

US EPA ARCHIVE DOCUMENT



5-21-90

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

MAY 21 1990

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Revised Dietary Exposure Analysis for Atrazine Special Review.

FROM: Richard Griffin *Richard Griffin*  
Dietary Risk Evaluation System (DRES) Staff  
SACB / Health Effects Division (H7509C)

THROUGH: James P. Kariya *James P. Kariya*  
Acting Section Head, DRES  
Health Effects Division (H7509C) *[Signature]*

TO: Jude Andreasen, Review Manager  
Special Review Branch  
Special Review and Reregistration Division (H7508C)

Action Requested

Provide a dietary exposure/risk estimate for Atrazine based on revised anticipated residues. Estimate exposure/risk due to water contamination.

Discussion

1. Toxicology Endpoint: This chronic DRES analysis compared exposure estimates to a Reference Dose (RfD) of 0.005 mg/kg body weight/day based on a NOEL of 0.5 mg/kg bwt/day and an uncertainty factor of 100. The NOEL is based on a two generation rat reproduction study which demonstrated decreased body weights of F2 generation pups on the twenty-first postnatal day. This RfD value has been verified by HED (6/3/88) and EPA (2/21/90) Reference Dose committees.

Atrazine has been classified as a category C (possible human) carcinogen by the HED Peer Review Committee with an upper bound carcinogenic potency estimate (Q<sub>1</sub>\*) of 0.22 (mg/kg/day)<sup>1</sup>.

2. Residue Information: Food uses evaluated in this analysis are the published tolerances established under 40 CFR 180.220 for corn, guava, wheat, pineapple, sugarcane, sorghum, millet, macadamia nuts, milk, eggs, poultry, and all red meat products.

DRES uses current percent crop data to estimate the chronic exposure/risk for published uses. Percent crop data was provided by Economic Analysis Branch (Lapsley memo, 12/21/87) for the first DRES Atrazine analysis, updated by R. Torla for the second DRES dietary analysis (J.R. Tomerlin memo, 11/15/88), and updated again by R. Torla for this dietary analysis. Livestock commodities are evaluated at 100 percent crop treated on the assumption that feed items (such as corn) are nationally distributed. However, percent crop treated is factored into estimates of livestock anticipated residues.

All metabolites containing the intact triazine ring are now considered to be of toxicological (carcinogenic) concern. Based on corn and sorghum metabolism studies, Dietary Exposure Branch has revised (M. Metzger memo, 5/3/90) anticipated residues to account for Atrazine parent and all metabolites containing the intact triazine ring. The anticipated residues of corn forage, fodder, and silage were significantly increased with a resultant increase in the secondary residues in egg, milk, and animal tissues. Anticipated Residues for the remaining commodities remain unchanged pending future plant metabolism studies.

A summary of published uses, tolerances, percent crop treated, and anticipated residues are provided in Table 1.

3. Chronic Exposure Analysis: Tolerance residues and 100 percent crop treated are used to estimate a Theoretical Maximum Residue Contribution (TMRC). The dietary TMRC estimate for the overall U.S. population is 0.000988 mg/kg body weight/day (19.8% RfD). The highest TMRC sub-group estimate is 0.002420 mg/kg bwt/day (48.4% RfD) for children (1-6 yrs old).

The Atrazine Anticipated Residue Contribution (ARC) estimate is based on the averaged (no acute toxicological concerns) anticipated residues and percent crop treated data. Dietary ARC exposure estimates for Atrazine are much reduced from the TMRC estimate. The ARC estimate for the overall U.S. population is now 0.000198 mg/kg bwt/day (4.0% RfD) and for children (1-6 yrs) the current estimate is 0.000495 mg/kg bwt/day (9.9% RfD).

Dietary TMRC, ARC, and % RfD occupied estimates for the overall U.S. population and DRES population sub-groups are provided in Table 2.

Atrazine is a water contaminant with a proposed (by the Office of Drinking Water) Maximum Contaminant Level (MCL) of 3 ppb. All previous DRES analyses used this level to estimate Atrazine exposure due to contaminated water (see J.R. Tomerlin memos, 10/6/88, 11/15/88, 6/7/89, 8/1/89 for discussions of Atrazine exposure/risk due to water and DRES limitations in estimating water

consumption). For the purposes of this analysis, food-based and non food-based water exposure estimates are combined.

Atrazine contamination of water (as shown by actual measurements) occurs at levels up to a reported maximum of 1500 ppb (a point source). If water is contaminated at a level of 1 ppb, estimated exposure will be 0.000034 mg/kg bwt/day (0.7% RfD) for the overall (average) U.S. population. Exposure at 10 ppb adds 7.0% of the RfD/day to the existing dietary exposure of the overall U.S. population.

4. Carcinogenic Risk: A carcinogenic risk estimate for Atrazine is calculated only for the overall U.S. population based on the assumption that averaged exposure (overall U.S. population, ARC estimate) multiplied by the quantified carcinogenic potency (Q1\*) estimates carcinogenic risk for all individuals over 70 year life spans.

The carcinogenic risk estimate for the overall U.S. population, based on the Anticipated Residue Contribution for food uses only, is  $4.359 \times 10^{-5}$ .

