

TEXT SEARCHABLE DOCUMENT



Office of Prevention, Pesticides, and Toxic Substances

DP Barcode: 346196,
347961, 343413
PC Code: 122804
February 21, 2008

MEMORANDUM

SUBJECT: Drinking water assessment for Abamectin granular product to control fire ants, EC formulation applied aerially to citrus, and cattle ear tag.

TO: Barry OKeefe, Senior Biologist
Registration Action Branch 3 (RAB3)
Health and Effects Division

And

Daniel Rosenblatt, Chief
Minor Use, Inerts & Emergency Response Branch
Registration Division

FROM: Ibrahim Abdel-Saheb, Environmental Scientist
Environmental Risk Branch II
Environmental Fate and Effects Division

THRU: Dana Spatz, Acting Branch Chief
Environmental Risk Branch II
Environmental Fate and Effects Division

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2/21/08

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CONCLUSIONS

The registrant (Syngenta Crop Protection, Inc.) have submitted applications for the following new uses of abamectin:

- * As granular product to control fire ants @ 0.0001 lbai/A, twice per season;
- * As EC formulation to citrus applied aerially @ 0.047 lbai/A

In addition, the registrant (Y-TEX Corporation) has submitted an application for the



following new use of abamectin:

- * As cattle ear tag (0.0016 lbai/A).

In consideration of the use scenarios and application rates proposed for these new uses of abamectin, EFED concludes that the drinking water assessment dated March 20, 2007 (see attached) gives higher drinking water EECs and thus should continue to be used for the human health risk assessment.

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

**OFFICE OF PREVENTION,
PESTICIDES AND TOXIC
SUBSTANCES**

**March 20, 2007
DP Barcode: D335118
PC Code: 122804**

MEMORANDUM

SUBJECT: Revised drinking water assessment for Abamectin as a seed treatment and as a foliar application on cucurbits and tomato based on new seed leaching study submitted to EFED.

TO: **Meredith Laws, Chief
Insecticide/Rodenticide Branch
Registration Division (7505)**

**Thomas Harris
Insecticide/Rodenticide Branch
Registration Division (7505)**

FROM: **Ibrahim Abdel-Saheb, Environmental Scientist
Environmental Risk Branch II
Environmental Fate and Effects Division**

THRU: **Dana Spatz, Senior Chemist
Environmental Risk Branch II
Environmental Fate and Effects Division**

**Tom Bailey, Branch Chief
Environmental Risk Branch II
Environmental Fate and Effects Division**

INTRODUCTION

EFED has reviewed the submitted study measuring the availability of abamectin to leach from treated seeds, (MRID# 47000503, DER will follow shortly), and has updated the estimated drinking water concentrations to incorporate a revised seeding rate, a follow up foliar treatment of up to 3 applications at 0.019 lb ai/A, and the results from the seed leaching study. Results from this study showed that about 6% of the abamectin on the treated tomato seed actually desorbed from the

seed, and thus became available for leaching or runoff. In order to account for this lower availability (the original drinking water assessment assumed that 100% of the abamectin would be desorbed from the seed) the label application rates (i.e., 0.12 and 0.066 lb ai/acre) were multiplied by 6% and used in the modeling.

CONCLUSIONS

A screening assessment of estimated environmental concentrations (EECs) for abamectin and its major soil degrate (a mixture of a 8- α -hydroxy and a ring opened aldehyde derivative) in drinking water was conducted. The available cucumber scenario was used to represent cucurbits. The product considered was Agri-Mek ® 0.15 EC (EPA Reg.No. 100-898) containing the active ingredient abamectin, which itself is a mixture of abamectins containing $\geq 80\%$ abamectin B_{1a} (5-0-demethyl abamectin A_{1a}) and $\leq 20\%$ abamectin B_{1b} [5-0-demethyl-25-de(1-methylpropyl)-25-(1-methylethyl) abamectin A_{1a}]. Screening models were used to determine estimated concentrations in ground water and surface water. Regional PCAs of 0.38 (Florida) and 0.56 (California) were used in order to better reflect the expected exposures from these proposed localized uses.

Based on PRZM/EXAMS modeling, the surface water Expected Environmental Concentrations (EEC) of abamectin and its major degrate (a mixture of a 8- α -hydroxy and a ring opened aldehyde derivative) for the use on cucumber and tomato are shown in table 1.

Table 1. Estimated drinking water concentrations to be used for exposure to Abamectin and its major degradate (a mixture of a 8--hydroxy and a ring opened aldehyde derivative) in drinking water derived from surface water and ground water.

Crop	Model EEC Value (*g/L)			Use Modeled	PCA Modeled
	Acute	One-in-10 year annual mean	36 year overall mean		
FL-Tomato	0.198	0.092	0.070	One seed treatment @ 0.12 lbai/A, followed by 3 aerial applications @ 0.019 lb ai/A; application intervals: between appl. 1 and 2- 14 d interval, between appl. 2 and appl .3- 7 day interval.	0.38
	0.454	0.211	0.161		0.87 (national)
	0.080	0.058	0.049	One seed treatment @ 0.066 lbai/A, followed by 3 aerial applications @ 0.019 lb ai/A; application intervals of 14, 7 days.	0.38
	0.35	0.133	0.111		0.87 (national)
CA-Tomato	0.187	0.044	0.038	One seed treatment @ 0.12 lbai/A, followed by 3 aerial applications @ 0.019 lb ai/A; application intervals of 14, 7 days.	0.56
	0.290	0.067	0.059		0.87 (national)
	0.186	0.044	0.038	One seed treatment @ 0.066 lbai/A, followed by 3 aerial applications @ 0.019 lb ai/A; application intervals of 14, 7 days.	0.56
	0.288	0.068	0.059		0.87 (national)
FL-Cucumber	0.203	0.083	0.063	Cucumber in Florida; one seed treatment @ 0.066 lbai/A, followed by 3 aerial applications @ 0.019 lb ai/A; application intervals of 7 days.	0.38
	0.464	0.190	0.144		0.87 (national)
Groundwater	0.00184	one seed treatment @ 0.066 lbai/A, and 3 aerial applications @ 0.019 lb ai/A			None

SCI-GROW has no capability to accommodate a pesticide applied by two different methods, thus this assessment used the total application rate (i.e. $3 \times (0.019) + (0.066 \times 0.06) = 0.061$ lb ai/A).

BACKGROUND

Abamectin (also known as Abamectin) is the active ingredient in the miticide/insecticide Agrimek ® 0.15, which is proposed for control of a number of insect pests, specifically mites and leafminers in leafy vegetables, fruiting vegetables, and tree crops.

Groundwater and surface water monitoring data are not available to the Environmental Fate and

Effects Division (EFED) for abamectin at this time. Screening models were used to determine estimated concentrations for abamectin in groundwater and surface water for the proposed uses.

SURFACE WATER

PRZM-EXAMS simulations were conducted for abamectin use on cucumber to evaluate the cumulative probability distribution for peak and annual mean EECs. Selective PRZM/EXAMS modeling inputs are shown in Table 2. The input and output files for these runs are in Appendix I.

Table 2. Selected Surface Water Exposure Inputs for PRZM/EXAMS for Parent Abamectin and its major degradate (a mixture of a 8--hydroxy and a ring opened aldehyde derivative)

MODEL INPUT VARIABLE	INPUT VALUE	COMMENTS
Application rate (lb A.Y/A) Field Corn Sweet Corn	8.0241	EPA Reg. No. 100-1204; Rate multiplied by 86.8% (amount of abamectin desorbed from seed in desorption study; MRID# 47000503).
K _d (mL/g)	82 (average)	MRID 40856301; no data for degradate; Input parameter guidance, 2002
Aerobic Soil Metabolic Half-life (days)	150	90% upper-bound confidence limit of mean half-life.
Is the pesticide wetted-in?	No	EPA Reg. No. 100-898
Depth of Incorporation (in.)	0; and 0.5 for treated seeds	EPA Reg. No. 100-898
Spray Drift Fraction	1%	For ground
Solubility (•g/L)	78	10x reported value; no data for degradate.
Aerobic Aquatic Metabolic Half-life (days)	300	No acceptable aerobic aquatic metabolism data were available. 2x aerobic soil metabolism half-life was used (Input parameter guidance, 2002).
Hydrolysis (pH 7) half-life (days)	0	Stable. No MRID available. Review dated 4/18/83; no data for degradate.
Photolysis Half-life (days)	0.5	Dark-control adjusted half-life. Ku and Jacob, 1983, No MRID available, Review dated 3/28/84; no data for degradate.

GROUND WATER

The SCI-GROW model is based on scaled ground water concentration from ground water monitoring studies, environmental fate properties (aerobic soil half-lives and organic carbon partitioning coefficients-K_{oc}'s) and application rates. The model is based on permeable soils that are vulnerable to leaching and on shallow ground water (10-30 feet). SCI-GROW version 2.3 (executable file dated 08/05/2003) was used to estimate concentrations of abamectin and its major degradate (a mixture of a 8- α -hydroxy and a ring opened aldehyde derivative) that could be found in drinking water derived from ground water, using the input values listed in the table 3.

Table 3. Ground Water Exposure Inputs for SCI-GROW for parent abamectin and its major degradate (a mixture of a 8- α -hydroxy and a ring opened aldehyde derivative).

MODEL INPUT VARIABLE	INPUT VALUE	COMMENTS
Application Rate (lbs. ai/A)	0. 061 (seed treatment plus foliar)	EPA Reg.No. 100-898
Maximum No. of Applications	1	EPA Reg.No. 100-898
K _{oc}	2,531	Median non-sand. MRID 40856301; no data for degradate; Input parameter guidance, 2002.
Aerobic Soil Metabolic Half-life (days)	101	Mean of 101 days from cumulative half-lives of 53.5, 49.4, 169.9, and 133.3 days. Ku and Jacob, 1983, No MRID available, Review dated 3/28/84; Input parameter guidance, 2002.

Results from the SCI-GROW screening model predict that the maximum chronic and acute concentration of parent abamectin and its major degradate (a mixture of a 8- α -hydroxy and a ring opened aldehyde derivative) in shallow ground water is not expected to exceed 0.00184 μ g/L for the current maximum seasonal use rate on cucumber.

