



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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Date: December 5, 2006

MEMORANDUM

SUBJECT: Amended Tebuconazole (Parent Only) Drinking Water Assessment in Support of Registration Actions for Uses on Turf, Ornamentals, Almonds, Asparagus, Barley, Beans, Corn (foliar and seed treatment), Cotton, Cucurbits, Bulb Vegetables, Leafy Brassica Greens, Garden Beets, Hops, Lychee, Okra, Pecan, Pistachio, Pome Fruit, Soybean, Stone Fruit (except cherries), Sunflower, Turnip, and Wheat.
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DP Number: D311610, D311622, D313985, D319241, D319245, D332177, and 332261.

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A Tier II drinking water assessment was performed for tebuconazole (parent only) proposed new uses on turf (golf courses and sod farms), ornamentals (residential and commercial uses), almonds, asparagus, barley, beans, corn (foliar and seed treatment), cotton, cucurbits, hops, lychee, okra, pecan, pistachio, bulb vegetables, leafy brassica

greens, garden beets, pome fruit, soybean, stone fruit (except cherries), sunflower, turnip, and wheat. This assessment supersedes all previously conducted drinking water assessments for tebuconazole.

The proposed new use patterns for Lynx 2, Lynx 45 WG, Elite 45 DF, and Folicur 3.6 F are outlined in Table 1, Appendix V, of this document. In addition, the assessment was conducted on peaches, representing all existing uses. The existing uses include cereals (wheat, barley, triticale, and oats), cherries, nectarines, peaches, and plantain.

Tebuconazole is a broad spectrum, systemic fungicide. It has been registered for peanuts under the trade name of Folicur 3.6 F. Lynx formulation is targeted for turf and ornamental use. Lynx 45 WG has curative and protectant properties that can be used for the control of certain foliar and flower diseases of ornamentals in interiorscapes, residential and commercial landscapes. It can be used as the curative, or the preventive treatments, or the combination of both treatments. The fungicide is absorbed rapidly and works systemically from within the plant.

The active ingredient tebuconazole is persistent in soil and moderately mobile to relatively immobile. The chemical has little potential to reach ground water, except in soils of high sand and low organic matter content. During a runoff event, tebuconazole adsorbed onto the soil particles could enter adjacent bodies of surface water via runoff.

Among all the registered and proposed new uses, the highest estimated drinking water concentrations (EDWCs) from surface water sources were derived for aerial applications of tebuconazole to FL turf at the maximum annual application rate of 4.41 lb a.i./acre and for aerial applications to PA commercial ornamentals at the maximum annual application rate of 2.0 lb a.i./acre. The highest estimated concentrations from food uses were derived for aerial application to PA apples at the maximum annual application rate of 1.38 lb a.i./acre. The highest predicted drinking water concentrations of tebuconazole from surface water sources are presented in Table 1. All EDWCs are listed in Tables 4A and 4B.

Table 1. Tebuconazole Estimated Drinking Water Concentrations from Surface Water Sources.

Scenario	Application Type/Annual Fungicide Application Rate (kg ai/ha)	Estimated Drinking Water Concentrations (µg/L)		
		1 in 10 year annual peak	1 in 10 year annual mean	36 year annual mean
FL Turf ^a	aerially applied 1.65 x 3 = 4.95	96.6 ^c	51.4	33.7
Commercial Ornamentals simulated with PA turf ^b	aerially applied 0.56 x 8 = 4.48	77.4	59.0 ^d	46.2 ^d
PA apples ^a	airblast 0.25 x 6 = 1.50	27.4	16.6	10.9

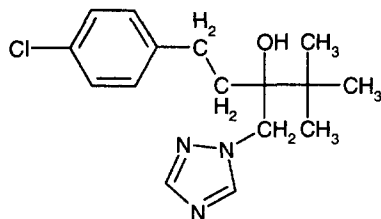
^a - Modeled with the lowest non-sand K_d as the partition coefficient input parameter.

^b - Modeled with the average K_{oc} as the partition coefficient input parameter.

^c - It is the highest estimated DW peak concentration.

^d - These are the highest estimated DW annual mean concentrations.

Chemical Structure:



IUPAC: α -[2-(4-chlorophenyl)ethyl]- α -(1,1-dimethyl)-1*H*-1,2,4-triazole-1-ethanol
CAS name: Tebuconazole
CAS No: 107534-96-3
Synonyms: Chlorophenylethyl- α -(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol

ENVIRONMENTAL FATE SUMMARY

Tebuconazole is persistent in soil (aerobic metabolism $T_{1/2} = 796$ days) and moderately mobile to relatively immobile (adsorption K_p s range from 7.69 to 16.39, adsorption K_{oc} s range from 906 to 1251 ml/g). Tebuconazole has little potential to reach ground water, except in soils of high sand and low organic matter content. However, during a runoff event, tebuconazole adsorbed onto the soil particles could enter adjacent bodies of surface water via runoff.

Tebuconazole is resistant to hydrolysis ($T_{1/2} \gg 28$ days or stable at pH 5, 7, and 9), aqueous and soil photodegradation [$T_{1/2} =$ stable (extrapolated $T_{1/2} = 590$ days and 192.5 days, respectively)], and soil metabolism (aerobic metabolism $T_{1/2} = 796$ days).

Terrestrial field dissipation half-lives varied from about 1.6 to 4 months and beyond (i.e. 10 months). A supplemental study on bare ground in Florida showed leaching of tebuconazole into a lower soil horizon. In sand soil of Vero Beach, FL (sand = 92%, silt = 0.4%, clay = 7.6%, and organic matter = 1%) tebuconazole was detected up to 0.12 ppm in the depth of 6 to 12 inches 30 days after surface application of 1.5 lb. a.i./acre (lower depths were not sampled, MRID 40700963). In addition, tebuconazole has a low potential for bioaccumulation in fish tissues (BCFs = 25X, 228X, and 99X for edible, nonedible, and whole fish tissues).

Based on registrant-submitted tebuconazole field residue studies, tebuconazole foliar dissipation half-life ranged from 1.2 days in wheat forage to 8.4 days in soybean forage (Appendix I).

DRINKING WATER ASSESSMENT

No surface water monitoring data were available for tebuconazole. Tebuconazole was not analyzed under the National Water-Quality Assessment Program of the U.S. Geological Survey. Surface and Ground water assessment is solely based on the modeling.

A. Surface Water Assessment

A Tier II drinking water assessment was performed using PRZM 3.12/ EXAMS 2.98.04 modeling with index reservoir (IR) scenarios and percent cropped area (PCA) adjustment factors. The assessment was based on the proposed maximum use rates of tebuconazole on turf, ornamentals, corn, peaches, and apples, and minimum application rate on turf. The Pennsylvania and Florida turf scenarios were run with three preventive maximum applications of 1.47 lbs a.i./acre made at 14-day intervals, three preventive minimum applications of 0.37 lbs a.i./acre made at 14-day intervals, and with one curative application of 2.94 lbs a.i./acre. The Pennsylvania, and North Carolina apple scenarios were used with six applications of 0.225 lbs a.i./acre, and 7-day intervals. A default PCA factor of 0.87 was used for apples and corn, and no PCA factor was used for turf and commercial ornamental uses as according to the proposed label. For peaches, the highest regional PCA of 63% for the Pacific Northwest was used. For residential ornamental uses on home lawns, a crop area factor (CAF) of 82 % was used (refer to Assumptions and Uncertainties section for the CAF description). Additionally, the Golf Course Adjustment Factor factors of 0.05 and 0.34 were used as if tebuconazole turf uses were limited to the golf course use on tees and greens or the golf course use on tees, greens, and fairways, respectively.

Tables 2 and 3 list the modeling input parameters. For the partition coefficient, the lowest non-sand K_d^1 value and the average K_{oc} value were used to account for the modeling uncertainties due to selection of this parameter. The simulated drinking water EDWCs are listed in Tables 4A and 4B.

¹ The average K_{oc} and lowest non-sand K_d were both used to describe soil: water partitioning of tebuconazole. Although the regression equation for soil organic matter content (SOC) and K_d is not statistically significant ($P=0.14$), a graphical analysis illustrates a positive linear relationship of SOC and K_d ($r^2=0.75$). The lack of significance of the regression equation can be attributed to low sample size ($n=4$) coupled with inherent variability among soils properties.

Table 2. Environmental Fate and Chemistry Input Parameters for Tebuconazole

Parameters	Input Value and Unit	Source of Info/Reference
Maximum per event Application Rates (Product Labels) by crop modeled ¹	<p><u>Turf:</u> A (Max) = 1.47 lb ai/A (1.65 kg ai/ha) Min: 0.37 lb ai/A (0.41 lb ai/ha) B = 2.94 lb ai/A (3.30 kg ai/ha)</p> <p><u>Ornamentals:</u> 0.5 lb ia/A (0.56 kg ai/ha)</p> <p><u>Corn:</u> 0.17 lb ai/A (0.19 kg ai/ha)</p> <p><u>Peach:</u> 0.23 lb ai/A (0.25 kg ai/ha)</p> <p><u>Apples:</u> Max: 0.23 lb ai/A (0.25 kg ai/ha) Min: 0.12 lb ai/A (0.13 kg ai/ha)</p>	<p><u>Product Labels:</u> Product label: Lynx 45 WG EPA Reg. No. 432-xxx Product label: Lynx 45 WG EPA Reg. No. 432-xxx Product label: Lynx 45 WG EPA Reg. No. 432-xxx Product label: Lynx 2 EPA Reg. No. 3125-GOI. Product label: Folicur 3.6F EPA Reg. No. 264-752 Product label: Elite 45 DF EPA Reg. No. 264-749 Product label: Elite 45 DF EPA Reg. No. 264-749</p>
Maximum Number of Applications	<p>Turf A = 3 Turf B = 1 Ornamentals = 8 Corn = 4 Peach and Apples = 6</p>	<p>Product label: Lynx 45 WG EPA Reg. No. Product label: Lynx 45 WG EPA Reg. No. Product label: Lynx 2 EPA Reg. No. Product label: Elite 45 DF EPA Reg. No. 264-749</p>
Minimum interval between applications	<p>Turf A = 14 days All other = 7 days</p>	Product labels as above
Method of Application	<p>Turf = ground foliar¹ Ornamentals = ground and aerial foliar¹ Corn = aerial Peach and Apples = airblast</p>	Product labels as above
Soil Partition Coefficient (K_d) ²	<p>12.7 (K_d)² 1023 (K_{oc})²</p>	MRIDs: 40995922 and 40700960 (GLN 163-1)
Molecular Weight	308 g/mole	Product Chemistry
Solubility (20 °C) ³	32 mg/l	Product Chemistry MRID (GLN 63-7)
Vapor Pressure at 20 °C	1.3×10^{-8} mm Hg	Product Chemistry MRID (GLN 63-9)
Henry's Law Constant at 20 °C	1.24×10^{-10} atm·m ³ /mol	Calculated (D269918)
Aerobic Soil Metabolism $T_{1/2}$	796 days	MRID 40700959 (GLN 162-1)
Aqueous Photolysis (pH 7) $T_{1/2}$	590	MRID 40700958 (GLN 161-2)
Hydrolysis $T_{1/2}$	stable	MRID 40700957 (GLN 161-1)
Foliar half-life	1.2 to 8.4 days	The upper confidence bound on the mean metabolism half-life was 8.90 days. For calculation of PLDKRT input parameter refer to Appendix I.
	1592 days	assumed 2 x aerobic soil metabolism half-life input

Aerobic aquatic metabolism half-life		value (MRID 40700959) because the compound is stable to hydrolysis and no aerobic aquatic metabolism data are available (Guidance for Selecting Input Parameters in Modeling the Environmental Fate and Transport of Pesticides; Feb 2, 2002)
Anaerobic aquatic metabolism half-life	2126 days	assumed 2 x anaerobic soil metabolism half-life input (MRID 40700959) because no anaerobic aquatic metabolism data are available and the compound is stable to hydrolysis (Guidance for Selecting Input Parameters in Modeling the Environmental Fate and Transport of Pesticides; Feb 2, 2002)

¹ – Based on the label, application to turf is allowed via ground to golf courses, and via ground and aerial application to sod farms, to ornamentals via ground, aerial, and chemigation, airblast for apples and peach, and aerial application to corn.

² – The lowest non-sand K_D value was used for sandy loam and the average K_{OC} value (for comparison) since the K_{OC} regression model was not statistically valid ($P=0.14$) but presented a positive linear relationship of SOC and K_D ($r^2 = 0.75$)

³ – In the modeling, the solubility value was multiplied by 10.

Table 3. Additional PRZM-EXAM Input Parameters for Tebuconazole

Parameters	Input Value and Unit	Source of Info/Reference
First Application Date (day-month)	PA Turf = 07-05 FL Turf = 07-06 Ornamentals (FL turf) = 15-05 Ornamentals (PA turf) = 01-05 IL Corn = 05-06 GA Peach = 01-03 PA Apples = 01-05 NC Apples = 01-05	Assumed based on crop profile and planting dates data from the PRZM crop scenarios
Rainfall Data (Metfile)	PA Turf = W14737.dvf FL Turf = W12834.dvf IL Corn = W14923.dvf GA Peach = W03813.dvf PA Apples = W14737.dvf NC Apples = W03812.dvf	
Application Fraction	Turf & Ornamentals (ground/aerial) = 0.99/0.95 Corn & Ornamentals (aerial) = 0.95 Peach & Apples (airblast) = 0.95	
Spray Drift Fraction	Turf & Ornamentals (ground/aerial) = 0.064/0.16 Corn = 0.16 Peach & Apples (airblast) = 0.063	

Table 4A. Tebuconazole estimated drinking water concentrations from surface water sources modeled with the lowest non-sand Kd as the partition coefficient input parameter.

Scenario	Annual Fungicide Application Rate (kg ai/ha) / Application Type	Estimated Drinking Water Concentrations (µg/L)			
		1 in 10 year annual peak	1 in 10 year annual mean	36 year annual mean	
<u>PA Turf – ground applied</u> <i>preventive use</i> PCA = 1 GCAF = 0.34 GCAF = 0.05 <i>curative</i> PCA = 1 GCAF = 0.34 GCAF = 0.05 <u>FL Turf – ground applied</u> <i>preventive use</i> PCA = 1 GCAF = 0.34 GCAF = 0.05 <i>curative</i> PCA = 1 GCAF = 0.34 GCAF = 0.05 PCA = 1 GCAF = 0.34 GCAF = 0.05 <u>FL Turf – aerially applied</u> PCA = 1	<u>Maximum application</u> 1.65 x 3 = 4.95	61.5 20.9 3.08	37.9 12.9 1.90	28.0 9.52 1.40	
	3.30 x 1 = 3.30	41.9 14.2 2.10	26.3 8.94 1.32	18.4 6.26 0.92	
	<u>Maximum application</u> 1.65 x 3 = 4.95	78.5 26.7 3.93	41.3 14.0 2.07	23.3 7.92 1.17	
	3.30 x 1 = 3.30	58.7 20.0 2.94	29.2 9.93 1.46	16.1 5.47 0.81	
	<u>Minimum application</u> 0.41 x 3 = 1.23	19.5 6.63 0.98	10.3 3.49 0.51	5.78 1.97 0.29	
	1.65 x 3 = 4.95	96.6	51.4	33.7	
	<u>Commercial Ornamentals^a</u> (PCA = 1)	0.56 x 8 = 4.48 <u>FL turf</u> Ground applied	62.4	37.7	25.5
		Aerially applied	75.1	46.3	34.3
		<u>PA turf</u> Ground applied	62.6	39.8	27.0
		Aerially applied	86.7	57.2	44.1
	<u>Residential Ornamentals^b</u> (CAF ^c = 0.82)	0.56 x 8 = 4.48 <u>FL turf</u> Ground applied	65.02	32.14	19.06
		<u>PA turf</u> Ground applied	51.4	32.6	22.1
<u>IL corn</u> (PCA = 0.87)	0.19 x 4 = 0.76	26.0	11.9	9.13	
<u>GA peach</u> (PCA = 0.87) (PCA = 0.63)	0.25 x 6 = 1.50	16.2 11.71	10.5 7.59	8.05 5.83	
<u>PA apples</u>	0.25 x 6 = 1.50	27.4	16.6	10.9	
<u>NC apples</u> (PCA = 0.87)		25.5	12.3	8.19	

^a - Turf scenario with PCA=1 is representing commercial uses on ornamentals.

^b - FL turf and PA turf scenario with PCA=0.82 mimic a yard around a house for residential ornamental uses. It is assumed that a ground application only is allowed to the residential lots.

^c - Crop area factor (CAF) was developed based on the range of house perimeter treatment.

Table 4B. Tebuconazole estimated drinking water concentrations from surface water sources modeled with an average Koc value as the partition coefficient input parameter.

Scenario	Annual Application Rate (kg ai/ha)/ Application Type	Estimated Drinking Water Concentrations (µg/L)		
		1 in 10 year annual peak	1 in 10 year annual mean	36 year annual mean
<u>FL Turf – ground applied</u> PCA = 1 GCAF = 0.05 GCAF = 0.34	<u>Maximum application</u> 1.65 x 3 = 4.95	59.9 3.00 20.4	37.7 1.89 12.8	26.8 1.34 9.11
	<u>Maximum application</u> 0.41 x 3 = 1.23	14.9 0.74 5.06	9.37 0.47 3.19	6.67 0.33 2.27
<u>FL Turf – aerial applied</u> PCA = 1	0.41 x 3 = 1.23	77.6	47.3	36.5
<u>PA Turf – ground applied</u> (PCA =1)	<u>Maximum application</u> 1.65 x 3 = 4.95	57.3	44.9	32.3
<u>Commercial Ornamentals^a</u> PCA = 1	0.56 x 8 = 4.48			
	<u>FL turf</u> Ground applied	79.3	39.2	23.2
	Aerially applied	93.8	47.7	32.6
	<u>PA turf</u> Ground applied	56.3	42.5	30.4
	Aerially applied	77.4	59.0	46.2
<u>Residential Ornamentals^b</u> (CAF ^c = 0.82)	0.56 x 8 = 4.48			
	<u>FL turf</u> Ground applied	51.18	30.93	20.93
	<u>PA turf</u> Ground applied	46.2	34.9	25.0
<u>IL corn</u> PCA = 0.87	0.19 x 4 = 0.76	23.7	11.6	9.31
<u>GA peach</u> PCA = 0.87 PCA = 0.63	0.25 x 6 = 1.50	13.3 9.62	7.92 5.73	6.12 4.44
	<u>PA apples</u> PCA = 0.87	0.25 x 6 = 1.50	26.4	14.9
				10.2

^a - Turf scenario with PCA=1 is representing commercial uses on ornamentals.

^b - FL turf and PA turf scenario with PCA=0.82 mimic a yard around a house for residential ornamental uses.

^c - Crop area factor (CAF) was developed based on the range of house perimeter treatment.

Assumptions and Uncertainties

There is an uncertainty associated with the selection of the partition coefficient input parameter. For the modeling purpose, the lowest non-sand K_D was used for sandy loam since, statistically, there is no significant relationship between K_D values and the organic carbon content (the coefficients of determination $r^2 = 0.75$, lower 95% confidence level = -16.4, upper 95% confidence level = 22.0, and $P = 0.14$, $n=4$; Graph 1, Appendix II). The graphical analysis, however, illustrates a positive linear relationship between SOC and K_D . In addition, the lack of significance of the regression equation can be attributed to low sample size ($n=4$). Therefore, the input parameter of the average K_{oc} value was used in the second round of the model simulations to account for the uncertainty in the selection of the lowest non-sand K_D as the partition coefficient. For the human health risk assessment, the highest estimates of DWCs are recommended.

In general, the likelihood that multiple crops from the list of proposed uses will be found within single watersheds where tebuconazole is used is unknown and therefore specific PCA adjustment factors were not used, and each apple and corn scenario was adjusted with the default PCA of 0.87. For peaches EFED used the highest regional PCA of 63% for the Pacific Northwest. Based on EFED's analysis, orchard crops such as peaches are grown in several regions (Attachment III) of the country including New England (14% regional PCA), Mid-Atlantic (46% regional PCA), South Atlantic (38% regional PCA), California (56% regional PCA), Pacific Northwest (63% regional PCA). Because orchards were included in the regional PCA estimation, it is appropriate to use the regional PCA for adjusting drinking water concentrations. This use, however, assumes peaches are expected to be the most conservative estimate for drinking water concentrations from current uses of tebuconazole. One concern is that when more uses are added to the label, the PCA is expected to be higher.

