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OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

OPP OFFICIAL RECORD
HEALTH EFFECTS DIVISION
SCIENTIFIC DATA REVIEWS
EPA SERIES 361

MEMORANDUM

DATE: January 16, 2001

SUBJECT: **Acetamiprid**: Acute and Chronic Dietary Exposure Assessments for the Section 3 Registration on Cotton, Leafy Vegetables, Brassica Vegetables, Fruiting Vegetables, Citrus, Pome Fruits, Grapes, and Canola and Mustard Seed Treatments.

DP Barcode: D279757
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40 CFR: None (new ai)

Submission: S575947
Case: 064462
Petition: 0F6082

FROM: Michael Doherty, Chemist *Michael A. Doherty*
Registration Action Branch 2
Health Effects Division (7509C)

THROUGH: Richard Loranger, Branch Senior Scientist *R. Loranger*
Registration Action Branch 2
Health Effects Division (7509C)

Christina Swartz, Chemist *Christina Swartz*
David Hrdy, Biologist *David Hrdy*
Dietary Exposure Science Advisory Council (DESAC)
Health Effects Division (7509C)

TO: Pamela Hurley, Toxicologist
Registration Action Branch 2
Health Effects Division (7509C)



EPA Reviewer: Michael Doherty, Date: 12/14/2001

ASSESSMENTS: Acetamiprid Acute and Chronic Dietary Exposure Assessments for Section 3 Registration on Cotton, Leafy Vegetables, Brassica Vegetables, Fruiting Vegetables, Citrus, Pome Fruits, Grapes, and Canola and Mustard Seed Treatments

ACTIVE INGREDIENT: Acetamiprid

SYNONYMS: N1-[(6-chloro-3-pyridyl)methyl]-N2-cyano-N1-methylacetamidine

ROC: Plants: Acetamiprid *per se*

Livestock (except ruminant muscle): Combined residues of acetamiprid and its IM-2-1 metabolite {N1-[(6-chloro-3-pyridyl)methyl]-N2-cyano-acetamidine

Ruminant muscle: Combined residues of acetamiprid, IM-2-1, and IM-2-1-amide. IM-2-1 serves as a marker compound for IM-2-1-amide. Based on data from the lactating goat metabolism study (MRID 44988524, DP Barcode D277855), IM-2-1-amide occurs at not more than 10 times the level of IM-2-1 in ruminant muscle tissues.

Executive Summary

HED conducted Tier 1 acute and chronic analyses to estimate the dietary exposure and risk associated with the use of the new active ingredient acetamiprid to control insect pests on cotton, leafy vegetables, brassica vegetables, fruiting vegetables, citrus, pome fruits, grapes, and canola and mustard seed. The analyses are unrefined, using assumptions of tolerance-level residues and 100% crop treated.

Based on the consumption data in the Continuing Surveys of Food Intake by Individuals (CSFII) from 1989 - 1992 and on the Tier 1 assumptions of tolerance-level residues and 100% crop treated, the acute dietary exposure is estimated to be 0.039606 mg/kg at the 95th percentile of exposure for the most highly exposed population subgroup (children 1-6 years of age). This is equivalent to 40% of the acute population-adjusted dose (aPAD). Acute exposure and risk estimates are lower for all other representative population subgroups. The risk estimates for all population subgroups are less than 100% of the aPAD and are, therefore, below HED's level of concern.

Using the same consumption database and Tier 1 assumptions described for the acute assessment, the chronic dietary exposure is estimated to be 0.014687 mg/kg/day for the most highly exposed population subgroup (children 1-6 years of age). This is equivalent to 64% of the

chronic population-adjusted dose (cPAD). Chronic exposure and risk estimates are lower for all other representative population subgroups. The risk estimates for all population subgroups are less than 100% of the cPAD and are, therefore, below HED's level of concern.

