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OFFICE OF  
PESTICIDES AND TOXIC  
SUBSTANCES

MEMORANDUM

SUBJECT: Dietary Exposure Analysis for 2,4-D Using Percent of Crop Treated Information

FROM: Stephen A. Schaible  
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TO: Frank Sanders, Chief  
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THROUGH: James P. Kariya, Chief  
Dietary Exposure Section  
Health Effects Division

*James P. Kariya*

Action Requested

Provide a dietary exposure analysis for 2,4-D using percent of crop treated information supplied by BEAD. An alternate interpretation of how the published tolerances in 40 CFR 180.142 could be represented in the DRES files is also discussed.

Discussion

1. Toxicological Endpoint: The DRES routine chronic exposure analysis used a Reference Dose (RfD) of 0.003 mg/kg bwt/day, based on a no observed effect level (NOEL) of 1.0 mg/kg bwt/day and an uncertainty factor of 300. The RfD is based on a two year feeding study in rats which demonstrated as an effect increased vacuolization of the cytoplasm of the renal cortex. This RfD has been approved by the HED RfD committee (12/11/87) but was deferred by the Agency RfD committee (2/25/88) pending review of chronic and subchronic dog studies.

2. Residue Information: Food uses evaluated in this analysis were the published tolerances listed in 40 CFR 180.142 (all paragraphs) and a food additive tolerance for sugarcane molasses listed in 40 CFR 185.1450(a)(1). Also, a food additive tolerance of 2 ppm is listed for milled fractions (excluding flour) derived from barley, oats, rye, and wheat, and was applied in the analysis to "rye-germ", "wheat-germ", and "wheat-bran". But for oats and barley, the food use tolerances listed in 180.142 were used instead of the food additive tolerance, mainly because we suspect that "milled fractions (excluding flour)" probably constitute only a small percentage of consumption of these commodities. A food additive tolerance exists

in 185.1450 for negligible residues in "potable water" (resulting from use of 2,4-D to control various water weeds in irrigation ditches and other waterways) but was not included in the analysis. Percent of crop treated information used was supplied by BEAD in a B. Torla memo to D. Edwards dated 3/27/92. A summary of the residue information used in this analysis is attached as Table 1A.

3. Exposure Analysis: The DRES Chronic exposure analysis uses tolerance level residues and 100 percent crop treated to estimate the Theoretical Maximum Residue Contribution (TMRC) for the overall U.S. population and 22 population subgroups. Tolerance level residues and percent of crop treated information were used to calculate the Anticipated Residue Contribution (ARC) from the uses of 2,4-D. The ARC is considered to be the more accurate measure of exposure. The TMRCs, ARCs, and the representation of each as a percentage of the RfD for the overall U.S. population and the 22 population subgroups are attached as Table 2A.

The TMRC for the overall U.S. population from published uses is 0.028345 mg/kg bwt/day, which represents 945% of the RfD. Based on TMRCs, the subgroup most highly exposed is non-nursing infants less than one year old, with an exposure of 0.100652 mg/kg bwt/day, or 3355% of the RfD. If the refined percent crop treated data are included in the analysis, the exposure (ARC) to the overall U.S. population drops to 0.008893 mg/kg bwt/day, or 296% of the RfD, and the exposure to non-nursing infants drops to 0.028756 mg/kg bwt/day, or 958% of the RfD.

There are numerous reasons to suspect that these ARC values are overestimates of the actual exposure. Tolerance level residues are assumed for all commodities in the analysis and 100% crop treated was assumed for all commodities where percent of crop treated was not supplied. Both of these assumptions probably overestimate dietary risk. In addition, meat and milk residues used in this analysis do not reflect the percent of feed items treated. In other words, meat and milk residues are probably lower than assumed, because less of the feed has residue on it than assumed, and therefore %RfD is probably overestimated for these items. However, the RfD is still exceeded by the ARC in every DRES population subgroup, considerably in some. If further refinement of the chronic risk estimate is desired, anticipated residues should probably be pursued. Possible commodities to concentrate on in this endeavor are potatoes, tomatoes, meat and milk, apples, and soybeans.

#### DRES Analysis Considering Only Agricultural Uses of 2,4-D

In addition to the possible sources of overestimation already mentioned, the manner in which the tolerances in 40 CFR 180.142 are interpreted in the DRES file leads to probably the largest source of overestimation of the exposure. In 40 CFR 180.142, there are multiple tolerances for many commodities, mainly because tolerances exist for several different use sites. As an example, one can look at the commodity "stone fruits". There are three different tolerances in the CFR for "stone fruits": there is a tolerance of 0.1 ppm for negligible residues resulting from application of its

dimethylamine salt to irrigation ditch banks in the western U.S. (CFR 180.142(c)), a tolerance of 0.5 ppm for residues of 2,4-D (CFR 180.142(b)) from agricultural use, and a tolerance of 1.0 ppm for residues of 2,4-D from application of its dimethylamine salt for water hyacinth control in ponds, lakes, reservoirs, marshes, etc. in programs conducted by the Corps of Engineers or other Federal, State, or local public agencies (CFR 180.142(f)).

In situations where multiple tolerances exist for a commodity, the DRES file reflects the highest tolerance of those listed in the CFR. In the case of "stone fruits", this tolerance would be the 1.0 ppm that is established for residues due to 2,4-D use to control water hyacinth in bodies of water. Although confirmation from BEAD is probably required, we suspect that most 2,4-D residues in stone fruits probably do not derive from use of 2,4-D to control water hyacinth. The more applicable residue level to use in the DRES analysis would be the 0.5 ppm tolerance in 180.142(b), a tolerance established to reflect the more common use for agriculture.

This situation, where a high tolerance resulting from a limited situation overrides a lower tolerance that might be more generally applicable, occurs for major crop groupings such as "grain crops", "nuts", "fruiting vegetables", "small fruits", and more. Agricultural use tolerances that get overridden include those on such major crops as corn, grapes, rice, and wheat. There is thus a large potential for overestimation of the exposure.

In addition, many items in the DRES file exist solely through the published tolerances in paragraphs (c), (f), and (i) of CFR 180.142, and have no agriculture related tolerances outside these specific circumstances. For instance: fish, shellfish, root crop vegetables, seed and pod vegetables, and cucurbits (to name a few) have no tolerances for general circumstances, but have tolerances when affected by water hyacinth control programs.

For the purpose of trying to calculate a more accurate estimate of dietary exposure from 2,4-D, an alternate interpretation was made as to which commodities and tolerances in the CFR should be used in the DRES analysis. A dummy DRES file for 2,4-D was created in which only those published uses in the CFR relating to general agricultural use were included (commodities and crop groups listed in 40 CFR 180.142(a), (b), (d), (e), (h), and (j), and 185.1350(a)(1), and (2)). Tolerances resulting from 180.142(c), (f), or (i) were excluded. A list of the commodities that were included in this revised file and their residues is attached as Table 1B.

### Exposure Analysis

A DRES chronic analysis was performed, using the same toxicological endpoint as the previous analysis and the residue inputs specified in the previous paragraph. The TMRC for the overall U.S. population from these uses is 0.021312 mg/kg bwt/day, or 710% of the RfD. The subgroup with the highest TMRC was non-nursing infants less than one year, with a TMRC of 0.085000 mg/kg bwt/day, or 2833% of the RfD. Using tolerance level residues and

100% crop treated for the dummy DRES file, the TMRC exceeded the RfD for the overall U.S. population and all 22 population subgroups.

If the percent crop treated information supplied by BEAD (R. Torla, 3/27/92) is included in the exposure analysis, the ARC for the general population using the dummy DRES file is 0.003246 mg/kg bwt/day, or (108%) of the RfD, and the exposure to non-nursing infants is 0.017838 mg/kg bwt/day, or (595%) of the RfD. A DRES summary page listing the TMRCs, the ARCs, and the representations of each as a percentage of the RfD is attached as Table 2B.

Considering the risk from only those commodities for which there was a general agricultural use, and using the tolerance levels established for those uses, the exposure values dropped considerably. When percent of crop treated was factored in as well, eight subgroups had ARCs below the Reference Dose, and the ARCs for four more subgroups and the overall U.S. population exceeded the RfD only slightly.

It must be acknowledged that the TMRC and ARC exposure values arrived at using the dummy 2,4-D file are possibly underestimates of the actual exposure. The assumptions of tolerance level residues, meat and milk residues which don't consider percent of feed crops treated, and so on will still serve to overestimate the risk. But this analysis does not consider all possible routes by which residues could get on commodities. It is unclear to what extent, but there probably is exposure to 2,4-D from residues resulting from applications to control hyacinth, watermilfoil, and weeds on the banks of irrigation ditches. Also, the failure to include potable water in the analysis may be a source of underestimation. At the time, DRES does not have realistic estimates of water consumption (for discussion of shortcomings in DRES water consumption estimates, see R. Tomerlin memo dated 8/1/89, titled "Dietary Exposure and Oncogenic Risk Assessment for Atrazine") and including this commodity would have artificially inflated the risk. All of these points aside, it can be said that the ARCs arrived at using the dummy file probably are more realistic estimates of exposure than those calculated using the DRES file for 2,4-D.

