Versar INC.

MEMORANDUM

FILE

(9)

TO: Al Nielsen EPA/OPP/OREB

cc: 2110.003 File
Tim Leighton
Jeff Evans
Larry Dorsey

FROM: Jeff Dawson

DATE: 10/5/93

SUBJECT: Test Case REI/Risk Analysis using Chlorothalonil Tomato Harvester Study

Pursuant to your request, a reentry interval and risk analysis has been completed on the chlorothalonil human exposure and concurrent FDR/whole tomato residue data (i.e., *A Tomato Harvester Exposure Study with Chlorothalonil - 1984*). To summarize, kinetics, exposure, and risk analyses were completed and transfer coefficients were calculated. Residue levels were not corrected for laboratory recovery as all reported mean values were >90 percent and the origins of the quality control samples were not easily identifiable. [Note: No field recovery samples were generated in this study.]

The kinetics analyses involved linear regressions of the data (i.e., FDR or Whole Tomato Levels vs. Sample Interval) as supplied and in a semilog transformation of the residue levels. Additionally, half-life values were also calculated using pseudo-first order reaction kinetics and equations for each scenario were generated using the simple linear equation $y = mx + b$. Generally, the correlation coefficients were approximately the same for either set of regressions (i.e., linear or semilog). These values are summarized below:

Correlation Coefficient Summary

Data Type	Linear Analysis	Semilog Analysis
FDR	0.96689	0.97335
Whole Tomato	0.81281	0.81201

Half-life values (PAI-Days) were also calculated and are summarized in similar fashion:

Half-Life Values (Residue vs. PAI-Days)

Data Type	Linear Analysis	Semilog Analysis
FDR	4.27	15.26
Whole Tomato	32.27	17.34

There was little dissipation over the study interval and, based on the values presented above, there seems to be good correlation between the chlorothalonil residue levels and the sample collection intervals. In fact, the lower and upper limits of the 95 percent confidence interval were calculated for each type of data to further demonstrate this fact. All kinetics analyses which were completed are included as **Attachment A**.

Normalized exposure levels were calculated based on two distinct sets of factors (i.e., the hours worked and the productivity or pounds picked). Initially, working tables were developed which adjusted the reported dermal exposure levels on a per patch basis up to the levels representing an entire body area much as though PHED calculates exposure levels (e.g., for the chest: multiply patch residue (ug) by the chest surface area (3550 cm2) and divide by the patch sample area (68.15 cm2)). [**Note**: These working tables are included in **Attachment B** and they may be difficult to understand without further explanation; these tables were essentially provided for informational purposes only. Additionally, the tables also included the calculation of the normalized exposure levels.] All calculations were completed using standard scenarios including all "non-detect" levels were considered as 1/2 of the detection limit for that particular sample matrix. Generally, the majority (@ 90% or greater) of exposure for all scenarios was attributable to hand exposure. For this reason "Total/Inside" exposure levels were not adjusted to account for the entire body surface area exposures (e.g., no protection factor was used to estimate exposure levels where no dermal dosimeter was worn under the coveralls such as the forearms/thighs and exposure levels were not calculated on a universal basis using data from specific body parts). Inhalation exposure, as expected, was minimal. All exposure values are presented in the summary sheet included in **Attachment B** and the mean values for each scenario are summarized below:

Normalized Exposure Levels

PAI (Days)	Dosimeter/Exposure Type	Exposure (ug/hr worked)	Exposure (ug/lb picked)
0	Total/Outside Total/Inside	42712 39032	152.50 138.86
1	Total/Outside Total/Inside	46770 41487	126.48 111.58
3	Total/Outside Total/Inside	33689 29362	118.53 102.99
7	Total/Outside Total/Inside	34805 31604	120.82 109.53

•Total/Outside represents exposure calculated based on the nonprotected dermal dosimeters worn on the exterior of the coveralls (i.e., chest, back, shoulder, upper arm, forearm, thigh & ankle), the nonprotected gloves, and inhalation.

•Total/Inside represents exposure calculated based on the protected dermal dosimeters worn underneath the coveralls (i.e., ankles, chest & back), the nonprotected gloves (exterior protective gloves not required by label), and inhalation.

Transfer coefficients based on the actual study data were calculated (**Attachment C**) using exposures which were normalized on (1) the duration of the exposure interval (i.e., average values = 10688 cm^2/hour for total deposition and 9561 cm^2/hour for a normal work clothing scenario), and (2) the worker's productivity (i.e., average values = 164.5 lb picked/hr for total deposition and 147.0 lb picked/hr for a normal work clothing scenario). These values were calculated using the following equations:

FDR(Normalization by Hours Worked): Exposure(ug/hour)/FDR Level (ug/cm²)
FDR(Normalization by lbs Tomatoes Picked): [Exposure(ug/lb picked)*Tomato Picking Rate(lb/hour)/FDR(ug/cm²)]
Whole Tomatoes(Normalization by Hours Worked): [Exposure(ug/hour)/Tomato Residue(ppm)/(1lb/454g)]
Whole Tomatoes(Normalization by Pounds Tomatoes Picked): [((Exposure(ug/lb)*Tomato Picking Rate(lb/hour)/Tomato Residue (ppm))*(1lb/454g)]

[Note: A standard tomato picking rate was defined based on the actual study field data/observations (i.e., 307 lb/hour).]

In addition to the transfer coefficients described above, linear equations were developed which related FDR or Whole Tomato residue levels to exposure levels (**Attachment C**). It should be noted that there was better correlation between the whole tomato residue levels and exposure than the corresponding FDR levels and exposure. [Note: Technical issues exist which must be clarified concerning the tomato extraction procedures--see separate study review memo when released.] Additionally, using predicted FDR and Whole Tomato residue levels up to 35 days post-application (See **Attachment A**) and the linear residue level/exposure equations predicted exposure levels were calculated for upto 35 days post-application (equations included as part of **Attachment C**). Exposure levels declined as expected over time along with the residue levels. A comparison of the two techniques (i.e., transfer coefficients or predicitve linear equations) for estimating exposure levels from environmental residue data was also completed as part of this effort. The two techniques did not significantly diverge (i.e., calculated exposures did not differ by greater than an average of 20%) until approximately 23 days post-application.

Lifetime Average Daily Exposure (LADEs) were calculated for a variety of scenarios using the following equation:

LADE (mg/day) = [Exposure/Event (mg/workday)] * [Annual Exposure (days)/365 (days)] * [Work Interval (yrs)/Avg. Lifetime (yrs)]

Where:
[Exposure/Event (mg/workday)] = [Exposure (mg/hour) * Daily Hours] or [Exposure (mg/lb picked) * Tomato Picking Rate (lb/hr) * Daily Hours]

The actual exposure levels over the course of study (i.e., mg/workday) which served as the basis for the LADE calculations ranged from approximately 270 to 374 mg/workday for total deposition and from approximately 235 to 340 mg/workday for the work clothing scenario. For the predicted values, daily exposure values ranged from a low of approximately 0.15 mg/day at 35 days to a high level of 313 mg/workday at 0 days after application. Predicted exposure levels varied slightly depending upon the way they were calculated. More significant differences were noted as the post-application time interval increased (i.e., the correlation of the exposure levels with time decreased).

Each of the LADE exposure scenarios used for these calculations are summarized below:

LADE Exposure Scenario Summary

Parameter	Range
Daily Work Interval (Hours)	8
Annual Exposure (Days)	15, 30, 45, 60
Total Work Interval (Years)	10, 20, 30
Tomato Picking Rate (lb/hour)	307
Average Lifetime (Years)	70

In addition to the LADE calculations described above, risk levels were calculated for each LADE scenario using the following equation:

$$\text{Risk} = [\text{LADE (mg/day)} * Q1^{*} (\text{mg/kg/day}^{-1}) * (\text{Dermal Absorption Factor (\%)}/100)]/[\text{Body Weight (kg)}]$$

The toxicological parameters used for these calculations are presented below:

Description	Parameter
$Q1^{*}$ (mg/kg/day^{-1})	0.011
Average Body Weight (kg)	70
Dermal Absorption Factors (%)	1, 5, 10, 20, 50, 100

LADE and the corresponding risk values were calculated for each exposure/risk scenario described above using both actual and predicted exposure values. Based on the actual exposure data, LADEs were on the order of 1 to 30 mg/day (i.e., 0, 1, 3, & 7 days post-application only) while risks were in the 10^{-6} (i.e., only for a dermal absorption factor of 1%) to 10^{-4} range (**Attachment D**). Based on predicted exposure levels (i.e., linear regressions of FDR/time & FDR/exposure up to 35 days post-application -- see **Attachments A & C**), LADEs were on the order of 0.1 to 22 mg/day while risks ranged from 10^{-7} to 10^{-3} (**Attachment E**).

Any regulatory decisions made using this Risk/REI analysis should also account for the inadequacies described in the review memo about to be released for this study. Also note that the level of effort for this analysis may not be typical of such future analyses as chlorothalonil is a test case chemical for the development, evaluation, and validation of methodologies for post-application exposure data (i.e., Subdivision K Data Treatments--see June 6, 1993 memo *Objectives for the Development of Standard Analysis Procedures for both Subdivision K and Subdivision U data based on June 16 meeting between Jeff Evans, Tim Leighton, and Jeff Dawson*). Should you have any questions please do not hesitate to call me at 703-750-3000.

Enclosures:
Attachments A through E

ATTACHMENT A

KINETICS ANALYSIS

PPA SUPPORT TASK:1627.8

VERSAR,INC. 8/30/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION

DISSIPATION KINETICS CALCULATIONS:PSEUDO 1st ORDER ANALYSIS

STUDY DAY	RESIDUE LEVELS FDR (ug/cm2)	RESIDUE LEVELS TOMATOES (ppm)	Ln (RESIDUE LEVELS) FDR (ug/cm2)	Ln (RESIDUE LEVELS) TOMATOES (ppm)
0.00	4.300	0.630	1.4586	-0.4620
1.00	3.830	0.570	1.3429	-0.5621
3.00	3.750	0.460	1.3218	-0.7765
7.00	3.040	0.470	1.1119	-0.7550

LINEAR REGRESSION (LIN/LIN)		LINEAR REGRESSION (SEMILOG)	
FDR LEVELS			
Regression Output:		Regression Output:	
Constant	4.17670280632	Constant	1.43363699009
Std Err of Y Est	0.16253241394	Std Err of Y Est	0.04055863488
R Squared	0.9348859118	R Squared	0.94740967567
No. of Observations	4	No. of Observations	4
Degrees of Freedom	2	Degrees of Freedom	2
Correlation Coefficient	0.96689498489	Correlation Coefficient	0.9733497191
X Coefficient(s)	-0.162435907	X Coefficient(s)	-0.04540457
Std Err of Coef.	0.0303127414	Std Err of Coef.	0.007564297
WHOLE TOMATO LEVELS			
Regression Output:		Regression Output:	
Constant	0.59156595167	Constant	-0.529052001?
Std Err of Y Est	0.05836239808	Std Err of Y Est	0.10887884349
R Squared	0.66065559059	R Squared	0.65936201128
No. of Observations	4	No. of Observations	4
Degrees of Freedom	2	Degrees of Freedom	2
Correlation Coefficient	0.81260722843	Correlation Coefficient	0.81201184479
X Coefficient(s)	-0.021478333	X Coefficient(s)	-0.03995398
Std Err of Coef.	0.0108847475	Std Err of Coef.	0.020306203

HALF LIFE:DAYS (LIN/LIN)		HALF LIFE:DAYS (LIN/Ln)	
FDR	WHOLE TOMATOES	FDR	WHOLE TOMATOES
4.27	32.27	15.26	17.34

LINEAR EQUATIONS BASED ON SEMILOG ANALYSIS OF DISSIPATION DATA

CHLOROTHALONIL (FDR): [CHLOROTHALONIL (UG/CM2)] = e^ ([PAI (DAYS)] * (-0.045405))+ (1.43363699))

CHLOROTHALONIL (TOMATO): [CHLOROTHALONIL (PPM)] = e^ ([PAI (DAYS)] * (-0.039954))+ (-0.529052))

NOTES:

* ALL VALUES USED FOR CALCULATIONS ARE AVERAGES OF REPLICATE SAMPLE ANALYSES AT EACH INTERVAL.
* HALF LIVES CALCULATED USING PSEUDO 1st ORDER REACTION KINETICS MODEL (t1/2=0.693/Ka) WHERE Ka=X COEFFICIENT.
* ALL RESIDUE VALUES ARE AVERAGE LEVELS FOR EACH SAMPLE COLLECTION INTERVAL
* RESIDUE LEVELS NOT CORRECTED FOR AVAILABLE QC RESULTS AS ALL AVERAGE RECOVERIES WERE >= 90%.
* PAI = POST APPLICATION INTERVAL

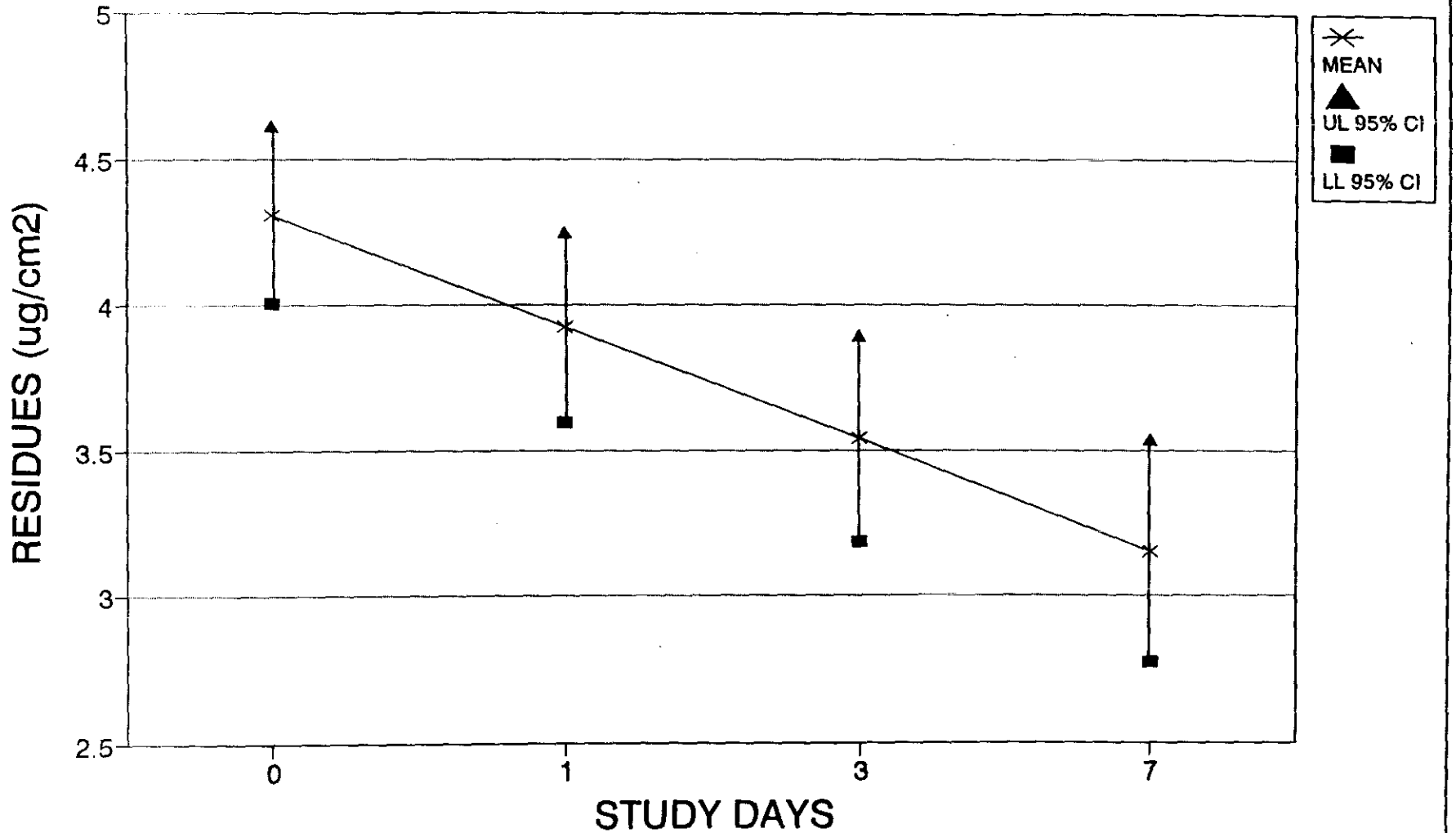
PPA SUPPORT TASK: 2110.003
VERSAR,INC. 9/10/93 JLD
ANALYSIS OF AVAILABLE TOMATO RESIDUE AND FDR DISSIPATION DATA