I. Introduction

Dietary exposure to pesticides can occur through food, water, residential and occupational means. Risk assessment incorporates both exposure and toxicity of a given pesticide. The risk is expressed as a percentage of daily and/or a long-term dose that would pose no unreasonable adverse effects. These doses are called the acute and chronic population-adjusted doses (aPAD, cPAD), and the risk is expressed as % aPAD or % cPAD. References are available on the EPA/pesticides web site which discuss the acute and chronic dietary risk assessments in more detail: "Available Information on Assessing Exposure from Pesticides, A User's Guide", 6/21/2000, web link: <http://www.epa.gov/fedrgstr/EPA-PEST/2000/July/Day-12/6061.pdf>; or see SOP 99.6, 8/20/99.

The purpose of this memorandum is to summarize the results of the dietary risk assessments for the general U.S. population and various population subgroups resulting from potential exposure to acetamiprid through food. These risk assessments are the first dietary risk analyses that have been conducted for acetamiprid.

II. Toxicological Information

Acetamiprid was presented to the HED Hazard Identification Assessment Review Committee on September 20, 2001 (TXR No. 0050279) and to the FQPA Safety Factor Committee on November 26, 2001 (TXR No. 0050323). The results of those committees' deliberations are summarized in Table 1. The Cancer Assessment Review Committee met on October 31, 2001 to assess the carcinogenic potential of acetamiprid. The committee classified acetamiprid as not likely to be carcinogenic to humans. A cancer risk assessment is not required for this chemical.

Table 1. Summary of Toxicological Endpoints Relevant to Dietary Risk Assessment for Acetamiprid.			
Exposure Scenario	Dose (mg/kg/day)	Endpoint	Study
Acute Dietary	NOAEL = 10 UF = 100 FQPA SF = 1	Decrease in locomotor activity in males.	Acute mammalian neurotoxicity study
		Acute RfD = 0.10 aPAD = 0.10 mg/kg	
Chronic Dietary	NOAEL = 7.1 UF = 100 FQPA SF = 3	Decrease in body weight/body weight gain and hepatocellular vacuolation	Chronic feeding/ oncogenicity study in the rat
		Chronic RfD = 0.07 cPAD = 0.023 mg/kg/day	

III. Residue Information

Tolerance-level residues of the residues of concern for acetamiprid were used in these analyses (Table 2). With the exception of tomato paste, which carries its own tolerance, the default processing factors listed in DEEM were used for all processed commodities. No percent crop treated data were used in these analyses.

Commodity	Tolerance, ppm ^a	Risk Assessment, ppm ^b
Cotton, undelinted seed	0.6	0.6
Cotton, gin byproducts	20.0	20.0
Vegetable, leafy, except brassica, group	3.0	3.0
Vegetable, brassica, leafy, group	1.2	1.2
Vegetable, fruiting, group	0.2	0.2
Tomato, paste	0.4	0.4
Fruit, citrus, group	0.5	0.5
Citrus, dried pulp	1.2	1.2
Fruit, pome, group	1.0	1.0
Grape	0.2	0.2
Canola, seed	0.01	0.01
Mustard, seed	0.01	0.01
Cattle, meat; hog, meat; horse, meat; goat, meat; sheep, meat	0.1	0.5
Cattle, fat; hog, fat; horse, fat; goat, fat; sheep, fat	0.1	0.1
Cattle, meat byproducts; hog, meat byproducts; horse, meat byproducts; goat, meat byproducts; sheep, meat byproducts	0.2	0.2
Milk	0.1	0.1
Egg	0.01	0.01
Poultry, meat	0.01	0.01
Poultry, fat	0.01	0.01
Poultry, liver	0.05	0.05

^a For plant commodities, the recommended tolerance expression is acetamiprid, *per se*. For livestock tolerances, the recommended tolerance expression is acetamiprid + IM-2-1.

^b For ruminant muscle tissue, the residue of concern for risk assessment is acetamiprid + IM-2-1 + IM-2-1-amide. Residues of IM-2-1-amide are included at a level that is 10 times the level of IM-2-1.