Attachments

cc: DES, CBTS, Tox 2, J. Bloom, Caswell # 315 .

# TABLE IA - DRES FILE RESIDUES

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 03/30/92

PAGE: 1

FOOD CODE	FOOD	FOOD FORM	STUDY TYPE		EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
			2Yr feeding- rat	MOEL=		PADI	UF -->300			
<p style="text-align: center;"><b>CHEMICAL</b></p> <p>2,4-D (acid + salts)                      Caswell #315                      CAS No. 94-75-7                      A.I. CODE: 030001                      CFR No. 180.142</p>										
<p style="text-align: center;"><b>STUDY TYPE</b></p> <p>MOEL= 1,0000 mg/kg                      20.00 ppm                      LEL= 5,0000 mg/kg                      100.00 ppm                      ONCO: D (HEE); D (SAP)</p>										
<p style="text-align: center;"><b>EFFECTS</b></p> <p>Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).</p>										
<p style="text-align: center;"><b>REFERENCE DOSES</b></p> <p>PADI                      OPP RfD= 0.003000                      EPA RfD= 0.010000</p>										
<p style="text-align: center;"><b>DATA GAPS/COMMENTS</b></p> <p>Chronic feeding- dog                      Developmental tox- Rabbit                      Old RfD of 0.001 based on 90d rat, 1000 UF.                      [Syn. Dichlorophenoxy-acetic acid, 2,4-]</p>										
<p style="text-align: center;"><b>STATUS</b></p> <p>EPA verified 02/05/86.                      HED reassess 12/11/87.                      EPA deferred 02/25/88.                      Pending review of chronic &amp; subchronic dog study.                      WHO last reviewed 1975.</p>										
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	3F2876	R 1.000000	1.000000		100.00	1.000000		
01002AA	BLACKBERRIES	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01003AA	BOYSENBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01004AA	DEWBERRIES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01005AA	LOGANBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000		
01006AA	RASPBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000		
01006AA	RASPBERRIES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01006AA	RASPBERRIES	15 RAW-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01006AA	RASPBERRIES	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01006AA	RASPBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01007AA	YOUNGBERRIES	70 RAW-FROZEN	3F2876	P 1.000000	1.000000		100.00	1.000000		
01009AA	BLUEBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000		
01009AA	BLUEBERRIES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01009AA	BLUEBERRIES	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01009AA	BLUEBERRIES	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01009AA	BLUEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01010AA	CRANBERRIES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01010AA	CRANBERRIES	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01010AA	CRANBERRIES	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01010AA	CRANBERRIES	15 RAW-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01010AA	CRANBERRY-JUICE	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01010AA	CRANBERRY-JUICE	15 RAW-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01011AA	CURRANTS	31 COOKED-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01011AA	CURRANTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01011AA	CURRANTS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01012AA	ELDERBERRIES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01013AA	GOOSEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-FRESH	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-FRESH	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-RAISINS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-RAISINS	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-RAISINS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-RAISINS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-JUICE	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-JUICE	15 RAW-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000		
01014AA	GRAPES-JUICE	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01015AA	HUCKLEBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000		
01016AA	STRAWBERRIES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01016AA	STRAWBERRIES	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000		
01016AA	STRAWBERRIES	70 RAW-FROZEN	3F2876	P 1.000000	1.000000		100.00	1.000000		
01024AA	JUNEBOBERRY	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000		

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 03/30/92

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2,4-D (acid + salts)	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)
02001AA	CITRUS CITRON	22 COOKED-FRESH-BAKED	6E1797	P 5.000000	5.000000		1.00	0.050000
02002AA	GRAPEFRUIT-UNSP	00 NOT SPECIFIED (NO CONSUMPTION)	6E1797	P 5.000000	5.000000		1.00	0.050000
02002AB	GRAPEFRUIT-PULP	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02002AB	GRAPEFRUIT-PULP	21 COOKED-NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02002JA	GRAPEFRUIT-JUICE	15 RAW-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02002JA	GRAPEFRUIT-JUICE	31 COOKED-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02003AA	KUMQUATS	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02004AA	LEMONS-UNSPEC	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02004AA	LEMONS-UNSPEC	22 COOKED-FRESH-BAKED	6E1797	P 5.000000	5.000000		1.00	0.050000
02004AB	LEMONS-PULP	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02004AB	LEMONS-PULP	31 COOKED-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02004HA	LEMONS-PEEL	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02004HA	LEMONS-PEEL	21 COOKED-NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02004JA	LEMONS-JUICE	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02004JA	LEMONS-JUICE	15 RAW-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02004JA	LEMONS-JUICE	21 COOKED-NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02005AA	LEMONS-JUICE	31 COOKED-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02005AA	LINES-UNSPEC	00 NOT SPECIFIED (NO CONSUMPTION)	6E1797	P 5.000000	5.000000		1.00	0.050000
02005AB	LINES-PULP	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02005HA	LINES-PEEL	21 COOKED-NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02005JA	LINES-JUICE	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02005JA	LINES-JUICE	15 RAW-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02005JA	LINES-JUICE	31 COOKED-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02006AA	ORANGES-UNSPEC	00 NOT SPECIFIED (NO CONSUMPTION)	6E1797	P 5.000000	5.000000		1.00	0.050000
02006AB	ORANGES-PULP	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02006AB	ORANGES-PULP	21 COOKED-NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02006HA	ORANGES-PEEL	22 COOKED-FRESH-BAKED	6E1797	P 5.000000	5.000000		1.00	0.050000
02006HA	ORANGES-PEEL	31 COOKED-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02006JA	ORANGES-JUICE	15 RAW-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02006JA	ORANGES-JUICE	31 COOKED-FRESH OR CANNED	6E1797	P 5.000000	5.000000		1.00	0.050000
02007AA	TANGELOS	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02008AA	TANGERINES	10 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
02008JA	TANGERINE-JUICE	15 RAW-FRESH OR NFS	6E1797	P 5.000000	5.000000		1.00	0.050000
03001AA	ALMONDS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		15.00	0.150000
03001AA	ALMONDS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		15.00	0.150000
03002AA	BRAZIL NUTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03002AA	BRAZIL NUTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03003AA	CASHEWS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 03/30/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2Yr feeding- rat NOEL= 1,000 mg/kg 20.00 ppm LEL= 5,000 mg/kg 100.00 ppm ONCO: D (HEB); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF --300 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. (Sym. Dichlorophenoxy- acetic acid, 2,4-1)	EPA verified 02/05/86. MED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chron & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
03003AA	CASHEWS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03004AA	CHESTNUTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03005AA	FILBERTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03005AA	FILBERTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03005AA	FILBERTS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
03006AA	HICKORY NUTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03007AA	MACADAMIA NUTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03008AA	PECANS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03008AA	PECANS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03008AA	PECANS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
03008AA	PECANS	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000		100.00	1.000000
03008AA	PECANS	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
03009AA	WALNUTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		15.00	0.150000
03009AA	WALNUTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		15.00	0.150000
03009AA	WALNUTS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		15.00	0.150000
03010AA	BUTTER NUTS	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
03011AA	PISTACHIO NUTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
03013AA	BEECHNUTS	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 0.200000	0.200000		100.00	0.200000
04001AA	APPLES-FRESH	10 RAW-FRESH OR NFS	6E1678	P 5.000000	5.000000		20.00	1.000000
04001AA	APPLES-FRESH	21 COOKED-NFS	6E1678	P 5.000000	5.000000		20.00	1.000000
04001AA	APPLES-FRESH	31 COOKED-FRESH OR CANNED	6E1678	P 5.000000	5.000000		20.00	1.000000
04001AA	APPLES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	6E1678	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	10 RAW-FRESH OR NFS	6E1678	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	22 COOKED-FRESH-BAKED	6E1678	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	62 COOKED-FRESH OR FROZEN-BAKED	6E1678	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	15 RAW-FRESH OR CANNED	6E1678	P 5.000000	5.000000		20.00	1.000000
04001JA	APPLES-JUICE	31 COOKED-FRESH OR CANNED	6E1678	P 5.000000	5.000000		20.00	1.000000
04002AA	CRAAPPLES	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
04003AA	PEARS-FRESH	10 RAW-FRESH OR NFS	6E1678	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	31 COOKED-FRESH OR CANNED	6E1678	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	51 COOKED-CANNED	6E1678	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	6E1678	P 5.000000	5.000000		20.00	1.000000
04003DA	PEARS-DRIED	10 RAW-FRESH OR NFS	6E1678	P 5.000000	5.000000		20.00	1.000000
04003DA	PEARS-DRIED	21 COOKED-NFS	6E1678	P 5.000000	5.000000		20.00	1.000000
04004AA	QUINCES	00 NOT SPECIFIED (NO CONSUMPTION)	6E1678	P 5.000000	5.000000		100.00	5.000000
05001AA	APRICOTS-FRESH	10 RAW-FRESH OR NFS	7F0589	P 5.000000	5.000000		100.00	5.000000
05001AA	APRICOTS-FRESH	21 COOKED-NFS	7F0589	P 5.000000	5.000000		100.00	5.000000
05001AA	APRICOTS-FRESH	31 COOKED-FRESH OR CANNED	7F0589	P 5.000000	5.000000		100.00	5.000000
05001DA	APRICOTS-DRIED	10 RAW-FRESH OR NFS	7F0589	P 5.000000	5.000000		100.00	5.000000
05001DA	APRICOTS-DRIED	22 COOKED-FRESH-BAKED	7F0589	P 5.000000	5.000000		100.00	5.000000



ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	Yr feeding- rat MOEL= 1,0000 mg/kg 20.00 ppm LET= 5,0000 mg/kg 100.00 ppm ONCO: D (HED); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF -->300 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy-acetic acid, 2,4-1	EPA verified 02/05/86. HEP reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
05002AA	CHERRIES-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05002AA	CHERRIES-FRESH	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05002AA	CHERRIES-FRESH	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		1.00	0.010000
05002AA	CHERRIES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		1.00	0.010000
05002JA	CHERRIES-DRIED	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		1.00	0.010000
05002JA	CHERRIES-DRIED	15 RAW-FRESH OR CANNED	3F2876	P 1.000000	1.000000		1.00	0.010000
05002JA	CHERRIES-DRIED	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05003AA	NECTARINES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05004AA	PEACHES-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05004AA	PEACHES-FRESH	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05004AA	PEACHES-FRESH	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		1.00	0.010000
05004AA	PEACHES-FRESH	51 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		1.00	0.010000
05004AA	PEACHES-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05004AA	PEACHES-FRESH	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05005AA	PLUMS-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05005AA	PLUMS-FRESH	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		1.00	0.010000
05005DA	PLUMS-PRUNES	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05005DA	PLUMS-PRUNES	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		1.00	0.010000
05005JA	PRUNE-PRUNES	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
05005JA	PRUNE-PRUNES	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		1.00	0.010000
06001AA	AVOCADOS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
07006AA	CHICORY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
08015AA	DILL	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		1.00	0.010000
08020AA	HOPS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10002AA	CANTALOUPE-UNSP	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		1.00	0.010000
10002AB	CANTALOUPE-PULP	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10002AB	CANTALOUPE-PULP	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10003AA	CASABAS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10004AA	CRENSHAWS	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		1.00	0.010000
10005AA	HONEYDEW MELONS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10007AA	PERSION MELONS	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		1.00	0.010000
10008AA	WATERMELON	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10008AA	WATERMELON	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10010AA	CUCUMBERS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10010AA	CUCUMBERS	11 RAW-FRESH-PICKLED, CORNED, OR CURED	3F2876	P 1.000000	1.000000		1.00	0.010000
10010AA	CUCUMBERS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10011AA	PUMPKIN	22 COOKED-NFS	3F2876	P 1.000000	1.000000		1.00	0.010000
10011AA	PUMPKIN	21 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		1.00	0.010000
10011AA	PUMPKIN	62 COOKED-FRESH OR FROZEN-BAKED	3F2876	P 1.000000	1.000000		1.00	0.010000

ANTICIPATED RESIDUE INFORMATION FOR CASHELL NUMBER 315

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Cashell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL = 1,000 mg/kg 20.00 ppm LEL = 5,000 mg/kg 100.00 ppm ORCO: D (HED): D (SNP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF --300 OPP RfD = 0.003000 EPA RfD = 0.010000	Chronic feeding - dog Developmental tox - Rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Sym. Dichlorophenoxy-acetic acid, 2,4-1]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)
10013AA	SQUASH-SUMMER	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10013AA	SQUASH-SUMMER	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10014AA	SQUASH-WINTER	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10014AA	SQUASH-WINTER	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10014AA	SQUASH-WINTER	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10017AA	BITTER MELON	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10020AA	TOMELGOURD	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
10011AA	EGGPLANT	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10011AA	EGGPLANT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10011AA	EGGPLANT	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
10033AA	PEPPERS, SWEET	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10033AA	PEPPERS, SWEET	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10033AB	CHILI PEPPERS	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
10033AB	CHILI PEPPERS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10033AD	PEPPERS-OTHER	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10033AD	PEPPERS-OTHER	51 COOKED-CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10044AA	PIMIENTOS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10044AA	PIMIENTOS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10055AA	TOMATOES-WHOLE	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055AA	TOMATOES-WHOLE	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10055AA	TOMATOES-WHOLE	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10055JA	TOMATOES-JUICE	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055JA	TOMATOES-JUICE	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10055RA	TOMATOES-PUREE	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10055RA	TOMATOES-PUREE	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055RA	TOMATOES-PUREE	32 COOKED-FRESH OR CANNED-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055RA	TOMATOES-PUREE	51 COOKED-CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055TA	TOMATOES-PASTE	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
10055TA	TOMATOES-PASTE	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055TA	TOMATOES-PASTE	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
10055UA	TOMATOES-CATSUP	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
13001AA	BEEETS-TOPS	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
13001AA	BEEETS-TOPS	63 COOKED-FRESH OR FROZEN-BOTTLED	3F2876	P 1.000000	1.000000		100.00	1.000000
13002AA	CELERY	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
13002AA	CELERY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
13003AA	CHICORY	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
13003AA	BROCCOLI	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
13005AA	BROCCOLI	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000



CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1,0000 mg/kg 20.00 ppm LEL= 5,0000 mg/kg 100.00 ppm QMCO: D (HED); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF -->300 OPP Rfd= 0.003000 EPA Rfd= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old Rfd of 0.001 based on 90d rat, 1000 UF. [Syn. dichlorophenoxy- acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TMS RUN (ppm)
13045MA	LETTUCE-HEAD	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
13045MA	LETTUCE-HEAD	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14001AA	BETS-ROOTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14001AA	BETS-ROOTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14001AA	BETS-ROOTS	26 COOKED-FRESH-PICKLED,CORNED,OR CURED	3F2876	P 1.000000	1.000000		100.00	1.000000
14001AA	BETS-ROOTS	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14003AA	CARROTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14003AA	CARROTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14003AA	CARROTS	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000		100.00	1.000000
14003AA	CARROTS	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14003AA	CARROTS	51 COOKED-CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14007AA	GARLIC	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14007AA	GARLIC	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14007AA	GARLIC	32 COOKED-FRESH OR CANNED-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14010MA	LEEKS	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14011AA	ONIONS-DRY-BULB	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14011AA	ONIONS-DRY-BULB	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14011AA	ONIONS-DRY-BULB	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14011AA	ONIONS-DRY-BULB	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14011AA	ONIONS-DRY-BULB	12 RAW-FRESH-DRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
14011DA	ONIONS-DRIED	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-WHOLE	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-WHOLE	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-UNSP	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-PULP	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-PULP	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000		100.00	1.000000
14013AA	POTATO(WH)-PULP	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
14013DA	POTATO(WH)-DRY	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14013DA	POTATO(WH)-DRY	31 COOKED-FRESH OR CANNED,	3F2876	P 1.000000	1.000000		100.00	1.000000
14013DA	POTATO(WH)-PEEL	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
14014AA	RADISHES-ROOTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14015AA	RUTABAGAS-ROOTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14015AA	RUTABAGAS-ROOTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14016AA	SALSIFY	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
14017AA	SHALLOTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14018AA	SWEETPOTATOES	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14018AA	SWEETPOTATOES	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14018AA	SWEETPOTATOES	51 COOKED-CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
14019AA	TURNIPS-ROOTS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

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2,4-D (acid + salts)	Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- NOEL= 1,000 mg/kg 20.00 ppm LEL= 5,000 mg/kg 100.00 ppm ONCO: D (HEP); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF --3500 OPP RfD= 0.003000 ERA RfD= 0.010000	Chronic feeding- dog Developmental tox- Rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy- acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. ERA deferred 02/25/88. Pending review of chronic & subchronic dog study. MHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)
14019AA	TURNIPS-ROOTS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
14021AA	PARSNIPS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AA	BEANS-DRY-GRT NO	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AB	BEANS-DRY-KIDNEY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AB	BEANS-DRY-KIDNEY	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AC	BEANS-DRY-LIMA	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AD	BEANS-DRY-NAVY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AE	BEANS-DRY-OTHER	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AE	BEANS-DRY-OTHER	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
15001AF	BEANS-DRY-OTHER	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
15002AA	BEANS-SUCC-LIMA	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15002AA	BEANS-SUCC-LIMA	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15003AA	BEANS-SUCC-GREEN	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15003AB	BEANS-SUCC-OTH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15003AB	BEANS-SUCC-OTH	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15003AC	BEANS-SUCC-VAX	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15004AA	CORN,POP	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15005AA	CORN,SHEET	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		15.00	0.150000
15005AA	CORN,SHEET	21 COOKED-NFS	3F2876	P 1.000000	1.000000		5.00	0.050000
15007AA	CORN,SHEET	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		5.00	0.050000
15007AA	PEAS DRY-GARDEN	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15009AA	PEAS DRY-GARDEN	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
15009AA	PEAS SUCC-GARDEN	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15011AA	PEAS SUCC-GARDEN	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
15011AB	LENTILES-WHOLE	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15013AA	LENTILES-SPLIT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15013AA	MUNG BEANS	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15015AA	MUNG BEANS	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15015AA	OKRA	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
15022AA	BEANS-DRY-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
15022AB	BEANS-SUCC-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
15023AA	BEANS-DRY-PIGEON	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15027AA	BEANS-UNSPEC	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
15029AA	SOYBEAN-SPROUTED	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
15030AA	BEANS-DRY-HYAC	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
15030AB	BEANS-SUCC-HYAC	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
15031AA	BLKEYE PEAS-DRY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