REPLICATE NUMBER	TOMATO RESIDUE LEVELS (ppm)			
	DAY 0	DAY 1	DAY 3	DAY 7
1	0.500	0.450	0.410	0.800
2	0.720	0.560	0.550	0.340
3	0.700	0.900	0.360	0.250
4	0.390	0.400	0.700	0.510
5	0.430	0.570	0.400	0.540
6	0.680	0.390	0.130	0.390
7	0.450	0.820	0.660	0.570
8	0.980	0.390	0.890	0.470
9	0.480	0.650	0.220	0.240
10	0.960	0.570	0.290	0.570
STD DEV	0.204	0.169	0.224	0.161
CV (%)	32.437	29.669	48.606	34.451
MEAN	0.629	0.570	0.461	0.468
UL 95% CI	0.755	0.675	0.600	0.568
LL 95% CI	0.503	0.465	0.322	0.368

REPLICATE NUMBER	FDR LEVELS (ug/cm2)			
	DAY 0	DAY 1	DAY 3	DAY 7
1	4.87	2.50	2.68	3.22
2	3.91	2.34	3.77	2.23
3	4.36	2.60	3.80	3.47
4	4.47	2.37	3.76	2.56
5	4.42	4.51	3.74	2.76
6	4.34	3.31	3.08	2.52
7	3.85	3.18	4.10	2.86
8	4.17	4.56	4.02	3.17
9	4.03	2.95	4.13	2.08
10	5.01	4.03	3.20	3.35
11	3.98	2.64	2.44	1.92
12	5.27	4.64	3.69	3.04
13	3.77	5.46	6.47	4.80
14	3.73	3.33	2.46	2.77
15	3.55	4.83	3.70	2.76
16	4.48	5.56	5.29	4.31
17	4.97	4.30	4.53	3.09
18	4.17	4.27	2.82	2.79
19	4.61	4.56	3.87	2.95
20	4.22	4.74	3.51	4.17
STD DEV	0.47	1.02	0.92	0.71
CV (%)	10.85	26.65	24.52	23.24
MEAN	4.30	3.83	3.75	3.04
UL 95% CI	4.50	4.28	4.16	3.35
LL 95% CI	4.09	3.39	3.35	2.73

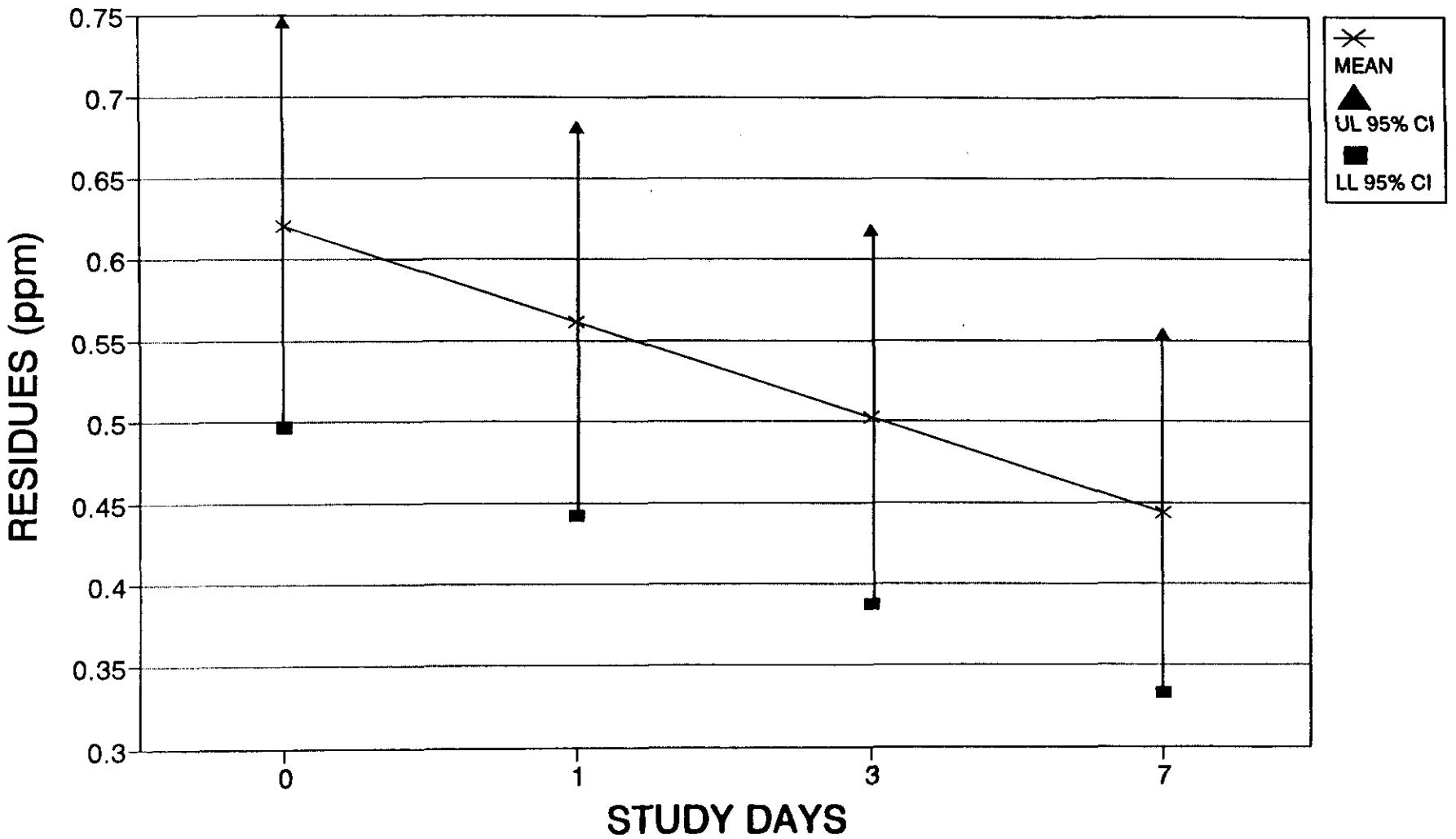
CHLOROTHALONIL TOMATO/FDR

FDR DATA



CHLOROTHALONIL TOMATO/FDR

WHOLE TOMATO DATA



ATTACHMENT B

EXPOSURE CALCULATIONS

PPA SUPPORT TASK:1627.8
VERSAR,INC. 9/2/93 JLD
CHLOROTHALONIL FOR/REENTRY EXPOSURE STUDY -- SUMMARY OF NORMALIZED EXPOSURE LEVELS

PAI (DAYS)	DOSIMETER TYPE	EXPOSURE (ug/hour worked) REPLICATE #											EXPOSURE (ug/lb picked) REPLICATE #										
		1	2	3	4	5	6	7	8	9	10	MEAN	1	2	3	4	5	6	7	8	9	10	MEAN
0	OUTSIDE	36854	31235	38560	33942	45305	50204	45691	47707	57128	40366	42700	167.91	116.21	152.50	105.66	185.30	143.66	156.33	160.49	175.50	137.72	152.45
	INSIDE	53.3	53.1	54.5	67.3	54.3	81.3	69.0	54.8	76.0	55.4	61.9	0.24	0.20	0.22	0.21	0.22	0.23	0.24	0.21	0.23	0.19	0.22
	HAND	31411	27740	35114	29052	39783	47124	42857	43195	54745	38569	38957	143.11	103.20	138.87	90.45	162.64	135.06	149.45	163.42	166.18	131.56	138.60
	INHALATION	8.70	11.75	11.89	15.52	22.52	9.49	9.26	14.34	14.31	9.17	12.60	0.04	0.04	0.05	0.05	0.09	0.03	0.03	0.05	0.04	0.03	0.05
	TOTAL/OUTSIDE	36864	31247	38572	33958	45327	50213	45701	47722	57142	40378	42712	167.96	116.25	152.55	105.73	185.39	143.62	156.38	160.55	175.54	137.75	152.50
	TOTAL/INSIDE	31474	27805	35180	29134	39840	47215	42936	43264	54836	38634	39032	143.40	103.44	139.13	90.71	162.96	135.32	149.72	163.66	166.46	131.80	138.86
1	OUTSIDE	50217	42253	44712	35525	45985	41348	42073	43938	73544	47937	46753	166.97	109.90	138.70	95.80	136.51	102.58	126.57	120.60	153.08	113.65	126.44
	INSIDE	53.1	30.6	56.3	74.3	39.7	89.2	85.2	118.7	80.9	33.7	62.4	0.18	0.08	0.18	0.20	0.12	0.17	0.26	0.33	0.13	0.06	0.17
	HAND	43707	39247	33582	30059	41449	36096	38109	37344	69655	44635	41408	145.32	102.06	104.17	81.07	123.04	89.55	114.84	102.50	145.40	105.82	111.36
	INHALATION	13.50	12.11	14.66	18.63	20.96	14.63	21.21	22.64	13.96	12.04	16.48	0.04	0.03	0.05	0.05	0.06	0.04	0.06	0.08	0.03	0.03	0.05
	TOTAL/OUTSIDE	50230	42265	44727	35544	46006	41363	42094	43961	73558	47949	46770	167.01	109.93	138.74	95.86	136.57	102.61	126.63	120.68	153.11	113.68	126.48
	TOTAL/INSIDE	43774	39290	33655	30153	41510	36179	38215	37485	69830	44681	41467	145.54	102.20	104.40	81.32	123.22	89.75	114.96	102.89	145.56	105.93	111.56
3	OUTSIDE	47102	29564	33342	29225	34905	31306	33942	29187	39299	29530	33672	175.02	93.96	123.23	102.73	128.13	98.60	141.27	110.52	116.75	96.32	118.47
	INSIDE	30.5	30.9	51.0	65.7	56.2	59.0	76.5	100.5	30.7	39.4	54.0	0.11	0.10	0.18	0.23	0.20	0.19	0.32	0.36	0.09	0.13	0.19
	HAND	37699	27260	26247	24561	30330	28557	29187	24696	35066	26786	29291	140.06	85.71	104.40	87.39	109.80	90.11	121.49	94.27	105.96	87.36	102.74
	INHALATION	12.17	10.54	27.84	15.79	17.31	12.33	21.70	21.51	22.21	8.33	16.77	0.05	0.03	0.10	0.08	0.09	0.04	0.09	0.08	0.07	0.02	0.06
	TOTAL/OUTSIDE	47114	29594	33370	29241	34922	31321	33963	29208	39322	29537	33688	175.07	94.00	123.33	102.75	128.19	98.64	141.36	110.61	116.82	96.34	118.53
	TOTAL/INSIDE	37741	27301	26326	24942	30403	28628	29286	25017	35141	26834	29362	140.24	85.84	104.68	87.67	109.86	90.34	121.90	94.74	107.13	87.53	102.99
7	OUTSIDE	42297	29567	30623	34147	36561	32764	30921	34550	36507	35447	34786	148.53	101.26	114.74	116.13	131.19	116.00	116.34	124.47	122.17	112.80	120.76
	INSIDE	31.2	42.4	31.3	250.7	31.2	36.0	42.4	73.9	31.4	31.3	60.2	0.11	0.14	0.12	0.87	0.11	0.13	0.18	0.27	0.10	0.10	0.21
	HAND	34943	27953	28201	31666	36104	30564	28440	29967	36621	33796	31526	122.71	94.77	97.53	109.62	122.83	110.06	107.00	104.36	116.19	107.55	109.28
	INHALATION	15.96	9.07	21.77	19.16	22.00	9.27	22.57	17.90	18.59	8.29	16.45	0.06	0.03	0.08	0.07	0.07	0.03	0.08	0.06	0.06	0.03	0.06
	TOTAL/OUTSIDE	42313	29676	30645	34167	36583	32774	30944	34567	36528	35455	34805	148.58	101.39	114.82	116.20	131.26	116.03	116.42	124.53	122.23	112.83	120.82
	TOTAL/INSIDE	34990	28005	28254	31956	36157	30609	28505	29058	36671	33838	31804	122.87	94.94	97.73	110.55	123.01	110.24	107.25	104.69	116.34	107.66	109.53

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* (ug/lb picked) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH POUND OF TOMATOES HARVESTED
* "OUTSIDE" REPRESENTS VALUES WHICH WERE CALCULATED BASED ON PATCHES WORN ON THE EXTERIOR (i.e., CHEST, BACK, SHOULDER, UPPER ARM, FOREARM, THIGH& ANKLE) OF THE "JUMPSUITS" AND BY THE GLOVES WORN BY THE TEST SUBJECTS.
* "INSIDE" REPRESENTS VALUES WHICH WERE CALCULATED BASED ON PATCHES WORN ON THE INTERIOR (i.e., ANKLES, CHEST & BACK) OF THE "JUMPSUIT" WORN BY THE TEST SUBJECTS
* "HAND" REFERS TO EXPOSURE LEVELS WHICH WERE CALCULATED FOR THE GLOVE DATA ONLY.
* "TOTAL/OUTSIDE" = OUTSIDE VALUES + INHALATION VALUES (i.e., NAKED BODY SCENARIO)
* "TOTAL/INSIDE" = INSIDE VALUES + GLOVE VALUES + INHALATION VALUES (i.e., PROTECTED ANKLES, PROTECTED CHEST, PROTECTED BACK, NONPROTECTED HANDS & INHALATION).

