



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

FEB 15 1990

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Dietary Exposure Analysis for the Proposed Use of
Paraquat (Gramoxone) on Dry Beans, PP#7F1910

FROM: Rita Briggs, Ph.D. *R.B.*
Dietary Risk Evaluation System (DRES) Staff
HED/SACB (H7509C)

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

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

Action Requested

To provide an estimate of dietary exposure to paraquat based on published tolerances and a proposed tolerance on dry beans.

Discussion

1. Toxicology Endpoint: The routine chronic DRES analysis used a reference dose (ADI) of 0.0045 mg/kg body weight/day, based upon a NOEL of 0.45 mg/kg body weight/day, an endpoint of chronic pneumonitis and an uncertainty factor of 100 from a one year dog feeding study. This value has been approved by HED (02\21\86) and Agency (03\11\86) reference dose committees.
2. Residue Information: Food uses evaluated included published tolerances from 40 CFR 180.205 and the proposed tolerances on dry beans (Malak's memo 2/14/90). A summary of the residue information used in the analysis is attached as Table 1.
3. Exposure Analysis: The DRES chronic exposure analysis uses tolerance level residues and 100 per cent crop treated to estimate the Theoretical Maximum Residue Contribution (TMRC) for the overall U.S. population and 22 population subgroups (Table 2). The TMRCs for the U.S. population and the two highly exposed subgroups, non-nursing infants and children aged 1-6 are summarized in the following table:

Paraquat Dietary Exposure Analysis, page 2

TMRC EXPOSURE SUMMARY

	<u>Overall U.S. Population</u>	<u>Non-Nursing Infants</u>	<u>Children 1-6 yr.</u>
Published Tolerances	0.001865 ^a 41.4 ^b	0.003586 79.7	0.004206 93.5
Proposed Tolerance	0.000044 0.9	0.000032 0.7	0.000094 2.1
TOTALS:	0.001908 42.3	0.003618 80.4	0.004300 95.6

a Estimated exposure in mg/kg body weight/day

b Exposure expressed as percent of the ADI

4. Dietary Risk Assessment: The proposed use of paraquat on dry beans does not add more than 3% of the ADI to any of the population groups in DRES and the total TMRC estimates are still within the acceptable range (see Table 2). Therefore, the proposed use of paraquat does not pose any undue dietary risk.

Attachments

cc: DRES, DEB (Loranger), Caswell #634, TOX (Locke).

Table 1

CHEMICAL INFORMATION FOR CASWELL NUMBER 634

DATE: 02/14/90

PAGE: 1

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF -->100		
Paraquat dichloride	1yr feeding- dog	Chronic pneumonitis.				
Caswell #634	NOEL= 0.4500 mg/kg	Dose in mg/kg calculated	OPP RfD= 0.004500		ADI based on calculated dose.	HED complete 02/21/86.
CAS No. 1910-42-5	15.00 ppm	from food consumption	EPA RfD= 0.004500		No data gaps.	EPA verified 03/11/86.
A.I. CODE: 061601	LEL= 0.9300 mg/kg	data.				WHO last reviewed 1986;
CFR No. 180.205	30.00 ppm					ADI is for cation.
	ONCO: Class E (HED NOTE).					On IRIS.