Exposure (in mg/kg bwt/day, ARC) / Carcinogenic risk estimates (overall U.S. population) for individual commodities or commodity groups are as follows:

	Exposure (mg/kg/day)	/	Carcinogenic Risk (Exposure x Q <sub>1</sub> *)
Pineapple	0.0000004		$8.99 \times 10^{-8}$
Sugarcane	0.0000996		$2.19 \times 10^{-5}$
Corn	0.0000381		$8.37 \times 10^{-6}$
Sorghum	0.0000022		$4.76 \times 10^{-7}$
Wheat	0.0000003		$6.18 \times 10^{-8}$
Red Meats	0.0000093		$2.05 \times 10^{-6}$
Poultry	0.0000003		$6.84 \times 10^{-8}$
Milk	0.0000421		$9.27 \times 10^{-6}$
Eggs	0.0000058		$1.28 \times 10^{-6}$
Water @ 1 ppb	0.0000335		$7.37 \times 10^{-6}$
Water @ 3 ppb (MCL)	0.0001006		$2.21 \times 10^{-5}$
Water @ 10 ppb	0.0003352		$7.37 \times 10^{-5}$

A detailed commodity contribution list with carcinogenic risk is provided in Table 3.

Risk Assessment: The health risk for exposing the U.S. population to Atrazine is measured by comparing estimated daily exposure to the RfD and by estimating the carcinogenic risk of this exposure.

By the first measure, the chronic dietary risk appears to be relatively minimal. The overall U.S. population will be exposed to

Atrazine at an estimated level of 4.0% of the RfD/day and the most highly exposed sub-group (children (1-6 yrs)) at 9.9% of the RfD/day.

By the second measure, carcinogenic risk, Atrazine at current use levels presents a risk that is significantly greater than the  $10^{-6}$  risk generally accepted as negligible by the Agency. Exposure by water contamination at any level is an addition to a dietary carcinogenic risk estimate greater than  $4 \times 10^{-5}$ .

It should be noted that the exposure analysis above, with careful evaluations of percent crop treated and anticipated residues cannot be considered an overestimate.

cc:DRES

Caswell # 063

Dietary Exposure Branch, HED

Toxicology, HED



Table 1 cont.

FOOD CODE	FOOD	STUDY TYPE	EFFECTS	REFERENCE DOSES			DATA GAPS/COMMENTS	STATUS	
				ADI	UF	OPR Rfd			
Atrazine		2-gen reprod-rat	Decreased body weights of pups in the second generation on postnatal day 21	0.005000	100	0.005000	No data gaps.	HED complete 07/09/86.	
Caswell #063		NOEL=		0.5000 mg/kg				EPA verified 05/20/87.	
CAS No. 1912-24-9		LEL=	Evidence of oncogenicity in rats (mammary).	10.00 ppm				HED reassess 06/03/88.	
A.I. CODE: 080803		ONCO: Class C (HED NOTE).		2.5000 mg/kg			Q* calculated.	EPA verified 06/22/88.	
CFR No. 180.220				50.00 ppm				EPA verified 02/21/90.	
				Q*: 0.22000				On IRIS.	
FOOD CODE	FOOD	STUDY TYPE	EFFECTS	TOLERANCE (ppm)	PET.#	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
250035A	CANE SUGAR	10 RAM-FRESH OR NFS	7F0620	P 0.250000		0.160000	AVG FLD TRIALS	80.00	0.128000
250035A	CANE SUGAR	21 COOKED-NFS	7F0620	P 0.250000		0.160000	AVG FLD TRIALS	80.00	0.128000
250035A	CANE SUGAR	22 COOKED-FRESH-BAKED	7F0620	P 0.250000		0.160000	AVG FLD TRIALS	80.00	0.128000
250035A	CANE SUGAR	31 COOKED-FRESH OR CANNED	7F0620	P 0.250000		0.160000	AVG FLD TRIALS	80.00	0.128000
250035B	SUGAR-MOLASSES	10 RAM-FRESH OR NFS	7F0620	P 0.250000		0.650000	AVG FLD TRIALS	80.00	0.520000
250035B	SUGAR-MOLASSES	21 COOKED-NFS	7F0620	P 0.250000		0.650000	AVG FLD TRIALS	80.00	0.520000
250035B	SUGAR-MOLASSES	22 COOKED-FRESH-BAKED	7F0620	P 0.250000		0.650000	AVG FLD TRIALS	80.00	0.520000
250035B	SUGAR-MOLASSES	31 COOKED-FRESH OR CANNED	7F0620	P 0.250000		0.650000	AVG FLD TRIALS	80.00	0.520000
270020A	CORN, GRAIN-OIL	18 PROCESSED OIL	7F0620	P 0.250000		0.100000	AVG FLD TRIALS	70.00	0.070000
500000B	MILK-NON-FAT SOL	10 RAM-FRESH OR NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000FA	MILK-FAT SOLIDS	10 RAM-FRESH OR NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000FA	MILK-FAT SOLIDS	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000FA	MILK-FAT SOLIDS	51 COOKED-CANNED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000SA	MILK SUG (LACT)	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
500000SA	MILK SUG (LACT)	51 COOKED-CANNED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-MEAT BYP	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-MEAT BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018B	BEEF-OTH ORGAN	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018B	BEEF-OTH ORGAN	51 COOKED-CANNED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-DRIED	10 RAM-FRESH OR NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-FAT	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-FAT	22 COOKED-FRESH-BAKED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-FAT	23 COOKED-FRESH-BOILED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-FAT	24 COOKED-FRESH-BROILED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-FAT	25 COOKED-FRESH-FRIED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-KIDNEY	21 COOKED-NFS	7F0620	P 0.020000		0.006000	AVG METAB STUDY	100.00	0.006000
530018A	BEEF-LIVER	25 COOKED-FRESH-FRIED	7F0620	P 0.020000		0.020000	AVG METAB STUDY	100.00	0.020000
530018A	BEEF-LIVER	31 COOKED-FRESH OR CANNED	7F0620	P 0.020000		0.020000	AVG METAB STUDY	100.00	0.020000
530018A	BEEF-LEAN	10 RAM-FRESH OR NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-LEAN	21 COOKED-NFS	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-LEAN	22 COOKED-FRESH-BAKED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-LEAN	23 COOKED-FRESH-BOILED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530018A	BEEF-LEAN	24 COOKED-FRESH-BROILED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530028A	GOAT-MEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530028A	GOAT-OTH ORGAN	00 NOT SPECIFIED (NO CONSUMPTION)	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530028A	GOAT-FAT	23 COOKED-FRESH-BOILED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000
530028A	GOAT-FAT	25 COOKED-FRESH-FRIED	7F0620	P 0.020000		0.004000	AVG METAB STUDY	100.00	0.004000





