



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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

August 18, 1999

MEMORANDUM

SUBJECT: Probabilistic Acute Dietary Exposure Estimates for Dimethoate
PC Code: 035001 DP Barcode D258752. No MRID. Rereg. Case No.
2675

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and

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ACTION REQUESTED

Special Review and Registration Division (SRRD) has requested that the Health Effects Division (HED) perform an acute tier 3 (probabilistic) dietary exposure risk assessment for dimethoate to support reregistration of this chemical. SRRD asked that this acute assessment be performed using data from the Pesticide Data Program (PDP) testing of foods for dimethoate, incorporating a statistical method (Allender, H. "Use of the Pesticide Data Program (PDP) in Acute Dietary Assessment," EPA interim guidelines, August 1998) which would permit wider use of the PDP

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data. More widespread use of PDP has not been possible in the past for acute assessment because the PDP program analyses composited samples, while acute risk assessment should use information about the residues on individual servings.

Tolerances are established for total residues of the insecticide dimethoate and its oxygen analog omethoate (40 CFR 180.204). The EPA had earlier conducted a Tier 1 assessment of the acute dietary risk for dimethoate using the Dietary Risk Evaluation System, DRES, (Brian Steinwand, memo to Mike Metzger, March 1997). The Margin of Exposure (MOE) values (all below 40) indicated a concern, given that an acceptable MOE is 100 or greater. A limited Tier 2 analysis was conducted in HED to refine the DRES assessment and to try to determine which commodities were significant contributors to exposure. HED was not able to make this determination using DRES system. In addition, rerunning the DRES analysis using anticipated residues (AR) was not expected to significantly further refine the acute dietary risk. HED, therefore recommended that the registrant(s) conduct an acute probabilistic (Monte Carlo) analysis to address acute dietary concerns. The submission was reviewed (Sahafeyan, M.; DP Barcode: D249135, Jan. 29, 1999) and deemed unacceptable primarily because of the exclusion of some commodities in the assessment which are presently registered and included on the labels. Consequently, at the request of SRRD, an in-house acute probabilistic risk assessment was performed with the emphasis on the wider use of monitoring data by utilizing the Agencies own statistical method that would allow estimating the residues on single-serving units of foods from composited monitoring data. The results of that assessment is the subject of this present document.

EXECUTIVE SUMMARY

The probabilistic acute dietary exposure risk assessment for dimethoate in foods was conducted using the toxicological end point of NOAEL = 2 mg/kg/day, PDP and FDA residue data and the 1989-1992 USDA Continuing Surveys of Food Intake by Individuals (CSFII) database. When appropriate, the newly proposed statistical method was used to convert (decompose) the PDP and FDA composite residue data to the residues that reflected pesticide concentrations on single-serving units of foods. No truncation was performed on any of the decomposited data in this assessment.

The DEEM evaluations were performed with and without cooking factors. The results for both assessments showed estimated dietary exposure for the U.S. population and all its sub-populations are below the level of concern (100% aPAD). The range of estimated dietary exposure in one assessment (all the crops were included and cooking factors were incorporated) was from 21% aPAD for female 13+/nursing to 86% aPAD for children 1-6 sub-population. The estimated dietary exposure for the U.S. population in that assessment was 41% aPAD. The range changed only minimally when the cooking factors were not incorporated in the assessment, (28% aPAD - 97% aPAD); the least and most exposed sub-populations remained the same. The estimated dietary exposure in that assessment for the U.S. population was 49% aPAD.

TOXICOLOGICAL INFORMATION

The acute dietary NOAEL for dimethoate was recently changed from 0.06 mg/kg/day to 2.0 mg/kg/day. Initially, the Hazard Identification Assessment Review Committee (HIARC) selected a NOAEL of 2 mg/kg/day for absence of pupil response in rats from an acute oral study in rats for use in acute dietary and short- and intermediate-term occupational risk assessment. When the HIARC met to reevaluate all the organophosphates (07/07/98) in consideration of cholinesterase enzyme inhibition (ChEI) as a common mechanism of toxicity, the acute dietary endpoint was changed to be based on a NOAEL of 0.06 mg/kg/day for ChEI from a subchronic rat study. However, on further examination, a weight-of-the-evidence analysis of the database showed that a NOAEL = 2 mg/kg/day is indeed appropriate for the time frame of an acute dietary endpoint based on a number of studies, several of which included measurements for ChEI (HIARC meeting 06/29/99). In addition, HIARC recommended that a 10X uncertainty factor for enhanced susceptibility of sensitive sub-populations be removed based on weight-of-the-evidence consideration. The acceptable Margin Of Exposures (MOEs) for acute dietary risk assessment for dimethoate are greater than 100 (10X uncertainty factor for inter and 10X uncertainty factor for intraspecies).

It should be noted that the NOAEL of 0.06 mg/kg/day would probably be used for a cumulative dietary risk assessment for organophosphate pesticides.

Exposure Duration	Exposure Route		End points
		Effect	
Acute - RfD	Dietary	ChEI of brain, RBC & plasma at the LOAEL	NOAEL = 2 mg/kg/day, based on sub-chronic study in rats.
		Absence of Pupil response	aPAD = 0.02 mg/kg/day
Chronic - RfD	Dietary	ChEI of brain & RBC at the LOAEL	NOAEL = 0.05 mg/kg/day. LOAEL of 0.25 mg/kg/day for brain and RBC ChEI in both sexes. 2-Yr chronic feeding study in rats. UF of 100 applied for intra & inter species differences. aPAD = 0.0005 mg/kg/d

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DATA

I) Consumption Data

For consumption data, the 1989-1992 USDA Continuing Surveys of Food Intake by Individuals (CSFII) database was used.

II) Residue Data

Extensive monitoring data for dimethoate and omethoate from the USDA Pesticide Data Program (PDP) and the FDA Surveillance Monitoring Program are available. The PDP data are generally preferred over FDA data for use in dietary exposure and risk analyses. The USDA PDP was specifically designed for risk assessment; analysts prepare samples in a manner similar to typical consumer practices, such as washing, coring/pitting, and/or peeling. The 20 lb surveillance samples are collected by FDA for tolerance enforcement purposes, and are not washed or peeled prior to analysis; in addition, FDA samples are collected in the channels of commerce, and often represent "farm gate" residues. The PDP samples are 5 lb composites collected at large-scale distribution centers, just prior to sale in grocery stores, and are more likely to reflect "dinner plate" residues. In this assessment it was attempted to use monitoring data (versus field trial data) as much as possible.

Methodology for Combining Residues of Dimethoate and Omethoate - The monitoring programs (PDP and FDA) analyze for dimethoate (parent compound) and omethoate (metabolite) separately. Since the tolerance expression includes both dimethoate and omethoate, the residues of parent and its metabolite had to be summed for use in the dietary risk assessment. Different scenarios were possible (e.g. a tomato sample may be analyzed for one compound but not for the other or it may have a detected residue for one and not for the other). Procedures in the following table were used in determining the residue values to be inserted in the dietary exposure analyses.

Dimethoate Value Reported	Omethoate Value Reported	Suggested Treatment
Detect	Detect	Dimethoate detect + Omethoate Detect
Detect	Non-Detect	Dimethoate Detect + 1/2 LOD for Omethoate for that sample
Non-Detect	Detect	1/2 LOD for Dimethoate for that sample + Omethoate Detect

Dimethoate Value Reported	Omethoate Value Reported	Suggested Treatment
Non-Detect	Non-Detect	½ LOD for Dimethoate for that sample + ½ LOD for Omethoate for that sample
Detect	Not analyzed	Detect for Dimethoate + Detect (same value) for Omethoate
Non-Detect	Not analyzed	½ LOD for Dimethoate for that sample + ½ average LOD for Omethoate for that commodity
Not Analyzed	Detect	Detect for Omethoate + Detect (same value) for Dimethoate
Not Analyzed	Non-Detect	½ LOD for Omethoate for that sample + ½ average LOD for Dimethoate for that commodity

Methodology for Using Composite Monitoring Data - Decompositing Procedure - The monitoring residue data (PDP and/or FDA), when available, were used for each commodity. When the commodity was considered blended (i.e., large-scale mixing on national level), or partially-blended (i.e., mixing at local farms, local distribution centers, etc.), the monitoring data were used directly; otherwise (for non-blended commodities) a statistical method was used to decomposite the data. The decompositing procedure was comprised of two steps. In the first step, the parameters (average and standard deviation) of the distribution function for population of single-serving residues were estimated from the detected composite data. In the second step, 1000 single serving residue values were generated (by Crystal Ball software) from the distribution of single-serving residues. The generated data were subject to truncation at high values if they exceeded the theoretical worst case scenario (i.e. the highest residue in the original composite data would be due to the residue on only one of the units of the food in the composite). However, no truncation was performed on any of the decomposited data in this assessment. The decompositing method required at least 30 detected residues for each commodity. When the number of detected residues from the most recent monitoring data for a particular commodity were not sufficient, the monitoring data from previous years, were combined to provide an adequate number of data (≥ 30) for the decompositing procedure. When the detected residues were near LOD (less than $LOQ \approx 3 \times LOD$), the monitoring data were used directly (not decomposited); the Agency guidelines were followed (Interim Guidance, March 1999, Mike Metzger). The detail description of assumptions, estimations, and procedure used for each commodity are given later in this report.

III) Processing Factors:

a) Processing Studies - Processing studies that were submitted and accepted by the Agency (Bonnie Cropp-Kohlligian, DP Barcode Nos: D205591, D206804, D206555, and D213099,

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11/6/95) include citrus (orange juice, dried citrus pulp), field corn, cottonseed, grapes, potatoes, soybeans, tomatoes, and wheat. The processing factor(s) that were used for these commodities in this assessment are listed below:

Citrus (Orange): juice (0.2X)

Corn: grits (0.4X), meal (0.4X), flour (0.4X), refined oil-all types (0.3 X)

Cottonseed: meal (1.3X), refined oil (0.6X)

Grapes (MRID 00075590, and 00075637): The results of these studies suggest that the residues of dimethoate and omethoate do not concentrate in grapes-raisins and grapes-wine. Therefore, the PF of 1 was used for both grapes-raisins and grapes-wine.

Potato: granules (0.25X), chips (0.25X), dry peel (0.9X).

Soybean: Soybean processing data are not required based on field trial data (MRID 00075577) demonstrating that dimethoate residues of concern in/on soybeans were below the LOQ after treatment with dimethoate at an exaggerated application rate (5X).

Tomato: juice (<0.1X), puree (1.5X), paste (2.6X), catsup (1.6X).

Wheat: Residues of dimethoate and omethoate were below LOQ for bran, middlings, shorts, low-grade flour, and patent flour processed from treated wheat grain.

For all other commodities the DEEM default PFs were used.

b) Kitchen-Processing Studies - The Agency identified several studies in the open literature that investigated the effect of kitchen-processing on concentrations of dimethoate residues in foods. (DeVito, S., "Interim Memorandum on the Effect of Peeling, Washing or Cooking on Concentrations of Dimethoate in Foods", July 2, 1999). Based on the results of these studies, a cooking factor of 0.7 (i.e., 30% reduction of residues by cooking) for any cooked form of vegetables and fruits, and a cooking factor of 0.8 (i.e., 20% reduction of residues by cooking) for any cooked forms of grains were applied in the calculation of the second assessment (Table 6 in the Results section). Since most residue data for vegetables and fruits used in this assessment were from PDP monitoring data, and these type of data are obtained from washed and peeled (where appropriate) fruits and vegetables, no washing or peeling reduction factors were generally used in this risk assessment. No cooking studies for dimethoate in meat were found. A cooking study of several other organophosphate pesticides in meat was found, and showed that cooking causes decomposition of the substances tested. Based on the results of this study, a cooking factor of 0.7 (i.e., 30% reduction of residues by cooking) for any cooked form of meat was applied in the calculation of the second assessment (Table 6 in the Results section).

c) **Citrus-Juice /concentrates** - Since the only available PF for citrus juice was that of orange to orange juice (PF = 0.2X), this PF was used in the calculation of PFs for other citrus-juices and juice concentrates. However, for orange-juice itself, since the PDP data for orange juice was available and used in the RDF (instead of resorting to data for orange), the PF was set to 1 for orange juice in this assessment. The PDP data for orange juice was also translated to grapefruit-juice/concentrate, lemon-juice/concentrate and tangerine-juice/concentrate. To calculate the PFs for other citrus-juice/concentrates the PF of 1 (for orange-juice when PDP data for orange-juice was used), in combination with different ratios of DEEM default PFs, were therefore used. These calculations are shown in the following Table.

Table 3 - Calculation of processing factors for citrus-juice/concentrates.				
Commodity	Data Source	DEEM Default PF (from whole fruit)	Calculation	PF used (result of the calculation)
Orange-juice	PDP for Orange-juice	1.8	1	1
Orange-juice-concentrate	PDP for Orange-juice	6.7	1 X (6.7 / 1.8)	3.7
Grapefruit-juice	PDP for Orange-juice	2.1	1 X (2.1 / 1.8)	1.2
Grapefruit-juice-concentrate	PDP for Orange-juice	8.26	1 X (8.26 / 1.8)	4.6
Lemon-juice	PDP for Orange-juice	2	1 X (2 / 1.8)	1.1
Lemon-juice-concentrate	PDP for Orange-juice	11.4	1 X (11.4 / 1.8)	6.3
Tangerine-juice	PDP for Orange-juice	2.3	1 X (2.3 / 1.8)	1.3
Tangerine-juice-concentrate	PDP for Orange-juice	7.35	1 X (7.35 / 1.8)	4.1

IV) Percent Crop Treated

The maximum percent crop treated estimates from BEAD August, 1998 report were used for all the crops in this assessment. The following Table lists the average and maximum %CT estimates reported by BEAD in August 1998.

Table 4- Estimated average and maximum %CT reported by BEAD (August 1998).		
CROP	% CT (1998)	
	(Weighted Average)	(Maximum)
	Apples	7.4
Beans (Dry)	3.8	7.0
Beans (Succulent)	13.3	19.6
Blueberries	-----	-----
Broccoli	28.8	37.9
Cabbage	16.9	24.8
Cantaloupes	10.5	12.7
Casabas	24.4	48.8 ²
Cauliflower	22.4	38.4
Celery	-----	-----
Cherries	5.7	8.7
Hot Pepper	3.0	10.4
Collard	25.4	40
Field Corn	0.4	0.7
Cottonseed	5.2	9.9
Endives / Lettuce	28.2	58.5
Grapefruits	4.3	8.5
Grapes, Grapes (wine)	6.5	13
Greens	13.0	51.6
Kale	-----	-----

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Table 4- Estimated average and maximum %CT reported by BEAD (August 1998).

CROP	% CT (1998)	
	(Weighted Average)	(Maximum)
	Lemons	25.4
Lentils	-----	-----
Melons	8.0	18.3
Oranges	4.6	9.7
Pears	1.8	5.6
Peas, Green	26.8	56.8
Dry Peas	2.2	8.4
Peas, Green, Proc.	16.1	29.5
Pecans	11.6	19.4
Sweet Peppers	13.6	47.3
Potatoes	1.9	3.5
Safflower	18.7	41.1
Sorghum	0.7	1.3
Soybeans	0.3	0.6
Spinach	8.3	17.2
Tangerines	10.8	21.9
Tomatoes (fresh), Tomatoes (proc.)	10.1, 28.4	18.3, 60
Turnips, Roots	-----	-----
Turnips, Tops	-----	-----
Watermelons	6.2	8.2
Wheat, Wheat (spring), Wheat (winter)	1.8	7.6

V) Translation of Data

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When the total number of samples or total number of detected residues in monitoring data for a particular crop was not sufficient¹, the monitoring data from another crop (from the list of "Permissible Crop Translations for Pesticide Monitoring Data" Interim Memo, May 1999) was translated to the previous crop.

RESIDUE INFORMATION

I) Brassica Leafy Vegetables

Broccoli - There were 13 samples with detected residues from 680 total samples in the 1994 PDP data with all detects being near the LOD (range of combined dimethoate and omethoate detects = 0.0065-0.036 ppm, weighted average LOD = 0.02 ppm). In the FDA data there was only one sample with detected residue (0.16 ppm, LOD=0.02 ppm) from 296 total samples. Since PDP and FDA data can not be combined, the PDP data with the greater number of samples were used for broccoli. The RDF contained 13 detects, 422 zeros, and 245 repeated ½ LOD values at 0.01 ppm which was the weighted average of all LODs. The estimated value of 37.9% CT (from BEAD) was used.

Brussels Sprouts - No PDP data were available for brussels sprouts. Although detected residues were reported in FDA data from 1992, 1993, 1996, and 1998, since the total number of samples for all the four years combined (14) was below what has been determined by the Agency to be statistically adequate (100), those data could not be used. Therefore, the 1994 PDP data for head lettuce was translated to brussels sprouts. Since brussels sprouts are considered to be a partially-blended commodity, the PDP data for head lettuce were not decomposited. The estimated value of 100% CT was also assumed in the assessment since there was no %CT estimate for brussels sprouts from BEAD. Therefore, the RDF for brussels sprouts contained 101 detects, 590 repeated ½ LOD values at 0.011 ppm, and no zeros.

Cauliflower- No PDP data were available for cauliflower. No detected residues (out of 246 total samples) were reported in the FDA data from 1992 to 1997. Therefore, the RDF for cauliflower contained 38 repeated ½ LOD values at 0.01 ppm (based on 38.4%CT estimate from BEAD and LOD of 0.02 ppm in FDA data) and 62 zeros.

Cabbage - No PDP data were available for cabbage. In FDA data only 4 detected residues (total number of samples = 467, range of combined dimethoate and omethoate detects = 0.0393-0.61 ppm, weighted average LOD = 0.02 ppm) were reported from 1992 to 1997. These detected values were significantly greater than the LOD and thus could not be assumed to be negligible.

¹Total number of samples \geq 100 was required. If decompositing was needed, total detected residues \geq 30 was required.

The PDP data for head lettuce could not be surrogated for cabbage as the use patterns for the two commodities were different. Therefore, the tolerance of 2 ppm and 25% CT for fresh market cabbage (cabbage, chinese celery/bok choy, cabbage-green and red, and cabbage-savoy) and 61% CT for processed cabbage, according to 1998 BEAD report, were used in this assessment. The RDF for fresh market cabbage contained 75 zeros and 25 repeated tolerance values (2 ppm). The RDF for processed cabbage (partially blended commodities) contained 39 zeros and 61 repeated tolerance values at 2 ppm.

Collards - No PDP data were available for collards. In FDA data only 5 detected residues (total samples = 145, Max detected value = 1.84 ppm, weighted average LOD = 0.02 ppm) were reported from 1992 to 1997. These detected residue values were significantly above LOD and thus could not be assumed to be negligible. Since collards are considered to be a partially-blended commodity, the FDA data were used directly and the 40% CT value (from BEAD) was incorporated in the RDF. The RDF contained 5 detects, 87 zeros, and 53 repeated $\frac{1}{2}$ LOD values at 0.01 ppm.