IV. DEEM™ Program and Consumption Information

Acetamiprid acute and chronic dietary exposure assessments were conducted using the Dietary Exposure Evaluation Model (DEEM™) software Version 7.73, which incorporates consumption data from USDA's Continuing Surveys of Food Intake by Individuals (CSFII), 1989-1992. The 1989-92 data are based on the reported consumption of more than 10,000 individuals over three consecutive days, and therefore represent more than 30,000 unique "person days" of data. Foods "as consumed" (e.g., apple pie) are linked to raw agricultural commodities and their food forms (e.g., apples-cooked/canned or wheat-flour) by recipe translation files internal to the DEEM software. Consumption data are averaged for the entire US population and within population subgroups for chronic exposure assessment, but are retained as individual consumption events for acute exposure assessment.

For chronic exposure and risk assessment, an estimate of the residue level in each food or food-form (e.g., orange or orange-juice) on the commodity residue list is multiplied by the average daily consumption estimate for that food/food form. The resulting residue consumption estimate for each food/food form is summed with the residue consumption estimates for all other food/food forms on the commodity residue list to arrive at the total estimated exposure. Exposure estimates are expressed in mg/kg body weight/day and as a percent of the cPAD. This procedure is performed for each population subgroup.

For acute exposure assessments, individual one-day food consumption data are used on an individual-by-individual basis. The reported consumption amounts of each food item can be multiplied by a residue point estimate and summed to obtain a total daily pesticide exposure for a deterministic (Tier 1 or Tier 2) exposure assessment, or "matched" in multiple random pairings with residue values and then summed in a probabilistic (Tier 3/4) assessment. The resulting distribution of exposures is expressed as a percentage of the aPAD on both a user (i.e., those who reported eating relevant commodities/food forms) and a per-capita (i.e., those who reported eating the relevant commodities as well as those who did not) basis. In accordance with HED policy, per capita exposure and risk are reported for all tiers of analysis. However, for tiers 1 and 2, significant differences in user vs. per capita exposure and risk are identified and noted in the risk assessment.

HED notes that there is a degree of uncertainty in extrapolating exposures for certain population subgroups from the general U.S. population which may not be sufficiently represented in the consumption surveys, (e.g., nursing and non-nursing infants or Hispanic females). Therefore, risks estimated for these population subgroups were included in representative populations having sufficient numbers of survey respondents (e.g., all infants or females, 13-50 years).

V. Results/Discussion

The results of the acute and chronic Tier 1 analyses are summarized in Table 3. Acute risk estimates at the 95th percentile of exposure are ≤40% of the aPAD for all population subgroups. Chronic risk estimates are ≤64% of the cPAD for all population subgroups. Output from the acute and chronic dietary analyses are included as Attachments 1 and 2, respectively.

Population Subgroup	Acute		Chronic		Cancer
	95 th %ile Exposure (mg/kg)	% aPAD	Exposure (mg/kg/day)	% cPAD	Risk or MOE
U.S. Population (total)	0.016921	17	0.005395	24	NA
All Infants (< 1 year)	0.038317	38	0.010261	45	NA
Children 1-6 years	0.039606	40	0.014687	64	
Children 7-12 years	0.022084	22	0.008072	35	
Females 13-50	0.011451	11	0.003970	17	
Males 13-19	0.011627	12	0.004460	19	
Males 20+ years	0.009624	10	0.003673	16	
Seniors 55+	0.010242	10	0.004005	17	

VI. Discussion of Uncertainties

These are highly conservative analyses that likely overestimate potential dietary (food only) exposure to acetaminiprid as a result of these proposed uses. Refinement, as anticipated residues and/or use of percent crop treated, would result in lower exposure and risk estimates. Since the dietary exposure estimates are well below HED's level of concern, further refinements were not pursued.

VII. Conclusions

Based on these highly conservative analyses, dietary (food only) exposure to acetaminiprid is unlikely to exceed HED's level of concern for any population subgroup, including those of infants and children.