FOOD CODE	FOOD NAME	PETITION NUMBER	TOLERANCE (PPM)	
			NEW	PUBLISHED
01002AA	BLACKBERRIES	1F1014		0.050000
01003AA	BOYSENBERRIES	1F1014		0.050000
01004AA	DEWBERRIES	1F1014		0.050000
01005AA	LOGANBERRIES	1F1014		0.050000
01006AA	RASPBERRIES	1F1014		0.050000
01007AA	YOUNGBERRIES	1F1014		0.050000
01009AA	BLUEBERRIES	1F1014		0.050000
01010AA	CRANBERRIES	1F1014		0.050000
01010JA	CRANBERRIES-JUICE	1F1014		0.050000
01011AA	CURRENTS	1F1014		0.050000
01012AA	ELDERBERRIES	1F1014		0.050000
01013AA	GOOSEBERRIES	1F1014		0.050000
01014AA	GRAPES-FRESH	1F1014		0.050000
01014DA	GRAPES-RAISINS	1F1014		0.050000
01014JA	GRAPES-JUICE	1F1014		0.050000
01015AA	HUCKLEBERRIES (GAYLUSSACTIA)	1F1014		0.050000
01016AA	STRAWBERRIES	6E1845		0.250000
02001AA	CITRUS CITRON	7F0592		0.050000
02002AA	GRAPEFRUIT-UNSPECIFIED	7F0592		0.050000
02002AB	GRAPEFRUIT-PULP	7F0592		0.050000
02002JA	GRAPEFRUIT-JUICE	7F0592		0.050000
02003AA	KUMQUATS	7F0592		0.050000
02004AA	LEMONS-UNSPECIFIED	7F0592		0.050000
02004AB	LEMONS-PULP	7F0592		0.050000
02004HA	LEMONS-PEEL	7F0592		0.050000
02004JA	LEMONS-JUICE	7F0592		0.050000
02005AA	LIMES-UNSPECIFIED	7F0592		0.050000
02005AB	LIMES-PULP	7F0592		0.050000
02005HA	LIMES-PEEL	7F0592		0.050000
02005JA	LIMES-JUICE	7F0592		0.050000
02006AA	ORANGES-UNSPECIFIED	7F0592		0.050000
02006AB	ORANGES-PULP	7F0592		0.050000
02006HA	ORANGES-PEEL	7F0592		0.050000
02006JA	ORANGES-JUICE	7F0592		0.050000
02007AA	TANGELOS	7F0592		0.050000
02008AA	TANGERINES	7F0592		0.050000
02008JA	TANGERINE-JUICE	7F0592		0.050000
03001AA	ALMONDS	4F1481		0.050000
03002AA	BRAZIL NUTS	4F1481		0.050000
03003AA	CASHEWS	4F1481		0.050000

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Table 1, continued

CHEMICAL INFORMATION FOR CASWELL NUMBER 634

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF -->100		
Paraquat dichloride Caswell #634 CAS No. 1910-42-5 A.I. CODE: 061601 CFR No. 180.205	1yr feeding- dog NOEL= 0.4500 mg/kg 15.00 ppm LEL= 0.9300 mg/kg 30.00 ppm ONCO: Class E (HED NOTE).	Chronic pneumonitis. Dose in mg/kg calculated from food consumption data.	OPP RfD= 0.004500 EPA RfD= 0.004500		ADI based on calculated dose. No data gaps.	HED complete 02/21/86. EPA verified 03/11/86. WHO last reviewed 1986; ADI is for cation. On IRIS.