Kale - No PDP data were available for kale. In FDA data only one detected residue (total samples = 112, detected value = 0.15 ppm, weighted average LOD = 0.02 ppm) was reported from 1992 to 1997. This detected value was significantly above the LOD and thus could not be assumed to be negligible. Since kale is considered to be a partially-blended commodity, the FDA data were used directly. The value of 100% CT was used for kale in this dietary risk assessment since no %CT was listed for kale in 1998 BEAD report. The same value was used by the registrant in the previous submission. Therefore, the RDF contained one detect, no zeros, and 111 repeated $\frac{1}{2}$ LOD values at 0.01 ppm.

Mustard Greens - No PDP data were available for mustard greens. In FDA data, 4 detected residues (total samples = 84, Max detected value = 0.126 ppm, weighted average LOD = 0.02 ppm) were reported from 1992 to 1997. These detected values were significantly above LOD and thus could not be assumed to be negligible. Since the total number of samples in the FDA data were below what has been determined by the Agency to be statistically adequate (100 samples), those data could not be used. Therefore, data from spinach which has a similar use pattern, were surrogated for mustard greens. The value of 51.6% CT was used according to 1998 BEAD report. Since mustard greens are considered to be a partially-blended commodity, the PDP data for spinach were used directly (no decompositing) and the RDF for mustard greens contained 66 detects, 247 zeros, and 199 repeated $\frac{1}{2}$ LOD values at 0.008 ppm.

II) Cereal Grains

Field Corn- No PDP data were available for field corn. FDA analyzed only 79 samples of field corn between 1992 and 1997 with no detected residues reported. Since the total number of samples in FDA data were below what has been determined by the Agency to be statistically adequate (100 samples), those data could not be used. Therefore, the tolerance of 0.1 ppm was used. Since field corn (grain) is considered a blended commodity, the tolerance was multiplied by the %CT estimate (1% from BEAD) and the result (0.001 ppm) was used as a point estimate in

DEEM for corn grain, corn bran, corn endosperm, corn grain oil, corn sugar, and corn sugar molasses. The PF of 0.4 and 0.3 (from submitted processing studies) for corn-endosperm and corn-grain oil were used respectively (see section on processing factors). The DEEM default PFs were used for the rest.

Pop Corn- No PDP data were available for popcorn. FDA analyzed only 61 samples of popcorn between 1992 and 1997 with no detected residues reported. Since the total number of samples in FDA data were below what has been determined by the Agency to be statistically adequate (100 samples), those data could not be used. Therefore, the tolerance of 0.1 ppm was used. Since popcorn (grain) is considered a blended commodity, the tolerance was multiplied by the %CT estimate (1%CT from BEAD field corn was assumed and applied) and the result (0.001 ppm) was used as a point estimate in DEEM.

Sorghum - No PDP data were available for sorghum. FDA analyzed only 3 samples of sorghum in 1993 with no detected residues reported. Since the total number of samples in FDA data were below what has been determined by the Agency to be statistically adequate (100 samples), those data could not be used. In addition, field trial data for dimethoate and omethoate in sorghum grain (10 samples at 1X the maximum seasonal rate) were below LOD = 0.02 ppm (Bonnie Cropp-Kohlligian, DP Barcode: D205590, MRID: 43279802). Since sorghum is considered a blended commodity, the ½ LOD value from field trial data (0.01 ppm) was multiplied by the %CT estimate (1%CT from BEAD) and the result (0.0001 ppm) was used as a point estimate in DEEM.

Wheat - No detected residues were reported in PDP and FDA data (1992-1997, total samples = 142 samples). Since wheat grain, germ, bran, flour, and rough are considered blended commodities, a point estimate (½ LOD value of 0.01 ppm based on LOD of 0.02 ppm in FDA data) was used in this assessment for wheat and its food forms.

III) Citrus Fruits

Grapefruit - No PDP data were available for grapefruit. In the FDA data, one detected residue (total samples = 151, detected value = 0.05 ppm, weighted average LOD = 0.02 ppm) was reported from 1992 to 1997. This detected value was near LOD and therefore the FDA data were used directly (no decompositing), with non-detected values assumed to be at ½ LOD = 0.01 ppm for the treated portion of the commodity. The BEAD estimate of 8.5% CT was incorporated. The RDF contained 1 detect, 139 zeros, and 11 repeated ½ LOD values at 0.01 ppm. For grapefruit juice and grapefruit juice concentrate, which are considered partially-blended commodities, PDP data for orange juice were used. The PFs of 1.2 and 4.6 were used for grapefruit juice and grapefruit juice concentrate respectively(see calculation in Table 3).

Oranges - Orange 1994-1996 PDP data (total samples=1914, 28 detects, range of combined dimethoate and omethoate detects = 0.008-0.050 ppm, weighted average LOD = 0.022 ppm) were decomposited and 1000 values were generated. The BEAD estimate of 9.7% CT was used. The RDF (with decomposited data) was applied to orange peel and orange-peeled fruit. The RDF contained 1000 detects, 61727 zeros, and 5631 repeated ½ LOD values at 0.011 ppm. For canned

and frozen food forms of orange which are considered partially-blended commodities, a separate RDF was constructed where PDP data were used directly with 9.7% CT being incorporated (28 detects, 1728 zeros, and 158 ½ LOD values at 0.011 ppm). Since no PF was available for orange peels, the factor of 46x based on the processing study for similar chemical, methidathion, was used (W. Smith, D228746, 12/3/96).

Orange Juice - No detected residues were reported in the PDP database (1997 data, total sample = 692) or in the FDA database (1992-1997, total sample = 68) for orange juice. Since orange juice and orange juice concentrate are considered partially-blended commodities, an RDF containing no detects, 90 zeros, and 10 repeated ½ LOD values at 0.008 ppm (based on 9.7% CT estimate and weighted average LOD of 0.016 in PDP data) was constructed in this assessment for these commodities. Because the RDF was based on the data which directly sampled orange juice, no PF was used for orange juice. However, since this data was also applied to orange juice concentrate, a PF of 3.7, based on the ratio of DEEM PFs for orange juice and orange juice concentrate ($6.7/1.8 = 3.7$) was used for orange juice concentrate (see Table 3).

Lemons - No PDP data were available for lemons. In the FDA data, 2 detected residues (total samples = 131, detected values = 0.31 ppm and 0.0217 ppm, weighted average LOD = 0.02 ppm) were reported from 1992 to 1997. These detected values were significantly above LOD and thus could not be assumed to be negligible. The use pattern for lemons however was similar to oranges and therefore the orange decomposited data were used for lemons. The estimated value of 58.4% CT (according to 1998 BEAD report) was incorporated in the assessment. The RDF for not-blended food forms of lemons contained 1000 detects, 28437 zeros, and 38921 repeated ½ LOD values at 0.011 ppm. For lemon peels (partially-blended commodity) and partially-blended food forms of lemons-peeled fruit, separate RDF from direct PDP data for orange with incorporating the 58.4% CT was constructed (28 detects, 796 zeros, 1090 repeated ½ LOD values at 0.011 ppm).

Lemon Juice - No PDP data were available for lemon juice. Additionally, the FDA only analyzed one sample in 1997 with no detected residues found. Since the use patterns for lemons and oranges were the same, the PDP data for orange juice were used for lemon juice incorporating the 58.4% CT. Therefore, the RDF contained no detects, 42 zeros, and 58 repeated ½ LOD values at 0.008 ppm (based on weighted average LOD values in PDP data for orange juice). The PFs of 1.1 and 6.3 were used for lemon-juice and lemon-juice concentrate respectively (see Table 3 for calculation).

Tangerines/Tangelos - No PDP data were available for tangerines. The FDA analyzed only 27 samples between 1992 and 1997 with no detected residues reported. Since the total number of samples in FDA data were below what has been determined by the Agency to be statistically adequate (100 samples), those data could not be used. Therefore, since the use patterns for tangerines and oranges were similar, the decomposited orange PDP data were surrogated for tangerines. The 21.9% CT estimate from BEAD was used. The RDF for not-blended food forms of tangerines/tangelos contained 1000 detects, 53387 zeros, 13970 repeated ½ LOD values at

0.011 ppm. For partially-blended food forms of tangerines/tangelos, separate RDF from direct PDP data for orange with incorporating 21.9% CT was constructed (28 detects, 1495 zeros, and 391 repeated ½ LOD values at 0.011 ppm).

Tangerine Juice - No PDP or FDA data were available for tangerine juice. Since the use patterns for tangerines and oranges were the same, the PDP data for orange juice were surrogated for tangerine juice with incorporating the 21.9% CT. The RDF contained no detects, 78 zeros, and 22 repeated ½ LOD values at 0.008 ppm. The PFs of 1.3 and 4.1 were used for lemon-juice and lemon-juice concentrate respectively (see Table 3 for calculation).

IV) Cucurbits

Melons - No PDP data were available for melons. The FDA reported 7 detected residues from 1992 to 1997 for cantaloupe (total samples = 388, max detected residue = 0.105 ppm, LOD = 0.02 ppm), one detected residue for watermelon (total samples = 383, detected value = 0.26 ppm, LOD = 0.02 ppm), and one detected residue for honeydew melons (total samples = 77, max detected residue = 0.014 ppm, LOD = 0.02 ppm). These detected values were significantly above LOD and thus could not be assumed to be negligible. However, since the number of detected residues were not large enough (minimum of 30 required) for decompositing treatment, the FDA data could not be used. In addition, there were no other similar crops with similar use patterns that could be surrogated for melons. Therefore, the tolerance of 1 ppm and 12.7% CT, 18.3% CT, 48.8% CT, and 8.2% CT were used for cantaloupes, melons, melons (honeydew) and watermelons respectively in this dietary risk assessment. Four RDFs were constructed based on the different % CT of melons; i.e., the RDFs contained the tolerance value repeated 13, 18, 49, and 8 times with the number of zeros to make the total data 100 in RDFs. For melon juices, since they are considered partially-blended commodities, the same RDFs as for their corresponding melons were used.

V) Fruiting Vegetables

Sweet Peppers - No PDP data were available for sweet pepper. FDA, however, reported 32 detected residues from 1992 to 1997 for sweet pepper (total samples = 366, range of detects = 0.0132 - 2.00 ppm, LOD = 0.02 ppm). The FDA data were decomposited and used in this assessment. A 47.3% CT estimate was used according to the 1998 BEAD report. The RDF for not-blended food forms of sweet pepper contained 1000 detects, 6028 zeros, and 4410 repeated ½ LOD values at 0.01 ppm. The RDF for partially-blended food forms of sweet pepper contained 32 detects, 193 zeros, and 141 repeated ½ LOD values at 0.01 ppm. The RDF was applied to peppers-sweet (garden), peppers-other, and pimientos.

Hot Peppers - No PDP data were available for hot peppers. FDA analyzed only 72 samples of hot peppers between 1992 to 1997 with only one detected residue reported (0.04 ppm). Since the total number of samples in FDA data were below what has been determined by the Agency to be statistically adequate (100 samples), those data could not be used. Therefore, the decomposited tomato PDP data (1996-1997) were surrogated for hot pepper. The value of 10.4% CT was used

according to the 1998 BEAD report. The RDF for not-blended food forms of hot peppers contained 1000 generated detects, 29236 zeros, and 2393 repeated ½ LOD values at 0.007 ppm. The RDF for partially-blended food forms of hot peppers contained 27 detects, 789 zeros, and 65 repeated ½ LOD values at 0.007 ppm. The RDF was applied to peppers-chilli including jalapeno.

Tomatoes-Whole - The 1996-1997 PDP data for tomatoes (total samples = 881, number of detects=27, range of detects = 0.008 - 0.04 ppm, weighted average LOD = 0.014 ppm) were decomposited. The value of 18.3% CT was used according to the 1998 BEAD report. The RDF for not-blended food forms of tomatoes-whole contained 1000 generated detects, 26658 zeros, and 4971 repeated ½ LOD values at 0.007 ppm. The RDF for partially-blended food forms of tomatoes-whole contained 27 detects, 720 zeros, and 134 repeated ½ LOD values at 0.007 ppm.

Tomatoes, Processed - The original 1996-1997 PDP data (not decomposited) for tomatoes, with incorporating the 60% CT estimate from BEAD, were used to develop a point estimate (0.0025 ppm) for processed tomatoes which are considered blended commodities. Those included tomatoes-catsup, tomatoes-dried, tomatoes-juice, tomatoes-paste, and tomatoes-puree. The PFs of 1.6 for catsup, 0.1 for tomato juice, 2.6 for tomato paste, and 1.5 for tomato puree were applied (DP Barcode: D213099, MRID: 43554401, Bonnie Cropp-Kohlligian). The DEEM default PF of 14.3 was used for tomatoes-dried.

VI) Legume Vegetables

Peas-succulent - No PDP or FDA data for fresh green or succulent peas were available. Therefore, the PDP data for green beans from 1994-1995 (total samples = 1178, number of detects = 93, range of detects = 0.0065-1.76, weighted average LOD = 0.018 ppm) were used for all types of peas. Since peas are considered to be a partially-blended commodity, the data were used directly (no decompositing). The value of 56.8% CT for green peas was used according to the 1998 BEAD report. The RDF was applied to peas (garden)-green, and peas- succulent / blackeye. The RDF contained 93 detects, and 507 zeros and 578 repeated ½ LOD values at 0.009 ppm.

Peas-dry - No PDP or FDA data were available for dried peas. Therefore, the 1994-1995 PDP data for green beans were translated to peas-dry. Since dried peas are considered to be a blended commodity, the PDP data for green beans were used to calculate a point estimate for dried peas (0.015 ppm). The value of 8.4% CT was used according to the 1998 BEAD report.

Beans-succulent - Since beans are considered to be a partially-blended commodity, the 1994-1995 PDP data for green beans were used directly (no decompositing; total samples = 1178, number of detects = 93, range of detects = 0.0065-1.76, weighted average LOD = 0.018 ppm). The value of 19.6% CT for green beans was used according to the 1998 BEAD report. The RDF was applied to the following types of beans: succulent-broadbeans, succulent-green, succulent-hyacinth, succulent-lima, succulent-other, succulent-yellow/wax, and beans-unspecified. The RDF contained 93 detects, 947 zeros, and 138 repeated ½ LOD values at 0.009 ppm.

Beans (dry) - No PDP or FDA data were available for dried beans. Since dried beans were

considered to be blended commodities, the 1994-1995 PDP data for green beans were used to calculate a point estimate for dried beans (0.015 ppm). The value of 7.0% CT was used according to the 1998 BEAD report. The RDF was applied to the following dried beans: broad, garbanzo / chick pea, great northern, hyacinth, kidney, lima, navy, other, pigeon beans, and pinto beans.

Lentils⁴ - No PDP data or FDA data were available for lentils. The 1994-1995 PDP data for green beans were used for lentils. The values of 57% CT (for succulent peas) was used according to the 1998 BEAD report. Since lentils are considered to be a blended commodity, the PDP data for green beans were used to calculate a point estimate for lentils (0.018 ppm).

Soybeans - No detected residues were found in PDP data for soybeans (1997, omethoate not sampled, total samples = 159 for dimethoate, LOD = 0.005). Nor was there found any detected residues in the FDA data (1992-1997, total samples = 72). Since soybeans are considered to be a blended commodity, a point estimate of 0.01 ppm (based on LOD of 0.02 ppm in FDA data) was used in this assessment for soybeans and its food forms which include soybean flours (defatted, full fat, and low fat), mature seeds (dry), soybean oil, sprouted seeds, protein isolate, and soybean-other. The DEEM default PFs were used for soybean-sprouted seed (0.33).

VII) Leafy Vegetables

Celery - No detected residues were reported in the 1994 PDP data (total samples = 311) or in the 1992-1997 FDA data (total samples = 21) for celery. Since there was no other similar crop with similar use pattern that could be surrogated for celery, a RDF containing 5 repeated ½ LOD values at 0.01 ppm (based on 5%CT and LOD of 0.019 ppm in PDP data) and 95 zeros was used in this assessment. No value for % CT was cited in the 1998 BEAD report. Therefore, the registrant proposed 5% CT value was used. Since celery juice was considered to be a partially-blended commodity, the same RDF that was used for celery was also used for celery juice (95 zeros, 5 repeated ½ LOD values). The DEEM default PF of 1 was used for celery juice.

Endive (escarole) - No PDP data were available. There was only one detected residue in the 1992-1997 FDA data (total samples = 142, detected residue = 0.058 ppm, LOD = 0.02 ppm). Since endive is considered to be a partially-blended commodity, the detected value was used directly in the assessment. The estimated value of 58.5% CT (for lettuce) from BEAD was used. The RDF contained 1 detect (0.058 ppm), 59 zeros, and 82 repeated ½ LOD values at 0.01 ppm.

Head Lettuce - Decomposited 1994 PDP data (total samples = 691, number of detects = 101, range of detects for combined dimethoate and omethoate residues = 0.0045 - 0.28 ppm; weighted average LOD = 0.022 ppm) were used; 1000 values were generated and used in the RDF. The value of 58% CT for head lettuce, and 42.4% CT for lettuce-other (unspecified), according to the 1998 BEAD report were used in this assessment. The RDF for lettuce-head contained 1000 generated detects, 2839 zeros, and 3002 repeated ½ LOD values at 0.011 ppm. The RDF for

⁴ The tolerance for lentils is revoked. The established tolerance for peas applies to lentils.

lettuce-other (unspecified) contained 1000 generated detects, 3941 zeros, and 1901 repeated ½ LOD values at 0.011 ppm. Since canned lettuce-unspecified is considered to be a partially-blended commodity, direct PDP data were used for this food form. The RDF contained 101 detects, 398 zeros, and 192 repeated ½ values LOD at 0.011 ppm.

Leaf Lettuce - No PDP data were available for leaf lettuce. There were 46 detected residues reported in the 1992-1997_FDA data (total samples = 843, range of detects for combined dimethoate and omethoate residues = 0.02 - 1.7 ppm, LOD = 0.02 ppm). Since leaf lettuce is considered to be a partially-blended commodity, the FDA data were used directly. The value of 52.1% CT was used according to the 1998 BEAD report. The RDF contained 46 detects, 393 zeros, and 404 repeated ½ LOD values at 0.01 ppm.

Spinach - The 1997 PDP data for spinach (total samples = 512, number of detected residues = 66; range of detects for combined dimethoate and omethoate residues = 0.008 - 2.66 ppm; weighted average LOD = 0.016 ppm) were used. The value of 17.2% CT was used according to the 1998 BEAD report. Since spinach was considered a partially-blended commodity, the PDP data for spinach were used directly (no decompositing) and the RDF contained 66 detects, 424 zeros, and 22 repeated ½ LOD values at 0.008 ppm.

Swiss Chard - No PDP data were available for swiss chard. There was only one detected residue in the 1992-1996 FDA data (total samples = 21, detected residue = 0.056 ppm, LOD = 0.02 ppm). Since the total number of samples that the FDA data analyzed were below 100, the FDA data could not be used. Consequently, spinach data were translated to swiss chard. Since no % CT estimate was reported by BEAD for swiss chard, the 17.2% CT estimate for spinach was also used for swiss chard. The RDF was, therefore, the same as that used for spinach (66 detects, 424 zeros, and 22 repeated ½ LOD values at 0.008 ppm).

