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

JAN 30 1989

ps 163301

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Acephate: TAS Dietary Exposure Analysis

FROM: Susan L. Stanton *Susan L. Stanton* 01/27/89
Tolerance Assessment Staff
HED/SACB (TS-769C)

THRU: Bruce Jaeger *BJ* 1/30/89
Head, Special Analysis and Outreach Section
HED/SACB (TS-769C)

TO: John Tice, PM-16
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Action Requested

SACB has been asked to provide a TAS dietary exposure analysis for acephate, incorporating anticipated residue and percent of crop treated data from Dietary Exposure Branch's recent review (memo. Suhre to Tice, 01/12/89).

Discussion

A TAS chronic exposure analysis was conducted using a reference dose (ADI) of 0.004 mg/kg body wt/day for cholinesterase inhibition, based on the LEL of 0.12 mg/kg/day from a 90-day rat feeding study with an uncertainty factor of 30. This value was approved at the Agency level January 18, 1989.

The food uses evaluated were those established under 40 CFR 180.108 and 185.100. The residues used in the analysis were published tolerances and anticipated residues provided by DEB. Table 1 contains a complete listing of residues used in the analysis.

Acephate tolerances are established for residues of the parent compound and its metabolite, methamidophos. Since the purpose of this analysis is to estimate acephate dietary exposure only, DEB's values reflect only the anticipated residues for the parent compound. Anticipated residues were provided for all 40 CFR 180.108 food uses. In general, average residues from FDA domestic monitoring data were used when available (beans, brussels sprouts, cauliflower, celery, cranberries, lettuce, and

peppers); otherwise, average residues from field studies were used (cottonseed, macadamia nuts, mint, peanuts, and soybeans). Residues derived from field trials were adjusted to reflect the percent of crop treated (except for macadamia nuts and mint where this information was unavailable). Residues for meat, milk, poultry, and eggs were extrapolated from animal feeding studies and average residues in or on feed items. These values also reflect the percent of crop treated.

A food additive tolerance of 0.02 ppm is established for residues of acephate and its methamidaphos metabolite in or on all foods (except those covered by a higher tolerance) from applications of acephate in food handling establishments (40 CFR 185.100). Anticipated residues are not available for this use (personal communication from Francis Suhre, 01/26/89). Therefore, the TAS analysis uses the established tolerance of 0.02 ppm for all foods other than those discussed above. This conservative approach no doubt overestimates exposure to acephate from the food handling establishment use. However, a more realistic estimate is not possible at this time.

The TAS chronic analysis estimates average daily dietary exposure for the overall U.S. population and each of 22 population subgroups and compares these estimates to the acceptable daily intake (See Table 2). An analysis based on tolerances and 100% crop treated and the analysis incorporating available anticipated residues and percent of crop treated data are discussed separately below.

I. Analysis Based on Tolerances and Assuming 100% Crop treated

The Theoretical Maximum Residue Contribution (TMRC) for the overall U.S. population is estimated to be 0.006255 mg/kg/day, which occupies approximately 156 percent of the ADI. The two most highly exposed population subgroups are non-nursing infants less than 1 year old (TMRC = 0.012443 mg/kg/day or 311% of the ADI) and children, 1 to 6 years old (TMRC = 0.010047 mg/kg/day or 251% of the ADI). The attached Table 3 contains estimates of exposure from individual commodities or commodity groups, including an estimate of exposure from the food handling establishment use. These estimates are located in columns 2, 3, and 4 for the overall population, infants, and children, respectively. Please note that exposure estimates in this table are expressed as ug/kg/day, rather than mg/kg/day as they are on the analysis summary page (Table 2).

II. Analysis Incorporating Anticipated Residues and Percent Of Crop Treated Data

The Anticipated Residue Contribution (ARC) for the overall U.S. population is estimated to be 0.000244 mg/kg/day, which occupies 6% of the ADI. Most of the estimated exposure is from

the food handling establishment use (0.000204 mg/kg/day or 5.1% of the ADI), which is based on tolerance level residues of 0.02 ppm in or on all foods.

