UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MEMORANDUM

Date: 22 January 2007

Subject: **Acetochlor**. Acute and Chronic Dietary Exposure Assessments to Support New Uses on Sweet Corn, Pop Corn and Sorghum & New Rotational Crop Tolerances on Potatoes, Sugar Beets, Sunflower Seeds, Dried Shelled Peas and Beans (Crop Subgroup 6C) and Cereal Grains, Except Rice and Corn (Crop Group 15).

PC Code: 121601 Decision No.: 300987
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Executive Summary

Acute and chronic dietary risk assessments were conducted using the Dietary Exposure Evaluation Model (DEEM-FCID™, Version 2.03) which use food consumption data from the U.S. Department of Agriculture's Continuing Surveys of Food Intakes by Individuals (CSFII) from 1994-1996 and 1998. The analyses were performed to support Section 3 requests for new uses on sweet corn, pop corn and sorghum as well as new rotational crop tolerances for potato, sugar beets, sunflower seeds, dried shelled peas and beans (crop subgroup 6C) and cereal grains, except corn and rice (crop group 15).

Results of Acute Dietary Exposure Analysis
The acute dietary analysis was based on tolerance level residues and 100% crop treated assumptions for all commodities. Experimentally derived processing factors were used for cereal grain commodities.

The drinking water values used in the acute dietary risk assessment were based on information provided by the Acetochlor Registration Partnership water monitoring program. Exposure to acetochlor parent was significantly higher in the surface water monitoring sites than the ground water monitoring sites; therefore, the concentration used in the acute dietary assessment was from a surface water monitoring site that produced the highest concentration of 0.01821 ppm.

The results of the acute dietary analysis for **food only** indicate that acute dietary risks (food only) do not exceed HED's level of concern (less than 100% of the acute population adjusted dose (aPAD)) for the U.S. population and all subgroups. At the 95th percentile, the U.S. population has an exposure from food only that results in a risk that is equivalent to < 1 % of the aPAD. The most highly exposed subpopulation is "children 1-2 years of age". At the 95th percentile, this subpopulation has an exposure from food only that results in a risk equivalent to <1 % of the aPAD.

The results of the aggregate acute dietary analysis for **food and water** indicate that acute dietary risks (food and water) do not exceed HED's level of concern (less than 100% of the acute population adjusted dose (aPAD)) for the U.S. population and all subgroups. At the 95th percentile, the U.S. population has an exposure from food and water that results in a risk that is equivalent to <1 % of the aPAD. The most highly exposed subpopulation is "all infants". At the 95th percentile, this subpopulation has an exposure from food and water that is equivalent 2.6 % of the aPAD.

Results of Chronic Dietary Exposure Analysis
The chronic dietary analysis included anticipated residues from field trial data and 100% crop treated assumptions for all commodities. Experimentally derived processing factors were used for cereal grain commodities.

The drinking water values used in the chronic dietary risk assessment were based on information provided by the Acetochlor Registration Partnership water monitoring program. Exposure to acetochlor parent was significantly higher in the surface water monitoring sites than the ground water monitoring sites; therefore, the concentration used was from a surface water monitoring

site that produced the highest time-weighted annualized mean (TWAM) concentration for a single year of 0.00143 ppm.

The results of the chronic dietary analysis for **food only** indicate that chronic dietary risks (food only) do not exceed HED's level of concern (less than 100% of the chronic population adjusted dose (cPAD)) for the U.S. population and all subgroups. The U.S. population exposure from food only results in a risk that is equivalent to <1% of the cPAD. The most highly exposed subpopulation is "children 1-2 years of age" with an exposure that results in a risk equivalent to <1% of the cPAD.

The results of the aggregate chronic dietary analysis for **food and water** indicate that chronic dietary risks (food and water) do not exceed HED's level of concern for the U.S. population and all subgroups. The U.S. population exposure from food and water results in a risk that is equivalent to <1% of the cPAD. The most highly exposed subpopulation is "children 1-2 years of age" with an exposure that results in a risk which is equivalent to 1.2% of the cPAD.

Results of Cancer Dietary Exposure Analysis
HED has determined that it is no longer appropriate to regulate cancer risk for acetochlor using a Q_1^*; however, nasal tumors in the rat, for which a mode of action has been identified, remain as a tumor of concern for human exposure. The chronic RfD, which is based on a NOAEL of 2 mg/kg/day, is considered to be protective of the nasal tumors, for which a point of departure of 10 mg/kg/day was identified. As noted above, chronic dietary risks do not exceed HED's level of concern.

I. Background

Dietary risk assessment incorporates both exposure and toxicity of a given pesticide. For acute and chronic assessments, the risk is expressed as a percentage of a maximum acceptable dose (i.e., the dose which HED has concluded will result in no unreasonable adverse health effects). This dose is referred to as the population adjusted dose (PAD). The PAD is equivalent to the NOAEL (acute or chronic) divided by safety factors including factors for interspecies uncertainty, intraspecies uncertainty, LOAEL to NOAEL extrapolation factor, subchronic to chronic extrapolation factor, database uncertainty factors and the FQPA safety factor. HED notes that the reference dose (RfD) is defined as the NOAEL (acute or chronic) divided by the safety factors noted above, with the exception of the FQPA safety factor; thus where the FQPA safety factor is equivalent to one, the PAD will be equivalent to the RfD.

For acute and non-cancer chronic exposures, HED is concerned when estimated dietary risk exceeds 100% of the PAD. References which discuss the acute and chronic risk assessments in more detail are available on the EPA/pesticides web site: "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 (08/20/1999)

The most recent dietary risk assessment for acetochlor was conducted by Samuel Ary (06/30/2005, D297061). That dietary risk assessment was conducted to support development of

a human health risk assessment for the FPQA Tolerance Reassessment Progress and Risk Management Decision (TRED) document. Both the registered uses (field corn and rotational sorghum, soybeans and wheat) and the new uses which are the subject of this analysis were included in that assessment. Subsequent to completion of the previous analysis, HED has determined that a dietary cancer risk assessment based on a Q_1^* value is no longer required for this chemical; therefore, many of the refinements applied to the previous assessments are no longer necessary.

HED is conducting this dietary risk assessment to support new uses for acetochlor on sweet corn, pop corn and sorghum, as well as to add rotational crop tolerances for potatoes, sugar beets, sunflower seed, dried peas and dried beans (crop subgroup 6C) and cereal grains, except rice and corn (crop group 15. As a point of clarification, HED notes that there is an existing tolerance for inadvertent residues of acetochlor in/on sorghum as a rotational crop. The most recent petition for acetochlor requests a direct use to sorghum. Residue values in this assessment reflect the proposed new use and are a result of direct application to sorghum as a primary crop.

II. Residue Data

Tolerances for residues of acetochlor in/on field corn as a result of direct application, and tolerances for inadvertent residues of acetochlor in/on sorghum, soybeans and wheat are currently listed in 40CFR§180.470. The residues of concern in plants includes parent and any metabolites containing the ethyl methyl aniline (EMA) or hydroxyethyl methyl aniline (HEMA) moiety, expressed in acetochlor equivalents. The residues of concern in rotational crops are acetochlor, its EMA and HEMA type metabolites as well as its hydroxymethyl ethyl aniline (HMEA) type metabolites. HED has concluded that the tolerance expression for rotational crops should include only acetochlor and its EMA and HEMA type metabolites; however HMEA type should be included in the risk assessment.

For the acute dietary analysis, tolerance level residues were used for all crops. 100% crop treated was assumed for all commodities in the assessment. Experimentally derived processing factors were applied to processed cereal grain commodities.

For the chronic dietary analysis, average field trial residue values were used for all crops. 100% crop treated was assumed for all commodities in the assessment. Experimentally derived processing factors were applied to processed cereal grain commodities.

A summary of the data and residue estimates used in these dietary risk assessments is included as Attachment 1.