APPENDIX I

IR-PCA PRZM/EXAMS INPUT & OUTPUT FILES

FL	Cucumber	(General	Vegetable	Scenario)
FL Cucumber (General Vegetable Scenario)				
"Collier and Hendry Counties; MLRA: 156B; Metfile: W12842.dvf (old: Met156B.met),"				
*** Record 3:				
	0.78	0	0	33 1 1
*** Record 6 -- ERFLAG				
	4			
*** Record 7:				
	0.03	0.2	1	172.8 4 1 600
*** Record 8				
	1			
*** Record 9				
	1	0.15	50	80 3 91 87 88 0
	30			
*** Record 9a-d				
	1	27		
0101	1601	0102	1602	0103 1603 0104 1604 0105 1505 1605 2505 0106
1606	0107	1607		
.813	.830	.846	.859	.870 .878 .881 .881 .880 .836 .849 .938 .840
.572	.285	.177		
.011	.011	.011	.011	.011 .011 .011 .011 .011 .011 .011 .011 .011
.011	.011	.011		
0108	1008	1608	0109	1609 0110 1610 0111 1611 0112 1612
.162	.210	.291	.422	.547 .636 .683 .715 .743 .768 .793
.011	.011	.011	.011	.011 .011 .011 .011 .011 .011 .011 .011
*** Record 10 -- NCPDS, the number of cropping periods				
	30			
*** Record 11				
101061	051261	101261		1
101062	051262	101262		1
101063	051263	101263		1
101064	051264	101264		1
101065	051265	101265		1
101066	051266	101266		1
101067	051267	101267		1
101068	051268	101268		1
101069	051269	101269		1
101070	051270	101270		1
101071	051271	101271		1
101072	051272	101272		1
101073	051273	101273		1
101074	051274	101274		1
101075	051275	101275		1
101076	051276	101276		1
101077	051277	101277		1

101078	051278	101278		1
101079	051279	101279		1
101080	051280	101280		1
101081	051281	101281		1
101082	051282	101282		1
101083	051283	101283		1
101084	051284	101284		1
101085	051285	101285		1
101086	051286	101286		1
101087	051287	101287		1
101088	051288	101288		1
101089	051289	101289		1
101090	051290	101290		1

*** Record 12 -- PTITLE

Avrmctn - 3 applications @ 0.0213 kg/ha (foliar) & one seed
treat. @ 0.004 lbai/acr

*** Record 13

117	1	0	0
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*** Record 15 -- PSTNAM

Avrmctn

*** Record 16

250961	0 8	1.30.004	0.99	0.01
050562	0 2	0.00.0213	0.95	0.16
120562	0 2	0.00.0213	0.95	0.16
260562	0 2	0.00.0213	0.95	0.16
250962	0 8	1.30.004	0.99	0.01
050563	0 2	0.00.0213	0.95	0.16
120563	0 2	0.00.0213	0.95	0.16
260563	0 2	0.00.0213	0.95	0.16
250963	0 8	1.30.004	0.99	0.01
050564	0 2	0.00.0213	0.95	0.16
120564	0 2	0.00.0213	0.95	0.16
260564	0 2	0.00.0213	0.95	0.16
250964	0 8	1.30.004	0.99	0.01
050565	0 2	0.00.0213	0.95	0.16
120565	0 2	0.00.0213	0.95	0.16
260565	0 2	0.00.0213	0.95	0.16
250965	0 8	1.30.004	0.99	0.01
050566	0 2	0.00.0213	0.95	0.16
120566	0 2	0.00.0213	0.95	0.16
260566	0 2	0.00.0213	0.95	0.16
250966	0 8	1.30.004	0.99	0.01
050567	0 2	0.00.0213	0.95	0.16
120567	0 2	0.00.0213	0.95	0.16
260567	0 2	0.00.0213	0.95	0.16
250967	0 8	1.30.004	0.99	0.01
050568	0 2	0.00.0213	0.95	0.16
120568	0 2	0.00.0213	0.95	0.16
260568	0 2	0.00.0213	0.95	0.16
250968	0 8	1.30.004	0.99	0.01
050569	0 2	0.00.0213	0.95	0.16

120569	0	2	0.00	0.0213	0.95	0.16
260569	0	2	0.00	0.0213	0.95	0.16
250969	0	8	1.30	0.004	0.99	0.01
050570	0	2	0.00	0.0213	0.95	0.16
120570	0	2	0.00	0.0213	0.95	0.16
260570	0	2	0.00	0.0213	0.95	0.16
250970	0	8	1.30	0.004	0.99	0.01
050571	0	2	0.00	0.0213	0.95	0.16
120571	0	2	0.00	0.0213	0.95	0.16
260571	0	2	0.00	0.0213	0.95	0.16
250971	0	8	1.30	0.004	0.99	0.01
050572	0	2	0.00	0.0213	0.95	0.16
120572	0	2	0.00	0.0213	0.95	0.16
260572	0	2	0.00	0.0213	0.95	0.16
250972	0	8	1.30	0.004	0.99	0.01
050573	0	2	0.00	0.0213	0.95	0.16
120573	0	2	0.00	0.0213	0.95	0.16
260573	0	2	0.00	0.0213	0.95	0.16
250973	0	8	1.30	0.004	0.99	0.01
050574	0	2	0.00	0.0213	0.95	0.16
120574	0	2	0.00	0.0213	0.95	0.16
260574	0	2	0.00	0.0213	0.95	0.16
250974	0	8	1.30	0.004	0.99	0.01
050575	0	2	0.00	0.0213	0.95	0.16
120575	0	2	0.00	0.0213	0.95	0.16
260575	0	2	0.00	0.0213	0.95	0.16
250975	0	8	1.30	0.004	0.99	0.01
050576	0	2	0.00	0.0213	0.95	0.16
120576	0	2	0.00	0.0213	0.95	0.16
260576	0	2	0.00	0.0213	0.95	0.16
250976	0	8	1.30	0.004	0.99	0.01
050577	0	2	0.00	0.0213	0.95	0.16
120577	0	2	0.00	0.0213	0.95	0.16
260577	0	2	0.00	0.0213	0.95	0.16
250977	0	8	1.30	0.004	0.99	0.01
050578	0	2	0.00	0.0213	0.95	0.16
120578	0	2	0.00	0.0213	0.95	0.16
260578	0	2	0.00	0.0213	0.95	0.16
250978	0	8	1.30	0.004	0.99	0.01
050579	0	2	0.00	0.0213	0.95	0.16
120579	0	2	0.00	0.0213	0.95	0.16
260579	0	2	0.00	0.0213	0.95	0.16
250979	0	8	1.30	0.004	0.99	0.01
050580	0	2	0.00	0.0213	0.95	0.16
120580	0	2	0.00	0.0213	0.95	0.16
260580	0	2	0.00	0.0213	0.95	0.16
250980	0	8	1.30	0.004	0.99	0.01
050581	0	2	0.00	0.0213	0.95	0.16
120581	0	2	0.00	0.0213	0.95	0.16
260581	0	2	0.00	0.0213	0.95	0.16
250981	0	8	1.30	0.004	0.99	0.01

050582	0	2	0.00	0.0213	0.95	0.16
120582	0	2	0.00	0.0213	0.95	0.16
260582	0	2	0.00	0.0213	0.95	0.16
250982	0	8	1.30	0.004	0.99	0.01
050583	0	2	0.00	0.0213	0.95	0.16
120583	0	2	0.00	0.0213	0.95	0.16
260583	0	2	0.00	0.0213	0.95	0.16
250983	0	8	1.30	0.004	0.99	0.01
050584	0	2	0.00	0.0213	0.95	0.16
120584	0	2	0.00	0.0213	0.95	0.16
260584	0	2	0.00	0.0213	0.95	0.16
250984	0	8	1.30	0.004	0.99	0.01
050585	0	2	0.00	0.0213	0.95	0.16
120585	0	2	0.00	0.0213	0.95	0.16
260585	0	2	0.00	0.0213	0.95	0.16
250985	0	8	1.30	0.004	0.99	0.01
050586	0	2	0.00	0.0213	0.95	0.16
120586	0	2	0.00	0.0213	0.95	0.16
260586	0	2	0.00	0.0213	0.95	0.16
250986	0	8	1.30	0.004	0.99	0.01
050587	0	2	0.00	0.0213	0.95	0.16
120587	0	2	0.00	0.0213	0.95	0.16
260587	0	2	0.00	0.0213	0.95	0.16
250987	0	8	1.30	0.004	0.99	0.01
050588	0	2	0.00	0.0213	0.95	0.16
120588	0	2	0.00	0.0213	0.95	0.16
260588	0	2	0.00	0.0213	0.95	0.16
250988	0	8	1.30	0.004	0.99	0.01
050589	0	2	0.00	0.0213	0.95	0.16
120589	0	2	0.00	0.0213	0.95	0.16
260589	0	2	0.00	0.0213	0.95	0.16
250989	0	8	1.30	0.004	0.99	0.01
050590	0	2	0.00	0.0213	0.95	0.16
120590	0	2	0.00	0.0213	0.95	0.16
260590	0	2	0.00	0.0213	0.95	0.16
250990	0	8	1.30	0.004	0.99	0.01

*** Record 17

0	1	0
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*** Record 18

0	0	0.5
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*** Record 19 -- STITLE

Riviera Sand; HYDG: C

*** Record 20

100	0	0	0	0	0	0	0	0
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*** Record 26

0	0	0
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*** Record 33

3	10	1.65	0.073	0	0	0
1	0.004621	0.004621	0			

	0.1	0.073	0.023	1.16	50	
2	62	1.65	0.073	0	0	0
			0			
	0.004621	0.004621				
	2	0.073	0.023	1.16	50	
3	28	1.7	0.211	0	0	0
			0			
	0.004621	0.004621				
	2	0.211	0.091	0.174	50	

***Record 40

	YEAR	10		YEAR	10	YEAR
10	1					
1						
1	-----					
7	YEAR					
PRCP	TCUM	0	0			
RUNF	TCUM	0	0			
INFL	TCUM	1	1			
ESLS	TCUM	0	0	1.0E3		
RFLX	TCUM	0	0	1.0E5		
EFLX	TCUM	0	0	1.0E5		
RZFX	TCUM	0	0	1.0E5		

Abamectin on FL cucumber (output file)

WATER COLUMN DISSOLVED CONCENTRATION (PPB)

YEAR	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
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1961	0.016	0.015	0.012	0.009	0.008	0.002
1962	0.327	0.312	0.280	0.218	0.211	0.111
1963	0.341	0.326	0.281	0.242	0.222	0.158
1964	0.374	0.358	0.308	0.262	0.240	0.149
1965	0.340	0.326	0.274	0.231	0.204	0.131
1966	0.325	0.310	0.288	0.244	0.218	0.131
1967	0.362	0.347	0.293	0.245	0.232	0.165
1968	0.358	0.343	0.292	0.250	0.235	0.162
1969	0.400	0.383	0.328	0.283	0.258	0.196
1970	0.463	0.444	0.379	0.294	0.269	0.201
1971	0.366	0.351	0.298	0.257	0.228	0.148
1972	0.453	0.433	0.392	0.326	0.295	0.180
1973	0.479	0.459	0.403	0.359	0.337	0.197
1974	0.393	0.377	0.320	0.278	0.247	0.165
1975	0.434	0.415	0.359	0.300	0.271	0.149
1976	0.422	0.404	0.358	0.331	0.332	0.215
1977	0.455	0.444	0.407	0.341	0.323	0.219
1978	0.387	0.373	0.326	0.288	0.283	0.180
1979	0.503	0.480	0.415	0.329	0.288	0.176
1980	0.359	0.344	0.292	0.253	0.236	0.147
1981	0.835	0.795	0.659	0.481	0.417	0.235
1982	0.389	0.374	0.331	0.297	0.285	0.214
1983	0.538	0.520	0.441	0.365	0.346	0.221
1984	0.539	0.518	0.444	0.404	0.369	0.212