The ARC for non-nursing infants is calculated as 0.000616 mg/kg/day, which occupies 15.4% of the ADI, while that for children, 1 to 6 years, is estimated to be 0.000520 mg/kg/day or 13% of the ADI. Again, most of the estimated exposure is from the food handling establishment use. Columns 5, 6, and 7 of the attached Table 3 contain detailed information on commodity contribution to total exposure. In addition, footnotes to Table 3 describe the residues used in the analysis for each commodity.

CC: Stanton (SACB), Caswell File #002A, TAS File, Suhre (DEB), Jaeger (SACB), Engler (SACB), Locke (IRSB).

Table 1

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI SF -->30	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RED= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RED= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular		and plasma ChE activity.	
	ONCO: Class C (TOX NOTE)	carcinoma).	Q* = 0.009100	Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
01002AA	BLACKBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01002AA	BLACKBERRIES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01002AA	BLACKBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01003AA	BOYSENBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01004AA	DEWBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01005AA	LOGANBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	70 RAW-FROZEN	9H5216	P 0.020000	0.020000		100.00	0.020000
01007AA	YOUNGBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01010AA	CRANBERRIES	10 RAW-FRESH OR NFS	3E2770	P 0.500000	0.010000		100.00	0.010000
01010AA	CRANBERRIES	21 COOKED-NFS	3E2770	P 0.500000	0.010000		100.00	0.010000
01010AA	CRANBERRIES	31 COOKED-FRESH OR CANNED	3E2770	P 0.500000	0.010000		100.00	0.010000
01010JA	CRANBERRY-JUICE	15 RAW-FRESH OR CANNED	3E2770	P 0.500000	0.010000		100.00	0.010000
01010JA	CRANBERRY-JUICE	31 COOKED-FRESH OR CANNED	3E2770	P 0.500000	0.010000		100.00	0.010000
01010JA	CRANBERRY-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01011AA	CURRENTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01011AA	CURRENTS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01011AA	CURRENTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01012AA	ELDERBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01013AA	GOOSEBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-FRESH	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-FRESH	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01014DA	GRAPES-RAISINS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014DA	GRAPES-RAISINS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014DA	GRAPES-RAISINS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01014JA	GRAPES-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014JA	GRAPES-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01014JA	GRAPES-JUICE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01015AA	HUCKLEBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01016AA	STRAWBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01016AA	STRAWBERRIES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01016AA	STRAWBERRIES	70 RAW-FROZEN	9H5216	P 0.020000	0.020000		100.00	0.020000
01024AA	JUNE BERRY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (cont.)

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	STATUS	EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS	
										STUDY TYPE	90d feeding- rat	ADI	SF -->30	No data gaps.	No data gaps.
05001DA	ACEPHATE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000	HED complete 3/14/86.						
05002AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000	EPA deferred 11/25/86.						
05002AA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000	EPA verified 01/18/89.						
05002AA	CASWELL #002A	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000	2yr rat feeding study co-critical: LEL=0.25 mg/kg; inhibition of brain, RBC, and plasma ChE activity.						
05002AA	CASWELL #002A	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000	Q* calculated.						
05002DA	CASWELL #002A	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05002JA	CASWELL #002A	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05002JA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
05003AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
05004AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
05004AA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
05004AA	CASWELL #002A	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000							
05004AA	CASWELL #002A	51 COOKED-CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000							
05004DA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05005AA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
05005AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
05005AA	CASWELL #002A	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000							
05005DA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05005DA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05005DA	CASWELL #002A	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05005JA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
05005JA	CASWELL #002A	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06001AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
06002AA	CASWELL #002A	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000							
06002AB	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
06002AB	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
06002AB	CASWELL #002A	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000							
06002DA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06002DA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06003AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06003DA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06003DA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06003DA	CASWELL #002A	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06003DA	CASWELL #002A	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000							
06004AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
06004AA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
06004AA	CASWELL #002A	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000							
06005AA	CASWELL #002A	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
06005AA	CASWELL #002A	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							

Table 1 (cont.)