VIII. List of Attachments

- Attachment 1. DEEM inputs for the acute and chronic analyses of acetaminiprid.
- Attachment 2. Results of the acute Tier 1 dietary exposure analysis for acetaminiprid.
- Attachment 3. Results of the chronic Tier 1 dietary exposure analysis for acetaminiprid.

cc: M. Doherty, RAB2 Reading File, L. Richardson (CEB1)

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Attachment 1. DEEM inputs for the acute and chronic analyses of acetamiprid.

Filename: G:\Briefcase\Chemistry Reviews\DEEM Runs\Acetamiprid\099050.RS7
 Chemical: Acetamiprid
 RfD(Chronic): .07 mg/kg bw/day NOEL(Chronic): 0 mg/kg bw/day
 RfD(Acute): .1 mg/kg bw/day NOEL(Acute): 0 mg/kg bw/day
 Date created/last modified: 12-26-2001/14:44:31/8 Program ver. 7.72

Food Code	Crop Grp	Food Name	Def Res (ppm)	Adj. Factors #1	Adj. Factors #2	Comment
301	O	Canola oil (rape seed oil)	0.010000	1.000	1.000	0F6082
291	O	Cottonseed-meal	0.600000	1.000	1.000	0F6082
290	O	Cottonseed-oil	0.600000	1.000	1.000	0F6082
13	O	Grapes	0.200000	1.000	1.000	0F6082
15	O	Grapes-juice	0.200000	1.200	1.000	0F6082
392	O	Grapes-juice-concentrate	0.200000	3.600	1.000	0F6082
195	O	Grapes-leaves	0.200000	1.000	1.000	0F6082
14	O	Grapes-raisins	0.200000	4.300	1.000	0F6082
315	O	Grapes-wine and sherry	0.200000	1.000	1.000	0F6082
323	M	Beef-dried	0.500000	1.920	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
324	M	Beef-fat w/o bones	0.100000	1.000	1.000	0F6082 Includes IM-2-1
325	M	Beef-kidney	0.200000	2.000	1.000	0F6082 Includes IM-2-1
327	M	Beef-lean (fat/free) w/o bones	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
326	M	Beef-liver	0.200000	1.000	1.000	0F6082 Includes IM-2-1
321	M	Beef-meat byproducts	0.200000	1.000	1.000	0F6082 Includes IM-2-1
322	M	Beef-other organ meats	0.200000	1.000	1.000	0F6082 Includes IM-2-1
330	M	Goat-fat w/o bone	0.100000	2.000	1.000	0F6082 Includes IM-2-1
331	M	Goat-kidney	0.200000	1.000	1.000	0F6082 Includes IM-2-1
333	M	Goat-lean (fat/free) w/o bone	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
332	M	Goat-liver	0.200000	1.000	1.000	0F6082 Includes IM-2-1
328	M	Goat-meat byproducts	0.200000	1.000	1.000	0F6082 Includes IM-2-1
329	M	Goat-other organ meats	0.200000	1.000	1.000	0F6082 Includes IM-2-1
334	M	Horsemeat	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
344	M	Pork-fat w/o bone	0.100000	1.000	1.000	0F6082 Includes IM-2-1
345	M	Pork-kidney	0.200000	1.000	1.000	0F6082 Includes IM-2-1
347	M	Pork-lean (fat free) w/o bone	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
346	M	Pork-liver	0.200000	1.000	1.000	0F6082 Includes IM-2-1
342	M	Pork-meat byproducts	0.200000	1.000	1.000	0F6082 Includes IM-2-1
343	M	Pork-other organ meats	0.200000	1.000	1.000	0F6082 Includes IM-2-1
335	M	Rabbit	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
338	M	Sheep-fat w/o bone	0.100000	2.000	1.000	0F6082 Includes IM-2-1
339	M	Sheep-kidney	0.200000	1.000	1.000	0F6082 Includes IM-2-1
341	M	Sheep-lean (fat free) w/o bone	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
340	M	Sheep-liver	0.200000	1.000	1.000	0F6082 Includes IM-2-1
336	M	Sheep-meat byproducts	0.200000	1.000	1.000	0F6082 Includes IM-2-1
337	M	Sheep-other organ meats	0.200000	1.000	1.000	0F6082 Includes IM-2-1
429	M	Veal-dried	0.500000	1.920	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
424	M	Veal-fat w/o bones	0.100000	1.000	1.000	0F6082 Includes IM-2-1
426	M	Veal-kidney	0.300000	2.000	1.000	0F6082 Includes IM-2-1
425	M	Veal-lean (fat free) w/o bones	0.500000	1.000	1.000	0F6082 Includes IM-2-1 + IM-2-1-a
427	M	Veal-liver	0.300000	2.000	1.000	0F6082 Includes IM-2-1
430	M	Veal-meat byproducts	0.300000	2.000	1.000	0F6082 Includes IM-2-1
428	M	Veal-other organ meats	0.300000	2.000	1.000	0F6082 Includes IM-2-1
366	F	Chicken-byproducts	0.050000	2.000	1.000	0F6082
368	F	Chicken-fat w/o bones	0.010000	2.000	1.000	0F6082
367	P	Chicken-giblets(liver)	0.050000	2.000	1.000	0F6082
385	P	Chicken-giblets (excl. liver)	0.050000	2.000	1.000	0F6082
369	P	Chicken-lean/fat free w/o bones	0.010000	2.000	1.000	0F6082
364	P	Eggs-white only	0.010000	2.000	1.000	0F6082
363	F	Eggs-whole	0.010000	2.000	1.000	0F6082
365	P	Eggs-yolk only	0.010000	2.000	1.000	0F6082
362	P	Foultry-other-fat w/o bones	0.010000	2.000	1.000	0F6082