There are several notable changes to the dietary risk assessment from the prior analysis dated 6/30/05 which are summarized as follows:

- Since a cancer specific dietary risk assessment is no longer required for this chemical, many of the refinements previously applied to the assessment are no longer required.

- A primary crop tolerance of 0.05 ppm is being recommended for sorghum as a result of

direct application of acetochlor to sorghum as a primary crop, which will supersede the current tolerance for inadvertent residues in/on sorghum as a rotational crop.

- Rye commodities where added to the acute and chronic assessments.

- HED recently reviewed an oat processing study (45322122.der, D. Davis, 06/20/2006). The processing factor for oat flour of 0.5X was incorporated into the analysis for barley flour, buckwheat flour, oat flour, rye flour, triticale flour and wheat flour for the acute and chronic dietary assessments. Additionally, the oat groats processing factor of 0.4X from the same study was applied to oat groats in the acute and chronic assessments.

- HED recently reviewed rotational field trial data for sunflower commodities (45322106.der, D. Davis), sugar beets (45322103.der, D. Davis, 06/20/2006), dried shelled peas (45322104.der, D. Davis, 06/20/2006) and dried shelled beans (45322105.der, D. Davis, 06/20/2006). In each study, residue data were collected from these rotational commodities planted after treatment of a primary crop of corn with acetochlor. Data were collected for ethyl methyl aniline (EMA) type metabolites and for hydroxyethyl methyl aniline (HEMA) type metabolites. No residue data were collected for the metabolite, hydroxymethyl ethyl aniline (HMEA), a rotational crop metabolite of concern. However based on previously reviewed confined rotational crop data in three diverse crops which demonstrated that residues of HMEA type metabolites were consistently less than residues of HEMA type metabolites, which were in turn less than residues of EMA type metabolites, HED has concluded that residues of HMEA type metabolites are not likely to be significant in those samples where both EMA and HEMA residues were not detected. Combined residues of EMA and HEMA were less than the method LOQ of 0.04 ppm in all samples. Since no detectable residues were found in all samples, an anticipated residue value of ½ LOQ or 0.02 ppm was used for the chronic dietary assessment for sunflower, sugar beets, dried peas and dried beans.

III. Percent Crop Treated Data

HED assumed 100 percent crop treated for the new uses to sweet corn, pop corn and sorghum, as well as 100 percent crop treated for all the new rotational crops. Further, both the acute and chronic assessments also assumed 100 percent crop treated for all existing uses.

IV. Drinking Water Data

EFED previously provided HED with estimated drinking water values derived from monitoring data to support the exiting use on field corn (M. Barrett, EFED memorandum, 01/03/2005). EFED has reviewed the new use proposal and has concluded that there is a very low probability that drinking water exposure from the new uses would exceed those exposures previously estimated for corn. (M. Barrett, D332524, 09/13/2006); therefore, HED has used the corn monitoring data based drinking water concentrations for this assessment.

The drinking water values used in the dietary risk assessment were based on information

provided by the Acetochlor Registration Partnership (ARP) water monitoring program. The Environmental Fate and Effects Division (EFED) analyzed and reported the data in the following memorandum: "Drinking Water Exposure Assessment for Acetochlor" (M. Barrett, EFED Memorandum, 01/03/2005). Water residues were incorporated in the DEEM-FCID™ into the food categories "water, direct, all sources" and "water, indirect, all sources". Characterization of the water monitoring program and complete details of the uncertainties associated with the program may be found in the EFED memorandum.

Exposure to acetochlor parent was significantly higher in the surface water monitoring sites than the ground water monitoring sites. The concentration used in the acute dietary assessment was from a surface water monitoring site (214-GI-IL) that produced the highest concentration of 0.01821 ppm. The concentration used in the chronic dietary assessment was from a surface water monitoring site (214-GI-IL) that produced the highest time-weighted annualized mean (TWAM) concentration for a single year of 0.00143 ppm.

V. DEEM-FCID™ Program and Consumption Information

Acetochlor acute and chronic dietary exposure assessments were conducted using the Dietary Exposure Evaluation Model software with the Food Commodity Intake Database (DEEM-FCID™, Version 2.03), which incorporates consumption data from USDA's Continuing Surveys of Food Intakes by Individuals (CSFII), 1994-1996 and 1998. The 1994-1996, 1998 data are based on the reported consumption of more than 20,000 individuals over two non-consecutive survey days. Foods "as consumed" (e.g., apple pie) are linked to EPA-defined food commodities (e.g. apples, peeled fruit - cooked; fresh or N/S; baked; or wheat flour - cooked; fresh or N/S, baked) using publicly available recipe translation files developed jointly by USDA/ARS and EPA. For chronic exposure assessment, consumption data are averaged for the entire U.S. population and within population subgroups, but for acute exposure assessment are retained as individual consumption events. Based on analysis of the 1994-96, 98 CSFII consumption data, which took into account dietary patterns and survey respondents, HED concluded that it is most appropriate to report risk for the following population subgroups: the general U.S. population, all infants (<1 year old), children 1-2, children 3-5, children 6-12, youth 13-19, adults 20-49, females 13-49, and adults 50+ years old.

For chronic dietary exposure assessment, an estimate of the residue level in each food or food-form (e.g., orange or orange juice) on the food commodity residue list is multiplied by the average daily consumption estimate for that food/food form to produce a residue intake estimate. The resulting residue intake estimate for each food/food form is summed with the residue intake estimates for all other food/food forms on the commodity residue list to arrive at the total average estimated exposure. Exposure is 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 exposure assessment, or "matched" in multiple random pairings with residue values and then summed in a probabilistic assessment. The resulting distribution of exposures is

expressed as a percentage of the aPAD on both a user (i.e., only 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, any significant differences in user vs. per capita exposure and risk are specifically identified and noted in the risk assessment.

VI. Toxicology Information

All dietary endpoints and doses referenced and discussed in the detail in HED's most recent human health risk assessment (D292336, A. Protzel, 03/01/2006) remain unchanged with the exception of the cancer classification.

The HED Cancer Assessment Review Committee (CARC) has recently revisited the cancer classification for acetochlor. HED has reclassified acetochlor as "suggestive evidence of carcinogenicity". The Committee determined that the relationship of the mouse lung tumors, on which the Q_1^* was based, to treatment was equivocal, due to some inconsistencies in dose-response between the two available mouse studies, the relatively frequent occurrence of the tumor in older mice and the lack of evidence of direct genotoxicity of acetochlor. Therefore, HED concludes that regulation of cancer risk based on the Q_1^* is no longer appropriate. Further, HED notes that an increase in histiocytic sarcomas in female mice in one study was also considered to be equivocal and only possibly treatment-related.

Nasal tumors in the rat, for which a mode of action has been identified, remain as a tumor of concern for human exposure. The RfD, which is based on a NOAEL of 2 mg/kg/day, is considered to be protective of the nasal tumors, for which a point of departure of 10 mg/kg/day was identified. Full documentation of the CARC decision is forthcoming.

Endpoints and doses for dietary risk assessment are summarized in Table 1.

Table 1. Summary of Toxicological Doses and Endpoints for Acetochlor for Use in Dietary Human Health Risk Assessments

Exposure/Scenario	Point of Departure	Uncertainty/ FQPA SF	RfD, PAD, Level of Concern for RA	Study & Toxic Effects
Acute Dietary (general population including females 13 – 49 years old)	NOAEL = 150 mg/kg/day	UF_A = 10 UF_H = 10 UF_{DB} = 10	Acute RfD = 0.15 mg/kg/day Acute PAD = 0.15 mg/kg/day	Acute oral neurotoxicity screening in rats LOAEL = 500mg/kg/day based on decreased motor activity in females.
Chronic Dietary (all populations)	NOAEL = 2.0 mg/kg/day	UF_A = 10 UF_H = 10	Chronic RfD = 0.02 mg/kg/day Chronic PAD = 0.02 mg/kg/day	Chronic oral toxicity in beagle dogs LOAEL = 10 mg/kg/day based on increased salivation and histopathology in the testes, kidney and liver.
Cancer	**Classification:** "suggestive evidence of carcinogenicity" Nasal tumors in the rat, for which a mode of action has been identified, remain as a tumor of concern for human exposure. The RfD, which is based on a NOAEL of 2 mg/kg/day, is considered to be protective of the nasal tumors, for which a point of departure of 10 mg/kg/day was identified			

VII. Results/Discussion

Results of Acute Dietary Exposure Analysis

The results of the acute dietary analysis for **food only** indicate that acute dietary risks (food only) do not exceed HED's level of concern (less than 100% of the acute population adjusted dose (aPAD)) for the U.S. population and all subgroups. At the 95th percentile, the U.S. population exposure from food only results in a risk equivalent to < 1 % of the aPAD. The most highly exposed subpopulation is "children 1-2 years of age" with an exposure equivalent to <1 % of the aPAD at the 95th percentile.