Table 1 cont.

CHEMICAL Atrazine Caswell #063 CAS No. 1912-24-9 A.I. CODE: 080803 CFR No. 180.220	STUDY TYPE 2-gen reprod-rat NOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm OMCO: Class C (HED NOTE).	EFFECTS Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (mammary).	REFERENCE DOSES		DATA GAPS/COMMENTS No data gaps.	STATUS HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. EPA verified 02/21/90. On IRIS.
			ADI	UF		
			OPP RfD= 0.005000			
			EPA RfD= 0.005000			
			Q*: 0.22000	q* calculated.		

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
55014AA	EGGS-WHOLE	21 COOKED-NFS	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS	7F0620	P 0.020000	0.009000	AVG METAB STUDY	100.00	0.009000
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED	7F0620	P 0.020000	0.009000	AVG METAB STUDY	100.00	0.009000
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED	7F0620	P 0.020000	0.009000	AVG METAB STUDY	100.00	0.009000
55014AC	EGGS-YOLK ONLY	81 COOKED-FROZEN	7F0620	P 0.020000	0.009000	AVG METAB STUDY	100.00	0.009000
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55015BA	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55015BA	CHICKEN-BYP	00 NOT SPECIFIED (NO CONSUMPTION)	7F0620	P 0.020000	0.010000	AVG METAB STUDY	100.00	0.010000
55015LA	CHICKEN-ORGAN	21 COOKED-NFS	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015LA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	7F0620	P 0.020000	0.002000	AVG METAB STUDY	100.00	0.002000
55015LA	CHICKEN-ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	7F0620	P 0.020000	0.002000	AVG METAB STUDY	100.00	0.002000
55015MA	CHICKEN-W/O SKIN	21 COOKED-NFS	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015MA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015MA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015MA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015MA	CHICKEN-W/O SKIN	53 COOKED-CANNED-BOILED	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015MB	CHICKEN+SKIN	21 COOKED-NFS	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600
55015MB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	7F0620	P 0.020000	0.000600	AVG METAB STUDY	100.00	0.000600

# Table 2. Exposure Analysis

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 05/17/90

PAGE: 1

CHEMICAL INFORMATION	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Atrazine Caswell #063 CAS No. 1912-24-9 A.I. CODE: 080803 CFR No. 180.220	2-gen reprod-rat NOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm ONCO: Class C (HED NOTE).	Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (mammary).	ADI UF --> 100 OPP RfD= 0.005000 EPA RfD= 0.005000 q*: 0.22000	No data gaps.	HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. On IRIS.