FOOD CODE	FOOD NAME	PETITION NUMBER	TOLERANCE (PPM)	
			PENDING	PUBLISHED
03004AA	CHESTNUTS	4F1481		0.050000
03005AA	FILBERTS & HAZELNUTS	4F1481		0.050000
03006AA	HICKORY NUTS	4F1481		0.050000
03007AA	MACADAMIA NUTS (BUSH NUTS)	4F1481		0.050000
03008AA	PECANS	4F1481		0.050000
03009AA	WALNUTS	4F1481		0.050000
03010AA	BUTTER NUTS	4F1481		0.050000
03011AA	PISTACHIO NUTS	9E2229		0.050000
03013AA	BEECHNUTS	4F1481		0.050000
04001AA	APPLES-FRESH	9F0592		0.050000
04001DA	APPLES-DRIED	9F0592		0.050000
04001JA	APPLES-JUICE	9F0592		0.050000
04003AA	PEARS-FRESH	7F0592		0.050000
04003DA	PEARS-DRIED	7F0592		0.050000
05001AA	APRICOTS-FRESH	9F0592		0.050000
05001DA	APRICOTS-DRIED	9F0592		0.050000
05002AA	CHERRIES-FRESH	7F0592		0.050000
05002DA	CHERRIES-DRIED	7F0592		0.050000
05002JA	CHERRIES-JUICE	7F0592		0.050000
05003AA	NECTARINES	7F0592		0.050000
05004AA	PEACHES-FRESH	7F0592		0.050000
05004DA	PEACHES-DRIED	7F0592		0.050000
05005AA	PLUMS(DAMSONS)-FRESH	7F0592		0.050000
05005DA	PLUMS-PRUNES(DRIED)	7F0592		0.050000
05005JA	PLUMS & PRUNE-JUICE	7F0592		0.050000
06001AA	AVOCADOS	9F0592		0.050000
06002AA	BANANAS-UNSPECIFIED	9F0592		0.050000
06002AB	BANANAS-FRESH	9F0592		0.050000
06002DA	BANANAS-DRIED	9F0592		0.050000
06005AA	FIGS			0.050000
06006AA	GUAVA	3F1336		0.050000
06009AA	OLIVES	7F0592		0.050000
06010AA	PAPAYAS-UNSPECIFIED	7F0592		0.050000
06010AB	PAPAYAS-PULP	7F0592		0.050000
06010DA	PAPAYAS-DRIED	7F0592		0.050000
06010JA	PAPAYAS-JUICE	7F0592		0.050000
06013AA	PINEAPPLE-FRESH/PULP	1F1014		0.050000
06013DA	PINEAPPLE-DRIED	1F1014		0.050000
06013JA	PINEAPPLE-FRESH/JUICE	1F1014		0.050000
06014AA	PASSION FRUIT (GRANADILLA)	3F1335		0.200000

Table 1, continued

CHEMICAL INFORMATION FOR CASWELL NUMBER 634

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF -->100		
Paraquat dichloride	1yr feeding- dog	Chronic pneumonitis.				
Caswell #634	NOEL= 0.4500 mg/kg	Dose in mg/kg calculated	OPP RfD= 0.004500		ADI based on calculated dose.	HED complete 02/21/86.
CAS No. 1910-42-5	15.00 ppm	from food consumption	EPA RfD= 0.004500		No data gaps.	EPA verified 03/11/86.
A.I. CODE: 061601	LEL= 0.9300 mg/kg	data.				WHO last reviewed 1986;
CFR No. 180.205	30.00 ppm					ADI is for cation.
	ONCO: Class E (HED NOTE).					On IRIS.

FOOD CODE	FOOD NAME	PETITION NUMBER	TOLERANCE (PPM)	
			NEW	PUBLISHED
06016AA	PLANTAINS	9F0592		0.050000
06018AA	KIWI	2E2611		0.050000
06020AA	ACEROLA	3E2880		0.050000
07002AA	COFFEE	7F0592		0.050000
08020AA	HOPS	5F1619		0.100000
10002AA	CANTALOUPE-UNSPECIFIED	0E2345		0.050000
10002AB	CANTALOUPE-PULP	0E2345		0.050000
10003AA	CASABAS	0E2345		0.050000
10004AA	CRENSHAW	0E2345		0.050000
10005AA	HONEYDEW MELONS	0E2345		0.050000
10007AA	PERSION MELONS	0E2345		0.050000
10008AA	WATERMELON	0E2345		0.050000
10010AA	CUCUMBERS	0E2345		0.050000
10011AA	PUMPKIN	0E2345		0.050000
10013AA	SQUASH-SUMMER	0E2345		0.050000
10014AA	SQUASH-WINTER	0E2345		0.050000
10017AA	BITTER MELON	0E2345		0.050000
10020AA	TOMELGOURD	0E2345		0.050000
11001AA	EGGPLANT	0E2345		0.050000
11003AA	PEPPERS(SWEET & GARDEN)	0E2345		0.050000
11003AB	CHILI PEPPERS	0E2345		0.050000
11003AD	PEPPERS-OTHER	0E2345		0.050000
11004AA	PIMIENTOS	0E2345		0.050000
11005AA	TOMATOES-WHOLE	0E2345		0.050000
11005JA	TOMATOES-JUICE	0E2345		0.050000
11005RA	TOMATOES-PUREE	0E2345		0.050000
11005TA	TOMATOES-PASTE	0E2345		0.050000
11005UA	TOMATOES-CATSUP	0E2345		0.050000
13005AA	BROCCOLI	6E1845		0.050000
13007AA	CABBAGE-GREEN AND RED	0E2345		0.050000
13008AA	CAULIFLOWER	0E2345		0.050000
13009AA	COLLARDS	0E2345		0.050000
13010AA	CABBAGE-CHINESE/CELERY (INC. BOK CHOY)	0E2345		0.050000
13013AA	LETTUCE-LEAFY VARIETIES	7F0592		0.050000
13020AA	LETTUCE-UNSPECIFIED	7F0592		0.050000
13023AA	RHUBARB	0E2364		0.050000
13026AA	TURNIPS-TOPS	0E2345		0.050000
13045AA	LETTUCE-HEAD VARIETIES	7F0592		0.050000
14003AA	CARROTS	0E2345		0.050000
14006AA	TARO-ROOT	9E3736		0.050000