VIII) Pome Fruits

Apples - For fresh apples (single-serving), the 1998 PDP data for single-serving pear (total samples = 160, number of detects = zero, weighted average LOD = 0.017 ppm) were translated to apples incorporating 14.9% CT for apples. This was done because the use patterns for both crops were the same except the pre-harvest interval (for pear was 28 days versus 35 days for apples). The constructed RDF contained 85 zeroes and 15 repeated ½ LOD values at 0.008 ppm. For partially-blended food forms of apples (dried, canned, and frozen), the PDP data from 1994 to 1996 (total samples = 1910, number of detects = 145, range of detects = 0.005 - 0.538 ppm, weighted average LOD = 0.023) were used directly. The estimated 14.9% CT value according to the 1998 BEAD was incorporated into the RDF. Therefore, the RDF for partially-blended commodities contained 145 detects, 1625 zeros, and 140 repeated ½ LOD values at 0.011 ppm. Since dried apples are considered to be a blended-processed commodity, a point estimate (average of the all the data in RDF for the partially-blended food forms = 0.0052 ppm) was made. The DEEM default PF of 8 was used for the apples-dried.

Apple Juice/Cider/Concentrate - The 1997 PDP data for apple-juice (total samples = 683, number of detects = 187, range of detects for combined dimethoate and omethoate residues = 0.003- 0.064 ppm, weighted average LOD = 0.015 ppm) were used. Since the percent of detected residues (27%) were more than the maximum %CT estimate from BEAD (14.9%), no ½ LOD value was incorporated into the RDF. Since apple juice/cider/concentrate are considered partially-blended commodities, direct PDP data were used. The RDF contained 187 detected residues and 496 zeros. The DEEM default PF of 3 was used for apple juice-concentrate.

Pears - For fresh pears (single-serving), the 1998 PDP data for single-serving pear (total samples = 160, number of detects = zero, weighted average LOD = 0.016) were used with incorporation of 5.6% CT for pears. Therefore, the RDF contained 6 repeated ½ LOD values at 0.008 ppm and 94 zeros. Furthermore, the RDF was applied to all food forms of pears (uncooked, cooked, baked, boiled, canned) as well as pear-juice since they are considered to be either not-blended or partially-blended commodities. However, for pears-dried which is considered a blended commodity, a point estimate (average of the data in the RDF, 0.0005 ppm) was used. The DEEM default PF of 6.25 was used for dried pear.

IX) Root and Tuber Vegetables

Potatoes - Only one dimethoate residue (0.005 ppm) was reported as a detect in the 1994-1995 PDP data for potatoes (total samples = 694). No detected residues were found in the 1992-1997 FDA data (total samples = 1228; LOD = 0.02 ppm). Therefore, an RDF containing 96 zeros and 4 repeated 1/2 LOD values at 0.01 ppm (based on 3.5% CT estimate from BEAD and LOD = 0.02 ppm in FDA data) was used in this assessment. The RDF was applied to potatoes-dry, potatoes-peel, potatoes-peeled, potatoes-unspecified and potatoes-whole (all being white potatoes). For dry potatoes (a blended commodity), the value of 0.0004 (1/2 LOD X %CT) was used as a point estimate. The PFs of 0.25, 0.25, and 0.9 were used for potatoes/white-dry, potatoes/white-peeled and potatoes/white-peel-only respectively(DP Barcode: D205591, MRID: 43288202, Bonnie Cropp-Kohlligian).

Sweet Potatoes - No detected residues were reported in the 1995-1996 PDP data for sweet potatoes (total samples = 695) or the 1992-1997 FDA data (259 total samples). Therefore, an RDF containing 96 zeros and 4 repeated 1/2 LOD values at 0.01 ppm (based on 3.5% CT estimate from BEAD and LOD = 0.02 ppm in FDA data) was constructed for sweet potatoes..

Turnips - No PDP data were available for turnips (roots or tops). There were 3 detected residues in the 1992-1996 FDA data for turnip roots (total samples = 35, max = 0.145 ppm, LOD = 0.02 ppm) and 6 detected residues in the 1992-1997 FDA data for turnip green (total samples = 57, max = 0.993, LOD = 0.02 ppm) . These detected residue concentrations were considerably larger than LOD, and therefore could not be assumed to be negligible. However, since the total number of samples in FDA data were below what has been determined by the Agency to be

statistically adequate (100 samples), those data could not be used. Furthermore, there were no crops that could be translated to turnips - no crop was found that had similar use patterns with more than 30 detected residues in its monitoring data. Therefore, the tolerance of 2 ppm and 100% CT (in absence of % CT for turnips from BEAD and as was assumed by the registrant in the previous submission) for turnip roots and tops were used in the assessment.

X) Small Fruits and Berries

Blueberries - No PDP data or FDA data were available for blueberries. Therefore the tolerance of 1 ppm (import tolerance) and 85% CT (based on % import from Canada) were used in this assessment. The RDF for blueberries, which is considered to be a partially-blended commodity, contained 15 zeroes and 85 repeated tolerance values at 1 ppm.

Grapes - Grapes, grapes-leaves, and grapes-raisins are considered to be a partially-blended commodities and hence, the 1996 PDP data for grapes (total samples =525, number of detects = 106, range of total data = 0.003 - 0.089 ppm, weighted average LOD = 0.015 ppm) were used directly (no decompositing) in RDF. No ½ LODs were used since the percentage of detected residues (19%) was higher than the 13.0% CT reported from the 1998 BEAD report. Therefore, the RDF included 106 detected residues and 419 zeroes. The DEEM default PF of 4.3 was used for grapes-raisins.

Grapes-Juice/Concentrate and Grapes-Wine/Sherry - No PDP data were available for grape juice. In the 1992-1997 FDA data, only 48 (total) data for grape juice were cited with no detected residues found. However, since the total number of samples (48) were below 100, this data could not be used. Since grape juice is considered to be a partially-blended commodity, the RDF which was constructed for grapes was also applied to grapes-juice/concentrate. The DEEM default PF of 1.2 and 3.6 were used for grapes-juice and grapes-juice-concentrate respectively.

XI) Stone Fruits

Cherries - No PDP data were available for cherries. The FDA reported 33 detected residues in its 1992-1997 data (total samples = 410, range of total data : 0.01-1.02 ppm, detected residues = 33, LOD = 0.02 ppm). The estimated value of 8.7% CT from BEAD was used for cherries. Since cherries and cherries-juice are considered to be partially-blended commodities, the RDF contained 374 zeros, 33 detects, and 4 repeated ½ LOD values at 0.01 ppm. For cherries-dried, which was considered a blended commodity, the average of the data in the RDF for cherries was used as a point estimate (0.018 ppm). The DEEM default PFs of 1.5 and 4 were used for cherries-juice and cherries-dried respectively.

XII) Tree Nuts

Pecan - No PDP data were available for pecans. There were no detected residues in the 1994 FDA data (total samples = 1). No data from other crops with similar use patterns that could be

translated to pecans were available. Therefore, since pecans are considered to be a partially-blended commodity, the tolerance of 0.1 ppm and 19.4% CT (from 1998 BEAD report) were used to construct the RDF for pecans. The RDF contained 80 zeroes and 20 repeated tolerance values at 0.1 ppm.

XIII) Other Crops

Cottonseed- No PDP data or FDA data were available for cottonseed. In addition, no other crops with similar use patterns that could be translated to cotton could be found. Therefore, since cottonseed meal and cottonseed oil are considered to be blended commodities, the tolerance of 0.1 ppm and 9.9% CT were used to calculate a point estimate ($0.1 \times 10\% = 0.01$ ppm). The PF of 1.33 was used for cottonseed meal and 0.6 for cottonseed oil (Bonnie Cropp-Kohlligian, DP barcode: D206804, 2/15/96).

Safflower - No PDP data or FDA data were available for safflower. In addition, no other crops with similar use patterns that could be translated to safflower could be found. Therefore, since safflower is considered to be a blended commodity, the tolerance of 0.1 ppm and 41.1% CT were used to calculate a point estimate ($0.1 \times 41.1\% = 0.041$ ppm) for residues in safflower-seed and safflower-oil which were considered blended commodities.

Asparagus - No PDP data were available for asparagus. No detected residues were reported in the FDA data from 1992-1997 (total sample = 166). Therefore, since asparagus is considered to be a blended commodity, a point estimate of 0.01 ppm (based on the LOD = 0.02 ppm from FDA data) was used in this assessment for asparagus. A RDF was not generated since no estimate of %CT was reported by BEAD and therefore 100%CT was assumed.

XIII) Livestock Commodities

Beef / Goat / Horse / Sheep / Veal - No PDP data or FDA data were available for the meat category. The tolerance value of 0.02 ppm and 41.1% CT based on the highest % CT for any feed item (safflower) was used in the RDF. Therefore, the RDF contained 41 repeated tolerance values at 0.02 ppm and 59 zeroes.

Milk - No detected residues were reported in the 1996-1997 PDP data for milk (total samples = 1297, weighted average LOD : 0.002 ppm) or in limited FDA data from 1992-1997 (less than 20 total samples) for dimethoate and omethoate in a variety of milk and milk-based products. The highest % CT among the dairy feed items was for safflower, which was 41.1%. This value was used as % CT for milk. Therefore, a RDF containing 41 repeated $\frac{1}{2}$ LOD values at 0.001 ppm (based on weighted average LOD values in PDP data) was used in this assessment.

Pork - No PDP data or FDA data were available for pork. The tolerance value of 0.02 ppm and 41.1% CT based on highest % CT for any feed item (safflower) were used in the RDF. Therefore, the RDF contained 59 zeroes and 41 repeated tolerance values at 0.02 ppm.

Eggs/Poultry - No PDP data or FDA data were available for eggs and poultry. The tolerance value of 0.02 ppm and 7.6% CT based on highest % CT (that of wheat) were used in the RDF. Therefore, the RDF contained 92 zeros and 8 repeated tolerance values at 0.02 ppm.

RESULTS AND DISCUSSION

The results of the DEEM evaluations with and without any cooking factors are depicted in Tables 5 and 6, respectively. As it is seen from the two tables, the dietary exposure for the U.S. population and all its sub-populations are below the level of concern (<100% aPAD at the 99.9th percentile). The range of estimated dietary exposure in one assessment (all the crops were included and cooking factors were incorporated) was from 21% aPAD for female 13+/nursing sub-population to 86% aPAD for children 1-6 sub-population. The estimated dietary exposure for the U.S. population in that assessment was 41% aPAD. The range changed only minimally when the cooking factors were not incorporated in the assessment, (28% aPAD - 97% aPAD); the least and most exposed sub-populations remained the same. The estimated dietary exposure in that assessment for the U.S. population was 49% aPAD.

Table 5 - Results of the acute probabilistic dietary risk assessment for dimethoate for all the commodities. All cooking factors were incorporated.

Population / Sub-population	95 th Percentile		99 th Percentile		99.9 th Percentile	
	Exposure (mg/kg/day)	%aPAD	Exposure (mg/kg/day)	%aPAD	Exposure (mg/kg/day)	%aPAD
US (all season)	0.000355	1.77	0.003127	15.64	0.008229	41.14
All Infants (<1 year)	0.000350	1.75	0.001307	6.53	0.006265	31.32
Nursing Infants (<1 year)	0.000113	0.56	0.000958	4.79	0.004723	23.61
Non-nursing Infants (<1 year)	0.000406	2.03	0.001450	7.25	0.006748	33.74
Children (1-6 years)	0.000540	2.70	0.004169	20.85	0.017287	86.43
Children (7-12 years)	0.000260	1.30	0.002693	13.47	0.007316	36.58
Females (13+/preg/not nsg)	0.000206	1.03	0.003669	18.34	0.005813	29.07
Females (13+/nursing)	0.000774	3.87	0.003609	18.05	0.004246	21.23
Females (13-19 yrs/np/nn)	0.000163	0.82	0.002613	13.06	0.011232	56.16

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Population / Sub-population	95 th Percentile		99 th Percentile		99.9 th Percentile	
	Exposure (mg/kg/day)	%aPAD	Exposure (mg/kg/day)	%aPAD	Exposure (mg/kg/day)	%aPAD
Females (20+ years/np/nn)	0.000377	1.89	0.003328	16.64	0.007348	36.74
Females (13-50 years)	0.000193	0.97	0.002913	14.56	0.008488	42.44
Males (13-19 years)	0.000271	1.35	0.002471	12.36	0.005630	28.15
Males (20+ years)	0.000326	1.63	0.002922	14.61	0.006078	30.39
Seniors (55+)	0.001203	6.01	0.003610	18.05	0.007099	35.50
Pacific Region	0.000619	3.10	0.003057	15.28	0.007651	38.26

Table 6 - Results of the acute probabilistic dietary risk assessment for dimethoate for all the commodities. No cooking factor was incorporated.

Population / Sub-population	95 th Percentile		99 th Percentile		99.9 th Percentile	
	Exposure (mg/kg/day)	%aPAD	Exposure (mg/kg/day)	%aPAD	Exposure (mg/kg/day)	%aPAD
US (all season)	0.000421	2.11	0.003900	19.50	0.009748	48.74
All Infants (<1 year)	0.000375	1.87	0.001421	7.10	0.007004	35.02
Nursing Infants (<1 year)	0.000141	0.71	0.000985	4.92	0.004873	24.37
Non-nursing Infants (<1 year)	0.000445	2.23	0.001614	8.07	0.007605	38.02
Children (1-6 years)	0.000645	3.23	0.005132	25.66	0.019331	96.66
Children (7-12 years)	0.000316	1.58	0.003340	16.70	0.009278	46.39
Females (13+/preg/not nsg)	0.000258	1.29	0.004761	23.80	0.008529	42.65
Females (13+/nursing)	0.000865	4.33	0.004945	24.73	0.005649	28.25
Females (13-19 yrs/np/nn)	0.000215	1.08	0.003104	15.52	0.015428	77.14
Females (20+ years/np/nn)	0.000446	2.23	0.004131	20.65	0.009174	45.87
Females (13-50 years)	0.000240	1.20	0.0003603	18.01	0.009173	45.87
Males (13-19 years)	0.000344	1.72	0.002979	14.89	0.007330	36.65
Males (20+ years)	0.000386	1.93	0.003723	18.61	0.007178	35.89
Seniors (55+)	0.001441	7.20	0.004421	22.10	0.009141	45.70

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Table 6 - Results of the acute probabilistic dietary risk assessment for dimethoate for all the commodities. No cooking factor was incorporated.

Pacific Region	0.000714	3.57	0.003762	18.81	0.008563	42.82
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cc: D. Lock (RRB2), M. Sahafeyan, RF, SF
RDI: DEEM SAC (Reviewers: David Soderberg, William Donovan), Francis Suhre :8/18/99
7509C: CM2 : Rm 811A : 305-6872 : M. Sahafeyan: M.S. : 8/18/99

LIST OF ATTACHMENTS:

Attachment 1: Table of raw data for all the commodities

Attachment 2: Residue file for all commodities with all the cooking factors being incorporated.

Attachment 3: The exposure for all commodities with all the cooking factors being incorporated.

Attachment 4: Residue file for all commodities without any cooking factors being incorporated.

Attachment 5: The exposure for all commodities without any cooking factors being incorporated.

Attachment 1: Table of raw data for all the commodities

Commodity	Data				RDF				%CT	comments	
	Data Source	Yr(s)	# Samples	# Det.	Range of Det. (ppm)	# Data	# Det	# 1/2 LOD ³ Zeros			1/2 LOD (ppm) ⁴
Apples (NB) ⁶	Pear, single-serving	98	160	0	NA	130	0	15	55	0.008	14.9% NB ⁵ : Pear (single-serving) PDP data were used
Apples (PB) ⁷	Apples (PDP)	94-96	1910	145	0.005-0.538	1810	145	140	1625	0.011	14.9% PB ⁷
Apples (B) ⁸	Apples (PDP)	94-96	1910	145	0.005-0.538	NA	NA	NA	NA	NA	B ⁸ : point estimate = 0.0052 ppm
Apples Juice	Apples Juice (PDP)	97	683	187	0.003-0.064	683	187	0	496	0.007	PB: no 1/2 LOD value was used in RDF since %detects > %CT
Asparagus (NB, PB)	Asparagus (FDA)	92-97	166	0	NA	NA	NA	NA	NA	NA	Tolerance was used as point estimate for NB and
Blueberries	Tolerance (1 ppm)	NA	NA	NA	NA	100	85	0	15	NA	PB: tolerance used in RDF
Broccoli (NB)	Broccoli (PDP)	94	680	14	0.0065-0.036	680	13	245	422	0.010	NB: PDP data were used directly (detects were near LOD)
Beans, Dry (B)	Green Beans (PDP)	94-95	1178	93	0.0065-1.76	NA	NA	NA	NA	NA	B: point estimate = 0.015 ppm
Beans, Succulent (PB)	Green Beans (PDP)	94-95	1178	93	0.0065-1.76	1178	93	138	947	0.009	PB
Brussels Sprouts	Lettuce (PDP)	94	691	101	0.0045-0.28	691	101	550	0	0.011	PB
Cabbage (not-processed)	Tolerance (2 ppm)	NA	NA	NA	NA	100	25	0	75	NA	NB: tolerance was used in RDF; different %CT for processed & not-processed
Cabbage (processed)	Tolerance (2 ppm)	NA	NA	NA	NA	100	51	0	39	NA	PB: tolerance was used in RDF; different %CT for processed & not-processed
Cantaloupe	Tolerance (1 ppm)	NA	NA	NA	NA	100	13	0	77	NA	NB : tolerance was used in RDF
Cauliflowers (NB)	cauliflower (FDA)	92-97	246	0	NA	100	0	38	62	0.010	NB: no detects were found; 1/2 LOD = 0.01 was used in RDF
Celery (NB)	Celery (PDP)	94	311	0	NA	100	0	5	95	0.010	NB: no detects were found; 1/2 LOD = 0.01 was used in RDF; 5% CT was from registrant
Celery Juice (PB)	Celery (PDP)	94	311	0	NA	100	0	5	95	0.010	PB: no detects were found; 1/2 LOD = 0.01 was used in RDF
Cherries (B)	Cherries (FDA)	92-97	410	33	0.02-1.02	NA	NA	NA	NA	NA	B: point estimate = 0.018 ppm
Cherries (PB)	Cherries (FDA)	92-97	410	33	0.02-1.02	410	33	4	374	0.010	PB