An ornamental scenario has not been developed for ecological and drinking water assessments. To address the range of applications conditions, which may exist in a residential ornamental scenario, the PA turf and FL turf scenarios with a crop area factor (CAF) were used to mimic a yard around a house. A type of crop area factor was developed using a range of house perimeter treatments. The following logic was used in developing a surrogate residential scenario: assumed that the applications were made within a perimeter around a house, assumed a 2000 square foot house (50 ft x 40 ft) with four houses per acre. Based on these assumptions, the CAF factor was calculated as follows:

1 foot treated house perimeter = $180 \text{ ft}^2 * 4 = 720 \text{ ft}^2 \text{ treated} / A = 720 \text{ ft}^2 / 43560 \text{ ft}^2 * 100 = 1.65\% \text{ treated}$

2 feet treated house perimeter = $360 \text{ ft}^2 * 4 = 1440 \text{ ft}^2 \text{ treated} / A = 1440 \text{ ft}^2 / 43560 \text{ ft}^2 * 100 = 3.3\% \text{ treated}$

10 feet treated house perimeter = $1800 \text{ ft}^2 * 4 = 7200 \text{ ft}^2 \text{ treated} / A = 7200 \text{ ft}^2 / 43560 \text{ ft}^2 * 100 = 16.5\% \text{ treated}$

The maximum percent treated would be equal to the $(43560 \text{ ft}^2 - (2000 \text{ ft}^2 / \text{house} * 4)) = 35560 \text{ ft}^2$ or $35560 \text{ ft}^2 / 43560 \text{ ft}^2 = 81.6\%$ treated. This value does not account for the driveways, sidewalks, porches, etc. EXAMs turf EECs were multiplied by the percent crop treated area (CAF = 0.82) to adjust the EECs. It should be disclaimed that the following approach of using turf scenarios coupled with a house perimeter adjustment factor for modeling residential ornamentals is not an official EFED policy. This approach provides an approximation of residential areas with outdoor ornamental uses. In addition, for this assessment, it was assumed that the ornamental uses in the commercial nurseries have CAF = 1. Previously used Oregon Christmas scenario is not recommended for modeling outdoor ornamental uses because it does not provide conservative estimates due to the low runoff conditions in that region, thus was not used for this assessment.

Within each scenario, a change of tebuconazole application dates, or rainfall pattern, may influence the modeling results. Tebuconazole application dates were selected based on each crop and non-crop profile and their planting dates from the PRZM crop scenarios.

B. Ground Water Assessment

No ground water monitoring data were available for tebuconazole. Tebuconazole was not listed in the 1992 *Pesticides in Ground Water Database*, U.S. EPA/EFED/EFGWB, and was not included in the National Pesticide Survey, USEPA 1990. Therefore, the SCI-GROW screening model was used to estimate ground water concentrations. The model estimates upper-bound ground water concentrations of pesticides likely to occur when the pesticide is used at the maximum allowable rate in areas where ground water is vulnerable to contamination. The modeling input parameters were selected according to EFED's *Guidance for Selecting Input Parameters in Modeling the Environmental Fate and Transport of Pesticides*, Feb 2, 2002. Table 5 lists the modeling input parameters.

MODEL INPUT VARIABLE	INPUT VALUES
K _{oc} (median value of all available K _{oc} s, MRID 40995922)	968 ml/g
Application Rate	1.47 lb. a.i./acre
Number of Applications / Season	3
Aerobic Soil Metabolism half-life	800 days
Hydrolysis	Stable

The SCI-GROW model estimated a concentration of tebuconazole in drinking water from shallow ground water sources to be 1.56 µg/L. This concentration can be considered as both the acute and chronic value.

APPENDIX I

Crop	Half-life ¹ (days)	Location/Formulation	MRID Number
Wheat Forage ²	1.2	3.6 F/North Dakota	46574201
Soybean Forage ²	8.4	3.6 F/Illinois	
Soybean Hay ²	5.3	3.6 F	
	11.6	45 DF/Oregon	42763901
	1.8	Washington	
	5.8	New York	
	1.2	Wisconsin	
	17.3	45 DF/California	42763902
	4.3	Michigan	
	6.9	Michigan	

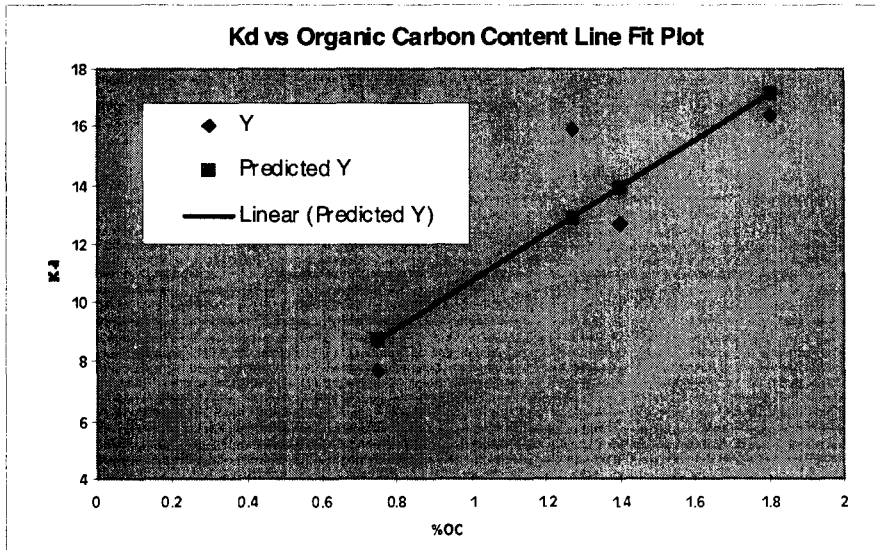
¹ – Presents valid half-lives; data sets met the criteria (trials with Day 0 values) for calculating a half-life, and the results of the regression were statistically valid (Power ≥ 0.80). Wheat hay and barley dissipation data had a weak fit to the model with the value of power below 0.80, therefore, were excluded.

² – Used for calculation of PLDKRT input parameter. The upper confidence bound on the mean metabolism half-life was 8.90 days (wheat forage, soybean hay, and soybean forage). Cherries, because they are fruits, were not used for a calculation of the parameter.

$$\text{PLDKRT input parameter} = \ln (0.5)/90\% \text{ upper confidence bound} = 0.078$$

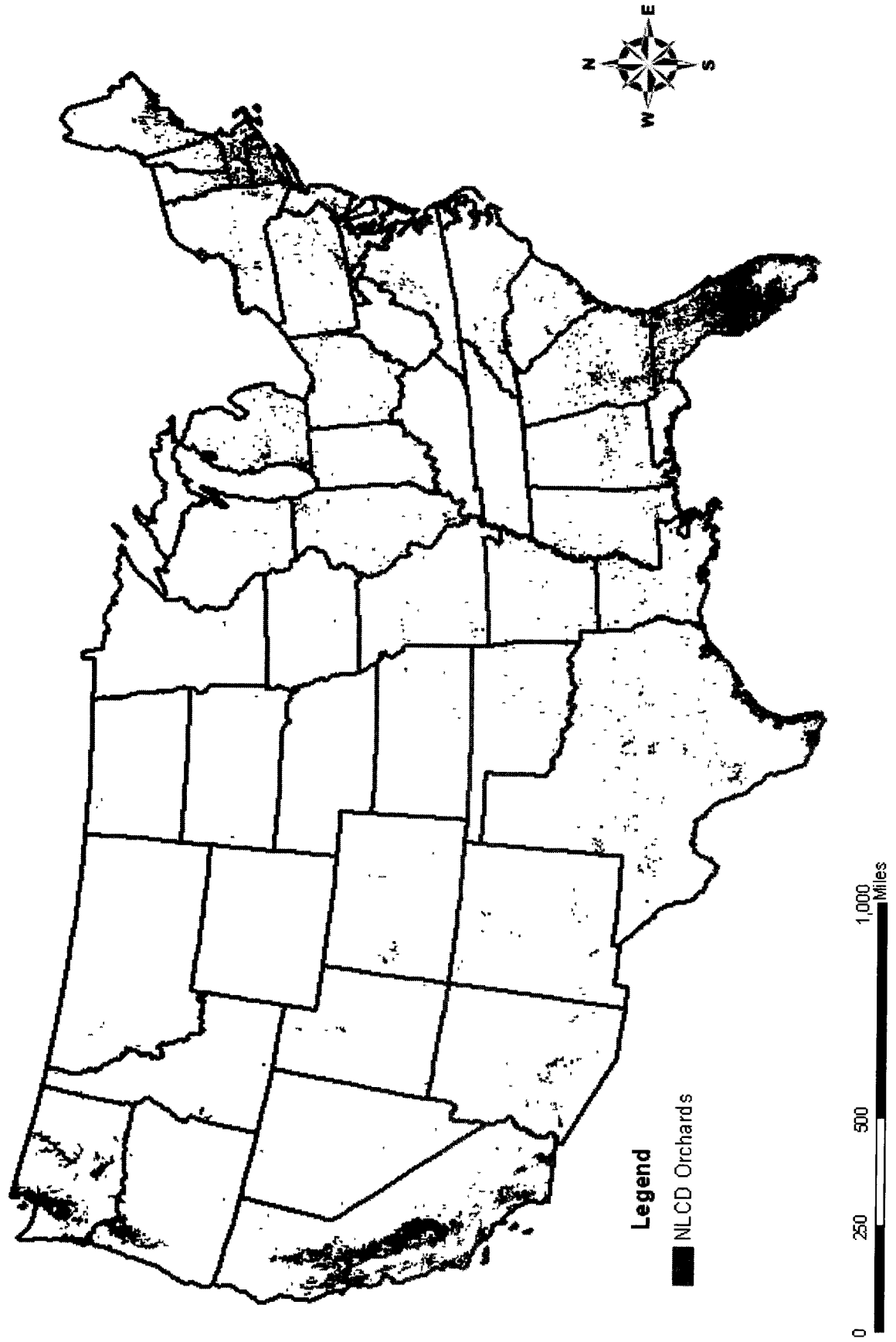
APPENDIX II

Graph 1: K_D versus Organic Carbon Content Plot



APPENDIX III

Extent of Orchards Based on National Land Cover Data



APPENDIX VI

A. PRZM/EXAM Output Files

Florida Turf Scenario – three preventive applications of 1.65 kg a.i./ha every 14 days

A. Simulated with the non-sand Kd as an input parameter

stored as tebuconazoleFLturfA.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 24 November 2003 at 14:49:10

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 10:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	37.63	37.12	35.11	32.86	31.55	13.92
1962	76.67	75.65	71.99	64.87	60.21	32.57
1963	91.29	90.17	88.72	82.85	77.65	46
1964	51.5	50.96	49.33	47.43	45.28	36.34
1965	41.71	41.27	39.84	38.2	36.36	26.61
1966	106	104	101	96.89	90.96	48.59
1967	60.83	60.19	58.29	53.45	50.33	41.47
1968	78.71	77.75	74.32	67.19	63.36	39.73
1969	36.36	36.12	35.15	33.12	31.69	25.95
1970	21.86	21.64	20.74	19.25	18.32	14.66
1971	42.85	42.29	40.62	37.02	34.49	18.87
1972	37.11	36.68	35.2	33.14	32.04	21.52
1973	24.07	23.85	23.08	21.52	20.96	16.83
1974	40.78	40.27	38.62	36.23	34.23	20.22
1975	35.16	34.87	33.64	30.7	29.08	20.42
1976	20.15	19.95	19.12	17.77	17.02	14.22
1977	26	25.69	24.55	23.31	21.92	13.91
1978	22.42	22.17	21.59	20.55	19.79	14.2
1979	71.04	70.07	67.31	60.66	56.19	27.7
1980	38.29	37.88	37.09	35.02	33.19	26.2
1981	27.58	27.28	26.11	24.22	23.14	17.96
1982	44.42	43.89	42	38.79	37.29	22.38
1983	52.85	52.22	50.96	49.06	47.88	30.21
1984	29.93	29.64	28.47	27.3	26.11	21.96
1985	25.93	25.64	24.5	23.06	21.97	15.81
1986	44.12	43.57	42.2	38.02	35.36	20.26
1987	27.59	27.3	26.12	24.32	22.99	18.11
1988	18.3	18.11	17.56	16.32	15.84	12.41
1989	16.07	15.89	15.19	13.92	13.27	9.642
1990	16.26	16.07	15.58	14.8	14.05	9.303

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	106	104	101	96.89	90.96	48.59
0.0645161290322581	91.29	90.17	88.72	82.85	77.65	46
0.0967741935483871	78.71	77.75	74.32	67.19	63.36	41.47
0.129032258064516	76.67	75.65	71.99	64.87	60.21	39.73
0.161290322580645	71.04	70.07	67.31	60.66	56.19	36.34
0.193548387096774	60.83	60.19	58.29	53.45	50.33	32.57
0.225806451612903	52.85	52.22	50.96	49.06	47.88	30.21
0.258064516129032	51.5	50.96	49.33	47.43	45.28	27.7
0.290322580645161	44.42	43.89	42.2	38.79	37.29	26.61
0.32258064516129	44.12	43.57	42	38.2	36.36	26.2
0.354838709677419	42.85	42.29	40.62	38.02	35.36	25.95
0.387096774193548	41.71	41.27	39.84	37.02	34.49	22.38
0.419354838709677	40.78	40.27	38.62	36.23	34.23	21.96
0.451612903225806	38.29	37.88	37.09	35.02	33.19	21.52
0.483870967741936	37.63	37.12	35.2	33.14	32.04	20.42
0.516129032258065	37.11	36.68	35.15	33.12	31.69	20.26
0.548387096774194	36.36	36.12	35.11	32.86	31.55	20.22
0.580645161290323	35.16	34.87	33.64	30.7	29.08	18.87
0.612903225806452	29.93	29.64	28.47	27.3	26.11	18.11
0.645161290322581	27.59	27.3	26.12	24.32	23.14	17.96

0.67741935483871	27.58	27.28	26.11	24.22	22.99	16.83
0.709677419354839	26	25.69	24.55	23.31	21.97	15.81
0.741935483870968	25.93	25.64	24.5	23.06	21.92	14.66
0.774193548387097	24.07	23.85	23.08	21.52	20.96	14.22
0.806451612903226	22.42	22.17	21.59	20.55	19.79	14.2
0.838709677419355	21.86	21.64	20.74	19.25	18.32	13.92
0.870967741935484	20.15	19.95	19.12	17.77	17.02	13.91
0.903225806451613	18.3	18.11	17.56	16.32	15.84	12.41
0.935483870967742	16.26	16.07	15.58	14.8	14.05	9.642
0.967741935483871	16.07	15.89	15.19	13.92	13.27	9.303
0.1	78.506	77.54	74.087	66.958	63.045	41.296
Average of yearly averages:						23.265833333333

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

Data used for this run:

Output File: tebuconazoleFLturfA

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	1.65	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	07-06	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.
Record 17: FILTRA				
IPSCND	1			
UPTKF				
Record 18: PLVKRT				
PLDKRT	0.078			
FEXTRC	0.5			
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

Description

Molecular weight

Henry's Law Const.

Vapor Pressure

Solubility

Kd

Koc

Photolysis half-life

Aerobic Aquatic Metabolism

Anaerobic Aquatic Metabolism

Aerobic Soil Metabolism

Hydrolysis:

Method:

Incorporation Depth:

Application Rate:

Application Efficiency:

Spray Drift

Application Date

Interval 1

Interval 2

Record 17: FILTRA

 IPSCND

 UPTKF

Record 18: PLVKRT

 PLDKRT

 FEXTRC

Flag for Index Res. Run

Flag for runoff calc.

Variable Name

Value

Units

mg/L

mg/L

mg/L

mg/L

days

days

days

days

days

integer

cm

kg/ha

fraction

fraction of application rate applied to pond

dd/mm or dd/mmm or dd-mm or dd-mmm

days

days

IR

total

none, monthly or total(average of entire run)

Florida Turf Scenario – the maximum label application

B. Simulated with the average K_{oc} value as an input parameter

stored as tebuFLturfAIRavg.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt

modified Monday, 16 June 2003 at 13:48:06

EXAMS environment: ir298.exv

modified Thuday, 29 August 2002 at 15:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 09:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	33.99	33.26	30.61	26.88	25.68	12
1962	54.16	52.95	49.12	44.83	42.76	25.71
1963	58.54	57.35	56.34	52.63	48.98	33.44
1964	56.77	55.91	52.94	49.69	47.63	36.4
1965	42.08	41.51	40.37	38.11	36.17	30.32
1966	81.39	79.6	75.57	71.65	66.87	39.5
1967	58.6	57.62	55.56	49.97	48.43	37.85

1968	65.41	64.2	60.21	55.2	55.18	39.77
1969	39.05	38.6	37.75	36.13	35.02	32.76
1970	28.94	28.6	27.4	26.23	25.41	22.65
1971	36.84	36.19	34.48	31.26	30.39	24.13
1972	56.58	55.48	51.38	44.81	44.13	30.26
1973	39.97	39.46	37.82	36.81	35.99	31.64
1974	46.5	45.76	43.14	42.2	40.97	30.35
1975	36.15	35.88	34.44	31.94	31.1	27.13
1976	30.97	30.51	28.81	26.03	24.56	21.88
1977	32.95	32.47	31.26	29.45	28.27	22.65
1978	34.89	34.3	32.09	29.15	28.66	21.91
1979	60.08	58.79	56.19	50.43	48.04	29.93
1980	34.89	34.43	33.18	31.66	30.58	26.19
1981	31.49	31.03	29.48	27.39	25.8	21.31
1982	38.67	38	35.53	32.67	31.54	22.61
1983	40.45	39.9	38.01	36.84	36.35	26.31
1984	31.65	31.27	29.84	28.48	28.36	25.34
1985	31.86	31.42	29.89	28.25	26.9	22.48
1986	55.14	54.03	51.41	44.89	41.53	27.11
1987	29.22	28.85	27.44	25.78	24.97	22.55
1988	22.91	22.62	21.54	19.8	19.59	17.84
1989	41.27	40.48	38.29	33.4	30.16	21.37
1990	28.01	27.65	26.27	24.71	24.5	21.44

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	81.39	79.6	75.57	71.65	66.87	39.77
0.0645161290322581	65.41	64.2	60.21	55.2	55.18	39.5
0.0967741935483871	60.08	58.79	56.34	52.63	48.98	37.85
0.129032258064516	58.6	57.62	56.19	50.43	48.43	36.4
0.161290322580645	58.54	57.35	55.56	49.97	48.04	33.44
0.193548387096774	56.77	55.91	52.94	49.69	47.63	32.76
0.225806451612903	56.58	55.48	51.41	44.89	44.13	31.64
0.258064516129032	55.14	54.03	51.38	44.83	42.76	30.35
0.290322580645161	54.16	52.95	49.12	44.81	41.53	30.32
0.32258064516129	46.5	45.76	43.14	42.2	40.97	30.26
0.354838709677419	42.08	41.51	40.37	38.11	36.35	29.93
0.387096774193548	41.27	40.48	38.29	36.84	36.17	27.13
0.419354838709677	40.45	39.9	38.01	36.81	35.99	27.11
0.451612903225806	39.97	39.46	37.82	36.13	35.02	26.31
0.483870967741936	39.05	38.6	37.75	33.4	31.54	26.19
0.516129032258065	38.67	38	35.53	32.67	31.1	25.71
0.548387096774194	36.84	36.19	34.48	31.94	30.58	25.34
0.580645161290323	36.15	35.88	34.44	31.66	30.39	24.13
0.612903225806452	34.89	34.43	33.18	31.26	30.16	22.65
0.645161290322581	34.89	34.3	32.09	29.45	28.66	22.65
0.67741935483871	33.99	33.26	31.26	29.15	28.36	22.61
0.709677419354839	32.95	32.47	30.61	28.48	28.27	22.55
0.741935483870968	31.86	31.42	29.89	28.25	26.9	22.48
0.774193548387097	31.65	31.27	29.84	27.39	25.8	21.91
0.806451612903226	31.49	31.03	29.48	26.88	25.68	21.88
0.838709677419355	30.97	30.51	28.81	26.23	25.41	21.44
0.870967741935484	29.22	28.85	27.44	26.03	24.97	21.37
0.903225806451613	28.94	28.6	27.4	25.78	24.56	21.31
0.935483870967742	28.01	27.65	26.27	24.71	24.5	17.84
0.967741935483871	22.91	22.62	21.54	19.8	19.59	12
0.1	59.932	58.673	56.325	52.41	48.925	37.705
Average of yearly averages:						26.827666666667