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FOOD CODE	FOOD	FOOD FORM	STUDY TYPE	EFFECTS	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	STATUS	
									RES. VALUE USED IN TAS RUN (ppm)	
<p><b>CHEMICAL</b>                      2,4-D (acid + salts)                      Caswell #315                      CAS No. 94-75-7                      A.I. CODE: 030001                      CFR No. 180.142</p>										
<p><b>STUDY TYPE</b>                      2yr feeding- rat                      NOEL= 1,0000 mg/kg                      20.00 ppm                      LEL= 5,0000 mg/kg                      100.00 ppm                      OMCO: D (HED); D (SAP)</p>										
<p><b>EFFECTS</b>                      Increased vascularization of the cytoplasm of the renal cortex.                      Evidence of oncogenicity in male rats (brain).</p>										
<p><b>REFERENCE DOSES</b>                      PADI Uf --&gt;300                      OPP RfD= 0.003000                      EPA RfD= 0.010000</p>										
<p><b>DATA GAPS/COMMENTS</b>                      Chronic feeding- dog                      Developmental tox- rabbit                      Old RfD of 0.001 based on 90d rat, 1000 Uf.                      [Syn. Dichlorophenoxy-acetic acid, 2,4-]</p>										
<p><b>STATUS</b>                      EPA verified 02/05/86.                      HED reassess 12/11/87.                      EPA deferred 02/25/88.                      Pending review of chronic &amp; subchronic dog study.                      WHO last reviewed 1975.</p>										
15032AA	BEANS-DRY	21 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000	100.00	1.000000			
15032AA	BEANS-DRY	21 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000	100.00	1.000000			
16002AA	ASPARAGUS	21 COOKED-NFS	4E1475	P 5.000000	5.000000	10.00	0.500000			
16002AA	ASPARAGUS	23 COOKED-FRESH-BOILED	4E1475	P 5.000000	5.000000	10.00	0.500000			
16004AA	ONIONS-GREEN	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000	100.00	1.000000			
16004AA	ONIONS-GREEN	21 COOKED-NFS	3F2876	P 1.000000	1.000000	100.00	1.000000			
16004AA	ONIONS-GREEN	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000	100.00	1.000000			
24001AA	BARLEY	21 COOKED-NFS	3F2876	P 1.000000	1.000000	35.00	0.350000			
24002EA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN, GRAIN-ENDO	21 COOKED-NFS	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN, GRAIN-ENDO	25 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN, GRAIN-BRAN	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN SUGAR	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN SUGAR	21 COOKED-NFS	3F2876	P 1.000000	1.000000	15.00	0.150000			
24002EA	CORN SUGAR	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	15.00	0.150000			
24003AA	OATS	21 COOKED-NFS	3F2876	P 1.000000	1.000000	20.00	0.200000			
24003AA	OATS	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24003AA	OATS	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24004AA	RICE-ROUGH	21 COOKED-NFS	3F2876	P 1.000000	1.000000	20.00	0.200000			
24004AA	RICE-ROUGH	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24004AB	RICE-MILLED	21 COOKED-NFS	3F2876	P 1.000000	1.000000	20.00	0.200000			
24004AB	RICE-MILLED	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24004AB	RICE-MILLED	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24004AB	RICE-MILLED	25 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24005AA	RYE-ROUGH	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000	20.00	0.200000			
24005AA	RYE-ROUGH	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24005AA	RYE-ROUGH	21 COOKED-NFS	3F2876	P 1.000000	1.000000	20.00	0.200000			
24005AA	RYE-ROUGH	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24005AA	RYE-ROUGH	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	20.00	0.200000			
24007AA	WHEAT-ROUGH	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000	15.00	0.150000			
24007AA	WHEAT-ROUGH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000	25.00	0.250000			
24007AA	WHEAT-ROUGH	21 COOKED-NFS	3F2876	P 1.000000	1.000000	25.00	0.250000			
24007AA	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000	25.00	0.250000			
24007AA	WHEAT-ROUGH	23 COOKED-FRESH-BOILED	3F2876	P 1.000000	1.000000	25.00	0.250000			
24007GA	WHEAT-GERM	10 RAW-FRESH OR NFS	3F2876	P 2.000000	2.000000C	25.00	0.500000			
24007GA	WHEAT-GERM	22 COOKED-FRESH-BAKED	3F2876	P 2.000000	2.000000C	25.00	0.500000			
24007HA	WHEAT-BRAN	10 RAW-FRESH OR NFS	3F2876	P 2.000000	2.000000C	25.00	0.500000			
24007HA	WHEAT-BRAN	21 COOKED-NFS	3F2876	P 2.000000	2.000000C	25.00	0.500000			
24007HA	WHEAT-BRAN	22 COOKED-FRESH-BAKED	3F2876	P 2.000000	2.000000C	25.00	0.500000			
24007HA	WHEAT-BRAN	23 COOKED-FRESH-BOILED	3F2876	P 2.000000	2.000000C	25.00	0.500000			
24007HA	WHEAT-FLOUR	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000	25.00	0.250000			

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1,0000 mg/kg 20.00 ppm LEL= 5,0000 mg/kg 100.00 ppm ONCO: D (HED): D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF --3300 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- Rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy- acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
24007MA	WHEAT-FLOUR	21 COOKED-NFS	3F2876	P 1.000000	1.000000		25.00	0.250000
24007MA	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		25.00	0.250000
24007MA	WHEAT-FLOUR	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		25.00	0.250000
24012MA	MILLET	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
24012MA	MILLET	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
25002SA	BEET SUGAR	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
25002SA	BEET SUGAR	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
25002SA	BEET SUGAR	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
25002SA	BEET SUGAR	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
25003SA	CANE SUGAR	10 RAW-FRESH OR NFS	3F2876	P 2.000000	2.000000		100.00	1.000000
25003SA	CANE SUGAR	21 COOKED-NFS	3F2876	P 2.000000	2.000000		100.00	1.000000
25003SA	CANE SUGAR	22 COOKED-FRESH-BAKED	3F2876	P 2.000000	2.000000		100.00	1.000000
25003SA	CANE SUGAR	31 COOKED-FRESH OR CANNED	3F2876	P 2.000000	2.000000		100.00	1.000000
25003SB	SUGAR-MOLASSES	10 RAW-FRESH OR NFS	3F2876	P 5.000000	5.000000		100.00	1.000000
25003SB	SUGAR-MOLASSES	21 COOKED-NFS	3F2876	P 5.000000	5.000000		100.00	1.000000
25003SB	SUGAR-MOLASSES	22 COOKED-FRESH-BAKED	3F2876	P 5.000000	5.000000		100.00	1.000000
25003SB	SUGAR-MOLASSES	31 COOKED-FRESH OR CANNED	3F2876	P 5.000000	5.000000		100.00	1.000000
25003SB	SUGAR-MOLASSES	18 PROCESSED OIL	3F2876	P 1.000000	1.000000		15.00	0.150000
26001AA	BUCKWHEAT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
26001AA	BUCKWHEAT	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
26011AA	GLAR BEANS	00 NOT SPECIFIED (NO CONSUMPTION)	3F2876	P 1.000000	1.000000		100.00	1.000000
270020A	CORN, GRAIN-OIL	18 PROCESSED OIL	3F2876	P 1.000000	1.000000		100.00	1.000000
270030A	COTTONSEED-OIL	18 PROCESSED OIL	3F2876	P 1.000000	1.000000		15.00	0.150000
270100A	SOYBEANS-OIL	18 PROCESSED OIL	3F2876	P 1.000000	1.000000		100.00	1.000000
28023AB	SOYBEANS-UNSPEC	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023AB	SOYBEANS-UNSPEC	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023AB	SOYBEANS-UNSPEC	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023AB	SOYBEANS-UNSPEC	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023AB	SOYBEANS-UNSPEC	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023AB	SOYBEANS-UNSPEC	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MA	SOY-FL, FULL FAT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MA	SOY-FL, FULL FAT	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MA	SOY-FL, FULL FAT	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MB	SOY-FL, LOW FAT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	22 COOKED-FRESH-BAKED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	31 COOKED-FRESH OR CANNED	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	18 PROCESSED OIL	3F2876	P 1.000000	1.000000		100.00	1.000000
28023MC	SOY-FL, DEFAT	53 COOKED-CANNED-BOILED	3F2876	P 1.000000	1.000000		100.00	1.000000