The results of the aggregate acute dietary analysis for **food and water** indicate that acute dietary risks (food and water) do not exceed HED's level of concern for the U.S. population and all subgroups. At the 95th percentile, the U.S. population exposure from food only results in a risk equivalent to <1 % of the aPAD. The most highly exposed subpopulation is "all infants". At the 95th percentile, this subpopulation has an exposure that is equivalent to 2.6 % of the aPAD.

The results of the acute dietary exposure analysis (with and without water) at the 95th, 99th, and 99.9th percentiles of exposure are reported in Tables 2 and 3, below.

Table 2. Results of Acute Dietary Exposure Analysis Using DEEM FCID - Food Only							
		95th Percentile		99th Percentile		99.9th Percentile	
Population Subgroup	aPAD (mg/kg/day)	Exposure (mg/kg/day)	% aPAD*	Exposure (mg/kg/day)	% aPAD*	Exposure (mg/kg/day)	% aPAD*
General U.S. Population	0.15	0.000531	<1	0.000860	<1	0.001495	1.0
All Infants (< 1 year old)	0.15	0.000909	<1	0.001429	<1	0.002335	1.6
Children 1-2 years old	0.15	**0.001014**	**<1**	**0.001581**	**1**	**0.004725**	**3.2**
Children 3-5 years old	0.15	0.000927	<1	0.001375	<1	0.003588	2.4
Children 6-12 years old	0.15	0.000694	<1	0.001016	<1	0.001425	<1
Youth 13-19 years old	0.15	0.000503	<1	0.000755	<1	0.001378	<1
Adults 20-49 years old	0.15	0.000380	<1	0.000572	<1	0.000927	<1
Adults 50+ years old	0.15	0.000283	<1	0.000404	<1	0.000615	<1
Females 13-49 years old	0.15	0.000372	<1	0.000549	<1	0.000884	<1

*Most highly exposed subgroup is bolded.

Table 3. Results of Acute Dietary Exposure Analysis Using DEEM FCID - Food and Water							
		95th Percentile		99th Percentile		99.9th Percentile	
Population Subgroup	aPAD (mg/kg/day)	Exposure (mg/kg/day)	% aPAD*	Exposure (mg/kg/day)	% aPAD*	Exposure (mg/kg/day)	% aPAD*
General U.S. Population	0.15	0.001302	< 1	0.002187	1.5	0.004023	2.7
All Infants (< 1 year old)	0.15	**0.003967**	**2.6**	**0.005577**	**3.7**	**0.009314**	**6.2**
Children 1-2 years old	0.15	0.002223	1.5	0.003486	2.3	0.005843	3.9
Children 3-5 years old	0.15	0.002066	1.4	0.002939	2.0	0.005287	3.5
Children 6-12 years old	0.15	0.001438	< 1	0.002062	1.4	0.002679	1.8
Youth 13-19 years old	0.15	0.001067	< 1	0.001691	1.1	0.002546	1.7
Adults 20-49 years old	0.15	0.001117	< 1	0.001702	1.1	0.002998	2.0
Adults 50+ years old	0.15	0.000960	< 1	0.001360	< 1	0.002106	1.4
Females 13-49 years old	0.15	0.001106	< 1	0.001674	1.1	0.002933	2.0

* Most highly exposure subgroup is bolded.

Results of Chronic Dietary Exposure Analysis

The results of the chronic dietary analysis for food only indicate that chronic dietary risks (food only) do not exceed HED's level of concern (less than 100% of the chronic population adjusted dose (cPAD)) for the U.S. population and all subgroups. The U.S. population exposure from food only results in a risk which is equivalent to <1% of the cPAD. The most highly exposed subpopulation is "children 1-2 years of age" with an exposure equivalent to <1% of the cPAD.

The results of the aggregate chronic dietary analysis for **food and water** indicate that chronic dietary risks (food and water) do not exceed HED's level of concern for the U.S. population and all subgroups. The U.S. population exposure from food and water results in a risk which is equivalent to <1% of the cPAD. The most highly exposed subpopulation is "children 1 -2" with an exposure equivalent to 1.2% of the cPAD.

The results of the chronic dietary exposure analysis (with and without water) are reported in Tables 4 and 5, below.

Cancer Dietary Exposure Results and Characterization

As noted above, the HED CARC has recently revisited the cancer classification for acetochlor. HED has reclassified acetochlor as "suggestive evidence of carcinogenicity" and determined that regulation of cancer risk using a Q_1^* is no longer appropriate. Nasal tumors in the rat, for which a mode of action has been identified, remain as a tumor of concern for human exposure. The RfD, which is based on a NOAEL of 2 mg/kg/day, is considered to be protective of the nasal tumors, for which a point of departure of 10 mg/kg/day was identified.

Since chronic dietary risks (food only) and aggregate chronic dietary risks (food and water) based on the RfD do not exceed HED's level of concern, HED does not have concern for dietary cancer risks associated with the proposed new and existing uses of acetochlor.

Table 4. Summary of Dietary Exposure and Risk for Acetochlor – Food Only

	Acute Dietary (95th Percentile)		Chronic Dietary		Cancer	
Population Subgroup	Dietary Exposure (mg/kg/day)	% aPAD	Dietary Exposure (mg/kg/day)	% cPAD	Dietary Exposure (mg/kg/day)	Risk
General U.S. Population	0.000531	<1	0.000090	<1	A separate quantitative cancer risk assessment is not required. Since chronic risks do not exceed HED's level of concern, HED has no concern for cancer risks as a result of these new and existing uses.	
All Infants (< 1 year old)	0.000909	<1	0.000122	<1		
Children 1-2 years old	0.001014	<1	0.000205	1.0		
Children 3-5 years old	0.000927	<1	0.000204	1.0		
Children 6-12 years old	0.000694	<1	0.000144	<1		
Youth 13-19 years old	0.000503	<1	0.000097	<1		
Adults 20-49 years old	0.000380	<1	0.000073	<1		
Adults 50+ years old	0.000283	<1	0.000056	<1		
Females 13-49 years old	0.000372	<1	0.000070	<1		

Table 5. Summary of Dietary Exposure and Risk for Acetochlor – Food & Water						
	Acute Dietary (95th Percentile)		Chronic Dietary		Cancer	
Population Subgroup	Dietary Exposure (mg/kg/day)	% aPAD	Dietary Exposure (mg/kg/day)	% cPAD	Dietary Exposure (mg/kg/day)	Risk
General U.S. Population	0.001302	< 1	0.000120	<1	A separate quantitative cancer risk assessment is not required. Since chronic risks do not exceed HED's level of concern, HED has no concern for cancer risks as a result of these new and existing uses.	
All Infants (< 1 year old)	0.003967	2.6	0.000220	1.1		
Children 1-2 years old	0.002223	1.5	0.000250	1.2		
Children 3-5 years old	0.002066	1.4	0.000246	1.2		
Children 6-12 years old	0.001438	< 1	0.000173	<1		
Youth 13-19 years old	0.001067	< 1	0.000119	<1		
Adults 20-49 years old	0.001117	< 1	0.000101	<1		
Adults 50+ years old	0.000960	< 1	0.000086	<1		
Females 13-49 years old	0.001106	< 1	0.000098	<1		

VIII. Characterization of Inputs/Outputs

The acute and chronic dietary risk assessments are considered only minimally refined.