POPULATION SUBGROUP	TOTAL THRC (MG/KG BODY WEIGHT/DAY)		NEW THRC AS PERCENT OF RFD	DIFFERENCE AS PERCENT OF RFD	EFFECT OF ANTICIPATED RESIDUES	
	CURRENT THRC*	NEW THRC**			ARC	XRFD
U.S. POPULATION - 48 STATES	0.000988	0.000988	19.755880	0.000000	0.000198	3.96270
U.S. POPULATION - SPRING SEASON	0.000951	0.000951	19.024960	0.000000	0.000193	3.86844
U.S. POPULATION - SUMMER SEASON	0.000985	0.000985	19.709080	0.000000	0.000200	4.00272
U.S. POPULATION - FALL SEASON	0.000997	0.000997	19.938900	0.000000	0.000197	3.93172
U.S. POPULATION - WINTER SEASON	0.000994	0.000994	19.877900	0.000000	0.000194	3.87556
NORTHEAST REGION	0.000973	0.000973	19.466720	0.000000	0.000185	3.69258
NORTH CENTRAL REGION	0.001011	0.001011	20.228420	0.000000	0.000203	4.06962
SOUTHERN REGION	0.000956	0.000956	19.128360	0.000000	0.000198	3.96564
WESTERN REGION	0.000994	0.000994	19.883700	0.000000	0.000196	3.92550
HISPANICS	0.001096	0.001096	21.913620	0.000000	0.000222	4.43878
NON-HISPANIC WHITES	0.000977	0.000977	19.544720	0.000000	0.000193	3.85612
NON-HISPANIC BLACKS	0.000956	0.000956	19.129920	0.000000	0.000204	4.07758
NON-HISPANIC OTHERS	0.000994	0.000994	19.884360	0.000000	0.000199	3.97178
NURSING INFANTS (< 1 YEAR OLD)	0.000625	0.000625	12.501100	0.000000	0.000129	2.57390
NON-NURSING INFANTS (< 1 YEAR OLD)	0.002308	0.002308	46.152260	0.000000	0.000485	9.70764
FEMALES (13+ YEARS, PREGNANT)	0.000707	0.000707	14.148820	0.000000	0.000138	2.75448
FEMALES 13+ YEARS, NURSING	0.000824	0.000824	16.474520	0.000000	0.000161	3.21688
CHILDREN (1-6 YEARS OLD)	0.002420	0.002420	48.396340	0.000000	0.000495	9.89860
CHILDREN (7-12 YEARS OLD)	0.001662	0.001662	33.247320	0.000000	0.000338	6.76424
MALES (13-19 YEARS OLD)	0.001104	0.001104	22.077840	0.000000	0.000222	4.44048
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.000883	0.000883	17.656800	0.000000	0.000184	3.68934
MALES (20 YEARS AND OLDER)	0.000688	0.000688	13.769260	0.000000	0.000131	2.61986
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)	0.000596	0.000596	11.916220	0.000000	0.000116	2.32166

\*Current THRC does not include new or pending tolerances.

\*\*New THRC includes new, pending, and published tolerances.

**Table 3. Commodity Contribution and Carcinogenic Risk**

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 05/18/90

PAGE: 1

CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Atrazine Cashell #063 CAS No. 1912-24-9 A.I. CODE: 080803 CFR No. 180.220		2-gen repro-rat NOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm ONCO: Class C (HED NOTE).	Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (mammary).	ADI UF -->100 OPP RfD= 0.005000 EPA RfD= 0.005000 qt: 0.22000	No data gaps. q* calculated.	HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. On IRIS.

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	TYPE	TMRC (UG/KG/DAY)	%RFD	TMRC ONCO RISK	ANTICIPATED RESIDUE (PPM)	ARC (UG/KG/DAY)	%RFD	ARC ONCO RISK
06006AA	GUAVA	0.050	P	0.000005	0.000	0.00000000110	0.00100	0.000000	0.000	0.000000000000
	10 RAW-FRESH OR NFS						0.00100	0.000000	0.000	0.000000000000
	21 COOKED-NFS						0.00100	0.000000	0.000	0.000000000000
06013AA	PINEAPPLE-FRESH OR FROZEN-BAKED	0.250	P	0.007707	0.154	0.00000169554	0.00600	0.000067	0.001	0.00000001474
	62 COOKED-FRESH OR FROZEN-BAKED						0.00600	0.000005	0.000	0.00000000110
	10 RAW-FRESH OR NFS						0.00600	0.000113	0.002	0.00000002486
	21 COOKED-NFS						0.00600	0.000001	0.000	0.00000000022
	31 COOKED-FRESH OR CANNED						0.00600	0.000004	0.000	0.00000000088
06013DA	PINEAPPLE-DRIED	0.250	P	0.000031	0.001	0.00000000682	0.00600	0.000103	0.002	0.00000002266
	10 RAW-FRESH OR NFS						0.00600	0.000003	0.000	0.00000000066
	31 COOKED-FRESH OR CANNED						0.00600	0.000113	0.002	0.00000002486
06013JA	PINEAPPLE-FRESH/JUICE	0.250	P	0.015803	0.316	0.00000347666	0.00600	0.000004	0.000	0.00000000088
	10 RAW-FRESH OR NFS						0.00600	0.000103	0.002	0.00000002266
	15 RAW-FRESH OR CANNED						0.00600	0.000003	0.000	0.00000000066
	21 COOKED-NFS						0.00600	0.000113	0.002	0.00000002486
	31 COOKED-FRESH OR CANNED						0.00600	0.000113	0.002	0.00000002486
25003SA	CANE SUGAR	0.250	P	0.183941	3.679	0.00004046702	0.12800	0.010796	0.216	0.00000237512
	10 RAW-FRESH OR NFS						0.12800	0.024294	0.486	0.00000534468
	21 COOKED-NFS						0.12800	0.015942	0.319	0.00000350724
	22 COOKED-FRESH-BAKED						0.12800	0.043145	0.863	0.00000949190
	31 COOKED-FRESH OR CANNED						0.12800	0.043145	0.863	0.00000949190
25003SB	SUGAR-MOLASSES	0.250	P	0.002630	0.053	0.00000057860	0.52000	0.000000	0.000	0.00000000000
	10 RAW-FRESH OR NFS						0.52000	0.001677	0.034	0.00000036894
	21 COOKED-NFS						0.52000	0.002898	0.058	0.00000063756
	22 COOKED-FRESH-BAKED						0.52000	0.000896	0.018	0.00000019712
	31 COOKED-FRESH OR CANNED						0.52000	0.000896	0.018	0.00000019712
CROP GROUP TOTALS FOR UNSPECIFIED:										
				0.210117	4.202	0.00004622574		0.100057	2.001	0.00002201254
15004AA	CORN, POP	0.250	P	0.001693	0.034	0.00000037246	0.07000	0.000474	0.009	0.00000010428
	21 COOKED-NFS						0.07000	0.000474	0.009	0.00000010428
15005AA	CORN/SHEET	0.250	P	0.059177	1.184	0.00001301894	0.06000	0.000006	0.000	0.00000000132
	10 RAW-FRESH OR NFS						0.06000	0.011959	0.239	0.00000263098
	21 COOKED-NFS						0.06000	0.002238	0.045	0.00000049236
	31 COOKED-FRESH OR CANNED						0.06000	0.002238	0.045	0.00000049236
24002EA	CORN/GRAIN-ENDOSPERM	0.250	P	0.041350	0.827	0.00000909700	0.07000	0.000043	0.001	0.00000000946
	10 RAW-FRESH OR NFS						0.07000	0.001525	0.031	0.00000033550
	21 COOKED-NFS						0.07000	0.008602	0.172	0.00000189244
	22 COOKED-FRESH-BAKED						0.07000	0.001408	0.028	0.00000030976
	23 COOKED-FRESH-BOILED						0.07000	0.001408	0.028	0.00000030976
24002HA	CORN/GRAIN-BRAN	0.250	P	0.000000	0.000	0.00000000000	0.07000	0.000000	0.000	0.00000000000
	00 NOT SPECIFIED (NO CONSUMPTION)						0.07000	0.000000	0.000	0.00000000000