PPA SUPPORT TASK:1627.8
VERSAR,INC. 8/31/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION
PAI (DAYS) : 0
DERMAL PATCH AREA (cm2) : 66.15
INHALATION RATE (Lpm) : 29

QUANTITATION LIMITS		
MATRIX	VALUE	UNITS
COTTON GLOVES	20.0	ug
GAUZE PATCHES	0.051	ug/cm2
CELLULOSE FILTERS	0.060	ug
CHROMSORB TUBES	0.060	ug

RAW DATA

DOSIMETER LOCATION	STD. VALUES	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES											
HANDS	820	142397	126216	155672	130248	176947	206132	187855	190057	238140	168419
ANKLE RIGHT	1190	0.271	0.493	0.924	0.516	1.906	0.626	0.563	0.613	1.299	1.112
ANKLE LEFT	1190	0.274	0.199	0.425	0.160	0.540	0.773	0.409	0.484	0.356	0.562
CHEST	3550	0.103	0.466	0.460	0.173	0.584	0.246	0.167	0.314	0.493	0.079
BACK	3550	0.074	0.109	0.118	0.101	0.065	0.103	0.084	0.124	0.127	0.083
SHOULDER RIGHT	1455	0.161	0.133	0.126	0.074	0.120	0.071	0.216	0.337	0.106	0.065
UPPERARM RIGHT	1455	0.603	2.434	0.837	1.627	1.618	1.137	4.222	3.372	1.297	0.500
FOREARM RIGHT	605	0.273	1.230	0.350	0.749	0.345	0.434	0.686	0.453	0.662	0.290
THIGH RIGHT	1910	5.747	1.847	0.859	5.042	3.049	3.020	0.894	4.061	0.591	1.165
SHOULDER LEFT	1455	0.122	0.126	0.655	0.135	0.060	0.196	0.106	0.166	0.355	0.544
UPPERARM LEFT	1455	0.575	1.568	2.697	1.095	0.440	1.344	1.662	1.730	0.444	0.790
FOREARM LEFT	605	0.298	0.409	0.522	0.330	1.060	0.636	0.777	0.397	0.323	0.202
THIGH LEFT	1910	5.513	2.741	3.211	3.855	5.669	1.177	1.027	2.267	1.357	0.509
HEAD	1300	0.372	0.143	0.138	0.264	ND	ND	0.894	0.214	0.116	0.320
INSIDE DEVICES											
ANKLE RIGHT	1190	ND	ND	ND	ND	ND	ND	0.050	ND	ND	ND
ANKLE LEFT	1190	ND	ND	ND	0.076	ND	0.124	0.052	ND	0.100	ND
CHEST	3550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BACK	3550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
INHALATION											
FLOW RATE	LPM	1.57	1.67	1.64	1.6	1.6	1.57	1.6	1.54	1.64	1.6
FILTER	TOTAL	2.330	2.630	2.830	3.600	5.500	2.230	2.210	3.140	3.230	2.180
TUBE	FRONTS	0.050	0.250	0.150	0.040	ND	0.040	ND	0.210	0.290	ND
GENERIC DATA											
INTERVAL	MINUTES	272	273	266	269	267	265	263	264	261	262
HARVEST	POUNDS	995	1223	1121	1440	1068	1541	1257	1163	1416	1280
	LBS/HOUR	219	269	253	321	244	349	287	264	326	293

CALCULATED EXPOSURE LEVELS

EXPOSURE TYPE	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES										
HANDS	142397	126216	155672	130248	176947	206132	187855	190057	238140	168419
ANKLE RIGHT	322.5	586.7	1099.8	616.4	2268.1	747.3	670.0	729.5	1545.8	1323.3
ANKLE LEFT	326.1	236.8	505.8	190.4	642.6	919.9	486.7	576.0	426.0	668.8
CHEST	385.3	1654.3	1633.0	614.2	2073.2	873.3	592.9	1114.7	1750.2	280.5
BACK	282.7	387.0	418.8	358.6	301.6	365.7	298.2	440.2	450.9	294.7
SHOULDER RIGHT	555.8	1867.5	702.0	1237.5	1408.9	876.8	3228.6	2906.3	1022.1	411.0
UPPERARM RIGHT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM RIGHT	165.2	744.2	211.8	453.1	208.7	262.6	415.0	274.1	521.5	175.5
THIGH RIGHT	10976.8	3527.6	1640.7	9630.2	5823.6	5768.2	1707.5	7756.5	1128.6	2225.2
SHOULDER LEFT	507.1	1232.4	2438.6	894.6	378.3	1120.4	1433.2	1379.3	581.3	970.5
UPPERARM LEFT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM LEFT	180.3	247.4	315.8	199.7	653.4	384.8	470.1	240.2	195.4	122.2
THIGH LEFT	10529.8	5235.3	6133.0	7363.1	10666.0	2248.1	1961.6	4368.2	2591.9	972.2
HEAD	483.6	185.8	178.4	388.2	33.2	33.2	1162.2	278.2	153.4	416.0
EXP (ug)	167072	142121	170950	152175	201606	221734	200281	209912	248507	176279
EXP (ug/hour)	36654	31235	38560	33942	45305	50204	45691	47707	57128	40369
EXP (ug/LB)	167.81	116.21	152.50	105.68	185.30	143.89	159.33	180.49	175.50	137.72
INSIDE DEVICES										
ANKLE RIGHT	30.3	30.3	30.3	30.3	30.3	30.3	59.5	30.3	30.3	30.3
ANKLE LEFT	30.3	30.3	30.3	90.4	30.3	147.6	61.8	30.3	119.0	30.3
CHEST	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
BACK	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
EXP (ug)	241.7	241.7	241.7	301.8	241.7	359.0	302.4	241.7	330.4	241.7
EXP (ug/hour)	53.3	53.1	54.5	67.3	54.3	81.3	69.0	54.9	76.0	55.4
EXP (ug/LB)	0.24	0.20	0.22	0.21	0.22	0.23	0.24	0.21	0.23	0.19
INHALATION										
FILTERS	43.04	48.14	50.04	68.88	99.69	41.19	40.06	59.13	57.12	39.51
TUBES	0.92	4.34	2.65	0.73	0.54	0.74	0.54	3.95	5.13	0.54
EXP (ug)	43.96	53.49	52.70	69.60	100.23	41.93	40.60	63.08	62.24	40.06
EXP (ug/hour)	9.70	11.75	11.89	15.52	22.52	9.49	9.26	14.34	14.31	9.17
EXP (ug/LB)	0.04	0.04	0.05	0.05	0.09	0.03	0.03	0.05	0.04	0.03

NOTES:

* ALL RESIDUE LEVELS (i.e., ug/dosimeter--gloves or inhalation monitors and ug/cm2--patches) EXCERPTED DIRECTLY FROM STUDY REPORT. RAW DATA (e.g., chromatograms/dilutions) NOT AVAILABLE TO VERIFY EACH CALCULATION.
* "STD. VALUES" REPRESENTS STANDARD BODY SURFACE AREAS (cm2) FROM WHICH TOTAL DERMAL EXPOSURE LEVELS ARE CALCULATED. FOR THE INHALATION DATA, THESE VALUES REPRESENT AIR FLOW OR THE DOSIMETER TYPE. FOR THE GENERIC DATA, THESE DESCRIPTORS ARE THE APPROPRIATE UNITS.
* RAW DATA INCLUDED IN THAT SECTION OF THE TABLE ARE PRESENTED AS (ug chlorothalonil/sample--gloves, filters or adsorbent tubes) AND AS (ug/cm2--dermal patches).
* RESIDUE DATA WERE NOT CORRECTED FOR ANY TYPE OF QUALITY CONTROL RESULTS AS THE MEANS FOR ALL AVAILABLE RECOVERY DATA WERE >= 90%.
* HAND EXPOSURE LEVELS WERE NOT ADJUSTED/CALCULATED FOR ANY FACTOR. CUMULATIVE VALUES ARE INCLUDED IN THIS TABLE WHICH REPRESENT THE SEVERAL VALUES FOR EACH EXPOSURE REPLICATE THAT WERE REPORTED IN THE RAW DATA.
* EXPOSURE LEVELS BASED ON DERMAL PATCH DATA WERE CALCULATED USING THE FOLLOWING EQUATION:
  EXPOSURE PER BODY PART (ug) = [RESIDUE LEVEL (ug/cm2) * STANDARD BODY SURFACE (cm2)]
* RESIDUE LEVELS FOR THE SHOULDER AND UPPER ARM LOCATIONS WERE AVERAGED TOGETHER AND THE MEANS WERE USED IN THE CALCULATION USING A SURFACE AREA OF 1455 cm2 FOR THE LEFT OR RIGHT SIDE OF THE BODY.
* ONE-HALF OF THE QUANTITATION LIMIT USED IN ALL CALCULATIONS WHERE NO DETECTABLE CHLOROTHALONIL RESIDUES WERE IDENTIFIED IN THE SAMPLE.
* INHALATION EXPOSURE LEVELS WERE CALCULATED USING THE FOLLOWING EQUATION:
  INHALATION EXPOSURE (ug) = [RESIDUE LEVEL (ug) * TYPICAL HUMAN INHALATION RATE (29 Lpm)]/PERSONAL SAMPLING PUMP FLOW RATE (Lpm)
* EXPOSURE LEVELS NORMALIZED AS (ug/LB) ARE BASED ON THE AMOUT OF TOMATOES PICKED DURING EACH EXPOSURE INTERVAL.

PPA SUPPORT TASK 1627.6
VERSAR,INC 8/31/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION
PAI (DAYS) : 1
DERMAL PATCH AREA (cm2) : 68.15
INHALATION RATE (Lpm) : 29

QUANTITATION LIMITS		
MATRIX	VALUE	UNITS
COTTON GLOVES	20.0	ug
GAUZE PATCHES	0.051	ug/cm2
CELLULOSE FILTERS	0.080	ug
CHROMSORB TUBES	0.080	ug

RAW DATA

DOSIMETER LOCATION	STD. VALUES	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES											
HANDS	820	344560	308092	264177	236467	326084	263952	299789	293771	479672	320627
ANKLE RIGHT	1190	1.033	1.096	0.631	1.227	3.005	2.199	4.589	2.302	2.404	2.087
ANKLE LEFT	1190	0.264	0.526	0.566	0.479	0.626	0.523	1.189	0.507	0.811	0.343
CHEST	3550	0.393	0.339	0.192	0.586	0.434	0.251	0.510	1.324	0.908	0.151
BACK	3550	0.167	0.629	0.361	0.267	0.582	0.208	0.396	0.230	0.252	0.099
SHOULDER RIGHT	1455	0.948	0.221	0.301	0.218	0.117	0.270	0.544	0.827	0.570	0.108
UPPERARM RIGHT	1455	1.442	1.612	2.653	1.428	1.303	3.299	4.252	3.695	1.495	1.360
FOREARM RIGHT	605	0.589	0.606	13.790	2.226	1.178	3.152	1.299	1.090	1.774	0.666
THIGH RIGHT	1910	17.800	3.299	11.900	9.486	4.985	11.900	2.839	12.390	2.067	3.820
SHOULDER LEFT	1455	0.144	0.422	1.186	0.221	0.107	0.217	0.289	0.478	0.306	0.350
UPPERARM LEFT	1455	1.111	0.661	3.269	0.754	1.686	3.064	4.892	3.401	1.444	2.670
FOREARM LEFT	605	0.541	0.444	1.466	0.667	2.873	0.913	1.803	2.155	1.448	0.538
THIGH LEFT	1910	4.589	4.261	24.250	6.313	6.964	3.225	2.859	5.791	4.501	4.260
HEAD	1300	1.306	0.670	0.205	0.109	0.111	0.092	1.234	0.166	0.092	0.361
INSIDE DEVICES											
ANKLE RIGHT	1190	0.092	ND	0.092	0.066	0.085	0.098	0.186	0.202	0.090	ND
ANKLE LEFT	1190	ND	ND	0.056	0.066	ND	0.122	0.140	0.080	0.109	ND
CHEST	3550	ND	ND	ND	0.095	ND	0.054	0.054	0.143	ND	ND
BACK	3550	0.053	ND	0.054	ND	ND	ND	ND	ND	ND	ND
INHALATION											
FLOW RATE	LPM	1.58	1.65	1.67	1.56	1.59	1.58	1.59	1.55	1.6	1.59
FILTER	TOTAL	5.700	5.110	6.640	8.040	8.970	8.240	9.120	9.490	5.260	4.710
TUBE	FRONTS	0.100	0.300	0.100	ND	0.080	ND	ND	ND	ND	ND
GENERIC DATA											
INTERVAL	MINUTES	473	471	472	472	472	472	472	472	412	431
HARVEST	POUNDS	2371	3018	2536	2917	2650	3171	2815	2866	3299	3030
	LBS/HOUR	301	384	322	371	337	403	332	364	480	422

CALCULATED EXPOSURE LEVELS

EXPOSURE TYPE	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES										
HANDS	344560	308092	264177	236467	326084	263952	299789	293771	479672	320627
ANKLE RIGHT	1229.3	1304.2	868.9	1460.1	3576.0	2618.8	5460.9	2739.4	2860.8	2459.7
ANKLE LEFT	314.2	625.3	673.5	570.0	747.3	622.4	1414.9	603.3	965.1	408.2
CHEST	1395.2	1203.5	681.8	2067.4	1540.7	891.1	1810.5	4700.2	3223.4	536.1
BACK	592.9	2233.0	1281.8	947.8	2066.1	738.4	1405.8	816.5	894.6	351.5
SHOULDER RIGHT	1666.0	1333.5	2149.0	1197.5	1033.1	2586.4	3489.1	3269.8	1502.3	1069.8
UPPERARM RIGHT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM RIGHT	416.8	488.6	8343.0	1347.9	712.7	1907.0	785.9	659.5	1073.3	415.0
THIGH RIGHT	33968.0	6301.1	22729.0	18118.3	9521.4	22729.0	5040.5	23664.9	3948.0	7296.2
SHOULDER LEFT	913.0	767.9	3241.0	709.3	1304.4	2386.9	3823.7	2622.0	1273.1	2197.1
UPPERARM LEFT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM LEFT	327.3	268.6	886.9	536.8	1738.2	552.4	1090.6	1303.6	876.0	325.5
THIGH LEFT	8765.0	8176.7	46317.5	15877.6	13301.2	6159.6	5460.7	11060.6	8596.9	6174.8
HEAD	1697.8	871.0	266.5	141.7	144.3	119.6	1604.2	215.8	119.6	469.3
EXP (ug)	395875	331686	351736	279462	361749	325272	330976	345647	505005	344350
EXP (ug/hour)	50217	42253	44712	35525	45985	41348	42073	43938	73544	47837
EXP (ug/LB)	166.97	109.90	138.70	95.80	136.51	102.56	126.57	120.80	153.08	113.65
INSIDE DEVICES										
ANKLE RIGHT	109.5	30.3	109.5	78.5	101.2	116.6	221.3	240.4	107.1	30.3
ANKLE LEFT	30.3	30.3	66.6	78.5	30.3	145.2	166.6	95.2	128.7	30.3
CHEST	90.5	90.5	90.5	337.3	90.5	191.7	191.7	507.7	90.5	90.5
BACK	188.2	90.5	191.7	90.5	90.5	90.5	90.5	90.5	90.5	90.5
EXP (ug)	418.5	241.7	456.3	584.9	312.5	544.0	670.2	933.8	417.9	241.7
EXP (ug/hour)	53.1	30.8	58.3	74.3	39.7	69.2	85.2	118.7	60.9	33.7
EXP (ug/LB)	0.18	0.08	0.18	0.20	0.12	0.17	0.26	0.33	0.13	0.08
INHALATION										
FILTERS	104.82	89.81	115.31	147.57	163.80	114.53	166.34	177.55	95.34	85.91
TUBES	1.84	5.27	1.74	0.56	1.46	0.55	0.55	0.56	0.54	0.55
EXP (ug)	106.46	95.08	117.04	148.12	165.06	115.06	166.89	178.12	95.86	86.45
EXP (ug/hour)	13.50	12.11	14.86	18.83	20.96	14.63	21.21	22.64	13.96	12.04
EXP (ug/LB)	0.04	0.03	0.05	0.05	0.06	0.04	0.06	0.06	0.03	0.03

NOTES:
* ALL RESIDUE LEVELS (i.e., ug/dosimeter--gloves or inhalation monitors and ug/cm2--patches) EXCERPTED DIRECTLY FROM STUDY REPORT. RAW DATA (e.g., chromatograms/dilutions) NOT AVAILABLE TO VERIFY EACH CALCULATION.
* "STD. VALUES" REPRESENTS STANDARD BODY SURFACE AREAS (cm2) FROM WHICH TOTAL DERMAL EXPOSURE LEVELS ARE CALCULATED. FOR THE INHALATION DATA, THESE VALUES REPRESENT AIR FLOW OR THE DOSIMETER TYPE. FOR THE GENERIC DATA, THESE DESCRIPTORS ARE THE APPROPRIATE UNITS.
* RAW DATA INCLUDED IN THAT SECTION OF THE TABLE ARE PRESENTED AS (ug chlorothalonil/sample--gloves, filters or adsorbent tubes) AND AS (ug/cm2--dermal patches).
* RESIDUE DATA WERE NOT CORRECTED FOR ANY TYPE OF QUALITY CONTROL RESULTS AS THE MEANS FOR ALL AVAILABLE RECOVERY DATA WERE > = 80%.
* HAND EXPOSURE LEVELS WERE NOT ADJUSTED/CALCULATED FOR ANY FACTOR. CUMULATIVE VALUES ARE INCLUDED IN THIS TABLE WHICH REPRESENT THE SEVERAL VALUES FOR EACH EXPOSURE REPLICATE THAT WERE REPORTED IN THE RAW DATA.
* EXPOSURE LEVELS BASED ON DERMAL PATCH DATA WERE CALCULATED USING THE FOLLOWING EQUATION:
  EXPOSURE PER BODY PART (ug) = [RESIDUE LEVEL (ug/cm2) * STANDARD BODY SURFACE (cm2)]
* RESIDUE LEVELS FOR THE SHOULDER AND UPPER ARM LOCATIONS WERE AVERAGED TOGETHER AND THE MEANS WERE USED IN THE CALCULATION USING A SURFACE AREA OF 1455 cm2 FOR THE LEFT OR RIGHT SIDE OF THE BODY.
* ONE-HALF OF THE QUANTITATION LIMIT USED IN ALL CALCULATIONS WHERE NO DETECTABLE CHLOROTHALONIL RESIDUES WERE IDENTIFIED IN THE SAMPLE.
* INHALATION EXPOSURE LEVELS WERE CALCULATED USING THE FOLLOWING EQUATION:
  INHALATION EXPOSURE (ug) = [RESIDUE LEVEL (ug) * TYPICAL HUMAN INHALATION RATE (29 Lpm)]/PERSONAL SAMPLING PUMP FLOW RATE (Lpm)
* EXPOSURE LEVELS NORMALIZED AS (ug/LB) ARE BASED ON THE AMOUT OF TOMATOES PICKED DURING EACH EXPOSURE INTERVAL.

