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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Date: October 19, 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, 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, ornamentals, 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. 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 IV, 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.

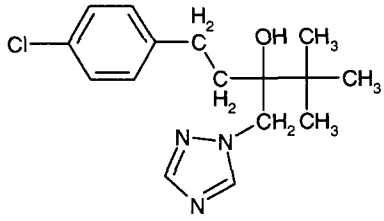
Tebuconazole is a broad spectrum, systemic fungicide. It has been registered for peanuts under the trade name of Folicur 3.6 F. Lynx formulation is targeted for turf and ornamental use. Lynx 45 WG has curative and protectant properties that can be used for the control of certain foliar and flower diseases 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 for tebuconazole were derived from the proposed preventive use on turf, at the maximum label rate of 1.47 lbs a.i./acre applied three times every 14 days. The Tier II simulated 1-in-10 year's annual peak (acute) concentration of tebuconazole in drinking water from this use is 78.5 ppb (derived from simulation with the lowest non-sand K_D value as an input parameter) in a Florida turf index reservoir scenario. The simulated 1-in-10 years annual mean (chronic-non cancer) concentration of tebuconazole in drinking water from this scenario is 41.3 ppb (simulation with the lowest non-sand K_D value). The 36 years annual average concentration (chronic-cancer) is 23.3 ppb (simulation with the lowest non-sand K_D value, Table 3A). Those concentrations are recommended to be used for the human health risk assessment purpose.

If the pesticide was proposed for a treatment of golf courses with no other turf uses, and on tees and greens only, the acute concentration would be 3.9 ppb, the chronic non-cancer concentration 2.1 ppb, and the chronic cancer concentration 1.2 ppb, from the turf proposed maximum application rate. If tees, greens, and fairways were all treated, the acute concentration would be 26.7 ppb, the chronic non-cancer concentration 14.0 ppb, and the chronic cancer concentration 7.9 ppb, from the turf proposed maximum application rate. Additionally, Florida turf was modeled for the label minimum proposed application rate of 0.37 lbs a.i./acre applied three times every 14 days. All simulated drinking water concentrations are listed in Tables 3A and 3B of this document.

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)-1H-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_ds 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 ($T_{1/2}$ >> 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 base 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, peaches, and corn, and no PCA factor was used for turf uses as according to the proposed label. 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 1 and 2 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 3A and 3B.

Table 1. 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]	Turf: 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) Ornamentals: 0.5 lb ia/A (0.56 kg ai/ha) Corn: 0.17 lb ai/A (0.19 kg ai/ha) Peach: 0.23 lb ai/A (0.25 kg ai/ha)	Product Labels: 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

[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 Kd is not statistically significant (P=0.14), a graphical analysis illustrates a positive linear relationship of SOC and Kd (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.

	Apples: Max: 0.23 lb ai/A (0.25 kg ai/ha) Min: 0.12 lb ai/A (0.13 kg ai/ha)	Product label: Elite 45 DF EPA Reg. No. 264-749
Maximum Number of Applications	Turf A = 3 Turf B = 1 Ornamentals = 8 Corn = 4 Peach and Apples = 6	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
Minimum interval between applications	Turf A = 14 days All other = 7 days	Product labels as above
Method of Application	Turf = ground foliar[1] Ornamentals = ground foliar[1] Corn = aerial Peach and Apples = airblast	Product labels as above
Soil Partition Coefficient (K_d)[2]	12.7 (K_d)[2] 1023 (Koc)[2]	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.
Aerobic aquatic metabolism half-life	1592 days	assumed 2 x aerobic soil metabolism half-life input 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 chemigation only, to ornamentals via ground application only, 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 Koc 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 2. 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	Assumed based on crop profile and planting dates data from the PRZM crop