25954

Commodity	Data				RDF				%CT	comments		
	Data Source	Yr(s)	# Samples	# Del.	Range of Det. (ppm)	# Data	# Def.	# 1/2 LOD Zeros			# 1/2 LOD (ppm)	
Collards (PB)	Collards (FDA)	92-97	145	5	0.17-1.84	145	5	53	87	0.01	40%	PB
Cottonseed (oil and meal)	Tolerance (0.1 ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.9%	B: point estimate = tolerance X %CT = 0.01
Endive-escarole (PB)	Endive (FDA)	92-97	142	1	0.058	142	7	82	59	0.010	58.5%	PB
Eggs/Poultry (NB)	Tolerance (0.02 ppm)	NA	NA	NA	NA	100	8	NA	92	NA	7.6%	NB: tolerance was used in RDF
Field Corn (B)	Tolerance (0.1 ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NA	1%	B: point estimate = tolerance X %CT = 0.001
Grapes (PB)	Grapes (PDP)	96	525	106	0.0065-0.89	525	106	0	419	0.007	13%	PB: no 1/2 LOD was used in RDF since %detects > %CT
Grape-Juice/Concentrate (PB)	Orange Juice (PDP)	97	692	0	NA	100	0	8	92	0.008	8.5%	PB
Grapefruit (NB)	Grapefruit (FDA)	92-97	151	1	0.05	151	1	11	139	0.010	8.5%	Not-Blended: FDA data were used directly since detects were near LOD
Grapefruit Juice/Conc. (PB)	Grapefruit (FDA)	92-98	151	1	0.05	151	1	11	139	0.010	8.5%	PB: (PF: 0.23 & 0.92 for Juice & Conc)
Honeydew (NB)	Tolerance (1 ppm)	NA	NA	NA	NA	100	48	0	51	NA	48.8%	NB: tolerance was used in RDF
Kale (PB)	Kale (FDA)	92-97	112	1	0.15	112	7	111	0	0.01	100%	PB
Lemons (NB)	Oranges (PDP)	94-97	1914	28	0.008-0.050	1914	28	1090	28437	0.011	58.4%	NB: decomposed data
Lemons (PB)	Oranges (PDP)	94-97	1914	28	0.008-0.050	1914	28	1090	795	0.011	58.4%	PB
Lemon Juice	Orange Juice (PDP)	97	692	0	NA	100	0	58	42	0.008	58.4%	PB
Lentiles	Green Beans (PDP)	94-95	1178	93	0.0065-1.76	NA	NA	NA	NA	NA	57%	B: point estimate = 0.018 ppm
Lettuce, Head (NB)	Lettuce (PDP)	94	691	101	0.0045-0.28	6842	1000	3002	2839	0.011	58.5%	NB: decomposed data
Leaf Lettuce (PB)	Leaf Lettuce (FDA)	92-97	843	46	0.02-1.7	843	46	393	404	0.010	52.1%	PB
Lettuce-Others (NB)	Lettuce (PDP)	94	691	101	0.0045-0.28	6842	1000	1901	3941	0.011	42.4%	NB: decomposed data
Lettuce-Others (PB)	Lettuce (PDP)	94	691	101	0.0045-0.28	691	101	192	395	0.011	42.4%	PB

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Commodity	Data				RDF				%CT	comments	
	Data Source	Yr(s)	# Samples	# Data Det.	Range of Det. (ppm)	# Data Det.	# 1/2 LOD Zeros	# 1/2 LOD (ppm)			
Meat (NB)	Tolerance (0.02 ppm)	NA	NA	NA	NA	100	41	0	NA	41.1%	NB : tolerance was used in RDF
Melons(NB)	Tolerance (1 ppm)	NA	NA	NA	NA	100	18	0	NA	18.3%	NB : tolerance was used in RDF
Milk(NB)	Milk (PDP)	96-97	1297	0	NA	100	0	41	0.001	41.1%	NB: no detects were found; 1/2 LOD = 0.001 was used in RDF
Mustard Greens	Spinach (PDP)	97	512	66	0.008-2.66	512	66	199	0.008	51.6%	PB
Oranges (NB)	Oranges (PDP)	94-96	1914	28	0.008-0.050	88357	1000	5631	0.011	9.7%	NB: decomposited data
Oranges (PB)	Oranges (PDP)	94-96	1914	28	0.008-0.050	1914	28	155	0.011	9.7%	PB
Orange Juice/Conc. (PB)	Orange Juice (PDP)	97	692	0	NA	100	0	10	0.008	9.7%	PB
Pears (NB & PB)	Pear, single-serving (PDP)	98	160	0	NA	100	0	8	0.008	5.6%	NB and PB: direct PDP data for single-serving pears were used
Pears (B)	Pear, single-serving (PDP)	98	160	0	NA	NA	NA	NA	NA	5.6%	B: point estimate = 0.0005 ppm
Peas, Dry (B)	Green Beans (PDP)	94-95	1178	93	0.0065-1.76	NA	NA	NA	NA	8.4%	B: point estimate = 0.015 ppm
Peas, Succulent	Green Beans (PDP)	94-95	1178	93	0.0065-1.76	1178	93	575	0.009	56.8%	PB
Pecan (PB)	Tolerance (0.1 ppm)	NA	NA	NA	NA	100	20	0	NA	19.4%	PB: tolerance used in RDF
Pepper, hot (NB)	Tomato (PDP)	96-97	881	27	0.008-0.04	32630	1000	2393	0.007	10.4%	NB: decomposited data
Pepper, hot (PB)	Tomato (PDP)	96-97	881	27	0.008-0.04	881	27	65	0.007	10.4%	PB
Pepper, sweet (NB)	Sweet Pepper (FDA)	92-97	366	32	0.0132-2	17438	1000	4410	0.010	47.3%	NB: decomposited data
Pepper, sweet (PB)	Sweet Pepper (FDA)	92-97	366	32	0.0132-2	366	32	141	0.010	47.3%	PB
Popcorn	Tolerance (0.1 ppm)	NA	NA	NA	NA	NA	NA	NA	NA	1%	B: point estimate = tolerance X %CT = 0.001 ppm
Pork (NB)	Tolerance (0.02 ppm)	NA	NA	NA	NA	100	41	0	NA	41.1%	NB : tolerance was used in RDF
Potato (NB)	Potato (FDA)	92-97	1228	0	NA	100	0	4	0.010	3.5%	NB: no detects were found; 1/2 LOD = 0.01 was used in RDF
Potato-dry (B)	Potato (FDA)	92-97	1228	0	NA	NA	NA	NA	NA	3.5%	B: point estimate = 0.0004= (1/2 LOD X %CT)
Safflower(B)	Tolerance (0.1 ppm)	NA	NA	NA	NA	NA	NA	NA	NA	41.1%	B: point estimate = tolerance X %CT = 0.041

27950

Commodity	Data				RDF				%CT	comments		
	Data Source	Yr(s)	# Samples	# Det.	Range of Det. (ppm)	# Data	# Def.	# 1/2 LOD			# Zeros	1/2 LOD (Bppt)
Sorghum	(FDA) & FTD ⁹	92-97	3	0	NA	NA	NA	NA	NA	NA	1.3%	B: no defects were found; 1/2 LOD X %CT = 0.0001 (point estimate)
Soybeans	(FDA)	92-97	72	0	NA	NA	NA	NA	NA	NA	1%	B: no defects were found; 1/2 LOD was used as a point estimate (0.01 ppm)
Spinach	(PDP)	97	512	66	0.008-2.66	512	66	22	424	0.008	17.2%	PB
Sweet Potato	(FDA)	92-97	259	0	NA	100	0	4	96	0.010	3.5%	NB: no defects were found; 1/2 LOD = 0.01 was used in RDF
Swiss Chard	(PDP)	97	512	66	0.008-2.66	512	66	22	424	0.008	17.2%	PB
Tangerines	(PDP)	94-96	1914	28	0.008-0.050	53357	1000	13970	53387	0.011	21.9%	NB: decomposited data
Tangerines (PB)	(PDP)	94-96	1914	28	0.008-0.050	1914	28	391	1495	0.011	21.9%	PB
Tangerine Juice	(PDP)	97	692	0	NA	100	0	22	78	0.008	21.9%	PB
Tomato (NB)	(PDP)	96-97	881	27	0.008-0.04	32530	1000	4971	26658	0.007	18.3%	NB: decomposited data
Tomato (PB)	(PDP)	96-97	881	27	0.008-0.04	881	27	154	720	0.007	18.3%	PB
Tomato (B)	(PDP)	96-97	881	27	0.008-0.04	NA	NA	NA	NA	NA	60%	B: point estimate = 0.0025 ppm
Turnips-roots and tops (NB)	(2 ppm)	NA	NA	NA	NA	NA	NA	NA	NA	NA	100%	NB: Not sufficient data; Tolerance was used as point estimate
Watermelons	(1 ppm)	NA	NA	NA	NA	100	0	0	92	NA	8.2%	NB : tolerance was used in RDF
Wheat	(FDA)	92-97	142	0	NA	NA	NA	NA	NA	NA	7.6%	B: no defects were found; 1/2 LOD was used as

1. # samples = total number of samples (data) in monitoring data
2. # Det. = number of detects
3. # Data = total number of data in RDF
4. 1/2 LOD (ppm) = weighted average LOD from monitoring data that was used in RDF
5. # 1/2 LOD = total number of 1/2 LOD values that were used in RDF
6. NB= Not-blended (commodity)
7. PB= Partially-blended (commodity)
8. B= Blended (commodity)
9. FTD = field trial data

Attachment 2: Residue file for all commodities with all the cooking factors being incorporated.

2895

Filename: C:\deem\dimethoate\dimeth-all-2-CF.R96

Chemical name: dimethoate

RfD(Chronic): 0 mg/kg bw/day NOEL(Chronic): 0 mg/kg bw/day

RfD(Acute): .02 mg/kg bw/day NOEL(Acute): 2 mg/kg bw/day

Date created/last modified: 08-02-1999/08:55:42/8

Program ver. 6.77

NOTE: NOT ALL THE RDFs WERE USED.

RDF indices and file names for Monte Carlo Analysis

- 1 LT-other.rdf
- 2 LeafLT.rdf
- 3 lettuce-head.rdf
- 4 tomato-comingled.rdf
- 5 WH.rdf
- 6 spinach.rdf
- 7 spinach-comingled.rdf
- 8 COLLARDS.rdf
- 9 Kale.rdf
- 10 BR.rdf
- 11 GRAPEFRUITS.rdf
- 12 OR.rdf
- 13 LEMON.rdf
- 14 tangerine.rdf
- 15 grapes-comingled.rdf
- 16 AP.rdf
- 17 AJ-2.rdf
- 18 TO.rdf
- 19 pepper-sweet-comingled.rdf
- 20 pepper-sweet.rdf
- 21 Pepper-hot.rdf
- 22 Beans-Green-comingled-94-5.rdf
- 23 endives.rdf
- 24 swiss chard.rdf
- 25 Pear-single-serving.rdf
- 26 pears-comingled.rdf
- 27 PT.rdf
- 28 cherries-comingled.rdf
- 29 MustardGreen-2.rdf
- 30 celery.rdf
- 31 Milk.rdf
- 32 Meat.rdf
- 33 Egg-Poultry.rdf
- 34 Cabbage-non-Processed.rdf
- 35 CAUL.rdf
- 36 cottonseed.rdf
- 37 safflower.rdf
- 38 cantaloup.rdf
- 39 honeydew.rdf
- 40 watermelon.rdf
- 41 melons.rdf
- 42 pecans.rdf
- 43 sweet PT.rdf
- 44 Apple-comingled.rdf
- 45 Apple-blended.rdf
- 46 blueberries-comingled.rdf
- 47 Cabbage-Processed.rdf
- 48 Collards-comingled.rdf
- 49 Kale-comingled.rdf
- 50 lemon-comingled.rdf
- 51 Let-unsp-comingled.rdf
- 52 OR-comingled.rdf
- 53 pears-blended.rdf
- 54 SweetPeas-comingled-94-5.rdf
- 55 Pepper-hot-comingled.rdf
- 56 tangerines-comingled.rdf
- 57 brusselsSp-comingled.rdf
- 58 orangeJuice.rdf
- 59 lemonJuice.rdf
- 60 grapefruit-juice.rdf
- 61 tangerineJuice.rdf
- 62 apple-PXtranslate.rdf

Food Code	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj. Factors #1	#2	Comment
52	11	Apples					
		11-Uncooked	1.000000	62	1.000	1.000	
		12-Cooked: NFS	1.000000	62	0.700	1.000	
		13-Baked	1.000000	62	0.700	1.000	
		14-Boiled	1.000000	62	0.700	1.000	
		15-Fried	1.000000	62	0.700	1.000	
		18-Dried	1.000000	44	1.000	1.000	
		31-Canned: NFS	1.000000	44	1.000	1.000	
		32-Canned: Cooked	1.000000	44	0.700	1.000	
		33-Canned: Baked	1.000000	44	0.700	1.000	
		34-Canned: Boiled	1.000000	44	0.700	1.000	
		42-Frozen: Cooked	1.000000	44	0.700	1.000	
53	11	Apples-dried					
		13-Baked	0.005200	0	5.600	1.000	
		14-Boiled	0.005200	0	5.600	1.000	
		18-Dried	0.005200	0	8.000	1.000	
		42-Frozen: Cooked	0.005200	0	5.600	1.000	
54	11	Apples-juice/cider					
		11-Uncooked	1.000000	17	1.000	1.000	
		12-Cooked: NFS	1.000000	17	0.700	1.000	
		14-Boiled	1.000000	17	0.700	1.000	
		31-Canned: NFS	1.000000	17	1.000	1.000	
		41-Frozen: NFS	1.000000	17	1.000	1.000	
377	11	Apples-juice-concentrate					
		12-Cooked: NFS	1.000000	17	2.100	1.000	
		13-Baked	1.000000	17	2.100	1.000	
		31-Canned: NFS	1.000000	17	3.000	1.000	
		41-Frozen: NFS	1.000000	17	3.000	1.000	
260	0	Asparagus					
		11-Uncooked	0.010000	0	1.000	1.000	
		14-Boiled	0.010000	0	0.700	1.000	
		32-Canned: Cooked	0.010000	0	0.700	1.000	
		42-Frozen: Cooked	0.010000	0	0.700	1.000	
258	6C	Beans-dry-blackeye peas/cowpea	0.015000	0	1.000	1.000	
249	6C	Beans-dry-broadbeans	0.015000	0	1.000	1.000	
259	6C	Beans-dry-garbanzo/chick pea					
		12-Cooked: NFS	0.015000	0	0.700	1.000	
		14-Boiled	0.015000	0	0.700	1.000	
		15-Fried	0.015000	0	0.700	1.000	
		32-Canned: Cooked	0.015000	0	0.700	1.000	
227	6C	Beans-dry-great northern	0.015000	0	1.000	1.000	
256	6C	Beans-dry-hyacinth	0.015000	0	1.000	1.000	
228	6C	Beans-dry-kidney					
		12-Cooked: NFS	0.015000	0	0.700	1.000	
		13-Baked	0.015000	0	0.700	1.000	
		14-Boiled	0.015000	0	0.700	1.000	
		32-Canned: Cooked	0.015000	0	0.700	1.000	
		34-Canned: Boiled	0.015000	0	0.700	1.000	
		42-Frozen: Cooked	0.015000	0	0.700	1.000	
229	6C	Beans-dry-lima					
		14-Boiled	0.015000	0	0.700	1.000	
		32-Canned: Cooked	0.015000	0	0.700	1.000	
230	6C	Beans-dry-navy (pea)					
		32-Canned: Cooked	0.015000	0	0.700	1.000	
		34-Canned: Boiled	0.015000	0	0.700	1.000	
231	6C	Beans-dry-other					
		12-Cooked: NFS	0.015000	0	0.700	1.000	
		13-Baked	0.015000	0	0.700	1.000	
		14-Boiled	0.015000	0	0.700	1.000	
		15-Fried	0.015000	0	0.700	1.000	
		34-Canned: Boiled	0.015000	0	0.700	1.000	
251	6C	Beans-dry-pigeon beans	0.015000	0	1.000	1.000	
232	6C	Beans-dry-pinto					
		12-Cooked: NFS	0.015000	0	0.700	1.000	
		13-Baked	0.015000	0	0.700	1.000	
		14-Boiled	0.015000	0	0.700	1.000	
		15-Fried	0.015000	0	0.700	1.000	
		32-Canned: Cooked	0.015000	0	0.700	1.000	
		42-Frozen: Cooked	0.015000	0	0.700	1.000	
250	6B	Beans-succulent-broadbeans	1.000000	22	1.000	1.000	

234	6A	Beans-succulent-green				
		11-Uncooked	1.000000	22	1.000	1.000
		12-Cooked: NFS	1.000000	22	0.700	1.000
		14-Boiled	1.000000	22	0.700	1.000
		31-Canned: NFS	1.000000	22	1.000	1.000
		32-Canned: Cooked	1.000000	22	0.700	1.000
		34-Canned: Boiled	1.000000	22	0.700	1.000
		42-Frozen: Cooked	1.000000	22	0.700	1.000
		44-Frozen: Boiled	1.000000	22	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	22	1.000	1.000
257	6	Beans-succulent-hyacinth	1.000000	22	1.000	1.000
233	6B	Beans-succulent-lima				
		11-Uncooked	1.000000	22	1.000	1.000
		12-Cooked: NFS	1.000000	22	0.700	1.000
		14-Boiled	1.000000	22	0.700	1.000
		32-Canned: Cooked	1.000000	22	0.700	1.000
		42-Frozen: Cooked	1.000000	22	0.700	1.000
		44-Frozen: Boiled	1.000000	22	0.700	1.000
235	6A	Beans-succulent-other				
		34-Canned: Boiled	1.000000	22	0.700	1.000
236	6A	Beans-succulent-yellow/wax				
		14-Boiled	1.000000	22	0.700	1.000
		32-Canned: Cooked	1.000000	22	0.700	1.000
		42-Frozen: Cooked	1.000000	22	0.700	1.000
253	6	Beans-unspecified	1.000000	22	1.000	1.000
323	M	Beef-dried	1.000000	32	1.920	1.000
324	M	Beef-fat w/o bones				
		11-Uncooked	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	0.700	1.000
		34-Canned: Boiled	1.000000	32	0.700	1.000
		42-Frozen: Cooked	1.000000	32	0.700	1.000
		45-Frozen: Fried	1.000000	32	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		59-Cured: Dried (smokd/pickld/saltd)	1.000000	32	1.000	1.000
325	M	Beef-kidney				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
327	M	Beef-lean (fat/free) w/o bones				
		11-Uncooked	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	0.700	1.000
		33-Canned: Baked	1.000000	32	0.700	1.000
		34-Canned: Boiled	1.000000	32	0.700	1.000
		42-Frozen: Cooked	1.000000	32	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		59-Cured: Dried (smokd/pickld/saltd)	1.000000	32	1.000	1.000
326	M	Beef-liver				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
321	M	Beef-meat byproducts				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
322	M	Beef-other organ meats				