PPA SUPPORT TASK:1827.6
VERSAR,INC. 8/31/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION
PAI (DAYS) : 3
DERMAL PATCH AREA (cm2) : 68.15
INHALATION RATE (Lpm) : 29

QUANTITATION LIMITS		
MATRIX	VALUE	UNITS
COTTON GLOVES	20.0	ug
GAUZE PATCHES	0.051	ug/cm2
CELLULOSE FILTERS	0.060	ug
CHROMSORB TUBES	0.060	ug

RAW DATA

DOSIMETER LOCATION	STD. VALUES	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES											
HANDS	820	299077	213079	223624	197228	236595	228549	231067	195430	276610	211628
ANKLE RIGHT	1190	0.824	0.667	0.468	1.347	1.228	1.598	1.084	1.054	1.788	1.308
ANKLE LEFT	1190	0.291	0.384	0.870	0.361	0.224	0.560	0.828	0.566	0.625	0.148
CHEST	3550	0.157	0.191	0.352	0.145	0.461	0.227	0.216	0.348	0.433	0.142
BACK	3550	0.110	0.082	0.216	0.260	0.246	0.166	0.323	0.270	0.236	0.148
SHOULDER RIGHT	1455	0.227	0.271	0.277	0.311	0.260	0.211	0.874	0.844	0.321	0.157
UPPERARM RIGHT	1455	2.688	1.759	3.079	1.715	2.478	0.964	3.225	3.299	1.891	0.701
FOREARM RIGHT	605	1.964	1.057	0.587	1.208	0.727	0.938	1.090	0.764	1.318	0.353
THIGH RIGHT	1910	26.120	2.492	3.914	7.600	7.316	4.589	11.360	4.721	2.565	7.228
SHOULDER LEFT	1455	0.270	0.169	0.518	0.170	0.220	0.169	0.669	0.376	0.349	0.327
UPPERARM LEFT	1455	1.256	0.349	1.616	1.618	2.008	1.074	1.193	4.706	1.466	1.260
FOREARM LEFT	605	1.114	0.337	0.931	1.155	0.446	0.441	0.867	0.931	0.936	0.585
THIGH LEFT	1910	8.665	5.586	12.710	6.070	6.563	3.343	2.529	6.730	5.659	1.380
HEAD	1300	0.499	0.127	0.092	0.243	0.623	0.064	0.749	0.079	0.053	0.066
INSIDE DEVICES											
ANKLE RIGHT	1190	ND	ND	0.098	0.066	ND	0.166	0.099	0.173	ND	0.064
ANKLE LEFT	1190	ND	ND	0.069	0.078	0.054	0.075	0.167	0.160	ND	ND
CHEST	3550	ND	ND	ND	0.073	0.062	ND	0.056	0.065	ND	ND
BACK	3550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
INHALATION											
FLOW RATE	LPM	1.55	1.64	1.60	1.57	1.61	1.55	1.57	1.57	1.60	1.60
FILTER	TOTAL	5.040	4.630	12.090	6.750	7.530	5.160	9.230	9.110	9.800	2.730
TUBE	FRONTS	0.120	ND	0.070	ND	ND	0.070	0.070	ND	0.060	ND
GENERIC DATA											
INTERVAL	MINUTES	476	469	475	476	472	476	475	471	473	474
HARVEST	POUNDS	2135	2486	2142	2257	2177	2514	1902	2073	2586	2422
	LBS/HOUR	269	318	271	284	277	317	240	264	328	307

CALCULATED EXPOSURE LEVELS

EXPOSURE TYPE	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES										
HANDS	299077	213079	223624	197228	236595	228549	231067	195430	276610	211628
ANKLE RIGHT	960.6	793.7	580.7	1602.9	1461.3	1901.6	1286.2	1254.3	2127.7	1554.1
ANKLE LEFT	346.3	457.0	797.3	429.6	266.6	666.4	982.9	673.5	743.8	173.7
CHEST	557.4	678.1	1249.6	514.8	1707.6	805.9	766.8	1235.4	1537.2	504.1
BACK	390.5	291.1	773.9	923.0	873.3	590.3	1148.7	958.5	837.8	516.3
SHOULDER RIGHT	2286.2	1478.8	2441.5	1473.9	1991.9	669.4	2962.0	2666.5	1609.2	824.2
UPPERARM RIGHT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM RIGHT	1188.2	639.5	355.1	729.6	439.8	567.5	659.5	462.2	796.2	213.6
THIGH RIGHT	49669.2	4758.7	7475.7	14866.0	13973.6	8765.0	21987.6	9017.1	4699.2	13805.5
SHOULDER LEFT	1110.2	376.8	1699.4	1446.3	1620.9	904.3	1354.6	3696.4	1320.4	1169.1
UPPERARM LEFT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM LEFT	674.0	203.9	563.3	698.6	269.8	266.8	403.5	563.3	567.5	353.9
THIGH LEFT	16550.2	10669.3	24276.1	11593.7	12573.5	6385.1	5403.4	12854.3	10806.7	2635.8
HEAD	848.7	185.1	118.6	315.9	808.9	109.2	973.7	102.7	68.9	111.8
EXP (ug)	373678	233590	263956	231854	274583	246379	266704	229116	301928	233290
EXP (ug/hour)	47102	29664	33342	29225	34905	31308	33942	29187	38299	29530
EXP (ug/LB)	175.02	93.96	123.23	102.73	126.13	98.80	141.27	110.52	116.76	98.32
INSIDE DEVICES										
ANKLE RIGHT	30.3	30.3	116.6	78.5	30.3	197.5	117.8	205.9	30.3	100.0
ANKLE LEFT	30.3	30.3	105.9	92.6	30.3	89.3	199.7	180.4	30.3	30.3
CHEST	90.5	90.5	90.5	258.2	291.1	90.5	196.6	301.6	90.5	90.5
BACK	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
EXP (ug)	241.7	241.7	403.6	521.0	442.3	467.6	605.9	788.5	241.7	311.4
EXP (ug/hour)	30.5	30.9	51.0	65.7	56.2	59.0	76.5	100.5	30.7	39.4
EXP (ug/LB)	0.11	0.10	0.19	0.23	0.20	0.19	0.32	0.38	0.09	0.13
INHALATION										
FILTERS	94.30	61.87	219.13	124.68	135.83	96.54	170.49	166.27	174.00	49.48
TUBES	2.25	0.53	1.27	0.86	0.54	1.31	1.29	0.56	1.09	0.54
EXP (ug)	96.54	62.40	220.40	125.54	136.17	97.85	171.78	166.83	175.09	50.03
EXP (ug/hour)	12.17	10.54	27.84	15.79	17.31	12.33	21.70	21.51	22.21	8.33
EXP (ug/LB)	0.05	0.03	0.10	0.06	0.06	0.04	0.09	0.06	0.07	0.02

NOTES:

* ALL RESIDUE LEVELS (i.e., ug/dosimeter--gloves or inhalation monitors and ug/cm2--patches) EXCERPTED DIRECTLY FROM STUDY REPORT. RAW DATA (e.g., chromatograms/dilutions) NOT AVAILABLE TO VERIFY EACH CALCULATION.
* "STD. VALUES" REPRESENTS STANDARD BODY SURFACE AREAS (cm2) FROM WHICH TOTAL DERMAL EXPOSURE LEVELS ARE CALCULATED. FOR THE INHALATION DATA, THESE VALUES REPRESENT AIR FLOW OR THE DOSIMETER TYPE. FOR THE GENERIC DATA, THESE DESCRIPTORS ARE THE APPROPRIATE UNITS.
* RAW DATA INCLUDED IN THAT SECTION OF THE TABLE ARE PRESENTED AS (ug chlorothalonil/sample--gloves, filters or adsorbent tubes) AND AS (ug/cm2--dermal patches).
* RESIDUE DATA WERE NOT CORRECTED FOR ANY TYPE OF QUALITY CONTROL RESULTS AS THE MEANS FOR ALL AVAILABLE RECOVERY DATA WERE >= 90%.
* HAND EXPOSURE LEVELS WERE NOT ADJUSTED/CALCULATED FOR ANY FACTOR. CUMULATIVE VALUES ARE INCLUDED IN THIS TABLE WHICH REPRESENT THE SEVERAL VALUES FOR EACH EXPOSURE REPLICATE THAT WERE REPORTED IN THE RAW DATA.
* EXPOSURE LEVELS BASED ON DERMAL PATCH DATA WERE CALCULATED USING THE FOLLOWING EQUATION:

  EXPOSURE PER BODY PART (ug) = [RESIDUE LEVEL (ug/cm2) * STANDARD BODY SURFACE (cm2)]

* RESIDUE LEVELS FOR THE SHOULDER AND UPPER ARM LOCATIONS WERE AVERAGED TOGETHER AND THE MEANS WERE USED IN THE CALCULATION USING A SURFACE AREA OF 1455 cm2 FOR THE LEFT OR RIGHT SIDE OF THE BODY.
* ONE-HALF OF THE QUANTITATION LIMIT USED IN ALL CALCULATIONS WHERE NO DETECTABLE CHLOROTHALONIL RESIDUES WERE IDENTIFIED IN THE SAMPLE.
* INHALATION EXPOSURE LEVELS WERE CALCULATED USING THE FOLLOWING EQUATION:

  INHALATION EXPOSURE (ug) = [RESIDUE LEVEL (ug) * TYPICAL HUMAN INHALATION RATE (29 Lpm)]/PERSONAL SAMPLING PUMP FLOW RATE (Lpm)

* EXPOSURE LEVELS NORMALIZED AS (ug/LB) ARE BASED ON THE AMOUT OF TOMATOES PICKED DURING EACH EXPOSURE INTERVAL

PPA SUPPORT TASK:1627.6
VERSAR,INC. 6/31/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION
PAI (DAYS) : 7
DERMAL PATCH AREA (cm2) : 68.15
INHALATION RATE (Lpm) : 29

QUANTITATION LIMITS		
MATRIX	VALUE	UNITS
COTTON GLOVES	20.0	ug
GAUZE PATCHES	0.051	ug/cm2
CELLULOSE FILTERS	0.060	ug
CHROMSORB TUBES	0.060	ug

RAW DATA

DOSIMETER LOCATION	STD. VALUES	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES											
HANDS	520	270810	216638	202183	246092	279606	235343	219462	223529	261962	260810
ANKLE RIGHT	1190	0.459	0.430	0.537	0.738	2.038	0.270	1.074	0.518	2.360	1.278
ANKLE LEFT	1190	0.304	0.158	0.556	0.391	0.242	0.170	0.211	0.349	0.254	0.204
CHEST	3550	0.139	0.114	0.276	0.346	0.346	0.273	0.216	0.268	0.154	0.243
BACK	3550	0.114	0.072	0.143	0.140	0.592	0.083	0.105	0.134	0.122	0.140
SHOULDER RIGHT	1455	0.270	0.089	0.603	0.235	0.226	0.120	0.191	0.267	0.262	0.192
UPPERARM RIGHT	1455	3.563	0.389	2.272	0.764	0.696	0.564	4.926	3.313	2.476	0.436
FOREARM RIGHT	805	1.426	0.867	1.259	0.466	0.551	0.685	1.260	0.996	0.998	0.372
THIGH RIGHT	1910	19.070	2.419	2.844	2.785	2.712	3.475	2.844	13.600	1.524	2.170
SHOULDER LEFT	1455	0.131	0.170	1.013	0.182	0.139	0.123	0.113	0.176	0.271	0.196
UPPERARM LEFT	1455	0.639	0.516	1.598	0.657	0.667	0.686	2.390	2.463	0.636	0.459
FOREARM LEFT	805	0.443	0.274	0.600	0.394	0.462	0.160	0.706	0.506	0.428	0.642
THIGH LEFT	1910	6.906	3.812	11.820	4.222	3.093	3.836	1.612	4.868	2.038	1.950
HEAD	1300	0.840	ND	0.105	0.823	ND	ND	0.947	0.062	0.078	0.140
INSIDE DEVICES											
ANKLE RIGHT	1190	ND	ND	ND	0.738	ND	0.055	0.052	0.062	ND	ND
ANKLE LEFT	1190	ND	ND	ND	0.391	ND	ND	0.071	ND	ND	ND
CHEST	3550	ND	0.050	ND	0.097	ND	ND	ND	0.099	ND	ND
BACK	3550	ND	ND	ND	0.073	ND	ND	ND	ND	ND	ND
INHALATION											
FLOW RATE	LPM	1.55	1.63	1.60	1.59	1.59	1.56	1.56	1.59	1.56	1.61
FILTER	TOTAL	6.540	3.920	9.160	6.130	8.970	3.720	9.360	7.500	7.770	3.520
TUBE	FRONTS	0.070	ND	0.090	ND	0.360	0.120	0.130	ND	0.080	ND
GENERIC DATA											
INTERVAL	MINUTES	465	465	463	466	465	462	463	463	462	463
HARVEST	POUNDS	2207	2286	2073	2245	2278	2136	2051	2142	2427	2425
	LBS/HOUR	285	295	269	289	294	278	266	278	315	314