FOOD CODE	FOOD	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS	
				ADI	SF -->30			
	Acephate	90d feeding- rat	Inhibition of brain ChE.	0.0000 mg/kg	0.004000	No data gaps.	HED complete 3/14/86.	
	Caswell #002A	NOEL=		0.00 ppm	0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.	
	CAS No. 30560-19-1	LEL=	Evidence of oncogenicity	0.1200 mg/kg	0.004000	critical: IEL=0.25 mg/kg;	EPA verified 01/18/89.	
	A.I. CODE: 103301		in mice (hepatocellular	2.00 ppm		inhibition of brain, RBC,		
	CFR No. 180.108	ONCO: Class C (TOX WOTE).	carcinoma).		Q*= 0.009100	and plasma ChE activity.		
						Q* calculated.	MFO last reviewed 1988.	
FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
06005AA	FIGS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
06006AA	GUAVA	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06006AA	GUAVA	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06006AA	GUAVA	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
06007AA	MANGOES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06007AA	MANGOES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06008AA	LOQUATS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06009AA	OLIVES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06009AA	OLIVES	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000
06009AA	OLIVES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06010AA	PAPAYAS-UNSPEC	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06010AB	PAPAYAS-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06010AB	PAPAYAS-PULP	51 COOKED-CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
06010DA	PAPAYAS-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06010JA	PAPAYAS-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06011AA	PAMPAWS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06012AA	PERSIMMONS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06013AA	PINEAPPLE-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06013AA	PINEAPPLE-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06013AA	PINEAPPLE-PULP	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013DA	PINEAPPLE-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06014AA	PASSION FRUIT	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06015AA	POMEGRANATES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06015AA	POMEGRANATES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06016AA	PLANTAINS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06016AA	PLANTAINS	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
06016AA	PLANTAINS	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06017AA	LYCHEES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06017DA	LYCHEE-DRIED	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06018AA	KIWI	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06020AA	ACEROLA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06021AA	GINKGO NUTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06022AA	MANEY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06023AA	PITANGA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06024AA	SOURSOP	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06025AA	SUGAR APPLES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (cont.)

CHEMICAL	STUDY TYPE		EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
	90d feeding- rat	NOEL=		ADI	SF -->30		
Acephate	0.0000 mg/kg	0.00 ppm	Inhibition of brain ChE.	0.004000	No data gaps.	HED complete 3/14/86.	
Caswell #002A	0.1200 mg/kg	2.00 ppm	Evidence of oncogenicity in mice (hepatocellular carcinoma).	0.004000	2yr rat feeding study co-critical: LEL=0.25 mg/kg; inhibition of brain, RBC, and plasma ChE activity.	EPA deferred 11/25/86.	
CAS No. 30560-19-1						EPA verified 01/18/89.	
A.I. CODE: 103301							
CFR No. 180.108							
				Q*= 0.009100	Q* calculated.	WHO last reviewed 1988.	

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
06026AA	BREAD FRUIT	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06027AA	BREAD NUTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06029AA	CARAMBOLA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06030AA	CHERIMOYA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06031AA	LONGAN FRUIT	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06033AA	GENIP	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
07001FA	COCOA BUTTER	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
07001SA	CHOCOLATE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
07001SA	CHOCOLATE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
07001SA	CHOCOLATE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
07002AA	COFFEE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
07003AA	TEA	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
07006AA	CHICORY	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
08004AA	ANICE	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08006AA	BASIL	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08007AA	CARRAWAY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08009AA	CASSIA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08011AA	CINNAMON	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08012AA	CLOVE	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08013AA	CORLANDER	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08014AA	CUMIN	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08015AA	DILL	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08019AA	GINGER	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08020AA	HOPS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
08022AA	HORSE RADISH	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000
08023AA	ROSEMARY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08026AA	MARJORAM	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08026AB	OREGANO	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08028AA	MUSTARD SEED	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000
08028AA	MUSTARD SEED	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
08029AA	NUTMEG	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08029AB	MACI	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08035AA	SAGE	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08036AA	SAVORY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08038AA	BAY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08042AA	THYME	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08043AA	TURMERIC	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08047AA	ALLSPICE	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
08048AA	PAPRIKA	00 NOT SPECIFIED	4F3098	P 4.000000	0.200000		100.00	0.200000
08049AA	POPPY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1. (cont.)