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361	P	Poultry-other-giblets(liver)	0.050000	1.000	1.000	0F6082
360	P	Poultry-other-lean (fat free) w/	0.010000	1.000	1.000	0F6082
355	P	Turkey-byproducts	0.050000	1.000	1.000	0F6082
357	P	Turkey--fat w/o bones	0.010000	1.000	1.000	0F6082
356	P	Turkey-giblets (liver)	0.050000	1.000	1.000	0F6082
358	P	Turkey- lean/fat free w/o bones	0.010000	1.000	1.000	0F6082
449	P	Turkey-other organ meats	0.050000	1.000	1.000	0F6082
398	D	Milk-based water	0.100000	1.000	1.000	0F6082
319	D	Milk-fat solids	0.100000	1.000	1.000	0F6082
318	D	Milk-nonfat solids	0.100000	1.000	1.000	0F6082
320	D	Milk sugar (lactose)	0.100000	1.000	1.000	0F6082
498	4A	Amaranth	3.000000	1.000	1.000	0F6082
166	4B	Celery	3.000000	1.000	1.000	0F6082
384	4B	Celery juice	3.000000	1.000	1.000	0F6082
447	4A	Chervil	3.000000	1.000	1.000	0F6082
167	4A	Chicory(french/belgian endive)	3.000000	1.000	1.000	0F6082
180	4A	Cress-garden/field	3.000000	1.000	1.000	0F6082
191	4A	Cress-upland	3.000000	1.000	1.000	0F6082
177	4A	Dandelion-greens	3.000000	1.000	1.000	0F6082
178	4A	Endive-curley and escarole	3.000000	1.000	1.000	0F6082
182	4A	Lettuce-unspecified	3.000000	1.000	1.000	0F6082
176	4A	Lettuce-leafy varieties	3.000000	1.000	2.000	0F6082
192	4A	Lettuce-head varieties	3.000000	1.000	1.000	0F6082
184	4A	Parsley	3.000000	1.000	1.000	0F6082
185	4B	Rhubarb	3.000000	1.000	1.000	0F6082
186	4A	Spinach	3.000000	1.000	1.000	0F6082
187	4B	Swiss chard	3.000000	1.000	1.000	0F6082
452	5B	Bok choy	1.200000	1.000	1.000	0F6082
168	5A	Broccoli	1.200000	1.000	1.000	0F6082
451	5A	Broccoli-chinese	1.200000	1.000	1.000	0F6082
169	5A	Brussels sprouts	1.200000	1.000	1.000	0F6082
170	5A	Cabbage-green and red	1.200000	1.000	1.000	0F6082
383	5B	Cabbage-savoy	1.200000	1.000	1.000	0F6082
171	5A	Cauliflower	1.200000	1.000	1.000	0F6082
172	5B	Collards	1.200000	1.000	1.000	0F6082
174	5B	Kale	1.200000	1.000	1.000	0F6082
175	5A	Kohlrabi	1.200000	1.000	1.000	0F6082
183	5B	Mustard greens	1.200000	1.000	1.000	0F6082
154	8	Eggplant	0.200000	1.000	1.000	0F6082
164	8	Groundcherries	0.200000	1.000	1.000	0F6082
139	8	Paprika	0.200000	1.000	1.000	0F6082
156	8	Peppers-chilli incl jalapeno	0.200000	1.000	1.000	0F6082
157	8	Peppers-other	0.200000	1.000	1.000	0F6082
155	8	Peppers-sweet(garden)	0.200000	1.000	1.000	0F6082
158	8	Pimientos	0.200000	1.000	1.000	0F6082
163	8	Tomatoes-catsup	0.400000	1.000	1.000	0F6082
423	8	Tomatoes-dried	0.200000	14.300	1.000	0F6082
160	8	Tomatoes-juice	0.200000	1.500	1.000	0F6082
162	8	Tomatoes-paste	0.400000	1.000	1.000	0F6082
161	8	Tomatoes-puree	0.200000	3.300	1.000	0F6082
159	8	Tomatoes-whole	0.200000	1.000	1.000	0F6082
20	10	Citrus citron	0.500000	1.000	1.000	0F6082
23	10	Grapefruit-juice	0.500000	2.100	1.000	0F6082
441	10	Grapefruit-juice-concentrate	0.500000	8.260	1.000	0F6082
448	10	Grapefruit peel	0.500000	1.000	1.000	0F6082
22	10	Grapefruit-peeled fruit	0.500000	1.000	1.000	0F6082
24	10	Kumquats	0.500000	1.000	1.000	0F6082
28	10	Lemons-juice	0.500000	2.000	1.000	0F6082
442	10	Lemons-juice-concentrate	0.500000	11.400	1.000	0F6082
27	10	Lemons-peel	0.500000	1.000	1.000	0F6082
26	10	Lemons-peeled fruit	0.500000	1.000	1.000	0F6082
32	10	Limes-juice	0.500000	2.000	1.000	0F6082
443	10	Limes-juice-concentrate	0.500000	6.000	1.000	0F6082
31	10	Limes-peel	0.500000	1.000	1.000	0F6082