CALCULATED EXPOSURE LEVELS

EXPOSURE TYPE	REPLICATE # 1	2	3	4	5	6	7	8	9	10
OUTSIDE DEVICES										
HANDS	270810	216638	202183	246092	279606	235343	219462	223529	261962	260810
ANKLE RIGHT	546.2	511.7	639.0	878.2	2425.2	321.3	1278.1	616.4	2808.4	1520.8
ANKLE LEFT	361.8	188.0	661.6	465.3	288.0	202.3	251.1	415.3	302.3	242.8
CHEST	493.5	404.7	979.6	1228.3	1235.4	968.2	766.8	951.4	546.7	862.7
BACK	404.7	256.6	507.7	497.0	2101.6	223.7	372.6	475.7	433.1	497.0
SHOULDER RIGHT	2788.5	347.7	2091.6	728.6	670.6	512.2	3722.6	2619.0	2007.9	458.3
UPPERARM RIGHT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM RIGHT	862.7	524.5	761.7	281.9	333.4	414.4	762.3	421.1	602.8	225.1
THIGH RIGHT	36423.7	4620.3	5432.0	5319.4	5179.9	6637.3	5432.0	25978.0	2910.8	4144.7
SHOULDER LEFT	560.2	499.1	1899.5	610.4	586.4	566.5	1820.9	1919.9	659.8	476.5
UPPERARM LEFT	AS IN PHED UPPER ARM AND SHOULDER DATA AVERAGED/PRESENTED AS UPPER ARM EXPOSURE LEVELS									
FOREARM LEFT	266.0	165.8	363.0	236.4	279.5	96.6	428.3	306.1	258.9	388.4
THIGH LEFT	13190.5	7280.9	22194.2	8064.0	5907.6	9944.8	3078.9	9297.9	3892.6	3724.5
HEAD	1092.0	33.2	136.5	809.9	33.2	33.2	1231.1	80.6	101.4	182.0
EXP (ug)	327802	231469	237650	265212	298647	252266	238607	256606	296507	273533
EXP (ug/hour)	42297	29867	30823	34147	38581	32784	30921	34550	38507	35447
EXP (ug/LB)	148.53	101.28	114.74	116.13	131.19	116.00	116.34	124.47	122.17	112.80
INSIDE DEVICES										
ANKLE RIGHT	30.3	30.3	30.3	878.2	30.3	65.5	61.9	97.6	30.3	30.3
ANKLE LEFT	30.3	30.3	30.3	465.3	30.3	30.3	84.5	30.3	30.3	30.3
CHEST	90.5	177.5	90.5	344.4	90.5	90.5	90.5	351.5	90.5	90.5
BACK	90.5	90.5	90.5	259.2	90.5	90.5	90.5	90.5	90.5	90.5
EXP (ug)	241.7	328.7	241.7	1947.0	241.7	276.5	327.4	569.9	241.7	241.7
EXP (ug/hour)	31.2	42.4	31.3	250.7	31.2	36.0	42.4	73.9	31.4	31.3
EXP (ug/LB)	0.11	0.14	0.12	0.87	0.11	0.13	0.16	0.27	0.10	0.10
INHALATION										
FILTERS	122.36	68.74	166.39	148.28	183.60	69.15	171.60	136.76	141.72	63.40
TUBES	1.31	0.53	1.63	0.55	6.83	2.23	2.39	0.55	1.46	0.54
EXP (ug)	123.67	70.28	168.02	148.83	170.53	71.38	174.18	137.34	143.18	63.94
EXP (ug/hour)	15.96	9.07	21.77	19.16	22.00	9.27	22.57	17.80	18.58	8.28
EXP (ug/LB)	0.06	0.03	0.08	0.07	0.07	0.03	0.08	0.06	0.06	0.03

NOTES:
* ALL RESIDUE LEVELS (i.e., ug/dosimeter--gloves or inhalation monitors and ug/cm2--patches) EXCERPTED DIRECTLY FROM STUDY REPORT. RAW DATA (e.g., chromatograms/dilutions) NOT AVAILABLE TO VERIFY EACH CALCULATION.
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* RESIDUE DATA WERE NOT CORRECTED FOR ANY TYPE OF QUALITY CONTROL RESULTS AS THE MEANS FOR ALL AVAILABLE RECOVERY DATA WERE > = 90%.
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* EXPOSURE LEVELS BASED ON DERMAL PATCH DATA WERE CALCULATED USING THE FOLLOWING EQUATION:
  EXPOSURE PER BODY PART (ug) = [RESIDUE LEVEL (ug/cm2) * STANDARD BODY SURFACE (cm2)]
* RESIDUE LEVELS FOR THE SHOULDER AND UPPER ARM LOCATIONS WERE AVERAGED TOGETHER AND THE MEANS WERE USED IN THE CALCULATION USING A SURFACE AREA OF 1455 cm2 FOR THE LEFT OR RIGHT SIDE OF THE BODY.
* ONE-HALF OF THE QUANTITATION LIMIT USED IN ALL CALCULATIONS WHERE NO DETECTABLE CHLOROTHALONIL RESIDUES WERE IDENTIFIED IN THE SAMPLE.
* INHALATION EXPOSURE LEVELS WERE CALCULATED USING THE FOLLOWING EQUATION:
  INHALATION EXPOSURE (ug) = [RESIDUE LEVEL (ug) * TYPICAL HUMAN INHALATION RATE (29 Lpm)]/PERSONAL SAMPLING PUMP FLOW RATE (Lpm)
* EXPOSURE LEVELS NORMALIZED AS (ug/LB) ARE BASED ON THE AMOUT OF TOMATOES PICKED DURING EACH EXPOSURE INTERVAL.

HAND Exposure Rates For Chlorothalonil 2110.003

day 0

	1	2	3	4	5	6	7	8	9	10
ug/hour	31411.1	27739.78	35113.98	29051.6	39763.37	47124.23	42856.65	43194.77	54744.83	38569.24
ug/lb	143.1126	103.202	138.8689	90.45	162.6351	135.0629	149.4471	163.4196	168.178	131.5773

day 1 HAND Exposure Rates For Chlorothalonil 2110.003

	1	2	3	4	5	6	7	8	9	10
ug/hour	43707.4	39247.39	33581.82	30059.36	41448.81	36095.59	38108.77	37343.77	69855.15	44634.85
ug/lb	145.3226	102.0848	104.1707	81.06514	123.043	89.54652	114.6421	102.5021	145.3992	105.8175

day 3

HAND EXPOSURE RATES For Chlorothalonil 2110.003

	1	2	3	4	5	6	7	8	9	10
ug/hour	37698.78	27259.57	28247.24	24860.67	30329.87	28556.6	29187.41	24895.54	35087.95	26788.1
ug/lb	140.0829	85.71158	104.3996	87.38502	109.5981	90.11496	121.4863	94.274	106.9644	87.37655

day 7

Hand Exposure Rates for Chlorothalonil 2110.003

	1	2	3	4	5	6	7	8	9	10
ug/hour	34943.23	27953.29	26200.82	31685.67	36104	30564.03	28440	28967.04	36621.04	33798.27
ug/lb	122.705	94.76728	97.5316	109.6178	122.8297	110.0762	107.0024	104.3553	116.1854	107.5505

ATTACHMENT C

TRANSFER COEFFICIENT & REGRESSION CALCULATIONS

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/9/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
CALCULATION OF TRANSFER COEFFICIENTS FOR FDR AND TOMATO RESIDUE DATA

TOMATO PICKING RATE (lb/hour): 307

RESIDUE DISSIPATION DATA				
STUDY DAY	FDR DATA		TOMATO DATA	
	(ug/cm2)	ln (ug/cm2)	(ppm)	ln (ppm)
0	4.300	1.4586	0.630	-0.4620
1	3.830	1.3429	0.570	-0.5621
3	3.750	1.3218	0.460	-0.7765
7	3.040	1.1119	0.470	-0.7550

STUDY DAY	EXPOSURE DATA						TRANSFER COEFFICIENT CALCULATION							
							FDR DISSIPATION				WHOLE TOMATO RESIDUES			
	DESCRIPTION	EXPOSURE LEVELS	EXPOSURE FACTOR	DESCRIPTION	EXPOSURE LEVELS	EXPOSURE FACTOR	DESCRIPTION	(cm2/hour)	DESCRIPTION	(cm2/hour)	DESCRIPTION	(lb picked/hr)	DESCRIPTION	(lb picked/hr)
	EXPOSURE VALUES NORMALIZED BY HOURS WORKED													
0	TOTAL OUTSIDE	42712	(ug/hour)	TOTAL INSIDE	39032	(ug/hour)	TOTAL OUTSIDE	9933	TOTAL INSIDE	9077	TOTAL OUTSIDE	149.33	TOTAL INSIDE	136.46
1		46770	(ug/hour)		41487	(ug/hour)		12211		10632		160.73		160.32
3		33689	(ug/hour)		29362	(ug/hour)		8964		7830		161.32		140.60
7		34805	(ug/hour)		31604	(ug/hour)		11449		10396		163.11		148.11
MEAN		39494	(ug/hour)		35371	(ug/hour)		10644		9534		163.62		146.37
	EXPOSURE VALUES NORMALIZED BY POUNDS PICKED													
0	TOTAL OUTSIDE	152.50	(ug/lb picked)	TOTAL INSIDE	138.86	(ug/lb picked)	TOTAL OUTSIDE	10868	TOTAL INSIDE	9914	TOTAL OUTSIDE	163.68	TOTAL INSIDE	149.05
1		126.48	(ug/lb picked)		111.58	(ug/lb picked)		10138		8944		150.05		132.37
3		118.53	(ug/lb picked)		102.99	(ug/lb picked)		9704		8432		174.25		151.40
7		120.82	(ug/lb picked)		109.53	(ug/lb picked)		12201		11061		173.83		157.59
MEAN		129.58	(ug/lb picked)		115.74	(ug/lb picked)		10733		9588		165.45		147.60

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TRANSFER COEFFICIENTS CALCULATED USING THE FOLLOWING EQUATIONS:

FDR (NORMALIZATION BY HOURS WORKED): EXPOSURE (ug/hour)/FDR LEVEL (ug/cm2)

FDR (NORMALIZATION BY LBS TOMATOES PICKED): [EXPOSURE (ug/lb picked) * TOMATO PICKING RATE (lb/hour))/FDR LEVEL (ug/cm2)]

WHOLE TOMATOES (NORMALIZATION BY HOURS WORKED): [(EXPOSURE (ug/hour)/TOMATO RESIDUE (ppm))/(1lb/454g)]

WHOLE TOMATOES (NORMALIZATION BY POUNDS TOMATOES PICKED): [((EXPOSURE (ug/lb) * TOMATO PICKING RATE (lb/hour))/TOMATO RESIDUE (ppm)) * (1lb/454g)]

PPA SUPPORT TASK: 2110 003 STANDARD TOMATO PICKING RATE (lb/hr): 307

VERSAR,INC. 9/10/93 JLD

CALCULATION OF PREDICTED FDR/WHOLE TOMATO RESIDUES AND THE CORRESPONDING EXPOSURE LEVELS

STUDY INTERVAL	PREDICTED RESIDUES FDR (ug/cm2)	PREDICTED RESIDUES TOMATO (ppm)	PREDICTED EXPOSURES/BY HOURS WORKED FDR (ug/hour) OUTSIDE	FDR (ug/hour) INSIDE	WHOLE TOMATOES (ug/hour) OUTSIDE	WHOLE TOMATOES (ug/hour) INSIDE	PREDICTED EXPOSURES/BY POUNDS PICKED FDR (ug/lb picked) OUTSIDE	FDR (ug/lb picked) INSIDE	WHOLE TOMATOES (ug/lb picked) OUTSIDE	WHOLE TOMATOES (ug/lb picked) INSIDE
0 *	4.194	0.589	42644.1	38207.8	43304.9	39130.7	138.378	124.479	138.813	125.338
1 *	4.008	0.566	41498.6	37178.4	41876.3	37783.8	135.812	121.300	135.965	121.883
2	3.830	0.544	40353.1	36143.1	40557.7	36398.5	132.248	118.121	132.316	118.388
3 *	3.660	0.523	39207.7	35113.9	39138.1	35029.5	128.685	114.943	128.671	114.783
4	3.497	0.502	38062.2	34082.6	37720.5	33662.4	125.121	111.764	125.023	111.198
5	3.342	0.482	36916.8	33051.4	36301.9	32295.3	121.557	108.585	121.378	107.613
6	3.194	0.464	35771.3	32020.2	34883.4	30929.2	117.993	105.406	117.728	104.028
7 *	3.052	0.445	34625.9	30988.9	33464.8	29561.2	114.429	102.227	114.081	100.443
8	2.917	0.426	33480.4	29957.7	32046.2	28194.1	110.865	99.048	110.434	96.858
9	2.787	0.411	32334.9	28926.5	30627.6	26827.0	107.302	95.870	106.786	93.273
10	2.663	0.395	31189.5	27895.2	29209.0	25459.9	103.738	92.691	103.139	89.687
11	2.545	0.380	30044.0	26864.0	27790.4	24092.8	100.174	89.512	99.491	86.102
12	2.432	0.365	28898.6	25832.7	26371.8	22725.8	96.610	86.333	95.844	82.517
13	2.324	0.350	27753.1	24801.5	24953.2	21358.7	93.046	83.154	92.197	78.932
14	2.221	0.337	26607.6	23770.3	23534.7	19991.6	89.482	79.976	88.549	75.347
15	2.122	0.324	25462.2	22739.0	22116.1	18624.5	85.918	76.797	84.902	71.762
16	2.028	0.311	24316.7	21707.8	20697.5	17257.4	82.355	73.618	81.254	68.177
17	1.938	0.298	23171.3	20676.6	19278.9	15890.4	78.791	70.439	77.607	64.592
18	1.852	0.287	22025.8	19645.3	17860.3	14523.3	75.227	67.260	73.960	61.007
19	1.770	0.276	20880.3	18614.1	16441.7	13156.2	71.663	64.082	70.312	57.422
20	1.691	0.265	19734.9	17582.8	15023.1	11789.1	68.099	60.903	66.665	53.837
21	1.616	0.255	18589.4	16551.6	13604.6	10422.1	64.536	57.724	63.017	50.252
22	1.545	0.245	17444.0	15520.4	12186.0	9055.0	60.972	54.546	59.370	46.667
23	1.476	0.235	16298.5	14489.1	10767.4	7687.9	57.408	51.366	55.723	43.081
24	1.410	0.226	15153.0	13457.9	9348.8	6320.8	53.844	48.188	52.075	39.496
25	1.348	0.217	14007.6	12426.6	7930.2	4953.7	50.280	45.009	48.428	35.911
26	1.288	0.208	12862.1	11395.4	6511.6	3586.7	46.716	41.830	44.780	32.326
27	1.231	0.200	11716.7	10364.2	5093.0	2219.6	43.153	38.651	41.133	28.741
28	1.176	0.192	10571.2	9332.9	3674.4	852.5	39.589	35.472	37.486	25.156
29	1.124	0.185	9425.7	8301.7	2255.9	0 or less	36.025	32.294	33.838	21.571
30	1.074	0.178	8280.3	7270.5	837.3	0 or less	32.461	29.115	30.191	17.986
31	1.026	0.171	7134.8	6239.2	0 or less	0 or less	28.897	25.936	26.543	14.401
32	0.981	0.164	5989.4	5208.0	0 or less	0 or less	25.333	22.757	22.896	10.816
33	0.937	0.158	4843.9	4176.7	0 or less	0 or less	21.769	19.578	19.249	7.231
34	0.896	0.151	3698.4	3145.5	0 or less	0 or less	18.206	16.400	15.601	3.646
35	0.856	0.146	2553.0	2114.3	0 or less	0 or less	14.642	13.221	11.954	0.061