		12-Cooked: NFS	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
7	13B	Blueberries				
		11-Uncooked	1.000000	46	1.000	1.000
		12-Cooked: NFS	1.000000	46	0.700	1.000
		13-Baked	1.000000	46	0.700	1.000
		14-Boiled	1.000000	46	0.700	1.000
		15-Fried	1.000000	46	0.700	1.000
		31-Canned: NFS	1.000000	46	1.000	1.000
		41-Frozen: NFS	1.000000	46	1.000	1.000
452	5B	Bok choy				
		11-Uncooked	1.000000	34	1.000	1.000
		12-Cooked: NFS	1.000000	47	0.700	1.000
		14-Boiled	1.000000	47	0.700	1.000
		42-Frozen: Cooked	1.000000	47	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	47	1.000	1.000
168	5A	Broccoli				
		11-Uncooked	1.000000	10	1.000	1.000
		12-Cooked: NFS	1.000000	10	0.700	1.000
		13-Baked	1.000000	10	0.700	1.000
		14-Boiled	1.000000	10	0.700	1.000
		15-Fried	1.000000	10	0.700	1.000
		32-Canned: Cooked	1.000000	10	0.700	1.000
		42-Frozen: Cooked	1.000000	10	0.700	1.000
		44-Frozen: Boiled	1.000000	10	0.700	1.000
169	5A	Brussels sprouts				
		14-Boiled	1.000000	57	0.700	1.000
		42-Frozen: Cooked	1.000000	57	0.700	1.000
170	5A	Cabbage-green and red				
		11-Uncooked	1.000000	34	1.000	1.000
		12-Cooked: NFS	1.000000	47	0.700	1.000
		13-Baked	1.000000	47	0.700	1.000
		14-Boiled	1.000000	47	0.700	1.000
		15-Fried	1.000000	47	0.700	1.000
		31-Canned: NFS	1.000000	47	1.000	1.000
		32-Canned: Cooked	1.000000	47	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	47	1.000	1.000
383	5B	Cabbage-savoy				
		12-Cooked: NFS	1.000000	47	0.700	1.000
143	9A	Casabas				
		11-Uncooked	1.000000	41	1.000	1.000
171	5A	Cauliflower				
		11-Uncooked	1.000000	35	1.000	1.000
		12-Cooked: NFS	1.000000	35	0.700	1.000
		14-Boiled	1.000000	35	0.700	1.000
		15-Fried	1.000000	35	0.700	1.000
		42-Frozen: Cooked	1.000000	35	0.700	1.000
166	4B	Celery				
		11-Uncooked	1.000000	30	1.000	1.000
		12-Cooked: NFS	1.000000	30	0.700	1.000
		13-Baked	1.000000	30	0.700	1.000
		14-Boiled	1.000000	30	0.700	1.000
		15-Fried	1.000000	30	0.700	1.000
		31-Canned: NFS	1.000000	30	1.000	1.000
		32-Canned: Cooked	1.000000	30	0.700	1.000
		34-Canned: Boiled	1.000000	30	0.700	1.000
		42-Frozen: Cooked	1.000000	30	0.700	1.000
384	4B	Celery juice	1.000000	30	1.000	1.000
61	12	Cherries				
		11-Uncooked	1.000000	28	1.000	1.000
		12-Cooked: NFS	1.000000	28	0.700	1.000
		13-Baked	1.000000	28	0.700	1.000
		14-Boiled	1.000000	28	0.700	1.000
		31-Canned: NFS	1.000000	28	1.000	1.000
		33-Canned: Baked	1.000000	28	0.700	1.000
		41-Frozen: NFS	1.000000	28	1.000	1.000
62	12	Cherries-dried	0.018000	0	4.000	1.000
63	12	Cherries-juice				
		13-Baked	1.000000	28	1.000	1.000

		14-Boiled	1.000000	28	1.000	1.000
		31-Canned: NFS	1.000000	28	1.500	1.000
		41-Frozen: NFS	1.000000	28	1.500	1.000
366	P	Chicken-byproducts				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
368	P	Chicken-fat w/o bones				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
367	P	Chicken-giblets(liver)				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
385	P	Chicken-giblets (excl. liver)				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
369	P	Chicken-lean/fat free w/o bones				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
172	5B	Collards				
		14-Boiled	1.000000	8	0.700	1.000
		32-Canned: Cooked	1.000000	8	0.700	1.000
		42-Frozen: Cooked	1.000000	8	0.700	1.000
267	15	Corn grain-bran				
		12-Cooked: NFS	0.001000	0	0.800	1.000
		13-Baked	0.001000	0	0.800	1.000
		14-Boiled	0.001000	0	0.800	1.000
		15-Fried	0.001000	0	0.800	1.000
		31-Canned: NFS	0.001000	0	1.000	1.000
266	15	Corn grain-endosperm				
		11-Uncooked	0.001000	0	0.400	1.000
		12-Cooked: NFS	0.001000	0	0.300	1.000
		13-Baked	0.001000	0	0.300	1.000
		14-Boiled	0.001000	0	0.300	1.000
		15-Fried	0.001000	0	0.300	1.000
		31-Canned: NFS	0.001000	0	0.400	1.000
		32-Canned: Cooked	0.001000	0	0.300	1.000
		33-Canned: Baked	0.001000	0	0.300	1.000
		34-Canned: Boiled	0.001000	0	0.300	1.000
		41-Frozen: NFS	0.001000	0	0.400	1.000
		42-Frozen: Cooked	0.001000	0	0.300	1.000
		43-Frozen: Baked	0.001000	0	0.300	1.000
		45-Frozen: Fried	0.001000	0	0.300	1.000
		99-Alcohol/Fermented/Distilled	0.001000	0	0.400	1.000
289	15	Corn grain-oil				
		98-Refined	0.001000	0	0.300	1.000
268	15	Corn grain/sugar/hfcs				
		98-Refined	0.001000	0	1.500	1.000
388	15	Corn grain/sugar-molasses				
		12-Cooked: NFS	0.001000	0	1.200	1.000
		41-Frozen: NFS	0.001000	0	1.500	1.000
237	15	Corn/pop				
		12-Cooked: NFS	0.001000	0	0.800	1.000
		13-Baked	0.001000	0	0.800	1.000
291	0	Cottonseed-meal				
		13-Baked	0.010000	0	0.700	1.000
290	0	Cottonseed-oil				
		98-Refined	0.010000	0	0.600	1.000

144	9A	Crenshaws	1.000000	39	1.000	1.000
364	P	Eggs-white only				
		11-Uncooked	1.000000	33	1.000	1.000
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		41-Frozen: NFS	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
363	P	Eggs-whole				
		11-Uncooked	1.000000	33	1.000	1.000
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		41-Frozen: NFS	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
		45-Frozen: Fried	1.000000	33	0.700	1.000
365	P	Eggs-yolk only				
		11-Uncooked	1.000000	33	1.000	1.000
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		41-Frozen: NFS	1.000000	33	1.000	1.000
178	4A	Endive-curley and escarole				
		11-Uncooked	1.000000	23	1.000	1.000
		12-Cooked: NFS	1.000000	23	0.700	1.000
330	M	Goat-fat w/o bone				
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
331	M	Goat-kidney	1.000000	32	1.000	1.000
333	M	Goat-lean (fat/free) w/o bone				
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
332	M	Goat-liver	1.000000	32	1.000	1.000
328	M	Goat-meat byproducts	1.000000	32	1.000	1.000
329	M	Goat-other organ meats	1.000000	32	1.000	1.000
23	10	Grapefruit-juice				
		11-Uncooked	1.000000	60	1.200	1.000
		31-Canned: NFS	1.000000	60	1.200	1.000
441	10	Grapefruit-juice-concentrate				
		41-Frozen: NFS	1.000000	60	4.600	1.000
448	10	Grapefruit peel	1.000000	11	1.000	1.000
22	10	Grapefruit-peeled fruit				
		11-Uncooked	1.000000	11	1.000	1.000
		12-Cooked: NFS	1.000000	11	0.700	1.000
		31-Canned: NFS	1.000000	11	1.000	1.000
13	O	Grapes				
		11-Uncooked	1.000000	15	1.000	1.000
		12-Cooked: NFS	1.000000	15	0.700	1.000
		31-Canned: NFS	1.000000	15	1.000	1.000
		41-Frozen: NFS	1.000000	15	1.000	1.000
15	O	Grapes-juice				
		11-Uncooked	1.000000	15	1.200	1.000
		12-Cooked: NFS	1.000000	15	0.840	1.000
		14-Boiled	1.000000	15	0.840	1.000
		31-Canned: NFS	1.000000	15	1.200	1.000
		34-Canned: Boiled	1.000000	15	0.840	1.000
		41-Frozen: NFS	1.000000	15	1.200	1.000
392	O	Grapes-juice-concentrate				
		12-Cooked: NFS	1.000000	15	2.500	1.000
		13-Baked	1.000000	15	2.500	1.000
		14-Boiled	1.000000	15	2.500	1.000
		31-Canned: NFS	1.000000	15	3.600	1.000
		41-Frozen: NFS	1.000000	15	3.600	1.000

195	O	Grapes-leaves				
		14-Boiled	1.000000	15	0.700	1.000
14	O	Grapes-raisins				
		11-Uncooked	1.000000	15	1.000	1.000
		12-Cooked: NFS	1.000000	15	0.700	1.000
		13-Baked	1.000000	15	0.700	1.000
		14-Boiled	1.000000	15	0.700	1.000
		18-Dried	1.000000	15	1.000	1.000
		42-Frozen: Cooked	1.000000	15	0.700	1.000
315	O	Grapes-wine and sherry	1.000000	15	1.000	1.000
334	M	Horsemeat	1.000000	32	1.000	1.000
174	5B	Kale				
		12-Cooked: NFS	1.000000	9	0.700	1.000
		14-Boiled	1.000000	9	0.700	1.000
		32-Canned: Cooked	1.000000	9	0.700	1.000
28	10	Lemons-juice				
		11-Uncooked	1.000000	59	1.100	1.000
		12-Cooked: NFS	1.000000	59	0.770	1.000
		13-Baked	1.000000	59	0.770	1.000
		14-Boiled	1.000000	59	0.770	1.000
		15-Fried	1.000000	59	0.770	1.000
		31-Canned: NFS	1.000000	59	1.100	1.000
		32-Canned: Cooked	1.000000	59	0.770	1.000
		34-Canned: Boiled	1.000000	59	0.770	1.000
		41-Frozen: NFS	1.000000	59	1.100	1.000
		42-Frozen: Cooked	1.000000	59	0.770	1.000
442	10	Lemons-juice-concentrate				
		12-Cooked: NFS	1.000000	59	4.400	1.000
		13-Baked	1.000000	59	4.400	1.000
		14-Boiled	1.000000	59	4.400	1.000
		31-Canned: NFS	1.000000	59	6.300	1.000
		34-Canned: Boiled	1.000000	59	4.400	1.000
		41-Frozen: NFS	1.000000	59	6.300	1.000
27	10	Lemons-peel				
		11-Uncooked	1.000000	50	46.000	1.000
		13-Baked	1.000000	50	32.000	1.000
		14-Boiled	1.000000	50	32.000	1.000
		31-Canned: NFS	1.000000	50	46.000	1.000
		34-Canned: Boiled	1.000000	50	32.000	1.000
		41-Frozen: NFS	1.000000	50	46.000	1.000
26	10	Lemons-peeled fruit				
		11-Uncooked	1.000000	13	1.000	1.000
		12-Cooked: NFS	1.000000	13	32.000	1.000
		31-Canned: NFS	1.000000	50	1.000	1.000
243	6C	Lentils				
		14-Boiled	0.018000	0	0.700	1.000
182	4A	Lettuce-unspecified				
		31-Canned: NFS	1.000000	1	1.000	1.000
176	4A	Lettuce-leafy varieties				
		11-Uncooked	1.000000	2	1.000	1.000
192	4A	Lettuce-head varieties				
		11-Uncooked	1.000000	3	1.000	1.000
141	9A	Melons-cantaloupes-juice	1.000000	38	1.000	1.000
142	9A	Melons-cantaloupes-pulp				
		11-Uncooked	1.000000	38	1.000	1.000
145	9A	Melons-honeydew				
		11-Uncooked	1.000000	39	1.000	1.000
146	9A	Melons-persian	1.000000	41	1.000	1.000
398	D	Milk-based water				
		12-Cooked: NFS	1.000000	31	0.700	1.000
		13-Baked	1.000000	31	0.700	1.000
		14-Boiled	1.000000	31	0.700	1.000
		15-Fried	1.000000	31	0.700	1.000
		16-Pasteurized	1.000000	31	0.700	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	0.700	1.000
		33-Canned: Baked	1.000000	31	0.700	1.000
		34-Canned: Boiled	1.000000	31	0.700	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	0.700	1.000
		43-Frozen: Baked	1.000000	31	0.700	1.000
		45-Frozen: Fried	1.000000	31	0.700	1.000

		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	31	1.000	1.000
319	D	Milk-fat solids				
		12-Cooked: NFS	1.000000	31	0.700	1.000
		13-Baked	1.000000	31	0.700	1.000
		14-Boiled	1.000000	31	0.700	1.000
		15-Fried	1.000000	31	0.700	1.000
		16-Pasteurized	1.000000	31	1.000	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	0.700	1.000
		34-Canned: Boiled	1.000000	31	0.700	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	0.700	1.000
		45-Frozen: Fried	1.000000	31	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	31	1.000	1.000
318	D	Milk-nonfat solids				
		12-Cooked: NFS	1.000000	31	0.700	1.000
		13-Baked	1.000000	31	0.700	1.000
		14-Boiled	1.000000	31	0.700	1.000
		15-Fried	1.000000	31	0.700	1.000
		16-Pasteurized	1.000000	31	0.700	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	0.700	1.000
		34-Canned: Boiled	1.000000	31	0.700	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	0.700	1.000
		43-Frozen: Baked	1.000000	31	0.700	1.000
		45-Frozen: Fried	1.000000	31	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	31	1.000	1.000
		98-Refined	1.000000	31	1.000	1.000
320	D	Milk sugar (lactose)				
		12-Cooked: NFS	1.000000	31	0.700	1.000
		13-Baked	1.000000	31	0.700	1.000
		14-Boiled	1.000000	31	0.700	1.000
		15-Fried	1.000000	31	0.700	1.000
		16-Pasteurized	1.000000	31	0.700	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	0.700	1.000
		34-Canned: Boiled	1.000000	31	0.700	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	0.700	1.000
		45-Frozen: Fried	1.000000	31	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	31	1.000	1.000
183	5B	Mustard greens				
		14-Boiled	1.000000	29	0.700	1.000
36	10	Oranges-juice				
		11-Uncooked	1.000000	58	1.000	1.000
		12-Cooked: NFS	1.000000	58	0.700	1.000
		31-Canned: NFS	1.000000	58	1.000	1.000
		41-Frozen: NFS	1.000000	58	1.000	1.000
33	10	Oranges-juice-concentrate				
		11-Uncooked	1.000000	58	3.700	1.000
		12-Cooked: NFS	1.000000	58	2.600	1.000
		13-Baked	1.000000	58	2.600	1.000
		14-Boiled	1.000000	58	2.600	1.000
		31-Canned: NFS	1.000000	58	3.700	1.000
		41-Frozen: NFS	1.000000	58	3.700	1.000
		42-Frozen: Cooked	1.000000	58	2.600	1.000
35	10	Oranges-peel				
		11-Uncooked	1.000000	12	46.000	1.000
		12-Cooked: NFS	1.000000	12	32.000	1.000

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		31-Canned: NFS	1.000000	52	46.000	1.000
		41-Frozen: NFS	1.000000	52	46.000	1.000
34	10	Oranges-peeled fruit				
		11-Uncooked	1.000000	12	1.000	1.000
		12-Cooked: NFS	1.000000	12	0.700	1.000
		31-Canned: NFS	1.000000	52	1.000	1.000
56	11	Pears				
		11-Uncooked	1.000000	25	1.000	1.000
		12-Cooked: NFS	1.000000	25	0.700	1.000
		13-Baked	1.000000	25	0.700	1.000
		14-Boiled	1.000000	25	0.700	1.000
		31-Canned: NFS	1.000000	25	1.000	1.000
57	11	Pears-dried				
		13-Baked	0.000500	0	4.400	1.000
		14-Boiled	0.000500	0	4.400	1.000
		18-Dried	0.000500	0	6.250	1.000
404	11	Pears-juice				
		11-Uncooked	1.000000	25	1.000	1.000
		12-Cooked: NFS	1.000000	25	0.700	1.000
		13-Baked	1.000000	25	0.700	1.000
		31-Canned: NFS	1.000000	25	1.000	1.000
		33-Canned: Baked	1.000000	25	0.700	1.000
		41-Frozen: NFS	1.000000	25	1.000	1.000
		42-Frozen: Cooked	1.000000	25	0.700	1.000
240	6C	Peas (garden)-dry				
		12-Cooked: NFS	0.015000	0	0.700	1.000
		14-Boiled	0.015000	0	0.700	1.000
		31-Canned: NFS	0.015000	0	1.000	1.000
		32-Canned: Cooked	0.015000	0	0.700	1.000
		34-Canned: Boiled	0.015000	0	0.700	1.000
241	6AB	Peas (garden)-green				
		11-Uncooked	1.000000	54	1.000	1.000
		12-Cooked: NFS	1.000000	54	0.700	1.000
		13-Baked	1.000000	54	0.700	1.000
		14-Boiled	1.000000	54	0.700	1.000
		15-Fried	1.000000	54	0.700	1.000
		31-Canned: NFS	1.000000	54	1.000	1.000
		32-Canned: Cooked	1.000000	54	0.700	1.000
		34-Canned: Boiled	1.000000	54	0.700	1.000
		42-Frozen: Cooked	1.000000	54	0.700	1.000
		44-Frozen: Boiled	1.000000	54	0.700	1.000
		45-Frozen: Fried	1.000000	54	0.700	1.000
405	6B	Peas-succulent/blackeye/cowpea				
		12-Cooked: NFS	1.000000	54	0.700	1.000
		14-Boiled	1.000000	54	0.700	1.000
		32-Canned: Cooked	1.000000	54	0.700	1.000
		42-Frozen: Cooked	1.000000	54	0.700	1.000
47	14	Pecans				
		11-Uncooked	1.000000	42	1.000	1.000
		13-Baked	1.000000	42	0.700	1.000
		14-Boiled	1.000000	42	0.700	1.000
156	8	Peppers-chilli incl jalapeno				
		11-Uncooked	1.000000	21	1.000	1.000
		12-Cooked: NFS	1.000000	21	0.700	1.000
		13-Baked	1.000000	21	0.700	1.000
		14-Boiled	1.000000	21	0.700	1.000
		15-Fried	1.000000	21	0.700	1.000
		31-Canned: NFS	1.000000	55	1.000	1.000
		32-Canned: Cooked	1.000000	55	0.700	1.000
		33-Canned: Baked	1.000000	55	0.700	1.000
		34-Canned: Boiled	1.000000	55	0.700	1.000
		42-Frozen: Cooked	1.000000	55	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	55	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	55	1.000	1.000
		60-Canned: Cured	1.000000	55	1.000	1.000
157	8	Peppers-other				
		11-Uncooked	1.000000	20	1.000	1.000
155	8	Peppers-sweet(garden)				
		11-Uncooked	1.000000	20	1.000	1.000
		12-Cooked: NFS	1.000000	20	0.700	1.000
		13-Baked	1.000000	20	0.700	1.000