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30	10	Limes-peeled fruit	0.500000	1.000	1.000	0F6082
36	10	Oranges-juice	0.500000	1.800	1.000	0F6082
33	10	Oranges-juice-concentrate	0.500000	6.700	1.000	0F6082
35	10	Oranges-peel	0.500000	1.000	1.000	0F6082
34	10	Oranges-peeled fruit	0.500000	1.000	1.000	0F6082
37	10	Tangelos	0.500000	1.000	1.000	0F6082
38	10	Tangerines	0.500000	1.000	1.000	0F6082
39	10	Tangerines-juice	0.500000	2.300	1.000	0F6082
420	10	Tangerines-juice-concentrate	0.500000	7.350	1.000	0F6082
52	11	Apples	1.000000	1.000	1.000	0F6082
53	11	Apples-dried	1.000000	8.000	1.000	0F6082
54	11	Apples-juice/cider	1.000000	1.300	1.000	0F6082
377	11	Apples-juice-concentrate	1.000000	3.900	1.000	0F6082
55	11	Crabapples	1.000000	1.000	1.000	0F6082
81	11	Loquats	1.000000	1.000	1.000	0F6082
56	11	Pears	1.000000	1.000	1.000	0F6082
57	11	Pears-dried	1.000000	6.250	1.000	0F6082
404	11	Pears-juice	1.000000	1.000	1.000	0F6082
58	11	Quinces	1.000000	1.000	1.000	0F6082
130	19B	Mustard seed	0.010000	1.000	1.000	0F6082

Attachment 2. Results of the acute Tier 1 dietary exposure analysis for acetamiprid.

