

Appendix F. Example Aquatic Modeling Output Files

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1. Example PRZM/EXAMs Output Files

stored as apricot.out

Chemical: Diazinon

PRZM environment:

CAfruit_WirrigSTD.txt modified Tuesday, 29 May 2007 at 12:42:32

EXAMS environment:

pond298.exv modified Wedday, 15 November 2006 at 12:47:26

modified Wedday, 3 July 2002 at

Metfile: w93193.dvf 09:04:24

Water segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	6.192	5.523	3.803	2.533	1.942	0.5745
1962	6.565	6.03	4.206	3.347	2.797	0.8543
1963	6.22	5.555	3.839	3.126	2.493	0.782
1964	6.203	5.517	3.774	2.159	1.65	0.4916
1965	6.169	5.46	3.69	2.07	1.797	0.5601
1966	6.199	5.517	3.78	2.164	1.641	0.4729
1967	6.175	5.475	3.716	2.292	1.78	0.5588
1968	6.189	5.501	3.757	2.109	1.587	0.4612
1969	18.39	16.46	13.05	8.778	7.047	2.154
1970	11.3	10.02	7.153	4.597	3.65	1.089
1971	6.193	5.495	3.739	2.122	1.615	0.4924
1972	6.213	5.552	3.841	2.215	1.664	0.4796
1973	6.178	5.481	3.764	2.465	1.955	0.5806
1974	8.84	8.134	5.638	3.224	2.448	0.7153
1975	6.2	5.522	3.824	2.184	1.665	0.4984
1976	6.596	5.878	4.043	3.317	2.728	0.8425
1977	6.655	5.919	4.064	2.292	1.737	0.504
1978	6.194	5.691	4.461	3.338	2.684	0.8052
1979	6.171	5.457	4.118	2.445	1.86	0.5372
1980	7.016	6.24	5.423	3.74	3.052	0.9162
1981	6.17	5.452	3.671	2.594	2.004	0.5834

1982	11.77	10.49	6.97	3.952	3.066	0.9279
1983	10.6	9.495	7.471	5.022	3.999	1.207
1984	6.172	5.452	3.669	2.068	1.559	0.4449
1985	6.188	5.507	3.771	2.152	1.632	0.4666
1986	6.115	5.344	3.504	2.631	2.164	0.6394
1987	7.413	6.58	4.435	2.536	1.939	0.558
1988	6.348	5.672	3.834	2.151	1.632	0.4812
1989	6.438	5.933	4.103	2.365	1.898	0.5626
1990	9.703	8.668	6.093	3.976	3.045	0.8865

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258	18.39	16.46	13.05	8.778	7.047	2.154
0.064516	11.77	10.49	7.471	5.022	3.999	1.207
0.096774	11.3	10.02	7.153	4.597	3.65	1.089
0.129032	10.6	9.495	6.97	3.976	3.066	0.9279
0.16129	9.703	8.668	6.093	3.952	3.052	0.9162
0.193548	8.84	8.134	5.638	3.74	3.045	0.8865
0.225806	7.413	6.58	5.423	3.347	2.797	0.8543
0.258065	7.016	6.24	4.461	3.338	2.728	0.8425
0.290323	6.655	6.03	4.435	3.317	2.684	0.8052
0.322581	6.596	5.933	4.206	3.224	2.493	0.782
0.354839	6.565	5.919	4.118	3.126	2.448	0.7153
0.387097	6.438	5.878	4.103	2.631	2.164	0.6394
0.419355	6.348	5.691	4.064	2.594	2.004	0.5834
0.451613	6.22	5.672	4.043	2.536	1.955	0.5806
0.483871	6.213	5.555	3.841	2.533	1.942	0.5745
0.516129	6.203	5.552	3.839	2.465	1.939	0.5626
0.548387	6.2	5.523	3.834	2.445	1.898	0.5601
0.580645	6.199	5.522	3.824	2.365	1.86	0.5588
0.612903	6.194	5.517	3.803	2.292	1.797	0.558
0.645161	6.193	5.517	3.78	2.292	1.78	0.5372
0.677419	6.192	5.507	3.774	2.215	1.737	0.504
0.709677	6.189	5.501	3.771	2.184	1.665	0.4984
0.741935	6.188	5.495	3.764	2.164	1.664	0.4924
0.774194	6.178	5.481	3.757	2.159	1.65	0.4916
0.806452	6.175	5.475	3.739	2.152	1.641	0.4812
0.83871	6.172	5.46	3.716	2.151	1.632	0.4796
0.870968	6.171	5.457	3.69	2.122	1.632	0.4729
0.903226	6.17	5.452	3.671	2.109	1.615	0.4666
0.935484	6.169	5.452	3.669	2.07	1.587	0.4612
0.967742	6.115	5.344	3.504	2.068	1.559	0.4449

		9.967		4.534		
0.1	11.23	5	7.1347	9	3.5916	1.07289
					Average of	
					yearly	0.70424
					averages:	3

Inputs generated by pe5.pl - Novemeber 2006

Data used for this run:

Output File: apricot

Metfile: w93193.dvf

PRZM scenario: CAfruit_WirrigSTD.txt

EXAMS environment
file: pond298.exv

Diazino
Chemical Name: n
Variable

Description	Name	Value	Units	Comments
		304.3		
Molecular weight	mwt	5	g/mol	
		1.13E-		
Henry's Law Const.	henry	07	atm-m ³ /mol	
		7.22E-		
Vapor Pressure	vapr	05	torr	
Solubility	sol	65.5	mg/L	
Kd	Kd		mg/L	
Koc	Koc	2184	mg/L	
Photolysis half-life	kdp	0	days	Half-life
Aerobic Aquatic				Halfif
Metabolism	kbacw	9	days	e
Anaerobic Aquatic				Halfif
Metabolism	kbacs	74	days	e
Aerobic Soil				Halfif
Metabolism	asm	48	days	e
				Half-
Hydrolysis:	pH 7	0	days	life
Method:	CAM	1	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	2.259	kg/ha	
			fractio	
Application Efficiency:	APPEFF	0.99	n	
Spray Drift	DRFT	0.03	fraction of application rate applied to pond	
Application Date	Date	1-Jan	dd/mm or dd/mmm or dd-mm or dd-mmm	
Interval 1	interval	3	days	Set to 0 or delete line for single app.

app. rate 1	apprate	2.259	kg/ha
Record 17:	FILTRA		
	IPSCND	1	
	UPTKF		
Record 18:	PLVKRT		
	PLDKRT		
	FEXTRC	0.5	
		EPA	
Flag for Index Res. Run	IR	Pond	
	RUNOF		
Flag for runoff calc.	F	none	none, monthly or total(average of entire run)

stored as apricotben.out

Chemical: Diazinon

PRZM environment:

CAfruit_WirrigSTD.txt modified Tuesday, 29 May 2007 at 12:42:32

EXAMS environment:

pond298.exv modified Wedday, 15 November 2006 at 12:47:26

modified Wedday, 3 July 2002 at

Metfile: w93193.dvf 09:04:24

Benthic segment concentrations (ppb)

Year	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
1961	1.214	1.213	1.2	1.118	1.036	0.4162
1962	1.761	1.76	1.74	1.614	1.469	0.6147
1963	1.537	1.537	1.517	1.413	1.322	0.5687
1964	1.042	1.042	1.032	0.972	0.9044	0.3671
		0.990		0.932		
1965	0.9906	2	0.9802	2	0.918	0.4044
				0.967		
1966	1.041	1.041	1.031	7	0.8931	0.3446
1967	1.092	1.091	1.081	1.016	0.9532	0.4066
1968	1.02	1.019	1.005	0.931	0.8557	0.3342
1969	4.428	4.425	4.384	4.181	3.894	1.556
1970	2.296	2.295	2.269	2.142	1.993	0.7921
				0.953		
1971	1.025	1.024	1.015	7	0.884	0.3649
				0.983		
1972	1.068	1.067	1.056	4	0.9007	0.3474
1973	1.153	1.152	1.14	1.078	1.024	0.4178
1974	1.553	1.552	1.537	1.44	1.329	0.5209
				0.975		
1975	1.053	1.053	1.042	8	0.9064	0.3696

1976	1.715	1.714	1.694	1.575	1.448	0.6109
1977	1.119	1.118	1.105	1.027	0.9487	0.3695
1978	1.612	1.611	1.593	1.48	1.387	0.5672
1979	1.173	1.172	1.159	1.087	1.002	0.3874
1980	1.773	1.772	1.756	1.682	1.596	0.6542
1981	1.249	1.249	1.235	1.147	1.064	0.4174
1982	1.919	1.918	1.898	1.775	1.662	0.6821
1983	2.568	2.567	2.539	2.365	2.177	0.8629
				0.918		
1984	0.9874	0.987	0.9789	9	0.8457	0.3211
				0.950		
1985	1.025	1.025	1.016	5	0.8788	0.3344
1986	1.267	1.266	1.246	1.16	1.081	0.4417
1987	1.201	1.2	1.188	1.119	1.038	0.4006
				0.952		
1988	1.032	1.032	1.02	4	0.8782	0.3476
1989	1.135	1.134	1.123	1.064	1.003	0.4021
1990	1.957	1.956	1.938	1.809	1.66	0.6374