The acute analysis was conducted using tolerance level residues for all commodities. These tolerance level residues were derived from field trial data conducted at the maximum application rate and minimum PHI permitted on the proposed or existing labels. Of note is that for all rotational crops, no residues were found at the analytical method limits of quantitation (LOQ), the level used to establish the tolerances. For all commodities 100% crop treated was assumed. A limited number of experimentally derived processing factors were used to refine the acute analysis. HED concludes that the acute exposure estimates are unlikely to underestimate actual acute exposure.

The chronic dietary assessment was conducted using anticipated residue values derived from crop field trials. As noted above, these field trials represent maximum application rates and minimum PHIs. In virtually all cases, no detectable residues at the analytical method LOQ; therefore, an anticipated residue value of ½ LOQ was used for the chronic assessment. For all commodities 100% crop treated was assumed. A limited number of experimentally derived processing factors were used to refine the analysis. HED concludes that the chronic exposure estimates in this analysis are unlikely to underestimate actual exposure.

IX. Conclusions

HED conducted acute and chronic dietary exposure and risk assessments to support new direct uses on sweet corn, pop corn and sorghum, as well as to add rotational crop tolerances for potatoes, sugar beets, sunflower seed, dried pea, dried beans and cereal grains (except rice and corn) using the DEEM-FCID™, Version 2.03 which uses food consumption data from the USDA's Continuing Surveys of Food Intakes by Individuals (CSFII) from 1994 – 1996 and 1998.

The acute analysis is considered minimally refined with the incorporation of experimentally determined processing factors for cereal grain commodities. Residue values for all commodities are based on tolerances. All commodities were assumed to be 100% crop treated. The chronic dietary risk assessments were refined by the incorporation of anticipated residues derived from field trial data reflecting the maximum label application rate and minimum PHI, as well as by the use of experimental processing factors for cereal grain commodities. All commodities were assumed to be 100% crop treated. Additional refinements are possible for both analyses; therefore HED concludes that the acute and chronic dietary exposure analyses are unlikely to underestimate exposure and risk.

Acute and chronic exposures and risks do not exceed HED's level of concern for the U.S. population. Further, acute and chronic exposures and risks do not exceed HED's level of concern for all relevant subpopulations.

X. List of Attachments

Attachment 1. Data and Residue Estimates Used in Dietary Analysis

Acute Dietary Exposure & Risk
Attachment 2. Acetochlor Acute Dietary Analysis Input File - Food Only
Attachment 3. Acetochlor Acute Dietary Analysis Results - Food Only
Attachment 4. Acetochlor Acute Dietary Analysis Input File - Food & Water
Attachment 5. Acetochlor Acute Dietary Analysis Results - Food & Water

Chronic Dietary Exposure & Risk
Attachment 6. Acetochlor Chronic Dietary Analysis Input File - Food Only
Attachment 7. Acetochlor Chronic Dietary Analysis Results - Food Only
Attachment 8. Acetochlor Chronic Dietary Analysis Input File - Food & Water
Attachment 9. Acetochlor Chronic Dietary Analysis Results - Food & Water

cc with attachments: D. Davis, S. Piper, P.Y. Barnes

Attachment 1. Data and Residue Estimates Used in Dietary Analyses

Table 6. Data and Residue Estimates Used in Dietary Analyses

RAC	Classification[1]	Data Source	No. of Samples	No. of Detectable Residues	LOD	%CT	Processing Factors	Anticipated Residue Estimates/Tolerance	
								Acute (Tol., AR, RDF)	Chronic (Tol., AR)[2]
Beet, Sugar	B	Tolerance & Field Trial Data 45322103	24 @ <0.04	0	0.04	100	None	Tol (0.05)	AR (0.02)
Cereal grain, except corn, sorghum and rice, group 15 (barley, buckwheat, millet, oat, rye, triticale, wheat)	B	Tolerance & Field Trial Data 45322108	17 @ <0.035	0	0.035	100	Flour at 0.5X Groats at 0.4X MRID 45322112	Tol (0.05)	AR (0.02)
Corn, field and pop, grain	B	Tolerance & Field Trial Data 41592014 42713114 42713115 40365601	58@ <0.03 2@ 0.03	2 @ 0.03	0.03	100	Flour, meal, starch and oil at 0.6X	Tol (0.05)	AR (0.02)
Corn, sweet, K-CWHR	NB/PB	Tolerance & Field Trial Data 44107105	32 @ <0.04	0	0.04	100	None	Tol (0.05)	AR (0.02)
Pea and bean, dried shelled, except soybean, subgroup 6C	B	Tolerance & Field Trial Data 45322104 45322105	Peas 10 @ <0.04 Beans 18 @ <0.04	0	0.04	100	None	Tol (0.05)	AR (0.02)

Table 6. Data and Residue Estimates Used in Dietary Analyses

RAC	Classification[1]	Data Source	No. of Samples	No. of Detectable Residues	LOD	%CT	Processing Factors	Anticipated Residue Estimates/Tolerance	
								Acute (Tol., AR, RDF)	Chronic (Tol., AR)[2]
Potato	NB/PB/B	Tolerance & Field Trial Data 45322107	10 @ <0.04	0	0.04	100	Dried at 6.5X	Tol (0.05)	AR (0.02)
Soybean, seed	B	Tolerance	N/A	N/A	N/A	100	Flour at 0.75X Oil at 0.2X MRID 45322110	Tol (0.1)	Tol (0.1)
Sorghum	B	Tolerance	N/A	N/A	N/A	100	None	Tol (0.05)	Tol (0.05)
Sunflower seed	PB/B	Tolerance & Field Trial Data 45322106	16 @ <0.04	0	0.04	100	None	Tol (0.05)	AR (0.02)
Water	N/A	Monitoring Data	N/A	N/A	N/A	N/A	N/A	0.01821	0.00143

N/A = not applicable
1. Classification of blended (B), partially blended (PB), not blended (NB).
2. Chronic ARs are based on ½ LOQ

Attachment 2. Acetochlor Acute Dietary Analysis Input File – Food Only

U.S. Environmental Protection Agency Ver. 2.00
DEEM-FCID Chronic analysis for ACETOCHLOR 1994-98 data
Residue file: C:\Documents and Settings\ddavis05\DEEM files\Acetochlor\acet acute 100CT food.R98

Adjust. #2 NOT used
Analysis Date 01-03-2007 Residue file dated: 01-03-2007/10:14:10/8
Comment:Acute analysis food only all commodites at 100% CT; processing factors and tolerance level residue used.