[0.100000]

Table 1, continued

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF -->100		
Paraquat dichloride Caswell #634 CAS No. 1910-42-5 A.I. CODE: 061601 CFR No. 180.205	1yr feeding- dog NOEL= 0.4500 mg/kg 15.00 ppm LEL= 0.9300 mg/kg 30.00 ppm ONCO: Class E (HED WOTE).	Chronic pneumonitis. Dose in mg/kg calculated from food consumption data.	OPP RfD= 0.004500 EPA RfD= 0.004500		ADI based on calculated dose. No data gaps.	HED complete 02/21/86. EPA verified 03/11/86. WHO last reviewed 1986; ADI is for cation. On IRIS.

FOOD CODE	FOOD NAME	PETITION NUMBER	TOLERANCE (PPM)	
			NEW	PUBLISHED
14007AA	GARLIC	6E1845		0.050000
14011AA	ONIONS-DRY-BULB (CIPOLLINI)	6E1845		0.050000
14011DA	ONIONS-DEHYDRATED OR DRIED	6E1845		0.050000
14013AA	POTATOES(WHITE)-WHOLE	7F0579		0.500000
14013AB	POTATOES(WHITE)-UNSPECIFIED	7F0579		0.500000
14013AC	POTATOES(WHITE)-PEELED	7F0579		0.500000
14013DA	POTATOES(WHITE)-DRY	7F0579		0.500000
14013HA	POTATOES(WHITE)-PEEL ONLY	7F0579		0.500000
14017AA	SHALLOTS	6E1845		0.050000
14018AA	SWEETPOTATOES (INCLUDING YAMS)	6E3421		0.050000
14019AA	TURNIPS-ROOTS	0E2345		0.050000
14026AA	CASSAVA (YUCA BLANCA)	6E3421		0.050000
14028AA	YAUTIA, TANNIER	6E3421		0.050000
15001AA	BEANS-DRY-GREAT NORTHERN	7F1910		
15001AB	BEANS-DRY-KIDNEY	7F1910		
15001AC	BEANS-DRY-LIMA	7F1910		
15001AD	BEANS-DRY-NAVY (PEA)	7F1910		
15001AE	BEANS-DRY-OTHER	7F1910		
15001AF	BEANS-DRY-PINTO	7F1910		
15002AA	BEANS-SUCCULENT-LIMA	0E2345		0.050000
15003AA	BEANS-SUCCULENT-GREEN	0E2345		0.050000
15005AA	CORN (SWEET)	7F0592		0.050000
15006AA	PEANUTS-WHOLE	7F3509		0.050000
15009AA	PEAS(GARDEN)-GREEN IMMATURE	0E2345		2.000000
15018AA	SUNFLOWER-SEEDS			
15022AA	BEANS-DRY-BROADBEANS(MATURE SEED)	7F1910	0.300000	0.050000
15023AA	BEANS-DRY-PIGEON BEANS	7F1910	0.300000	
15023AA	BEANS-DRY-PIGEON BEANS	7F1910	0.300000	
15027AA	BEANS-UNSPECIFIED	7F0592	0.300000	0.050000
15029AA	SOYBEANS-SPROUTED SEEDS	7F1910	0.300000	
15030AA	BEANS-DRY-HYACINTH(MATURE SEEDS)	7F1910	0.300000	
15031AA	BEANS-DRY-BLACKKEYE PEAS(COMPEAS)	7F1910	0.300000	
15032AA	BEANS-DRY-GARBANZO(CHICK PEA)	7F1910	0.300000	
16002AA	ASPARAGUS	6E1845		0.500000
16004AA	ONIONS-GREEN	631845		0.050000
24001AA	BARLEY	1F1014		0.050000
24002EA	CORN GRAIN-ENDOSPERM	7F0592		0.050000
24002HA	CORN GRAIN-BRAN	7F0592		0.050000
24002SA	CORN SUGAR	7F0592		0.050000
24003AA	OATS	1F1014		0.050000