	OR Xmas Tree = 15-05 IL Corn = 05-06 GA Peach = 01-03 PA Apples = 01-05 NC Apples = 01-05	scenarios
Rainfall Data (Metfile)	PA Turf = W14737.dvf FL Turf = W12834.dvf OR Xmas tree = W24232.dvf IL Corn = W14923.dvf GA Peach = W03813.dvf PA Apples = W14737.dvf NC Apples = W03812.dvf	
Application Fraction	Turf (ground) = 0.99 Ornamentals (ground) = 0.99 Corn (aerial) = 0.95 Peach & Apples (airblast) = 0.95	
Spray Drift Fraction	Turf (ground) = 0.064 Ornamentals (ground) = 0.064 Corn = 0.16 Peach & Apples (airblast) = 0.063	

Table 3A. Tebuconazole estimated drinking water concentrations from surface water sources modeled with the lowest non-sand Kd as the partition coefficient input parameter.

		Estimated Drinking Water Concentrations (µg/L)		
		1 in 10 year annual peak	1 in 10 year annual mean	36 year annual mean
PA Turf				
preventive use	*Maximum application*	61.5	37.9	28.0
PCA = 1	1.65 x 3 = 4.95	20.9	12.9	9.52
GCAF = 0.05		3.08	1.90	1.40
GCAF = 0.34				
curative		41.9	26.3	18.4
PCA = 1	3.30 x1 = 3.30	14.2	8.94	6.26
GCAF = 0.05		2.10	1.32	0.92
GCAF = 0.34				
FL Turf				
preventive use	*Maximum application*			
PCA = 1	1.65 x 3 = 4.95	**78.5**	**41.3**	**23.3**
GCAF = 0.05		26.7	14.0	7.92
GCAF = 0.34		3.93	2.07	1.17
curative	3.30 x1 = 3.30			
PCA = 1		58.7	29.2	16.1
GCAF = 0.05		20.0	9.93	5.47
GCAF = 0.34		2.94	1.46	0.81
	Minimum application			
PCA = 1	0.41 x 3 = 1.23	19.5	10.3	5.78
GCAF = 0.05		6.63	3.49	1.97
GCAF = 0.34		0.98	0.51	0.29
OR Xmas Tree (PCA =1)	0.56 x 8 = 4.48	44.9	38.5	30.8
IL corn	0.19 x 4 = 0.76	26.0	11.9	9.13

(PCA = 0.87)				
GA peach (PCA = 0.87)	0.25 x 6 = 1.50	16.2	10.5	8.05
PA apples	0.25 x 6 = 1.50	27.4	16.6	10.9
NC apples (PCA = 0.87)		25.5	12.3	8.19

Table 3B. Tebuconazole estimated drinking water concentrations from surface water sources modeled with an average Koc value as the partition coefficient input parameter.

		Estimated Drinking Water Concentrations (µg/L)		
		1 in 10 year annual peak	1 in 10 year annual mean	36 year annual mean
FL Turf	*Maximum application*			
PCA = 1	1.65 x 3 = 4.95	59.9	37.7	26.8
GCAF = 0.05		3.00	1.89	1.34
GCAF = 0.34		20.4	12.8	9.11
	Maximum application			
PCA = 1	0.41 x 3 = 1.23	14.9	9.37	6.67
GCAF = 0.05		0.74	0.47	0.33
GCAF = 0.34		5.06	3.19	2.27
PA Turf	*Maximum application*			
(PCA =1)	1.65 x 3 = 4.95	57.3	44.9	32.3
ORXmas Tree PCA = 1	0.56 x 8 = 4.48	40.7	33.9	27.5
IL corn PCA = 0.87	0.19 x 4 = 0.76	23.7	11.6	9.31
GA peach PCA = 0.87	0.25 x 6 = 1.50	13.3	7.92	6.12
PA apples PCA = 0.87	0.25 x 6 = 1.50	26.4	14.9	10.2