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

Data used for this run:

Output File: tebuFLturAIRavg

Metfile: w12834.dvf

PRZM scenario: FLturC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	

Henry's Law Const. henry 1.24e-10 atm-m³/mol
Vapor Pressure vapr 1.3e-8 torr
Solubility sol 320 mg/L
Kd Kd mg/L
Koc Koc 1023 mg/L
Photolysis half-life kdp 590 days Half-life
Aerobic Aquatic Metabolism kbacw 1592 days Halfife
Anaerobic Aquatic Metabolism kbacs 2126 days Halfife
Aerobic Soil Metabolism asm 796 days Halfife
Hydrolysis: pH 7 0 days Half-life
Method: CAM 2 integer See PRZM manual
Incorporation Depth: DEPI 0 cm
Application Rate: TAPP 1.65 kg/ha
Application Efficiency: APPEFF 0.99 fraction
Spray Drift DRFT 0.064 fraction of application rate applied to pond
Application Date Date 07-06 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.
Record 17: FILTRA
IPSCND 1
UPTKF
Record 18: PLVKRT
PLDKRT 0.078
FEXTRC 0.5
Flag for Index Res. Run IR IR
Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

Florida Turf Scenario – the minimum label application

A. Simulated with the non-sand K_d value as an input parameter

stored as tebFLturfIRminKd.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt

modified Monday, 16 June 2003 at 13:48:06

EXAMS environment: ir298.exv

modified Thuday, 29 August 2002 at 15:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 09:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	9.349	9.223	8.725	8.165	7.84	3.46
1962	19.05	18.8	17.89	16.12	14.96	8.094
1963	22.68	22.4	22.04	20.59	19.3	11.43
1964	12.8	12.66	12.26	11.79	11.25	9.03
1965	10.36	10.25	9.901	9.493	9.034	6.611
1966	26.27	25.93	25.14	24.07	22.6	12.07
1967	15.11	14.95	14.48	13.28	12.51	10.3
1968	19.56	19.32	18.47	16.69	15.74	9.871
1969	9.033	8.974	8.734	8.228	7.874	6.446
1970	5.433	5.376	5.153	4.782	4.551	3.642
1971	10.65	10.51	10.09	9.198	8.569	4.689
1972	9.221	9.114	8.747	8.235	7.963	5.347
1973	5.982	5.928	5.734	5.348	5.209	4.183
1974	10.13	10.01	9.596	9.004	8.506	5.024
1975	8.739	8.664	8.361	7.629	7.227	5.075
1976	5.007	4.956	4.752	4.416	4.229	3.533
1977	6.462	6.384	6.099	5.791	5.446	3.457
1978	5.571	5.509	5.366	5.107	4.917	3.528
1979	17.65	17.41	16.72	15.07	13.96	6.883
1980	9.513	9.413	9.216	8.702	8.247	6.51
1981	6.852	6.777	6.488	6.017	5.748	4.463
1982	11.04	10.9	10.43	9.638	9.266	5.561
1983	13.13	12.97	12.66	12.19	11.9	7.505
1984	7.437	7.365	7.073	6.784	6.488	5.457
1985	6.442	6.371	6.088	5.73	5.459	3.929
1986	10.97	10.83	10.49	9.447	8.788	5.035
1987	6.856	6.783	6.49	6.043	5.713	4.5
1988	4.548	4.5	4.362	4.055	3.935	3.083
1989	3.994	3.949	3.774	3.458	3.298	2.396
1990	4.039	3.992	3.872	3.677	3.491	2.312

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	26.27	25.93	25.14	24.07	22.6	12.07
0.0645161290322581	22.68	22.4	22.04	20.59	19.3	11.43
0.0967741935483871	19.56	19.32	18.47	16.69	15.74	10.3
0.129032258064516	19.05	18.8	17.89	16.12	14.96	9.871
0.161290322580645	17.65	17.41	16.72	15.07	13.96	9.03
0.193548387096774	15.11	14.95	14.48	13.28	12.51	8.094
0.225806451612903	13.13	12.97	12.66	12.19	11.9	7.505
0.258064516129032	12.8	12.66	12.26	11.79	11.25	6.883
0.290322580645161	11.04	10.9	10.49	9.638	9.266	6.611
0.32258064516129	10.97	10.83	10.43	9.493	9.034	6.51
0.354838709677419	10.65	10.51	10.09	9.447	8.788	6.446
0.387096774193548	10.36	10.25	9.901	9.198	8.569	5.561
0.419354838709677	10.13	10.01	9.596	9.004	8.506	5.457
0.451612903225806	9.513	9.413	9.216	8.702	8.247	5.347
0.483870967741936	9.349	9.223	8.747	8.235	7.963	5.075
0.516129032258065	9.221	9.114	8.734	8.228	7.874	5.035
0.548387096774194	9.033	8.974	8.725	8.165	7.84	5.024
0.580645161290323	8.739	8.664	8.361	7.629	7.227	4.689
0.612903225806452	7.437	7.365	7.073	6.784	6.488	4.5
0.645161290322581	6.856	6.783	6.49	6.043	5.748	4.463
0.67741935483871	6.852	6.777	6.488	6.017	5.713	4.183
0.709677419354839	6.462	6.384	6.099	5.791	5.459	3.929
0.741935483870968	6.442	6.371	6.088	5.73	5.446	3.642
0.774193548387097	5.982	5.928	5.734	5.348	5.209	3.533
0.806451612903226	5.571	5.509	5.366	5.107	4.917	3.528
0.838709677419355	5.433	5.376	5.153	4.782	4.551	3.46
0.870967741935484	5.007	4.956	4.752	4.416	4.229	3.457
0.903225806451613	4.548	4.5	4.362	4.055	3.935	3.083
0.935483870967742	4.039	3.992	3.872	3.677	3.491	2.396
0.967741935483871	3.994	3.949	3.774	3.458	3.298	2.312
0.1	19.509	19.268	18.412	16.633	15.662	10.2571
						Average of yearly averages: 5.7808

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

Data used for this run:

Output File: tebFLturfIRminKd

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method: CAM	2	integer		See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.41	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064		fraction of application rate applied to pond
Application Date	Date	07-06	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.
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT	0.078		
	FEXTRC	0.5		

Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

B. Simulated with the average K_{oc} value as an input parameter

stored as tebFLturfIRminavg.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt

modified Monday, 16 June 2003 at 13:48:06

EXAMS environment: ir298.exv

modified Thuday, 29 August 2002 at 15:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 09:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	8.444	8.263	7.606	6.678	6.38	2.98
1962	13.46	13.16	12.2	11.14	10.63	6.389
1963	14.55	14.25	14	13.08	12.17	8.31
1964	14.11	13.89	13.16	12.35	11.84	9.045
1965	10.46	10.32	10.03	9.471	8.989	7.533
1966	20.23	19.78	18.78	17.81	16.62	9.815
1967	14.56	14.32	13.81	12.42	12.03	9.405
1968	16.25	15.95	14.96	13.72	13.71	9.883
1969	9.705	9.592	9.381	8.977	8.701	8.141
1970	7.192	7.107	6.808	6.518	6.315	5.628
1971	9.155	8.994	8.567	7.768	7.552	5.997
1972	14.06	13.79	12.77	11.13	10.97	7.519
1973	9.933	9.804	9.399	9.147	8.942	7.863
1974	11.55	11.37	10.72	10.49	10.18	7.541
1975	8.983	8.915	8.557	7.937	7.727	6.741
1976	7.696	7.583	7.158	6.469	6.103	5.436
1977	8.189	8.069	7.767	7.318	7.024	5.629
1978	8.669	8.522	7.975	7.244	7.121	5.444
1979	14.93	14.61	13.96	12.53	11.94	7.437
1980	8.67	8.555	8.244	7.867	7.6	6.508
1981	7.825	7.71	7.326	6.805	6.41	5.296
1982	9.609	9.441	8.828	8.119	7.838	5.618
1983	10.05	9.915	9.445	9.156	9.033	6.538
1984	7.864	7.77	7.415	7.078	7.047	6.296
1985	7.915	7.806	7.427	7.019	6.684	5.585
1986	13.7	13.42	12.78	11.15	10.32	6.736
1987	7.26	7.168	6.819	6.407	6.204	5.604
1988	5.693	5.621	5.353	4.92	4.867	4.432
1989	10.26	10.06	9.515	8.298	7.495	5.31
1990	6.961	6.87	6.528	6.139	6.089	5.327

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	20.23	19.78	18.78	17.81	16.62	9.883
0.0645161290322581	16.25	15.95	14.96	13.72	13.71	9.815
0.0967741935483871	14.93	14.61	14	13.08	12.17	9.405
0.129032258064516	14.56	14.32	13.96	12.53	12.03	9.045
0.161290322580645	14.55	14.25	13.81	12.42	11.94	8.31
0.193548387096774	14.11	13.89	13.16	12.35	11.84	8.141
0.225806451612903	14.06	13.79	12.78	11.15	10.97	7.863
0.258064516129032	13.7	13.42	12.77	11.14	10.63	7.541
0.290322580645161	13.46	13.16	12.2	11.13	10.32	7.533
0.32258064516129	11.55	11.37	10.72	10.49	10.18	7.519
0.354838709677419	10.46	10.32	10.03	9.471	9.033	7.437
0.387096774193548	10.26	10.06	9.515	9.156	8.989	6.741
0.419354838709677	10.05	9.915	9.445	9.147	8.942	6.736
0.451612903225806	9.933	9.804	9.399	8.977	8.701	6.538
0.483870967741936	9.705	9.592	9.381	8.298	7.838	6.508
0.516129032258065	9.609	9.441	8.828	8.119	7.727	6.389
0.548387096774194	9.155	8.994	8.567	7.937	7.6	6.296
0.580645161290323	8.983	8.915	8.557	7.867	7.552	5.997
0.612903225806452	8.67	8.555	8.244	7.768	7.495	5.629
0.645161290322581	8.669	8.522	7.975	7.318	7.121	5.628
0.67741935483871	8.444	8.263	7.767	7.244	7.047	5.618
0.709677419354839	8.189	8.069	7.606	7.078	7.024	5.604

0.741935483870968	7.915	7.806	7.427	7.019	6.684	5.585
0.774193548387097	7.864	7.77	7.415	6.805	6.41	5.444
0.806451612903226	7.825	7.71	7.326	6.678	6.38	5.436
0.838709677419355	7.696	7.583	7.158	6.518	6.315	5.327
0.870967741935484	7.26	7.168	6.819	6.469	6.204	5.31
0.903225806451613	7.192	7.107	6.808	6.407	6.103	5.296
0.935483870967742	6.961	6.87	6.528	6.139	6.089	4.432
0.967741935483871	5.693	5.621	5.353	4.92	4.867	2.98
0.1	14.893	14.581	13.996	13.025	12.156	9.369
			Average of yearly averages:			6.6662

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

Data used for this run:

Output File: tebFLTurfiRminavg

Metfile: w12834.dvf

PRZM scenario: FLTurfiC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.41	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	07-06	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.	
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT	0.078		
	FEXTRC	0.5		
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

Florida Turf Scenario – one curative application of 3.30 kg a.i./ha

A. Simulated with the non-sand Kd as an input parameter

stored as tebuconazoleFLTurfiB.out

Chemical: tebuconazole

PRZM environment: FLTurfiC.txt modified Monday, 24 November 2003 at 14:49:10

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 10:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	16.95	16.71	16.04	14.38	13.3	6.019
1962	36.1	35.77	34.21	31.52	29.36	15.5
1963	59.57	58.77	55.78	50.13	46.58	25.67
1964	30.45	30.13	28.88	26.64	25.27	20.72
1965	50.73	50.08	47.73	43.13	40.33	23.38
1966	99.38	98.09	95.77	89.59	83.96	45.02
1967	43.09	42.81	41.66	39.24	37.54	29.54
1968	37.75	37.31	35.82	33.15	31.42	20.96

1969	18.49	18.31	17.59	16.17	15.36	13.19
1970	13.39	13.24	12.73	12.22	11.53	8.379
1971	31.36	30.94	29.29	26.16	24.24	12.92
1972	43.09	42.73	40.96	36.73	34.1	19.66
1973	18.82	18.65	17.92	16.55	15.81	13.61
1974	22.41	22.14	21.27	19.38	18.09	11.5
1975	25.58	25.27	24.42	22.26	20.75	12.92
1976	14.56	14.41	13.79	12.58	11.81	9.32
1977	18.51	18.29	17.47	16.61	15.62	9.654
1978	22.38	22.1	21.01	19.04	17.78	11.6
1979	26.76	26.43	25.56	23.13	21.53	13.12
1980	19.71	19.49	18.72	17.19	16.34	11.9
1981	13.87	13.72	13.14	12.48	12.27	9.119
1982	49.16	48.48	46.15	41.45	38.42	19.44
1983	88.91	87.71	83.25	74.56	69.37	37.91
1984	35.01	34.79	33.87	31.93	30.56	24.3
1985	31.08	30.7	29.22	26.39	24.61	16.57
1986	20.16	19.94	19.17	17.64	16.76	12.58
1987	15.91	15.73	15.03	13.91	13.33	9.608
1988	12.36	12.21	11.65	10.62	10.01	7.244
1989	11.18	11.04	10.51	9.494	8.874	5.966
1990	10.62	10.49	9.984	9.376	8.853	5.672

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	99.38	98.09	95.77	89.59	83.96	45.02
0.0645161290322581	88.91	87.71	83.25	74.56	69.37	37.91
0.0967741935483871	59.57	58.77	55.78	50.13	46.58	29.54
0.129032258064516	50.73	50.08	47.73	43.13	40.33	25.67
0.161290322580645	49.16	48.48	46.15	41.45	38.42	24.3
0.193548387096774	43.09	42.81	41.66	39.24	37.54	23.38
0.225806451612903	43.09	42.73	40.96	36.73	34.1	20.96
0.258064516129032	37.75	37.31	35.82	33.15	31.42	20.72
0.290322580645161	36.1	35.77	34.21	31.93	30.56	19.66
0.32258064516129	35.01	34.79	33.87	31.52	29.36	19.44
0.354838709677419	31.36	30.94	29.29	26.64	25.27	16.57
0.387096774193548	31.08	30.7	29.22	26.39	24.61	15.5
0.419354838709677	30.45	30.13	28.88	26.16	24.24	13.61
0.451612903225806	26.76	26.43	25.56	23.13	21.53	13.19
0.483870967741936	25.58	25.27	24.42	22.26	20.75	13.12
0.516129032258065	22.41	22.14	21.27	19.38	18.09	12.92
0.548387096774194	22.38	22.1	21.01	19.04	17.78	12.92
0.580645161290323	20.16	19.94	19.17	17.64	16.76	12.58
0.612903225806452	19.71	19.49	18.72	17.19	16.34	11.9
0.645161290322581	18.82	18.65	17.92	16.61	15.81	11.6
0.67741935483871	18.51	18.31	17.59	16.55	15.62	11.5
0.709677419354839	18.49	18.29	17.47	16.17	15.36	9.654
0.741935483870968	16.95	16.71	16.04	14.38	13.33	9.608
0.774193548387097	15.91	15.73	15.03	13.91	13.3	9.32
0.806451612903226	14.56	14.41	13.79	12.58	12.27	9.119
0.838709677419355	13.87	13.72	13.14	12.48	11.81	8.379
0.870967741935484	13.39	13.24	12.73	12.22	11.53	7.244
0.903225806451613	12.36	12.21	11.65	10.62	10.01	6.019
0.935483870967742	11.18	11.04	10.51	9.494	8.874	5.966
0.967741935483871	10.62	10.49	9.984	9.376	8.853	5.672
0.1	58.686	57.901	54.975	49.43	45.955	29.153
Average of yearly averages:						16.0997

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

Data used for this run:

Output File: tebuconazoleFLturfB

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	

Vapor Pressure vapr 1.3e-8 torr
Solubility sol 320 mg/L
Kd Kd 12.7 mg/L
Koc Koc mg/L
Photolysis half-life kdp 590 days Half-life
Aerobic Aquatic Metabolism kbacw 1592 days Halfife
Anaerobic Aquatic Metabolism kbacs 2126 days Halfife
Aerobic Soil Metabolism asm 796 days Halfife
Hydrolysis: pH 7 0 days Half-life
Method: CAM 2 integer See PRZM manual
Incorporation Depth: DEPI 0 cm
Application Rate: TAPP 3.30 kg/ha
Application Efficiency: APPEFF 0.99 fraction
Spray Drift DRFT 0.064 fraction of application rate applied to pond
Application Date Date 07-06 dd/mm or dd/mm or dd-mm or dd-mmm
Record 17: FILTRA
IPSCND 1
UPTKF
Record 18: PLVKRT
PLDKRT 0.078
FEXTRC 0.5
Flag for Index Res. Run IR IR
Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

Pennsylvania Turf Scenario – three preventive applications of 1.65 kg a.i./ha every 14 days

A. Simulated with the non-sand Kd as an input parameter

stored as tebuconazolePA turfA.out

Chemical: tebuconazole

PRZM environment: PA turfC.txt modified Monday, 24 November 2003 at 14:49:51

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 10:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	21.26	21.05	20.61	19.27	18.29	9.112
1962	33.34	33.05	31.91	29.85	28.81	19.64
1963	26.21	26.04	25.36	24.07	23.45	19.91
1964	24.34	24.18	23.7	22.77	22.03	17.89
1965	22.73	22.57	21.95	20.72	20.12	16.35
1966	21.72	21.57	20.96	19.74	19.22	15.77
1967	58.44	57.9	56.44	53.28	50.8	31.28
1968	51.06	50.7	49.28	46.83	45.02	35.87
1969	34.71	34.51	33.88	32.72	32.42	28.89
1970	29.49	29.31	28.59	27.47	27.02	23.33
1971	31.07	30.85	29.97	28.32	27.81	22.27
1972	62.12	61.59	59.48	55.57	53.36	35.07
1973	73.19	72.61	70.3	65.8	62.94	46.33
1974	54.84	54.52	53.23	51.36	50.32	43.22
1975	47.64	47.33	46.47	44.27	42.71	35.61
1976	34.13	33.93	33.37	32.06	31.52	28.21
1977	31.29	31.09	30.28	28.94	28	23.51
1978	33.32	33.08	32.13	31.14	30.48	23.66
1979	44.86	44.5	43.1	41.45	40.32	28.97
1980	32.56	32.36	31.58	30.21	29.33	25.37
1981	33.8	33.56	33.06	31.87	31.04	24.11
1982	56.44	55.97	54.1	50.48	48.38	33.07
1983	40.15	39.91	38.93	37.21	36.2	31.39
1984	61.8	61.28	59.59	57.67	55.47	38.17
1985	43.98	43.72	42.66	41.19	40.1	34.81
1986	38.45	38.2	37.21	35.76	34.68	28.79
1987	32.82	32.61	31.75	30.37	29.72	24.83
1988	40.2	39.89	38.69	37.31	36.97	27.75
1989	43.97	43.65	42.81	40.71	39.25	30.42
1990	53.4	52.98	51.38	49.39	48.1	35.32

Sorted results

Prob. Peak 96 hr 21 Day 60 Day 90 Day Yearly

0.032258064516129	73.19	72.61	70.3	65.8	62.94	46.33
0.0645161290322581	62.12	61.59	59.59	57.67	55.47	43.22
0.0967741935483871	61.8	61.28	59.48	55.57	53.36	38.17
0.129032258064516	58.44	57.9	56.44	53.28	50.8	35.87
0.161290322580645	56.44	55.97	54.1	51.36	50.32	35.61
0.193548387096774	54.84	54.52	53.23	50.48	48.38	35.32
0.225806451612903	53.4	52.98	51.38	49.39	48.1	35.07
0.258064516129032	51.06	50.7	49.28	46.83	45.02	34.81
0.290322580645161	47.64	47.33	46.47	44.27	42.71	33.07
0.32258064516129	44.86	44.5	43.1	41.45	40.32	31.39
0.354838709677419	43.98	43.72	42.81	41.19	40.1	31.28
0.387096774193548	43.97	43.65	42.66	40.71	39.25	30.42
0.419354838709677	40.2	39.91	38.93	37.31	36.97	28.97
0.451612903225806	40.15	39.89	38.69	37.21	36.2	28.89
0.483870967741936	38.45	38.2	37.21	35.76	34.68	28.79
0.516129032258065	34.71	34.51	33.88	32.72	32.42	28.21
0.548387096774194	34.13	33.93	33.37	32.06	31.52	27.75
0.580645161290323	33.8	33.56	33.06	31.87	31.04	25.37
0.612903225806452	33.34	33.08	32.13	31.14	30.48	24.83
0.645161290322581	33.32	33.05	31.91	30.37	29.72	24.11
0.67741935483871	32.82	32.61	31.75	30.21	29.33	23.66
0.709677419354839	32.56	32.36	31.58	29.85	28.81	23.51
0.741935483870968	31.29	31.09	30.28	28.94	28	23.33
0.774193548387097	31.07	30.85	29.97	28.32	27.81	22.27
0.806451612903226	29.49	29.31	28.59	27.47	27.02	19.91
0.838709677419355	26.21	26.04	25.36	24.07	23.45	19.64
0.870967741935484	24.34	24.18	23.7	22.77	22.03	17.89
0.903225806451613	22.73	22.57	21.95	20.72	20.12	16.35
0.935483870967742	21.72	21.57	20.96	19.74	19.22	15.77
0.967741935483871	21.26	21.05	20.61	19.27	18.29	9.112
0.1	61.464	60.942	59.176	55.341	53.104	37.94
Average of yearly averages:						27.9640666666667