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2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	STUDY TYPE 2Yr feeding- rat MOEL = 1,0000 mg/kg 20.00 ppm LEL = 5,0000 mg/kg 100.00 ppm OMCO: D (HED): D (SAP)	EFFECTS Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	REFERENCE DOSES PADI UF -->300 OPP RfD = 0.003000 EPA RfD = 0.010000	DATA GAPS/COMMENTS Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy- acetic acid, 2,4-]	STATUS EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)
500000B	MILK-NON-FAT SOL	10 RAW-FRESH OR NFS	8F0760	P 0.100000	0.100000		100.00	0.100000
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	8F0760	P 0.100000	0.100000		100.00	0.100000
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	8F0760	P 0.100000	0.100000		100.00	0.100000
500000A	MILK-FAT SOLIDS	10 RAW-FRESH OR NFS	8F0760	P 0.100000	0.100000		100.00	0.100000
500000A	MILK-FAT SOLIDS	21 COOKED-NFS	8F0760	P 0.100000	0.100000		100.00	0.100000
500000A	MILK-FAT SOLIDS	51 COOKED-CANNED	8F0760	P 0.100000	0.100000		100.00	0.100000
500000A	MILK-SUG (LACT)	21 COOKED-NFS	8F0760	P 0.100000	0.100000		100.00	0.100000
500000A	MILK-SUG (LACT)	51 COOKED-CANNED	8F0760	P 0.100000	0.100000		100.00	0.100000
530018A	BEEF-MEAT BYP	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-MEAT BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018B	BEEF-OTH ORGAN	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018B	BEEF-OTH ORGAN	51 COOKED-CANNED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-DRIED	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	10 RAW-FRESH OR NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	22 COOKED-FRESH-BAKED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	23 COOKED-FRESH-BOILED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	24 COOKED-FRESH-BROILED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-FAT	25 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LIVER	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LIVER	31 COOKED-FRESH OR CANNED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	10 RAW-FRESH OR NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	22 COOKED-FRESH-BAKED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	23 COOKED-FRESH-BOILED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	24 COOKED-FRESH-BROILED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
530018A	BEEF-LEAN	25 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-MEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-MEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-OTH ORGAN	23 COOKED-FRESH-BOILED	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-FAT	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-FAT	25 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-KIDNEY	00 NOT SPECIFIED (NO CONSUMPTION)	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-LEAN	23 COOKED-FRESH-BOILED	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-LEAN	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
530028A	GOAT-LEAN	25 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530058A	SHEEP-MEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)	8F0670	P 0.200000	0.200000		100.00	0.200000
530058A	SHEEP-OTH ORGAN	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530058A	SHEEP-FAT	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530058A	SHEEP-KIDNEY	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000



ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 03/30/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1,0000 mg/kg 20.00 ppm LEL= 5,0000 mg/kg 100.00 ppm OMCO: D (HED); D (SAP)	Increased Vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF -->300 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy-acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
53005LA	SHEEP-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	8F0670	P 0.200000	0.200000		100.00	0.200000
53005MA	SHEEP-LEAN	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
53005MA	SHEEP-LEAN	31 COOKED-FRESH OR CANNED	8F0670	P 0.200000	0.200000		100.00	0.200000
530068A	PORK-HEAT BYP	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530068B	PORK-OTH ORGAN	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
530068B	PORK-OTH ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0670	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	10 RAW-FRESH OR NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	23 COOKED-FRESH-BOILED	8F0670	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0670	P 0.200000	0.200000		100.00	0.200000
53006A	PORK-KIDNEY	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
53006A	PORK-LIVER	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
53006A	PORK-LIVER	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
53006A	PORK-LEAN	21 COOKED-NFS	8F0670	P 0.200000	0.200000		100.00	0.200000
53006A	PORK-LEAN	25 COOKED-FRESH-FRIED	8F0670	P 0.200000	0.200000		100.00	0.200000
53006A	PORK-LEAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0670	P 0.200000	0.200000		100.00	0.200000
53010AA	FISH-UMSPEC	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53013AA	FISH-SHELL	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53013AA	FISH-SHELL	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53013AA	FISH-SHELL	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
53015AA	FISH-ROE, CAVIAR	51 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53015AA	FISH-ROE, CAVIAR	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53016AA	FISH-FIN-FRESH	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
53016AA	FISH-FIN-FRESH	10 RAW-FRESH OR NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53017AA	FISH-FIN-SALT	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53017AA	FISH-FIN-SALT	25 COOKED-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
53017AA	FISH-FIN-SALT	12 RAW-FRESH-FRIED	3F2876	P 1.000000	1.000000		100.00	1.000000
53017DA	FISH-FIN-SLT-DRY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
53017DA	FISH-FIN-SLT-DRY	21 COOKED-NFS	3F2876	P 1.000000	1.000000		100.00	1.000000
550088A	TURKEY-BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0670	P 0.050000	0.050000		100.00	0.050000
550088A	TURKEY-BYP	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
550088A	TURKEY ORGAN	25 COOKED-FRESH-FRIED	8F0670	P 0.050000	0.050000		100.00	0.050000
550088A	TURKEY ORGAN	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
550088A	TURKEY W/O SKIN	31 COOKED-FRESH OR CANNED	8F0670	P 0.050000	0.050000		100.00	0.050000
550088A	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED	8F0670	P 0.050000	0.050000		100.00	0.050000
550088B	TURKEY+SKIN	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
550088B	TURKEY+SKIN	25 COOKED-FRESH-FRIED	8F0670	P 0.050000	0.050000		100.00	0.050000
550088C	TURKEY-UNSPEC	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 03/30/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1.0000 mg/kg 20.00 ppm LEL= 5.0000 mg/kg 100.00 ppm ONCO: D (HED); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF --300 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy-acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
55013BA	POULTRY, OTH- BYP	00 NOT SPECIFIED (NO CONSUMPTION)						
55013LA	POULTRY, ORGAN	25 COOKED-FRESH-FRIED	8F0670	P 0.050000	0.050000		100.00	0.050000
55013MA	POULTRY, OTHER	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	10 RAW-FRESH OR NFS	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	21 COOKED-NFS	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	25 COOKED-FRESH-FRIED	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	81 COOKED-FROZEN	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED	8F0760	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED	8F0670	P 0.050000	0.050000		100.00	0.050000
55015BA	CHICKEN-BYP	00 NOT SPECIFIED (NO CONSUMPTION)						
55015LA	CHICKEN-ORGAN	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
55015LA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	8F0670	P 0.050000	0.050000		100.00	0.050000
55015LA	CHICKEN-ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0670	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED	8F0670	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED	8F0670	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	8F0670	P 0.050000	0.050000		100.00	0.050000
55015MB	CHICKEN+SKIN	21 COOKED-NFS	8F0670	P 0.050000	0.050000		100.00	0.050000
55015MB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	8F0670	P 0.050000	0.050000		100.00	0.050000



ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 06/02/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding: rat NOEL= 1,0000 mg/kg 20.00 ppm LEI= 5,0000 mg/kg 100.00 ppm OMCO: D (HED); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF --->300 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy-acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
02004JA	LEMONS-JUICE	15 RAW-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02004JA	LEMONS-JUICE	21 COOKED-NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02004JA	LEMONS-JUICE	31 COOKED-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02005AA	LIMES-UNSPEC	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02005AB	LIMES-PULP	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02005HA	LIMES-PEEL	21 COOKED-NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02005JA	LIMES-JUICE	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02005JA	LIMES-JUICE	15 RAW-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02005JA	LIMES-JUICE	31 COOKED-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006AA	ORANGES-UNSPEC	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006AB	ORANGES-PULP	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006AB	ORANGES-PULP	21 COOKED-NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006HA	ORANGES-PEEL	21 COOKED-FRESH-BAKED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006HA	ORANGES-PEEL	22 COOKED-FRESH-BAKED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006HA	ORANGES-PEEL	31 COOKED-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006JA	ORANGES-JUICE	15 RAW-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02006JA	ORANGES-JUICE	31 COOKED-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02007AA	TANGELOS	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02007AA	TANGELOS	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02008AA	TANGERINE-JUICE	15 RAW-FRESH OR CANNED	TESTRUM	P 5,000000	5,000000		1.00	0,050000
02008JA	ALMONDS	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
03001AA	ALMONDS	10 RAW-FRESH OR NFS	TESTRUM	P 5,000000	5,000000		1.00	0,050000
03001AA	ALMONDS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		15.00	0,030000
03002AA	BRAZIL NUTS	22 COOKED-FRESH-BAKED	TESTRUM	P 0,200000	0,200000		15.00	0,030000
03002AA	BRAZIL NUTS	10 RAW-FRESH OR NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03002AA	BRAZIL NUTS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03003AA	CASHEWS	10 RAW-FRESH OR NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03003AA	CASHEWS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03004AA	CHESTNUTS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03005AA	FILBERTS	10 RAW-FRESH OR NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03005AA	FILBERTS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03006AA	HICKORY NUTS	22 COOKED-FRESH-BAKED	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03007AA	MACADAMIA NUTS	10 RAW-FRESH OR NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03008AA	PECANS	10 RAW-FRESH OR NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03008AA	PECANS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03008AA	PECANS	22 COOKED-FRESH-BAKED	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03008AA	PECANS	23 COOKED-FRESH-BOILED	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03009AA	WALNUTS	62 COOKED-FRESH OR FROZEN-BAKED	TESTRUM	P 0,200000	0,200000		100.00	0,200000
03009AA	WALNUTS	10 RAW-FRESH OR NFS	TESTRUM	P 0,200000	0,200000		15.00	0,030000
03009AA	WALNUTS	21 COOKED-NFS	TESTRUM	P 0,200000	0,200000		15.00	0,030000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 04/02/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1.0000 mg/kg 20.00 ppm LEL= 5.0000 mg/kg 100.00 ppm OMCO: D (MED); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF -->300 OPP Rfd= 0.003500 EPA Rfd= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old Rfd of 0.001 based on 90d rat, 1000 UF. [Syn. dichlorophenoxy- acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
03009AA	VALNUTS	22 COOKED-FRESH-BAKED			0.200000		15.00	0.030000
03010AA	BUTTER NUTS	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
03011AA	PISTACHIO NUTS	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
03013AA	BEECHNUTS	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
04001AA	APPLES-FRESH	10 RAW-FRESH OR NFS	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001AA	APPLES-FRESH	21 COOKED-NFS	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001AA	APPLES-FRESH	31 COOKED-FRESH OR CANNED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	10 RAW-FRESH OR NFS	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	22 COOKED-FRESH BAKED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001DA	APPLES-DRIED	62 COOKED-FRESH OR FROZEN-BAKED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001JA	APPLES-JUICE	15 RAW-FRESH OR CANNED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04001JA	APPLES-JUICE	31 COOKED-FRESH OR CANNED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	10 RAW-FRESH OR NFS	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	31 COOKED-FRESH OR CANNED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	51 COOKED-FRESH OR CANNED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04003AA	PEARS-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04003DA	PEARS-DRIED	10 RAW-FRESH OR NFS	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04003DA	PEARS-DRIED	21 COOKED-NFS	TESTRUN	P 5.000000	5.000000		20.00	1.000000
04004AA	QUINCES	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 5.000000	5.000000		100.00	5.000000
05001AA	APRICOTS-FRESH	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
05001AA	APRICOTS-FRESH	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
05001AA	APRICOTS-FRESH	31 COOKED-FRESH OR CANNED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
05001DA	APRICOTS-DRIED	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
05001DA	APRICOTS-DRIED	22 COOKED-FRESH-BAKED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
05001DA	APRICOTS-DRIED	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
05002AA	CHERRIES-FRESH	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05002AA	CHERRIES-FRESH	31 COOKED-FRESH OR CANNED	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05002AA	CHERRIES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05002DA	CHERRIES-DRIED	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05002JA	CHERRIES-JUICE	15 RAW-FRESH OR CANNED	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05002JA	CHERRIES-JUICE	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05003AA	NECTARINES	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05004AA	PEACHES-FRESH	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05004AA	PEACHES-FRESH	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05004AA	PEACHES-FRESH	31 COOKED-FRESH OR CANNED	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05004AA	PEACHES-FRESH	51 COOKED-FRESH OR CANNED	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05004DA	PEACHES-DRIED	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05004DA	PEACHES-DRIED	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		1.00	0.002000
05005AA	PLUMS-FRESH	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		10.00	0.020000

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FOOD CODE	FOOD	FOOD FORM	STUDY TYPE		EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	% CROP TREATED	STATUS	
			2yr feeding- rat	NOEL=		PADI UF -->300	Opp Rfd= 0.003000				
			2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142		Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).		EPA Rfd= 0.010000		Chronic feeding- dog Developmental tox- rabbit Old Rfd of 0.001 based on 90d rat, 1000 UF. [Syn. dichlorophenoxy- acetic acid, 2,4-]		EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chron & subchronic dog study. WHO last reviewed 1975.
FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	RES. VALUE USED IN TAS RUM (ppm)				
05005AA	PLUMS-FRESH	31 COOKED-FRESH OR CANNED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
05005DA	PLUMS-PRUNES	10 RAW-FRESH OR NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
05005DA	PLUMS-PRUNES	21 COOKED-NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
05005DA	PLUMS-PRUNES	31 COOKED-FRESH OR CANNED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
05005JA	PRUNE-JUICE	10 RAW-FRESH OR NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
05005JA	PRUNE-JUICE	62 COOKED-FRESH OR FROZEN-BAKED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AA	POTATO(WH)-WHOLE	10 RAW-FRESH OR NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AA	POTATO(WH)-WHOLE	21 COOKED-NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AB	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AB	POTATO(WH)-UNSP	21 COOKED-NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AC	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AC	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AC	POTATO(WH)-PULP	23 COOKED-FRESH-BOILED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013AC	POTATO(WH)-PULP	25 COOKED-FRESH-FRIED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013DA	POTATO(WH)-DRY	10 RAW-FRESH OR NFS	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013DA	POTATO(WH)-DRY	31 COOKED-FRESH OR CANNED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
14013HA	POTATO(WH)-PEEL	22 COOKED-FRESH-BAKED	TESTRUM	P 0.200000	0.200000		0.020000	10.00			
15005AA	CORN,SWEET	10 RAW-FRESH OR NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
15005AA	CORN,SWEET	21 COOKED-NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
15005AA	CORN,SWEET	31 COOKED-FRESH OR CANNED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
16002AA	ASPARAGUS	21 COOKED-NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
16002AA	ASPARAGUS	23 COOKED-FRESH-BOILED	TESTRUM	P 5.000000	5.000000		0.500000	10.00			
24001AA	BARLEY	21 COOKED-NFS	TESTRUM	P 5.000000	5.000000		0.500000	10.00			
24002EA	CORN,GRAIN-ENDO	10 RAW-FRESH OR NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002EA	CORN,GRAIN-ENDO	21 COOKED-NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002EA	CORN,GRAIN-ENDO	22 COOKED-FRESH-BAKED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002EA	CORN,GRAIN-ENDO	22 COOKED-FRESH-BAKED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002EA	CORN,GRAIN-ENDO	23 COOKED-FRESH-BOILED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002EA	CORN,GRAIN-ENDO	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002SA	CORN SUGAR	10 RAW-FRESH OR NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24002SA	CORN SUGAR	21 COOKED-NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24003AA	OATS	22 COOKED-FRESH-BAKED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24003AA	OATS	22 COOKED-NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24003AA	OATS	22 COOKED-FRESH-BAKED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24003AA	OATS	23 COOKED-FRESH-BOILED	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24004AA	RICE-ROUGH	21 COOKED-NFS	TESTRUM	P 0.500000	0.500000		0.075000	15.00			
24004AA	RICE-ROUGH	23 COOKED-FRESH-BOILED	TESTRUM	P 0.100000	0.100000		0.020000	20.00			
24004AB	RICE-MILLED	21 COOKED-NFS	TESTRUM	P 0.100000	0.100000		0.020000	20.00			
24004AB	RICE-MILLED	22 COOKED-FRESH-BOILED	TESTRUM	P 0.100000	0.100000		0.020000	20.00			
24004AB	RICE-MILLED	23 COOKED-FRESH-BOILED	TESTRUM	P 0.100000	0.100000		0.020000	20.00			
24004AB	RICE-MILLED	31 COOKED-FRESH OR CANNED	TESTRUM	P 0.100000	0.100000		0.020000	20.00			