As shown in Tables 3A and 3B, the highest estimated drinking water concentrations for tebuconazole were simulated from the proposed preventive use on turf, at the maximum label rate of 1.47 lbs a.i./acre applied three times every 14 days. The Tier II simulated 1-in-10 year's annual peak (acute) concentration of tebuconazole in drinking water from this use is 59.9 ppb from simulation with the average K_{OC} value, and 78.5 ppb from simulation with the lowest non-sand K_D as an input parameter, in a Florida turf index reservoir scenario. The simulated 1-in-10 years annual mean (chronic-non cancer) concentration of tebuconazole in drinking water from this scenario is 37.7 ppb (simulation with the average K_{OC} value) and 41.3 ppb (simulation with the lowest non-sand K_D value). The 36 years annual average concentration (chronic-cancer) is 26.8 ppb (simulation with the average K_{OC} value) and 23.3 ppb (simulation with the lowest non-sand K_D value).

For the human health risk assessment purpose, EFED recommends to use the values

derived from simulations with the K_D input parameter because they are the highest, therefore conservative estimates.

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 purpose, the highest estimates of DWCs are recommended to be used.

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, peach, and corn scenario was adjusted with the default PCA of 0.87. The potential to underestimate or overestimate environmental concentrations may be associated with the application of the default (0.87) PCA factor for those uses.

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 4 lists the modeling input parameters.

Table 4. SCI-GROW input parameters for Tebuconazole applied on turf at the maximum label application rate.	
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

Table 1: Tebuconazole foliar half-lives.

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	

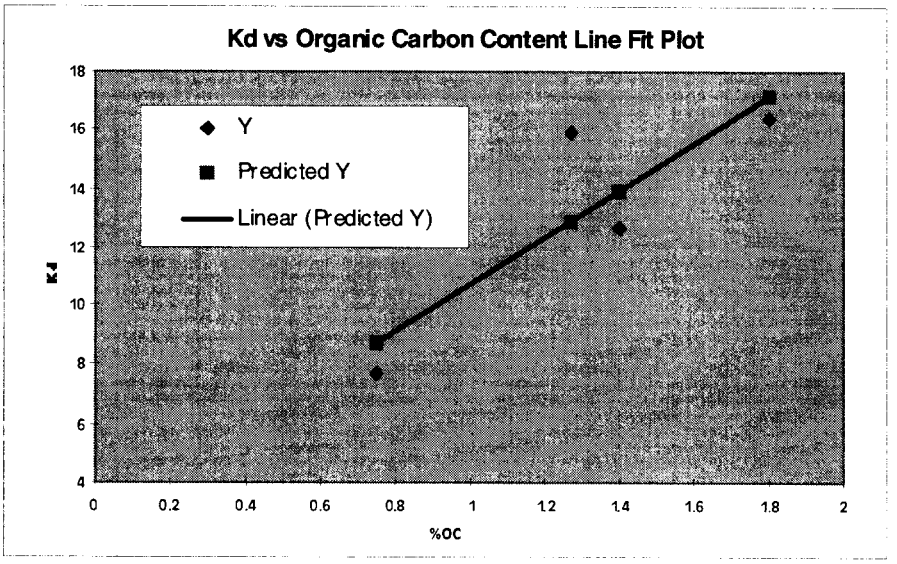
[1] – Presents valid half-lives; data sets met the criteria (trials with Day 0 values) for calculating a half-life, and the results of the regression were statistically valid (Power ≥ 0.80). Wheat hay and barley dissipation data had a weak fit to the model with the value of power below 0.80, therefore,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

PLDKRT input parameter = ln (0.5)/90% upper confidence bound = 0.078

APPENDIX II

Graph 1: K_D versus Organic Carbon Content Plot



APPENDIX III

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:		23.2658333333333

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)	

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: 26.8276666666667

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

Data used for this run:
Output File: tebuFLturfAIRavg
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	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: 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	0.41	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 tebuconazoleFLturfB.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	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/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)		