Food Crop EPA Code	Grp	Food Name	Residue (ppm)	Adj.Factors #1	#2	Comment
15000250	15	Barley, pearled barley	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT						
15000251	15	Barley, pearled barley-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT						
15000260	15	Barley, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used						
15000261	15	Barley, flour-babyfood	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used						
15000270	15	Barley, bran	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030300	6C	Bean, black, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030320	6C	Bean, broad, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030340	6C	Bean, cowpea, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030350	6C	Bean, great northern, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030360	6C	Bean, kidney, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030380	6C	Bean, lima, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030390	6C	Bean, mung, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030400	6C	Bean, navy, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030410	6C	Bean, pink, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030420	6C	Bean, pinto, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
01010520	1A	Beet, sugar	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
01010521	1A	Beet, sugar-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
01010530	1A	Beet, sugar, molasses	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
15000650	15	Buckwheat	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
15000660	15	Buckwheat, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used						
06030980	6C	Chickpea, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030981	6C	Chickpea, seed-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030990	6C	Chickpea, flour	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
15001200	15	Corn, field, flour	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						
15001201	15	Corn, field, flour-babyfood	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						
15001210	15	Corn, field, meal	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						
15001211	15	Corn, field, meal-babyfood	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						

15001220 15	Corn, field, bran	0.050000	1.000	1.000	existi
Full comment: existing use; 100% CT					
15001230 15	Corn, field, starch	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT					
15001231 15	Corn, field, starch-babyfood	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT					
15001240 15	Corn, field, syrup	0.050000	1.000	1.000	existi
Full comment: existing use; 100% CT					
15001241 15	Corn, field, syrup-babyfood	0.050000	1.000	1.000	existi
Full comment: existing use; 100% CT					
15001250 15	Corn, field, oil	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT					
15001251 15	Corn, field, oil-babyfood	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT					
15001260 15	Corn, pop	0.050000	1.000	1.000	new to
Full comment: new tolerance; 100% CT					
15001270 15	Corn, sweet	0.050000	1.000	1.000	new to
Full comment: new tolerance; 100% CT					
15001271 15	Corn, sweet-babyfood	0.050000	1.000	1.000	new to
Full comment: new tolerance; 100% CT					
06031820 6C	Guar, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
06031821 6C	Guar, seed-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
06032030 6C	Lentil, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
15002260 15	Millet, grain	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
15002310 15	Oat, bran	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
15002320 15	Oat, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
15002321 15	Oat, flour-babyfood	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
15002330 15	Oat, groats/rolled oats	0.050000	0.400	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
15002331 15	Oat, groats/rolled oats-babyfood	0.050000	0.400	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
06032560 6C	Pea, dry	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
06032561 6C	Pea, dry-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
06032580 6C	Pea, pigeon, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01032960 1C	Potato, chips	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01032970 1C	Potato, dry (granules/ flakes)	0.050000	6.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
01032971 1C	Potato, dry (granules/ flakes)-b	0.050000	6.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
01032980 1C	Potato, flour	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01032981 1C	Potato, flour-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01032990 1C	Potato, tuber, w/peel	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01032991 1C	Potato, tuber, w/peel-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01033000 1C	Potato, tuber, w/o peel	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
01033001 1C	Potato, tuber, w/o peel-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
15003280 15	Rye, grain	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT					
15003290 15	Rye, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used					
15003440 15	Sorghum, grain	0.050000	1.000	1.000	new to
Full comment: new tolerance; 100% CT					
15003450 15	Sorghum, syrup	0.050000	1.000	1.000	new to
Full comment: new tolerance; 100% CT					

06003470 6	Soybean, seed	0.100000	1.000	1.000	establ
Full comment: established - rot crop; 100% CT					
06003480 6	Soybean, flour	0.100000	0.750	1.000	establ
Full comment: established - rot crop; 100% CT; PF used					
06003481 6	Soybean, flour-babyfood	0.100000	0.750	1.000	establ
Full comment: established - rot crop; 100% CT; PF used					
06003490 6	Soybean, soy milk	0.100000	1.000	1.000	establ
Full comment: established - rot crop; 100% CT					
06003491 6	Soybean, soy milk-babyfood or in	0.100000	1.000	1.000	establ
Full comment: established - rot crop; 100% CT					
06003500 6	Soybean, oil	0.100000	0.200	1.000	establ
Full comment: established - rot crop; 100% CT; PF Used					
06003501 6	Soybean, oil-babyfood	0.100000	0.200	1.000	establ
Full comment: established - rot crop; 100% CT; PF Used					
20003640 20	Sunflower, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT					
20003650 20	Sunflower, oil	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT					
20003651 20	Sunflower, oil-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT					
15003810 15	Triticale, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100%CT; PF Used					
15003811 15	Triticale, flour-babyfood	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100%CT; PF Used					
15004010 15	Wheat, grain	0.050000	1.000	1.000	establ
Full comment: established - rot crop; 100 % CT					
15004011 15	Wheat, grain-babyfood	0.050000	1.000	1.000	establ
Full comment: established - rot crop; 100 % CT					
15004020 15	Wheat, flour	0.050000	0.500	1.000	establ
Full comment: established - rot crop; 100 % CT; PF Used					
15004021 15	Wheat, flour-babyfood	0.050000	0.500	1.000	establ
Full comment: established - rot crop; 100 % CT; PF Used					
15004030 15	Wheat, germ	0.050000	1.000	1.000	establ
Full comment: established - rot crop; 100 % CT					
15004040 15	Wheat, bran	0.050000	1.000	1.000	establ
Full comment: established - rot crop; 100 % CT					

Attachment 3. Acetochlor Acute Dietary Analysis Results – Food Only

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U.S. Environmental Protection Agency                                    Ver. 2.02
DEEM-FCID ACUTE Analysis for ACETOCHLOR                              (1994-98 data)
Residue file: acet acute 100CT food.R98          Adjustment factor #2 NOT used.
Analysis Date: 01-03-2007/13:38:28    Residue file dated: 01-03-2007/10:14:10/8
NOEL (Acute) = 150.000000 mg/kg body-wt/day
Daily totals for food and foodform consumption used.
Run Comment: "Run with new commodities at tolerance & 100% CT"
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Summary calculations (per capita):

95th Percentile			99th Percentile			99.9th Percentile		
Exposure	% aRfD	MOE	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE
U.S. Population:								
0.000531	0.35	282415	0.000860	0.57	174474	0.001495	1.00	100348
All infants:								
0.000909	0.61	165055	0.001429	0.95	104961	0.002335	1.56	64242
Children 1-2 yrs:								
0.001014	0.68	147988	0.001581	1.05	94849	0.004725	3.15	31747
Children 3-5 yrs:								
0.000927	0.62	161897	0.001375	0.92	109096	0.003588	2.39	41808
Children 6-12 yrs:								
0.000694	0.46	216083	0.001016	0.68	147706	0.001425	0.95	105268
Youth 13-19 yrs:								
0.000503	0.34	298229	0.000755	0.50	198742	0.001378	0.92	108830
Adults 20-49 yrs:								
0.000380	0.25	394503	0.000572	0.38	262224	0.000927	0.62	161790
Adults 50+ yrs:								
0.000283	0.19	530538	0.000404	0.27	370944	0.000615	0.41	243957
Females 13-49 yrs:								
0.000372	0.25	403006	0.000549	0.37	273371	0.000884	0.59	169745

Attachment 4. Acetochlor Acute Dietary Analysis Input File (Food & Water)

U.S. Environmental Protection Agency Ver. 2.00
DEEM-FCID Chronic analysis for ACETOCHLOR 1994-98 data
Residue file: C:\Documents and Settings\ddavis05\DEEM files\Acetochlor\acet acute 100CT f_w.R98
Adjust. #2 NOT used
Analysis Date 01-03-2007 Residue file dated: 01-03-2007/10:16:37/8
Comment:Acetochlor Acute Analysis Food and Water; 100% CT for all commodities. tolerance level residues and processing factors used.