		14-Boiled	1.000000	20	0.700	1.000
		31-Canned: NFS	1.000000	19	1.000	1.000
		32-Canned: Cooked	1.000000	19	0.700	1.000
		34-Canned: Boiled	1.000000	19	0.700	1.000
		42-Frozen: Cooked	1.000000	19	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	19	1.000	1.000
158	8	Pimientos				
		12-Cooked: NFS	1.000000	20	0.700	1.000
		14-Boiled	1.000000	20	0.700	1.000
		31-Canned: NFS	1.000000	19	1.000	1.000
		60-Canned: Cured	1.000000	19	1.000	1.000
344	M	Pork-fat w/o bone				
		11-Uncooked	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	0.700	1.000
		34-Canned: Boiled	1.000000	32	0.700	1.000
		42-Frozen: Cooked	1.000000	32	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		60-Canned: Cured	1.000000	32	1.000	1.000
345	M	Pork-kidney	1.000000	32	1.000	1.000
347	M	Pork-lean (fat free) w/o bone				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	0.700	1.000
		34-Canned: Boiled	1.000000	32	0.700	1.000
		42-Frozen: Cooked	1.000000	32	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		60-Canned: Cured	1.000000	32	1.000	1.000
346	M	Pork-liver				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
342	M	Pork-meat byproducts				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
343	M	Pork-other organ meats				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
210	1C	Potatoes/white-dry				
		12-Cooked: NFS	0.000400	0	0.180	1.000
		14-Boiled	0.000400	0	0.180	1.000
		15-Fried	0.000400	0	0.180	1.000
		31-Canned: NFS	0.000400	0	0.180	1.000
		34-Canned: Boiled	0.000400	0	0.180	1.000
		42-Frozen: Cooked	0.000400	0	0.180	1.000
209	1C	Potatoes/white-peeled				
		12-Cooked: NFS	1.000000	27	0.180	1.000
		13-Baked	1.000000	27	0.180	1.000
		14-Boiled	1.000000	27	0.180	1.000
		15-Fried	1.000000	27	0.180	1.000
		32-Canned: Cooked	1.000000	27	0.180	1.000
		34-Canned: Boiled	1.000000	27	0.180	1.000
		42-Frozen: Cooked	1.000000	27	0.180	1.000
		43-Frozen: Baked	1.000000	27	0.180	1.000
		45-Frozen: Fried	1.000000	27	0.180	1.000
211	1C	Potatoes/white-peel only				
		13-Baked	1.000000	27	0.600	1.000

		15-Fried	1.000000	27	0.600	1.000
208	1C	Potatoes/white-unspecified				
		31-Canned: NFS	1.000000	27	1.000	1.000
207	1C	Potatoes/white-whole				
		11-Uncooked	1.000000	27	1.000	1.000
		12-Cooked: NFS	1.000000	27	0.700	1.000
		13-Baked	1.000000	27	0.700	1.000
		14-Boiled	1.000000	27	0.700	1.000
		15-Fried	1.000000	27	0.700	1.000
		31-Canned: NFS	1.000000	27	1.000	1.000
362	P	Poultry-other-fat w/o bones				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
361	P	Poultry-other-giblets(liver)	1.000000	33	1.000	1.000
360	P	Poultry-other-lean (fat free) w/				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
295	O	Safflower-oil				
		98-Refined	0.041000	0	1.000	1.000
294	O	Safflower-seed	0.041000	0	1.000	1.000
338	M	Sheep-fat w/o bone				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickl/saltd)	1.000000	32	1.000	1.000
339	M	Sheep-kidney	1.000000	32	1.000	1.000
341	M	Sheep-lean (fat free) w/o bone				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
340	M	Sheep-liver	1.000000	32	1.000	1.000
336	M	Sheep-meat byproducts	1.000000	32	1.000	1.000
337	M	Sheep-other organ meats	1.000000	32	1.000	1.000
275	15	Sorghum (including milo)				
		14-Boiled	0.000100	0	0.800	1.000
303	6A	Soybean-other	0.000100	0	0.700	1.000
307	6A	Soybeans-flour (defatted)				
		12-Cooked: NFS	0.000100	0	0.700	1.000
		13-Baked	0.000100	0	0.700	1.000
		14-Boiled	0.000100	0	0.700	1.000
		15-Fried	0.000100	0	0.700	1.000
		31-Canned: NFS	0.000100	0	1.000	1.000
		34-Canned: Boiled	0.000100	0	0.700	1.000
		42-Frozen: Cooked	0.000100	0	0.700	1.000
		98-Refined	0.000100	0	1.000	1.000
306	6A	Soybeans-flour (low fat)				
		12-Cooked: NFS	0.000100	0	0.700	1.000
		13-Baked	0.000100	0	0.700	1.000
		15-Fried	0.000100	0	0.700	1.000
		31-Canned: NFS	0.000100	0	1.000	1.000
305	6A	Soybeans-flour (full fat)				
		12-Cooked: NFS	0.000100	0	0.700	1.000
		13-Baked	0.000100	0	0.700	1.000
		14-Boiled	0.000100	0	0.700	1.000
		34-Canned: Boiled	0.000100	0	0.700	1.000
		42-Frozen: Cooked	0.000100	0	0.700	1.000
304	6A	Soybeans-mature seeds dry				
		12-Cooked: NFS	0.000100	0	0.700	1.000
		13-Baked	0.000100	0	0.700	1.000
		14-Boiled	0.000100	0	0.700	1.000
		15-Fried	0.000100	0	0.700	1.000
		41-Frozen: NFS	0.000100	0	1.000	1.000
297	6A	Soybeans-oil				
		98-Refined	0.000100	0	1.000	1.000
482	O	Soybeans-protein isolate				
		12-Cooked: NFS	0.000100	0	0.700	1.000
		13-Baked	0.000100	0	0.700	1.000
		14-Boiled	0.000100	0	0.700	1.000
		15-Fried	0.000100	0	0.700	1.000

		31-Canned: NFS	0.000100	0	1.000	1.000
		32-Canned: Cooked	0.000100	0	0.700	1.000
		33-Canned: Baked	0.000100	0	0.700	1.000
		34-Canned: Boiled	0.000100	0	0.700	1.000
		41-Frozen: NFS	0.000100	0	1.000	1.000
		42-Frozen: Cooked	0.000100	0	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	0.000100	0	1.000	1.000
255	6A	Soybeans-sprouted seeds				
		14-Boiled	0.000100	0	0.230	1.000
186	4A	Spinach				
		11-Uncooked	1.000000	7	1.000	1.000
		12-Cooked: NFS	1.000000	7	0.700	1.000
		14-Boiled	1.000000	7	0.700	1.000
		31-Canned: NFS	1.000000	7	1.000	1.000
		32-Canned: Cooked	1.000000	7	0.700	1.000
		34-Canned: Boiled	1.000000	7	0.700	1.000
		42-Frozen: Cooked	1.000000	7	0.700	1.000
		44-Frozen: Boiled	1.000000	7	0.700	1.000
218	1CD	Sweet potatoes (incl yams)				
		12-Cooked: NFS	1.000000	43	0.700	1.000
		13-Baked	1.000000	43	0.700	1.000
		14-Boiled	1.000000	43	0.700	1.000
		15-Fried	1.000000	43	0.700	1.000
		32-Canned: Cooked	1.000000	43	0.700	1.000
		34-Canned: Boiled	1.000000	43	0.700	1.000
418	2	Sweet potatoes-leaves	1.000000	43	1.000	1.000
187	4B	Swiss chard				
		11-Uncooked	1.000000	7	1.000	1.000
		14-Boiled	1.000000	7	0.700	1.000
37	10	Tangelos	1.000000	14	1.000	1.000
38	10	Tangerines				
		11-Uncooked	1.000000	14	1.000	1.000
		31-Canned: NFS	1.000000	14	1.000	1.000
		41-Frozen: NFS	1.000000	14	1.000	1.000
39	10	Tangerines-juice				
		11-Uncooked	1.000000	61	1.300	1.000
		31-Canned: NFS	1.000000	61	1.300	1.000
		41-Frozen: NFS	1.000000	61	1.300	1.000
420	10	Tangerines-juice-concentrate	1.000000	61	4.100	1.000
163	8	Tomatoes-catsup				
		34-Canned: Boiled	0.002500	0	1.100	1.000
423	8	Tomatoes-dried				
		12-Cooked: NFS	0.002500	0	10.000	1.000
		15-Fried	0.002500	0	10.000	1.000
160	8	Tomatoes-juice				
		31-Canned: NFS	0.002500	0	0.100	1.000
		32-Canned: Cooked	0.002500	0	0.070	1.000
		34-Canned: Boiled	0.002500	0	0.070	1.000
		42-Frozen: Cooked	0.002500	0	0.070	1.000
162	8	Tomatoes-paste				
		14-Boiled	0.002500	0	1.800	1.000
		31-Canned: NFS	0.002500	0	2.600	1.000
		32-Canned: Cooked	0.002500	0	1.800	1.000
		33-Canned: Baked	0.002500	0	1.800	1.000
		34-Canned: Boiled	0.002500	0	1.800	1.000
		42-Frozen: Cooked	0.002500	0	1.800	1.000
161	8	Tomatoes-puree				
		12-Cooked: NFS	0.002500	0	1.000	1.000
		14-Boiled	0.002500	0	1.000	1.000
		31-Canned: NFS	0.002500	0	1.500	1.000
		32-Canned: Cooked	0.002500	0	1.000	1.000
		33-Canned: Baked	0.002500	0	1.000	1.000
		34-Canned: Boiled	0.002500	0	1.000	1.000
		42-Frozen: Cooked	0.002500	0	1.000	1.000
159	8	Tomatoes-whole				
		11-Uncooked	1.000000	18	1.000	1.000
		12-Cooked: NFS	1.000000	18	0.700	1.000
		13-Baked	1.000000	18	0.700	1.000
		14-Boiled	1.000000	18	0.700	1.000
		15-Fried	1.000000	18	0.700	1.000
		31-Canned: NFS	1.000000	4	1.000	1.000
		32-Canned: Cooked	1.000000	4	0.700	1.000

		33-Canned: Baked	1.000000	4	0.700	1.000
		34-Canned: Boiled	1.000000	4	0.700	1.000
		42-Frozen: Cooked	1.000000	4	0.700	1.000
355	P	Turkey-byproducts				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	33	1.000	1.000
357	P	Turkey--fat w/o bones				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	33	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	33	1.000	1.000
356	P	Turkey-giblets (liver)				
		12-Cooked: NFS	1.000000	33	0.700	1.000
358	P	Turkey- lean/fat free w/o bones				
		12-Cooked: NFS	1.000000	33	0.700	1.000
		13-Baked	1.000000	33	0.700	1.000
		14-Boiled	1.000000	33	0.700	1.000
		15-Fried	1.000000	33	0.700	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	0.700	1.000
		34-Canned: Boiled	1.000000	33	0.700	1.000
		42-Frozen: Cooked	1.000000	33	0.700	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	33	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	33	1.000	1.000
449	P	Turkey-other organ meats				
		12-Cooked: NFS	1.000000	33	0.700	1.000
219	1AB	Turnips-roots				
		11-Uncooked	2.000000	0	1.000	1.000
		12-Cooked: NFS	2.000000	0	0.700	1.000
		14-Boiled	2.000000	0	0.700	1.000
188	2	Turnips-tops				
		14-Boiled	2.000000	0	0.700	1.000
		32-Canned: Cooked	2.000000	0	0.700	1.000
		44-Frozen: Boiled	2.000000	0	0.700	1.000
429	M	Veal-dried	1.000000	32	1.920	1.000
424	M	Veal-fat w/o bones				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
426	M	Veal-kidney				
		15-Fried	1.000000	32	0.700	1.000
425	M	Veal-lean (fat free) w/o bones				
		12-Cooked: NFS	1.000000	32	0.700	1.000
		13-Baked	1.000000	32	0.700	1.000
		14-Boiled	1.000000	32	0.700	1.000
		15-Fried	1.000000	32	0.700	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
427	M	Veal-liver				
		14-Boiled	1.000000	32	0.700	1.000
430	M	Veal-meat byproducts	1.000000	32	1.000	1.000
428	M	Veal-other organ meats	1.000000	32	1.000	1.000
147	9A	Watermelon				
		11-Uncooked	1.000000	40	1.000	1.000
436	9A	Watermelon-juice	1.000000	40	1.000	1.000
278	15	Wheat-bran				
		11-Uncooked	0.010000	0	1.000	1.000
		12-Cooked: NFS	0.010000	0	0.800	1.000
		13-Baked	0.010000	0	0.800	1.000

279	15	Wheat-flour				
		11-Uncooked	0.010000	0	1.000	1.000
		12-Cooked: NFS	0.010000	0	0.800	1.000
		13-Baked	0.010000	0	0.800	1.000
		14-Boiled	0.010000	0	0.800	1.000
		15-Fried	0.010000	0	0.800	1.000
		31-Canned: NFS	0.010000	0	1.000	1.000
		32-Canned: Cooked	0.010000	0	0.800	1.000
		33-Canned: Baked	0.010000	0	0.800	1.000
		34-Canned: Boiled	0.010000	0	0.800	1.000
		41-Frozen: NFS	0.010000	0	1.000	1.000
		42-Frozen: Cooked	0.010000	0	0.800	1.000
		43-Frozen: Baked	0.010000	0	0.800	1.000
		45-Frozen: Fried	0.010000	0	0.800	1.000
		52-Cured: Cooked(smokd/pickl/saltd)	0.010000	0	1.000	1.000
277	15	Wheat-germ				
		12-Cooked: NFS	0.010000	0	0.800	1.000
		13-Baked	0.010000	0	0.800	1.000
		14-Boiled	0.010000	0	0.800	1.000
437	15	Wheat-germ oil				
		13-Baked	0.010000	0	0.800	1.000
276	15	Wheat-rough				
		11-Uncooked	0.010000	0	1.000	1.000
		12-Cooked: NFS	0.010000	0	0.800	1.000
		13-Baked	0.010000	0	0.800	1.000
		14-Boiled	0.010000	0	0.800	1.000

Attachment 3: The exposure for all commodities with all the cooking factors being incorporated.

U.S. Environmental Protection Agency Ver. 6.78
 DEEM ACUTE analysis for DIMETHOATE (1989-92 data)
 Residue file: dimeth-all-2-CF.R96 Adjustment factor #2 used.
 Analysis Date: 08-02-1999/09:28:32 Residue file dated: 08-02-1999/08:55:42/8
 Acute Reference Dose (aRfD) = 0.020000 mg/kg body-wt/day
 NOEL (Acute) = 2.000000 mg/kg body-wt/day
 MC iterations = 1000 MC list in residue file MC seed = 15

Summary calculations:

5th Percentile			1st Percentile			0.1st Percentile		
Exposure	% aRfD	MOE	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE

U.S. pop - all seasons:								
0.000355	1.77	5634	0.003127	15.64	639	0.008229	41.14	243
U.S. pop - spring season:								
0.000319	1.59	6273	0.003213	16.07	622	0.009122	45.61	219
U.S. pop - summer season:								
0.000528	2.64	3790	0.003607	18.04	554	0.009407	47.03	212
U.S. pop - autumn season:								
0.000326	1.63	6130	0.002915	14.58	686	0.008244	41.22	242
U.S. pop - winter season:								
0.000313	1.56	6392	0.002846	14.23	702	0.006400	32.00	312
Northeast region:								
0.000369	1.85	5417	0.003308	16.54	604	0.008261	41.31	242
Midwest region:								
0.000218	1.09	9175	0.002417	12.08	827	0.007311	36.55	273
Southern region:								
0.000498	2.49	4020	0.003520	17.60	568	0.008638	43.19	231
Western region:								
0.000437	2.18	4581	0.002893	14.47	691	0.007470	37.35	267
Hispanics:								
0.000177	0.88	11330	0.002809	14.05	711	0.008826	44.13	226
Non-hispanic whites:								
0.000327	1.63	6121	0.002985	14.93	669	0.007419	37.10	269
Non-hispanic blacks:								
0.000803	4.01	2491	0.003847	19.24	519	0.011901	59.50	168
Non-hispanic other:								
0.001821	9.11	1098	0.004134	20.67	483	0.010650	53.25	187
All infants (<1 year):								
0.000350	1.75	5722	0.001307	6.53	1530	0.006265	31.32	319
Nursing infants (<1 year):								
0.000113	0.56	17701	0.000958	4.79	2088	0.004723	23.61	423
Non-nursing infants (<1 yr):								
0.000406	2.03	4921	0.001450	7.25	1379	0.006748	33.74	296
Children (1-6 years):								
0.000540	2.70	3700	0.004169	20.85	479	0.017287	86.43	115
Children (7-12 years):								
0.000260	1.30	7700	0.002693	13.47	742	0.007316	36.58	273
Females (13+/preg/not nsg):								
0.000206	1.03	9700	0.003669	18.34	545	0.005813	29.07	344
Females (13+/nursing):								
0.000774	3.87	2583	0.003609	18.05	554	0.004246	21.23	471
Females (13-19 yrs/np/nn):								
0.000163	0.82	12251	0.002613	13.06	765	0.011232	56.16	178
Females (20+ years/np/nn):								
0.000377	1.89	5304	0.003328	16.64	600	0.007348	36.74	272
Females (13-50 years):								
0.000193	0.97	10339	0.002913	14.56	686	0.008488	42.44	235
Males (13-19 years):								
0.000271	1.35	7390	0.002471	12.36	809	0.005630	28.15	355
Males (20+ years):								
0.000326	1.63	6126	0.002922	14.61	684	0.006078	30.39	329
Seniors (55+):								
0.001203	6.01	1662	0.003610	18.05	554	0.007099	35.50	281
Pacific Region:								
0.000619	3.10	3229	0.003057	15.28	654	0.007651	38.26	261

Attachment 3 (continued):

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U.S. Environmental Protection Agency Ver. 6.78
 DEEM ACUTE analysis for DIMETHOATE (1989-92 data)
 Residue file: dimeth-all-2-CF.R96 Adjustment factor #2 used.
 Analysis Date: 08-02-1999/09:28:31 Residue file dated: 08-02-1999/08:55:42/8
 Acute Reference Dose (aRfD) = 0.020000 mg/kg body-wt/day
 NOEL (Acute) = 2.000000 mg/kg body-wt/day
 MC iterations = 1000 MC list in residue file MC seed = 15

U.S. pop - all seasons Daily Exposure Analysis 1/
 ----- (mg/kg body-weight/day)
 per Capita per User

 Mean 0.000145 0.000145
 Standard Deviation 0.000695 0.000696
 Margin of Exposure 2/ 13,781 13,746
 Percent of aRfD 0.73 0.73

Percent of Person-Days that are User-Days = 99.74%

Estimated percentile of user-days exceeding calculated exposure
 in mg/kg body-wt/day and corresponding

Perc.	Exposure	% aRfD	MOE	Perc.	Exposure	% aRfD	MOE
90.00	0.000008	0.04	238,320	10.00	0.000121	0.60	16,592
80.00	0.000013	0.07	150,267	5.00	0.000356	1.78	5,625
70.00	0.000018	0.09	110,312	2.50	0.001522	7.61	1,313
60.00	0.000023	0.12	85,776	1.00	0.003130	15.65	638
50.00	0.000030	0.15	67,750	0.50	0.004308	21.54	464
40.00	0.000037	0.19	53,877	0.25	0.005753	28.77	347
30.00	0.000048	0.24	41,562	0.10	0.008233	41.16	242
20.00	0.000067	0.33	29,974				

Estimated percentile of per-capita days exceeding calculated exposure
 in mg/kg body-wt/day and corresponding

Perc.	Exposure	% aRfD	MOE	Perc.	Exposure	% aRfD	MOE
90.00	0.000008	0.04	243,959	10.00	0.000120	0.60	16,611
80.00	0.000013	0.07	151,416	5.00	0.000355	1.77	5,634
70.00	0.000018	0.09	110,842	2.50	0.001519	7.60	1,316
60.00	0.000023	0.12	86,071	1.00	0.003127	15.64	639
50.00	0.000029	0.15	67,933	0.50	0.004305	21.53	464
40.00	0.000037	0.19	53,991	0.25	0.005750	28.75	347
30.00	0.000048	0.24	41,635	0.10	0.008229	41.14	243
20.00	0.000067	0.33	30,016				

1/ Analysis based on all three-day participant records in CSFII 1989-92 survey.
 2/ Margin of Exposure = NOEL/ Dietary Exposure.