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	SF		
Acephate	90d feeding- rat	Inhibition of brain CHE.	0.004000	--230	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RED= 0.004000		1 1/2-yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RED= 0.004000		critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity			inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular			and plasma CHE activity.	
	ONCO: Class C. (TOX MOTE).	carcinoma).	Q*= 0.009100		Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
10002AA	CANTALOUPE-UNSP	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
10002AB	CANTALOUPE-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10002AB	CANTALOUPE-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10003AA	CASABAS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10004AA	CRENSHAW	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
10005AA	HONEYDEW MELONS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10007AA	PERSION MELONS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
10008AA	WATERMELON	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10008AA	WATERMELON	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10010AA	CUCUMBERS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10010AA	CUCUMBERS	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000
10010AA	CUCUMBERS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10011AA	PUMPKIN	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10011AA	PUMPKIN	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
10011AA	PUMPKIN	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
10013AA	SQUASH-SUMMER	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10013AA	SQUASH-SUMMER	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10014AA	SQUASH-WINTER	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10014AA	SQUASH-WINTER	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10014AA	SQUASH-WINTER	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
10017AA	BITTER MELON	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10020AA	TOMELGOURD	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
11001AA	EGGPLANT	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11001AA	EGGPLANT	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11001AA	EGGPLANT	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
11003AA	PEPPERS, SWEET	10 RAW-FRESH OR NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AA	PEPPERS, SWEET	21 COOKED-NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AB	CHILI PEPPERS	00 NOT SPECIFIED	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AD	PEPPERS-OTHER	10 RAW-FRESH OR NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AD	PEPPERS-OTHER	21 COOKED-NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AD	PEPPERS-OTHER	51 COOKED-CANNED	4F3098	P 4.000000	0.200000		100.00	0.200000
11004AA	PIMIENTOS	10 RAW-FRESH OR NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11004AA	PIMIENTOS	21 COOKED-NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11004AA	PIMIENTOS	31 COOKED-FRESH OR CANNED	4F3098	P 4.000000	0.200000		100.00	0.200000
11005AA	TOMATOES-WHOLE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005AA	TOMATOES-WHOLE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005AA	TOMATOES-WHOLE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
11005JA	TOMATOES-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005JA	TOMATOES-JUICE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005RA	TOMATOES-PUREE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