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FOOD CODE	FOOD	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS	TOLERANCE		RES. VALUE USED IN TAs RUN (ppm)							
							(ppm)	ANTICIPATED RESIDUE (ppm)								
<p><b>2,4-D (acid + salts)</b>                      Caswell #315                      CAS No. 94-75-7                      A.I. CODE: 030001                      CFR No. 180.142</p>							<p>2yr feeding- rat                      MOEL= 1,000 mg/kg                      20.00 ppm                      LEL= 5,000 mg/kg                      100.00 ppm                      ONCO: D (HEP); D (SAP)</p>		<p>Increased vacuolization                      of the cytoplasm of the                      renal cortex.                      Evidence of oncogenicity                      in male rats (brain).</p>		<p>PADI UF --3300                      Opp Rfd= 0.003000                      EPA Rfd= 0.010000</p>		<p>Chronic feeding- dog                      Developmental tox- rabbit                      Old Rfd of 0.001 based on                      90d rat, 1000 UF.                      [Syn. dichlorophenoxy-                      acetic acid, 2,4-]</p>		<p>EPA verified 02/05/86.                      HED reassess 12/11/87.                      EPA deferred 02/25/88.                      Pending review of chronic                      &amp; subchronic dog study.                      WHO last reviewed 1975.</p>	
FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)								
240057A	RYE-ROUGH	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.500000	0.500000		20.00	0.100000								
240056A	RYE-GERM	22 COOKED-FRESH-BAKED	TESTRUN	P 2.000000	2.000000C		20.00	0.400000								
240055A	RYE-FLOUR	21 COOKED-NFS	TESTRUN	P 0.500000	0.500000		20.00	0.100000								
240054A	RYE-FLOUR	22 COOKED-FRESH-BAKED	TESTRUN	P 0.500000	0.500000		20.00	0.100000								
240064A	SORGHUM	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.500000	0.500000		15.00	0.075000								
240077A	WHEAT-ROUGH	10 RAW-FRESH OR NFS	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-ROUGH	21 COOKED-NFS	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-ROUGH	23 COOKED-FRESH-BOTTLED	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-ROUGH	10 RAW-FRESH OR NFS	TESTRUN	P 2.000000	2.000000C		25.00	0.500000								
240077A	WHEAT-GERM	22 COOKED-FRESH-BAKED	TESTRUN	P 2.000000	2.000000C		25.00	0.500000								
240077A	WHEAT-GERM	10 RAW-FRESH OR NFS	TESTRUN	P 2.000000	2.000000C		25.00	0.500000								
240077A	WHEAT-BRAN	10 RAW-FRESH OR NFS	TESTRUN	P 2.000000	2.000000C		25.00	0.500000								
240077A	WHEAT-BRAN	21 COOKED-NFS	TESTRUN	P 2.000000	2.000000C		25.00	0.500000								
240077A	WHEAT-BRAN	22 COOKED-FRESH-BAKED	TESTRUN	P 2.000000	2.000000C		25.00	0.500000								
240077A	WHEAT-FLOUR	10 RAW-FRESH OR NFS	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-FLOUR	21 COOKED-NFS	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
240077A	WHEAT-FLOUR	25 COOKED-FRESH-FRIED	TESTRUN	P 0.500000	0.500000		25.00	0.125000								
24012AA	WHEAT-FLOUR	10 RAW-FRESH OR NFS	TESTRUN	P 0.500000	0.500000		100.00	0.500000								
24012AA	MILLET	21 COOKED-NFS	TESTRUN	P 0.500000	0.500000		100.00	0.500000								
250035A	CANE SUGAR	10 RAW-FRESH OR NFS	TESTRUN	P 2.000000	2.000000		10.00	0.200000								
250035A	CANE SUGAR	21 COOKED-NFS	TESTRUN	P 2.000000	2.000000		10.00	0.200000								
250035A	CANE SUGAR	22 COOKED-FRESH-BAKED	TESTRUN	P 2.000000	2.000000		10.00	0.200000								
250035A	CANE SUGAR	31 COOKED-FRESH OR CANNED	TESTRUN	P 2.000000	2.000000		10.00	0.200000								
250035B	SUGAR-MOLASSES	10 RAW-FRESH OR NFS	TESTRUN	P 5.000000	5.000000		10.00	0.500000								
250035B	SUGAR-MOLASSES	21 COOKED-NFS	TESTRUN	P 5.000000	5.000000		10.00	0.500000								
250035B	SUGAR-MOLASSES	31 COOKED-FRESH-BAKED	TESTRUN	P 5.000000	5.000000		10.00	0.500000								
250035B	SUGAR-MOLASSES	22 COOKED-FRESH OR CANNED	TESTRUN	P 5.000000	5.000000		10.00	0.500000								
270020A	CORN, GRAIN-OIL	18 PROCESSED OIL	TESTRUN	P 5.000000	5.000000C		10.00	0.500000								
500000B	MILK-NON-FAT SOL	10 RAW-FRESH OR NFS	TESTRUN	P 0.500000	0.500000		15.00	0.075000								
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
500000F	MILK-FAT SOLIDS	10 RAW-FRESH OR NFS	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
500000F	MILK-FAT SOLIDS	21 COOKED-NFS	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
500000F	MILK-FAT SOLIDS	51 COOKED-CANNED	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
500000A	MILK SUG (LACT)	21 COOKED-NFS	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
500000A	MILK SUG (LACT)	51 COOKED-CANNED	TESTRUN	P 0.100000	0.100000		100.00	0.100000								
530018A	BEEF-MEAT BYP	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.100000								
530018A	BEEF-MEAT BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	TESTRUN	P 0.200000	0.200000		100.00	0.200000								
530018B	BEEF-OTH ORGAN	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000								

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<b>CHEMICAL</b> 2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	<b>STUDY TYPE</b> Yr feeding- rat NOEL= 1.0000 mg/kg 20.00 ppm LET= 5.0000 mg/kg 100.00 ppm ONCO: D (HED): D (SAP)	<b>EFFECTS</b> Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	<b>REFERENCE DOSES</b> PADI UF -->300 OPP RfD= 0.003000 EPA RfD= 0.010000	<b>DATA GAPS/COMMENTS</b> Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy- acetic acid, 2,4-]	<b>STATUS</b> EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chron & subchronic dog study. WHO last reviewed 1975.
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FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAs RUN (ppm)
53001BB	BEEF-OTH ORGAN	51 COOKED-CANNED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001DA	BEEF-DRIED	21 COOKED-NFS	TESTRUN	R 0.200000	0.200000		100.00	0.200000
53001FA	BEEF-FAT	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001FA	BEEF-FAT	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001FA	BEEF-FAT	22 COOKED-FRESH-BAKED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001FA	BEEF-FAT	23 COOKED-FRESH-BOILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001FA	BEEF-FAT	24 COOKED-FRESH-BROILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001FA	BEEF-FAT	25 COOKED-FRESH-FRIED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001KA	BEEF-KIDNEY	21 COOKED-NFS	TESTRUN	P 2.000000	2.000000		100.00	2.000000
53001LA	BEEF-LIVER	25 COOKED-FRESH-FRIED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001LA	BEEF-LIVER	31 COOKED-FRESH-BAKED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001LA	BEEF-LIVER	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001MA	BEEF-LEAN	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001MA	BEEF-LEAN	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001MA	BEEF-LEAN	22 COOKED-FRESH-BAKED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001MA	BEEF-LEAN	23 COOKED-FRESH-BOILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53001MA	BEEF-LEAN	24 COOKED-FRESH-BROILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002BA	GOAT-HEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002BB	GOAT-OTH ORGAN	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002FA	GOAT-FAT	23 COOKED-FRESH-BOILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002FA	GOAT-FAT	25 COOKED-FRESH-FRIED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002KA	GOAT-KIDNEY	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002LA	GOAT-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002MA	GOAT-LEAN	23 COOKED-FRESH-BOILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53002MA	GOAT-LEAN	25 COOKED-FRESH-FRIED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53003AA	HORSE	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 2.000000	2.000000		100.00	2.000000
53005BA	SHEEP-HEAT BYP	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53005BB	SHEEP-OTH ORGAN	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53005FA	SHEEP-FAT	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53005KA	SHEEP-KIDNEY	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53005LA	SHEEP-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53005MA	SHEEP-LEAN	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53005MA	SHEEP-LEAN	31 COOKED-FRESH OR CANNED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006BA	PORK-HEAT BYP	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006BB	PORK-OTH ORGAN	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	10 RAW-FRESH OR NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	21 COOKED-NFS	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	23 COOKED-FRESH-BOILED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	25 COOKED-FRESH-FRIED	TESTRUN	P 0.200000	0.200000		100.00	0.200000
53006FA	PORK-FAT	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	TESTRUN	P 0.200000	0.200000		100.00	0.200000



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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts)	2yr feeding - rat	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF -->500 OPP RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding - dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy-acetic acid, 2,4-]	EPA verified 02/05/86. HEP reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.
Caswell #315	NOEL= 1,0000 mg/kg				
CAS No. 94-75-7	20.00 ppm				
A.I. CODE: 030001	LEL= 5.0000 mg/kg				
CFR No. 180.142	100.00 ppm				
	ONCO: D (HED); D (SAP)				

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
53006KA	PORK-KIDNEY	21 COOKED-NFS		P 2.000000	2.000000		100.00	2.000000
53006LA	PORK-LIVER	21 COOKED-NFS		P 0.200000	0.200000		100.00	0.200000
53006MA	PORK-LEAN	21 COOKED-FRESH-FRIED		P 0.200000	0.200000		100.00	0.200000
53006NA	PORK-LEAN	25 COOKED-FRESH-FRIED		P 0.200000	0.200000		100.00	0.200000
53006PA	PORK-LEAN	26 COOKED-FRESH-FRIED		P 0.200000	0.200000		100.00	0.200000
55008BA	TURKEY-BYP	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55008BA	TURKEY-BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED		P 0.050000	0.050000		100.00	0.050000
55008LA	TURKEY ORGAN	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55008MA	TURKEY ORGAN	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000
55008NA	TURKEY W/O SKIN	31 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55008PA	TURKEY W/O SKIN	62 COOKED-FRESH OR CANNED		P 0.050000	0.050000		100.00	0.050000
55008QA	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED		P 0.050000	0.050000		100.00	0.050000
55008RB	TURKEY+SKIN	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55008MB	TURKEY+SKIN	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000
55008MC	TURKEY-UNSPEC	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55013BA	POULTRY,OTH-BYP	00 NOT SPECIFIED (NO CONSUMPTION)		P 0.050000	0.050000		100.00	0.050000
55013LA	POULTRY, ORGAN	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000
55013MA	POULTRY, OTHER	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	10 RAW-FRESH OR NFS		P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED		P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED		P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS		P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED		P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED		P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	81 COOKED-FROZEN		P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS		P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED		P 0.050000	0.050000		100.00	0.050000
55015AA	CHICKEN-BYP	00 NOT SPECIFIED (NO CONSUMPTION)		P 0.050000	0.050000		100.00	0.050000
55015AA	CHICKEN-ORGAN	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55015AA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000
55015AA	CHICKEN-ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED		P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	21 COOKED-NFS		P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED		P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED		P 0.050000	0.050000		100.00	0.050000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 315