Table 1, continued

CHEMICAL INFORMATION FOR CASWELL NUMBER 634

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Paraquat dichloride	1yr feeding- dog	Chronic pneumonitis.	AD1 UF -->100	AD1 based on calculated	HED complete 02/21/86.
Caswell #634	NOEL=	Dose in mg/kg calculated	OPP RfD= 0.004500	dose.	EPA verified 03/11/86.
CAS No. 1910-42-5	15.00 ppm	from food consumption	EPA RfD= 0.004500	No data gaps.	WHO last reviewed 1986;
A.I. CODE: 061601	LEL=	data.			ADI is for cation.
CFR No. 180.205	30.00 ppm				
	ONCO: Class E (HED NOTE).				On IRIS.

FOOD CODE	FOOD NAME	PETITION NUMBER	TOLERANCE (PPM)	
			NEW	PUBLISHED
24005AA	RYE-ROUGH	1F1014		0.050000
24005GA	RYE-GERM	1F1014		0.050000
24005WA	RYE-FLOUR	1F1014		0.050000
24006AA	SORGHUM (INCLUDING MILO)			0.050000
24007AA	WHEAT-ROUGH	1F1014		0.050000
24007GA	WHEAT-GERM	1F1014		0.050000
24007HA	WHEAT-BRAN	1F1014		0.050000
24007WA	WHEAT-FLOUR	1F1014		0.050000
25002SA	BET SUGAR	9F0592		0.500000
25003SA	CANE SUGAR			0.500000
25003SB	SUGAR-MOLASSES			0.500000
26011AA	GUAR BEANS	9F0592		0.500000
270020A	CORN GRAIN-OIL	7F0592		0.500000
270030A	COTTONSEED-OIL	7F0579		0.500000
27003WA	COTTONSEED-MEAL	7F0579		0.500000
270070A	PEANUTS-OIL	7F3509		0.050000
27008AA	SAFFLOWER-SEED	1F1014		0.050000
270080A	SAFFLOWER-OIL	1F1014		0.050000
270100A	SOYBEANS-OIL	7F0592		0.050000
270110A	SUNFLOWER-OIL			2.000000
270160A	OLIVE OIL	7F0592		0.050000
28023AA	SOYBEANS-UNSPECIFIED	7F0592		0.050000
28023AB	SOYBEANS-MATURE/SEEDS DRY	7F0592		0.050000
28023WA	SOYBEANS-FLOUR FULL FAT	7F0592		0.050000
28023WB	SOYBEANS-FLOUR LOW FAT	7F0592		0.050000
28023WC	SOYBEANS-FLOUR (DEATTED)	7F0592		0.050000
28080AA	PEPPERMINT	8E2048		0.500000
28081AA	SPEARMINT	8E2048		0.500000
500000B	MILK-NON-FAT SOLIDS	0F0986		0.010000
50000FA	MILK-FAT SOLIDS	0F0986		0.010000
50000SA	MILK SUGAR (LACTOSE)	0F0986		0.010000
53001BA	BEEF-MEAT BYPRODUCTS	0F0986		0.050000
53001BB	BEEF(ORGAN MEATS)-OTHER	0F0986		0.050000
53001DA	BEEF-DRIED	0F0986		0.050000
53001FA	BEEF(BONELESS)-FAT (BEEF TALLOW)	0F0986		0.050000
53001KA	BEEF(ORGAN MEATS)-KIDNEY	0F0986		0.300000
53001LA	BEEF(ORGAN MEATS)-LIVER	0F0986		0.050000
53001MA	BEEF(BONELESS)-LEAN (W/O REMOVEABLE FAT)	0F0986		0.050000
53002BA	GOAT-MEAT BYPRODUCTS	0F0986		0.050000
53002BB	GOAT(ORGAN MEATS)-OTHER	0F0986		0.050000