U.S. Environmental Protection Agency
DEEM ACUTE Analysis for ACETAMIPRID
Residue file: 099050.RS7
Analysis Date: 12-26-2001/15:05:02
Daily totals for food and foodform consumption used.
Run Comment: ""

Ver. 7.72
(1989-92 data)
Adjustment factor #2 NOT used.

Residue file dated: 12-26-2001/15:00:41/8

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Summary calculations (per capita):

	95th Percentile		99th Percentile		99.9th Percentile	
	Exposure	% aRfD	Exposure	% aRfD	Exposure	% aRfD
U.S. Population:	0.016921	16.92	0.033494	33.49	0.065299	65.30
All infants:	0.038317	38.32	0.071306	71.31	0.171620	171.62
Children 1-6 yrs:	0.039606	39.61	0.063304	63.30	0.139066	139.07
Children 7-12 yrs:	0.022084	22.08	0.035877	35.88	0.047131	47.13
Females 13-50 yrs:	0.011451	11.45	0.017673	17.67	0.030128	30.13
Males 13-19 yrs:	0.011627	11.63	0.019127	19.13	0.026593	26.59
Males 20+ yrs:	0.009624	9.62	0.015232	15.23	0.025640	25.64
Seniors 55+:	0.010242	10.24	0.016027	16.03	0.030005	30.00

Attachment 3. Results of the chronic Tier 1 dietary exposure analysis for acetamiprid.

U.S. Environmental Protection Agency Ver. 7.72
DEEM Chronic analysis for ACETAMIPRID (1989-92. data)
Residue file name: G:\Briefcase\Chemistry Reviews\DEEM Runs\Acetamiprid\099050.RS7
Adjustment factor #2 NOT used.
Analysis Date 12-26-2001/15:01:46 Residue file dated: 12-26-2001/15:00:41/8
Reference dose (RfD, Chronic) = .023 mg/kg bw/day

Total exposure by population subgroup

Population Subgroup	Total Exposure	
	mg/kg body wt./day	Percent of Rfd
U.S. Population (total)	0.005395	23.5%
U.S. Population (spring season)	0.005241	22.8%
U.S. Population (summer season)	0.005148	22.4%
U.S. Population (autumn season)	0.005670	24.7%
U.S. Population (winter season)	0.005523	24.0%
Northeast region	0.005823	25.3%
Midwest region	0.005160	22.4%
Southern region	0.005003	21.8%
Western region	0.005907	25.7%
Hispanics	0.005554	24.1%
Non-hispanic whites	0.005385	23.4%
Non-hispanic blacks	0.005119	22.3%
Non-hisp/non-white/non-black	0.006515	28.3%
All infants (< 1 year)	0.010261	44.6%
Nursing infants	0.006039	26.3%
Non-nursing infants	0.012038	52.3%
Children 1-6 yrs	0.014687	63.9%
Children 7-12 yrs	0.008072	35.1%
Females 13-19 (not preg or nursing)	0.004295	18.7%
Females 20+ (not preg or nursing)	0.003882	16.9%
Females 13-50 yrs	0.003970	17.3%
Females 13+ (preg/not nursing)	0.004843	21.1%
Females 13+ (nursing)	0.006336	27.5%
Males 13-19 yrs	0.004460	19.4%
Males 20+ yrs	0.003673	16.0%
Seniors 55+	0.004005	17.4%
Pacific Region	0.005983	26.0%

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