	sol	0.12	mg/L	
Kd	Kd	1154	mg/L	
Koc	Koc	244000	mg/L	
Photolysis half-life	kdp	1	days	Half-life
Aerobic Aquatic Metabolism	kbacw	0	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	577	days	Halfife
Aerobic Soil Metabolism	asm	22.2	days	Halfife
Hydrolysis:	pH 5	48	days	Half-life
Hydrolysis:	pH 7	22.5	days	Half-life
Hydrolysis:	pH 9	1.13	days	Half-life
Method:	CAM	1	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.381	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	5-Jan	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	14	days	Set to 0 or delete line for single app.
Interval 2	interval	14	days	Set to 0 or delete line for single app.
Interval 3	interval	14	days	Set to 0 or delete line for single app.
Interval 4	interval	14	days	Set to 0 or delete line for single app.
Interval 5	interval	14	days	Set to 0 or delete line for single app.
Interval 6	interval	14	days	Set to 0 or delete line for single app.
Interval 7	interval	14	days	Set to 0 or delete line for single app.
Interval 8	interval	14	days	Set to 0 or delete line for single app.
Interval 9	interval	14	days	Set to 0 or delete line for single app.
Interval 10	interval	14	days	Set to 0 or delete line for single app.
Interval 11	interval	14	days	Set to 0 or delete line for single app.
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT			
	FEXTRC	0.5		
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	"none, monthly or total(average of entire run)"	

APPENDIX B: SCI-GROW OUTPUT FILES

SCIGROW
VERSION 2.3
ENVIRONMENTAL FATE AND EFFECTS DIVISION
OFFICE OF PESTICIDE PROGRAMS
U.S. ENVIRONMENTAL PROTECTION AGENCY
SCREENING MODEL
FOR AQUATIC PESTICIDE EXPOSURE

SciGrow version 2.3
chemical:fluvalinate
time is 11/ 9/2004 14:53: 0

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
0.150	2.0	0.300	2.70E+05	11.5

groundwater screening cond (ppb) = 1.80E-03*

*Estimated concentrations of chemicals with Koc values greater than 9995 ml/g are beyond the scope of the regression data used in SCI-GROW development. If there are concerns for such chemicals, a higher tier groundwater exposure assessment should be considered, regardless of the concentration returned by SCI-GROW.

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SCIGROW
VERSION 2.3
ENVIRONMENTAL FATE AND EFFECTS DIVISION
OFFICE OF PESTICIDE PROGRAMS
U.S. ENVIRONMENTAL PROTECTION AGENCY
SCREENING MODEL
FOR AQUATIC PESTICIDE EXPOSURE

SciGrow version 2.3
chemical:fluvalinate
time is 11/ 9/2004 14:53:54

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
0.340	12.0	4.080	2.70E+05	11.5

groundwater screening cond (ppb) = 2.45E-02*

*Estimated concentrations of chemicals with Koc values greater than 9995 ml/g are beyond the scope of the regression data used in SCI-GROW development. If there are concerns for such chemicals, a higher tier groundwater exposure assessment should be considered, regardless of the concentration returned by SCI-GROW.

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