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 tebuconazolePAturfA.out
Chemical: tebuconazole
PRZM environment: PAturfC.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 tebuPAturfIRavg.out
Chemical: tebuconazole
PRZM environment: PAturfC.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: tebuPAturfIRavg
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	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: PAturfC.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: 18.3616666666667

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)		

Oregon Xmas Tree Scenario – eight applications of 0.56 kg a.i./ha every 7 days

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

stored as tebuoORXmastIRkd.out
Chemical: tebuconazole
PRZM environment: ORXmasTreeC.txt modified Monday, 24 November 2003 at 14:49:48
EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12
Metfile: w24232.dvf modified Wedday, 3 July 2002 at 10:06:10
Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	9.406	9.326	9.013	8.478	8.136	4.594
1962	20.03	19.93	19.56	18.02	17.25	12.46
1963	27.07	26.95	26.46	26.01	24.49	20.19
1964	28.71	28.63	27.94	27.19	26.63	24.24
1965	31.97	31.87	30.36	29.52	28.93	27.05
1966	35.37	35.26	34.77	32.46	31.7	30.07
1967	35.46	35.3	34.75	33.89	33.28	31.62
1968	41.04	40.93	40.3	39.13	38.35	33.94
1969	41.67	41.48	40.91	39.58	38.75	36.18
1970	39.79	39.63	39.07	38.18	37.53	35.52
1971	40.06	39.88	39.17	38.15	37.71	34.28
1972	37.17	37.01	36.46	35.59	34.96	32.96
1973	37.46	37.32	36.9	35.69	35.07	33.57
1974	36.67	36.55	35.99	34.97	34.36	32.7
1975	36.28	36.12	35.57	34.71	34.11	32.04
1976	33.9	33.75	33.21	32.38	31.79	28.99
1977	29.99	29.85	29.41	28.56	27.98	25.78
1978	31.71	31.56	31.02	30.21	29.62	27.37
1979	36.13	35.96	35.25	34.32	34.08	29.05
1980	41.08	40.9	38.8	33.77	32.76	31.11
1981	45.43	45.25	44.73	43.83	43.65	38.35
1982	42.95	42.82	42.23	41.01	40.34	38.51
1983	39.36	39.2	38.65	37.77	37.34	35.66
1984	38.62	38.48	38.13	37.46	35.55	33.27
1985	40.05	39.87	39.3	38.38	37.67	34.58
1986	36.49	36.34	35.8	34.94	34.33	31.95
1987	47.2	46.97	46.06	39.15	37.43	32.74
1988	44.79	44.6	44.31	42.95	41.91	39.61
1989	44.9	44.7	43.9	39.09	37.54	36.33
1990	43.57	43.44	42.8	41.91	41.02	39.39

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	47.2	46.97	46.06	43.83	43.65	39.61
0.0645161290322581	45.43	45.25	44.73	42.95	41.91	39.39
0.0967741935483871	44.9	44.7	44.31	41.91	41.02	38.51
0.129032258064516	44.79	44.6	43.9	41.01	40.34	38.35