1985	0.369	0.354	0.303	0.257	0.231	0.137
1986	0.376	0.359	0.305	0.249	0.221	0.151
1987	0.372	0.356	0.326	0.280	0.255	0.151
1988	0.341	0.326	0.274	0.235	0.208	0.133
1989	0.343	0.328	0.283	0.239	0.210	0.144
1990	0.447	0.429	0.376	0.346	0.325	0.213

SORTED FOR PLOTTING

PROB	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
0.032	0.835	0.795	0.659	0.481	0.417	0.235
0.065	0.539	0.520	0.444	0.404	0.369	0.221
0.097	0.538	0.518	0.441	0.365	0.346	0.219
0.129	0.503	0.480	0.415	0.359	0.337	0.215
0.161	0.479	0.459	0.407	0.346	0.332	0.214
0.194	0.463	0.444	0.403	0.341	0.325	0.213
0.226	0.455	0.444	0.392	0.331	0.323	0.212
0.258	0.453	0.433	0.379	0.329	0.295	0.201
0.290	0.447	0.429	0.376	0.326	0.288	0.197
0.323	0.434	0.415	0.359	0.300	0.285	0.196
0.355	0.422	0.404	0.358	0.297	0.283	0.180
0.387	0.400	0.383	0.331	0.294	0.271	0.180
0.419	0.393	0.377	0.328	0.288	0.269	0.176
0.452	0.389	0.374	0.326	0.283	0.258	0.165
0.484	0.387	0.373	0.326	0.280	0.255	0.165
0.516	0.376	0.359	0.320	0.278	0.247	0.162
0.548	0.374	0.358	0.308	0.262	0.240	0.158
0.581	0.372	0.356	0.305	0.257	0.236	0.151
0.613	0.369	0.354	0.303	0.257	0.235	0.151
0.645	0.366	0.351	0.298	0.253	0.232	0.149
0.677	0.362	0.347	0.293	0.250	0.231	0.149
0.710	0.359	0.344	0.292	0.249	0.228	0.148
0.742	0.358	0.343	0.292	0.245	0.222	0.147
0.774	0.343	0.328	0.288	0.244	0.221	0.144
0.806	0.341	0.326	0.283	0.242	0.218	0.137
0.839	0.341	0.326	0.281	0.239	0.211	0.133
0.871	0.340	0.326	0.280	0.235	0.210	0.131
0.903	0.327	0.312	0.274	0.231	0.208	0.131
0.935	0.325	0.310	0.274	0.218	0.204	0.111
0.968	0.016	0.015	0.012	0.009	0.008	0.002
1/10	0.534	0.514	0.438	0.365	0.345	0.219

MEAN OF ANNUAL VALUES = 0.166

STANDARD DEVIATION OF ANNUAL VALUES = 0.045

UPPER 90% CONFIDENCE LIMIT ON MEAN = 0.179

**CA Tomato (seed treatment @0.0072 & 3 foliar
applications @ 0.019 lbai/A)**

CAtomato -- California central valley tomatoes

"Central valley, CA, nominally San Joaquin county MLRA 17;
Metfile: W93193.dvf (old: Met18.met or Met17.met),

*** Record 3:

0.7	0.55	0	17	1	1
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*** Record 6 -- ERFLAG

4

*** Record 7:

0.24	0.26	1	172.8	1	0.25	600
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*** Record 8

1

*** Record 9

1	0.1	90	90	1	91	87	88	0
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30

*** Record 9a-d

1	25
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0101	1601	0102	1602	0103	1603	0104	1604	0105	1605	0106	1606	0107
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1607	0108	1608
------	------	------

.069	.082	.195	.252	.255	.218	.138	.077	.065	.054	.043	.057	.035
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.035	.035	.035
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.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023
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.023	.023	.023
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0109	1609	0110	1010	1610	0111	1611	0112	1612
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.035	.035	.036	.099	.103	.112	.127	.147	.168
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.023	.023	.023	.023	.023	.023	.023	.023	.023
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*** Record 10 -- NCPDS, the number of cropping periods

30

*** Record 11

010361	010761	010961
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1

010362	010762	010962
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1

010363	010763	010963		1
010364	010764	010964		1
010365	010765	010965		1
010366	010766	010966		1
010367	010767	010967		1
010368	010768	010968		1
010369	010769	010969		1
010370	010770	010970		1
010371	010771	010971		1
010372	010772	010972		1
010373	010773	010973		1
010374	010774	010974		1
010375	010775	010975		1
010376	010776	010976		1
010377	010777	010977		1
010378	010778	010978		1
010379	010779	010979		1
010380	010780	010980		1
010381	010781	010981		1
010382	010782	010982		1
010383	010783	010983		1
010384	010784	010984		1
010385	010785	010985		1
010386	010786	010986		1
010387	010787	010987		1
010388	010788	010988		1
010389	010789	010989		1
010390	010790	010990		1

*** Record 12 -- PTITLE

abamectin - 3 applications @ 0.0213 kg/ha and one seed treatment
@ 0.0081 kg/ha

*** Record 13

120	1	0	0
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*** Record 15 -- PSTNAM

abamectin

*** Record 16

010361	0 8	1.30.0081	1.00	0.000
140361	0 2	0.00.0213	0.95	0.16
280361	0 2	0.00.0213	0.95	0.16
040461	0 2	0.00.0213	0.95	0.16
010362	0 8	1.30.0081	1.00	0.000
140362	0 2	0.00.0213	0.95	0.16
280362	0 2	0.00.0213	0.95	0.16
040462	0 2	0.00.0213	0.95	0.16
010363	0 8	1.30.0081	1.00	0.000
140363	0 2	0.00.0213	0.95	0.16
280363	0 2	0.00.0213	0.95	0.16
040463	0 2	0.00.0213	0.95	0.16
010364	0 8	1.30.0081	1.00	0.000
140364	0 2	0.00.0213	0.95	0.16
280364	0 2	0.00.0213	0.95	0.16

040464	0	2	0.00	0.0213	0.95	0.16
010365	0	8	1.30	0.0081	1.00	0.000
140365	0	2	0.00	0.0213	0.95	0.16
280365	0	2	0.00	0.0213	0.95	0.16
040465	0	2	0.00	0.0213	0.95	0.16
010366	0	8	1.30	0.0081	1.00	0.000
140366	0	2	0.00	0.0213	0.95	0.16
280366	0	2	0.00	0.0213	0.95	0.16
040466	0	2	0.00	0.0213	0.95	0.16
010367	0	8	1.30	0.0081	1.00	0.000
140367	0	2	0.00	0.0213	0.95	0.16
280367	0	2	0.00	0.0213	0.95	0.16
040467	0	2	0.00	0.0213	0.95	0.16
010368	0	8	1.30	0.0081	1.00	0.000
140368	0	2	0.00	0.0213	0.95	0.16
280368	0	2	0.00	0.0213	0.95	0.16
040468	0	2	0.00	0.0213	0.95	0.16
010369	0	8	1.30	0.0081	1.00	0.000
140369	0	2	0.00	0.0213	0.95	0.16
280369	0	2	0.00	0.0213	0.95	0.16
040469	0	2	0.00	0.0213	0.95	0.16
010370	0	8	1.30	0.0081	1.00	0.000
140370	0	2	0.00	0.0213	0.95	0.16
280370	0	2	0.00	0.0213	0.95	0.16
040470	0	2	0.00	0.0213	0.95	0.16
010371	0	8	1.30	0.0081	1.00	0.000
140371	0	2	0.00	0.0213	0.95	0.16
280371	0	2	0.00	0.0213	0.95	0.16
040471	0	2	0.00	0.0213	0.95	0.16
010372	0	8	1.30	0.0081	1.00	0.000
140372	0	2	0.00	0.0213	0.95	0.16
280372	0	2	0.00	0.0213	0.95	0.16
040472	0	2	0.00	0.0213	0.95	0.16
010373	0	8	1.30	0.0081	1.00	0.000
140373	0	2	0.00	0.0213	0.95	0.16
280373	0	2	0.00	0.0213	0.95	0.16
040473	0	2	0.00	0.0213	0.95	0.16
010374	0	8	1.30	0.0081	1.00	0.000
140374	0	2	0.00	0.0213	0.95	0.16
280374	0	2	0.00	0.0213	0.95	0.16
040474	0	2	0.00	0.0213	0.95	0.16
010375	0	8	1.30	0.0081	1.00	0.000
140375	0	2	0.00	0.0213	0.95	0.16
280375	0	2	0.00	0.0213	0.95	0.16
040475	0	2	0.00	0.0213	0.95	0.16
010376	0	8	1.30	0.0081	1.00	0.000
140376	0	2	0.00	0.0213	0.95	0.16
280376	0	2	0.00	0.0213	0.95	0.16
040476	0	2	0.00	0.0213	0.95	0.16
010377	0	8	1.30	0.0081	1.00	0.000
140377	0	2	0.00	0.0213	0.95	0.16