Food Crop EPA Code	Grp	Food Name	Residue (ppm)	Adj.Factors #1	#2	Comment
15000250	15	Barley, pearled barley	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT						
15000251	15	Barley, pearled barley-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100%CT						
15000260	15	Barley, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used						
15000261	15	Barley, flour-babyfood	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used						
15000270	15	Barley, bran	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030300	6C	Bean, black, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030320	6C	Bean, broad, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030340	6C	Bean, cowpea, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030350	6C	Bean, great northern, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030360	6C	Bean, kidney, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030380	6C	Bean, lima, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030390	6C	Bean, mung, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030400	6C	Bean, navy, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030410	6C	Bean, pink, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030420	6C	Bean, pinto, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
01010520	1A	Beet, sugar	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
01010521	1A	Beet, sugar-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
01010530	1A	Beet, sugar, molasses	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
15000650	15	Buckwheat	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
15000660	15	Buckwheat, flour	0.050000	0.500	1.000	new ro
Full comment: new rot crop tol; 100% CT; PF used						
06030980	6C	Chickpea, seed	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030981	6C	Chickpea, seed-babyfood	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
06030990	6C	Chickpea, flour	0.050000	1.000	1.000	new ro
Full comment: new rot crop tol; 100% CT						
15001200	15	Corn, field, flour	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						
15001201	15	Corn, field, flour-babyfood	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						
15001210	15	Corn, field, meal	0.050000	0.600	1.000	existi
Full comment: existing use; 100% CT						
15001211	15	Corn, field, meal-babyfood	0.050000	0.600	1.000	existi

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  Full comment: existing use; 100% CT
15001220 15   Corn, field, bran                    0.050000   1.000      1.000   existi
  Full comment: existing use; 100% CT
15001230 15   Corn, field, starch                  0.050000   0.600      1.000   existi
  Full comment: existing use; 100% CT
15001231 15   Corn, field, starch-babyfood         0.050000   0.600      1.000   existi
  Full comment: existing use; 100% CT
15001240 15   Corn, field, syrup                   0.050000   1.000      1.000   existi
  Full comment: existing use; 100% CT
15001241 15   Corn, field, syrup-babyfood          0.050000   1.000      1.000   existi
  Full comment: existing use; 100% CT
15001250 15   Corn, field, oil                     0.050000   0.600      1.000   existi
  Full comment: existing use; 100% CT
15001251 15   Corn, field, oil-babyfood            0.050000   0.600      1.000   existi
  Full comment: existing use; 100% CT
15001260 15   Corn, pop                            0.050000   1.000      1.000   new to
  Full comment: new tolerance; 100% CT
15001270 15   Corn, sweet                          0.050000   1.000      1.000   new to
  Full comment: new tolerance; 100% CT
15001271 15   Corn, sweet-babyfood                 0.050000   1.000      1.000   new to
  Full comment: new tolerance; 100% CT
06031820 6C   Guar, seed                           0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
06031821 6C   Guar, seed-babyfood                  0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
06032030 6C   Lentil, seed                         0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
15002260 15   Millet, grain                        0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
15002310 15   Oat, bran                            0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
15002320 15   Oat, flour                           0.050000   0.500      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
15002321 15   Oat, flour-babyfood                  0.050000   0.500      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
15002330 15   Oat, groats/rolled oats              0.050000   0.400      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
15002331 15   Oat, groats/rolled oats-babyfood     0.050000   0.400      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
06032560 6C   Pea, dry                             0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
06032561 6C   Pea, dry-babyfood                    0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
06032580 6C   Pea, pigeon, seed                    0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01032960 1C   Potato, chips                        0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01032970 1C   Potato, dry (granules/ flakes)       0.050000   6.500      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
01032971 1C   Potato, dry (granules/ flakes)-b     0.050000   6.500      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
01032980 1C   Potato, flour                        0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01032981 1C   Potato, flour-babyfood               0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01032990 1C   Potato, tuber, w/peel                0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01032991 1C   Potato, tuber, w/peel-babyfood       0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01033000 1C   Potato, tuber, w/o peel              0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
01033001 1C   Potato, tuber, w/o peel-babyfood     0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
15003280 15   Rye, grain                           0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100% CT
15003290 15   Rye, flour                           0.050000   0.500      1.000   new ro
  Full comment: new rot crop tol; 100% CT; PF used
15003440 15   Sorghum, grain                       0.050000   1.000      1.000   new to
  Full comment: new tolerance; 100% CT
15003450 15   Sorghum, syrup                       0.050000   1.000      1.000   new to
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  Full comment: new tolerance; 100% CT
06003470 6    Soybean, seed                          0.100000   1.000      1.000   establ
  Full comment: established - rot crop; 100% CT
06003480 6    Soybean, flour                         0.100000   0.750      1.000   establ
  Full comment: established - rot crop; 100% CT; PF used
06003481 6    Soybean, flour-babyfood                0.100000   0.750      1.000   establ
  Full comment: established - rot crop; 100% CT; PF used
06003490 6    Soybean, soy milk                      0.100000   1.000      1.000   establ
  Full comment: established - rot crop; 100% CT
06003491 6    Soybean, soy milk-babyfood or in       0.100000   1.000      1.000   establ
  Full comment: established - rot crop; 100% CT
06003500 6    Soybean, oil                           0.100000   0.200      1.000   establ
  Full comment: established - rot crop; 100% CT; PF Used
06003501 6    Soybean, oil-babyfood                  0.100000   0.200      1.000   establ
  Full comment: established - rot crop; 100% CT; PF Used
20003640 20   Sunflower, seed                        0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100%CT
20003650 20   Sunflower, oil                         0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100%CT
20003651 20   Sunflower, oil-babyfood                0.050000   1.000      1.000   new ro
  Full comment: new rot crop tol; 100%CT
15003810 15   Triticale, flour                       0.050000   0.500      1.000   new ro
  Full comment: new rot crop tol; 100%CT; PF Used
15003811 15   Triticale, flour-babyfood              0.050000   0.500      1.000   new ro
  Full comment: new rot crop tol; 100%CT; PF Used
86010000 0    Water, direct, all sources             0.018210   1.000      1.000   Based
  Full comment: Based on corn monitoring data
86020000 0    Water, indirect, all sources           0.018210   1.000      1.000   Based
  Full comment: Based on corn monitoring data
15004010 15   Wheat, grain                           0.050000   1.000      1.000   establ
  Full comment: established - rot crop; 100 % CT
15004011 15   Wheat, grain-babyfood                  0.050000   1.000      1.000   establ
  Full comment: established - rot crop; 100 % CT
15004020 15   Wheat, flour                           0.050000   0.500      1.000   establ
  Full comment: established - rot crop; 100 % CT; PF Used
15004021 15   Wheat, flour-babyfood                  0.050000   0.500      1.000   establ
  Full comment: established - rot crop; 100 % CT; PF Used
15004030 15   Wheat, germ                            0.050000   1.000      1.000   establ
  Full comment: established - rot crop; 100 % CT
15004040 15   Wheat, bran                            0.050000   1.000      1.000   establ
  Full comment: established - rot crop; 100 % CT
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Attachment 5. Acetochlor Acute Dietary Analysis – Results – Food and Water