DATE: 04/02/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1.0000 mg/kg 20.00 ppm LEL= 5.0000 mg/kg 100.00 ppm ONCO: D (HED); D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI UF -->300 OPP Rfd= 0.003000 EPA Rfd= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old Rfd of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy- acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
55015MA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	TESTRUN	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	53 COOKED-CANNED-BOILED	TESTRUN	P 0.050000	0.050000		100.00	0.050000
55015MB	CHICKEN+SKIN	21 COOKED-NFS	TESTRUN	P 0.050000	0.050000		100.00	0.050000
55015MB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	TESTRUN	P 0.050000	0.050000		100.00	0.050000

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 03/30/92

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CHEMICAL INFORMATION	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
2,4-D (acid + salts) Caswell #315 CAS No. 94-75-7 A.I. CODE: 030001 CFR No. 180.142	2yr feeding- rat NOEL= 1,0000 mg/kg 20.00 ppm LEL= 5,0000 mg/kg 100.00 ppm ONCO: D (HED): D (SAP)	Increased vacuolization of the cytoplasm of the renal cortex. Evidence of oncogenicity in male rats (brain).	PADI OPF RfD= 0.003000 EPA RfD= 0.010000	Chronic feeding- dog Developmental tox- rabbit Old RfD of 0.001 based on 90d rat, 1000 UF. [Syn. Dichlorophenoxy-acetic acid, 2,4-]	EPA verified 02/05/86. HED reassess 12/11/87. EPA deferred 02/25/88. Pending review of chronic & subchronic dog study. WHO last reviewed 1975.

POPULATION SUBGROUP	TOTAL TMRC (MG/KG BODY WEIGHT/DAY)		NEW TMRC AS PERCENT OF RFD	DIFFERENCE AS PERCENT OF RFD	EFFECT OF ANTICIPATED RESIDUES	XRFD
	CURRENT TMRC*	NEW TMRC**				
U.S. POPULATION - 48 STATES	0.028345	0.028345	944.820367	0.000000	0.008893	296.42197
U.S. POPULATION - SPRING SEASON	0.027346	0.027346	911.524900	0.000000	0.008566	285.54853
U.S. POPULATION - SUMMER SEASON	0.027045	0.027045	901.503600	0.000000	0.009017	300.55153
U.S. POPULATION - FALL SEASON	0.029260	0.029260	975.340600	0.000000	0.009020	300.67350
U.S. POPULATION - WINTER SEASON	0.029597	0.029597	986.574033	0.000000	0.008912	297.05603
NORTHEAST REGION	0.032822	0.032822	1094.053867	0.000000	0.009037	301.24100
NORTH CENTRAL REGION	0.027925	0.027925	930.847333	0.000000	0.008871	295.69407
SOUTHERN REGION	0.024254	0.024254	808.450633	0.000000	0.008406	280.18637
WESTERN REGION	0.029835	0.029835	994.499200	0.000000	0.009496	316.53310
HISPANICS	0.034117	0.034117	1137.247600	0.000000	0.009660	321.98377
NON-HISPANIC WHITES	0.028009	0.028009	933.626833	0.000000	0.008926	297.54063
NON-HISPANIC BLACKS	0.026747	0.026747	891.581567	0.000000	0.008148	271.58860
NON-HISPANIC OTHERS	0.035197	0.035197	1173.232767	0.000000	0.009341	311.37873
NURSING INFANTS (< 1 YEAR OLD)	0.058729	0.058729	1957.645500	0.000000	0.014000	466.68163
NON-NURSING INFANTS (< 1 YEAR OLD)	0.100652	0.100652	3355.081200	0.000000	0.028756	958.52723
FEMALES (13+ YEARS, PREGNANT)	0.021450	0.021450	715.015333	0.000000	0.006592	219.72180
FEMALES 13+ YEARS, NURSING	0.023719	0.023719	790.623333	0.000000	0.008084	269.47317
CHILDREN (1-6 YEARS OLD)	0.072900	0.072900	2429.999433	0.000000	0.019262	642.06563
CHILDREN (7-12 YEARS OLD)	0.041587	0.041587	1386.230000	0.000000	0.013011	433.70583
MALES (13-19 YEARS OLD)	0.024648	0.024648	821.604800	0.000000	0.008648	288.28207
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.022538	0.022538	751.279533	0.000000	0.007450	248.33900
MALES (20 YEARS AND OLDER)	0.018206	0.018206	606.860067	0.000000	0.006658	221.92123
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)	0.019932	0.019932	664.386300	0.000000	0.006359	211.95353

\*Current TMRC does not include new or pending tolerances.  
\*\*New TMRC includes new, pending, and published tolerances.

CHEMICAL INFORMATION

2,4-D (acid + salts)  
 Caswell #315  
 CAS No. 94-75-7  
 A.I. CODE: 030001  
 CFR No. 180.142

STUDY TYPE

2yr feeding- rat  
 NOEL= 1.0000 mg/kg  
 20.00 ppm  
 LEL= 5.0000 mg/kg  
 100.00 ppm  
 ONCO: D (HED): D (SAP)

EFFECTS

Increased vacuolization  
 of the cytoplasm of the  
 renal cortex.  
 Evidence of oncogenicity  
 in male rats (brain).

REFERENCE DOSES

PADI UF -->300  
 OPP Rfd= 0.003000  
 EPA Rfd= 0.010000

DATA GAPS/COMMENTS

Chronic feeding- dog  
 Developmental tox- rabbit  
 Old Rfd of 0.001 based on  
 90d rat, 1000 UF.  
 [Syn. Dichlorophenoxy-  
 acetic acid, 2,4-]

STATUS

EPA verified 02/05/86.  
 HED reassess 12/11/87.  
 EPA deferred 02/25/88.  
 Pending review of chronic  
 & subchronic dog study.  
 WHO last reviewed 1975.

TOTAL TMRC (MG/KG BODY WEIGHT/DAY)

POPULATION SUBGROUP	CURRENT TMRC*	NEW TMRC**	NEW TMRC AS PERCENT OF RFD	DIFFERENCE AS PERCENT OF RFD	EFFECT OF ANTICIPATED RESIDUES ARC	XRFD
U.S. POPULATION - 48 STATES	0.021312	0.021312	710.411400	0.000000	0.003246	108.19687
U.S. POPULATION - SPRING SEASON	0.020451	0.020451	681.707967	0.000000	0.002990	99.66350
U.S. POPULATION - SUMMER SEASON	0.019555	0.019555	651.830400	0.000000	0.003057	101.91403
U.S. POPULATION - FALL SEASON	0.022386	0.022386	746.199467	0.000000	0.003490	116.33503
U.S. POPULATION - WINTER SEASON	0.022805	0.022805	760.158400	0.000000	0.003436	114.52703
NORTHEAST REGION	0.025886	0.025886	862.867833	0.000000	0.003538	117.93353
NORTH CENTRAL REGION	0.020960	0.020960	698.674267	0.000000	0.003264	108.81343
SOUTHERN REGION	0.017405	0.017405	580.156500	0.000000	0.002826	94.20930
WESTERN REGION	0.022365	0.022365	745.509567	0.000000	0.003538	117.93410
HISPANICS	0.026527	0.026527	884.234867	0.000000	0.003772	125.74963
NON-HISPANIC WHITES	0.020997	0.020997	699.884900	0.000000	0.003273	109.11237
NON-HISPANIC BLACKS	0.020066	0.020066	668.881900	0.000000	0.002772	92.38660
NON-HISPANIC OTHERS	0.027662	0.027662	922.075600	0.000000	0.003479	115.98040
NURSING INFANTS (< 1 YEAR OLD)	0.051968	0.051968	1732.264633	0.000000	0.009455	315.15223
NON-NURSING INFANTS (< 1 YEAR OLD)	0.085000	0.085000	2833.324500	0.000000	0.017838	594.61223
FEMALES (13+ YEARS, PREGNANT)	0.016101	0.016101	536.706300	0.000000	0.002199	73.31417
FEMALES 13+ YEARS, NURSING CHILDREN (1-6 YEARS OLD)	0.017269	0.017269	575.622167	0.000000	0.002778	92.58763
CHILDREN (7-12 YEARS OLD)	0.059196	0.059196	1973.205900	0.000000	0.008781	292.68577
MALES (13-19 YEARS OLD)	0.031460	0.031460	1048.680133	0.000000	0.005013	167.08657
MALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.017800	0.017800	593.344033	0.000000	0.003101	103.35637
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.016566	0.016566	552.189267	0.000000	0.002567	85.57953
MALES (20 YEARS AND OLDER)	0.012538	0.012538	417.932600	0.000000	0.002045	68.16737
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)	0.014552	0.014552	485.050167	0.000000	0.001871	62.36550

\*Current TMRC does not include new or pending tolerances.  
 \*\*New TMRC includes new, pending, and published tolerances.