Table 1, continued

CHEMICAL INFORMATION FOR CASWELL NUMBER 634 DATE: 02/14/90 PAGE: 6

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF -->100		
Paraquat dichloride Caswell #634 CAS No. 1910-42-5 A.I. CODE: 061601 CFR No. 180.205	1yr feeding- dog NOEL= 0.4500 mg/kg 15.00 ppm LEL= 0.9300 mg/kg 30.00 ppm ONCO: Class E (HED NOTE).	Chronic pneumonitis. Dose in mg/kg calculated from food consumption data.	OPP Rfd= 0.004500 EPA Rfd= 0.004500		ADI based on calculated dose. No data gaps.	HED complete 02/21/86. EPA verified 03/11/86. WHO last reviewed 1986; ADI is for cation. On IRIS.

FOOD CODE	FOOD NAME	PETITION NUMBER	TOLERANCE (PPM)	
			NEW	PENDING PUBLISHED
53002FA	GOAT (BONELESS)-FAT	OF0986		0.050000
53002KA	GOAT (ORGAN MEATS)-KIDNEY	OF0986		0.300000
53002LA	GOAT (ORGAN MEATS)-LIVER	OF0986		0.050000
53002MA	GOAT (BONELESS)-LEAN (W/O REMOVEABLE FAT)	OF0986		0.050000
53003AA	HORSE	OF0986		0.050000
53003BA	SHEEP-MEAT BYPRODUCTS	OF0986		0.050000
53003BB	SHEEP (ORGAN MEATS)-OTHER	OF0986		0.050000
53003FA	SHEEP (BONELESS)-FAT	OF0986		0.050000
53003KA	SHEEP (ORGAN MEATS)-KIDNEY	OF0986		0.300000
53003LA	SHEEP (ORGAN MEATS)-LIVER	OF0986		0.050000
53003MA	SHEEP (BONELESS)-LEAN (W/O REMOVEABLE FAT	OF0986		0.050000
53006BA	PORK-MEAT BYPRODUCTS	OF0986		0.050000
53006BB	PORK (ORGAN MEATS)-OTHER	OF0986		0.050000
53006FA	PORK (BONELESS)-FAT (INCLUDING LARD)	OF0986		0.050000
53006KA	PORK (ORGAN MEATS)-KIDNEY	OF0986		0.300000
53006LA	PORK (ORGAN MEATS)-LIVER	OF0986		0.050000
53006MA	PORK (BONELESS)-LEAN (W/O REMOVEABLE FAT)	OF0986		0.050000
53008BA	TURKEY-BYPRODUCTS	OF0986		0.010000
53008LA	TURKEY-GIBLETS (LIVER)	OF0986		0.010000
53008MA	TURKEY-FLESH (W/O SKIN W/O BONES)	OF0986		0.010000
53008MB	TURKEY-FLESH (+SKIN W/O BONES)	OF0986		0.010000
53008MC	TURKEY-UNSPECIFIED	OF0986		0.010000
53013BA	POULTRY/OTHER-BYPRODUCTS	OF0986		0.010000
53013LA	POULTRY/OTHER-GIBLETS (LIVER)	OF0986		0.010000
53013MA	POULTRY/OTHER-FLESH (+SKIN W/O BONES)	OF0986		0.010000
53014AA	EGGS-WHOLE	OF0986		0.010000
53014AB	EGGS-WHITE ONLY	OF0986		0.010000
53014AC	EGGS-YOLK ONLY	OF0986		0.010000
53015BA	CHICKEN-BYPRODUCTS	OF0986		0.010000
53015LA	CHICKEN-GIBLETS (LIVER)	OF0986		0.010000
53015MA	CHICKEN-FLESH (W/O SKIN W/O BONES)	OF0986		0.010000
53015MB	CHICKEN-FLESH (+SKIN W/O BONES)	OF0986		0.010000
90997AA	INEST. RACS--TOLERANCE TOO SPECIFIC	OF0986		0.000000
90999AA	FEED RACS--INEST. FROM USDA SURVEY	9F0592		0.000000