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

Data used for this run:

Output File: tebuconazolePATurfA

Metfile: w14737.dvf

PRZM scenario: PATurfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	1.65	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	07-05	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.	
Record 17: FILTRA				
IPSCND	1			
UPTKF				
Record 18: PLVKRT				
PLDKRT	0.078			
FEXTRC	0.5			
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

Pennsylvania Turf Scenario – three preventive applications of 1.65 kg a.i./ha every 14 days

B. Simulated with the average K_{oc} value as an input parameter

stored as tebuPA turfIIRavg.out

Chemical: tebuconazole

PRZM environment: PA turfC.txt

modified Monday, 24 November 2003 at 14:49:51

EXAMS environment: ir298.exv

modified Thuday, 29 August 2002 at 16:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 10:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	21.2	20.78	19.19	17.25	15.89	7.745
1962	25.58	25.19	23.76	21.8	21.43	16.06
1963	24.15	23.92	23.41	22.39	22.12	18.84
1964	26.4	26.14	25.43	24.1	23.28	20.03
1965	25.85	25.59	24.6	23.25	22.4	19.43
1966	25.02	24.76	23.77	22.42	21.63	19.61
1967	45.06	44.36	42.64	39.4	37.35	26.83
1968	42.65	42.13	40.41	37.47	35.65	28.91
1969	51.64	50.89	48.29	43.74	41.34	31.07
1970	36.26	35.97	34.88	33.59	33.41	30.81
1971	48.54	47.99	46.51	44.22	43.05	34
1972	74.02	72.94	68.89	63.39	59.99	45.2
1973	74.93	73.98	70.41	64.46	62.22	51.11
1974	53.68	53.32	52.71	51.29	50.63	47.86
1975	49.36	48.95	47.74	46.35	45.37	41.71
1976	47.82	47.49	45.84	44.07	43.31	38.43
1977	41.05	40.75	40.06	38.49	37.65	34.49
1978	44.72	44.25	42.48	39.72	38.13	32.65
1979	41.93	41.52	40.22	38.63	37.86	34.15
1980	37.44	37.14	36.02	34.59	33.64	30.56
1981	35.39	35.06	34.48	33.2	32.19	27.71
1982	52.2	51.55	49.2	45.25	43.93	33.39
1983	40.98	40.63	39.33	37.74	36.92	33.32
1984	57.51	56.83	54.65	53.58	52.18	39.01
1985	55.79	55.2	53	49.53	47.83	40.31
1986	45.87	45.53	44.22	42.71	41.78	38.4
1987	49.49	48.97	47.1	43.84	42.45	35.88
1988	48.31	47.83	46.46	44.49	43.82	37.55
1989	44.48	44.08	43.32	41.71	40.68	36.25
1990	53.32	52.75	50.62	47.06	45.88	38.7

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	74.93	73.98	70.41	64.46	62.22	51.11
0.0645161290322581	74.02	72.94	68.89	63.39	59.99	47.86
0.0967741935483871	57.51	56.83	54.65	53.58	52.18	45.2
0.129032258064516	55.79	55.2	53	51.29	50.63	41.71
0.161290322580645	53.68	53.32	52.71	49.53	47.83	40.31
0.193548387096774	53.32	52.75	50.62	47.06	45.88	39.01
0.225806451612903	52.2	51.55	49.2	46.35	45.37	38.7
0.258064516129032	51.64	50.89	48.29	45.25	43.93	38.43
0.290322580645161	49.49	48.97	47.74	44.49	43.82	38.4
0.32258064516129	49.36	48.95	47.1	44.22	43.31	37.55
0.354838709677419	48.54	47.99	46.51	44.07	43.05	36.25
0.387096774193548	48.31	47.83	46.46	43.84	42.45	35.88
0.419354838709677	47.82	47.49	45.84	43.74	41.78	34.49
0.451612903225806	45.87	45.53	44.22	42.71	41.34	34.15
0.483870967741936	45.06	44.36	43.32	41.71	40.68	34
0.516129032258065	44.72	44.25	42.64	39.72	38.13	33.39
0.548387096774194	44.48	44.08	42.48	39.4	37.86	33.32
0.580645161290323	42.65	42.13	40.41	38.63	37.65	32.65
0.612903225806452	41.93	41.52	40.22	38.49	37.35	31.07
0.645161290322581	41.05	40.75	40.06	37.74	36.92	30.81
0.67741935483871	40.98	40.63	39.33	37.47	35.65	30.56
0.709677419354839	37.44	37.14	36.02	34.59	33.64	28.91
0.741935483870968	36.26	35.97	34.88	33.59	33.41	27.71
0.774193548387097	35.39	35.06	34.48	33.2	32.19	26.83
0.806451612903226	26.4	26.14	25.43	24.1	23.28	20.03

0.838709677419355	25.85	25.59	24.6	23.25	22.4	19.61
0.870967741935484	25.58	25.19	23.77	22.42	22.12	19.43
0.903225806451613	25.02	24.76	23.76	22.39	21.63	18.84
0.935483870967742	24.15	23.92	23.41	21.8	21.43	16.06
0.967741935483871	21.2	20.78	19.19	17.25	15.89	7.745
0.1	57.338	56.667	54.485	53.351	52.025	44.851
Average of yearly averages:						32.3338333333333

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

Data used for this run:

Output File: tebuPATurfRavg

Metfile: w14737.dvf

PRZM scenario: PA turfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility sol	320	mg/L		
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	1.65	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	07-05	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.	
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT	0.078		
	FEXTRC	0.5		
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF total	none, monthly or total(average of entire run)		

Pennsylvania Turf Scenario – one curative application of 3.30 kg a.i./ha

A. Simulated with the non-sand Kd as an input parameter

stored as tebuconazolePATurfB.out

Chemical: tebuconazole

PRZM environment: PA turfC.txt modified Monday, 24 November 2003 at 14:49:51

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 10:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	12.28	12.16	11.96	11.18	10.63	5.665
1962	16.79	16.66	16.14	15.16	14.61	10.77
1963	16.06	15.95	15.5	14.59	14	11.13
1964	15.43	15.32	14.87	14.05	13.5	10.46
1965	14.92	14.81	14.37	13.5	12.93	9.956
1966	14.64	14.53	14.1	13.24	12.67	9.889
1967	43.17	42.79	41.6	39.12	37.32	23.61
1968	35.36	35.13	34.19	32.33	31.1	25.66
1969	25.23	25.08	24.49	23.33	22.61	19.66
1970	20.55	20.42	19.91	18.85	18.22	15.23
1971	24.06	23.87	23.29	22.35	21.45	15.78

1972	39.16	38.82	37.65	36.5	34.98	23.29
1973	32.69	32.48	31.6	31.1	30.29	24.62
1974	39.75	39.45	38.24	36.64	35.39	26.37
1975	26.78	26.63	26.07	25.74	25.12	21.63
1976	21.81	21.68	21.14	20.12	19.42	16.51
1977	18.67	18.55	18.05	17.55	17.07	13.85
1978	31.78	31.62	30.68	28.58	27.24	18.42
1979	31.85	31.61	30.7	28.85	27.71	20.87
1980	24.01	23.85	23.25	22.21	21.4	17.76
1981	33.11	32.84	31.87	30.01	28.67	20.17
1982	29.54	29.36	28.8	27.75	26.7	20.83
1983	22.58	22.45	21.98	21.11	20.45	17.24
1984	37.66	37.35	36.06	33.63	32.05	21.89
1985	24.74	24.59	24	23.32	22.7	19.45
1986	22.92	22.76	22.15	21	20.4	16.38
1987	18.91	18.79	18.29	17.63	17.3	14.19
1988	44.46	44.04	42.41	39.24	37.29	23.64
1989	41.68	41.37	40.24	38.32	36.89	27.79
1990	41.89	41.59	40.35	37.96	36.44	28.14

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	44.46	44.04	42.41	39.24	37.32	28.14
0.0645161290322581	43.17	42.79	41.6	39.12	37.29	27.79
0.0967741935483871	41.89	41.59	40.35	38.32	36.89	26.37
0.129032258064516	41.68	41.37	40.24	37.96	36.44	25.66
0.161290322580645	39.75	39.45	38.24	36.64	35.39	24.62
0.193548387096774	39.16	38.82	37.65	36.5	34.98	23.64
0.225806451612903	37.66	37.35	36.06	33.63	32.05	23.61
0.258064516129032	35.36	35.13	34.19	32.33	31.1	23.29
0.290322580645161	33.11	32.84	31.87	31.1	30.29	21.89
0.32258064516129	32.69	32.48	31.6	30.01	28.67	21.63
0.354838709677419	31.85	31.62	30.7	28.85	27.71	20.87
0.387096774193548	31.78	31.61	30.68	28.58	27.24	20.83
0.419354838709677	29.54	29.36	28.8	27.75	26.7	20.17
0.451612903225806	26.78	26.63	26.07	25.74	25.12	19.66
0.483870967741936	25.23	25.08	24.49	23.33	22.7	19.45
0.516129032258065	24.74	24.59	24	23.32	22.61	18.42
0.548387096774194	24.06	23.87	23.29	22.35	21.45	17.76
0.580645161290323	24.01	23.85	23.25	22.21	21.4	17.24
0.612903225806452	22.92	22.76	22.15	21.11	20.45	16.51
0.645161290322581	22.58	22.45	21.98	21	20.4	16.38
0.67741935483871	21.81	21.68	21.14	20.12	19.42	15.78
0.709677419354839	20.55	20.42	19.91	18.85	18.22	15.23
0.741935483870968	18.91	18.79	18.29	17.63	17.3	14.19
0.774193548387097	18.67	18.55	18.05	17.55	17.07	13.85
0.806451612903226	16.79	16.66	16.14	15.16	14.61	11.13
0.838709677419355	16.06	15.95	15.5	14.59	14	10.77
0.870967741935484	15.43	15.32	14.87	14.05	13.5	10.46
0.903225806451613	14.92	14.81	14.37	13.5	12.93	9.956
0.935483870967742	14.64	14.53	14.1	13.24	12.67	9.889
0.967741935483871	12.28	12.16	11.96	11.18	10.63	5.665

0.1 41.869 41.568 40.339 38.284 36.845 26.299
Average of yearly averages: 18.361666666667

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

Data used for this run:

Output File: tebuconazolePAturfB

Metfile: w14737.dvf

PRZM scenario: PAturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	

Koc	Koc	mg/L			
Photolysis half-life	kdp	590	days	Half-life	
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife	
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife	
Aerobic Soil Metabolism	asm	796	days	Halfife	
Hydrolysis:	pH 7	0	days	Half-life	
Method:	CAM 2	integer	See PRZM manual		
Incorporation Depth:	DEPI	0	cm		
Application Rate:	TAPP	3.3	kg/ha		
Application Efficiency:	APPEFF	0.99	fraction		
Spray Drift	DRFT	0.064	fraction of application rate applied to pond		
Application Date	Date	07-05	dd/mm or dd/mmm or dd-mm or dd-mmm		
Record 17: FILTRA					
	IPSCND	1			
	UPTKF				
Record 18: PLVKRT					
	PLDKRT	0.078			
	FEXTRC	0.5			
Flag for Index Res. Run	IR	IR			
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)		

FL Turf Scenario – three preventive applications of 1.65 kg a.i./ha every 14 days

A. Simulated with the non-sand Kd as an input parameter

stored as tebuFLturfAIRKdA.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 16 June 2003 at 12:48:06

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 08:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	50.9	50.21	47.98	44.93	42.72	19.01
1962	93.13	91.91	87.45	78.8	73.19	40.92
1963	108	107	104	97.5	91.5	55.17
1964	71.08	70.3	67.71	63.92	60.79	46.35
1965	61.87	61.18	58.5	55.1	52.35	37.2
1966	123	122	117	112	105	58.37
1967	78.69	77.85	75.13	68.83	65.45	51.56
1968	96.93	95.76	91.6	83.12	78.39	49.88
1969	51.76	51.23	49.13	45.93	44.09	36.65
1970	42.87	42.39	40.5	37.11	35.29	25.78
1971	63.02	62.22	59.11	54.17	50.65	29.83
1972	57.47	56.79	54.12	50.42	48.45	32.33
1973	42.32	41.86	40.01	39.25	37.66	27.86
1974	60.48	59.75	57.17	53.38	50.41	31.1
1975	55.04	54.69	52.52	48.07	45.62	31.31
1976	41.23	40.77	38.95	35.7	34.05	25.36
1977	43.62	43.12	41.24	38.51	37.37	25.09
1978	43.4	42.9	41.32	38.36	36.7	25.34
1979	89.14	87.97	84.81	76.5	71.01	38.27
1980	58.61	57.97	56.17	52.21	49.51	36.83
1981	46.85	46.33	44.3	41.62	39.58	28.96
1982	62.36	61.63	59.26	55.86	53.52	33.21
1983	72.33	71.48	68.13	65.1	63.16	40.75
1984	49.63	49.1	47.72	44.88	42.83	32.83
1985	46.77	46.23	44.11	40.78	38.68	26.9
1986	62.18	61.43	59.25	53.86	51.29	31.16
1987	48.36	47.82	45.65	41.95	39.77	29.08
1988	39.45	39	37.44	34.27	32.91	23.61
1989	37.29	36.86	35.15	31.98	30.43	20.95
1990	37.05	36.62	35.51	32.78	31.1	20.61

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	123	122	117	112	105	58.37
0.0645161290322581	108	107	104	97.5	91.5	55.17
0.0967741935483871	96.93	95.76	91.6	83.12	78.39	51.56
0.129032258064516	93.13	91.91	87.45	78.8	73.19	49.88

0.161290322580645	89.14	87.97	84.81	76.5	71.01	46.35
0.193548387096774	78.69	77.85	75.13	68.83	65.45	40.92
0.225806451612903	72.33	71.48	68.13	65.1	63.16	40.75
0.258064516129032	71.08	70.3	67.71	63.92	60.79	38.27
0.290322580645161	63.02	62.22	59.26	55.86	53.52	37.2
0.32258064516129	62.36	61.63	59.25	55.1	52.35	36.83
0.354838709677419	62.18	61.43	59.11	54.17	51.29	36.65
0.387096774193548	61.87	61.18	58.5	53.86	50.65	33.21
0.419354838709677	60.48	59.75	57.17	53.38	50.41	32.83
0.451612903225806	58.61	57.97	56.17	52.21	49.51	32.33
0.483870967741936	57.47	56.79	54.12	50.42	48.45	31.31
0.516129032258065	55.04	54.69	52.52	48.07	45.62	31.16
0.548387096774194	51.76	51.23	49.13	45.93	44.09	31.1
0.580645161290323	50.9	50.21	47.98	44.93	42.83	29.83
0.612903225806452	49.63	49.1	47.72	44.88	42.72	29.08
0.645161290322581	48.36	47.82	45.65	41.95	39.77	28.96
0.67741935483871	46.85	46.33	44.3	41.62	39.58	27.86
0.709677419354839	46.77	46.23	44.11	40.78	38.68	26.9
0.741935483870968	43.62	43.12	41.32	39.25	37.66	25.78
0.774193548387097	43.4	42.9	41.24	38.51	37.37	25.36
0.806451612903226	42.87	42.39	40.5	38.36	36.7	25.34
0.838709677419355	42.32	41.86	40.01	37.11	35.29	25.09
0.870967741935484	41.23	40.77	38.95	35.7	34.05	23.61
0.903225806451613	39.45	39	37.44	34.27	32.91	20.95
0.935483870967742	37.29	36.86	35.51	32.78	31.1	20.61
0.967741935483871	37.05	36.62	35.15	31.98	30.43	19.01
0.1	96.55	95.375	91.185	82.688	77.87	51.392
Average of yearly averages:						33.7423333333333

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

Data used for this run:

Output File: tebuFLturfAIRKdA

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	1.65	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	07-06	dd/mm or dd/mm 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.	
Record 17: FILTRA				
IPSCND	1			
UPTKF				
Record 18: PLVKRT				
PLDKRT	0.078			
FEXTRC	0.5			
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

B. Simulated with the average K_{oc} value as an input parameter

stored as tebuFLturfAIRavgA.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 16 June 2003 at 12:48:06

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 08:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	41.1	40.27	37.67	34.18	34.37	15.92
1962	69.73	68.2	63.13	56.78	53.61	32.61
1963	76.06	74.57	71.42	66.34	61.68	41.74
1964	67.39	66.44	63.18	60.74	59.86	45.39
1965	61.6	60.65	57.13	53.65	50.69	39.98
1966	99.01	96.94	91.46	85.89	80.03	49
1967	75.34	74.08	70.92	63.59	61.24	47.51
1968	83.52	81.98	76.91	69.72	68.67	49.4
1969	55.92	55.16	52.31	48.87	48.32	42.7
1970	49.33	48.59	45.83	42.34	40.03	32.96
1971	56.92	55.88	52.04	46.88	45.23	34.38
1972	68.9	67.68	63.16	55.79	54.52	40.23
1973	53.84	53.16	51.01	50.2	49.53	41.57
1974	60.01	59.12	55.99	54.8	54.23	40.31
1975	55.56	54.95	52.64	48.21	45.97	37.23
1976	46.68	45.96	43.25	39.81	38.39	32.21
1977	45.8	45.17	44.13	42.59	42.07	32.98
1978	49.26	48.5	45.64	42.85	41.88	32.25
1979	77.8	76.2	72.6	65.1	61.55	39.92
1980	55.02	54.16	51.43	47.81	45.7	36.33
1981	45.19	44.47	42.72	39.7	40.05	31.68
1982	55.48	54.55	51.48	48.61	46.67	32.94
1983	54.55	53.72	51.28	49.24	48.25	36.51
1984	50.32	49.56	47.53	44.44	43.05	35.59
1985	49.59	48.77	45.74	42.27	41.13	32.81
1986	70.85	69.51	66.47	58.69	55.43	37.24
1987	49.59	48.82	45.94	42.31	40.33	32.86
1988	43.24	42.54	39.98	36.58	35.17	28.33
1989	51.45	50.61	48.31	43	39.72	31.71
1990	46.22	45.49	43.36	40.67	39.72	31.75

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	99.01	96.94	91.46	85.89	80.03	49.4
0.0645161290322581	83.52	81.98	76.91	69.72	68.67	49
0.0967741935483871	77.8	76.2	72.6	66.34	61.68	47.51
0.129032258064516	76.06	74.57	71.42	65.1	61.55	45.39
0.161290322580645	75.34	74.08	70.92	63.59	61.24	42.7
0.193548387096774	70.85	69.51	66.47	60.74	59.86	41.74
0.225806451612903	69.73	68.2	63.18	58.69	55.43	41.57
0.258064516129032	68.9	67.68	63.16	56.78	54.52	40.31
0.290322580645161	67.39	66.44	63.13	55.79	54.23	40.23
0.32258064516129	61.6	60.65	57.13	54.8	53.61	39.98
0.354838709677419	60.01	59.12	55.99	53.65	50.69	39.92
0.387096774193548	56.92	55.88	52.64	50.2	49.53	37.24
0.419354838709677	55.92	55.16	52.31	49.24	48.32	37.23
0.451612903225806	55.56	54.95	52.04	48.87	48.25	36.51
0.483870967741936	55.48	54.55	51.48	48.61	46.67	36.33
0.516129032258065	55.02	54.16	51.43	48.21	45.97	35.59
0.548387096774194	54.55	53.72	51.28	47.81	45.7	34.38
0.580645161290323	53.84	53.16	51.01	46.88	45.23	32.98
0.612903225806452	51.45	50.61	48.31	44.44	43.05	32.96
0.645161290322581	50.32	49.56	47.53	43	42.07	32.94
0.67741935483871	49.59	48.82	45.94	42.85	41.88	32.86
0.709677419354839	49.59	48.77	45.83	42.59	41.13	32.81
0.741935483870968	49.33	48.59	45.74	42.34	40.33	32.61
0.774193548387097	49.26	48.5	45.64	42.31	40.05	32.25
0.806451612903226	46.68	45.96	44.13	42.27	40.03	32.21
0.838709677419355	46.22	45.49	43.36	40.67	39.72	31.75
0.870967741935484	45.8	45.17	43.25	39.81	39.72	31.71

0.903225806451613	45.19	44.47	42.72	39.7	38.39	31.68
0.935483870967742	43.24	42.54	39.98	36.58	35.17	28.33
0.967741935483871	41.1	40.27	37.67	34.18	34.37	15.92
0.1	77.626	76.037	72.482	66.216	61.667	47.298
Average of yearly averages:						36.5346666666667

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

Data used for this run:

Output File: tebuFLturfAIRavgA

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
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Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	1.65	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	07-06	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.