0.161290322580645	43.57	43.44	42.8	39.58	38.75	36.33
0.193548387096774	42.95	42.82	42.23	39.15	38.35	36.18
0.225806451612903	41.67	41.48	40.91	39.13	37.71	35.66
0.258064516129032	41.08	40.93	40.3	39.09	37.67	35.52
0.290322580645161	41.04	40.9	39.3	38.38	37.54	34.58
0.32258064516129	40.06	39.88	39.17	38.18	37.53	34.28
0.354838709677419	40.05	39.87	39.07	38.15	37.43	33.94
0.387096774193548	39.79	39.63	38.8	37.77	37.34	33.57
0.419354838709677	39.36	39.2	38.65	37.46	35.55	33.27
0.451612903225806	38.62	38.48	38.13	35.69	35.07	32.96
0.483870967741936	37.46	37.32	36.9	35.59	34.96	32.74
0.516129032258065	37.17	37.01	36.46	34.97	34.36	32.7
0.548387096774194	36.67	36.55	35.99	34.94	34.33	32.04
0.580645161290323	36.49	36.34	35.8	34.71	34.11	31.95
0.612903225806452	36.28	36.12	35.57	34.32	34.08	31.62
0.645161290322581	36.13	35.96	35.25	33.89	33.28	31.11
0.67741935483871	35.46	35.3	34.77	33.77	32.76	30.07
0.709677419354839	35.37	35.26	34.75	32.46	31.79	29.05
0.741935483870968	33.9	33.75	33.21	32.38	31.7	28.99
0.774193548387097	31.97	31.87	31.02	30.21	29.62	27.37
0.806451612903226	31.71	31.56	30.36	29.52	28.93	27.05
0.838709677419355	29.99	29.85	29.41	28.56	27.98	25.78
0.870967741935484	28.71	28.63	27.94	27.19	26.63	24.24
0.903225806451613	27.07	26.95	26.46	26.01	24.49	20.19
0.935483870967742	20.03	19.93	19.56	18.02	17.25	12.46
0.967741935483871	9.406	9.326	9.013	8.478	8.136	4.594
0.1	44.889	44.69	44.269	41.82	40.952	38.494
			Average of yearly averages:			30.8034666666667

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

Data used for this run:
Output File: tebuoORXmastIRkd
Metfile: w24232.dvf
PRZM scenario: ORXmasTreeC.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)

Oregon Xmas Tree Scenario – eight applications of 0.56 kg a.i./ha every 7 days

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

stored as tebuoORXmastIRavg.out
Chemical: tebuconazole
PRZM environment: ORXmasTreeC.txt modified Monday, 24 November 2003 at 14:49:48
EXAMS environment: ir298.exv modified Thuday, 29 August 2002 at 16:34:12
Metfile: w24232.dvf modified Wedday, 3 July 2002 at 10:06:10
Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	8.227	8.071	7.53	6.818	6.372	3.483
1962	15.45	15.3	14.76	13.45	12.93	9.216
1963	21.63	21.42	20.85	20.4	18.94	15.15
1964	23.24	23.06	22.49	21.64	21.09	18.83
1965	26.01	25.84	25.15	24.15	23.4	21.59
1966	29.82	29.69	28.99	27.1	26.1	24.5
1967	30.3	30.1	29.52	28.63	28.01	26.37
1968	35.53	35.38	34.53	33.1	32.58	28.9
1969	37.25	36.97	36.35	34.64	33.68	31.15
1970	35.48	35.27	34.69	33.78	33.15	31.11
1971	37.01	36.75	35.75	34.42	33.87	30.91
1972	34.55	34.34	33.76	32.85	32.22	30.23
1973	34.69	34.48	33.9	32.99	32.37	30.84
1974	34.29	34.11	33.36	32.41	31.78	30.12
1975	34.04	33.83	33.25	32.35	31.72	29.73
1976	32.46	32.25	31.68	30.78	30.16	27.56
1977	29.69	29.5	28.93	28.05	27.44	25.38
1978	30.33	30.13	29.55	28.66	28.05	25.96
1979	34.65	34.36	33.26	31.86	31.41	27.28
1980	36.97	36.7	35.21	31.12	30.25	28.6
1981	40.7	40.46	39.33	38.53	38.15	33.7
1982	38.17	37.95	37.37	36.45	35.83	33.91
1983	36.29	36.08	35.5	34.59	34.1	32.39
1984	36.23	36	35.54	34.41	32.85	30.99
1985	37.43	37.18	36.57	35.7	34.83	31.87
1986	34.68	34.48	33.9	33	32.38	30.09
1987	43.81	43.44	42.41	36.1	34.78	31.03
1988	40.21	39.96	39.36	37.8	36.84	35.34
1989	42.03	41.71	40.5	36.21	34.75	33.47
1990	39.29	39.11	38.47	37.44	36.79	35.49