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U.S. Environmental Protection Agency                                    Ver. 2.02
DEEM-FCID ACUTE Analysis for ACETOCHLOR                            (1994-98 data)
Residue file: acet acute 100CT f_w.R98          Adjustment factor #2 NOT used.
Analysis Date: 01-03-2007/13:39:37    Residue file dated: 01-03-2007/10:16:37/8
NOEL (Acute) = 150.000000 mg/kg body-wt/day
Daily totals for food and foodform consumption used.
Run Comment: "Run with new commodities at tolerance & 100% CT"
```

Summary calculations (per capita):

	95th Percentile			99th Percentile			99.9th Percentile	
	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE
U.S. Population:									
	0.001302	0.87	115186	0.002187	1.46	68574	0.004023	2.68	37286
All infants:									
	0.003967	2.64	37808	0.005577	3.72	26893	0.009314	6.21	16104
Children 1-2 yrs:									
	0.002223	1.48	67468	0.003486	2.32	43027	0.005843	3.90	25672
Children 3-5 yrs:									
	0.002066	1.38	72616	0.002939	1.96	51040	0.005287	3.52	28369
Children 6-12 yrs:									
	0.001438	0.96	104285	0.002062	1.37	72732	0.002679	1.79	55987
Youth 13-19 yrs:									
	0.001067	0.71	140571	0.001691	1.13	88700	0.002546	1.70	58908
Adults 20-49 yrs:									
	0.001117	0.74	134334	0.001702	1.13	88109	0.002998	2.00	50039
Adults 50+ yrs:									
	0.000960	0.64	156289	0.001360	0.91	110255	0.002106	1.40	71224
Females 13-49 yrs:									
	0.001106	0.74	135571	0.001674	1.12	89592	0.002933	1.96	51140

Attachment 6. Acetochlor Chronic Dietary Analysis Input File - Food Only

U.S. Environmental Protection Agency Ver. 2.00
DEEM-FCID Chronic analysis for ACETOCHLOR 1994-98 data
Residue file: C:\Documents and Settings\ddavis05\DEEM files\Acetochlor\acet chronic food.R98
Adjust. #2 NOT used
Analysis Date 01-03-2007 Residue file dated: 12-19-2006/13:56:19/8
Reference dose (RfD) = 0.02 mg/kg bw/day
Comment:Acetochlor Chronic Analysis; 100%CT, processing factors and ARs based on field trial used.

Food Crop EPA Code	Grp	Food Name	Residue (ppm)	Adj.Factors #1	#2	Comment
15000250	15	Barley, pearled barley	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 L0Q; 100% CT						
15000251	15	Barley, pearled barley-babyfood	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 L0Q; 100% CT						
15000260	15	Barley, flour	0.020000	0.500	1.000	new ro
Full comment: new rot crop use; 1/2 L0Q; 100% CT; PF used						
15000261	15	Barley, flour-babyfood	0.020000	0.500	1.000	new ro
Full comment: new rot crop use; 1/2 L0Q; 100% CT; PF used						
15000270	15	Barley, bran	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 L0Q; 100% CT						
06030300	6C	Bean, black, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030320	6C	Bean, broad, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030340	6C	Bean, cowpea, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030350	6C	Bean, great northern, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030360	6C	Bean, kidney, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030380	6C	Bean, lima, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030390	6C	Bean, mung, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030400	6C	Bean, navy, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030410	6C	Bean, pink, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030420	6C	Bean, pinto, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
01010520	1A	Beet, sugar	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
01010521	1A	Beet, sugar-babyfood	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
01010530	1A	Beet, sugar, molasses	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
15000650	15	Buckwheat	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
15000660	15	Buckwheat, flour	0.020000	0.500	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used						
06030980	6C	Chickpea, seed	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030981	6C	Chickpea, seed-babyfood	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
06030990	6C	Chickpea, flour	0.020000	1.000	1.000	new ro
Full comment: new rot crop use; 1/2 LOQ; 100% CT						
15001200	15	Corn, field, flour	0.020000	0.600	1.000	existi
Full comment: existing use						
15001201	15	Corn, field, flour-babyfood	0.020000	0.600	1.000	existi
Full comment: existing use						
15001210	15	Corn, field, meal	0.020000	0.600	1.000	existi
Full comment: existing use						
15001211	15	Corn, field, meal-babyfood	0.020000	0.600	1.000	existi

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  Full comment: existing use
15001220 15   Corn, field, bran                    0.020000   1.000      1.000   existi
  Full comment: existing use
15001230 15   Corn, field, starch                  0.020000   0.600      1.000   existi
  Full comment: existing use
15001231 15   Corn, field, starch-babyfood         0.020000   0.600      1.000   existi
  Full comment: existing use
15001240 15   Corn, field, syrup                   0.020000   1.000      1.000   existi
  Full comment: existing use
15001241 15   Corn, field, syrup-babyfood          0.020000   1.000      1.000   existi
  Full comment: existing use
15001250 15   Corn, field, oil                     0.020000   0.600      1.000   existi
  Full comment: existing use
15001251 15   Corn, field, oil-babyfood            0.020000   0.600      1.000   existi
  Full comment: existing use
15001260 15   Corn, pop                            0.020000   1.000      1.000   new to
  Full comment: new tol; 1/2 LOQ; 100% CT
15001270 15   Corn, sweet                          0.020000   1.000      1.000   new to
  Full comment: new tol; 1/2 LOQ; 100% CT
15001271 15   Corn, sweet-babyfood                 0.020000   1.000      1.000   new to
  Full comment: new tol; 1/2 LOQ; 100% CT
06031820 6C   Guar, seed                           0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06031821 6C   Guar, seed-babyfood                  0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06032030 6C   Lentil, seed                         0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15002260 15   Millet, grain                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15002310 15   Oat, bran                            0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15002320 15   Oat, flour                           0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15002321 15   Oat, flour-babyfood                  0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15002330 15   Oat, groats/rolled oats              0.020000   0.400      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15002331 15   Oat, groats/rolled oats-babyfood     0.020000   0.400      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
06032560 6C   Pea, dry                             0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06032561 6C   Pea, dry-babyfood                    0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06032580 6C   Pea, pigeon, seed                    0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032960 1C   Potato, chips                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032970 1C   Potato, dry (granules/ flakes)       0.020000   6.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
01032971 1C   Potato, dry (granules/ flakes)-b     0.020000   6.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
01032980 1C   Potato, flour                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032981 1C   Potato, flour-babyfood               0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032990 1C   Potato, tuber, w/peel                0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032991 1C   Potato, tuber, w/peel-babyfood       0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01033000 1C   Potato, tuber, w/o peel              0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01033001 1C   Potato, tuber, w/o peel-babyfood     0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003280 15   Rye, grain                           0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003290 15   Rye, flour                           0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003440 15   Sorghum, grain                       0.050000   1.000      1.000   new to
  Full comment: new tol; tol; 100% CT
15003450 15   Sorghum, syrup                       0.050000   1.000      1.000   new to
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  Full comment: new tol; tol; 100% CT
06003470 6    Soybean, seed                          0.100000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003480 6    Soybean, flour                         0.100000   0.750      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003481 6    Soybean, flour-babyfood                0.100000   0.750      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003490 6    Soybean, soy milk                      0.100000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003491 6    Soybean, soy milk-babyfood or in       0.100000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003500 6    Soybean, oil                           0.100000   0.200      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003501 6    Soybean, oil-babyfood                  0.100000   0.200      1.000   existi
  Full comment: existing rot crop use; 100% CT
20003640 20   Sunflower, seed                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
20003650 20   Sunflower, oil                         0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
20003651 20   Sunflower, oil-babyfood                0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003810 15   Triticale, flour                       0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15003811 15   Triticale, flour-babyfood              0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15004010 15   Wheat, grain                           0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
15004011 15   Wheat, grain-babyfood                  0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
15004020 15   Wheat, flour                           0.020000   0.500      1.000   existi
  Full comment: existing rot crop use; 100% CT; new PF used
15004021 15   Wheat, flour-babyfood                  0.020000   0.500      1.000   existi
  Full comment: existing rot crop use; 100% CT; new PF used
15004030 15   Wheat, germ                            0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
15004040 15   Wheat, bran                            0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
```

Attachment 7. Acetochlor Chronic Dietary Analysis – Results - Food Only

U.S. Environmental Protection Agency Ver. 2.00
DEEM-FCID Chronic analysis for ACETOCHLOR (1994-98 data)
Residue file name: C:\Documents and Settings\ddavis05\DEEM files\Acetochlor\acet chronic food.R98
Adjustment factor #2 NOT used.
Analysis Date 01-03-2007/13:34:13 Residue file dated: 12-19-2006/13:56:19/8
Reference dose (RfD, Chronic) = .02 mg/kg bw/day
COMMENT 1: Acetochlor Chronic Analysis; 100%CT, processing factors and ARs based on field trial used.

Total exposure by population subgroup

Population Subgroup	Total Exposure mg/kg body wt/day	Percent of Rfd
U.S. Population (total)	0.000090	0.4%
All infants (< 1 year)	0.000122	0.6%
Children 1-2 yrs	0.000205	1.0%
Children 3-5 yrs	0.000204	1.0%
Children 6-12 yrs	0.000144	0.7%
Youth 13-19 yrs	0.000097	0.5%
Adults 20-49 yrs	0.000073	0.4%
Adults 50+ yrs	0.000056	0.3%
Females 13-49 yrs	0.000070	0.3%

Attachment 8. Acetochlor Chronic Dietary Analysis Input File – Food and Water

U.S. Environmental Protection Agency Ver. 2.00
DEEM-FCID Chronic analysis for ACETOCHLOR 1994-98 data
Residue file: C:\Documents and Settings\ddavis05\DEEM files\Acetochlor\acet chronic f_w.R98

Adjust. #2 NOT used
Analysis Date 01-03-2007 Residue file dated: 12-19-2006/13:57:11/8
Reference dose (RfD) = 0.02 mg/kg bw/day
Comment:Acetochlor Chronic Food & Water; 100% CT, processing factors and ARs based on field trials used.