STUDY INTERVAL	TRANS. COEFF EXP./HOURS WORKED FDR (ug/hour) OUTSIDE	FDR (ug/hour) INSIDE	WHOLE TOMATOES (ug/hour) OUTSIDE	WHOLE TOMATOES (ug/hour) INSIDE	TRANS. COEFF EXP./LBS PICKED FDR (ug/lb picked) OUTSIDE	FDR (ug/lb picked) INSIDE	WHOLE TOMATOES (ug/lb picked) OUTSIDE	WHOLE TOMATOES (ug/lb picked) INSIDE
0 *	44640.1	39964.8	43765.1	39151.1	145.623	130.982	144.158	128.880
1 *	42858.6	38210.0	42051.0	37617.7	140.115	125.167	139.506	123.363
2	40780.0	36513.6	40404.8	36144.3	133.685	119.611	133.081	118.723
3 *	38855.4	34893.0	38821.5	34728.7	127.952	114.352	127.868	114.073
4	37228.2	33344.1	37301.0	33369.5	122.272	109.220	122.881	109.935
5	35573.8	31884.0	35840.1	32061.8	116.844	104.379	118.046	105.313
6	33894.7	30440.8	34430.3	30805.6	111.650	99.748	113.425	101.189
7 *	32485.8	29087.9	33087.6	29589.3	106.701	95.318	108.983	97.225
8	31043.6	27808.3	31791.7	28440.9	101.968	91.087	104.714	93.417
9	29665.6	26572.0	30546.5	27326.1	97.438	87.044	100.613	89.756
10	28349.6	25392.4	29350.1	26255.8	93.113	83.180	96.672	86.243
11	27090.4	24265.3	28200.6	25227.5	88.980	79.488	92.886	82.865
12	25887.9	23188.1	27096.1	24238.4	85.030	75.958	89.246	79.619
13	24738.7	22158.6	26034.8	23290.0	81.256	72.587	85.752	76.501
14	23640.9	21175.2	25015.1	22377.8	77.648	69.365	82.394	73.505
15	22591.2	20235.3	24035.4	21501.4	74.202	66.286	79.167	70.626
16	21588.3	19337.6	23094.0	20659.3	70.908	63.344	76.066	67.858
17	20630.0	18478.7	22189.5	19850.1	67.761	60.532	73.087	65.202
18	19714.3	17658.4	21320.4	19072.7	64.750	57.845	70.224	62.648
19	18839.2	16874.8	20485.4	18325.8	61.878	55.277	67.474	60.194
20	18002.9	16125.5	19683.0	17607.9	59.132	52.824	64.831	57.837
21	17203.6	15409.7	18912.1	16918.3	56.507	50.479	62.292	55.571
22	16440.1	14725.7	18171.4	16255.8	53.999	48.238	59.852	53.395
23	15710.3	14072.0	17459.7	15618.0	51.602	46.097	57.508	51.304
24	15013.0	13447.3	16775.9	15007.2	49.311	44.051	55.256	49.294
25	14346.9	12850.4	16118.9	14419.4	47.122	42.095	53.091	47.364
26	13709.7	12280.0	15487.5	13854.7	45.030	40.227	51.012	45.509
27	13101.1	11734.9	14880.9	13312.0	43.032	38.441	49.014	43.726
28	12519.6	11214.0	14298.1	12790.7	41.121	36.735	47.094	42.014
29	11963.8	10716.2	13738.1	12289.7	39.296	35.104	45.250	40.368
30	11432.8	10240.5	13200.0	11808.4	37.552	33.546	43.478	38.787
31	10925.3	9785.9	12683.0	11346.9	35.885	32.057	41.775	37.268
32	10440.3	9351.8	12186.3	10901.5	34.292	30.634	40.139	35.808
33	9976.9	8936.4	11709.0	10474.5	32.770	29.274	38.567	34.406
34	9534.0	8539.7	11250.4	10064.3	31.315	27.974	37.058	33.058
35	9110.6	8160.7	10809.7	9670.1	29.925	26.730	35.605	31.763

STUDY INTERVAL	DIFFERENCES BETWEEN EXPOSURE CALCULATION TECHNIQUES (hours worked & pounds picked) FDR (ug/hour) OUTSIDE	FDR (ug/hour) INSIDE	WHOLE TOMATOES (ug/hour) OUTSIDE	WHOLE TOMATOES (ug/hour) INSIDE	FDR (ug/lb picked) OUTSIDE	FDR (ug/lb picked) INSIDE	WHOLE TOMATOES (ug/lb picked) OUTSIDE	WHOLE TOMATOES (ug/lb picked) INSIDE	AVERAGE DELTA (%)
0 *	-4.68	-4.65	-0.65	-0.05	-5.30	-5.22	-3.25	-2.44	-3.39
1 *	-2.90	-2.70	-0.10	0.39	-3.17	-3.19	-1.87	-1.32	-1.86
2	-1.08	-1.02	0.38	0.69	-1.25	-1.26	-0.58	-0.30	-0.54
3 *	0.84	0.63	0.81	0.86	0.57	0.51	0.62	0.62	0.68
4	2.20	2.17	1.11	0.87	2.28	2.27	1.73	1.43	1.76
5	3.04	3.39	1.27	0.72	3.88	3.87	2.74	2.14	2.73
6	4.87	4.81	1.28	0.40	5.37	5.37	3.66	2.73	3.58
7 *	6.18	6.19	1.13	-0.13	6.78	6.76	4.47	3.20	4.31
8	7.28	7.16	0.79	-0.87	8.03	8.04	5.19	3.56	4.80
9	8.28	8.14	0.26	-1.86	9.19	9.21	5.76	3.77	5.24
10	9.11	8.97	-0.48	-3.13	10.24	10.28	6.27	3.84	5.64
11	9.83	9.67	-1.48	-4.71	11.17	11.20	6.64	3.76	5.76
12	10.42	10.24	-2.75	-6.66	11.99	12.02	6.88	3.51	5.71
13	10.85	10.66	-4.30	-9.04	12.67	12.71	6.99	3.08	5.46
14	11.15	10.92	-6.29	-11.94	13.22	13.27	6.93	2.46	4.97
15	11.30	11.01	-8.68	-15.45	13.64	13.66	6.75	1.58	4.23
16	11.22	10.92	-11.58	-19.71	13.90	13.96	6.39	0.47	3.10
17	10.97	10.63	-15.10	-24.92	14.00	14.08	5.82	-0.94	1.82
18	10.48	10.11	-19.37	-31.32	13.92	14.00	5.05	-2.69	0.08
19	9.79	9.35	-24.59	-39.30	13.65	13.74	4.04	-4.83	-2.27
20	8.79	8.29	-31.02	-49.36	13.17	13.27	2.75	-7.43	-5.19
21	7.49	6.90	-39.01	-62.33	12.44	12.55	1.15	-10.59	-8.83
22	5.75	5.12	-49.12	-79.52	11.44	11.56	-0.81	-14.42	-13.75
23	3.61	2.88	-62.15	-103.16	10.11	10.26	-3.20	-19.09	-20.08
24	0.92	0.08	-79.44	-137.43	8.42	8.58	-6.11	-24.81	-28.72
25	-2.48	-3.41	-103.26	-191.08	6.28	6.47	-9.63	-31.89	-41.12
26	-6.69	-7.78	-137.84	-286.28	3.61	3.83	-13.92	-40.78	-60.72
27	-11.82	-13.23	-192.18	-499.75	0.28	0.54	-19.16	-58.14	-89.43
28	-18.43	-20.16	-289.12	-1400.30	-3.87	-3.56	-25.63	-67.01	-228.52
29	-26.83	-29.08	-509.00	N/A	-9.08	-8.70	-33.72	-87.14	N/A
30	-38.07	-40.85	-1476.53	N/A	-15.68	-15.22	-44.01	-115.68	N/A
31	-53.13	-56.88	N/A	N/A	-24.18	-23.60	-57.38	-158.78	N/A
32	-74.31	-79.58	N/A	N/A	-35.38	-34.81	-75.31	-231.07	N/A
33	-108.97	-113.88	N/A	N/A	-50.53	-49.52	-100.38	-375.82	N/A
34	-157.78	-171.48	N/A	N/A	-72.01	-70.58	-137.52	-808.77	N/A
35	-258.87	-288.88	N/A	N/A	-104.38	-102.20	-187.85	-32269.4	N/A

NOTES:

PREDICTED EXPOSURE LEVELS CALCULATED USING THE EQUATIONS WHICH RELATED EXPOSURE LEVELS TO RESIDUE LEVELS. THE EQUATIONS ARE PRESENTED BELOW:

TOTAL OUTSIDE EXPOSURE (ug/hour) = ((23227.6 * (Ln FDR(ug/cm2))) + 8476.84)

TOTAL INSIDE EXPOSURE (ug/hour) = ((22712.0 * (Ln FDR(ug/cm2))) + 5846.38)

TOTAL OUTSIDE EXPOSURE (ug/lb picked) = ((78.40 * (Ln FDR(ug/cm2))) + 26.65)

TOTAL INSIDE EXPOSURE (ug/lb picked) = ((70.01 * (Ln FDR(ug/cm2))) + 24.11)

TOTAL OUTSIDE EXPOSURE (ug/hour) = ((35505.0 * (Ln WHOLE TOMATO (ppm))) + 62179.1)

TOTAL INSIDE EXPOSURE (ug/hour) = ((34216.3 * (Ln WHOLE TOMATO (ppm))) + 57232.8)

TOTAL OUTSIDE EXPOSURE (ug/lb picked) = ((61.20 * (Ln WHOLE TOMATO (ppm))) + 187.91)

TOTAL INSIDE EXPOSURE (ug/lb picked) = ((69.73 * (Ln WHOLE TOMATO (ppm))) + 173.01)

THE TECHNIQUES USED TO CALCULATE EXPOSURE LEVELS WITH THE TRANSFER COEFFICIENTS THAT RELATED EXPOSURE LEVELS TO RESIDUE LEVELS ARE DESCRIBED IN THE EQUATIONS PRESENTED BELOW (TRANSFER COEFFICIENT VALUES DENOTED AS "TC" IN EACH EQUATION):

TOTAL OUTSIDE EXPOSURE (ug/hour) = [FDR(ug/cm2) * TC(10844 cm2/hour)]

TOTAL INSIDE EXPOSURE (ug/hour) = [FDR(ug/cm2) * TC(9534 cm2/hour)]

TOTAL OUTSIDE EXPOSURE (ug/lb picked) = [FDR(ug/cm2) * TC (10733 cm2/hour)]/[TOMATO PICKING RATE (307 lb/hour)]

TOTAL INSIDE EXPOSURE (ug/lb picked) = [FDR(ug/cm2) * TC (9569 cm2/hour)]/[TOMATO PICKING RATE (307 lb/hour)]

TOTAL OUTSIDE EXPOSURE (ug/hour) = [RESIDUE LEVEL (ppm) * 454 (g/lb) * TC (163.68 lb picked/hour)]

TOTAL INSIDE EXPOSURE (ug/hour) = [RESIDUE LEVEL (ppm) * 454 (g/lb) * TC (146.37 lb picked/hour)]

TOTAL OUTSIDE EXPOSURE (ug/hour) = [RESIDUE LEVEL (ppm) * 454 (g/lb) * TC (165.45 lb picked/hour)]/[TOMATO PICKING RATE (307 lb/hour)]

TOTAL INSIDE EXPOSURE (ug/hour) = [RESIDUE LEVEL (ppm) * 454 (g/lb) * TC (147.60 lb picked/hour)]/[TOMATO PICKING RATE (307 lb/hour)]

PPA SUPPORT TASK: 2110.003
VERSAR,INC. 9/10/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION
CORRELATION ANALYSIS/LINEAR EQUATION DEVELOPMENT (EXPOSURE vs. Ln RESIDUE DATA)
(NOTE: EXPOSURE LEVELS USED IN THIS ANALYSIS WERE NORMALIZED BY THE HOURS WORKED)

STUDY DAY	EXPOSURE LEVELS TOTAL OUTSIDE (ug/hour)	TOTAL INSIDE (ug/hour)	RESIDUE LEVELS FDR (ug/cm2)	TOMATOES (ppm)	Ln [RESIDUE LEVELS] FDR (ug/cm2)	TOMATOES (ppm)
0.00	42712	39032	4.300	0.630	1.4586	-0.4620
1.00	46770	41487	3.830	0.570	1.3429	-0.5621
3.00	33689	29362	3.750	0.460	1.3218	-0.7765
7.00	34805	31604	3.040	0.470	1.1119	-0.7550

	TOTAL OUTSIDE		TOTAL INSIDE	
FDR LEVELS				
Regression Output:			Regression Output:	
Constant		6476.83634972	Constant	5646.37927316
Std Err of Y Est		6291.49928241	Std Err of Y Est	5866.70812314
R Squared		0.33463078092	R Squared	0.31916978226
No. of Observations		4	No. of Observations	4
Degrees of Freedom		2	Degrees of Freedom	2
Correlation Coefficient		0.5784728005	Correlation Coefficient	0.56495113263
X Coefficient(s)	25227.565		X Coefficient(s)	22712.009
Std Err of Coef.	25154.098		Std Err of Coef.	23455.737
WHOLE TOMATO LEVELS				
Regression Output:			Regression Output:	
Constant		62179.1303099	Constant	57232.9315607
Std Err of Y Est		3952.137092	Std Err of Y Est	3132.03965328
R Squared		0.73744614146	R Squared	0.80595414836
No. of Observations		4	No. of Observations	4
Degrees of Freedom		2	Degrees of Freedom	2
Correlation Coefficient		0.85874684364	Correlation Coefficient	0.89774949087
X Coefficient(s)	35505.074		X Coefficient(s)	34216.273212
Std Err of Coef.	14980.264		Std Err of Coef.	11871.749414

LINEAR EQUATIONS BASED ON SEMILOG ANALYSIS OF DISSIPATION/EXPOSURE DATA	CORR COEFF.
FDR LEVELS:	
TOTAL OUTSIDE EXPOSURE (ug/hour) = ((25227.6 * (Ln FDR(ug/cm2))) + 6476.84)	0.5785
TOTAL INSIDE EXPOSURE (ug/hour) = ((22712.0 * (Ln FDR(ug/cm2))) + 5646.38)	0.5650
WHOLE TOMATOES:	
TOTAL OUTSIDE EXPOSURE (ug/hour) = ((35505.0 * (Ln WHOLE TOMATO (ppm))) + 62179.1)	0.8587
TOTAL INSIDE EXPOSURE (ug/hour) = ((34216.3 * (Ln WHOLE TOMATO (ppm))) + 57232.9)	0.8977

NOTES:
* ALL VALUES USED FOR CALCULATIONS ARE AVERAGES OF REPLICATE SAMPLE ANALYSES AT EACH INTERVAL.
* RESIDUE LEVELS NOT CORRECTED FOR AVAILABLE QC RESULTS AS ALL AVERAGE RECOVERIES WERE >= 90%.

PPA SUPPORT TASK: 2110.003
VERSAR,INC. 9/10/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE/TOMATO RESIDUE DISSIPATION STUDY AND REI CALCULATION
CORRELATION ANALYSIS/LINEAR EQUATION DEVELOPMENT (EXPOSURE vs. Ln RESIDUE DATA)
(NOTE: EXPOSURE LEVELS USED IN THIS ANALYSIS WERE NORMALIZED BY THE POUNDS PICKED DURING EACH REPLICATE)

STUDY DAY	EXPOSURE LEVELS		RESIDUE LEVELS		Ln [RESIDUE LEVELS]	
	TOTAL OUTSIDE (ug/lb picked)	TOTAL INSIDE (ug/lb picked)	FDR (ug/cm2)	TOMATOES (ppm)	FDR (ug/cm2)	TOMATOES (ppm)
0.00	152.50	138.86	4.300	0.630	1.4586	-0.4620
1.00	126.48	111.58	3.830	0.570	1.3429	-0.5621
3.00	118.53	102.99	3.750	0.460	1.3218	-0.7765
7.00	120.82	109.53	3.040	0.470	1.1119	-0.7550

TOTAL OUTSIDE		TOTAL INSIDE	
FDR LEVELS			
Regression Output:		Regression Output:	
Constant	26.8580024963	Constant	24.1112361785
Std Err of Y Est	13.1980678054	Std Err of Y Est	14.9386889807
R Squared	0.5252260062	R Squared	0.40723950183
No. of Observations	4	No. of Observations	4
Degrees of Freedom	2	Degrees of Freedom	2
Correlation Coefficient	0.72472477962	Correlation Coefficient	0.63815319621
X Coefficient(s)	78.489145	X Coefficient(s)	70.011
Std Err of Coef.	52.76731	Std Err of Coef.	59.727
WHOLE TOMATO LEVELS			
Regression Output:		Regression Output:	
Constant	187.907622052	Constant	173.072261483
Std Err of Y Est	8.76834012657	Std Err of Y Est	9.81163728844
R Squared	0.79044357187	R Squared	0.74429615794
No. of Observations	4	No. of Observations	4
Degrees of Freedom	2	Degrees of Freedom	2
Correlation Coefficient	0.88906893538	Correlation Coefficient	0.86272600398
X Coefficient(s)	91.28613	X Coefficient(s)	89.7321789864
Std Err of Coef.	33.235702	Std Err of Coef.	37.190237713

LINEAR EQUATIONS BASED ON SEMILOG ANALYSIS OF DISSIPATION/EXPOSURE DATA	CORR COEFF.
FDR LEVELS:	
TOTAL OUTSIDE EXPOSURE (ug/lb picked) = ((78.49 * (Ln FDR(ug/cm2))) + 26.85)	0.7247
TOTAL INSIDE EXPOSURE (ug/lb picked) = ((70.01 * (Ln FDR(ug/cm2))) + 24.11)	0.6382
WHOLE TOMATOES:	
TOTAL OUTSIDE EXPOSURE (ug/lb picked) = ((91.29 * (Ln WHOLE TOMATO (ppm))) + 187.91)	0.8891
TOTAL INSIDE EXPOSURE (ug/lb picked) = ((89.73 * (Ln WHOLE TOMATO (ppm))) + 173.01)	0.8627

NOTES:
* ALL VALUES USED FOR CALCULATIONS ARE AVERAGES OF REPLICATE SAMPLE ANALYSES AT EACH INTERVAL.
* RESIDUE LEVELS NOT CORRECTED FOR AVAILABLE QC RESULTS AS ALL AVERAGE RECOVERIES WERE >= 90%.