280377	0	2	0.00	0.0213	0.95	0.16
040477	0	2	0.00	0.0213	0.95	0.16
010378	0	8	1.30	0.0081	1.00	0.00
140378	0	2	0.00	0.0213	0.95	0.16
280378	0	2	0.00	0.0213	0.95	0.16
040478	0	2	0.00	0.0213	0.95	0.16
010379	0	8	1.30	0.0081	1.00	0.00
140379	0	2	0.00	0.0213	0.95	0.16
280379	0	2	0.00	0.0213	0.95	0.16
040479	0	2	0.00	0.0213	0.95	0.16
010380	0	8	1.30	0.0081	1.00	0.00
140380	0	2	0.00	0.0213	0.95	0.16
280380	0	2	0.00	0.0213	0.95	0.16
040480	0	2	0.00	0.0213	0.95	0.16
010381	0	8	1.30	0.0081	1.00	0.00
140381	0	2	0.00	0.0213	0.95	0.16
280381	0	2	0.00	0.0213	0.95	0.16
040481	0	2	0.00	0.0213	0.95	0.16
010382	0	8	1.30	0.0081	1.00	0.00
140382	0	2	0.00	0.0213	0.95	0.16
280382	0	2	0.00	0.0213	0.95	0.16
040482	0	2	0.00	0.0213	0.95	0.16
010383	0	8	1.30	0.0081	1.00	0.00
140383	0	2	0.00	0.0213	0.95	0.16
280383	0	2	0.00	0.0213	0.95	0.16
040483	0	2	0.00	0.0213	0.95	0.16
010384	0	8	1.30	0.0081	1.00	0.00
140384	0	2	0.00	0.0213	0.95	0.16
280384	0	2	0.00	0.0213	0.95	0.16
040484	0	2	0.00	0.0213	0.95	0.16
010385	0	8	1.30	0.0081	1.00	0.00
140384	0	2	0.00	0.0213	0.95	0.16
280384	0	2	0.00	0.0213	0.95	0.16
040484	0	2	0.00	0.0213	0.95	0.16
010385	0	8	1.30	0.0081	1.00	0.00
140385	0	2	0.00	0.0213	0.95	0.16
280385	0	2	0.00	0.0213	0.95	0.16
040485	0	2	0.00	0.0213	0.95	0.16
010386	0	8	1.30	0.0081	1.00	0.00
140385	0	2	0.00	0.0213	0.95	0.16
280385	0	2	0.00	0.0213	0.95	0.16
040485	0	2	0.00	0.0213	0.95	0.16
010386	0	8	1.30	0.0081	1.00	0.00
140386	0	2	0.00	0.0213	0.95	0.16
280386	0	2	0.00	0.0213	0.95	0.16
040486	0	2	0.00	0.0213	0.95	0.16
010387	0	8	1.30	0.0081	1.00	0.00
140387	0	2	0.00	0.0213	0.95	0.16
280387	0	2	0.00	0.0213	0.95	0.16
040487	0	2	0.00	0.0213	0.95	0.16
010388	0	8	1.30	0.0081	1.00	0.00
140388	0	2	0.00	0.0213	0.95	0.16
280388	0	2	0.00	0.0213	0.95	0.16
040488	0	2	0.00	0.0213	0.95	0.16
010389	0	8	1.30	0.0081	1.00	0.00
140389	0	2	0.00	0.0213	0.95	0.16
280389	0	2	0.00	0.0213	0.95	0.16
040489	0	2	0.00	0.0213	0.95	0.16
010390	0	8	1.30	0.0081	1.00	0.00

140390	0 2	0.00.0213	0.95	0.16
280390	0 2	0.00.0213	0.95	0.16
040490	0 2	0.00.0213	0.95	0.16
*** Record 17				
0 1 0				
*** Record 18				
0 0 0.5				
*** Record 19 -- STITLE				
"Stockton clay Hyd Grp D, Egbert (grp C/D) might be better but no data available from char. Database."				
*** Record 20				
180 0 0 0 0 0 2 0 0 0				
*** Record 26				
0 0 0				
*** Record 27 -- irrigation				
2 0.4 0.55 0.15				
*** Record 28 - Furrow irrigation paramters				
0.0025 0.12 2 0.005 0.02 300 -1				
*** Record 29 - more furrow irrigation parameters				
0.2 100				
*** Record 33				
3				
1 10 1.3 0.38 0 0 0				
0.0046210.004621 0				
0.1 0.38 0.25 0.95 82 0				
2 8 1.3 0.38 0 0 0				
0.0046210.004621 0				
1 0.38 0.25 0.95 82 0				
3 162 1.4 0.25 0 0 0				
0.0046210.004621 0				
16.2 0.19 0.25 0.4 82 0				
***Record 40				
0				
YEAR 10 YEAR 10 YEAR				
10	1			
1				
1	-----			
7	YEAR			
PRCP	TCUM	0	0	
RUNF	TCUM	0	0	
INFL	TCUM	1	1	
ESLS	TCUM	0	0	1.0E3
RFLX	TCUM	0	0	1.0E5
EFLX	TCUM	0	0	1.0E5
RZFX	TCUM	0	0	1.0E5

**Abamectin on CA tomatoes @ (0.0072 & 3x 0.019 lbai/A)
output file**

abamectin on ca tomato (hi rate)

WATER COLUMN DISSOLVED CONCENTRATION (PPB)

YEAR	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
1961	0.299	0.283	0.229	0.169	0.141	0.052
1962	0.314	0.297	0.243	0.182	0.153	0.072
1963	0.351	0.343	0.314	0.245	0.208	0.095
1964	0.330	0.313	0.260	0.198	0.168	0.078
1965	0.320	0.304	0.253	0.192	0.163	0.070
1966	0.312	0.295	0.242	0.180	0.152	0.064
1967	0.332	0.323	0.272	0.207	0.176	0.074
1968	0.311	0.295	0.241	0.180	0.152	0.062
1969	0.332	0.317	0.262	0.196	0.166	0.070
1970	0.310	0.294	0.241	0.181	0.152	0.065
1971	0.314	0.298	0.245	0.184	0.156	0.065
1972	0.310	0.294	0.241	0.180	0.152	0.063
1973	0.314	0.297	0.244	0.182	0.153	0.064
1974	0.317	0.300	0.247	0.185	0.156	0.065
1975	0.325	0.309	0.255	0.192	0.161	0.065
1976	0.308	0.293	0.241	0.181	0.152	0.061
1977	0.308	0.292	0.238	0.178	0.151	0.061
1978	0.318	0.305	0.252	0.191	0.161	0.066
1979	0.317	0.301	0.248	0.187	0.157	0.064
1980	0.317	0.301	0.248	0.187	0.158	0.066
1981	0.331	0.314	0.260	0.197	0.166	0.071
1982	0.397	0.377	0.323	0.239	0.202	0.087
1983	0.334	0.317	0.264	0.205	0.176	0.073
1984	0.310	0.294	0.241	0.180	0.152	0.062
1985	0.310	0.294	0.240	0.179	0.151	0.062
1986	0.328	0.312	0.259	0.198	0.167	0.070
1987	0.311	0.295	0.242	0.180	0.152	0.062
1988	0.309	0.293	0.241	0.183	0.156	0.064
1989	0.330	0.313	0.259	0.194	0.163	0.069
1990	0.317	0.300	0.247	0.186	0.161	0.070

SORTED FOR PLOTTING

PROB	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
0.032	0.397	0.377	0.323	0.245	0.208	0.095
0.065	0.351	0.343	0.314	0.239	0.202	0.087
0.097	0.334	0.323	0.272	0.207	0.176	0.078
0.129	0.332	0.317	0.264	0.205	0.176	0.074
0.161	0.332	0.317	0.262	0.198	0.168	0.073
0.194	0.331	0.314	0.260	0.198	0.167	0.072
0.226	0.330	0.313	0.260	0.197	0.166	0.071
0.258	0.330	0.313	0.259	0.196	0.166	0.070
0.290	0.328	0.312	0.259	0.194	0.163	0.070
0.323	0.325	0.309	0.255	0.192	0.163	0.070
0.355	0.320	0.305	0.253	0.192	0.161	0.070
0.387	0.318	0.304	0.252	0.191	0.161	0.069
0.419	0.317	0.301	0.248	0.187	0.161	0.066
0.452	0.317	0.301	0.248	0.187	0.158	0.066

0.484	0.317	0.300	0.247	0.186	0.157	0.065
0.516	0.317	0.300	0.247	0.185	0.156	0.065
0.548	0.314	0.298	0.245	0.184	0.156	0.065
0.581	0.314	0.297	0.244	0.183	0.156	0.065
0.613	0.314	0.297	0.243	0.182	0.153	0.064
0.645	0.312	0.295	0.242	0.182	0.153	0.064
0.677	0.311	0.295	0.242	0.181	0.152	0.064
0.710	0.311	0.295	0.241	0.181	0.152	0.064
0.742	0.310	0.294	0.241	0.180	0.152	0.063
0.774	0.310	0.294	0.241	0.180	0.152	0.062
0.806	0.310	0.294	0.241	0.180	0.152	0.062
0.839	0.310	0.294	0.241	0.180	0.152	0.062
0.871	0.309	0.293	0.241	0.180	0.152	0.062
0.903	0.308	0.293	0.240	0.179	0.151	0.061
0.935	0.308	0.292	0.238	0.178	0.151	0.061
0.968	0.299	0.283	0.229	0.169	0.141	0.052
1/10	0.334	0.322	0.271	0.207	0.176	0.078

MEAN OF ANNUAL VALUES = 0.068

STANDARD DEVIATION OF ANNUAL VALUES = 0.008

UPPER 90% CONFIDENCE LIMIT ON MEAN = 0.070

CA Tomato (seed treatment @0.004& 3 foliar applications @ 0.019 Ibai/A)

CAtomato -- California central valley tomatoes

"Central valley, CA, nominally San Joaquin county MLRA 17;
Metfile: W93193.dvf (old: Met18.met or Met17.met),

*** Record 3:

0.7	0.55	0	17	1	1
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*** Record 6 -- ERFLAG

4

*** Record 7:

0.24	0.26	1	172.8	1	0.25	600
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*** Record 8

1

*** Record 9

1	0.1	90	90	1	91	87	88	0
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30

*** Record 9a-d

1	25
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0101	1601	0102	1602	0103	1603	0104	1604	0105	1605	0106	1606	0107
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1607	0108	1608
------	------	------

.069	.082	.195	.252	.255	.218	.138	.077	.065	.054	.043	.057	.035
------	------	------	------	------	------	------	------	------	------	------	------	------

.035	.035	.035
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.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023
------	------	------	------	------	------	------	------	------	------	------	------	------

.023	.023	.023
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0109	1609	0110	1010	1610	0111	1611	0112	1612
------	------	------	------	------	------	------	------	------

.035	.035	.036	.099	.103	.112	.127	.147	.168
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.023	.023	.023	.023	.023	.023	.023	.023	.023
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*** Record 10 -- NCPDS, the number of cropping periods