DATE: 01/23/89

PAGE: 8

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	SF -->30		
Acephate	90d feeding- rat	Inhibition of brain ChE.			No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RfD= 0.004000		2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RfD= 0.004000		critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity			inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular			and plasma ChE activity.	
	ONCO: Class C (TOX NOTE).	carcinoma).	Q*= 0.009100		Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
11005RA	TOMATOES-PUREE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005RA	TOMATOES-PUREE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005RA	TOMATOES-PUREE	32 COOKED-FRESH OR CANNED-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005RA	TOMATOES-PUREE	51 COOKED-CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005TA	TOMATOES-PASTE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005TA	TOMATOES-PASTE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005TA	TOMATOES-PASTE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
11005UA	TOMATOES-CATSUP	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
11006AA	GROUNDCHERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
13001AA	BEETS-TOPS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
13001AA	BEETS-TOPS	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
13002AA	CELERY	10 RAW-FRESH OR NFS	5F1578	P 10.00000	0.070000		100.00	0.070000
13002AA	CELERY	21 COOKED-NFS	5F1578	P 10.00000	0.070000		100.00	0.070000
13003AA	CHICORY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13005AA	BROCCOLI	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13005AA	BROCCOLI	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
13005AA	BROCCOLI	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
13006AA	BRUSSEL SPROUTS	21 COOKED-NFS	7F1899	P 3.000000	0.010000		100.00	0.010000
13006AA	BRUSSEL SPROUTS	23 COOKED-FRESH-BOILED	7F1899	P 3.000000	0.010000		100.00	0.010000
13007AA	CABBAGE	11 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13007AA	CABBAGE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13008AA	CAULIFLOWER	10 RAW-FRESH OR NFS	7F1899	P 2.000000	0.010000		100.00	0.010000
13008AA	CAULIFLOWER	21 COOKED-CANNED	7F1899	P 2.000000	0.010000		100.00	0.010000
13009AA	COLLARDS	51 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13009AA	COLLARDS	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
13010AA	CABBAGE-CHINESE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13010AA	CABBAGE-CHINESE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13011AA	KALE	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
13012AA	KOHLRABI	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13013AA	LETTUCE-LEAFY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13014AA	DANDELION	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
13015AA	ENDIVE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13015AA	ENDIVE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13016AA	FENNEL	00 NOT SPECIFIED	5F1578	P 10.00000	0.070000		100.00	0.070000
13017AA	CRESS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
13018AA	ARTICHOKE-GLOBE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13020AA	LETTUCE-UNSPEC	10 RAW-FRESH OR NFS	3F1375	P 10.00000	0.010000		100.00	0.010000
13021AA	MUSTARD GREENS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
13021AA	MUSTARD GREENS	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A		DATE: 01/23/89	PAGE: 10		
CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acephate	90d feeding-rat	Inhibition of brain CHE.	ADI SF -->30	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RfD= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RfD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular		and plasma CHE activity.	
	ONCO: Class C (TOX NOTE).	carcinoma).	Q* = 0.009100	Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
14007AA	GARLIC	32 COOKED-FRESH OR CANNED-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
14009AA	ARTICHOKES-JER	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
14010AA	LEEKS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
14011AA	ONIONS-DRY-BULB	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14011AA	ONIONS-DRY-BULB	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14011AA	ONIONS-DRY-BULB	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
14011AA	ONIONS-DRY-BULB	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
14011AA	ONIONS-DRY-BULB	12 RAW-FRESH-DRIED	9H5216	P 0.020000	0.020000C		100.00	0.020000
14013AA	POTATO(WH)-WHOLE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AA	POTATO(WH)-WHOLE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AB	POTATO(WH)-UNSP	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AC	POTATO(WH)-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AC	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AC	POTATO(WH)-PULP	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
14013AC	POTATO(WH)-PULP	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
14013DA	POTATO(WH)-DRY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
14013DA	POTATO(WH)-DRY	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
14013HA	POTATO(WH)-PEEL	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
14014AA	RADISHES-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14014AB	RADISHES-TOPS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
14015AA	RUTABAGAS-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14015AA	RUTABAGAS-ROOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14015AB	RUTABAGAS-TOPS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
14016AA	SALSIFY	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14017AA	SHALLOTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
14018AA	SWEETPOTATOES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14018AA	SWEETPOTATOES	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
14018AA	SWEETPOTATOES	51 COOKED-CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
14019AA	TURNIPS-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14019AA	TURNIPS-ROOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14021AA	PARSNIPS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14024AA	YAMBEAN, TUBER	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14026AA	CASSAVA	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14026AA	CASSAVA	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
14026AB	TAPIOCA	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14026AB	TAPIOCA	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
14028AA	YAUTIA, TANNIER	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
14030AA	PARSLEY ROOTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
14031AA	WATER CHESTNUTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't)

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI SF -->10	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RFD= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RFD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular		and plasma ChE activity.	
	ONCO: Class C (TOX NOTE).	carcinoma).	Q*= 0.009100	Q* calculated.	MHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
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15022AB	BEANS-SUCC-BROAD	00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15023AA	BEANS-DRY-PIGEON	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15026AA	SESAME SEEDS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15026AA	SESAME SEEDS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
15027AA	BEANS-UNSPEC	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15028AA	PINEUTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15028AA	PINEUTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15029AA	SOYBEAN-SPROUTED	00 NOT SPECIFIED	3F1375	P 1.000000	0.060000		1.00	0.000600
15030AA	BEANS-DRY-HYAC	00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15030AB	BEANS-SUCC-HYAC	00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15031AA	BLKEYE PEAS-DRY	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15032AA	BEANS-DRY	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15032AA	BEANS-DRY	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
16003AA	MUSHROOMS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16003AA	MUSHROOMS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16003AA	MUSHROOMS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
16004AA	ONIONS-GREEN	53 COOKED-CANNED-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
16004AA	ONIONS-GREEN	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16004AA	ONIONS-GREEN	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16007AA	POKE GREENS	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
16008AA	BAMBOO SHOOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24001AA	BARLEY	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24002HA	CORN, GRAIN-BRAN	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
24002SA	CORN SUGAR	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
24002SA	CORN SUGAR	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
24002SA	CORN SUGAR	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000
24003AA	OATS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24003AA	OATS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
24003AA	OATS	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AA	RICE-ROUGH	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AA	RICE-ROUGH	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (cont.)