ATTACHMENT D

LADEs/RISKS
FOR ACTUAL EXPOSURES

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/9/93 JLO

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	6
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT. #1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	2.0061	4.0121	6.0182	8.0243	3.152E-04	6.305E-04	9.457E-04	1.261E-03	1.576E-04	3.152E-04	4.73E-04	6.30E-04
	1	46770	(ug/hour)	374.16	2.1966	4.3933	6.5899	8.7865	3.452E-04	6.904E-04	1.036E-03	1.381E-03	1.726E-04	3.452E-04	5.18E-04	6.90E-04
	3	33689	(ug/hour)	269.51	1.5823	3.1645	4.7468	6.3291	2.486E-04	4.973E-04	7.459E-04	9.946E-04	1.243E-04	2.486E-04	3.73E-04	4.97E-04
	7	34805	(ug/hour)	278.44	1.6347	3.2693	4.9040	6.5387	2.569E-04	5.138E-04	7.706E-04	1.026E-03	1.284E-04	2.569E-04	3.85E-04	5.14E-04
TOTAL INSIDE	0	39032	(ug/hour)	312.25	1.8332	3.6664	5.4996	7.3328	2.881E-04	5.761E-04	8.642E-04	1.152E-03	1.440E-04	2.881E-04	4.32E-04	5.76E-04
	1	41487	(ug/hour)	331.90	1.9485	3.8970	5.8455	7.7941	3.062E-04	6.124E-04	9.186E-04	1.225E-03	1.531E-04	3.062E-04	4.59E-04	6.12E-04
	3	29362	(ug/hour)	234.90	1.3790	2.7581	4.1371	5.5161	2.167E-04	4.334E-04	6.501E-04	8.668E-04	1.084E-04	2.167E-04	3.25E-04	4.33E-04
	7	31604	(ug/hour)	252.83	1.4844	2.9687	4.4531	5.9374	2.333E-04	4.665E-04	6.998E-04	9.330E-04	1.166E-04	2.333E-04	3.50E-04	4.67E-04
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	2.1988	4.3977	6.5965	8.7954	3.455E-04	6.911E-04	1.037E-03	1.382E-03	1.728E-04	3.455E-04	5.18E-04	6.91E-04
	1	126.48	(ug/lb picked)	310.64	1.8237	3.6474	5.4711	7.2948	2.866E-04	5.732E-04	8.597E-04	1.146E-03	1.433E-04	2.866E-04	4.30E-04	5.73E-04
	3	118.53	(ug/lb picked)	291.12	1.7091	3.4182	5.1274	6.8365	2.686E-04	5.372E-04	8.057E-04	1.074E-03	1.343E-04	2.686E-04	4.03E-04	5.37E-04
	7	120.82	(ug/lb picked)	296.73	1.7421	3.4841	5.2262	6.9683	2.738E-04	5.475E-04	8.213E-04	1.095E-03	1.369E-04	2.738E-04	4.11E-04	5.48E-04
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	2.0022	4.0044	6.0066	8.0088	3.146E-04	6.293E-04	9.439E-04	1.259E-03	1.573E-04	3.146E-04	4.72E-04	6.29E-04
	1	111.58	(ug/lb picked)	274.03	1.6088	3.2176	4.8264	6.4352	2.528E-04	5.056E-04	7.584E-04	1.011E-03	1.264E-04	2.528E-04	3.79E-04	5.06E-04
	3	102.99	(ug/lb picked)	252.95	1.4850	2.9701	4.4551	5.9401	2.334E-04	4.667E-04	7.001E-04	9.334E-04	1.167E-04	2.334E-04	3.50E-04	4.67E-04
	7	109.53	(ug/lb picked)	269.01	1.5793	3.1586	4.7379	6.3172	2.482E-04	4.963E-04	7.445E-04	9.927E-04	1.241E-04	2.482E-04	3.72E-04	4.96E-04

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	4.0121	8.0243	12.0364	16.0485	6.305E-04	1.261E-03	1.891E-03	2.522E-03	3.152E-04	6.305E-04	9.46E-04	1.26E-03
	1	46770	(ug/hour)	374.16	4.3933	8.7865	13.1798	17.5730	6.904E-04	1.381E-03	2.071E-03	2.761E-03	3.452E-04	6.904E-04	1.04E-03	1.38E-03
	3	33689	(ug/hour)	269.51	3.1645	6.3291	9.4936	12.6582	4.973E-04	9.946E-04	1.492E-03	1.989E-03	2.486E-04	4.973E-04	7.46E-04	9.95E-04
	7	34805	(ug/hour)	278.44	3.2693	6.5387	9.8080	13.0774	5.138E-04	1.028E-03	1.541E-03	2.055E-03	2.569E-04	5.138E-04	7.71E-04	1.03E-03
TOTAL INSIDE	0	39032	(ug/hour)	312.25	3.6664	7.3328	10.9991	14.6655	5.761E-04	1.152E-03	1.728E-03	2.305E-03	2.881E-04	5.761E-04	8.64E-04	1.15E-03
	1	41487	(ug/hour)	331.90	3.8970	7.7941	11.6911	15.5881	6.124E-04	1.225E-03	1.837E-03	2.450E-03	3.062E-04	6.124E-04	9.19E-04	1.22E-03
	3	29362	(ug/hour)	234.90	2.7581	5.5161	8.2742	11.0323	4.334E-04	8.668E-04	1.300E-03	1.734E-03	2.167E-04	4.334E-04	6.50E-04	8.67E-04
	7	31604	(ug/hour)	252.83	2.9687	5.9374	8.9061	11.8748	4.665E-04	9.330E-04	1.400E-03	1.866E-03	2.333E-04	4.665E-04	7.00E-04	9.33E-04
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	4.3977	8.7954	13.1931	17.5908	6.911E-04	1.382E-03	2.073E-03	2.764E-03	3.455E-04	6.911E-04	1.04E-03	1.38E-03
	1	126.48	(ug/lb picked)	310.64	3.6474	7.2948	10.9422	14.5896	5.732E-04	1.146E-03	1.719E-03	2.293E-03	2.866E-04	5.732E-04	8.60E-04	1.15E-03
	3	116.53	(ug/lb picked)	291.12	3.4182	6.8365	10.2547	13.6730	5.372E-04	1.074E-03	1.611E-03	2.149E-03	2.686E-04	5.372E-04	8.06E-04	1.07E-03
	7	120.82	(ug/lb picked)	296.73	3.4841	6.9683	10.4524	13.9366	5.475E-04	1.095E-03	1.643E-03	2.190E-03	2.738E-04	5.475E-04	8.21E-04	1.10E-03
TOTAL INSIDE	0	136.86	(ug/lb picked)	341.04	4.0044	8.0088	12.0132	16.0177	6.293E-04	1.259E-03	1.888E-03	2.517E-03	3.146E-04	6.293E-04	9.44E-04	1.26E-03
	1	111.58	(ug/lb picked)	274.03	3.2178	6.4352	9.6528	12.8704	5.056E-04	1.011E-03	1.517E-03	2.022E-03	2.528E-04	5.056E-04	7.58E-04	1.01E-03
	3	102.99	(ug/lb picked)	252.95	2.9701	5.9401	8.9102	11.8803	4.667E-04	9.334E-04	1.400E-03	1.867E-03	2.334E-04	4.667E-04	7.00E-04	9.33E-04
	7	109.53	(ug/lb picked)	269.01	3.1586	6.3172	9.4757	12.6343	4.963E-04	9.927E-04	1.489E-03	1.985E-03	2.482E-04	4.963E-04	7.45E-04	9.93E-04

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110 003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	6.0182	12.0364	18.0546	24.0728	9.457E-04	1.891E-03	2.837E-03	3.783E-03	4.729E-04	9.457E-04	1.42E-03	1.89E-03
	1	46770	(ug/hour)	374.16	6.5899	13.1798	19.7696	26.3595	1.036E-03	2.071E-03	3.107E-03	4.142E-03	5.178E-04	1.036E-03	1.55E-03	2.07E-03
	3	33689	(ug/hour)	269.51	4.7468	9.4936	14.2404	18.9873	7.459E-04	1.492E-03	2.238E-03	2.984E-03	3.730E-04	7.459E-04	1.12E-03	1.49E-03
	7	34805	(ug/hour)	278.44	4.9040	9.8080	14.7121	19.6161	7.706E-04	1.541E-03	2.312E-03	3.083E-03	3.853E-04	7.706E-04	1.16E-03	1.54E-03
TOTAL INSIDE	0	39032	(ug/hour)	312.25	5.4996	10.9991	16.4987	21.9983	8.642E-04	1.728E-03	2.593E-03	3.457E-03	4.321E-04	8.642E-04	1.30E-03	1.73E-03
	1	41487	(ug/hour)	331.90	5.8455	11.6911	17.5366	23.3822	9.186E-04	1.837E-03	2.756E-03	3.674E-03	4.593E-04	9.186E-04	1.38E-03	1.84E-03
	3	29362	(ug/hour)	234.90	4.1371	8.2742	12.4113	16.5484	6.501E-04	1.300E-03	1.950E-03	2.600E-03	3.251E-04	6.501E-04	9.75E-04	1.30E-03
	7	31604	(ug/hour)	252.83	4.4531	8.9061	13.3592	17.8122	6.998E-04	1.400E-03	2.099E-03	2.799E-03	3.499E-04	6.998E-04	1.05E-03	1.40E-03
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	6.5965	13.1931	19.7896	26.3862	1.037E-03	2.073E-03	3.110E-03	4.146E-03	5.183E-04	1.037E-03	1.55E-03	2.07E-03
	1	126.48	(ug/lb picked)	310.84	5.4711	10.9422	16.4133	21.8844	8.597E-04	1.719E-03	2.579E-03	3.439E-03	4.299E-04	8.597E-04	1.29E-03	1.72E-03
	3	118.53	(ug/lb picked)	291.12	5.1274	10.2547	15.3821	20.5094	8.057E-04	1.611E-03	2.417E-03	3.223E-03	4.029E-04	8.057E-04	1.21E-03	1.61E-03
	7	120.82	(ug/lb picked)	296.73	5.2262	10.4524	15.6786	20.9049	8.213E-04	1.643E-03	2.464E-03	3.285E-03	4.106E-04	8.213E-04	1.23E-03	1.64E-03
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	6.0066	12.0132	18.0199	24.0265	9.439E-04	1.888E-03	2.832E-03	3.776E-03	4.719E-04	9.439E-04	1.42E-03	1.89E-03
	1	111.58	(ug/lb picked)	274.03	4.8264	9.6526	14.4792	19.3056	7.584E-04	1.517E-03	2.275E-03	3.034E-03	3.792E-04	7.584E-04	1.14E-03	1.52E-03
	3	102.99	(ug/lb picked)	252.95	4.4551	8.9102	13.3653	17.8204	7.001E-04	1.400E-03	2.100E-03	2.800E-03	3.500E-04	7.001E-04	1.05E-03	1.40E-03
	7	109.53	(ug/lb picked)	269.01	4.7379	9.4757	14.2136	18.9515	7.445E-04	1.489E-03	2.234E-03	2.978E-03	3.723E-04	7.445E-04	1.12E-03	1.49E-03

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	2.0061	4.0121	6.0182	8.0243	6.305E-05	1.261E-04	1.891E-04	2.522E-04	3.152E-05	6.305E-05	9.46E-05	1.26E-04
	1	46770	(ug/hour)	374.16	2.1966	4.3933	6.5899	8.7865	6.904E-05	1.381E-04	2.071E-04	2.761E-04	3.452E-05	6.904E-05	1.04E-04	1.38E-04
	3	33689	(ug/hour)	269.51	1.5823	3.1645	4.7468	6.3291	4.973E-05	9.946E-05	1.492E-04	1.989E-04	2.486E-05	4.973E-05	7.46E-05	9.95E-05
	7	34805	(ug/hour)	278.44	1.6347	3.2693	4.9040	6.5387	5.138E-05	1.028E-04	1.541E-04	2.055E-04	2.569E-05	5.138E-05	7.71E-05	1.03E-04
TOTAL INSIDE	0	39032	(ug/hour)	312.25	1.8332	3.6664	5.4996	7.3328	5.761E-05	1.152E-04	1.728E-04	2.305E-04	2.881E-05	5.761E-05	8.64E-05	1.15E-04
	1	41487	(ug/hour)	331.90	1.9485	3.8970	5.8455	7.7941	6.124E-05	1.225E-04	1.837E-04	2.450E-04	3.062E-05	6.124E-05	9.19E-05	1.22E-04
	3	29362	(ug/hour)	234.90	1.3790	2.7581	4.1371	5.5161	4.334E-05	8.668E-05	1.300E-04	1.734E-04	2.167E-05	4.334E-05	6.50E-05	8.67E-05
	7	31604	(ug/hour)	252.83	1.4844	2.9687	4.4531	5.9374	4.665E-05	9.330E-05	1.400E-04	1.866E-04	2.333E-05	4.665E-05	7.00E-05	9.33E-05
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	2.1988	4.3977	6.5965	8.7954	6.911E-05	1.382E-04	2.073E-04	2.764E-04	3.455E-05	6.911E-05	1.04E-04	1.38E-04
	1	126.48	(ug/lb picked)	310.64	1.8237	3.6474	5.4711	7.2948	5.732E-05	1.146E-04	1.719E-04	2.293E-04	2.866E-05	5.732E-05	8.60E-05	1.15E-04
	3	118.53	(ug/lb picked)	291.12	1.7091	3.4182	5.1274	6.8365	5.372E-05	1.074E-04	1.611E-04	2.149E-04	2.686E-05	5.372E-05	8.06E-05	1.07E-04
	7	120.82	(ug/lb picked)	296.73	1.7421	3.4841	5.2262	6.9683	5.475E-05	1.095E-04	1.643E-04	2.190E-04	2.738E-05	5.475E-05	8.21E-05	1.10E-04
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	2.0022	4.0044	6.0066	8.0088	6.293E-05	1.259E-04	1.888E-04	2.517E-04	3.146E-05	6.293E-05	9.44E-05	1.26E-04
	1	111.58	(ug/lb picked)	274.03	1.6088	3.2176	4.8264	6.4352	5.056E-05	1.011E-04	1.517E-04	2.022E-04	2.528E-05	5.056E-05	7.58E-05	1.01E-04
	3	102.99	(ug/lb picked)	252.95	1.4850	2.9701	4.4551	5.9401	4.667E-05	9.334E-05	1.400E-04	1.867E-04	2.334E-05	4.667E-05	7.00E-05	9.33E-05
	7	109.53	(ug/lb picked)	269.01	1.5793	3.1586	4.7379	6.3172	4.963E-05	9.927E-05	1.489E-04	1.985E-04	2.482E-05	4.963E-05	7.45E-05	9.93E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK 2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	4.0121	8.0243	12.0364	16.0485	1.281E-04	2.522E-04	3.783E-04	5.044E-04	6.305E-05	1.261E-04	1.89E-04	2.52E-04
	1	46770	(ug/hour)	374.16	4.3933	8.7865	13.1798	17.5730	1.381E-04	2.761E-04	4.142E-04	5.523E-04	6.904E-05	1.381E-04	2.07E-04	2.76E-04
	3	33689	(ug/hour)	269.51	3.1645	6.3291	9.4936	12.6582	9.946E-05	1.989E-04	2.984E-04	3.978E-04	4.973E-05	9.946E-05	1.49E-04	1.99E-04
	7	34805	(ug/hour)	278.44	3.2693	6.5387	9.8080	13.0774	1.028E-04	2.055E-04	3.083E-04	4.110E-04	5.138E-05	1.028E-04	1.54E-04	2.06E-04
TOTAL INSIDE	0	39032	(ug/hour)	312.25	3.6664	7.3328	10.9991	14.6655	1.152E-04	2.305E-04	3.457E-04	4.609E-04	5.761E-05	1.152E-04	1.73E-04	2.30E-04
	1	41487	(ug/hour)	331.90	3.8970	7.7941	11.6911	15.5881	1.225E-04	2.450E-04	3.674E-04	4.899E-04	6.124E-05	1.225E-04	1.84E-04	2.45E-04
	3	29362	(ug/hour)	234.90	2.7581	5.5161	8.2742	11.0323	8.668E-05	1.734E-04	2.600E-04	3.467E-04	4.334E-05	8.668E-05	1.30E-04	1.73E-04
	7	31604	(ug/hour)	252.83	2.9687	5.9374	8.9061	11.8748	9.330E-05	1.866E-04	2.799E-04	3.732E-04	4.665E-05	9.330E-05	1.40E-04	1.87E-04
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	4.3977	8.7954	13.1931	17.5908	1.382E-04	2.764E-04	4.146E-04	5.529E-04	6.911E-05	1.382E-04	2.07E-04	2.76E-04
	1	126.48	(ug/lb picked)	310.64	3.6474	7.2948	10.9422	14.5896	1.146E-04	2.293E-04	3.439E-04	4.585E-04	5.732E-05	1.146E-04	1.72E-04	2.29E-04
	3	118.53	(ug/lb picked)	291.12	3.4182	6.8365	10.2547	13.6730	1.074E-04	2.149E-04	3.223E-04	4.297E-04	5.372E-05	1.074E-04	1.61E-04	2.15E-04
	7	120.82	(ug/lb picked)	296.73	3.4841	6.9683	10.4524	13.9366	1.095E-04	2.190E-04	3.285E-04	4.380E-04	5.475E-05	1.095E-04	1.64E-04	2.19E-04
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	4.0044	8.0088	12.0132	16.0177	1.259E-04	2.517E-04	3.776E-04	5.034E-04	6.293E-05	1.259E-04	1.89E-04	2.52E-04
	1	111.58	(ug/lb picked)	274.03	3.2176	6.4352	9.6528	12.8704	1.011E-04	2.022E-04	3.034E-04	4.045E-04	5.056E-05	1.011E-04	1.52E-04	2.02E-04
	3	102.99	(ug/lb picked)	252.95	2.9701	5.9401	8.9102	11.8803	9.334E-05	1.867E-04	2.800E-04	3.734E-04	4.667E-05	9.334E-05	1.40E-04	1.87E-04
	7	109.53	(ug/lb picked)	269.01	3.1586	6.3172	9.4757	12.6343	9.927E-05	1.985E-04	2.978E-04	3.971E-04	4.963E-05	9.927E-05	1.49E-04	1.99E-04