Record 17: FILTRA

IPSCND 1

UPTKF

Record 18: PLVKRT

PLDKRT 0.078

FEXTRC 0.5

Flag for Index Res. Run IR IR

Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

PA Turf scenario mimics Residential Ornamental uses – eight applications of 0.56 kg a.i./ha every 7 days, ground applied

A. Simulated with the non-sand Kd as an input parameter

a) Ground Applied

stored as TebuPAResidOrnamentIRKdG.out

Chemical: tebuconazole

PRZM environment: PAAturfC.txt modified Satday, 12 October 2002 at 15:27:02

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 08:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	21.72	21.51	20.99	19.63	18.62	8.986
1962	31.05	30.79	29.99	28.28	27.46	18.95
1963	23.75	23.61	23.07	22.27	21.76	18.91
1964	22.64	22.49	21.93	20.96	20.32	16.78
1965	20.23	20.1	19.58	18.83	18.31	15.19
1966	19.22	19.09	18.58	17.83	17.52	14.56
1967	51.62	51.16	49.79	47.67	45.53	27.56
1968	47.04	46.72	46.28	44.76	43.1	33.53
1969	32.81	32.63	31.94	30.96	30.74	27.69
1970	27	26.85	26.3	25.96	25.59	22.5

1971	27.14	26.96	26.4	25.58	25.4	20.91
1972	75.65	74.96	72.22	67.07	63.79	39.32
1973	74.97	74.4	72.1	67.6	64.73	49.36
1974	51.9	51.6	50.69	48.61	47.7	42.57
1975	41.09	40.85	40.24	39.36	38.36	33.16
1976	30.73	30.61	29.93	29	29.05	26.31
1977	27.99	27.82	27.26	26.36	25.63	21.98
1978	28.31	28.12	27.38	26.68	26.26	21.15
1979	33.85	33.61	33.01	32.43	32	24.15
1980	26.59	26.43	25.88	25.01	24.37	21.19
1981	29.67	29.46	28.69	27.32	26.46	20.67
1982	47.66	47.26	46.06	43.27	41.78	28.59
1983	38.69	38.43	37.41	35.35	34.05	28.75
1984	63.84	63.34	62.25	61.26	59.35	39.82
1985	46.79	46.52	45.61	44.09	43.2	37.91
1986	36.01	35.8	35.23	34.32	33.62	29.45
1987	33.21	32.99	32.1	30.81	29.84	24.84
1988	40.58	40.29	39.77	39.09	38.8	28.88
1989	42.33	42.05	40.91	39.38	38.17	30.52
1990	50.82	50.46	49.41	48.91	48.41	35.78

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly	
0.032258064516129	75.65	74.96	72.22	67.6	64.73	49.36	
0.0645161290322581	74.97	74.4	72.1	67.07	63.79	42.57	
0.0967741935483871	63.84	63.34	62.25	61.26	59.35	39.82	
0.129032258064516	51.9	51.6	50.69	48.91	48.41	39.32	
0.161290322580645	51.62	51.16	49.79	48.61	47.7	37.91	
0.193548387096774	50.82	50.46	49.41	47.67	45.53	35.78	
0.225806451612903	47.66	47.26	46.28	44.76	43.2	33.53	
0.258064516129032	47.04	46.72	46.06	44.09	43.1	33.16	
0.290322580645161	46.79	46.52	45.61	43.27	41.78	30.52	
0.32258064516129	42.33	42.05	40.91	39.38	38.8	29.45	
0.354838709677419	41.09	40.85	40.24	39.36	38.36	28.88	
0.387096774193548	40.58	40.29	39.77	39.09	38.17	28.75	
0.419354838709677	38.69	38.43	37.41	35.35	34.05	28.59	
0.451612903225806	36.01	35.8	35.23	34.32	33.62	27.69	
0.483870967741936	33.85	33.61	33.01	32.43	32	27.56	
0.516129032258065	33.21	32.99	32.1	30.96	30.74	26.31	
0.548387096774194	32.81	32.63	31.94	30.81	29.84	24.84	
0.580645161290323	31.05	30.79	29.99	29	29.05	24.15	
0.612903225806452	30.73	30.61	29.93	28.28	27.46	22.5	
0.645161290322581	29.67	29.46	28.69	27.32	26.46	21.98	
0.67741935483871	28.31	28.12	27.38	26.68	26.26	21.19	
0.709677419354839	27.99	27.82	27.26	26.36	25.63	21.15	
0.741935483870968	27.14	26.96	26.4	25.96	25.59	20.91	
0.774193548387097	27	26.85	26.3	25.58	25.4	20.67	
0.806451612903226	26.59	26.43	25.88	25.01	24.37	18.95	
0.838709677419355	23.75	23.61	23.07	22.27	21.76	18.91	
0.870967741935484	22.64	22.49	21.93	20.96	20.32	16.78	
0.903225806451613	21.72	21.51	20.99	19.63	18.62	15.19	
0.935483870967742	20.23	20.1	19.58	18.83	18.31	14.56	
0.967741935483871	19.22	19.09	18.58	17.83	17.52	8.986	

0.1 62.646 62.166 61.094 60.025 58.256 39.77

Average of yearly averages: 26.9988666666667

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

Data used for this run:

Output File: TebuPAResidOrnamentIRKdG

Metfile: w14737.dvf

PRZM scenario: PAturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility sol	320	mg/L		

Kd	Kd	12.7	mg/L		
Koc	Koc		mg/L		
Photolysis half-life	kdp	590	days	Half-life	
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife	
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife	
Aerobic Soil Metabolism	asm	796	days	Halfife	
Hydrolysis:	pH 7	0	days	Half-life	
Method:	CAM	2	integer	See PRZM manual	
Incorporation Depth:	DEPI	0	cm		
Application Rate:	TAPP	0.56	kg/ha		
Application Efficiency:	APPEFF	0.99	fraction		
Spray Drift	DRFT	0.064	fraction of application rate applied to pond		
Application Date	Date	01-05	dd/mm or dd/mm or dd-mm or dd-mmm		
Interval 1	interval	7	days	Set to 0 or delete line for single app.	
Interval 2	interval	7	days	Set to 0 or delete line for single app.	
Interval 3	interval	7	days	Set to 0 or delete line for single app.	
Interval 4	interval	7	days	Set to 0 or delete line for single app.	
Interval 5	interval	7	days	Set to 0 or delete line for single app.	
Interval 6	interval	7	days	Set to 0 or delete line for single app.	
Interval 7	interval	7	days	Set to 0 or delete line for single app.	
Record 17:	FILTRA				
	IPSCND	1			
	UPTKF				
Record 18:	PLVKRT				
	PLDKRT	0.078			
	FEXTRC	0.5			
Flag for Index Res. Run	IR	IR			
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)		

b) Aerially Applied

stored as TebuPAResidOrnamentIRKdA.out

Chemical: tebuconazole

PRZM environment: PA turfC.txt modified Satday, 12 October 2002 at 15:27:02

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 08:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	33.12	32.8	32.27	30.14	28.65	15.1
1962	49.88	49.47	47.97	45.29	43.72	30.47
1963	46.1	45.79	44.54	42.73	41.5	33.59
1964	46.74	46.42	45.13	43.12	41.76	33.23
1965	45.38	45.07	43.84	42.02	40.74	32.65
1966	44.95	44.64	43.4	41.57	40.44	32.55
1967	75.6	74.96	73.63	70.16	67.16	45.34
1968	72.11	71.62	70.19	67.76	65.49	51.22
1969	57.55	57.2	55.81	54.52	53.62	45.68
1970	52.99	52.66	51.32	49.88	48.79	40.75
1971	53.13	52.77	51.42	49.53	48.61	39.23
1972	99.37	98.54	95.18	88.77	84.73	56.87
1973	98.13	97.41	94.5	88.78	85.11	66.52
1974	76.86	76.39	74.74	71.66	69.94	60.01
1975	66.52	66.1	64.71	62.81	61.01	50.99
1976	56.48	56.13	54.73	52.69	52.01	44.38
1977	53.91	53.56	52.22	50.26	48.79	40.23
1978	53.19	52.87	52.14	50.55	49.39	39.43
1979	59.53	59.12	57.73	56.12	54.84	42.32
1980	52.54	52.2	50.87	48.94	47.5	39.4
1981	55.24	54.85	53.55	51.08	49.5	38.89
1982	72.78	72.22	70.29	66.28	64	46.58
1983	64.1	63.67	61.95	58.53	56.7	46.73
1984	87.81	87.14	85.71	83.6	81.11	57.29
1985	71.89	71.45	69.81	67.18	65.59	55.47
1986	61.55	61.17	59.81	57.72	56.32	47.36
1987	58.62	58.22	56.63	54.07	52.54	42.96
1988	65.97	65.51	64.09	62.43	61.24	46.81
1989	67.47	67.01	65.36	62.73	60.81	48.41
1990	75.09	74.56	73.09	71.78	70.65	53.47

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	99.37	98.54	95.18	88.78	85.11	66.52
0.0645161290322581	98.13	97.41	94.5	88.77	84.73	60.01
0.0967741935483871	87.81	87.14	85.71	83.6	81.11	57.29
0.129032258064516	76.86	76.39	74.74	71.78	70.65	56.87
0.161290322580645	75.6	74.96	73.63	71.66	69.94	55.47
0.193548387096774	75.09	74.56	73.09	70.16	67.16	53.47
0.225806451612903	72.78	72.22	70.29	67.76	65.59	51.22
0.258064516129032	72.11	71.62	70.19	67.18	65.49	50.99
0.290322580645161	71.89	71.45	69.81	66.28	64	48.41
0.32258064516129	67.47	67.01	65.36	62.81	61.24	47.36
0.354838709677419	66.52	66.1	64.71	62.73	61.01	46.81
0.387096774193548	65.97	65.51	64.09	62.43	60.81	46.73
0.419354838709677	64.1	63.67	61.95	58.53	56.7	46.58
0.451612903225806	61.55	61.17	59.81	57.72	56.32	45.68
0.483870967741936	59.53	59.12	57.73	56.12	54.84	45.34
0.516129032258065	58.62	58.22	56.63	54.52	53.62	44.38
0.548387096774194	57.55	57.2	55.81	54.07	52.54	42.96
0.580645161290323	56.48	56.13	54.73	52.69	52.01	42.32
0.612903225806452	55.24	54.85	53.55	51.08	49.5	40.75
0.645161290322581	53.91	53.56	52.22	50.55	49.39	40.23
0.67741935483871	53.19	52.87	52.14	50.26	48.79	39.43
0.709677419354839	53.13	52.77	51.42	49.88	48.79	39.4
0.741935483870968	52.99	52.66	51.32	49.53	48.61	39.23
0.774193548387097	52.54	52.2	50.87	48.94	47.5	38.89
0.806451612903226	49.88	49.47	47.97	45.29	43.72	33.59
0.838709677419355	46.74	46.42	45.13	43.12	41.76	33.23
0.870967741935484	46.1	45.79	44.54	42.73	41.5	32.65
0.903225806451613	45.38	45.07	43.84	42.02	40.74	32.55
0.935483870967742	44.95	44.64	43.4	41.57	40.44	30.47
0.967741935483871	33.12	32.8	32.27	30.14	28.65	15.1
0.1	86.715	86.065	84.613	82.418	80.064	57.248
Average of yearly averages:						44.131

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

Data used for this run:

Output File: TebuPAResidOrnamentIRKdA

Metfile: w14737.dvf

PRZM scenario: PAturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.56	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	01-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Interval 6	interval	7	days	Set to 0 or delete line for single app.
Interval 7	interval	7	days	Set to 0 or delete line for single app.

IPSCND 1
 UPTKF
 Record 18:PLVKRT
 PLDKRT 0.078
 FEXTRC 0.5
 Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

PA Turf scenario mimic Residential Ornamental uses – eight applications of 0.56 kg a.i./ha every 7 days

B. Simulated with the average Koc as an input parameter

a) Ground Applied

stored as TebuPAResidOrnamentIRavgG.out

Chemical: tebuconazole

PRZM environment: PAturfC.txt modified Satday, 12 October 2002 at 15:27:02

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 08:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	19.79	19.38	17.88	16.06	14.77	7.07
1962	22.61	22.28	21.37	19.73	19.42	14.54
1963	22.21	22	21.51	20.56	20.31	17.1
1964	23.42	23.2	22.55	21.57	20.94	18.27
1965	22.54	22.34	21.77	20.88	20.27	17.88
1966	21.89	21.69	21.11	20.22	19.79	18.03
1967	38.97	38.38	37.23	34.6	32.85	23.71
1968	35.48	35.09	34.81	33.19	31.69	25.71
1969	47.76	47.05	44.59	40.29	38.03	28.17
1970	31.75	31.53	31.15	30.61	30.38	28.25
1971	43.17	42.68	41.4	39.39	38.43	30.75
1972	73.71	72.56	68.25	62.57	59.01	42.86
1973	67.99	67.17	64.08	58.92	56.93	47.84
1974	49.73	49.39	48.19	46.62	46.33	43.95
1975	43.76	43.45	42.66	42.1	41.37	38.47
1976	47.11	46.75	44.97	43.15	42.43	36.4
1977	38.22	37.96	37.35	36.35	35.75	33.21
1978	43.36	42.88	41.11	38.33	36.75	31.14
1979	38.33	38.03	36.99	35.56	34.6	31.78
1980	32.95	32.72	32.13	31.21	30.52	28
1981	31.78	31.5	30.69	29.43	28.7	25.04
1982	50.93	50.24	47.75	43.62	41.36	30.95
1983	39.07	38.72	37.43	35.3	34.54	31.42
1984	56.36	55.66	53.49	50.94	50.04	37.49
1985	56.24	55.62	53.33	49.72	47.97	39.68
1986	42.58	42.32	41.71	40.86	40.19	37.6
1987	51.72	51.14	49.03	45.37	43.61	35.61
1988	46.74	46.28	45.86	44.74	44.13	37.89
1989	43.48	43.11	41.87	40.6	39.68	35.99
1990	53.62	53.03	50.84	47.17	45.89	38.45

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	73.71	72.56	68.25	62.57	59.01	47.84
0.0645161290322581	67.99	67.17	64.08	58.92	56.93	43.95
0.0967741935483871	56.36	55.66	53.49	50.94	50.04	42.86
0.129032258064516	56.24	55.62	53.33	49.72	47.97	39.68
0.161290322580645	53.62	53.03	50.84	47.17	46.33	38.47
0.193548387096774	51.72	51.14	49.03	46.62	45.89	38.45
0.225806451612903	50.93	50.24	48.19	45.37	44.13	37.89
0.258064516129032	49.73	49.39	47.75	44.74	43.61	37.6
0.290322580645161	47.76	47.05	45.86	43.62	42.43	37.49
0.32258064516129	47.11	46.75	44.97	43.15	41.37	36.4
0.354838709677419	46.74	46.28	44.59	42.1	41.36	35.99
0.387096774193548	43.76	43.45	42.66	40.86	40.19	35.61
0.419354838709677	43.48	43.11	41.87	40.6	39.68	33.21
0.451612903225806	43.36	42.88	41.71	40.29	38.43	31.78

0.483870967741936	43.17	42.68	41.4	39.39	38.03	31.42
0.516129032258065	42.58	42.32	41.11	38.33	36.75	31.14
0.548387096774194	39.07	38.72	37.43	36.35	35.75	30.95
0.580645161290323	38.97	38.38	37.35	35.56	34.6	30.75
0.612903225806452	38.33	38.03	37.23	35.3	34.54	28.25
0.645161290322581	38.22	37.96	36.99	34.6	32.85	28.17
0.67741935483871	35.48	35.09	34.81	33.19	31.69	28
0.709677419354839	32.95	32.72	32.13	31.21	30.52	25.71
0.741935483870968	31.78	31.53	31.15	30.61	30.38	25.04
0.774193548387097	31.75	31.5	30.69	29.43	28.7	23.71
0.806451612903226	23.42	23.2	22.55	21.57	20.94	18.27
0.838709677419355	22.61	22.34	21.77	20.88	20.31	18.03
0.870967741935484	22.54	22.28	21.51	20.56	20.27	17.88
0.903225806451613	22.21	22	21.37	20.22	19.79	17.1
0.935483870967742	21.89	21.69	21.11	19.73	19.42	14.54
0.967741935483871	19.79	19.38	17.88	16.06	14.77	7.07
0.1	56.348	55.656	53.474	50.818	49.833	42.542
Average of yearly averages:						30.4416666666667

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

Data used for this run:

Output File: TebuPAResidOrnamlRavgG

Metfile: w14737.dvf

PRZM scenario: PAturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.56	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	01-05	dd/mm or dd/mm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Interval 6	interval	7	days	Set to 0 or delete line for single app.
Interval 7	interval	7	days	Set to 0 or delete line for single app.
Record 17: FILTRA				
IPSCND	1			
UPTKF				
Record 18: PLVKRT				
PLDKRT	0.078			
FEXTRC	0.5			
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

b) Aerially Applied

stored as TebuPAResidOrnamlRavgA.out

Chemical: tebuconazole

PRZM environment: PAturfC.txt modified Satday, 12 October 2002 at 15:27:02

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 08:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	28.21	27.7	26.3	23.63	21.91	11.69
1962	38.79	38.21	36.43	33.35	32.24	23.43
1963	39.69	39.23	37.83	35.73	34.46	28.91
1964	44.64	44.16	42.67	40.45	39.03	32
1965	45.14	44.66	43.25	41.11	39.7	32.96
1966	45.41	44.93	43.52	41.36	40	33.96
1967	62.39	61.53	59.39	55.07	52.38	40.02
1968	59.44	58.8	57.29	54.8	52.47	42.32
1969	67.27	66.45	63.52	58.42	55.66	44.91
1970	56.27	55.77	54.33	52.58	51.59	45.16
1971	61.24	60.68	59.11	57.2	56.02	47.65
1972	96.24	94.87	89.71	82.49	78.25	59.32
1973	89.9	88.87	84.99	78.44	75.63	64.14
1974	72.66	72.08	70.29	67.69	66.8	60.43
1975	67.58	67	65.52	63.91	62.34	55.21
1976	66.19	65.78	63.58	60.94	59.72	53.2
1977	62.69	62.16	60.71	58.43	56.96	50.15
1978	62.4	61.82	59.69	56.35	55.67	48.15
1979	60.73	60.17	58.71	56.85	55.69	48.77
1980	57.62	57.12	55.68	53.43	51.87	45.09
1981	56.14	55.69	54.18	51.71	50.1	42.23
1982	69.87	69.09	66.27	61.42	61.05	47.97
1983	63.39	62.77	60.52	57.38	55.8	48.43
1984	77.91	77.02	74.12	72.42	70.64	54.21
1985	72.62	71.95	69.48	65.5	63.48	56.31
1986	66.84	66.29	64.84	62.56	61.21	54.32
1987	69.02	68.37	66.01	61.88	60.79	52.43
1988	70.3	69.64	68.12	66.21	64.98	54.6
1989	67.44	66.81	65.03	62.44	60.77	52.8
1990	72.63	71.94	69.32	66	65.86	55.16

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	96.24	94.87	89.71	82.49	78.25	64.14
0.0645161290322581	89.9	88.87	84.99	78.44	75.63	60.43
0.0967741935483871	77.91	77.02	74.12	72.42	70.64	59.32
0.129032258064516	72.66	72.08	70.29	67.69	66.8	56.31
0.161290322580645	72.63	71.95	69.48	66.21	65.86	55.21
0.193548387096774	72.62	71.94	69.32	66	64.98	55.16
0.225806451612903	70.3	69.64	68.12	65.5	63.48	54.6
0.258064516129032	69.87	69.09	66.27	63.91	62.34	54.32
0.290322580645161	69.02	68.37	66.01	62.56	61.21	54.21
0.32258064516129	67.58	67	65.52	62.44	61.05	53.2
0.354838709677419	67.44	66.81	65.03	61.88	60.79	52.8
0.387096774193548	67.27	66.45	64.84	61.42	60.77	52.43
0.419354838709677	66.84	66.29	63.58	60.94	59.72	50.15
0.451612903225806	66.19	65.78	63.52	58.43	56.96	48.77
0.483870967741936	63.39	62.77	60.71	58.42	56.02	48.43
0.516129032258065	62.69	62.16	60.52	57.38	55.8	48.15
0.548387096774194	62.4	61.82	59.69	57.2	55.69	47.97
0.580645161290323	62.39	61.53	59.39	56.85	55.67	47.65
0.612903225806452	61.24	60.68	59.11	56.35	55.66	45.16
0.645161290322581	60.73	60.17	58.71	55.07	52.47	45.09
0.67741935483871	59.44	58.8	57.29	54.8	52.38	44.91
0.709677419354839	57.62	57.12	55.68	53.43	51.87	42.32
0.741935483870968	56.27	55.77	54.33	52.58	51.59	42.23
0.774193548387097	56.14	55.69	54.18	51.71	50.1	40.02
0.806451612903226	45.41	44.93	43.52	41.36	40	33.96
0.838709677419355	45.14	44.66	43.25	41.11	39.7	32.96
0.870967741935484	44.64	44.16	42.67	40.45	39.03	32
0.903225806451613	39.69	39.23	37.83	35.73	34.46	28.91
0.935483870967742	38.79	38.21	36.43	33.35	32.24	23.43
0.967741935483871	28.21	27.7	26.3	23.63	21.91	11.69

0.1 77.385 76.526 73.737 71.947 70.256 59.019

Average of yearly averages: 46.197666666667

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

Data used for this run:

Output File: TebuPAResidOrnamIRavgA

Metfile: w14737.dvf

PRZM scenario: PAturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM 2	integer		See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.56	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	01-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Interval 6	interval	7	days	Set to 0 or delete line for single app.
Interval 7	interval	7	days	Set to 0 or delete line for single app.