30

*** Record 11

010361	010761	010961	1
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010362	010762	010962	1
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010363	010763	010963	1
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010364	010764	010964	1
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010365	010765	010965	1
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010366	010766	010966	1
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010367	010767	010967	1
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010368	010768	010968	1
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010369	010769	010969	1
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010370	010770	010970	1
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010371	010771	010971	1
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010372	010772	010972	1
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010373	010773	010973	1
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010374	010774	010974	1
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010375	010775	010975	1
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010376	010776	010976	1
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010377	010777	010977	1
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010378	010778	010978	1
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010379	010779	010979		1
010380	010780	010980		1
010381	010781	010981		1
010382	010782	010982		1
010383	010783	010983		1
010384	010784	010984		1
010385	010785	010985		1
010386	010786	010986		1
010387	010787	010987		1
010388	010788	010988		1
010389	010789	010989		1
010390	010790	010990		1
*** Record 12 -- PTITLE				
abamectin - 3 applications @ 0.0213 kg/ha and one seed treatment				
@ 0.0045 kg/ha				
*** Record 13				
120	1	0		0
*** Record 15 -- PSTNAM				
abamectin				
*** Record 16				
010361	0 8	1.30.0045	1.00	0.000
140361	0 2	0.00.0213	0.95	0.16
280361	0 2	0.00.0213	0.95	0.16
040461	0 2	0.00.0213	0.95	0.16
010362	0 8	1.30.0045	1.00	0.000
140362	0 2	0.00.0213	0.95	0.16
280362	0 2	0.00.0213	0.95	0.16
040462	0 2	0.00.0213	0.95	0.16
010363	0 8	1.30.0045	1.00	0.000
140363	0 2	0.00.0213	0.95	0.16
280363	0 2	0.00.0213	0.95	0.16
040463	0 2	0.00.0213	0.95	0.16
010364	0 8	1.30.0045	1.00	0.000
140364	0 2	0.00.0213	0.95	0.16
280364	0 2	0.00.0213	0.95	0.16
040464	0 2	0.00.0213	0.95	0.16
010365	0 8	1.30.0045	1.00	0.000
140365	0 2	0.00.0213	0.95	0.16
280365	0 2	0.00.0213	0.95	0.16
040465	0 2	0.00.0213	0.95	0.16
010366	0 8	1.30.0045	1.00	0.000
140366	0 2	0.00.0213	0.95	0.16
280366	0 2	0.00.0213	0.95	0.16
040466	0 2	0.00.0213	0.95	0.16
010367	0 8	1.30.0045	1.00	0.000
140367	0 2	0.00.0213	0.95	0.16
280367	0 2	0.00.0213	0.95	0.16
040467	0 2	0.00.0213	0.95	0.16
010368	0 8	1.30.0045	1.00	0.000
140368	0 2	0.00.0213	0.95	0.16
280368	0 2	0.00.0213	0.95	0.16

040468	0	2	0.00	0.0213	0.95	0.16
010369	0	8	1.30	0.0045	1.00	0.000
140369	0	2	0.00	0.0213	0.95	0.16
280369	0	2	0.00	0.0213	0.95	0.16
040469	0	2	0.00	0.0213	0.95	0.16
010370	0	8	1.30	0.0045	1.00	0.000
140370	0	2	0.00	0.0213	0.95	0.16
280370	0	2	0.00	0.0213	0.95	0.16
040470	0	2	0.00	0.0213	0.95	0.16
010371	0	8	1.30	0.0045	1.00	0.000
140371	0	2	0.00	0.0213	0.95	0.16
280371	0	2	0.00	0.0213	0.95	0.16
040471	0	2	0.00	0.0213	0.95	0.16
010372	0	8	1.30	0.0045	1.00	0.000
140372	0	2	0.00	0.0213	0.95	0.16
280372	0	2	0.00	0.0213	0.95	0.16
040472	0	2	0.00	0.0213	0.95	0.16
010373	0	8	1.30	0.0045	1.00	0.000
140373	0	2	0.00	0.0213	0.95	0.16
280373	0	2	0.00	0.0213	0.95	0.16
040473	0	2	0.00	0.0213	0.95	0.16
010374	0	8	1.30	0.0045	1.00	0.000
140374	0	2	0.00	0.0213	0.95	0.16
280374	0	2	0.00	0.0213	0.95	0.16
040474	0	2	0.00	0.0213	0.95	0.16
010375	0	8	1.30	0.0045	1.00	0.000
140375	0	2	0.00	0.0213	0.95	0.16
280375	0	2	0.00	0.0213	0.95	0.16
040475	0	2	0.00	0.0213	0.95	0.16
010376	0	8	1.30	0.0045	1.00	0.000
140376	0	2	0.00	0.0213	0.95	0.16
280376	0	2	0.00	0.0213	0.95	0.16
040476	0	2	0.00	0.0213	0.95	0.16
010377	0	8	1.30	0.0045	1.00	0.000
140377	0	2	0.00	0.0213	0.95	0.16
280377	0	2	0.00	0.0213	0.95	0.16
040477	0	2	0.00	0.0213	0.95	0.16
010378	0	8	1.30	0.0045	1.00	0.000
140378	0	2	0.00	0.0213	0.95	0.16
280378	0	2	0.00	0.0213	0.95	0.16
040478	0	2	0.00	0.0213	0.95	0.16
010379	0	8	1.30	0.0045	1.00	0.000
140379	0	2	0.00	0.0213	0.95	0.16
280379	0	2	0.00	0.0213	0.95	0.16
040479	0	2	0.00	0.0213	0.95	0.16
010380	0	8	1.30	0.0045	1.00	0.000
140380	0	2	0.00	0.0213	0.95	0.16
280380	0	2	0.00	0.0213	0.95	0.16
040480	0	2	0.00	0.0213	0.95	0.16
010381	0	8	1.30	0.0045	1.00	0.000
140381	0	2	0.00	0.0213	0.95	0.16

280381	0	2	0.00	0.0213	0.95	0.16
040481	0	2	0.00	0.0213	0.95	0.16
010382	0	8	1.30	0.0045	1.00	0.000
140382	0	2	0.00	0.0213	0.95	0.16
280382	0	2	0.00	0.0213	0.95	0.16
040482	0	2	0.00	0.0213	0.95	0.16
010383	0	8	1.30	0.0045	1.00	0.000
140383	0	2	0.00	0.0213	0.95	0.16
280383	0	2	0.00	0.0213	0.95	0.16
040483	0	2	0.00	0.0213	0.95	0.16
010384	0	8	1.30	0.0045	1.00	0.000
140384	0	2	0.00	0.0213	0.95	0.16
280384	0	2	0.00	0.0213	0.95	0.16
040484	0	2	0.00	0.0213	0.95	0.16
010385	0	8	1.30	0.0045	1.00	0.000
140385	0	2	0.00	0.0213	0.95	0.16
280385	0	2	0.00	0.0213	0.95	0.16
040485	0	2	0.00	0.0213	0.95	0.16
010386	0	8	1.30	0.0045	1.00	0.000
140386	0	2	0.00	0.0213	0.95	0.16
280386	0	2	0.00	0.0213	0.95	0.16
040486	0	2	0.00	0.0213	0.95	0.16
010387	0	8	1.30	0.0045	1.00	0.000
140387	0	2	0.00	0.0213	0.95	0.16
280387	0	2	0.00	0.0213	0.95	0.16
040487	0	2	0.00	0.0213	0.95	0.16
010388	0	8	1.30	0.0045	1.00	0.000
140388	0	2	0.00	0.0213	0.95	0.16
280388	0	2	0.00	0.0213	0.95	0.16
040488	0	2	0.00	0.0213	0.95	0.16
010389	0	8	1.30	0.0045	1.00	0.000
140389	0	2	0.00	0.0213	0.95	0.16
280389	0	2	0.00	0.0213	0.95	0.16
040489	0	2	0.00	0.0213	0.95	0.16
010390	0	8	1.30	0.0045	1.00	0.000
140390	0	2	0.00	0.0213	0.95	0.16
280390	0	2	0.00	0.0213	0.95	0.16
040490	0	2	0.00	0.0213	0.95	0.16

*** Record 17

0	1	0
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*** Record 18

0	0	0.5
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*** Record 19 -- STITLE

"Stockton clay Hyd Grp D, Egbert (grp C/D) might be better but no data available from char. Database."

*** Record 20

180	0	0	0	0	0	2	0	0	0
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*** Record 26

0	0	0
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*** Record 27 -- irrigation

2	0.4	0.55	0.15
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*** Record 28 - Furrow irrigation paramters
 0.0025 0.12 2 0.005 0.02 300 -1

*** Record 29 - more furrow irrigation parameters
 0.2 100

*** Record 33

3						
1	10	1.3	0.38	0	0	0
	0.0046210.004621		0			
	0.1	0.38	0.25	0.95	82	
2	8	1.3	0.38	0	0	0
	0.0046210.004621		0			
	1	0.38	0.25	0.95	82	
3	162	1.4	0.25	0	0	0
	0.0046210.004621		0			
	16.2	0.19	0.25	0.4	82	

***Record 40

0	YEAR	10	YEAR	10	YEAR
10	1				
1					
1	-----				
7	YEAR				
PRCP	TCUM	0 0			
RUNF	TCUM	0 0			
INFL	TCUM	1 1			
ESLS	TCUM	0 0 1.0E3			
RFLX	TCUM	0 0 1.0E5			
EFLX	TCUM	0 0 1.0E5			
RZFX	TCUM	0 0 1.0E5			

Abamectin on CA tomatoes @ (0.004 & 3X 0.019 lbai/A) output file

WATER COLUMN DISSOLVED CONCENTRATION (PPB)

YEAR	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
1961	0.300	0.284	0.230	0.169	0.142	0.053
1962	0.313	0.297	0.243	0.182	0.153	0.072
1963	0.351	0.343	0.314	0.245	0.208	0.095
1964	0.330	0.313	0.260	0.198	0.168	0.078
1965	0.320	0.304	0.253	0.192	0.163	0.070
1966	0.312	0.295	0.242	0.180	0.152	0.064
1967	0.332	0.323	0.272	0.207	0.176	0.074
1968	0.311	0.295	0.241	0.180	0.152	0.062
1969	0.332	0.317	0.262	0.196	0.166	0.070

1970	0.310	0.294	0.241	0.180	0.152	0.065
1971	0.314	0.298	0.245	0.184	0.156	0.065
1972	0.310	0.294	0.241	0.180	0.152	0.063
1973	0.314	0.297	0.243	0.182	0.153	0.064
1974	0.316	0.300	0.246	0.185	0.156	0.064
1975	0.325	0.309	0.255	0.192	0.161	0.065
1976	0.308	0.293	0.241	0.181	0.152	0.061
1977	0.308	0.292	0.238	0.178	0.151	0.061
1978	0.317	0.304	0.251	0.190	0.160	0.066
1979	0.317	0.301	0.248	0.186	0.157	0.064
1980	0.316	0.301	0.247	0.186	0.158	0.065
1981	0.331	0.314	0.260	0.197	0.166	0.070
1982	0.396	0.376	0.322	0.238	0.201	0.087
1983	0.330	0.314	0.261	0.202	0.173	0.072
1984	0.310	0.294	0.241	0.180	0.152	0.062
1985	0.310	0.294	0.240	0.179	0.151	0.062
1986	0.328	0.312	0.259	0.198	0.167	0.070
1987	0.311	0.295	0.242	0.180	0.152	0.062
1988	0.309	0.293	0.241	0.183	0.156	0.064
1989	0.328	0.310	0.257	0.192	0.162	0.068
1990	0.317	0.300	0.247	0.186	0.161	0.069