CHEMICAL	STUDY TYPE		EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
	90d feeding- rat	NOEL=		IADI	SF -->30		
Acephate	0.0000 mg/kg	0.00	Inhibition of brain ChE.	OPP Rfd= 0.004000	No data gaps.	HED complete 3/14/86.	
Caswell #002A	0.1200 mg/kg	0.00	Evidence of oncogenicity in mice (hepatocellular carcinoma).	EPA Rfd= 0.004000	2yr rat feeding study critical: LEL=0.25 mg/kg; inhibition of brain, RBC, and plasma ChE activity.	EPA defered 11/25/86. EPA verified 01/18/89.	
CAS No. 30560-19-1							
A.I. CODE: 103301							
CFR No. 180.108							
	ONCO: Class C (TOX NOTE)			Q+= 0.009100	Q* calculated.	MHO last reviewed 1988.	

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
530021A	GOAT-LIVER	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53002HA	GOAT-LEAN	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000
53002WA	GOAT-LEAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53003AA	HORSE	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53004AA	RABBIT	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53004AA	RABBIT	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
53005BA	SHEEP-MEAT BYP	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53005BB	SHEEP-OTH ORGAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53005FA	SHEEP-FAT	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53005KA	SHEEP-KIDNEY	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53005LA	SHEEP-LIVER	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53005MA	SHEEP-LEAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53005NA	SHEEP-LEAN	31 COOKED-NFS OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006BA	PORK-MEAT BYP	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006BB	PORK-OTH ORGAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006BB	PORK-OTH ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006FA	PORK-FAT	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006FA	PORK-FAT	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006FA	PORK-FAT	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006FA	PORK-FAT	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006FA	PORK-FAT	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006KA	PORK-KIDNEY	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006LA	PORK-LIVER	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006LA	PORK-LIVER	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006MA	PORK-LEAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
53006MA	PORK-LEAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
53006MA	PORK-LEAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000
53010AA	FISH-UNSPEC	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53013AA	FISH-SHELL	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53013AA	FISH-SHELL	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53013AA	FISH-SHELL	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
53014AA	MEAT, GAME	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53014AA	MEAT, GAME	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
53015AA	FISH-ROE, CAVIAR	51 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53015AA	FISH-ROE, CAVIAR	51 COOKED-CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
53016AA	FISH, FIN-FRESH	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53016AA	FISH, FIN-FRESH	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
53017AA	FISH, FIN-SALT	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53017AA	FISH, FIN-SALT	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
53017AA	FISH, FIN-SALT	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (cont.)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	SF		
Acephate	90d feeding- rat	Inhibition of brain ChE.	0.0000	0.004000	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		0.00	0.004000	1.2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	LEL= 0.1200 mg/kg	Evidence of oncogenicity in mice (hepatocellular carcinoma).	0.00	0.004000	critical: LEL=0.25 mg/kg; inhibition of brain, RBC, and plasma ChE activity.	EPA verified 01/18/89.
A.I. CODE: 103301	2.00 ppm		Q*= 0.009100			
CFR No. 180.108	ONCO: Class C (TOX NOTE).				Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)
53017DA	FISH, FIN-SLT-DRY	12 RAW-FRESH-DRIED	9H5216	P 0.020000	0.020000C		100.00	0.020000
53017DA	FISH, FIN-SLT-DRY	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
55008BA	TURKEY-BYP	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55008BA	TURKEY-BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000
55008LA	TURKEY ORGAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55008LA	TURKEY ORGAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55008MA	TURKEY W/O SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55008MA	TURKEY W/O SKIN	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000
55008MA	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000
55008MB	TURKEY+SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55008MB	TURKEY+SKIN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55008MC	TURKEY-UNSPEC	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55013BA	POULTRY, OTH-BYP	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55013LA	POULTRY, ORGAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55013MA	POULTRY, OTHER	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AA	EGGS-WHOLE	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AA	EGGS-WHOLE	22 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AA	EGGS-WHOLE	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AB	EGGS-WHITE ONLY	81 COOKED-FROZEN	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55014AC	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015BA	CHICKEN-BYP	00 NOT SPECIFIED	3F1375	P 0.100000	0.000000		100.00	0.000000
55015LA	CHICKEN-ORGAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55015LA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015LA	CHICKEN-ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MA	CHICKEN-W/O SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MA	CHICKEN-W/O SKIN	53 COOKED-CANNED-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MB	CHICKEN+SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000
55015MB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000