Attachment 4: Residue file for all commodities without any cooking factor(s) being incorporated.

44958

52	11	Apples				
		11-Uncooked	1.000000	62	1.000	1.000
		12-Cooked: NFS	1.000000	62	1.000	1.000
		13-Baked	1.000000	62	1.000	1.000
		14-Boiled	1.000000	62	1.000	1.000
		15-Fried	1.000000	62	1.000	1.000
		18-Dried	1.000000	44	1.000	1.000
		31-Canned: NFS	1.000000	44	1.000	1.000
		32-Canned: Cooked	1.000000	44	1.000	1.000
		33-Canned: Baked	1.000000	44	1.000	1.000
		34-Canned: Boiled	1.000000	44	1.000	1.000
		42-Frozen: Cooked	1.000000	44	1.000	1.000
53	11	Apples-dried				
		13-Baked	0.005200	0	8.000	1.000
		14-Boiled	0.005200	0	8.000	1.000
		18-Dried	0.005200	0	8.000	1.000
		42-Frozen: Cooked	0.005200	0	8.000	1.000
54	11	Apples-juice/cider				
		11-Uncooked	1.000000	17	1.000	1.000
		12-Cooked: NFS	1.000000	17	1.000	1.000
		14-Boiled	1.000000	17	1.000	1.000
		31-Canned: NFS	1.000000	17	1.000	1.000
		41-Frozen: NFS	1.000000	17	1.000	1.000
377	11	Apples-juice-concentrate				
		12-Cooked: NFS	1.000000	17	3.000	1.000
		13-Baked	1.000000	17	3.000	1.000
		31-Canned: NFS	1.000000	17	3.000	1.000
		41-Frozen: NFS	1.000000	17	3.000	1.000
260	0	Asparagus				
		11-Uncooked	0.010000	0	1.000	1.000
		14-Boiled	0.010000	0	1.000	1.000
		32-Canned: Cooked	0.010000	0	1.000	1.000
		42-Frozen: Cooked	0.010000	0	1.000	1.000
258	6C	Beans-dry-blackeye peas/cowpea	0.015000	0	1.000	1.000
249	6C	Beans-dry-broadbeans	0.015000	0	1.000	1.000
259	6C	Beans-dry-garbanzo/chick pea	0.015000	0	1.000	1.000
227	6C	Beans-dry-great northern	0.015000	0	1.000	1.000
256	6C	Beans-dry-hyacinth	0.015000	0	1.000	1.000
228	6C	Beans-dry-kidney	0.015000	0	1.000	1.000
229	6C	Beans-dry-lima	0.015000	0	1.000	1.000
230	6C	Beans-dry-navy (pea)	0.015000	0	1.000	1.000
231	6C	Beans-dry-other	0.015000	0	1.000	1.000
251	6C	Beans-dry-pigeon beans	0.015000	0	1.000	1.000
232	6C	Beans-dry-pinto	0.015000	0	1.000	1.000
250	6B	Beans-succulent-broadbeans	1.000000	22	1.000	1.000
234	6A	Beans-succulent-green				
		11-Uncooked	1.000000	22	1.000	1.000
		12-Cooked: NFS	1.000000	22	1.000	1.000
		14-Boiled	1.000000	22	1.000	1.000
		31-Canned: NFS	1.000000	22	1.000	1.000
		32-Canned: Cooked	1.000000	22	1.000	1.000
		34-Canned: Boiled	1.000000	22	1.000	1.000
		42-Frozen: Cooked	1.000000	22	1.000	1.000
		44-Frozen: Boiled	1.000000	22	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	22	1.000	1.000
257	6	Beans-succulent-hyacinth	1.000000	22	1.000	1.000
233	6B	Beans-succulent-lima				
		11-Uncooked	1.000000	22	1.000	1.000
		12-Cooked: NFS	1.000000	22	1.000	1.000
		14-Boiled	1.000000	22	1.000	1.000
		32-Canned: Cooked	1.000000	22	1.000	1.000
		42-Frozen: Cooked	1.000000	22	1.000	1.000
		44-Frozen: Boiled	1.000000	22	1.000	1.000
235	6A	Beans-succulent-other				
		34-Canned: Boiled	1.000000	22	1.000	1.000
236	6A	Beans-succulent-yellow/wax				
		14-Boiled	1.000000	22	1.000	1.000
		32-Canned: Cooked	1.000000	22	1.000	1.000
		42-Frozen: Cooked	1.000000	22	1.000	1.000
253	6	Beans-unspecified	1.000000	22	1.000	1.000
323	M	Beef-dried	1.000000	32	1.920	1.000
324	M	Beef-fat w/o bones				

		11-Uncooked	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000
		13-Baked	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	1.000	1.000
		34-Canned: Boiled	1.000000	32	1.000	1.000
		42-Frozen: Cooked	1.000000	32	1.000	1.000
		45-Frozen: Fried	1.000000	32	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		59-Cured: Dried (smokd/pickld/saltd)	1.000000	32	1.000	1.000
325	M	Beef-kidney				
		12-Cooked: NFS	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
327	M	Beef-lean (fat/free) w/o bones				
		11-Uncooked	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000
		13-Baked	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	1.000	1.000
		33-Canned: Baked	1.000000	32	1.000	1.000
		34-Canned: Boiled	1.000000	32	1.000	1.000
		42-Frozen: Cooked	1.000000	32	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		59-Cured: Dried (smokd/pickld/saltd)	1.000000	32	1.000	1.000
326	M	Beef-liver				
		12-Cooked: NFS	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
321	M	Beef-meat byproducts				
		12-Cooked: NFS	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
322	M	Beef-other organ meats				
		12-Cooked: NFS	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
7	13B	Blueberries				
		11-Uncooked	1.000000	46	1.000	1.000
		12-Cooked: NFS	1.000000	46	1.000	1.000
		13-Baked	1.000000	46	1.000	1.000
		14-Boiled	1.000000	46	1.000	1.000
		15-Fried	1.000000	46	1.000	1.000
		31-Canned: NFS	1.000000	46	1.000	1.000
		41-Frozen: NFS	1.000000	46	1.000	1.000
452	5B	Bok choy				
		11-Uncooked	1.000000	34	1.000	1.000
		12-Cooked: NFS	1.000000	47	1.000	1.000
		14-Boiled	1.000000	47	1.000	1.000
		42-Frozen: Cooked	1.000000	47	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	47	1.000	1.000
168	5A	Broccoli				
		11-Uncooked	1.000000	10	1.000	1.000
		12-Cooked: NFS	1.000000	10	1.000	1.000
		13-Baked	1.000000	10	1.000	1.000
		14-Boiled	1.000000	10	1.000	1.000
		15-Fried	1.000000	10	1.000	1.000
		32-Canned: Cooked	1.000000	10	1.000	1.000
		42-Frozen: Cooked	1.000000	10	1.000	1.000
		44-Frozen: Boiled	1.000000	10	1.000	1.000

169	5A	Brussels sprouts				
		14-Boiled	1.000000	57	1.000	1.000
		42-Frozen: Cooked	1.000000	57	1.000	1.000
170	5A	Cabbage-green and red				
		11-Uncooked	1.000000	34	1.000	1.000
		12-Cooked: NFS	1.000000	47	1.000	1.000
		13-Baked	1.000000	47	1.000	1.000
		14-Boiled	1.000000	47	1.000	1.000
		15-Fried	1.000000	47	1.000	1.000
		31-Canned: NFS	1.000000	47	1.000	1.000
		32-Canned: Cooked	1.000000	47	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	47	1.000	1.000
383	5B	Cabbage-savoy				
		12-Cooked: NFS	1.000000	47	1.000	1.000
143	9A	Casabas				
		11-Uncooked	1.000000	41	1.000	1.000
171	5A	Cauliflower				
		11-Uncooked	1.000000	35	1.000	1.000
		12-Cooked: NFS	1.000000	35	1.000	1.000
		14-Boiled	1.000000	35	1.000	1.000
		15-Fried	1.000000	35	1.000	1.000
		42-Frozen: Cooked	1.000000	35	1.000	1.000
166	4B	Celery	1.000000	30	1.000	1.000
384	4B	Celery juice	1.000000	30	1.000	1.000
61	12	Cherries				
		11-Uncooked	1.000000	28	1.000	1.000
		12-Cooked: NFS	1.000000	28	1.000	1.000
		13-Baked	1.000000	28	1.000	1.000
		14-Boiled	1.000000	28	1.000	1.000
		31-Canned: NFS	1.000000	28	1.000	1.000
		33-Canned: Baked	1.000000	28	1.000	1.000
		41-Frozen: NFS	1.000000	28	1.000	1.000
62	12	Cherries-dried	0.018000	0	4.000	1.000
63	12	Cherries-juice				
		13-Baked	1.000000	28	1.500	1.000
		14-Boiled	1.000000	28	1.500	1.000
		31-Canned: NFS	1.000000	28	1.500	1.000
		41-Frozen: NFS	1.000000	28	1.500	1.000
366	P	Chicken-byproducts				
		12-Cooked: NFS	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
368	P	Chicken-fat w/o bones				
		12-Cooked: NFS	1.000000	33	1.000	1.000
		13-Baked	1.000000	33	1.000	1.000
		14-Boiled	1.000000	33	1.000	1.000
		15-Fried	1.000000	33	1.000	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	1.000	1.000
367	P	Chicken-giblets(liver)				
		12-Cooked: NFS	1.000000	33	1.000	1.000
		13-Baked	1.000000	33	1.000	1.000
		15-Fried	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	1.000	1.000
385	P	Chicken-giblets (excl. liver)				
		12-Cooked: NFS	1.000000	33	1.000	1.000
		14-Boiled	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	1.000	1.000
369	P	Chicken-lean/fat free w/o bones				
		12-Cooked: NFS	1.000000	33	1.000	1.000
		13-Baked	1.000000	33	1.000	1.000
		14-Boiled	1.000000	33	1.000	1.000
		15-Fried	1.000000	33	1.000	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	1.000	1.000
172	5B	Collards				
		14-Boiled	1.000000	8	1.000	1.000
		32-Canned: Cooked	1.000000	8	1.000	1.000

		42-Frozen: Cooked	1.000000	8	1.000	1.000
267	15	Corn grain-bran	0.001000	0	1.000	1.000
266	15	Corn grain-endosperm	0.001000	0	0.400	1.000
289	15	Corn grain-oil	0.001000	0	0.300	1.000
268	15	Corn grain/sugar/hfcs	0.001000	0	1.500	1.000
388	15	Corn grain/sugar-molasses	0.001000	0	1.500	1.000
237	15	Corn/pop	0.001000	0	1.000	1.000
291	0	Cottonseed-meal				
		13-Baked	0.010000	0	1.330	1.000
290	0	Cottonseed-oil				
		98-Refined	0.010000	0	0.600	1.000
144	9A	Crenshaws	1.000000	39	1.000	1.000
364	P	Eggs-white only				
		11-Uncooked	1.000000	33	1.000	1.000
		12-Cooked: NFS	1.000000	33	1.000	1.000
		13-Baked	1.000000	33	1.000	1.000
		14-Boiled	1.000000	33	1.000	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
		41-Frozen: NFS	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	1.000	1.000
363	P	Eggs-whole				
		11-Uncooked	1.000000	33	1.000	1.000
		12-Cooked: NFS	1.000000	33	1.000	1.000
		13-Baked	1.000000	33	1.000	1.000
		14-Boiled	1.000000	33	1.000	1.000
		15-Fried	1.000000	33	1.000	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
		41-Frozen: NFS	1.000000	33	1.000	1.000
		42-Frozen: Cooked	1.000000	33	1.000	1.000
		45-Frozen: Fried	1.000000	33	1.000	1.000
365	P	Eggs-yolk only				
		11-Uncooked	1.000000	33	1.000	1.000
		12-Cooked: NFS	1.000000	33	1.000	1.000
		13-Baked	1.000000	33	1.000	1.000
		14-Boiled	1.000000	33	1.000	1.000
		15-Fried	1.000000	33	1.000	1.000
		31-Canned: NFS	1.000000	33	1.000	1.000
		32-Canned: Cooked	1.000000	33	1.000	1.000
		34-Canned: Boiled	1.000000	33	1.000	1.000
		41-Frozen: NFS	1.000000	33	1.000	1.000
178	4A	Endive-curley and escarole				
		11-Uncooked	1.000000	23	1.000	1.000
		12-Cooked: NFS	1.000000	23	1.000	1.000
330	M	Goat-fat w/o bone				
		13-Baked	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
331	M	Goat-kidney	1.000000	32	1.000	1.000
333	M	Goat-lean (fat/free) w/o bone				
		13-Baked	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
332	M	Goat-liver	1.000000	32	1.000	1.000
328	M	Goat-meat byproducts	1.000000	32	1.000	1.000
329	M	Goat-other organ meats	1.000000	32	1.000	1.000
23	10	Grapefruit-juice	1.000000	60	1.200	1.000
441	10	Grapefruit-juice-concentrate	1.000000	60	4.600	1.000
448	10	Grapefruit peel	1.000000	11	1.000	1.000
22	10	Grapefruit-peeled fruit				
		11-Uncooked	1.000000	11	1.000	1.000
		12-Cooked: NFS	1.000000	11	1.000	1.000
		31-Canned: NFS	1.000000	11	1.000	1.000
13	0	Grapes	1.000000	15	1.000	1.000
15	0	Grapes-juice	1.000000	15	1.200	1.000
392	0	Grapes-juice-concentrate	1.000000	15	3.600	1.000
195	0	Grapes-leaves				
		14-Boiled	1.000000	15	1.000	1.000
14	0	Grapes-raisins				
		11-Uncooked	1.000000	15	1.000	1.000
		12-Cooked: NFS	1.000000	15	1.000	1.000
		13-Baked	1.000000	15	1.000	1.000
		14-Boiled	1.000000	15	1.000	1.000

		18-Dried	1.000000	15	1.000	1.000
		42-Frozen: Cooked	1.000000	15	1.000	1.000
315	O	Grapes-wine and sherry	1.000000	15	1.000	1.000
334	M	Horsemeat	1.000000	32	1.000	1.000
174	5B	Kale				
		12-Cooked: NFS	1.000000	9	1.000	1.000
		14-Boiled	1.000000	9	1.000	1.000
		32-Canned: Cooked	1.000000	9	1.000	1.000
28	10	Lemons-juice	1.000000	59	1.100	1.000
442	10	Lemons-juice-concentrate	1.000000	59	6.300	1.000
27	10	Lemons-peel				
		11-Uncooked	1.000000	50	46.000	1.000
		13-Baked	1.000000	50	46.000	1.000
		14-Boiled	1.000000	50	46.000	1.000
		31-Canned: NFS	1.000000	50	46.000	1.000
		34-Canned: Boiled	1.000000	50	46.000	1.000
		41-Frozen: NFS	1.000000	50	46.000	1.000
26	10	Lemons-peeled fruit				
		11-Uncooked	1.000000	13	1.000	1.000
		12-Cooked: NFS	1.000000	13	1.000	1.000
		31-Canned: NFS	1.000000	50	1.000	1.000
243	6C	Lentils	0.018000	0	1.000	1.000
182	4A	Lettuce-unspecified				
		31-Canned: NFS	1.000000	51	1.000	1.000
176	4A	Lettuce-leafy varieties				
		11-Uncooked	1.000000	2	1.000	1.000
192	4A	Lettuce-head varieties				
		11-Uncooked	1.000000	3	1.000	1.000
141	9A	Melons-cantaloupes-juice	1.000000	38	1.000	1.000
142	9A	Melons-cantaloupes-pulp	1.000000	38	1.000	1.000
145	9A	Melons-honeydew	1.000000	39	1.000	1.000
146	9A	Melons-persian	1.000000	41	1.000	1.000
398	D	Milk-based water				
		12-Cooked: NFS	1.000000	31	1.000	1.000
		13-Baked	1.000000	31	1.000	1.000
		14-Boiled	1.000000	31	1.000	1.000
		15-Fried	1.000000	31	1.000	1.000
		16-Pasteurized	1.000000	31	1.000	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	1.000	1.000
		33-Canned: Baked	1.000000	31	1.000	1.000
		34-Canned: Boiled	1.000000	31	1.000	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	1.000	1.000
		43-Frozen: Baked	1.000000	31	1.000	1.000
		45-Frozen: Fried	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickl/saltd)	1.000000	31	1.000	1.000
319	D	Milk-fat solids				
		12-Cooked: NFS	1.000000	31	1.000	1.000
		13-Baked	1.000000	31	1.000	1.000
		14-Boiled	1.000000	31	1.000	1.000
		15-Fried	1.000000	31	1.000	1.000
		16-Pasteurized	1.000000	31	1.000	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	1.000	1.000
		34-Canned: Boiled	1.000000	31	1.000	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	1.000	1.000
		45-Frozen: Fried	1.000000	31	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickl/saltd)	1.000000	31	1.000	1.000
318	D	Milk-nonfat solids				
		12-Cooked: NFS	1.000000	31	1.000	1.000
		13-Baked	1.000000	31	1.000	1.000
		14-Boiled	1.000000	31	1.000	1.000
		15-Fried	1.000000	31	1.000	1.000
		16-Pasteurized	1.000000	31	1.000	1.000
		18-Dried	1.000000	31	1.000	1.000