SORTED FOR PLOTTING

PROB	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
0.032	0.396	0.376	0.322	0.245	0.208	0.095
0.065	0.351	0.343	0.314	0.238	0.201	0.087
0.097	0.332	0.323	0.272	0.207	0.176	0.078
0.129	0.332	0.317	0.262	0.202	0.173	0.074
0.161	0.331	0.314	0.261	0.198	0.168	0.072
0.194	0.330	0.314	0.260	0.198	0.167	0.072
0.226	0.330	0.313	0.260	0.197	0.166	0.070
0.258	0.328	0.312	0.259	0.196	0.166	0.070
0.290	0.328	0.310	0.257	0.192	0.163	0.070
0.323	0.325	0.309	0.255	0.192	0.162	0.070
0.355	0.320	0.304	0.253	0.192	0.161	0.069
0.387	0.317	0.304	0.251	0.190	0.161	0.068
0.419	0.317	0.301	0.248	0.186	0.160	0.066
0.452	0.317	0.301	0.247	0.186	0.158	0.065
0.484	0.316	0.300	0.247	0.186	0.157	0.065
0.516	0.316	0.300	0.246	0.185	0.156	0.065
0.548	0.314	0.298	0.245	0.184	0.156	0.065
0.581	0.314	0.297	0.243	0.183	0.156	0.064
0.613	0.313	0.297	0.243	0.182	0.153	0.064
0.645	0.312	0.295	0.242	0.182	0.153	0.064
0.677	0.311	0.295	0.242	0.181	0.152	0.064
0.710	0.311	0.295	0.241	0.180	0.152	0.064
0.742	0.310	0.294	0.241	0.180	0.152	0.063
0.774	0.310	0.294	0.241	0.180	0.152	0.062
0.806	0.310	0.294	0.241	0.180	0.152	0.062
0.839	0.310	0.294	0.241	0.180	0.152	0.062
0.871	0.309	0.293	0.241	0.180	0.152	0.062
0.903	0.308	0.293	0.240	0.179	0.151	0.061
0.935	0.308	0.292	0.238	0.178	0.151	0.061
0.968	0.300	0.284	0.230	0.169	0.142	0.053

1/10 0.332 0.322 0.271 0.207 0.176 0.078

MEAN OF ANNUAL VALUES = 0.068

STANDARD DEVIATION OF ANNUAL VALUES = 0.008

UPPER 90% CONFIDENCE LIMIT ON MEAN = 0.070

FL Tomato (seed treatment @0.007 & 3 foliar applications @ 0.019 lbai/A)

"FL Tomato (General Vegetable Scenario): MLRA 155,
Metfile: W12844.dvf, (West Palm Beach),
"Manatee (#1 in FL), Collier (#2 in FL) and Lee (#3 in
FL) Counties; MLRA: 155"

*** Record 3:

0.78 0 0 33 1 1

*** Record 6 -- ERFLAG

4

*** Record 7:

0.03 0.2 1 172.8 4 1

600

*** Record 8

1

*** Record 9

1 0.1 90 50 3 91 87 88 0

150

*** Record 9a-d

1 27

0101 1601 0102 1602 0103 1603 0104 1604 0105 1505 1605

2505 0106 1606 0107 1607

.813 .830 .846 .859 .870 .878 .881 .881 .880 .836 .849

.938 .840 .572 .285 .177

.011 .011 .011 .011 .011 .011 .011 .011 .011 .011

.011 .011 .011 .011 .011 .011 .011 .011 .011 .011

0108 1008 1608 0109 1609 0110 1610 0111 1611 0112 1612

.162 .210 .291 .422 .547 .636 .683 .715 .743 .768 .793

.011 .011 .011 .011 .011 .011 .011 .011 .011 .011

*** Record 10 -- NCPDS, the number of cropping periods

30

*** Record 11

100161 300361 050461 1

100162 300362 050462 1

100163 300363 050463 1

100164 300364 050464 1

100165 300365 050465 1

100166 300366 050466 1

100167 300367 050467 1

100168 300368 050468 1

100169 300369 050469 1

100170 300370 050470 1

100171 300371 050471 1

100172 300372 050472 1

100173 300373 050473 1

100174 300374 050474 1

100175 300375 050475 1

100176 300376 050476 1

100177 300377 050477 1

100178 300378 050478 1

100179	300379	050479	1
100180	300380	050480	1
100181	300381	050481	1
100182	300382	050482	1
100183	300383	050483	1
100184	300384	050484	1
100185	300385	050485	1
100186	300386	050486	1
100187	300387	050487	1
100188	300388	050488	1
100189	300389	050489	1
100190	300390	050490	1

*** Record 12 -- PTITLE

abamectin - 3 applications @ 0.0213 kg/ha & one seed
treat. @ 0.1344 kg/ha

*** Record 13

120	1	0	0
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*** Record 15 -- PSTNAM

abamectin

*** Record 16

010161	0 8	1.30.1344	1.000.000
050461	0 2	0.00.0213	0.950.16
190461	0 2	0.00.0213	0.950.16
260461	0 2	0.00.0213	0.950.16
010162	0 8	1.30.1344	1.000.000
050462	0 2	0.00.0213	0.950.16
190462	0 2	0.00.0213	0.950.16
260462	0 2	0.00.0213	0.950.16
010163	0 8	1.30.1344	1.000.000
050463	0 2	0.00.0213	0.950.16
190463	0 2	0.00.0213	0.950.16
260463	0 2	0.00.0213	0.950.16
010164	0 8	1.30.1344	1.000.000
050464	0 2	0.00.0213	0.950.16
190464	0 2	0.00.0213	0.950.16
260464	0 2	0.00.0213	0.950.16
010165	0 8	1.30.1344	1.000.000
050465	0 2	0.00.0213	0.950.16
190465	0 2	0.00.0213	0.950.16
260465	0 2	0.00.0213	0.950.16
010166	0 8	1.30.1344	1.000.000
050466	0 2	0.00.0213	0.950.16
190466	0 2	0.00.0213	0.950.16
260466	0 2	0.00.0213	0.950.16
010167	0 8	1.30.1344	1.000.000
050467	0 2	0.00.0213	0.950.16
190467	0 2	0.00.0213	0.950.16
260467	0 2	0.00.0213	0.950.16
010168	0 8	1.30.1344	1.000.000
050468	0 2	0.00.0213	0.950.16
190468	0 2	0.00.0213	0.950.16

260468	0 2	0.00.	0.0213	0.950.	16
010169	0 8	1.30.	0.1344	1.000.	000
050469	0 2	0.00.	0.0213	0.950.	16
190469	0 2	0.00.	0.0213	0.950.	16
260469	0 2	0.00.	0.0213	0.950.	16
010170	0 8	1.30.	0.1344	1.000.	000
050470	0 2	0.00.	0.0213	0.950.	16
190470	0 2	0.00.	0.0213	0.950.	16
260470	0 2	0.00.	0.0213	0.950.	16
010171	0 8	1.30.	0.1344	1.000.	000
050471	0 2	0.00.	0.0213	0.950.	16
190471	0 2	0.00.	0.0213	0.950.	16
260471	0 2	0.00.	0.0213	0.950.	16
010172	0 8	1.30.	0.1344	1.000.	000
050472	0 2	0.00.	0.0213	0.950.	16
190472	0 2	0.00.	0.0213	0.950.	16
260472	0 2	0.00.	0.0213	0.950.	16
010173	0 8	1.30.	0.1344	1.000.	000
050473	0 2	0.00.	0.0213	0.950.	16
190473	0 2	0.00.	0.0213	0.950.	16
260473	0 2	0.00.	0.0213	0.950.	16
010174	0 8	1.30.	0.1344	1.000.	000
050474	0 2	0.00.	0.0213	0.950.	16
190474	0 2	0.00.	0.0213	0.950.	16
260474	0 2	0.00.	0.0213	0.950.	16
010175	0 8	1.30.	0.1344	1.000.	000
050475	0 2	0.00.	0.0213	0.950.	16
190475	0 2	0.00.	0.0213	0.950.	16
260475	0 2	0.00.	0.0213	0.950.	16
010176	0 8	1.30.	0.1344	1.000.	000
050476	0 2	0.00.	0.0213	0.950.	16
190476	0 2	0.00.	0.0213	0.950.	16
260476	0 2	0.00.	0.0213	0.950.	16
010177	0 8	1.30.	0.1344	1.000.	000
050477	0 2	0.00.	0.0213	0.950.	16
190477	0 2	0.00.	0.0213	0.950.	16
260477	0 2	0.00.	0.0213	0.950.	16
010178	0 8	1.30.	0.1344	1.000.	000
050478	0 2	0.00.	0.0213	0.950.	16
190478	0 2	0.00.	0.0213	0.950.	16
260478	0 2	0.00.	0.0213	0.950.	16
010179	0 8	1.30.	0.1344	1.000.	000
050479	0 2	0.00.	0.0213	0.950.	16
190479	0 2	0.00.	0.0213	0.950.	16
260479	0 2	0.00.	0.0213	0.950.	16
010180	0 8	1.30.	0.1344	1.000.	000
050480	0 2	0.00.	0.0213	0.950.	16
190480	0 2	0.00.	0.0213	0.950.	16
260480	0 2	0.00.	0.0213	0.950.	16
010181	0 8	1.30.	0.1344	1.000.	000
050481	0 2	0.00.	0.0213	0.950.	16

190481	0	2	0.00.0213	0.950.16
260481	0	2	0.00.0213	0.950.16
010182	0	8	1.30.1344	1.000.000
050482	0	2	0.00.0213	0.950.16
190482	0	2	0.00.0213	0.950.16
260482	0	2	0.00.0213	0.950.16
010183	0	8	1.30.1344	1.000.000
050483	0	2	0.00.0213	0.950.16
190483	0	2	0.00.0213	0.950.16
260483	0	2	0.00.0213	0.950.16
010184	0	8	1.30.1344	1.000.000
050484	0	2	0.00.0213	0.950.16
190484	0	2	0.00.0213	0.950.16
260484	0	2	0.00.0213	0.950.16
010185	0	8	1.30.1344	1.000.000
050485	0	2	0.00.0213	0.950.16
190485	0	2	0.00.0213	0.950.16
260485	0	2	0.00.0213	0.950.16
010186	0	8	1.30.1344	1.000.000
050486	0	2	0.00.0213	0.950.16
190486	0	2	0.00.0213	0.950.16
260486	0	2	0.00.0213	0.950.16
010187	0	8	1.30.1344	1.000.000
050487	0	2	0.00.0213	0.950.16
190487	0	2	0.00.0213	0.950.16
260487	0	2	0.00.0213	0.950.16
010188	0	8	1.30.1344	1.000.000
050488	0	2	0.00.0213	0.950.16
190488	0	2	0.00.0213	0.950.16
260488	0	2	0.00.0213	0.950.16
010189	0	8	1.30.1344	1.000.000
050489	0	2	0.00.0213	0.950.16
190489	0	2	0.00.0213	0.950.16
260489	0	2	0.00.0213	0.950.16
010190	0	8	1.30.1344	1.000.000
050490	0	2	0.00.0213	0.950.16
190490	0	2	0.00.0213	0.950.16
260490	0	2	0.00.0213	0.950.16