Table 2

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 01/24/89

PAGE: 1

CHEMICAL INFORMATION	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	SF -->30		
Acephate	90d feeding- rat	Inhibition of brain ChE.	OPP RfD= 0.004000	No data gaps.	HED complete 3/14/86.	
Caswell #002A	NOEL= 0.0000 mg/kg		EPA RfD= 0.004000,	2yr rat feeding study co-	EPA deferred 1/25/86.	
CAS No. 30560-19-1	0.00 ppm	Evidence of oncogenicity		critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.	
A. I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,		
CFR No. 180.108	2.00 ppm	in mice (hepatocellular		and plasma ChE activity.		
	ONCO: Class C (TOX NOTE).	carcinoma).	Q*= 0.009100	Q* calculated.	WHO last reviewed 1988.	
POPULATION SUBGROUP						
TOTAL TMRC (MG/KG BODY WEIGHT/DAY)		NEW TMRC	DIFFERENCE	EFFECT OF ANTICIPATED RESIDUES		
	CURRENT TMRC*	AS PERCENT OF RFD	AS PERCENT OF RFD	ARC	ARC	8RFD
U. S. POPULATION - 48 STATES	0.006255	156.386825	0.000000	0.000244		6.09105
U. S. POPULATION - SPRING SEASON	0.006198	154.959000	0.000000	0.000235		5.87350
U. S. POPULATION - SUMMER SEASON	0.006411	160.273200	0.000000	0.000248		6.20778
U. S. POPULATION - FALL SEASON	0.006079	151.979900	0.000000	0.000241		6.02330
U. S. POPULATION - WINTER SEASON	0.006176	154.393825	0.000000	0.000242		6.04360
NORTHEAST REGION	0.006069	151.730250	0.000000	0.000250		6.25870
NORTH CENTRAL REGION	0.006055	151.376300	0.000000	0.000236		5.90640
SOUTHERN REGION	0.005841	146.029375	0.000000	0.000231		5.76285
WESTERN REGION	0.007301	182.530975	0.000000	0.000256		6.40443
HISPANICS	0.007756	193.908175	0.000000	0.000279		6.97140
NON-HISPANIC WHITES	0.006264	156.588675	0.000000	0.000240		5.99143
NON-HISPANIC BLACKS	0.005106	127.658750	0.000000	0.000232		5.79098
NON-HISPANIC OTHERS	0.006871	171.776250	0.000000	0.000276		6.91158
NURSING INFANTS (< 1 YEAR OLD)	0.003321	83.026675	0.000000	0.000324		8.11073
NON-NURSING INFANTS (< 1 YEAR OLD)	0.012443	311.083625	0.000000	0.000616		15.40550
FEMALES (13+ YEARS, PREGNANT)	0.005112	127.809525	0.000000	0.000178		4.44533
FEMALES 13+ YEARS, NURSING	0.006506	162.651300	0.000000	0.000214		5.34450
CHILDREN (1-6 YEARS OLD)	0.010047	251.179550	0.000000	0.000520		13.00453
CHILDREN (7-12 YEARS OLD)	0.008308	207.701500	0.000000	0.000348		8.69018
MALES (13-19 YEARS OLD)	0.005780	144.499650	0.000000	0.000224		5.60830
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.005369	134.217175	0.000000	0.000198		4.94965
MALES (20 YEARS AND OLDER)	0.005118	127.944775	0.000000	0.000186		4.64093
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)	0.005517	137.930675	0.000000	0.000181		4.52383

*Current TMRC does not include new or pending tolerances.