*Corn-ohc 5.2 x 10<sup>-6</sup>*

Table 3 cont.

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 05/18/90

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CHEMICAL INFORMATION		STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
Atrazine Caswell #063 CAS No. 1912-24-9 A.I. CODE: 080803 CFR No. 180.220		2-gen reprod-rat MOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm ONCO: Class C. (HED NOTE).		Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (mammary).		ADI UF -->100 OPP Rfd= 0.005000 EPA Rfd= 0.005000 Q*: 0.22000		No data gaps. Q* calculated.		HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. EPA verified 02/21/90. On IRIS.	

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	THRC TYPE (UG/KG/DAY)	THRC	%RFD	THRC ONCO RISK	ANTICIPATED RESIDUE		%RFD	ARC (UG/KG/DAY)	ARC ONCO RISK
							(PPM)	(UG/KG/DAY)			
24002SA	CORN SUGAR 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED	0.250	P	0.036437	0.729	0.00000801614	0.07000	0.000397	0.008	0.00000008734	
24006AA	SORGHUM (INCLUDING MILO) 00 NOT SPECIFIED (NO CONSUMPTION)	0.250	P	0.005942	0.119	0.00000130724	0.07000	0.008846	0.177	0.00000194612	
24007AA	WHEAT-ROUGH 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 23 COOKED-FRESH-BOILED	0.250	P	0.035153	0.703	0.00000773366	0.07000	0.000959	0.019	0.00000021098	
24007GA	WHEAT-GERM 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED	0.250	P	0.000201	0.004	0.00000004422	0.00020	0.000000	0.000	0.00000000000	
24007HA	WHEAT-BRAN 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED	0.250	P	0.003039	0.061	0.00000066858	0.00020	0.000000	0.000	0.00000000000	
24007JA	WHEAT-FLOUR 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 25 COOKED-FRESH-FRIED	0.250	P	0.314312	6.286	0.00006914864	0.00020	0.000002	0.000	0.00000000044	
24012AA	MILLET 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.250	P	0.000005	0.000	0.00000000110	0.00020	0.000000	0.000	0.00000000000	
270020A	CORN/GRAIN-OIL 18 PROCESSED OIL	0.250	P	0.005700	0.114	0.00000125400	0.00020	0.000140	0.003	0.00000003080	
CROP GROUP TOTALS FOR CEREAL GRAINS: 0.503009 10.060 0.00011066198											
03007AA	MACADAMIA NUTS (BUSH NUTS) 10 RAW-FRESH OR NFS	0.250	P	0.000012	0.000	0.00000000264	0.00020	0.000000	0.000	0.00000000000	
CROP GROUP TOTALS FOR TREE NUTS: 0.000012 0.000 0.00000000264											

$4.8 \times 10^{-7}$

$6.6 \times 10^{-10}$

Table 3 cont.

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

CHEMICAL INFORMATION		STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
Atrazine Caswell #063 CAS No. 1912-24-9 A.I. CODE: 080803 CFR No. 180.220		2-gen reprod-rat NOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm ONCO: Class C (HED NOTE).		Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (mammary).		ADI UF -->100 OPP RfD= 0.005000 EPA RfD= 0.005000 Q*: 0.22000		No data gaps.		HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. EPA verified 02/21/90. On IRIS.	