Table 2

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 02/14/90

PAGE: 1

CHEMICAL INFORMATION		STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
Paraquat dichloride Caswell #634 CAS No. 1910-42-5 A.I. CODE: 061601 CFR No. 180.205		1yr feeding- dog NOEL= 0.4500 mg/kg 15.00 ppm LEL= 0.9300 mg/kg 30.00 ppm ONCO: Class E (HED WOTE).		Chronic pneumonitis. Dose in mg/kg calculated from food consumption data.		ADI UF -->100. OPP RfD= 0.004500 EPA RfD= 0.004500		ADI based on calculated dose. No data gaps.		HED complete 02/21/86. EPA verified 03/11/86. WHO last reviewed 1986; ADI is for cation. On IRIS.	
TOTAL TMRC (MG/KG BODY WEIGHT/DAY)											
CURRENT TMRC*				NEW TMRC**		NEW TMRC AS PERCENT OF RFD		DIFFERENCE AS PERCENT OF RFD		EFFECT OF ANTICIPATED RESIDUES ARC %RFD	
POPULATION SUBGROUP											
U.S. POPULATION - 48 STATES											
0.001864				0.001907		42.382511		0.956489			
U.S. POPULATION - SPRING SEASON											
0.001845				0.001884		41.868578		0.857778			
U.S. POPULATION - SUMMER SEASON											
0.001861				0.001903		42.290089		0.925578			
U.S. POPULATION - FALL SEASON											
0.001878				0.001924		42.749889		1.008644			
U.S. POPULATION - WINTER SEASON											
0.001865				0.001912		42.484756		1.034333			
NORTHEAST REGION											
0.001855				0.001879		41.749578		0.533511			
NORTH CENTRAL REGION											
0.001965				0.001997		44.384644		0.709956			
SOUTHERN REGION											
0.001807				0.001871		41.583644		1.434778			
WESTERN REGION											
0.001820				0.001867		41.497556		1.058844			
HISPANICS											
0.001939				0.002083		46.289556		3.192844			
NON-HISPANIC WHITES											
0.001873				0.001906		42.356844		0.728178			
NON-HISPANIC BLACKS											
0.001770				0.001833		40.738467		1.399578			
NON-HISPANIC OTHERS											
0.001749				0.001782		39.606711		0.732978			
NURSING INFANTS (< 1 YEAR OLD)											
0.001411				0.001413		31.406111		0.051422			
NON-NURSING INFANTS (< 1 YEAR OLD)											
0.003586				0.003617		80.383844		0.695333			
FEMALES (13+ YEARS, PREGNANT)											
0.001318				0.001361		30.233911		0.955867			
FEMALES 13+ YEARS, NURSING											
0.001501				0.001532		34.033822		0.674400			
CHILDREN (1-6 YEARS OLD)											
0.004206				0.004299		95.539133		2.080067			
CHILDREN (7-12 YEARS OLD)											
0.002899				0.002970		66.000822		1.582511			
MALES (13-19 YEARS OLD)											
0.001982				0.002030		45.101378		1.065200			
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)											
0.001696				0.001735		38.555133		0.868756			
MALES (20 YEARS AND OLDER)											
0.001406				0.001441		32.023689		0.783711			
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)											
0.001271				0.001299		28.871644		0.627622			

*Current TMRC does not include new or pending tolerances.

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

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