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	43.81	43.44	42.41	38.53	38.15	35.49
0.0645161290322581	42.03	41.71	40.5	37.8	36.84	35.34
0.0967741935483871	40.7	40.46	39.36	37.44	36.79	33.91
0.129032258064516	40.21	39.96	39.33	36.45	35.83	33.7
0.161290322580645	39.29	39.11	38.47	36.21	34.83	33.47
0.193548387096774	38.17	37.95	37.37	36.1	34.78	32.39
0.225806451612903	37.43	37.18	36.57	35.7	34.75	31.87
0.258064516129032	37.25	36.97	36.35	34.64	34.1	31.15
0.290322580645161	37.01	36.75	35.75	34.59	33.87	31.11
0.32258064516129	36.97	36.7	35.54	34.42	33.68	31.03
0.354838709677419	36.29	36.08	35.5	34.41	33.15	30.99
0.387096774193548	36.23	36	35.21	33.78	32.85	30.91
0.419354838709677	35.53	35.38	34.69	33.1	32.58	30.84
0.451612903225806	35.48	35.27	34.53	33	32.38	30.23
0.483870967741936	34.69	34.48	33.9	32.99	32.37	30.12
0.516129032258065	34.68	34.48	33.9	32.85	32.22	30.09
0.548387096774194	34.65	34.36	33.76	32.41	31.78	29.73
0.580645161290323	34.55	34.34	33.36	32.35	31.72	28.9
0.612903225806452	34.29	34.11	33.26	31.86	31.41	28.6
0.645161290322581	34.04	33.83	33.25	31.12	30.25	27.56
0.67741935483871	32.46	32.25	31.68	30.78	30.16	27.28

0.709677419354839	30.33	30.13	29.55	28.66	28.05	26.37
0.741935483870968	30.3	30.1	29.52	28.63	28.01	25.96
0.774193548387097	29.82	29.69	28.99	28.05	27.44	25.38
0.806451612903226	29.69	29.5	28.93	27.1	26.1	24.5
0.838709677419355	26.01	25.84	25.15	24.15	23.4	21.59
0.870967741935484	23.24	23.06	22.49	21.64	21.09	18.83
0.903225806451613	21.63	21.42	20.85	20.4	18.94	15.15
0.935483870967742	15.45	15.3	14.76	13.45	12.93	9.216
0.967741935483871	8.227	8.071	7.53	6.818	6.372	3.483
0.1	40.651	40.41	39.357	37.341	36.694	33.889
				Average of yearly averages:		27.5063

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

Data used for this run:
Output File: tebuoORXmastIRavg
Metfile: w24232.dvf
PRZM scenario: ORXmasTreeC.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.		
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
1980	12.59	12.5	12.25	11.82	11.44	8.848
1981	18.77	18.61	18.03	16.84	16.11	12.06
1982	16.83	16.72	16.26	15.54	14.92	11.72
1983	11.79	11.72	11.54	11.08	10.66	9.411
1984	13.65	13.55	13.12	12.29	11.84	9.286
1985	9.742	9.684	9.45	9.115	8.86	7.721
1986	8.821	8.763	8.53	8.199	7.932	7.005
1987	8.569	8.515	8.296	7.969	7.739	6.533
1988	7.934	7.881	7.667	7.387	7.196	5.869
1989	7.861	7.824	7.685	7.529	7.347	5.739
1990	9.76	9.685	9.44	9.049	8.722	6.661