Record 17: FILTRA

IPSCND 1

UPTKF

Record 18: PLVKRT

PLDKRT 0.078

FEXTRC 0.5

Flag for Index Res. Run IR IR

Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

FL Turf scenario mimic Residential Ornamental uses – eight applications of 0.56 kg a.i./ha every 7 days, ground applied

A. Simulated with the non-sand Kd as an input parameter

a) Ground Applied

stored as TebuFLResidOrnamentIRKdG.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 16 June 2003 at 12:48:06

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 08:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	36.34	35.83	34.49	31.98	29.95	13.16
1962	50.9	50.26	47.88	43.27	40.28	24.31
1963	86.24	85.11	82.22	74.81	69.73	39.34
1964	47.17	46.67	44.92	41.92	39.8	32.09
1965	38.52	38.09	37.66	35.25	33.23	23.86
1966	109	107	102	93.77	87.29	46.21
1967	50.08	49.6	47.96	44.55	43.34	37.88
1968	81.15	80.44	77.65	72.35	68.01	41.67
1969	40.3	39.91	39.61	38.49	36.87	30.73
1970	22.58	22.37	21.78	20.57	19.81	16.92
1971	44.11	43.54	42.23	38.01	35.34	20.13
1972	56.65	56.12	55.18	50.3	47.17	28.22
1973	25.7	25.53	24.85	23.42	22.4	19.74
1974	33.32	32.93	31.57	29.81	28.16	18.01

1975	26.61	26.46	25.48	23.88	22.81	16.38
1976	62.59	61.76	59.74	55.46	51.74	28.68
1977	32.08	31.76	30.54	28.76	27.75	23.49
1978	34.94	34.54	34.22	32.59	31.13	20.96
1979	46.79	46.2	44.61	40.42	37.62	22.71
1980	29.55	29.23	28.63	26.73	25.19	19.44
1981	21.91	21.68	20.77	19.23	18.59	14.4
1982	39.52	39.05	37.58	36.6	35.05	20.41
1983	42.1	41.6	41.36	39.47	37.82	24.91
1984	42.38	41.92	40.5	39.86	39.01	26.04
1985	29.46	29.15	28.68	27.14	25.64	19.42
1986	41.24	40.72	39.09	36.72	34.38	20.51
1987	24.94	24.68	23.93	22.09	20.9	16.79
1988	20.03	19.81	19.26	18.38	17.68	12.81
1989	14.7	14.55	13.99	13.17	12.59	9.61
1990	13.86	13.7	13.34	12.54	12	8.375

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	109	107	102	93.77	87.29	46.21
0.0645161290322581	86.24	85.11	82.22	74.81	69.73	41.67
0.0967741935483871	81.15	80.44	77.65	72.35	68.01	39.34
0.129032258064516	62.59	61.76	59.74	55.46	51.74	37.88
0.161290322580645	56.65	56.12	55.18	50.3	47.17	32.09
0.193548387096774	50.9	50.26	47.96	44.55	43.34	30.73
0.225806451612903	50.08	49.6	47.88	43.27	40.28	28.68
0.258064516129032	47.17	46.67	44.92	41.92	39.8	28.22
0.290322580645161	46.79	46.2	44.61	40.42	39.01	26.04
0.32258064516129	44.11	43.54	42.23	39.86	37.82	24.91
0.354838709677419	42.38	41.92	41.36	39.47	37.62	24.31
0.387096774193548	42.1	41.6	40.5	38.49	36.87	23.86
0.419354838709677	41.24	40.72	39.61	38.01	35.34	23.49
0.451612903225806	40.3	39.91	39.09	36.72	35.05	22.71
0.483870967741936	39.52	39.05	37.66	36.6	34.38	20.96
0.516129032258065	38.52	38.09	37.58	35.25	33.23	20.51
0.548387096774194	36.34	35.83	34.49	32.59	31.13	20.41
0.580645161290323	34.94	34.54	34.22	31.98	29.95	20.13
0.612903225806452	33.32	32.93	31.57	29.81	28.16	19.74
0.645161290322581	32.08	31.76	30.54	28.76	27.75	19.44
0.67741935483871	29.55	29.23	28.68	27.14	25.64	19.42
0.709677419354839	29.46	29.15	28.63	26.73	25.19	18.01
0.741935483870968	26.61	26.46	25.48	23.88	22.81	16.92
0.774193548387097	25.7	25.53	24.85	23.42	22.4	16.79
0.806451612903226	24.94	24.68	23.93	22.09	20.9	16.38
0.838709677419355	22.58	22.37	21.78	20.57	19.81	14.4
0.870967741935484	21.91	21.68	20.77	19.23	18.59	13.16
0.903225806451613	20.03	19.81	19.26	18.38	17.68	12.81
0.935483870967742	14.7	14.55	13.99	13.17	12.59	9.61
0.967741935483871	13.86	13.7	13.34	12.54	12	8.375

0.1 79.294 78.572 75.859 70.661 66.383 39.194

Average of yearly averages: 23.24017

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

Data used for this run:

Output File: TebuFLResidOrnamentlIRKdG

Metfile: w12834.dvf

PRZM scenario: FLturFC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife

Anaerobic Aquatic Metabolism kbacs 2126 days Halfife
 Aerobic Soil Metabolism asm 796 days Halfife
 Hydrolysis: pH 7 0 days Half-life
 Method: CAM 2 integer See PRZM manual
 Incorporation Depth: DEPI 0 cm
 Application Rate: TAPP 0.56 kg/ha
 Application Efficiency: APPEFF 0.99 fraction
 Spray Drift DRFT 0.064 fraction of application rate applied to pond
 Application Date Date 15-05 dd/mm or dd/mmm or dd-mm or dd-mmm
 Interval 1 interval 7 days Set to 0 or delete line for single app.
 Interval 2 interval 7 days Set to 0 or delete line for single app.
 Interval 3 interval 7 days Set to 0 or delete line for single app.
 Interval 4 interval 7 days Set to 0 or delete line for single app.
 Interval 5 interval 7 days Set to 0 or delete line for single app.
 Interval 6 interval 7 days Set to 0 or delete line for single app.
 Interval 7 interval 7 days Set to 0 or delete line for single app.
 Record 17: FILTRA
 IPSCND 1
 UPTKF
 Record 18: PLVKRT
 PLDKRT 0.078
 FEXTRC 0.5
 Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

b) Aerially Applied

stored as TebuFLResidOrnamentIRKdA.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 16 June 2003 at 12:48:06

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 08:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	48.48	47.81	45.84	42.34	39.57	17.95
1962	65.33	64.52	61.48	55.58	52.24	32.13
1963	99.44	98.19	95.97	87.6	81.73	47.75
1964	63.76	63.07	60.55	56.29	53.35	41.18
1965	55.35	54.75	53.23	50.26	47.51	33.45
1966	122	120	116	106	99.06	54.96
1967	65.29	64.65	62.34	59.15	57.3	46.99
1968	95.99	95.21	92.21	85.84	80.98	50.62
1969	57.37	56.79	55.29	53.06	51.02	40.13
1970	40.37	39.95	38.55	36.17	34.59	26.84
1971	60.94	60.19	58.18	52.74	49.15	29.91
1972	71.86	71	69.92	64.74	60.81	37.65
1973	41.31	40.9	39.5	37.96	36.73	29.53
1974	50.02	49.45	47.92	44.95	42.41	27.86
1975	43.69	43.35	41.96	39.41	37.48	26.3
1976	73.68	72.8	71.91	69.32	65.27	38.12
1977	46.67	46.2	44.39	42.82	42.14	33.16
1978	52.12	51.53	50.06	47.53	45.47	30.71
1979	62.64	61.88	59.94	54.36	50.71	32.37
1980	47.04	46.52	45.12	41.98	39.68	29.22
1981	38.3	37.89	36.27	34.69	33.4	24.42
1982	55.12	54.46	52.85	51.62	49.23	30.2
1983	58.74	58.08	56.56	54.1	51.96	34.54
1984	59.42	58.76	56.57	54.2	52.55	35.62
1985	46.97	46.46	45.01	42.49	40.23	29.24
1986	58.16	57.45	55.12	51.24	47.95	30.27
1987	42.62	42.16	40.61	37.53	35.66	26.7
1988	37.92	37.5	36.14	34.03	32.57	22.88
1989	32.79	32.42	31.07	29.11	27.71	19.8
1990	31.97	31.6	30.4	28.44	27.12	18.6

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	122	120	116	106	99.06	54.96
0.0645161290322581	99.44	98.19	95.97	87.6	81.73	50.62

0.0967741935483871	95.99	95.21	92.21	85.84	80.98	47.75
0.129032258064516	73.68	72.8	71.91	69.32	65.27	46.99
0.161290322580645	71.86	71	69.92	64.74	60.81	41.18
0.193548387096774	65.33	64.65	62.34	59.15	57.3	40.13
0.225806451612903	65.29	64.52	61.48	56.29	53.35	38.12
0.258064516129032	63.76	63.07	60.55	55.58	52.55	37.65
0.290322580645161	62.64	61.88	59.94	54.36	52.24	35.62
0.32258064516129	60.94	60.19	58.18	54.2	51.96	34.54
0.354838709677419	59.42	58.76	56.57	54.1	51.02	33.45
0.387096774193548	58.74	58.08	56.56	53.06	50.71	33.16
0.419354838709677	58.16	57.45	55.29	52.74	49.23	32.37
0.451612903225806	57.37	56.79	55.12	51.62	49.15	32.13
0.483870967741936	55.35	54.75	53.23	51.24	47.95	30.71
0.516129032258065	55.12	54.46	52.85	50.26	47.51	30.27
0.548387096774194	52.12	51.53	50.06	47.53	45.47	30.2
0.580645161290323	50.02	49.45	47.92	44.95	42.41	29.91
0.612903225806452	48.48	47.81	45.84	42.82	42.14	29.53
0.645161290322581	47.04	46.52	45.12	42.49	40.23	29.24
0.67741935483871	46.97	46.46	45.01	42.34	39.68	29.22
0.709677419354839	46.67	46.2	44.39	41.98	39.57	27.86
0.741935483870968	43.69	43.35	41.96	39.41	37.48	26.84
0.774193548387097	42.62	42.16	40.61	37.96	36.73	26.7
0.806451612903226	41.31	40.9	39.5	37.53	35.66	26.3
0.838709677419355	40.37	39.95	38.55	36.17	34.59	24.42
0.870967741935484	38.3	37.89	36.27	34.69	33.4	22.88
0.903225806451613	37.92	37.5	36.14	34.03	32.57	19.8
0.935483870967742	32.79	32.42	31.07	29.11	27.71	18.6
0.967741935483871	31.97	31.6	30.4	28.44	27.12	17.95
0.1	93.759	92.969	90.18	84.188	79.409	47.674
Average of yearly averages:						32.6367

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

Data used for this run:

Output File: TebuFLResidOrnamentIRKdA

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.56	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	15-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Interval 6	interval	7	days	Set to 0 or delete line for single app.
Interval 7	interval	7	days	Set to 0 or delete line for single app.
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT	0.078		

FEXTRC 0.5
 Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

FL Turf scenario mimic Residential Ornamental uses – eight applications of 0.56 kg a.i./ha every 7 days

B. Simulated with the average Koc as an input parameter

a) Ground Applied

stored as TebuFLResidOrnamentIRavgG.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 16 June 2003 at 12:48:06

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 08:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	26.61	26.06	24.08	21.27	21.27	10.11
1962	40.37	39.51	36.75	33.5	31.85	20.05
1963	63.42	62.02	58.47	52.37	48.22	30.06
1964	50.03	49.3	46.82	44.66	43	33.17
1965	38.48	37.95	37.2	34.42	32.59	27.34
1966	98.43	96.46	88.67	80.18	73.84	41.33
1967	53.4	52.63	50.87	46.3	44.82	38
1968	68.81	67.67	63.51	58.36	56.96	40.32
1969	47.61	46.95	45.39	42.24	41.15	35.2
1970	32.76	32.63	31.93	30.49	29.49	25.44
1971	37.25	36.59	35.02	30.91	30.25	24.08
1972	49.9	49.05	45.88	40.7	39.64	29.77
1973	33.28	33.04	32.13	30.88	30.15	27.71
1974	37.51	36.95	34.99	33.84	33.24	25.54
1975	29.65	29.43	28.42	27.01	25.72	22.32
1976	50.97	49.89	47.1	42.2	38.76	26.88
1977	36.71	36.21	34.92	32.99	31.77	26.88
1978	32.32	31.88	30.22	28.2	28.22	23.55
1979	48.53	47.56	45.57	41.17	39.24	26.15
1980	29.45	29.07	28.45	26.75	25.79	22.17
1981	26.88	26.49	25.18	23.39	22.03	18.28
1982	39.25	38.57	36.22	34.99	33.51	22.26
1983	34.32	33.83	32.43	31.28	30.53	24.44
1984	31.7	31.3	29.85	29.48	29.1	24.7
1985	29.69	29.25	28.89	26.83	25.91	22.03
1986	49.17	48.21	46.02	40.28	37.97	25.01
1987	26.02	25.71	24.91	23.39	22.63	20.59
1988	20.71	20.45	19.85	19.01	18.27	16.55
1989	31.95	31.38	29.8	26.24	23.91	18.51
1990	21.4	21.15	20.2	19.54	19.54	17.35

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	98.43	96.46	88.67	80.18	73.84	41.33
0.0645161290322581	68.81	67.67	63.51	58.36	56.96	40.32
0.0967741935483871	63.42	62.02	58.47	52.37	48.22	38
0.129032258064516	53.4	52.63	50.87	46.3	44.82	35.2
0.161290322580645	50.97	49.89	47.1	44.66	43	33.17
0.193548387096774	50.03	49.3	46.82	42.24	41.15	30.06
0.225806451612903	49.9	49.05	46.02	42.2	39.64	29.77
0.258064516129032	49.17	48.21	45.88	41.17	39.24	27.71
0.290322580645161	48.53	47.56	45.57	40.7	38.76	27.34
0.32258064516129	47.61	46.95	45.39	40.28	37.97	26.88
0.354838709677419	40.37	39.51	37.2	34.99	33.51	26.88
0.387096774193548	39.25	38.57	36.75	34.42	33.24	26.15
0.419354838709677	38.48	37.95	36.22	33.84	32.59	25.54
0.451612903225806	37.51	36.95	35.02	33.5	31.85	25.44
0.483870967741936	37.25	36.59	34.99	32.99	31.77	25.01
0.516129032258065	36.71	36.21	34.92	31.28	30.53	24.7
0.548387096774194	34.32	33.83	32.43	30.91	30.25	24.44

0.580645161290323	33.28	33.04	32.13	30.88	30.15	24.08
0.612903225806452	32.76	32.63	31.93	30.49	29.49	23.55
0.645161290322581	32.32	31.88	30.22	29.48	29.1	22.32
0.67741935483871	31.95	31.38	29.85	28.2	28.22	22.26
0.709677419354839	31.7	31.3	29.8	27.01	25.91	22.17
0.741935483870968	29.69	29.43	28.89	26.83	25.79	22.03
0.774193548387097	29.65	29.25	28.45	26.75	25.72	20.59
0.806451612903226	29.45	29.07	28.42	26.24	23.91	20.05
0.838709677419355	26.88	26.49	25.18	23.39	22.63	18.51
0.870967741935484	26.61	26.06	24.91	23.39	22.03	18.28
0.903225806451613	26.02	25.71	24.08	21.27	21.27	17.35
0.935483870967742	21.4	21.15	20.2	19.54	19.54	16.55
0.967741935483871	20.71	20.45	19.85	19.01	18.27	10.11
0.1	62.418	61.081	57.71	51.763	47.88	37.72
						Average of yearly averages: 25.526333333333

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

Data used for this run:

Output File: TebuFLResidOrnamentIRavgG

Metfile: w12834.dvf

PRZM scenario: FLturfC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility sol	320	mg/L		
Kd	Kd	mg/L		
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.56	kg/ha	
Application Efficiency:	APPEFF	0.99	fraction	
Spray Drift	DRFT	0.064	fraction of application rate applied to pond	
Application Date	Date	15-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Interval 6	interval	7	days	Set to 0 or delete line for single app.
Interval 7	interval	7	days	Set to 0 or delete line for single app.

b) Aerially Applied

stored as TebuFLResidOrnamentIRavgA.out

Chemical: tebuconazole

PRZM environment: FLturfC.txt modified Monday, 16 June 2003 at 12:48:06

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 14:34:12

Metfile: w12834.dvf modified Wedday, 3 July 2002 at 08:04:28

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	34.87	34	32.01	28.76	28.82	13.84

1962	53.07	51.97	48.32	43.55	41.13	26.49
1963	76.04	74.42	71.36	63.92	58.89	37.61
1964	60.92	59.9	56.43	54.04	54.18	41.31
1965	53.67	52.9	51.69	48.07	45.44	36.08
1966	111	109	102	91.55	84.54	49.7
1967	67.05	66.08	63.53	57.85	56.06	46.59
1968	83.04	81.81	77.4	71	68.58	48.85
1969	56.87	56.15	54.33	51.75	50.19	43.96
1970	46.75	46.16	44.67	42.3	40.67	34.57
1971	53.35	52.43	50.24	44.55	42.81	33.26
1972	60.34	59.4	56.56	50.98	51.31	38.68
1973	45.94	45.36	43.87	42.85	42.44	36.72
1974	49.94	49.16	47.29	46.13	45.29	34.63
1975	45.57	45.08	43.89	41.21	39.1	31.55
1976	62.15	60.9	59.3	55.78	51.71	35.94
1977	47.23	46.64	45.62	43.91	42.95	35.97
1978	45.94	45.26	43.75	41.99	41.47	32.75
1979	63.13	61.94	59.23	53.53	50.73	35.22
1980	46.15	45.47	44	40.8	39.14	31.4
1981	37.62	37.11	35.67	34.07	34.04	27.69
1982	52.94	52.08	50.46	48.89	46.42	31.53
1983	48.39	47.64	46.32	43.91	43.68	33.65
1984	48.01	47.3	45.34	43.71	42.32	33.9
1985	46.12	45.42	44	41.09	39.2	31.31
1986	62.13	61.02	58.51	52.89	49.92	34.15
1987	42.86	42.26	40.56	37.82	36.18	29.9
1988	37.78	37.21	35.76	33.53	32.03	26.02
1989	40.97	40.36	38.68	34.77	32.38	27.89
1990	37.95	37.4	35.92	33.89	33.08	26.76