*** Record 17

0	1	0
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*** Record 18

0	0	0.5
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*** Record 19 -- STITLE

Riviera Sand; HYDG: C

*** Record 20

100	0	0	0	0	0	0	0	0	0
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*** Record 26

0	0	0
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*** Record 33

3

1	10	1.65	0.073	0	0	0
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0.0067960.006796		0					
0.1	0.073	0.023	1.16	82			
2	62	1.65	0.073	0	0	0	0
0.0067960.006796		0					
2	0.073	0.023	1.16	82			
3	28	1.7	0.211	0	0	0	0
0.0067960.006796		0					
2	0.211	0.091	0.174	82			
***Record 40							
0							
10	1	YEAR	10	YEAR	10	YEAR	
1							
1	-----						
7	YEAR						
PRCP	TCUM	0	0				
RUNF	TCUM	0	0				
INFL	TCUM	1	1				
ESLS	TCUM	0	0	1.0E3			
RFLX	TCUM	0	0	1.0E5			
EFLX	TCUM	0	0	1.0E5			
RZFX	TCUM	0	0	1.0E5			

**Abamectin on FL tomatoes (0.007 & 3x 0.019 lbai/A)
output file**

WATER COLUMN DISSOLVED CONCENTRATION (PPB)

YEAR	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
1961	0.430	0.416	0.350	0.284	0.263	0.148
1962	0.377	0.361	0.308	0.248	0.220	0.164
1963	0.433	0.415	0.358	0.286	0.252	0.177
1964	0.399	0.382	0.354	0.296	0.263	0.161
1965	0.372	0.355	0.302	0.242	0.211	0.130
1966	0.350	0.334	0.281	0.226	0.204	0.123
1967	0.369	0.353	0.304	0.251	0.222	0.159
1968	0.425	0.407	0.352	0.285	0.248	0.167
1969	0.431	0.415	0.366	0.314	0.286	0.217
1970	0.507	0.486	0.428	0.353	0.316	0.207
1971	0.411	0.394	0.349	0.287	0.252	0.153
1972	0.394	0.376	0.339	0.312	0.292	0.189
1973	0.644	0.618	0.524	0.445	0.411	0.243
1974	0.476	0.457	0.416	0.345	0.310	0.187
1975	0.390	0.374	0.321	0.299	0.272	0.161
1976	0.472	0.453	0.398	0.353	0.331	0.244
1977	0.451	0.434	0.379	0.326	0.314	0.237
1978	0.470	0.452	0.396	0.329	0.293	0.216

1979	0.469	0.450	0.400	0.359	0.329	0.211
1980	0.413	0.396	0.347	0.288	0.254	0.157
1981	0.705	0.672	0.561	0.414	0.360	0.231
1982	0.511	0.491	0.435	0.365	0.325	0.230
1983	0.524	0.503	0.440	0.390	0.356	0.243
1984	0.455	0.436	0.383	0.347	0.340	0.219
1985	0.401	0.384	0.331	0.276	0.244	0.145
1986	0.417	0.400	0.344	0.287	0.259	0.186
1987	0.382	0.366	0.312	0.259	0.238	0.152
1988	0.388	0.372	0.318	0.256	0.224	0.143
1989	0.392	0.375	0.346	0.280	0.247	0.154
1990	0.388	0.372	0.318	0.303	0.296	0.209

SORTED FOR PLOTTING

PROB	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
0.032	0.705	0.672	0.561	0.445	0.411	0.244
0.065	0.644	0.618	0.524	0.414	0.360	0.243
0.097	0.524	0.503	0.440	0.390	0.356	0.243
0.129	0.511	0.491	0.435	0.365	0.340	0.237
0.161	0.507	0.486	0.428	0.359	0.331	0.231
0.194	0.476	0.457	0.416	0.353	0.329	0.230
0.226	0.472	0.453	0.400	0.353	0.325	0.219
0.258	0.470	0.452	0.398	0.347	0.316	0.217
0.290	0.469	0.450	0.396	0.345	0.314	0.216
0.323	0.455	0.436	0.383	0.329	0.310	0.211
0.355	0.451	0.434	0.379	0.326	0.296	0.209
0.387	0.433	0.416	0.366	0.314	0.293	0.207
0.419	0.431	0.415	0.358	0.312	0.292	0.189
0.452	0.430	0.415	0.354	0.303	0.286	0.187
0.484	0.425	0.407	0.352	0.299	0.272	0.186
0.516	0.417	0.400	0.350	0.296	0.263	0.177
0.548	0.413	0.396	0.349	0.288	0.263	0.167
0.581	0.411	0.394	0.347	0.287	0.259	0.164
0.613	0.401	0.384	0.346	0.287	0.254	0.161
0.645	0.399	0.382	0.344	0.286	0.252	0.161
0.677	0.394	0.376	0.339	0.285	0.252	0.159
0.710	0.392	0.375	0.331	0.284	0.248	0.157
0.742	0.390	0.374	0.321	0.280	0.247	0.154
0.774	0.388	0.372	0.318	0.276	0.244	0.153
0.806	0.388	0.372	0.318	0.259	0.238	0.152
0.839	0.382	0.366	0.312	0.256	0.224	0.148
0.871	0.377	0.361	0.308	0.251	0.222	0.145
0.903	0.372	0.355	0.304	0.248	0.220	0.143
0.935	0.369	0.353	0.302	0.242	0.211	0.130
0.968	0.350	0.334	0.281	0.226	0.204	0.123
1/10	0.522	0.501	0.439	0.388	0.354	0.243

MEAN OF ANNUAL VALUES = 0.185

STANDARD DEVIATION OF ANNUAL VALUES = 0.037

UPPER 90% CONFIDENCE LIMIT ON MEAN = 0.196

FL Tomato (seed treatment @0.004 & 3 foliar applications @ 0.019 lbai/A)

"FL Tomato (General Vegetable Scenario): MLRA 155, Metfile: W12844.dvf, (West Palm Beach), "Manatee (#1 in FL), Collier (#2 in FL) and Lee (#3 in FL) Counties; MLRA: 155"

*** Record 3:
 0.78 0 0 33 1 1

*** Record 6 -- ERFLAG
 4

*** Record 7:
 0.03 0.2 1 172.8 4 1 600

*** Record 8
 1

*** Record 9
 1 0.1 90 50 3 91 87 88 0

150

*** Record 9a-d
 1 27

0101	1601	0102	1602	0103	1603	0104	1604	0105	1505	1605	2505	0106
1606	0107	1607										
.813	.830	.846	.859	.870	.878	.881	.881	.880	.836	.849	.938	.840
.572	.285	.177										
.011	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011
.011	.011	.011										
0108	1008	1608	0109	1609	0110	1610	0111	1611	0112	1612		
.162	.210	.291	.422	.547	.636	.683	.715	.743	.768	.793		
.011	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011		

*** Record 10 -- NCPDS, the number of cropping periods
 30

*** Record 11

100161	300361	050461	1
100162	300362	050462	1
100163	300363	050463	1
100164	300364	050464	1
100165	300365	050465	1
100166	300366	050466	1
100167	300367	050467	1
100168	300368	050468	1
100169	300369	050469	1
100170	300370	050470	1
100171	300371	050471	1
100172	300372	050472	1
100173	300373	050473	1
100174	300374	050474	1
100175	300375	050475	1
100176	300376	050476	1
100177	300377	050477	1
100178	300378	050478	1
100179	300379	050479	1

100180	300380	050480	1
100181	300381	050481	1
100182	300382	050482	1
100183	300383	050483	1
100184	300384	050484	1
100185	300385	050485	1
100186	300386	050486	1
100187	300387	050487	1
100188	300388	050488	1
100189	300389	050489	1
100190	300390	050490	1

*** Record 12 -- PTITLE

abamectin - 3 applications @ 0.0213 kg/ha & one seed treat.

@0.0045 kg/ha

*** Record 13

120	1	0	0
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*** Record 15 -- PSTNAM

abamectin

*** Record 16

010161	0 8	1.30.0045	1.000.000
050461	0 2	0.00.0213	0.950.16
190461	0 2	0.00.0213	0.950.16
260461	0 2	0.00.0213	0.950.16
010162	0 8	1.30.0045	1.000.000
050462	0 2	0.00.0213	0.950.16
190462	0 2	0.00.0213	0.950.16
260462	0 2	0.00.0213	0.950.16
010163	0 8	1.30.0045	1.000.000
050463	0 2	0.00.0213	0.950.16
190463	0 2	0.00.0213	0.950.16
260463	0 2	0.00.0213	0.950.16
010164	0 8	1.30.0045	1.000.000
050464	0 2	0.00.0213	0.950.16
190464	0 2	0.00.0213	0.950.16
260464	0 2	0.00.0213	0.950.16
010165	0 8	1.30.0045	1.000.000
050465	0 2	0.00.0213	0.950.16
190465	0 2	0.00.0213	0.950.16
260465	0 2	0.00.0213	0.950.16
010166	0 8	1.30.0045	1.000.000
050466	0 2	0.00.0213	0.950.16
190466	0 2	0.00.0213	0.950.16
260466	0 2	0.00.0213	0.950.16
010167	0 8	1.30.0045	1.000.000
050467	0 2	0.00.0213	0.950.16
190467	0 2	0.00.0213	0.950.16
260467	0 2	0.00.0213	0.950.16
010168	0 8	1.30.0045	1.000.000
050468	0 2	0.00.0213	0.950.16
190468	0 2	0.00.0213	0.950.16
260468	0 2	0.00.0213	0.950.16