Food Crop EPA Code	Grp	Food Name	Residue (ppm)	Adj.Factors #1	#2	Comment
15000250	15	Barley, pearled barley	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
15000251	15	Barley, pearled barley-babyfood	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
15000260	15	Barley, flour	0.020000	0.500	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used				
15000261	15	Barley, flour-babyfood	0.020000	0.500	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used				
15000270	15	Barley, bran	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030300	6C	Bean, black, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030320	6C	Bean, broad, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030340	6C	Bean, cowpea, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030350	6C	Bean, great northern, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030360	6C	Bean, kidney, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030380	6C	Bean, lima, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030390	6C	Bean, mung, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030400	6C	Bean, navy, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030410	6C	Bean, pink, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030420	6C	Bean, pinto, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
01010520	1A	Beet, sugar	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
01010521	1A	Beet, sugar-babyfood	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
01010530	1A	Beet, sugar, molasses	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
15000650	15	Buckwheat	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
15000660	15	Buckwheat, flour	0.020000	0.500	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used				
06030980	6C	Chickpea, seed	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030981	6C	Chickpea, seed-babyfood	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
06030990	6C	Chickpea, flour	0.020000	1.000	1.000	new ro
		Full comment: new rot crop use; 1/2 LOQ; 100% CT				
15001200	15	Corn, field, flour	0.020000	0.600	1.000	existi
		Full comment: existing use				
15001201	15	Corn, field, flour-babyfood	0.020000	0.600	1.000	existi
		Full comment: existing use				
15001210	15	Corn, field, meal	0.020000	0.600	1.000	existi
		Full comment: existing use				
15001211	15	Corn, field, meal-babyfood	0.020000	0.600	1.000	existi

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  Full comment: existing use
15001220 15   Corn, field, bran                    0.020000   1.000      1.000   existi
  Full comment: existing use
15001230 15   Corn, field, starch                  0.020000   0.600      1.000   existi
  Full comment: existing use
15001231 15   Corn, field, starch-babyfood         0.020000   0.600      1.000   existi
  Full comment: existing use
15001240 15   Corn, field, syrup                   0.020000   1.000      1.000   existi
  Full comment: existing use
15001241 15   Corn, field, syrup-babyfood          0.020000   1.000      1.000   existi
  Full comment: existing use
15001250 15   Corn, field, oil                     0.020000   0.600      1.000   existi
  Full comment: existing use
15001251 15   Corn, field, oil-babyfood            0.020000   0.600      1.000   existi
  Full comment: existing use
15001260 15   Corn, pop                            0.020000   1.000      1.000   new to
  Full comment: new tol; 1/2 LOQ; 100% CT
15001270 15   Corn, sweet                          0.020000   1.000      1.000   new to
  Full comment: new tol; 1/2 LOQ; 100% CT
15001271 15   Corn, sweet-babyfood                 0.020000   1.000      1.000   new to
  Full comment: new tol; 1/2 LOQ; 100% CT
06031820 6C   Guar, seed                           0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06031821 6C   Guar, seed-babyfood                  0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06032030 6C   Lentil, seed                         0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15002260 15   Millet, grain                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15002310 15   Oat, bran                            0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15002320 15   Oat, flour                           0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15002321 15   Oat, flour-babyfood                  0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15002330 15   Oat, groats/rolled oats              0.020000   0.400      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15002331 15   Oat, groats/rolled oats-babyfood     0.020000   0.400      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
06032560 6C   Pea, dry                             0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06032561 6C   Pea, dry-babyfood                    0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
06032580 6C   Pea, pigeon, seed                    0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032960 1C   Potato, chips                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032970 1C   Potato, dry (granules/ flakes)       0.020000   6.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
01032971 1C   Potato, dry (granules/ flakes)-b     0.020000   6.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
01032980 1C   Potato, flour                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032981 1C   Potato, flour-babyfood               0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032990 1C   Potato, tuber, w/peel                0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01032991 1C   Potato, tuber, w/peel-babyfood       0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01033000 1C   Potato, tuber, w/o peel              0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
01033001 1C   Potato, tuber, w/o peel-babyfood     0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003280 15   Rye, grain                           0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003290 15   Rye, flour                           0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003440 15   Sorghum, grain                       0.050000   1.000      1.000   new to
  Full comment: new tol; tol; 100% CT
15003460 15   Sorghum, syrup                       0.050000   1.000      1.000   new to
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  Full comment: new tol; tol; 100% CT
06003470 6    Soybean, seed                          0.100000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003480 6    Soybean, flour                         0.100000   0.750      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003481 6    Soybean, flour-babyfood                0.100000   0.750      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003490 6    Soybean, soy milk                      0.100000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003491 6    Soybean, soy milk-babyfood or in       0.100000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003500 6    Soybean, oil                           0.100000   0.200      1.000   existi
  Full comment: existing rot crop use; 100% CT
06003501 6    Soybean, oil-babyfood                  0.100000   0.200      1.000   existi
  Full comment: existing rot crop use; 100% CT
20003640 20   Sunflower, seed                        0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
20003650 20   Sunflower, oil                         0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
20003651 20   Sunflower, oil-babyfood                0.020000   1.000      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT
15003810 15   Triticale, flour                       0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
15003811 15   Triticale, flour-babyfood              0.020000   0.500      1.000   new ro
  Full comment: new rot crop use; 1/2 LOQ; 100% CT; PF used
86010000 0    Water, direct, all sources             0.001430   1.000      1.000   monito
  Full comment: monitoring based EEC
86020000 0    Water, indirect, all sources           0.001430   1.000      1.000   monito
  Full comment: monitoring based EEC
15004010 15   Wheat, grain                           0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
15004011 15   Wheat, grain-babyfood                  0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
15004020 15   Wheat, flour                           0.020000   0.500      1.000   existi
  Full comment: existing rot crop use; 100% CT; new PF used
15004021 15   Wheat, flour-babyfood                  0.020000   0.500      1.000   existi
  Full comment: existing rot crop use; 100% CT; new PF used
15004030 15   Wheat, germ                            0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
15004040 15   Wheat, bran                            0.020000   1.000      1.000   existi
  Full comment: existing rot crop use; 100% CT
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Attachment 9. Acetochlor Chronic Dietary Analysis – Results - Food & Water

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U.S. Environmental Protection Agency                                    Ver. 2.00
DEEM-FCID Chronic analysis for ACETOCHLOR                          (1994-98 data)
Residue file name: C:\Documents and Settings\ddavis05\DEEM files\Acetochlor\acet
chronic f_w.R98
                                                  Adjustment factor #2 NOT used.
Analysis Date 01-03-2007/13:35:39     Residue file dated: 12-19-2006/13:57:11/8
Reference dose (RfD, Chronic) = .02 mg/kg bw/day
COMMENT 1: Acetochlor Chronic Food & Water; 100% CT, processing factors and ARs based
on field trials used.
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Total exposure by population subgroup

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000120	0.6%
All infants (< 1 year)	0.000220	1.1%
Children 1-2 yrs	0.000250	1.2%
Children 3-5 yrs	0.000246	1.2%
Children 6-12 yrs	0.000173	0.9%
Youth 13-19 yrs	0.000119	0.6%
Adults 20-49 yrs	0.000101	0.5%
Adults 50+ yrs	0.000086	0.4%
Females 13-49 yrs	0.000098	0.5%

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R142433

Chemical: Acetochlor

PC Code:
121601

HED File Code: 11000 Chemistry Reviews
Memo Date: 1/22/2007
File ID: DPD275018
Accession #: 000-00-0119

HED Records Reference Center
4/24/2007