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258064516129	22.66	22.46	21.69	21.12	20.29	13.83
0.0645161290322581	20.74	20.55	20.17	18.76	17.81	12.18
0.0967741935483871	18.77	18.61	18.03	16.84	16.11	12.06
0.129032258064516	16.98	16.85	16.32	15.54	14.92	11.98
0.161290322580645	16.83	16.72	16.26	15.32	14.78	11.72
0.193548387096774	16.75	16.62	16.23	15.25	14.77	11.66
0.225806451612903	16.09	15.96	15.44	15.11	14.57	11.17
0.258064516129032	15.53	15.42	15.16	14.72	14.53	11.16
0.290322580645161	15.33	15.23	14.86	14.18	13.66	10.89
0.32258064516129	14.75	14.65	14.38	13.84	13.31	10.64
0.354838709677419	14.23	14.12	13.69	12.84	12.66	10.34
0.387096774193548	13.65	13.55	13.12	12.74	12.52	10.3
0.419354838709677	13.49	13.4	13.03	12.68	12.29	9.461
0.451612903225806	13.32	13.23	12.98	12.29	11.84	9.411
0.483870967741936	12.71	12.64	12.32	11.82	11.44	9.286
0.516129032258065	12.59	12.5	12.25	11.66	11.32	8.931
0.548387096774194	12.12	12.03	11.8	11.14	10.68	8.848
0.580645161290323	11.79	11.72	11.54	11.08	10.66	8.599
0.612903225806452	11.72	11.63	11.35	11	10.66	8.555
0.645161290322581	11.61	11.53	11.19	10.74	10.61	8.352
0.67741935483871	10.69	10.62	10.39	10.03	9.768	8.305
0.709677419354839	10.5	10.43	10.17	9.748	9.746	7.95
0.741935483870968	10.43	10.33	10.02	9.235	8.86	7.721
0.774193548387097	9.76	9.685	9.45	9.115	8.821	7.005
0.806451612903226	9.742	9.684	9.44	9.049	8.722	6.867
0.838709677419355	9.183	9.126	8.895	8.565	8.308	6.661
0.870967741935484	8.821	8.763	8.53	8.199	7.932	6.533
0.903225806451613	8.569	8.515	8.296	7.969	7.739	5.869
0.935483870967742	7.934	7.881	7.685	7.529	7.347	5.739
0.967741935483871	7.861	7.824	7.667	7.387	7.196	5.422
0.1	18.591	18.434	17.859	16.71	15.991	12.052

Average of yearly averages: 9.24816666666667

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

Data used for this run:
Output File: tebuGAPeachIRKd
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	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	01-03	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
0.111111111111111	28.63	28.22	26.62	25.77	24.54	14.04
0.148148148148148	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
0.222222222222222	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
0.333333333333333	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
0.444444444444444	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
0.555555555555556	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 tebuPAappleIRavg.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 tebuILcornIRKd.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
0.1	29.873	29.407	27.457	24.252	22.733	13.651
			Average of yearly averages:			10.4968333333333

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

Data used for this run:
Output File: tebulLcornIRKd
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	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	0.19	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. Simulated with the average Koc value as an input parameter

stored as tebulLcornIRavg.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	20.94	20.42	18.71	16.01	14.98	6.932
1962	19.52	19.15	17.64	15.36	14.41	10.11

1963	24.24	23.64	21.57	19.26	17.89	10.88
1964	13.82	13.59	13.11	12.73	12.43	9.827
1965	17.52	17.23	16.25	15.71	15.13	10.4
1966	23.73	23.22	21.58	18.78	17.79	12.16
1967	19.1	18.78	17.95	17.54	17.09	13.02
1968	14.3	14.1	13.24	12.59	12.09	10.2
1969	26.42	25.85	24.7	21.48	19.62	11.96
1970	20.98	20.57	19.32	17.83	17.17	12.14
1971	31.97	31.22	29.76	25.9	23.91	14.22
1972	24.97	24.49	22.82	20.9	20.51	14.52
1973	19.15	18.8	18.29	16.67	15.78	12.3
1974	22.45	21.97	20.81	18.03	16.69	11.38
1975	12.66	12.44	11.62	10.95	10.86	8.609
1976	12.34	12.12	11.58	10.2	9.695	7.712
1977	21.61	21.15	20.49	19.87	18.87	10.9
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

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Appendix IV

May 5, 2006

Tebuconaozle 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