Sorted results

Prob.	Peak	96 hr	21 Day	60 Day	90 Day	Yearly
0.032258	4.428	4.425	4.384	4.181	3.894	1.556
0.064516	2.568	2.567	2.539	2.365	2.177	0.8629
0.096774	2.296	2.295	2.269	2.142	1.993	0.7921
0.129032	1.957	1.956	1.938	1.809	1.662	0.6821
0.16129	1.919	1.918	1.898	1.775	1.66	0.6542
0.193548	1.773	1.772	1.756	1.682	1.596	0.6374
0.225806	1.761	1.76	1.74	1.614	1.469	0.6147
0.258065	1.715	1.714	1.694	1.575	1.448	0.6109
0.290323	1.612	1.611	1.593	1.48	1.387	0.5687
0.322581	1.553	1.552	1.537	1.44	1.329	0.5672
0.354839	1.537	1.537	1.517	1.413	1.322	0.5209
0.387097	1.267	1.266	1.246	1.16	1.081	0.4417
0.419355	1.249	1.249	1.235	1.147	1.064	0.4178
0.451613	1.214	1.213	1.2	1.119	1.038	0.4174
0.483871	1.201	1.2	1.188	1.118	1.036	0.4162
0.516129	1.173	1.172	1.159	1.087	1.024	0.4066
0.548387	1.153	1.152	1.14	1.078	1.003	0.4044
0.580645	1.135	1.134	1.123	1.064	1.002	0.4021
0.612903	1.119	1.118	1.105	1.027	0.9532	0.4006
0.645161	1.092	1.091	1.081	1.016	0.9487	0.3874
				0.983		
0.677419	1.068	1.067	1.056	4	0.918	0.3696

				0.975		
0.709677	1.053	1.053	1.042	8	0.9064	0.3695
0.741935	1.042	1.042	1.032	0.972	0.9044	0.3671
				0.967		
0.774194	1.041	1.041	1.031	7	0.9007	0.3649
				0.953		
0.806452	1.032	1.032	1.02	7	0.8931	0.3476
				0.952		
0.83871	1.025	1.025	1.016	4	0.884	0.3474
				0.950		
0.870968	1.025	1.024	1.015	5	0.8788	0.3446
				0.932		
0.903226	1.02	1.019	1.005	2	0.8782	0.3344
		0.990				
0.935484	0.9906	2	0.9802	0.931	0.8557	0.3342
				0.918		
0.967742	0.9874	0.987	0.9789	9	0.8457	0.3211
		2.261		2.108		
0.1	2.2621	1	2.2359	7	1.9599	0.7811
					Average of	0.50872
					yearly averages:	3

Inputs generated by pe5.pl - Novemeber 2006

Data used for this run:

Output File: apricot

Metfile: w93193.dvf

PRZM scenario: CAfruit_WirrigSTD.txt

EXAMS environment file: pond298.exv

Diazino

Chemical Name: n

Variable

Description	Name	Value	Units	Comments
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		304.3		
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Molecular weight	mwt	5	g/mol	
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		1.13E-		
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Henry's Law Const.	henry	07	atm-m^3/mol	
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		7.22E-		
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Vapor Pressure	vapr	05	torr	
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Solubility	sol	65.5	mg/L	
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Kd	Kd		mg/L	
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Koc	Koc	2184	mg/L	
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				Half-
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Photolysis half-life	kdp	0	days	life
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Aerobic Aquatic	kbacw	9	days	Halfif
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Metabolism				e
Anaerobic Aquatic Metabolism	kbacs	74	days	Half-life
Aerobic Soil Metabolism	asm	48	days	Half-life
Hydrolysis:	pH 7	0	days	life
Method:	CAM	1	integer	See PRZM manual
Incorporation Depth:	DEPI	0	cm	
Application Rate:	TAPP	2.259	kg/ha	
			fraction	
Application Efficiency:	APPEFF	0.99	n	
Spray Drift	DRFT	0.03	fraction of application rate applied to pond	
Application Date	Date	1-Jan	dd/mm or dd/mm/yy or dd-mm or dd-mm/yy	
Interval 1	interval	3	days	Set to 0 or delete line for single app.
app. rate 1	apprate	2.259	kg/ha	
Record 17:	FILTRA			
	IPSCND	1		
	UPTKF			
Record 18:	PLVKRT			
	PLDKRT			
	FEXTRC	0.5		
		EPA		
Flag for Index Res. Run	IR	Pond		
Flag for runoff calc.	RUNOFF	none	none, monthly or total(average of entire run)	

2. SCIGROW Output

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:Diazinon
 time is 2/15/2012 11:43:34

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
116.000	1.0	116.000	2.18E+03	22.2

groundwater screening cond (ppb) = 2.10E+00

SciGrow version 2.3

chemical:Diazinon

time is 2/15/2012 11:43:47

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
14.400	2.0	28.800	2.18E+03	22.2

groundwater screening cond (ppb) = 5.20E-01

SciGrow version 2.3

chemical:Diazinon

time is 2/15/2012 11:44: 7

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
4.100	26.0	106.600	2.18E+03	22.2

groundwater screening cond (ppb) = 1.93E+00

SciGrow version 2.3

chemical:Diazinon

time is 2/15/2012 11:44:15

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
4.100	1.0	4.100	2.18E+03	22.2

groundwater screening cond (ppb) = 7.41E-02

SciGrow version 2.3

chemical:Diazinon

time is 2/15/2012 11:44:34

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
116.000	1.0	116.000	2.18E+03	22.2

groundwater screening cond (ppb) = 2.10E+00

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:diazinon

time is 2/15/2012 15:34:20

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc (ml/g)	Soil Aerobic metabolism (days)
116.000	1.0	116.000	2.18E+03	22.5

groundwater screening cond (ppb) = 2.11E+00