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	111	109	102	91.55	84.54	49.7
0.0645161290322581	83.04	81.81	77.4	71	68.58	48.85
0.0967741935483871	76.04	74.42	71.36	63.92	58.89	46.59
0.129032258064516	67.05	66.08	63.53	57.85	56.06	43.96
0.161290322580645	63.13	61.94	59.3	55.78	54.18	41.31
0.193548387096774	62.15	61.02	59.23	54.04	51.71	38.68
0.225806451612903	62.13	60.9	58.51	53.53	51.31	37.61
0.258064516129032	60.92	59.9	56.56	52.89	50.73	36.72
0.290322580645161	60.34	59.4	56.43	51.75	50.19	36.08
0.32258064516129	56.87	56.15	54.33	50.98	49.92	35.97
0.354838709677419	53.67	52.9	51.69	48.89	46.42	35.94
0.387096774193548	53.35	52.43	50.46	48.07	45.44	35.22
0.419354838709677	53.07	52.08	50.24	46.13	45.29	34.63
0.451612903225806	52.94	51.97	48.32	44.55	43.68	34.57
0.483870967741936	49.94	49.16	47.29	43.91	42.95	34.15
0.516129032258065	48.39	47.64	46.32	43.91	42.81	33.9
0.548387096774194	48.01	47.3	45.62	43.71	42.44	33.65
0.580645161290323	47.23	46.64	45.34	43.55	42.32	33.26
0.612903225806452	46.75	46.16	44.67	42.85	41.47	32.75
0.645161290322581	46.15	45.47	44	42.3	41.13	31.55
0.67741935483871	46.12	45.42	44	41.99	40.67	31.53
0.709677419354839	45.94	45.36	43.89	41.21	39.2	31.4
0.741935483870968	45.94	45.26	43.87	41.09	39.14	31.31
0.774193548387097	45.57	45.08	43.75	40.8	39.1	29.9
0.806451612903226	42.86	42.26	40.56	37.82	36.18	27.89
0.838709677419355	40.97	40.36	38.68	34.77	34.04	27.69
0.870967741935484	37.95	37.4	35.92	34.07	33.08	26.76
0.903225806451613	37.78	37.21	35.76	33.89	32.38	26.49
0.935483870967742	37.62	37.11	35.67	33.53	32.03	26.02
0.967741935483871	34.87	34	32.01	28.76	28.82	13.84

0.1 75.141 73.586 70.577 63.313 58.607 46.327
Average of yearly averages: 34.264

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

Data used for this run:

Output File: TebuFLResidOrnamentIRavgA

Metfile: w12834.dvf
 PRZM scenario: FLturfC.txt
 EXAMS environment file: ir298.exv
 Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.56	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.16	fraction of application rate applied to pond	
Application Date	Date	15-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Interval 6	interval	7	days	Set to 0 or delete line for single app.
Interval 7	interval	7	days	Set to 0 or delete line for single app.

Record 17: FILTRA
 IPSCND 1
 UPTKF

Record 18: PLVKRT
 PLDKRT 0.078
 FEXTRC 0.5

Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

Gorgia Peach Scenario -- six applications of 0.25 kg a.i./ha every 7 days

A. Simulated with the non-sand Kd as an input parameter

stored as tebuGAPeachIRKd.out

Chemical: tebuconazole

PRZM environment: GAPeachesC.txt modified Satday, 12 October 2002 at 15:59:56

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 15:34:12

Metfile: w03813.dvf modified Wedday, 3 July 2002 at 09:04:32

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	10.43	10.33	10.02	9.235	8.821	5.422
1962	11.72	11.63	11.35	10.74	10.61	7.95
1963	11.61	11.53	11.19	11	10.68	8.305
1964	22.66	22.46	21.69	21.12	20.29	13.83
1965	15.33	15.23	14.86	14.18	13.66	11.98
1966	13.32	13.23	12.98	12.74	12.66	10.64
1967	10.5	10.43	10.17	9.748	9.746	8.555
1968	12.12	12.03	11.8	11.14	10.66	8.352
1969	9.183	9.126	8.895	8.565	8.308	6.867
1970	20.74	20.55	20.17	18.76	17.81	12.18
1971	15.53	15.42	15.16	14.72	14.53	11.66
1972	10.69	10.62	10.39	10.03	9.768	8.599
1973	16.09	15.96	15.44	15.11	14.77	10.89
1974	13.49	13.4	13.03	12.68	12.52	10.3
1975	16.98	16.85	16.32	15.32	14.78	11.17
1976	16.75	16.62	16.23	15.25	14.57	11.16
1977	14.75	14.65	14.38	13.84	13.31	10.34
1978	14.23	14.12	13.69	12.84	12.29	9.461
1979	12.71	12.64	12.32	11.66	11.32	8.931

Application Rate: TAPP 0.25 kg/ha
 Application Efficiency: APPEFF 0.95 fraction
 Spray Drift DRFT 0.063 fraction of application rate applied to pond
 Application Date Date 01-03 dd/mm or dd/mmm or dd-mm or dd-mmm
 Interval 1 interval 7 days Set to 0 or delete line for single app.
 Interval 2 interval 7 days Set to 0 or delete line for single app.
 Interval 3 interval 7 days Set to 0 or delete line for single app.
 Interval 4 interval 7 days Set to 0 or delete line for single app.
 Interval 5 interval 7 days Set to 0 or delete line for single app.
 Record 17: FILTRA
 IPSCND 1
 UPTKF
 Record 18: PLVKRT
 PLDKRT 0.078
 FEXTRC 0.5
 Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

Gorgia Peach Scenario -- six applications of 0.25 kg a.i./ha every 7 days

B. Simulated with the average Koc value as an input parameter

stored as tebuGAPeachIRKoc.out

Chemical: tebuconazole

PRZM environment: GapeachesC.txt modified Satday, 12 October 2002 at 15:59:56

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 15:34:12

Metfile: w03813.dvf modified Wedday, 3 July 2002 at 09:04:32

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	10.2	9.991	9.264	8.307	7.569	4.201
1962	10.68	10.54	10.18	9.144	8.561	6.121
1963	8.991	8.881	8.464	7.842	7.531	6.062
1964	18.13	17.79	16.54	14.58	13.5	9.126
1965	10.37	10.28	10.02	9.556	9.224	7.672
1966	11.39	11.26	11.03	10.71	10.55	8.249
1967	8.816	8.738	8.492	8.221	8.069	6.847
1968	9.138	9.037	8.667	8.002	7.713	6.418
1969	8.003	7.921	7.672	7.286	7.011	5.665
1970	22.68	22.23	20.91	18.18	16.73	10.83
1971	14.51	14.35	14.15	13.2	12.59	9.958
1972	9.931	9.851	9.603	9.222	8.965	7.639
1973	13.33	13.13	12.45	11.5	10.89	8.113
1974	11.52	11.38	10.84	9.985	9.549	7.609
1975	14.24	14.03	13.24	11.93	11.23	8.495
1976	10.49	10.39	10.03	9.33	9.166	7.713
1977	12.65	12.47	12.33	11.42	10.77	8.034
1978	13.01	12.82	12.13	10.98	10.34	7.958
1979	11.07	10.94	10.65	10.42	10.02	7.775
1980	11.11	10.98	10.74	10.3	9.825	7.506
1981	13.46	13.26	12.74	11.47	10.96	8.189
1982	15.35	15.11	14.23	12.82	12.02	8.896
1983	9.992	9.918	9.68	9.288	9.011	7.418
1984	8.091	8.015	7.771	7.413	7.223	6.011
1985	7.118	7.046	6.803	6.452	6.222	5.049
1986	7.334	7.243	6.991	6.583	6.268	4.815
1987	6.361	6.289	6.042	5.692	5.469	4.349
1988	5.946	5.877	5.678	5.471	5.269	4.141
1989	7.111	7.036	6.836	6.42	6.143	4.625
1990	9.543	9.402	9.213	8.615	8.086	5.712

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	22.68	22.23	20.91	18.18	16.73	10.83
0.0645161290322581	18.13	17.79	16.54	14.58	13.5	9.958
0.0967741935483871	15.35	15.11	14.23	13.2	12.59	9.126
0.129032258064516	14.51	14.35	14.15	12.82	12.02	8.896
0.161290322580645	14.24	14.03	13.24	11.93	11.23	8.495
0.193548387096774	13.46	13.26	12.74	11.5	10.96	8.249
0.225806451612903	13.33	13.13	12.45	11.47	10.89	8.189

0.258064516129032	13.01	12.82	12.33	11.42	10.77	8.113
0.290322580645161	12.65	12.47	12.13	10.98	10.55	8.034
0.32258064516129	11.52	11.38	11.03	10.71	10.34	7.958
0.354838709677419	11.39	11.26	10.84	10.42	10.02	7.775
0.387096774193548	11.11	10.98	10.74	10.3	9.825	7.713
0.419354838709677	11.07	10.94	10.65	9.985	9.549	7.672
0.451612903225806	10.68	10.54	10.18	9.556	9.224	7.639
0.483870967741936	10.49	10.39	10.03	9.33	9.166	7.609
0.516129032258065	10.37	10.28	10.02	9.288	9.011	7.506
0.548387096774194	10.2	9.991	9.68	9.222	8.965	7.418
0.580645161290323	9.992	9.918	9.603	9.144	8.561	6.847
0.612903225806452	9.931	9.851	9.264	8.615	8.086	6.418
0.645161290322581	9.543	9.402	9.213	8.307	8.069	6.121
0.67741935483871	9.138	9.037	8.667	8.221	7.713	6.062
0.709677419354839	8.991	8.881	8.492	8.002	7.569	6.011
0.741935483870968	8.816	8.738	8.464	7.842	7.531	5.712
0.774193548387097	8.091	8.015	7.771	7.413	7.223	5.665
0.806451612903226	8.003	7.921	7.672	7.286	7.011	5.049
0.838709677419355	7.334	7.243	6.991	6.583	6.268	4.815
0.870967741935484	7.118	7.046	6.836	6.452	6.222	4.625
0.903225806451613	7.111	7.036	6.803	6.42	6.143	4.349
0.935483870967742	6.361	6.289	6.042	5.692	5.469	4.201
0.967741935483871	5.946	5.877	5.678	5.471	5.269	4.141
0.1	15.266	15.034	14.222	13.162	12.533	9.103
Average of yearly averages:						7.03986666666667

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

Data used for this run:

Output File: tebuGAPeachIRKoc

Metfile: w03813.dvf

PRZM scenario: GAPeachesC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.25	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.063	fraction of application rate applied to pond	
Application Date	Date	01-03	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1 interval	7	days	Set to 0 or delete line for single app.	
Interval 2 interval	7	days	Set to 0 or delete line for single app.	
Interval 3 interval	7	days	Set to 0 or delete line for single app.	
Interval 4 interval	7	days	Set to 0 or delete line for single app.	
Interval 5 interval	7	days	Set to 0 or delete line for single app.	
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT	0.078		
	FEXTRC	0.5		
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

North Carolina Apple Scenario – six applications of 0.25 kg a.i./ha every 7 days

A. Simulated with the non-sand Kd as an input parameter

stored as tebuconazoleNCapple.out

Chemical: tebuconazole

PRZM environment: NCappleC.txt

modified Monday, 24 November 2003 at 14:49:39

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w03812.dvf modified Wedday, 3 July 2002 at 10:05:50

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1965	8.135	8.006	7.541	6.968	6.717	3.577
1966	14.29	14.09	13.73	12.85	12.22	7.676
1967	22.47	22.15	20.96	19.68	19.34	12.29
1968	17.22	17.03	16.56	15.26	14.55	10.74
1969	19.47	19.18	18.1	16.48	15.29	9.702
1970	9.498	9.378	9.034	8.334	7.774	6.984
1971	11.11	10.95	10.5	10.06	9.541	6.599
1972	24.89	24.5	23.02	21.56	20.08	11.09
1973	33.41	33.01	31.75	29.41	28.88	17.25
1974	16.03	15.83	15.26	14.27	13.98	11.6
1975	18.72	18.45	17.95	16.17	15.05	10.16
1976	28.63	28.22	26.62	25.77	24.54	14.25
1977	14.75	14.57	13.97	13.06	12.51	10.44
1978	15.98	15.77	15.2	14.11	13.29	9.499
1979	11.32	11.17	10.74	10.46	10.29	8.248
1980	12.48	12.31	11.63	10.67	10.35	7.085
1981	23.41	23.12	21.97	19.36	17.84	9.734
1982	16.75	16.52	16.03	14.56	13.6	9.449
1983	9.474	9.355	8.879	8.135	7.709	6.629
1984	11.43	11.28	10.95	10.51	10.32	7.114
1985	11.53	11.37	10.8	9.63	8.89	6.052
1986	11.54	11.37	10.93	10.25	9.814	6.549
1987	31.01	30.55	28.92	27.14	25.13	14.04
1988	12.31	12.2	11.78	10.93	10.32	8.097
1989	19.97	19.73	19.08	17.63	16.61	9.53
1990	19.06	18.87	18	16.16	15.22	10.22

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.037037037037037	33.41	33.01	31.75	29.41	28.88	17.25
0.0740740740740741	31.01	30.55	28.92	27.14	25.13	14.25
0.1111111111111111	28.63	28.22	26.62	25.77	24.54	14.04
0.1481481481481481	24.89	24.5	23.02	21.56	20.08	12.29
0.185185185185185	23.41	23.12	21.97	19.68	19.34	11.6
0.2222222222222222	22.47	22.15	20.96	19.36	17.84	11.09
0.259259259259259	19.97	19.73	19.08	17.63	16.61	10.74
0.296296296296296	19.47	19.18	18.1	16.48	15.29	10.44
0.3333333333333333	19.06	18.87	18	16.17	15.22	10.22
0.37037037037037	18.72	18.45	17.95	16.16	15.05	10.16
0.407407407407407	17.22	17.03	16.56	15.26	14.55	9.734
0.4444444444444444	16.75	16.52	16.03	14.56	13.98	9.702
0.481481481481481	16.03	15.83	15.26	14.27	13.6	9.53
0.518518518518518	15.98	15.77	15.2	14.11	13.29	9.499
0.5555555555555556	14.75	14.57	13.97	13.06	12.51	9.449
0.592592592592593	14.29	14.09	13.73	12.85	12.22	8.248
0.62962962962963	12.48	12.31	11.78	10.93	10.35	8.097
0.666666666666667	12.31	12.2	11.63	10.67	10.32	7.676
0.703703703703704	11.54	11.37	10.95	10.51	10.32	7.114
0.740740740740741	11.53	11.37	10.93	10.46	10.29	7.085
0.777777777777778	11.43	11.28	10.8	10.25	9.814	6.984
0.814814814814815	11.32	11.17	10.74	10.06	9.541	6.629
0.851851851851852	11.11	10.95	10.5	9.63	8.89	6.599
0.888888888888889	9.498	9.378	9.034	8.334	7.774	6.549
0.925925925925926	9.474	9.355	8.879	8.135	7.709	6.052
0.962962962962963	8.135	8.006	7.541	6.968	6.717	3.577

0.1 29.344 28.919 27.31 26.181 24.717 14.103

Average of yearly averages: 9.40784615384615

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

Data used for this run:

Output File: tebuconazoleNCapple

Metfile: w03812.dvf

PRZM scenario: NCappleC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM 2	integer	See PRZM manual	
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.25	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.063	fraction of application rate applied to pond	
Application Date	Date	01-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	7	days	Set to 0 or delete line for single app.
Interval 2	interval	7	days	Set to 0 or delete line for single app.
Interval 3	interval	7	days	Set to 0 or delete line for single app.
Interval 4	interval	7	days	Set to 0 or delete line for single app.
Interval 5	interval	7	days	Set to 0 or delete line for single app.
Record 17: FILTRA				
IPSCND	1			
UPTKF				
Record 18: PLVKRT				
PLDKRT	0.078			
FEXTRC	0.5			
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

Pennsylvania Apple Scenario – six applications of 0.25 kg a.i./ha every 7 days

A. Simulated with the non-sand Kd as an input parameter

stored as tebuconazolePAapple.out

Chemical: tebuconazole

PRZM environment: PAappleC.txt modified Monday, 24 November 2003 at 14:49:49

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 10:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	12.35	12.2	11.6	10.54	9.91	4.483
1962	13.03	12.94	12.6	11.93	11.89	8.664
1963	11.07	10.97	10.79	10.35	10.24	8.206
1964	9.648	9.564	9.225	8.835	8.548	7.437
1965	7.481	7.411	7.147	6.896	6.751	6.165
1966	8.766	8.683	8.463	8.115	7.827	6.013
1967	21.69	21.49	20.69	19.88	19.18	11.75
1968	22.55	22.36	22.02	20.57	19.55	13.94
1969	22.28	22.03	21.22	19.36	18.19	12.8
1970	11.96	11.86	11.55	11.01	10.65	10.2
1971	18.83	18.63	18.11	17.2	16.71	11.74
1972	35.76	35.44	34.03	32.11	30.47	19.57
1973	31.7	31.4	30.42	28.16	27.09	20.6
1974	21.27	21.09	20.5	19.62	19.01	17
1975	18.88	18.72	18.46	17.64	17.39	13.97
1976	15.74	15.58	15	14.44	14.25	11.37
1977	12.78	12.68	12.26	11.83	11.65	9.94
1978	17.48	17.31	16.62	15.39	14.58	10.48

1979	18.51	18.35	17.85	17.02	16.73	13.04
1980	13.03	12.95	12.61	11.89	11.39	9.78
1981	14.57	14.45	13.98	13.24	12.8	9.52
1982	29.91	29.63	28.54	26.39	25.55	16.27
1983	17.52	17.42	16.97	16.06	15.4	13.96
1984	33.4	33.1	32.11	30.61	30.13	19.13
1985	22.89	22.68	21.88	20.35	20.58	17.71
1986	16.32	16.21	15.77	14.86	14.61	13.14
1987	17.57	17.39	16.77	15.49	15.13	11.06
1988	20.27	20.09	19.44	18.67	18.65	14.08
1989	22.26	22.07	21.34	20.79	20.14	15.47
1990	28.14	27.89	26.88	25.13	24.43	18.12

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	35.76	35.44	34.03	32.11	30.47	20.6
0.0645161290322581	33.4	33.1	32.11	30.61	30.13	19.57
0.0967741935483871	31.7	31.4	30.42	28.16	27.09	19.13
0.129032258064516	29.91	29.63	28.54	26.39	25.55	18.12
0.161290322580645	28.14	27.89	26.88	25.13	24.43	17.71
0.193548387096774	22.89	22.68	22.02	20.79	20.58	17
0.225806451612903	22.55	22.36	21.88	20.57	20.14	16.27
0.258064516129032	22.28	22.07	21.34	20.35	19.55	15.47
0.290322580645161	22.26	22.03	21.22	19.88	19.18	14.08
0.32258064516129	21.69	21.49	20.69	19.62	19.01	13.97
0.354838709677419	21.27	21.09	20.5	19.36	18.65	13.96
0.387096774193548	20.27	20.09	19.44	18.67	18.19	13.94
0.419354838709677	18.88	18.72	18.46	17.64	17.39	13.14
0.451612903225806	18.83	18.63	18.11	17.2	16.73	13.04
0.483870967741936	18.51	18.35	17.85	17.02	16.71	12.8
0.516129032258065	17.57	17.42	16.97	16.06	15.4	11.75
0.548387096774194	17.52	17.39	16.77	15.49	15.13	11.74
0.580645161290323	17.48	17.31	16.62	15.39	14.61	11.37
0.612903225806452	16.32	16.21	15.77	14.86	14.58	11.06
0.645161290322581	15.74	15.58	15	14.44	14.25	10.48
0.67741935483871	14.57	14.45	13.98	13.24	12.8	10.2
0.709677419354839	13.03	12.95	12.61	11.93	11.89	9.94
0.741935483870968	13.03	12.94	12.6	11.89	11.65	9.78
0.774193548387097	12.78	12.68	12.26	11.83	11.39	9.52
0.806451612903226	12.35	12.2	11.6	11.01	10.65	8.664
0.838709677419355	11.96	11.86	11.55	10.54	10.24	8.206
0.870967741935484	11.07	10.97	10.79	10.35	9.91	7.437
0.903225806451613	9.648	9.564	9.225	8.835	8.548	6.165
0.935483870967742	8.766	8.683	8.463	8.115	7.827	6.013
0.967741935483871	7.481	7.411	7.147	6.896	6.751	4.483