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	EFFECTS TYPE	THRC (UG/KG/DAY)	%RFD	THRC ONCO RISK	ANTICIPATED		ARC ONCO RISK	
							RESIDUE (PPM)	(UG/KG/DAY)		
53001BA	BEEF-MEAT BYPRODUCTS 21 COOKED-NFS	0.020	P	0.000353	0.007	0.00000007766	0.00400	0.000066	0.001	0.00000001452
53001BB	26 COOKED-FRESH-PICKLED, CORNED, OR CURED BEEF(ORGAN MEATS)-OTHER	0.020	P	0.000121	0.002	0.00000002662	0.00400	0.000005	0.000	0.00000000110
53001DA	21 COOKED-NFS 51 COOKED-CANNED BEEF-DRIED	0.020	P	0.000051	0.001	0.00000001122	0.00400	0.000021	0.000	0.00000000462
53001FA	21 COOKED-NFS BEEF(BONELESS)-FAT (BEEF TALLOW) 10 RAW-FRESH OR NFS	0.020	P	0.007442	0.149	0.00000163724	0.00400	0.000010	0.000	0.00000000220
53001KA	21 COOKED-NFS BEEF(ORGAN MEATS)-KIDNEY	0.020	P	0.000010	0.000	0.00000000220	0.00400	0.000006	0.000	0.00000000132
53001LA	21 COOKED-NFS BEEF(ORGAN MEATS)-LIVER	0.020	P	0.000414	0.008	0.00000009108	0.00400	0.000593	0.012	0.0000013046
53001MA	23 COOKED-FRESH-BOILED 31 COOKED-FRESH OR CANNED BEEF(BONELESS)-LEAN (W/O REMOVEABLE FAT) 10 RAW-FRESH OR NFS	0.020	P	0.023240	0.465	0.00000511280	0.00400	0.000100	0.002	0.0000002200
53002BA	21 COOKED-NFS 22 COOKED-FRESH-BAKED 23 COOKED-FRESH-BOILED 24 COOKED-FRESH-BROILED GOAT-MEAT BYPRODUCTS	0.020	P	0.000000	0.000	0.00000000000	0.00400	0.000000	0.000	0.00000000000
53002BB	00 NOT SPECIFIED (NO CONSUMPTION) GOAT(ORGAN MEATS)-OTHER	0.020	P	0.000000	0.000	0.00000000000	0.00400	0.002769	0.055	0.00000060918
53002FA	00 NOT SPECIFIED (NO CONSUMPTION) GOAT(BONELESS)-FAT 23 COOKED-FRESH-BOILED 25 COOKED-FRESH-FRIED	0.020	P	0.000001	0.000	0.00000000022	0.00400	0.000191	0.004	0.00000004202
53002KA	23 COOKED-FRESH-BOILED GOAT(ORGAN MEATS)-KIDNEY	0.020	P	0.000000	0.000	0.00000000000	0.00400	0.000295	0.006	0.00000006490
53002LA	00 NOT SPECIFIED (NO CONSUMPTION) GOAT(ORGAN MEATS)-LIVER	0.020	P	0.000000	0.000	0.00000000000	0.00400	0.001394	0.028	0.00000030668
53002MA	00 NOT SPECIFIED (NO CONSUMPTION) GOAT(BONELESS)-LEAN (W/O REMOVEABLE FAT) 23 COOKED-FRESH-BOILED 25 COOKED-FRESH-FRIED	0.020	P	0.000004	0.000	0.00000000088	0.00400	0.000000	0.000	0.00000000000
53003AA	HORSE 00 NOT SPECIFIED (NO CONSUMPTION)	0.020	P	0.000000	0.000	0.00000000000	0.00400	0.000000	0.000	0.00000000000

Table 3 cont.

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 05/18/90

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CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Atrazine		2-gen reprod-rat	Decreased body weights of pups in the second generation on postnatal day 21	ADI UF -->100 OPP RfD= 0.005000 EPA RfD= 0.005000	No data gaps.	HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. EPA verified 02/21/90. On IRIS.
Caswell #063		MOEL=	Evidence of oncogenicity in rats (summary).	Q*: 0.22000	Q* calculated.	
CAS No. 1912-24-9		0.5000 mg/kg				
A.I. CODE: 080803		10.00 ppm				
CFR No. 180.220		2.5000 mg/kg				
		50.00 ppm				
		ONCO: Class C (HED NOTE).				