010169	0	8	1.30.0045	1.000.000
050469	0	2	0.00.0213	0.950.16
190469	0	2	0.00.0213	0.950.16
260469	0	2	0.00.0213	0.950.16
010170	0	8	1.30.0045	1.000.000
050470	0	2	0.00.0213	0.950.16
190470	0	2	0.00.0213	0.950.16
260470	0	2	0.00.0213	0.950.16
010171	0	8	1.30.0045	1.000.000
050471	0	2	0.00.0213	0.950.16
190471	0	2	0.00.0213	0.950.16
260471	0	2	0.00.0213	0.950.16
010172	0	8	1.30.0045	1.000.000
050472	0	2	0.00.0213	0.950.16
190472	0	2	0.00.0213	0.950.16
260472	0	2	0.00.0213	0.950.16
010173	0	8	1.30.0045	1.000.000
050473	0	2	0.00.0213	0.950.16
190473	0	2	0.00.0213	0.950.16
260473	0	2	0.00.0213	0.950.16
010174	0	8	1.30.0045	1.000.000
050474	0	2	0.00.0213	0.950.16
190474	0	2	0.00.0213	0.950.16
260474	0	2	0.00.0213	0.950.16
010175	0	8	1.30.0045	1.000.000
050475	0	2	0.00.0213	0.950.16
190475	0	2	0.00.0213	0.950.16
260475	0	2	0.00.0213	0.950.16
010176	0	8	1.30.0045	1.000.000
050476	0	2	0.00.0213	0.950.16
190476	0	2	0.00.0213	0.950.16
260476	0	2	0.00.0213	0.950.16
010177	0	8	1.30.0045	1.000.000
050477	0	2	0.00.0213	0.950.16
190477	0	2	0.00.0213	0.950.16
260477	0	2	0.00.0213	0.950.16
010178	0	8	1.30.0045	1.000.000
050478	0	2	0.00.0213	0.950.16
190478	0	2	0.00.0213	0.950.16
260478	0	2	0.00.0213	0.950.16
010179	0	8	1.30.0045	1.000.000
050479	0	2	0.00.0213	0.950.16
190479	0	2	0.00.0213	0.950.16
260479	0	2	0.00.0213	0.950.16
010180	0	8	1.30.0045	1.000.000
050480	0	2	0.00.0213	0.950.16
190480	0	2	0.00.0213	0.950.16
260480	0	2	0.00.0213	0.950.16
010181	0	8	1.30.0045	1.000.000
050481	0	2	0.00.0213	0.950.16
190481	0	2	0.00.0213	0.950.16

260481	0	2	0.00	0.0213	0.950	0.16
010182	0	8	1.30	0.0045	1.000	0.000
050482	0	2	0.00	0.0213	0.950	0.16
190482	0	2	0.00	0.0213	0.950	0.16
260482	0	2	0.00	0.0213	0.950	0.16
010183	0	8	1.30	0.0045	1.000	0.000
050483	0	2	0.00	0.0213	0.950	0.16
190483	0	2	0.00	0.0213	0.950	0.16
260483	0	2	0.00	0.0213	0.950	0.16
010184	0	8	1.30	0.0045	1.000	0.000
050484	0	2	0.00	0.0213	0.950	0.16
190484	0	2	0.00	0.0213	0.950	0.16
260484	0	2	0.00	0.0213	0.950	0.16
010185	0	8	1.30	0.0045	1.000	0.000
050485	0	2	0.00	0.0213	0.950	0.16
190485	0	2	0.00	0.0213	0.950	0.16
260485	0	2	0.00	0.0213	0.950	0.16
010186	0	8	1.30	0.0045	1.000	0.000
050486	0	2	0.00	0.0213	0.950	0.16
190486	0	2	0.00	0.0213	0.950	0.16
260486	0	2	0.00	0.0213	0.950	0.16
010187	0	8	1.30	0.0045	1.000	0.000
050487	0	2	0.00	0.0213	0.950	0.16
190487	0	2	0.00	0.0213	0.950	0.16
260487	0	2	0.00	0.0213	0.950	0.16
010188	0	8	1.30	0.0045	1.000	0.000
050488	0	2	0.00	0.0213	0.950	0.16
190488	0	2	0.00	0.0213	0.950	0.16
260488	0	2	0.00	0.0213	0.950	0.16
010189	0	8	1.30	0.0045	1.000	0.000
050489	0	2	0.00	0.0213	0.950	0.16
190489	0	2	0.00	0.0213	0.950	0.16
260489	0	2	0.00	0.0213	0.950	0.16
010190	0	8	1.30	0.0045	1.000	0.000
050490	0	2	0.00	0.0213	0.950	0.16
190490	0	2	0.00	0.0213	0.950	0.16
260490	0	2	0.00	0.0213	0.950	0.16

*** Record 17

0	1	0
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*** Record 18

0	0	0.5
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*** Record 19 -- STITLE

Riviera Sand; HYDG: C

*** Record 20

100	0	0	0	0	0	0	0	0
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*** Record 26

0	0	0
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*** Record 33

3	10	1.65	0.073	0	0	0
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	0.006796	0.006796	0			
	0.1	0.073	0.023	1.16	82	
2	62	1.65	0.073	0	0	0
	0.006796	0.006796	0			
	2	0.073	0.023	1.16	82	
3	28	1.7	0.211	0	0	0
	0.006796	0.006796	0			
	2	0.211	0.091	0.174	82	

***Record 40

	YEAR	10		YEAR	10	YEAR
10	1					
	1					
	1	----				
	7	YEAR				
PRCP	TCUM	0	0			
RUNF	TCUM	0	0			
INFL	TCUM	1	1			
ESLS	TCUM	0	0	1.0E3		
RFLX	TCUM	0	0	1.0E5		
EFLX	TCUM	0	0	1.0E5		
RZFX	TCUM	0	0	1.0E5		

Abamectin on FL tomatoes @ (0.004 & 3x 0.019 lbai/A) output file

abamectin on FL tomato (low rate)

WATER COLUMN DISSOLVED CONCENTRATION (PPB)

YEAR	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
----	----	-----	-----	-----	-----	-----
1961	0.315	0.306	0.258	0.228	0.208	0.105
1962	0.348	0.333	0.280	0.220	0.192	0.124
1963	0.371	0.355	0.301	0.234	0.205	0.125
1964	0.354	0.338	0.304	0.247	0.216	0.120
1965	0.345	0.329	0.276	0.216	0.188	0.103
1966	0.334	0.319	0.266	0.210	0.185	0.101
1967	0.340	0.325	0.276	0.221	0.193	0.118
1968	0.361	0.345	0.292	0.228	0.198	0.117
1969	0.356	0.346	0.298	0.246	0.217	0.137
1970	0.402	0.384	0.334	0.270	0.236	0.143
1971	0.360	0.345	0.299	0.237	0.207	0.113
1972	0.342	0.326	0.286	0.250	0.228	0.133
1973	0.494	0.474	0.402	0.334	0.303	0.165
1974	0.379	0.363	0.332	0.266	0.236	0.133
1975	0.350	0.334	0.281	0.250	0.222	0.120
1976	0.354	0.339	0.286	0.247	0.228	0.148
1977	0.367	0.351	0.298	0.248	0.230	0.149
1978	0.369	0.353	0.299	0.236	0.210	0.130

1979	0.367	0.353	0.310	0.266	0.237	0.133
1980	0.356	0.340	0.292	0.232	0.204	0.114
1981	0.441	0.422	0.355	0.265	0.233	0.160
1982	0.402	0.386	0.332	0.267	0.237	0.152
1983	0.396	0.379	0.325	0.280	0.249	0.153
1984	0.367	0.351	0.298	0.261	0.249	0.144
1985	0.353	0.337	0.286	0.229	0.201	0.107
1986	0.348	0.332	0.278	0.225	0.197	0.115
1987	0.347	0.331	0.278	0.224	0.200	0.112
1988	0.345	0.330	0.276	0.215	0.187	0.102
1989	0.345	0.329	0.303	0.240	0.208	0.117
1990	0.349	0.333	0.281	0.249	0.238	0.150

SORTED FOR PLOTTING

PROB	PEAK	96 HOUR	21 DAY	60 DAY	90 DAY	YEARLY
0.032	0.494	0.474	0.402	0.334	0.303	0.165
0.065	0.441	0.422	0.355	0.280	0.249	0.160
0.097	0.402	0.386	0.334	0.270	0.249	0.153
0.129	0.402	0.384	0.332	0.267	0.238	0.152
0.161	0.396	0.379	0.332	0.266	0.237	0.150
0.194	0.379	0.363	0.325	0.266	0.237	0.149
0.226	0.371	0.355	0.310	0.265	0.236	0.148
0.258	0.369	0.353	0.304	0.261	0.236	0.144
0.290	0.367	0.353	0.303	0.250	0.233	0.143
0.323	0.367	0.351	0.301	0.250	0.230	0.137
0.355	0.367	0.351	0.299	0.249	0.228	0.133
0.387	0.361	0.346	0.299	0.248	0.228	0.133
0.419	0.360	0.345	0.298	0.247	0.222	0.133
0.452	0.356	0.345	0.298	0.247	0.217	0.130
0.484	0.356	0.340	0.298	0.246	0.216	0.125
0.516	0.354	0.339	0.292	0.240	0.210	0.124
0.548	0.354	0.338	0.292	0.237	0.208	0.120
0.581	0.353	0.337	0.286	0.236	0.208	0.120
0.613	0.350	0.334	0.286	0.234	0.207	0.118
0.645	0.349	0.333	0.286	0.232	0.205	0.117
0.677	0.348	0.333	0.281	0.229	0.204	0.117
0.710	0.348	0.332	0.281	0.228	0.201	0.115
0.742	0.347	0.331	0.280	0.228	0.200	0.114
0.774	0.345	0.330	0.278	0.225	0.198	0.113
0.806	0.345	0.329	0.278	0.224	0.197	0.112
0.839	0.345	0.329	0.276	0.221	0.193	0.107
0.871	0.342	0.326	0.276	0.220	0.192	0.105
0.903	0.340	0.325	0.276	0.216	0.188	0.103
0.935	0.334	0.319	0.266	0.215	0.187	0.102
0.968	0.315	0.306	0.258	0.210	0.185	0.101
1/10	0.402	0.385	0.333	0.269	0.248	0.153

MEAN OF ANNUAL VALUES = 0.128

STANDARD DEVIATION OF ANNUAL VALUES = 0.018

UPPER 90% CONFIDENCE LIMIT ON MEAN = 0.133

**SCI GROW
VERSION 2.3
ENVIRONMENTAL FATE AND EFFECTS DIVISION
OFFICE OF PESTICIDE PROGRAMS
U.S. ENVIRONMENTAL PROTECTION AGENCY
SCREENING MODEL
FOR GROUND WATER**

SciGrow version 2.3
chemical:abamectin
time is 3/1/2007 14:13:21

Application rate (lb/acre)	Number of applications	Total Use (lb/acre/yr)	Koc Aerobic metabolism (days)	Soil
0.061	1.0 101.0	0.061		2.53E+03

groundwater screening cond (ppb) = 1.84E-03