0.1 31.521 31.223 30.232 27.983 26.936 19.029
Average of yearly averages: 12.5202666666667

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

Data used for this run:

Output File: tebuconazolePAapple

Metfile: w14737.dvf

PRZM scenario: PAappleC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd	12.7	mg/L	
Koc	Koc		mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method:	CAM	2	integer	See PRZM manual

Incorporation Depth: DEPI 0 cm
 Application Rate: TAPP 0.25 kg/ha
 Application Efficiency: APPEFF 0.95 fraction
 Spray Drift DRFT 0.063 fraction of application rate applied to pond
 Application Date Date 01-05 dd/mm or dd/mmm or dd-mm or dd-mmm
 Interval 1 interval 7 days Set to 0 or delete line for single app.
 Interval 2 interval 7 days Set to 0 or delete line for single app.
 Interval 3 interval 7 days Set to 0 or delete line for single app.
 Interval 4 interval 7 days Set to 0 or delete line for single app.
 Interval 5 interval 7 days Set to 0 or delete line for single app.
 Record 17: FILTRA
 IPSCND 1
 UPTKF
 Record 18: PLVKRT
 PLDKRT 0.078
 FEXTRC 0.5
 Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

B. Simulated with the average Koc value as an input parameter

stored as tebuPAappleRavg.out

Chemical: tebuconazole

PRZM environment: PAappleC.txt modified Monday, 24 November 2003 at 14:49:49

EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12

Metfile: w14737.dvf modified Wedday, 3 July 2002 at 10:06:12

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	11.47	11.2	10.19	8.887	8.053	3.534
1962	11.9	11.7	10.93	9.957	9.957	7.015
1963	10.36	10.2	9.948	9.312	9.109	7.287
1964	9.235	9.123	8.701	8.284	8.017	6.935
1965	7.506	7.415	7.135	6.725	6.554	6.078
1966	8.329	8.218	8.032	7.59	7.255	5.886
1967	20.34	19.96	19.2	17.74	16.68	10.25
1968	22.09	21.74	20.82	18.61	17.39	12.38
1969	21.96	21.56	20.21	17.8	16.52	12
1970	12.07	11.94	11.59	11	10.71	10.12
1971	17.45	17.19	16.44	15.56	15.04	11.1
1972	34.12	33.52	31.19	28.13	26.47	17.14
1973	30.82	30.32	28.68	25.67	24.4	18.66
1974	20.51	20.29	19.55	18.68	18.34	16.38
1975	18.91	18.68	18.12	17.69	17.25	14.03
1976	16.51	16.29	15.44	14.51	14.13	11.73
1977	13.43	13.27	12.68	12.03	11.75	10.16
1978	16.69	16.44	15.53	14.11	13.26	10.28
1979	16.72	16.5	16.25	15.17	15.11	12.08
1980	11.94	11.83	11.49	11.01	10.64	9.709
1981	14.24	14.05	13.54	12.71	12.35	9.42
1982	26.35	25.88	24.42	22.23	22.42	14.48
1983	16.43	16.25	15.71	14.71	14.38	13.07
1984	31.24	30.69	28.95	28.25	27.11	17.35
1985	21.21	20.96	20.41	18.89	19	16.58
1986	16.01	15.91	15.67	14.94	14.69	13.15
1987	16.77	16.54	15.73	14.89	14.33	11.32
1988	20.29	20.02	19.47	17.67	17.59	13.24
1989	21.13	20.86	20.14	19.18	18.49	14.37
1990	25.56	25.18	24.06	22.39	22.55	16.67

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	34.12	33.52	31.19	28.25	27.11	18.66
0.0645161290322581	31.24	30.69	28.95	28.13	26.47	17.35
0.0967741935483871	30.82	30.32	28.68	25.67	24.4	17.14
0.129032258064516	26.35	25.88	24.42	22.39	22.55	16.67
0.161290322580645	25.56	25.18	24.06	22.23	22.42	16.58
0.193548387096774	22.09	21.74	20.82	19.18	19	16.38
0.225806451612903	21.96	21.56	20.41	18.89	18.49	14.48
0.258064516129032	21.21	20.96	20.21	18.68	18.34	14.37

0.290322580645161	21.13	20.86	20.14	18.61	17.59	14.03
0.32258064516129	20.51	20.29	19.55	17.8	17.39	13.24
0.354838709677419	20.34	20.02	19.47	17.74	17.25	13.15
0.387096774193548	20.29	19.96	19.2	17.69	16.68	13.07
0.419354838709677	18.91	18.68	18.12	17.67	16.52	12.38
0.451612903225806	17.45	17.19	16.44	15.56	15.11	12.08
0.483870967741936	16.77	16.54	16.25	15.17	15.04	12
0.516129032258065	16.72	16.5	15.73	14.94	14.69	11.73
0.548387096774194	16.69	16.44	15.71	14.89	14.38	11.32
0.580645161290323	16.51	16.29	15.67	14.71	14.33	11.1
0.612903225806452	16.43	16.25	15.53	14.51	14.13	10.28
0.645161290322581	16.01	15.91	15.44	14.11	13.26	10.25
0.67741935483871	14.24	14.05	13.54	12.71	12.35	10.16
0.709677419354839	13.43	13.27	12.68	12.03	11.75	10.12
0.741935483870968	12.07	11.94	11.59	11.01	10.71	9.709
0.774193548387097	11.94	11.83	11.49	11	10.64	9.42
0.806451612903226	11.9	11.7	10.93	9.957	9.957	7.287
0.838709677419355	11.47	11.2	10.19	9.312	9.109	7.015
0.870967741935484	10.36	10.2	9.948	8.887	8.053	6.935
0.903225806451613	9.235	9.123	8.701	8.284	8.017	6.078
0.935483870967742	8.329	8.218	8.032	7.59	7.255	5.886
0.967741935483871	7.506	7.415	7.135	6.725	6.554	3.534
0.1	30.373	29.876	28.254	25.342	24.215	17.093
Average of yearly averages:						11.7468

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

Data used for this run:

Output File: tebuPAappleIRavg

Metfile: w14737.dvf

PRZM scenario: PAappleC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility sol	320		mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism	kbacs	2126	days	Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life
Method: CAM	2	integer		See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	0.25	kg/ha	
Application Efficiency:	APPEFF	0.95	fraction	
Spray Drift	DRFT	0.063	fraction of application rate applied to pond	
Application Date	Date	01-05	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1 interval	7	days	Set to 0 or delete line for single app.	
Interval 2 interval	7	days	Set to 0 or delete line for single app.	
Interval 3 interval	7	days	Set to 0 or delete line for single app.	
Interval 4 interval	7	days	Set to 0 or delete line for single app.	
Interval 5 interval	7	days	Set to 0 or delete line for single app.	
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT	0.078		
	FEXTRC	0.5		
Flag for Index Res. Run	IR	IR		
Flag for runoff calc.	RUNOFF	total	none, monthly or total(average of entire run)	

Illinois Corn Scenario – four applications of 0.19 kg a.i./ha every 7 days

A. Simulated with the non-sand Kd as an input parameter stored as tebuLLcornIRKd.out

Chemical: tebuconazole
 PRZM environment: ILCornC.txt modified Satday, 12 October 2002 at 16:01:38
 EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 15:34:12
 Metfile: w14923.dvf modified Wedday, 3 July 2002 at 09:04:40
 Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	23.85	23.45	22.05	19.37	19.25	8.587
1962	21.66	21.38	20.1	17.88	16.81	10.93
1963	26.48	26.02	24.36	22.36	20.94	11.54
1964	13.52	13.33	12.95	12.65	12.28	9.299
1965	18.22	17.92	17.2	16.49	15.68	9.441
1966	26.24	25.81	24.3	21.56	20.33	12.15
1967	20.86	20.56	19.52	18.67	18.25	13.03
1968	13.89	13.69	12.94	12.06	11.7	9.172
1969	28.69	28.2	27.46	24.27	22.4	11.98
1970	20.1	19.79	19.17	18.11	17.64	11.43
1971	37.28	36.65	35.11	31.5	29.31	15.23
1972	27.82	27.4	25.83	23.54	22.77	15.02
1973	19.06	18.79	18.32	17.02	16.25	11.56
1974	23.38	23.01	22.01	19.53	18.14	10.86
1975	12.33	12.14	11.42	10.91	10.59	7.798
1976	11.77	11.59	11.09	9.89	9.431	6.877
1977	24.08	23.7	22.88	22.34	21.38	11.23
1978	12.22	12.1	11.4	10.05	9.632	8.299
1979	17.04	16.8	15.79	13.83	13.22	8.335
1980	14.45	14.26	13.65	12.36	11.44	7.816
1981	16.22	15.97	15.44	14.76	14.31	8.909
1982	28.15	27.68	26.02	24.09	22.21	12.3
1983	29.99	29.53	28.14	24.73	22.91	13.72
1984	13.38	13.19	12.44	11.85	11.37	9.695
1985	11.14	10.96	10.69	10.01	9.239	7.039
1986	28.82	28.57	26.83	23.73	21.9	11.7
1987	30.04	29.5	27.43	23.78	21.62	12.07
1988	12.63	12.48	11.91	10.79	10.02	8.378
1989	18.71	18.42	17.61	15.79	14.68	8.97
1990	21.78	21.45	20.24	19.03	18.82	11.54

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	37.28	36.65	35.11	31.5	29.31	15.23
0.0645161290322581	30.04	29.53	28.14	24.73	22.91	15.02
0.0967741935483871	29.99	29.5	27.46	24.27	22.77	13.72
0.129032258064516	28.82	28.57	27.43	24.09	22.4	13.03
0.161290322580645	28.69	28.2	26.83	23.78	22.21	12.3
0.193548387096774	28.15	27.68	26.02	23.73	21.9	12.15
0.225806451612903	27.82	27.4	25.83	23.54	21.62	12.07
0.258064516129032	26.48	26.02	24.36	22.36	21.38	11.98
0.290322580645161	26.24	25.81	24.3	22.34	20.94	11.7
0.32258064516129	24.08	23.7	22.88	21.56	20.33	11.56
0.354838709677419	23.85	23.45	22.05	19.53	19.25	11.54
0.387096774193548	23.38	23.01	22.01	19.37	18.82	11.54
0.419354838709677	21.78	21.45	20.24	19.03	18.25	11.43
0.451612903225806	21.66	21.38	20.1	18.67	18.14	11.23
0.483870967741936	20.86	20.56	19.52	18.11	17.64	10.93
0.516129032258065	20.1	19.79	19.17	17.88	16.81	10.86
0.548387096774194	19.06	18.79	18.32	17.02	16.25	9.695
0.580645161290323	18.71	18.42	17.61	16.49	15.68	9.441
0.612903225806452	18.22	17.92	17.2	15.79	14.68	9.299
0.645161290322581	17.04	16.8	15.79	14.76	14.31	9.172
0.67741935483871	16.22	15.97	15.44	13.83	13.22	8.97
0.709677419354839	14.45	14.26	13.65	12.65	12.28	8.909
0.741935483870968	13.89	13.69	12.95	12.36	11.7	8.587
0.774193548387097	13.52	13.33	12.94	12.06	11.44	8.378
0.806451612903226	13.38	13.19	12.44	11.85	11.37	8.335
0.838709677419355	12.63	12.48	11.91	10.91	10.59	8.299
0.870967741935484	12.33	12.14	11.42	10.79	10.02	7.816
0.903225806451613	12.22	12.1	11.4	10.05	9.632	7.798
0.935483870967742	11.77	11.59	11.09	10.01	9.431	7.039
0.967741935483871	11.14	10.96	10.69	9.89	9.239	6.877

1978	12.4	12.26	11.51	10.46	10.14	9.042
1979	16.36	16.09	14.92	13.13	12.7	9.037
1980	14.64	14.41	13.61	12.19	11.33	8.502
1981	15.14	14.86	14.36	13.7	13.51	9.41
1982	24.67	24.12	22.95	20.57	18.83	11.94
1983	27.31	26.81	25.23	21.55	19.87	13.35
1984	13.88	13.67	13.08	12.7	12.24	10.67
1985	12.12	11.88	11.55	10.95	10.17	8.571
1986	25.86	25.43	23.27	19.94	18.35	11.23
1987	28.73	27.98	25.35	21.3	19.17	11.84
1988	12.11	11.99	11.61	10.93	10.4	9.143
1989	17.6	17.25	16.31	14.43	13.63	9.209
1990	21.01	20.57	19.35	17.8	17.55	11.72

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	31.97	31.22	29.76	25.9	23.91	14.52
0.0645161290322581	28.73	27.98	25.35	21.55	20.51	14.22
0.0967741935483871	27.31	26.81	25.23	21.48	19.87	13.35
0.129032258064516	26.42	25.85	24.7	21.3	19.62	13.02
0.161290322580645	25.86	25.43	23.27	20.9	19.17	12.3
0.193548387096774	24.97	24.49	22.95	20.57	18.87	12.16
0.225806451612903	24.67	24.12	22.82	19.94	18.83	12.14
0.258064516129032	24.24	23.64	21.58	19.87	18.35	11.96
0.290322580645161	23.73	23.22	21.57	19.26	17.89	11.94
0.32258064516129	22.45	21.97	20.81	18.78	17.79	11.84
0.354838709677419	21.61	21.15	20.49	18.03	17.55	11.72
0.387096774193548	21.01	20.57	19.35	17.83	17.17	11.38
0.419354838709677	20.98	20.57	19.32	17.8	17.09	11.23
0.451612903225806	20.94	20.42	18.71	17.54	16.69	10.9
0.483870967741936	19.52	19.15	18.29	16.67	15.78	10.88
0.516129032258065	19.15	18.8	17.95	16.01	15.13	10.67
0.548387096774194	19.1	18.78	17.64	15.71	14.98	10.4
0.580645161290323	17.6	17.25	16.31	15.36	14.41	10.2
0.612903225806452	17.52	17.23	16.25	14.43	13.63	10.11
0.645161290322581	16.36	16.09	14.92	13.7	13.51	9.827
0.67741935483871	15.14	14.86	14.36	13.13	12.7	9.41
0.709677419354839	14.64	14.41	13.61	12.73	12.43	9.209
0.741935483870968	14.3	14.1	13.24	12.7	12.24	9.143
0.774193548387097	13.88	13.67	13.11	12.59	12.09	9.042
0.806451612903226	13.82	13.59	13.08	12.19	11.33	9.037
0.838709677419355	12.66	12.44	11.62	10.95	10.86	8.609
0.870967741935484	12.4	12.26	11.61	10.95	10.4	8.571
0.903225806451613	12.34	12.12	11.58	10.93	10.17	8.502
0.935483870967742	12.12	11.99	11.55	10.46	10.14	7.712
0.967741935483871	12.11	11.88	11.51	10.2	9.695	6.932
0.1	27.221	26.714	25.177	21.462	19.845	13.317
Average of yearly averages:						10.6978

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

Data used for this run:

Output File: tebulLcornIRavg

Metfile: w14923.dvf

PRZM scenario: ILCornC.txt

EXAMS environment file: ir298.exv

Chemical Name: tebuconazole

Description	Variable Name	Value	Units	Comments
Molecular weight	mwt	308	g/mol	
Henry's Law Const.	henry	1.24e-10	atm-m ³ /mol	
Vapor Pressure	vapr	1.3e-8	torr	
Solubility	sol	320	mg/L	
Kd	Kd		mg/L	
Koc	Koc	1023	mg/L	
Photolysis half-life	kdp	590	days	Half-life
Aerobic Aquatic Metabolism	kbacw	1592	days	Halfife
Anaerobic Aquatic Metabolism		kbacs	2126	days Halfife
Aerobic Soil Metabolism	asm	796	days	Halfife
Hydrolysis:	pH 7	0	days	Half-life

Method: CAM 2 integer See PRZM manual
 Incorporation Depth: DEPI 0 cm
 Application Rate: TAPP 0.19 kg/ha
 Application Efficiency: APPEFF 0.95 fraction
 Spray Drift DRFT 0.16 fraction of application rate applied to pond
 Application Date Date 05-06 dd/mm or dd/mmm or dd-mm or dd-mmm
 Interval 1 interval 7 days Set to 0 or delete line for single app.
 Interval 2 interval 7 days Set to 0 or delete line for single app.
 Interval 3 interval 7 days Set to 0 or delete line for single app.
 Record 17: FILTRA
 IPSCND 1
 UPTKF
 Record 18: PLVKRT
 PLDKRT 0.078
 FEXTRC 0.5
 Flag for Index Res. Run IR IR
 Flag for runoff calc. RUNOFF total none, monthly or total(average of entire run)

B. SCI-GROW Output File

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:tebuconazole
 time is 6/ 5/2006 20:26:25

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
1.470	3.0	4.410	9.68E+02	800.0

groundwater screening cond (ppb) = 1.56E+00

Appendix V

May 5, 2006

Tebuconazole New Use Table

Crop	Product	Application Method	PHI (Days)	No. Apps. (Max Rate)	Retreat Interval (Days)	Maximum Application Rate lbs ai/A	Seasonal Max Application Rate lbs ai/A
Almonds	Elite 45 DF	Foliar	35	4	7-14	0.23	0.90
Asparagus (IR-4)	Folicur 3.6 F	Foliar	100 in CA and 180 in other states	3	14	0.17	0.51
Barley	Folicur 3.6 F	Foliar	30	1	NA	0.11	0.11
Beans (fresh)	Folicur 3.6 F	Foliar	7	4	14	0.17	0.68
Beans (dry)	Folicur 3.6 F	Foliar	14	2	14	0.17	0.34
Corn (Field, field grown for seed, pop, and sweet)	Folicur 3.6 F	Foliar	7 (sweet) 36 (field, seed, or pop)	4	7-14	0.17	0.68
Cotton	Folicur 3.6 F	Foliar	30	3	7-14	0.23	0.68
Cucurbits (IR-4)	Folicur 3.6 F	Foliar	3	3	10-14	0.23	0.68
Hops (IR-4)	Folicur 3.6 F	Foliar	14	4	10-14	0.23	0.90
Lychee (IR-4)	Folicur 3.6 F	Foliar	0	8	10	0.17	1.35
Okra (IR-4)	Folicur 3.6 F	Foliar	3	4	14	0.17	0.68
Pecan	Folicur 3.6 F	Foliar	NA	4	10-14	0.23	0.90
Pistachio	Elite 45 DF	Foliar	20	4	10-14	0.23	0.90
Pome Fruit	Elite 45 DF	Foliar	75	6	7-10	0.23	1.35
Soybean	Folicur 3.6 F	Foliar	21	3	10-14	0.11	0.34

Crop	Product	Application Method	PHI (Days)	No. Apps. (Max Rate)	Retreat Interval (Days)	Maximum Application Rate lbs ai/A	Seasonal Max Application Rate lbs ai/A
Stone Fruit (except cherries)	Elite 45 DF	Foliar	0	6	7-14	0.23	1.35
Sunflower (IR-4)	Folicur 3.6 F	Foliar	50	2 at 0.17 lbs 4 at 0.11 lbs	14	0.17	0.45
Turnip (IR-4)	Folicur 3.6 F	Foliar	7	4	12-14	0.20	0.81
Wheat	Folicur 3.6 F	Foliar	30	1	NA	0.11	0.11
Cherry (post-harvest)	Elite 45 DF	Post-harvest	NA	1	NA	0.45 lbs ai/25,000 lbs fruit	0.45/25,000 lbs fruit
Mango (post-harvest)	Folicur 3.6 F	Post-harvest	NA	1	NA	0.21 lbs ai/50,000 lbs fruit	0.21/50,000 lbs fruit
Plum (post-harvest) (IR-4)	Elite 45 DF	Post-harvest	NA	1	NA	0.23 lbs ai/200,000 lbs fruit	0.23/200,000 lbs fruit
Corn (Field, field grown for seed, pop, and sweet)	Folicur 3.6 F	Seed Treatment	NA	1	NA	0.0152 lbs ai/cwt	0.0152 lbs/cwt
Turf	Lynx 45 WG	Foliar	NA	3	14-90	1.47	4.40
			NA	1	NA	2.94	4.40
Turf	Lynx 2	Foliar	NA	3	14-90	1.36	4.42
Ornamentals	Lynx 45 WG	Foliar	NA	None	7-14	0.11 lbs ai/100 gal	None
Ornamentals	Lynx 2	Foliar	NA	None	7-14	0.13 lbs ai/100 gal	None