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPH)	TMRC TYPE (UG/KG/DAY)	TMRC		ARC (UG/KG/DAY)	XRFD	ARC	ONCO RISK		
				ONCO RISK	XRFD						
53005BA	SHEEP-MEAT BYPRODUCTS	0.020	P	0.000001	0.000	0.000000000022	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
53005BB	SHEEP(ORGAN MEATS)-OTHER	0.020	P	0.000000	0.000	0.000000000000	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
53005FA	SHEEP(BONELESS)-FAT	0.020	P	0.000086	0.002	0.00000001892	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
53005KA	SHEEP(ORGAN MEATS)-KIDNEY	0.020	P	0.000000	0.000	0.000000000000	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
53005LA	SHEEP(ORGAN MEATS)-LIVER	0.020	P	0.000000	0.000	0.000000000000	0.000	0.000000000000	0.000000000000		
	00 NOT SPECIFIED (NO CONSUMPTION)										
53005NA	SHEEP(BONELESS)-LEAN (W/O REMOVABLE FAT)	0.020	P	0.000250	0.005	0.000000005500	0.001	0.00000001012	0.000000000088		
	21 COOKED-MFS										
	31 COOKED-FRESH OR CANNED										
530068A	PORK-MEAT BYPRODUCTS	0.020	P	0.000502	0.010	0.00000011044	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
530068B	PORK(ORGAN MEATS)-OTHER	0.020	P	0.000077	0.002	0.00000001694	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
	26 COOKED-FRESH-PICKLED, CORNED, OR CURED										
53006FA	PORK(BONELESS)-FAT (INCLUDING LARD)	0.020	P	0.004164	0.083	0.000000091608	0.000	0.000000000000	0.000000000000		
	10 RAW-FRESH OR MFS										
	21 COOKED-MFS										
	23 COOKED-FRESH-BOILED										
	25 COOKED-FRESH-FRIED										
	26 COOKED-FRESH-PICKLED, CORNED, OR CURED										
53006KA	PORK(ORGAN MEATS)-KIDNEY	0.020	P	0.000000	0.000	0.000000000000	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
53006LA	PORK(ORGAN MEATS)-LIVER	0.020	P	0.000096	0.002	0.00000002112	0.000	0.000000000000	0.000000000000		
	21 COOKED-MFS										
	25 COOKED-FRESH-FRIED										
53006MA	PORK(BONELESS)-LEAN (W/O REMOVABLE FAT)	0.020	P	0.007825	0.157	0.00000172150	0.015	0.00000015972	0.00000004202		
	21 COOKED-MFS										
	25 COOKED-FRESH-FRIED										
	26 COOKED-FRESH-PICKLED, CORNED, OR CURED										
CROP GROUP TOTALS FOR RED MEAT:						0.04637	0.893	0.00000982014	0.009336	0.187	0.00000205392

Table 3 cont.

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 05/18/90

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CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Atrazine Caswell #063 CAS No. 1912-24-9 A.I. CODE: 060803 CFR No. 180.220		2-gen reprod-rat NOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm OMCO: Class C (HED NOTE).	Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (mammary).	AD1 UF -->100 OPP Rfd= 0.005000 EPA Rfd= 0.005000 q*: 0.22000	No data gaps. q* calculated.	HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. EPA verified 02/21/90. On IRIS.

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	EFFECTS TYPE	THRC		ANTICIPATED RESIDUE (PPM)	ARC (UG/KG/DAY)	ARC	OMCO RISK	OMCO RISK
				TYPE	VALUE					
550089A	TURKEY-BYPRODUCTS 21 COOKED-NFS	0.020	P	0.000005	0.000	0.00060	0.000000	0.000	0.000000000000	0.000000000000
550089B	26 COOKED-FRESH-PICKLED, CORNED, OR CURED TURKEY-GIBLETS (LIVER) 21 COOKED-NFS	0.020	P	0.000001	0.000	0.00060	0.000000	0.000	0.000000000000	0.000000000000
550089A	TURKEY-FLESH(W/O SKIN & W/O BONES) 21 COOKED-NFS	0.020	P	0.000159	0.003	0.00200	0.000000	0.000	0.000000000000	0.000000000000
550089B	31 COOKED-FRESH OR CANNED 62 COOKED-FRESH OR FROZEN-BAKED TURKEY-FLESH(+SKIN & W/O BONES) 21 COOKED-NFS	0.020	P	0.000963	0.019	0.00060	0.000003	0.001	0.000000000066	0.000000000022
550089C	25 COOKED-FRESH-FRIED TURKEY-UNSPECIFIED	0.020	P	0.000002	0.000	0.00060	0.000002	0.000	0.00000000594	0.000000000044
550139A	POULTRY/OTHER-BYPRODUCTS 00 NOT SPECIFIED (NO CONSUMPTION)	0.020	P	0.000000	0.000	0.00060	0.000000	0.000	0.000000000000	0.000000000000
550139A	POULTRY/OTHER-GIBLETS(LIVER) 25 COOKED-FRESH-FRIED	0.020	P	0.000005	0.000	0.00060	0.000000	0.000	0.000000000000	0.000000000000
550139A	POULTRY/OTHER-FLESH (+SKIN & W/O BONES) 21 COOKED-NFS	0.020	P	0.000108	0.002	0.00200	0.000000	0.000	0.000000000000	0.000000000000
550158A	CHICKEN-BYPRODUCTS 00 NOT SPECIFIED (NO CONSUMPTION)	0.020	P	0.000000	0.000	0.00060	0.000000	0.000	0.000000000000	0.000000000000
550159A	CHICKEN-GIBLETS(LIVER) 21 COOKED-NFS	0.020	P	0.000101	0.002	0.00060	0.000003	0.000	0.000000000066	0.000000000000
550159A	25 COOKED-FRESH-FRIED 26 COOKED-FRESH-PICKLED, CORNED, OR CURED CHICKEN-FLESH(W/O SKIN & W/O BONES) 21 COOKED-NFS	0.020	P	0.001203	0.024	0.00200	0.000000	0.000	0.000000000000	0.000000000000
550159B	22 COOKED-FRESH-BAKED 25 COOKED-FRESH-FRIED 31 COOKED-FRESH OR CANNED 53 COOKED-CANNED-BOILED CHICKEN-FLESH(+SKIN & W/O BONES) 21 COOKED-NFS	0.020	P	0.007586	0.152	0.00060	0.000003	0.002	0.000000000028	0.000000000066
CROP GROUP TOTALS FOR POULTRY:										
				0.010133	0.203	0.00000222926	0.000311	0.006	0.00000006942	0.00000006942