		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	1.000	1.000
		34-Canned: Boiled	1.000000	31	1.000	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	1.000	1.000
		43-Frozen: Baked	1.000000	31	1.000	1.000
		45-Frozen: Fried	1.000000	31	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	31	1.000	1.000
		98-Refined	1.000000	31	1.000	1.000
320	D	Milk sugar (lactose)	1.000000	31	1.000	1.000
		12-Cooked: NFS	1.000000	31	1.000	1.000
		13-Baked	1.000000	31	1.000	1.000
		14-Boiled	1.000000	31	1.000	1.000
		15-Fried	1.000000	31	1.000	1.000
		16-Pasteurized	1.000000	31	1.000	1.000
		18-Dried	1.000000	31	1.000	1.000
		31-Canned: NFS	1.000000	31	1.000	1.000
		32-Canned: Cooked	1.000000	31	1.000	1.000
		34-Canned: Boiled	1.000000	31	1.000	1.000
		41-Frozen: NFS	1.000000	31	1.000	1.000
		42-Frozen: Cooked	1.000000	31	1.000	1.000
		45-Frozen: Fried	1.000000	31	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	31	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	31	1.000	1.000
183	5B	Mustard greens	1.000000	31	1.000	1.000
		14-Boiled	1.000000	29	1.000	1.000
36	10	Oranges-juice	1.000000	58	1.000	1.000
33	10	Oranges-juice-concentrate	1.000000	58	3.700	1.000
35	10	Oranges-peel	1.000000	12	46.000	1.000
		11-Uncooked	1.000000	12	46.000	1.000
		12-Cooked: NFS	1.000000	12	46.000	1.000
		31-Canned: NFS	1.000000	52	46.000	1.000
		41-Frozen: NFS	1.000000	52	46.000	1.000
34	10	Oranges-peeled fruit	1.000000	12	1.000	1.000
		11-Uncooked	1.000000	12	1.000	1.000
		12-Cooked: NFS	1.000000	12	1.000	1.000
		31-Canned: NFS	1.000000	52	1.000	1.000
56	11	Pears	1.000000	25	1.000	1.000
		11-Uncooked	1.000000	25	1.000	1.000
		12-Cooked: NFS	1.000000	25	1.000	1.000
		13-Baked	1.000000	25	1.000	1.000
		14-Boiled	1.000000	25	1.000	1.000
		31-Canned: NFS	1.000000	25	1.000	1.000
57	11	Pears-dried	0.000500	0	6.250	1.000
		13-Baked	0.000500	0	6.250	1.000
		14-Boiled	0.000500	0	6.250	1.000
		18-Dried	0.000500	0	6.250	1.000
404	11	Pears-juice	1.000000	25	1.000	1.000
		11-Uncooked	1.000000	25	1.000	1.000
		12-Cooked: NFS	1.000000	25	1.000	1.000
		13-Baked	1.000000	25	1.000	1.000
		31-Canned: NFS	1.000000	25	1.000	1.000
		33-Canned: Baked	1.000000	25	1.000	1.000
		41-Frozen: NFS	1.000000	25	1.000	1.000
		42-Frozen: Cooked	1.000000	25	1.000	1.000
240	6C	Peas (garden)-dry	0.015000	0	1.000	1.000
241	6AB	Peas (garden)-green	1.000000	54	1.000	1.000
405	6B	Peas-succulent/blackeye/cowpea	1.000000	54	1.000	1.000
		12-Cooked: NFS	1.000000	54	1.000	1.000
		14-Boiled	1.000000	54	1.000	1.000
		32-Canned: Cooked	1.000000	54	1.000	1.000
		42-Frozen: Cooked	1.000000	54	1.000	1.000
47	14	Pecans	1.000000	42	1.000	1.000
		11-Uncooked	1.000000	42	1.000	1.000
		13-Baked	1.000000	42	1.000	1.000
		14-Boiled	1.000000	42	1.000	1.000
156	8	Peppers-chilli incl jalapeno	1.000000	21	1.000	1.000
		11-Uncooked	1.000000	21	1.000	1.000

		12-Cooked: NFS	1.000000	21	1.000	1.000
		13-Baked	1.000000	21	1.000	1.000
		14-Boiled	1.000000	21	1.000	1.000
		15-Fried	1.000000	21	1.000	1.000
		31-Canned: NFS	1.000000	55	1.000	1.000
		32-Canned: Cooked	1.000000	55	1.000	1.000
		33-Canned: Baked	1.000000	55	1.000	1.000
		34-Canned: Boiled	1.000000	55	1.000	1.000
		42-Frozen: Cooked	1.000000	55	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	55	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	55	1.000	1.000
157	8	Peppers-other	1.000000	55	1.000	1.000
		11-Uncooked	1.000000	20	1.000	1.000
155	8	Peppers-sweet(garden)	1.000000	20	1.000	1.000
		11-Uncooked	1.000000	20	1.000	1.000
		12-Cooked: NFS	1.000000	20	1.000	1.000
		13-Baked	1.000000	20	1.000	1.000
		14-Boiled	1.000000	20	1.000	1.000
		31-Canned: NFS	1.000000	19	1.000	1.000
		32-Canned: Cooked	1.000000	19	1.000	1.000
		34-Canned: Boiled	1.000000	19	1.000	1.000
		42-Frozen: Cooked	1.000000	19	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	19	1.000	1.000
158	8	Pimientos	1.000000	19	1.000	1.000
		12-Cooked: NFS	1.000000	20	1.000	1.000
		14-Boiled	1.000000	20	1.000	1.000
		31-Canned: NFS	1.000000	19	1.000	1.000
		60-Canned: Cured	1.000000	19	1.000	1.000
344	M	Pork-fat w/o bone	1.000000	32	1.000	1.000
		11-Uncooked	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000
		13-Baked	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	1.000	1.000
		34-Canned: Boiled	1.000000	32	1.000	1.000
		42-Frozen: Cooked	1.000000	32	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		60-Canned: Cured	1.000000	32	1.000	1.000
345	M	Pork-kidney	1.000000	32	1.000	1.000
347	M	Pork-lean (fat free) w/o bone	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000
		13-Baked	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
		31-Canned: NFS	1.000000	32	1.000	1.000
		32-Canned: Cooked	1.000000	32	1.000	1.000
		34-Canned: Boiled	1.000000	32	1.000	1.000
		42-Frozen: Cooked	1.000000	32	1.000	1.000
		51-Cured: NFS (smoked/pickled/saltd)	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
		60-Canned: Cured	1.000000	32	1.000	1.000
346	M	Pork-liver	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
342	M	Pork-meat byproducts	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000
		14-Boiled	1.000000	32	1.000	1.000
		15-Fried	1.000000	32	1.000	1.000
		52-Cured: Cooked(smokd/pickld/saltd)	1.000000	32	1.000	1.000
343	M	Pork-other organ meats	1.000000	32	1.000	1.000
		12-Cooked: NFS	1.000000	32	1.000	1.000

		15-Fried	1.000000	32	1.000	1.000
210	1C	Potatoes/white-dry	0.000400	0	0.250	1.000
209	1C	Potatoes/white-peeled	1.000000	27	0.250	1.000
211	1C	Potatoes/white-peel only	1.000000	27	0.900	1.000
208	1C	Potatoes/white-unspecified	1.000000	27	1.000	1.000
207	1C	Potatoes/white-whole	1.000000	27	1.000	1.000
362	P	Poultry-other-fat w/o bones	1.000000	33	1.000	1.000
361	P	Poultry-other-giblets(liver)	1.000000	33	1.000	1.000
360	P	Poultry-other-lean (fat free) w/	1.000000	33	1.000	1.000
295	O	Safflower-oil				
		98-Refined	0.041000	0	1.000	1.000
294	O	Safflower-seed	0.041000	0	1.000	1.000
338	M	Sheep-fat w/o bone	1.000000	32	1.000	1.000
339	M	Sheep-kidney	1.000000	32	1.000	1.000
341	M	Sheep-lean (fat free) w/o bone	1.000000	32	1.000	1.000
340	M	Sheep-liver	1.000000	32	1.000	1.000
336	M	Sheep-meat byproducts	1.000000	32	1.000	1.000
337	M	Sheep-other organ meats	1.000000	32	1.000	1.000
275	15	Sorghum (including milo)	0.000100	0	1.000	1.000
303	6A	Soybean-other	0.000100	0	1.000	1.000
307	6A	Soybeans-flour (defatted)	0.000100	0	1.000	1.000
306	6A	Soybeans-flour (low fat)	0.000100	0	1.000	1.000
305	6A	Soybeans-flour (full fat)	0.000100	0	1.000	1.000
304	6A	Soybeans-mature seeds dry	0.000100	0	1.000	1.000
297	6A	Soybeans-oil	0.000100	0	1.000	1.000
482	O	Soybeans-protein isolate	0.000100	0	1.000	1.000
255	6A	Soybeans-sprouted seeds	0.000100	0	0.330	1.000
186	4A	Spinach				
		11-Uncooked	1.000000	7	1.000	1.000
		12-Cooked: NFS	1.000000	7	1.000	1.000
		14-Boiled	1.000000	7	1.000	1.000
		31-Canned: NFS	1.000000	7	1.000	1.000
		32-Canned: Cooked	1.000000	7	1.000	1.000
		34-Canned: Boiled	1.000000	7	1.000	1.000
		42-Frozen: Cooked	1.000000	7	1.000	1.000
		44-Frozen: Boiled	1.000000	7	1.000	1.000
218	1CD	Sweet potatoes (incl yams)	1.000000	43	1.000	1.000
418	2	Sweet potatoes-leaves	1.000000	43	1.000	1.000
187	4B	Swiss chard				
		11-Uncooked	1.000000	7	1.000	1.000
		14-Boiled	1.000000	7	1.000	1.000
37	10	Tangelos	1.000000	14	1.000	1.000
38	10	Tangerines				
		11-Uncooked	1.000000	14	1.000	1.000
		31-Canned: NFS	1.000000	56	1.000	1.000
		41-Frozen: NFS	1.000000	56	1.000	1.000
39	10	Tangerines-juice	1.000000	61	1.300	1.000
420	10	Tangerines-juice-concentrate	1.000000	61	4.100	1.000
163	8	Tomatoes-catsup	0.002500	0	1.600	1.000
423	8	Tomatoes-dried				
		12-Cooked: NFS	0.002500	0	14.300	1.000
		15-Fried	0.002500	0	14.300	1.000
160	8	Tomatoes-juice	0.002500	0	0.100	1.000
162	8	Tomatoes-paste	0.002500	0	2.600	1.000
161	8	Tomatoes-puree	0.002500	0	1.500	1.000
159	8	Tomatoes-whole				
		11-Uncooked	1.000000	18	1.000	1.000
		12-Cooked: NFS	1.000000	18	1.000	1.000
		13-Baked	1.000000	18	1.000	1.000
		14-Boiled	1.000000	18	1.000	1.000
		15-Fried	1.000000	18	1.000	1.000
		31-Canned: NFS	1.000000	4	1.000	1.000
		32-Canned: Cooked	1.000000	4	1.000	1.000
		33-Canned: Baked	1.000000	4	1.000	1.000
		34-Canned: Boiled	1.000000	4	1.000	1.000
		42-Frozen: Cooked	1.000000	4	1.000	1.000
355	P	Turkey-byproducts	1.000000	33	1.000	1.000
357	P	Turkey--fat w/o bones	1.000000	33	1.000	1.000
356	P	Turkey-giblets (liver)	1.000000	33	1.000	1.000
358	P	Turkey- lean/fat free w/o bones	1.000000	33	1.000	1.000
449	P	Turkey-other organ meats	1.000000	33	1.000	1.000
219	1AB	Turnips-roots	2.000000	0	1.000	1.000
188	2	Turnips-tops	2.000000	0	1.000	1.000

429	M	Veal-dried	1.000000	32	1.920	1.000
424	M	Veal-fat w/o bones	1.000000	32	1.000	1.000
426	M	Veal-kidney	1.000000	32	1.000	1.000
425	M	Veal-lean (fat free) w/o bones	1.000000	32	1.000	1.000
427	M	Veal-liver	1.000000	32	1.000	1.000
430	M	Veal-meat byproducts	1.000000	32	1.000	1.000
428	M	Veal-other organ meats	1.000000	32	1.000	1.000
147	9A	Watermelon	1.000000	40	1.000	1.000
436	9A	Watermelon-juice	1.000000	40	1.000	1.000
278	15	Wheat-bran	0.010000	0	1.000	1.000
279	15	Wheat-flour	0.010000	0	1.000	1.000
277	15	Wheat-germ	0.010000	0	1.000	1.000
437	15	Wheat-germ oil	0.010000	0	1.000	1.000
276	15	Wheat-rough	0.010000	0	1.000	1.000

Attachment 5: The exposure for all commodities without any cooking factors being incorporated.

U.S. Environmental Protection Agency Ver. 6.78
 DEEM ACUTE analysis for DIMETHOATE (1989-92 data)
 Residue file: dimeth-all-2.R96 Adjustment factor #2 used.
 Analysis Date: 07-27-1999/08:27:05 Residue file dated: 07-27-1999/07:56:45/8
 Acute Reference Dose (aRfD) = 0.020000 mg/kg body-wt/day
 NOEL (Acute) = 2.000000 mg/kg body-wt/day
 MC iterations = 1000 MC list in residue file MC seed = 15
 =====

Summary calculations:

	5th Percentile			1st Percentile			0.1st Percentile		
	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE	Exposure	% aRfD	MOE
U.S. pop - all seasons:									
0.000421	2.11	4749	0.003900	19.50	512	0.009748	48.74	205	
U.S. pop - spring season:									
0.000376	1.88	5318	0.004184	20.92	478	0.010364	51.82	192	
U.S. pop - summer season:									
0.000612	3.06	3270	0.004011	20.05	498	0.010283	51.42	194	
U.S. pop - autumn season:									
0.000388	1.94	5148	0.003948	19.74	506	0.010177	50.88	196	
U.S. pop - winter season:									
0.000376	1.88	5324	0.003635	18.17	550	0.008082	40.41	247	
Northeast region:									
0.000432	2.16	4627	0.004025	20.12	496	0.009075	45.37	220	
Midwest region:									
0.000270	1.35	7412	0.002778	13.89	720	0.009154	45.77	218	
Southern region:									
0.000608	3.04	3289	0.004350	21.75	459	0.011190	55.95	178	
Western region:									
0.000526	2.63	3801	0.003450	17.25	579	0.008353	41.77	239	
Hispanics:									
0.000220	1.10	9104	0.002919	14.59	685	0.008529	42.64	234	
Non-hispanic whites:									
0.000388	1.94	5157	0.003596	17.98	556	0.008922	44.61	224	
Non-hispanic blacks:									
0.001056	5.28	1894	0.005240	26.20	381	0.016904	84.52	118	
Non-hispanic other:									
0.002508	12.54	797	0.005622	28.11	355	0.014599	73.00	136	
All infants (<1 year):									
0.000375	1.87	5336	0.001421	7.10	1407	0.007004	35.02	285	
Nursing infants (<1 year):									
0.000141	0.71	14146	0.000985	4.92	2030	0.004873	24.37	410	
Non-nursing infants (<1 yr):									
0.000445	2.23	4491	0.001614	8.07	1239	0.007605	38.02	262	
Children (1-6 years):									
0.000645	3.23	3099	0.005132	25.66	389	0.019331	96.66	103	
Children (7-12 years):									
0.000316	1.58	6332	0.003340	16.70	598	0.009278	46.39	215	
Females (13+/preg/not nsg):									
0.000258	1.29	7739	0.004761	23.80	420	0.008529	42.65	234	
Females (13+/nursing):									
0.000865	4.33	2311	0.004945	24.73	404	0.005649	28.25	354	
Females (13-19 yrs/np/nn):									
0.000215	1.08	9298	0.003104	15.52	644	0.015428	77.14	129	
Females (20+ years/np/nn):									
0.000446	2.23	4483	0.004131	20.65	484	0.009174	45.87	218	
Females (13-50 years):									
0.000240	1.20	8323	0.003603	18.01	555	0.009173	45.87	218	
Males (13-19 years):									
0.000344	1.72	5807	0.002979	14.89	671	0.007330	36.65	272	
Males (20+ years):									
0.000386	1.93	5176	0.003723	18.61	537	0.007178	35.89	278	
Seniors (55+):									
0.001441	7.20	1388	0.004421	22.10	452	0.009141	45.70	218	
Pacific Region:									
0.000714	3.57	2801	0.003762	18.81	531	0.008563	42.82	233	

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Attachment 5 (continued):

U.S. Environmental Protection Agency Ver. 6.78
 DEEM ACUTE analysis for DIMETHOATE (1989-92 data)
 Residue file: dimeth-all-2.R96 Adjustment factor #2 used.
 Analysis Date: 07-27-1999/08:27:05 Residue file dated: 07-27-1999/07:56:45/8
 Acute Reference Dose (aRfD) = 0.020000 mg/kg body-wt/day
 NOEL (Acute) = 2.000000 mg/kg body-wt/day
 MC iterations = 1000 MC list in residue file MC seed = 15

U.S. pop - all seasons -----	Daily Exposure Analysis 1/ (mg/kg body-weight/day)	
	per Capita	per User
Mean	0.000177	0.000177
Standard Deviation	0.000829	0.000830
Margin of Exposure 2/ Percent of aRfD	11,300 0.88	11,271 0.89

Percent of Person-Days that are User-Days = 99.74%

Estimated percentile of user-days exceeding calculated exposure
 in mg/kg body-wt/day and corresponding

Perc.	Exposure	% aRfD	MOE	Perc.	Exposure	% aRfD	MOE
90.00	0.000010	0.05	193,733	10.00	0.000152	0.76	13,200
80.00	0.000017	0.08	120,665	5.00	0.000422	2.11	4,742
70.00	0.000023	0.11	88,250	2.50	0.001830	9.15	1,092
60.00	0.000029	0.15	68,290	1.00	0.003904	19.52	512
50.00	0.000037	0.19	53,771	0.50	0.005235	26.18	382
40.00	0.000047	0.24	42,495	0.25	0.006929	34.65	288
30.00	0.000061	0.31	32,738	0.10	0.009753	48.76	205
20.00	0.000085	0.42	23,569				

Estimated percentile of per-capita days exceeding calculated exposure
 in mg/kg body-wt/day and corresponding

Perc.	Exposure	% aRfD	MOE	Perc.	Exposure	% aRfD	MOE
90.00	0.000010	0.05	198,316	10.00	0.000151	0.76	13,215
80.00	0.000016	0.08	121,607	5.00	0.000421	2.11	4,749
70.00	0.000023	0.11	88,679	2.50	0.001827	9.13	1,094
60.00	0.000029	0.15	68,529	1.00	0.003900	19.50	512
50.00	0.000037	0.19	53,919	0.50	0.005232	26.16	382
40.00	0.000047	0.23	42,587	0.25	0.006925	34.62	288
30.00	0.000061	0.30	32,796	0.10	0.009748	48.74	205
20.00	0.000085	0.42	23,603				

1/ Analysis based on all three-day participant records in CSFII 1989-92 survey.
 2/ Margin of Exposure = NOEL/ Dietary Exposure.

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