**New TMRC includes new, pending, and published tolerances.

Table 3. Commodity Contribution To Acephate Exposure

	Based on Tolerances and 100% Crop Treated:		Based on Anticipated Residues Adjusted For Percent Of Crop Treated:	
	Overall U.S. Population	Non-Nursing Infants, <1 yr	Overall U.S. Population	Non-Nursing Infants, <1 yr
RACS:				
Beans ^c	1.223078 ^a 30.6 ^b	2.978700 74.5	2.275849 56.9	0.049645 1.2
Brussel Sprouts ^c	0.020544 0.5	0.040796 1.0	0.017493 0.4	0.000136 <0.1
Cauliflower ^c	0.031674 0.8	0.003545 0.1	0.033779 0.8	0.000018 <0.1
Celery ^c	0.611821 15.3	0.234532 5.9	0.799289 20.0	0.001642 <0.1
Cottonseed ^d	0.041052 1.0	0.012132 0.3	0.073733 1.8	0.000200 <0.1
Cranberries ^c	0.016901 0.4	0.007877 0.2	0.040685 1.0	0.000158 <0.1
Head Lettuce ^c	2.214811 55.4	0.033731 0.8	1.753294 43.8	0.000034 <0.1
Macadamia Nuts ^e	0.000002 <0.1	<0.000001 <0.1	<0.000001 <0.1	<0.000001 <0.1
Mint ^e	0.010725 0.3	<0.000001 <0.1	<0.000001 <0.1	<0.000001 <0.1
Peanuts ^d	0.014961 0.4	0.005856 0.1	0.047051 1.2	0.000029 <0.1
Peppers ^c	0.137318 3.4	0.014540 0.4	0.170206 4.3	0.000727 <0.1
Soybeans ^d	0.339909 8.5	1.630827 40.8	0.636178 15.9	0.000842 <0.1
Secondary Residues in Meat/Milk:				
Eggs ^f	0.058033 1.5	0.060440 1.5	0.129994 3.2	0.000604 <0.1
Milk ^f	1.056857 26.4	6.547962 163.7	3.104302 77.6	0.006527 0.2
Children 1-6 yrs				0.003094 0.1

(Continued...)

Table 3 (Con't): Commodity Contribution To Acephate Exposure

	Based on Tolerances and 100% Crop Treated:			Based on Anticipated Residues Adjusted For Percent Of Crop Treated:		
	Overall U.S. Population	Non-Nursing Infants, <1 yr	Children 1-6 yrs	Overall U.S. Population	Non-Nursing Infants, <1 yr	Children 1-6 yrs
Poultry ^f	0.050667 1.3	0.105404 2.6	0.103116 2.6	0.000504 <0.1	0.001053 <0.1	0.001031 <0.1
Red Meat ^f	0.223177 5.6	0.214539 5.4	0.408173 10.2	0.002232 0.1	0.002148 0.1	0.004083 0.1
Food Handling Establishment Use ^g	0.204000 5.1	0.552000 13.8	0.454000 11.4	0.204000 5.1	0.552000 13.8	0.454000 11.4
Total	6.255530 156.4	12.442881 311.1	10.047142 251.2	0.243670 6.1	0.615763 15.4	0.520148 13.0

^aExposure expressed as ug acephate/kg body wt/day.

^bExposure expressed as a percent of the Acceptable Daily Intake (ADI) of 0.004 mg/kg body wt/day.

^cAnticipated residues are based on average residue values from FDA surveillance monitoring (FY 86-88). These values were adjusted by processing factors where appropriate (See memo. from Suhre to Tice, 1/12/89).

^dAnticipated residues are based on average values from residue field trials adjusted for percent of crop treated.

^eAnticipated residues are based on average values from residue field trials. Estimates assume 100% crop treated.

^fAnticipated residues are extrapolated from animal feeding studies and average residues in or on feed items. Extrapolated values reflect the percent of feed items treated.

^gAnticipated residues are not available for residues of acephate in or on foods resulting from this use. Exposure estimates are based on the tolerance of 0.02 ppm and assume that 100% of foods are treated.