Table 3 cont.

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 05/18/90

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CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Atrazine Caswell #063 CAS No. 1912-24-9 A.I. CODE: 080803 CFR No. 180.220		2-gen reprod-rat NOEL= 0.5000 mg/kg 10.00 ppm LEL= 2.5000 mg/kg 50.00 ppm ONCO: Class C (HED NOTE).	Decreased body weights of pups in the second generation on postnatal day 21 Evidence of oncogenicity in rats (summary).	ADI UF -->100 OPP Rfd= 0.005000 EPA Rfd= 0.005000 Q*: 0.22000	No data gaps. Q* calculated.	HED complete 07/09/86. EPA verified 05/20/87. HED reassess 06/03/88. EPA verified 06/22/88. EPA verified 02/21/90. On IRIS.

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	THRC TYPE (UG/KG/DAY)	THRC	THRC ONCO RISK	2RFD	THRC ONCO RISK	ANTICIPATED RESIDUE (PPM)	ARC (UG/KG/DAY)	2RFD	ARC ONCO RISK
500000B	MILK-NON-FAT SOLIDS 10 RAW-FRESH OR NFS	0.020	P 0.140631	2.813	0.000003093882			0.00400	0.022818	0.456	0.00000501996
	21 COOKED-NFS							0.00400	0.004624	0.092	0.00000101728
	51 COOKED-CANNED							0.00400	0.001010	0.020	0.00000022220
500000FA	MILK-FAT SOLIDS 10 RAW-FRESH OR NFS	0.020	P 0.066899	1.338	0.00001471778			0.00400	0.010655	0.213	0.00000234410
	21 COOKED-NFS							0.00400	0.002838	0.057	0.00000062436
	51 COOKED-CANNED							0.00400	0.000041	0.001	0.000000009902
500000SA	MILK SUGAR (LACTOSE) 21 COOKED-NFS	0.020	P 0.000749	0.015	0.00000016478			0.00400	0.000000	0.000	0.000000000000
	51 COOKED-CANNED							0.00400	0.000150	0.003	0.00000003300
55014AA	EGGS-WHOLE 10 RAW-FRESH OR NFS	0.020	P 0.011290	0.226	0.00000248380			0.01000	0.000043	0.001	0.000000009946
	21 COOKED-NFS							0.01000	0.003120	0.062	0.00000068640
	22 COOKED-FRESH-BAKED							0.01000	0.000600	0.012	0.00000013200
	23 COOKED-FRESH-BOILED							0.01000	0.000247	0.005	0.00000005434
	25 COOKED-FRESH-FRIED							0.01000	0.001636	0.033	0.00000035992
55014AB	EGGS-WHITE ONLY 10 RAW-FRESH OR NFS	0.020	P 0.000184	0.004	0.00000004048			0.00900	0.000001	0.000	0.00000000022
	21 COOKED-NFS							0.00900	0.000006	0.000	0.00000000132
	22 COOKED-FRESH-BAKED							0.00900	0.000058	0.001	0.00000001276
	62 COOKED-FRESH OR FROZEN-BAKED							0.00900	0.000006	0.000	0.00000000132
	81 COOKED-FROZEN							0.00900	0.000012	0.000	0.00000000264
55014AC	EGGS-YOLK ONLY 10 RAW-FRESH OR NFS	0.020	P 0.000133	0.003	0.00000002926			0.01000	0.000008	0.000	0.00000000176
	21 COOKED-NFS							0.01000	0.000020	0.000	0.00000000440
	25 COOKED-FRESH-FRIED							0.01000	0.000025	0.001	0.00000000550
	31 COOKED-FRESH OR CANNED							0.01000	0.000013	0.000	0.00000000286
CROP GROUP TOTALS FOR DAIRY PRODUCTS:											
				0.219886	4.398	0.00004837492			0.047931	0.959	0.00001054462

GRAND TOTALS FOR U.S. POPULATION - 48 STATES

0.987794 19.756 0.00021731468

0.198135 3.963 0.00004358970

TOLERANCE TYPE: N=NEW; A=PENDING; P=PUBLISHED  
THRC=THEORETICAL MAXIMUM RESIDUE CONTRIBUTION  
ARC = ANTICIPATED RESIDUE CONTRIBUTION  
RFD = REFERENCE DOSE

TMRRC

ARC