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	6.0162	12.0364	18.0546	24.0728	1.691E-04	3.783E-04	5.674E-04	7.566E-04	9.457E-05	1.891E-04	2.84E-04	3.78E-04
	1	46770	(ug/hour)	374.16	6.5899	13.1798	19.7696	26.3595	2.071E-04	4.142E-04	6.213E-04	8.284E-04	1.036E-04	2.071E-04	3.11E-04	4.14E-04
	3	33689	(ug/hour)	269.51	4.7468	9.4936	14.2404	18.9873	1.492E-04	2.984E-04	4.476E-04	5.967E-04	7.459E-05	1.492E-04	2.24E-04	2.98E-04
	7	34805	(ug/hour)	278.44	4.9040	9.8080	14.7121	19.6161	1.541E-04	3.083E-04	4.624E-04	6.165E-04	7.706E-05	1.541E-04	2.31E-04	3.08E-04
TOTAL INSIDE	0	39032	(ug/hour)	312.25	5.4996	10.9991	16.4987	21.9983	1.728E-04	3.457E-04	5.185E-04	6.914E-04	8.642E-05	1.728E-04	2.59E-04	3.46E-04
	1	41487	(ug/hour)	331.90	5.8455	11.6911	17.5366	23.3822	1.837E-04	3.674E-04	5.512E-04	7.349E-04	9.186E-05	1.837E-04	2.76E-04	3.67E-04
	3	29362	(ug/hour)	234.90	4.1371	8.2742	12.4113	16.5484	1.300E-04	2.600E-04	3.901E-04	5.201E-04	6.501E-05	1.300E-04	1.95E-04	2.60E-04
	7	31604	(ug/hour)	252.83	4.4531	8.9061	13.3592	17.8122	1.400E-04	2.799E-04	4.199E-04	5.598E-04	6.998E-05	1.400E-04	2.10E-04	2.80E-04
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	6.5965	13.1931	19.7896	26.3862	2.073E-04	4.146E-04	6.220E-04	8.293E-04	1.037E-04	2.073E-04	3.11E-04	4.15E-04
	1	126.48	(ug/lb picked)	310.64	5.4711	10.9422	16.4133	21.8844	1.719E-04	3.439E-04	5.158E-04	6.878E-04	8.597E-05	1.719E-04	2.58E-04	3.44E-04
	3	118.53	(ug/lb picked)	291.12	5.1274	10.2547	15.3821	20.5094	1.611E-04	3.223E-04	4.834E-04	6.446E-04	8.057E-05	1.611E-04	2.42E-04	3.22E-04
	7	120.82	(ug/lb picked)	296.73	5.2262	10.4524	15.6786	20.9049	1.643E-04	3.285E-04	4.926E-04	6.570E-04	8.213E-05	1.643E-04	2.46E-04	3.29E-04
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	6.0086	12.0132	18.0199	24.0265	1.888E-04	3.776E-04	5.663E-04	7.551E-04	9.439E-05	1.888E-04	2.83E-04	3.78E-04
	1	111.58	(ug/lb picked)	274.03	4.8264	9.6528	14.4792	19.3056	1.517E-04	3.034E-04	4.551E-04	6.067E-04	7.584E-05	1.517E-04	2.28E-04	3.03E-04
	3	102.99	(ug/lb picked)	252.95	4.4551	8.9102	13.3653	17.8204	1.400E-04	2.800E-04	4.201E-04	5.601E-04	7.001E-05	1.400E-04	2.10E-04	2.80E-04
	7	109.53	(ug/lb picked)	269.01	4.7379	9.4757	14.2136	18.9515	1.489E-04	2.978E-04	4.467E-04	5.956E-04	7.445E-05	1.489E-04	2.23E-04	2.98E-04

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK 2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	2.0061	4.0121	6.0182	8.0243	1.57E-05	3.15E-05	4.72E-05	6.30E-05	3.15E-06	6.30E-06	9.46E-06	1.26E-05
	1	46770	(ug/hour)	374.16	2.1966	4.3933	6.5899	8.7865	1.72E-05	3.45E-05	5.17E-05	6.90E-05	3.45E-06	6.90E-06	1.04E-05	1.38E-05
	3	33669	(ug/hour)	269.51	1.5823	3.1645	4.7468	6.3291	1.24E-05	2.48E-05	3.73E-05	4.97E-05	2.48E-06	4.97E-06	7.46E-06	9.95E-06
	7	34805	(ug/hour)	278.44	1.6347	3.2693	4.9040	6.5387	1.28E-05	2.56E-05	3.85E-05	5.13E-05	2.56E-06	5.13E-06	7.71E-06	1.03E-05
TOTAL INSIDE	0	39032	(ug/hour)	312.25	1.8332	3.6664	5.4996	7.3328	1.44E-05	2.88E-05	4.32E-05	5.76E-05	2.88E-06	5.76E-06	8.64E-06	1.15E-05
	1	41487	(ug/hour)	331.90	1.9485	3.8970	5.8455	7.7941	1.53E-05	3.06E-05	4.59E-05	6.12E-05	3.06E-06	6.12E-06	9.19E-06	1.22E-05
	3	29362	(ug/hour)	234.90	1.3790	2.7581	4.1371	5.5161	1.08E-05	2.17E-05	3.25E-05	4.33E-05	2.17E-06	4.33E-06	6.50E-06	8.67E-06
	7	31604	(ug/hour)	252.83	1.4844	2.9687	4.4531	5.9374	1.16E-05	2.33E-05	3.49E-05	4.66E-05	2.33E-06	4.66E-06	7.00E-06	9.33E-06
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	2.1986	4.3977	6.5965	8.7954	1.72E-05	3.45E-05	5.18E-05	6.91E-05	3.45E-06	6.91E-06	1.04E-05	1.38E-05
	1	126.48	(ug/lb picked)	310.84	1.8237	3.6474	5.4711	7.2948	1.43E-05	2.86E-05	4.29E-05	5.73E-05	2.86E-06	5.73E-06	8.60E-06	1.15E-05
	3	118.53	(ug/lb picked)	291.12	1.7091	3.4182	5.1274	6.8365	1.34E-05	2.68E-05	4.02E-05	5.37E-05	2.68E-06	5.37E-06	8.06E-06	1.07E-05
	7	120.82	(ug/lb picked)	296.73	1.7421	3.4841	5.2262	6.9683	1.36E-05	2.73E-05	4.10E-05	5.47E-05	2.73E-06	5.47E-06	8.21E-06	1.10E-05
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	2.0022	4.0044	6.0066	8.0088	1.57E-05	3.14E-05	4.71E-05	6.29E-05	3.14E-06	6.29E-06	9.44E-06	1.26E-05
	1	111.58	(ug/lb picked)	274.03	1.6088	3.2176	4.8264	6.4352	1.26E-05	2.52E-05	3.79E-05	5.05E-05	2.52E-06	5.05E-06	7.58E-06	1.01E-05
	3	102.99	(ug/lb picked)	252.95	1.4850	2.9701	4.4551	5.9401	1.16E-05	2.33E-05	3.50E-05	4.66E-05	2.33E-06	4.66E-06	7.00E-06	9.33E-06
	7	109.53	(ug/lb picked)	269.01	1.5793	3.1586	4.7379	6.3172	1.24E-05	2.48E-05	3.72E-05	4.96E-05	2.48E-06	4.96E-06	7.45E-06	9.93E-06

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK 2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	4.0121	8.0243	12.0364	16.0485	3.152E-05	6.305E-05	9.457E-05	1.261E-04	6.305E-06	1.261E-05	1.89E-05	2.52E-05
	1	46770	(ug/hour)	374.16	4.3933	8.7865	13.1798	17.5730	3.452E-05	6.904E-05	1.036E-04	1.381E-04	6.904E-06	1.381E-05	2.07E-05	2.76E-05
	3	33689	(ug/hour)	269.51	3.1645	6.3291	9.4936	12.6582	2.486E-05	4.973E-05	7.459E-05	9.946E-05	4.973E-06	9.946E-06	1.49E-05	1.99E-05
	7	34805	(ug/hour)	278.44	3.2693	6.5387	9.8080	13.0774	2.569E-05	5.138E-05	7.706E-05	1.026E-04	5.138E-06	1.026E-05	1.54E-05	2.06E-05
TOTAL INSIDE	0	39032	(ug/hour)	312.25	3.6664	7.3328	10.9991	14.6655	2.881E-05	5.761E-05	8.642E-05	1.152E-04	5.761E-06	1.152E-05	1.73E-05	2.30E-05
	1	41487	(ug/hour)	331.90	3.8970	7.7941	11.6911	15.5881	3.062E-05	6.124E-05	9.186E-05	1.225E-04	6.124E-06	1.225E-05	1.84E-05	2.45E-05
	3	29382	(ug/hour)	234.90	2.7581	5.5161	8.2742	11.0323	2.167E-05	4.334E-05	6.501E-05	8.668E-05	4.334E-06	8.668E-06	1.30E-05	1.73E-05
	7	31604	(ug/hour)	252.83	2.9687	5.9374	8.9061	11.8748	2.333E-05	4.665E-05	6.998E-05	9.330E-05	4.665E-06	9.330E-06	1.40E-05	1.87E-05
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	4.3977	8.7954	13.1931	17.5908	3.455E-05	6.911E-05	1.037E-04	1.382E-04	6.911E-06	1.382E-05	2.07E-05	2.76E-05
	1	126.48	(ug/lb picked)	310.64	3.6474	7.2948	10.9422	14.5896	2.866E-05	5.732E-05	8.597E-05	1.146E-04	5.732E-06	1.146E-05	1.72E-05	2.29E-05
	3	116.53	(ug/lb picked)	291.12	3.4182	6.8365	10.2547	13.6730	2.686E-05	5.372E-05	8.057E-05	1.074E-04	5.372E-06	1.074E-05	1.61E-05	2.15E-05
	7	120.82	(ug/lb picked)	296.73	3.4841	6.9683	10.4524	13.9366	2.738E-05	5.475E-05	8.213E-05	1.095E-04	5.475E-06	1.095E-05	1.64E-05	2.19E-05
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	4.0044	8.0088	12.0132	16.0177	3.146E-05	6.293E-05	9.439E-05	1.259E-04	6.293E-06	1.259E-05	1.89E-05	2.52E-05
	1	111.58	(ug/lb picked)	274.03	3.2176	6.4352	9.6528	12.8704	2.528E-05	5.056E-05	7.584E-05	1.011E-04	5.056E-06	1.011E-05	1.52E-05	2.02E-05
	3	102.99	(ug/lb picked)	252.95	2.9701	5.9401	8.9102	11.8803	2.334E-05	4.667E-05	7.001E-05	9.334E-05	4.667E-06	9.334E-06	1.40E-05	1.87E-05
	7	109.53	(ug/lb picked)	269.01	3.1586	6.3172	9.4757	12.6343	2.482E-05	4.963E-05	7.445E-05	9.927E-05	4.963E-06	9.927E-06	1.49E-05	1.99E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/9/93 JLD

REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE AND CORRESPONDING RISK CALCULATIONS USING ACTUAL FIELD EXPOSURE DATA

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
EXPOSURE VALUES NORMALIZED BY HOURS WORKED																
TOTAL OUTSIDE	0	42712	(ug/hour)	341.70	6.0182	12.0364	18.0546	24.0728	4.729E-05	9.457E-05	1.419E-04	1.891E-04	9.457E-06	1.891E-05	2.84E-05	3.78E-05
	1	46770	(ug/hour)	374.16	6.5899	13.1798	19.7696	26.3595	5.178E-05	1.036E-04	1.553E-04	2.071E-04	1.036E-05	2.071E-05	3.11E-05	4.14E-05
	3	33689	(ug/hour)	269.51	4.7468	9.4936	14.2404	18.9873	3.730E-05	7.459E-05	1.119E-04	1.492E-04	7.459E-06	1.492E-05	2.24E-05	2.98E-05
	7	34805	(ug/hour)	278.44	4.9040	9.8080	14.7121	19.6161	3.853E-05	7.706E-05	1.156E-04	1.541E-04	7.706E-06	1.541E-05	2.31E-05	3.08E-05
TOTAL INSIDE	0	39032	(ug/hour)	312.25	5.4996	10.9991	16.4987	21.9983	4.321E-05	8.642E-05	1.296E-04	1.728E-04	8.642E-06	1.728E-05	2.59E-05	3.46E-05
	1	41487	(ug/hour)	331.90	5.8455	11.6911	17.5366	23.3822	4.593E-05	9.186E-05	1.378E-04	1.837E-04	9.186E-06	1.837E-05	2.76E-05	3.67E-05
	3	29362	(ug/hour)	234.90	4.1371	8.2742	12.4113	16.5484	3.251E-05	6.501E-05	9.752E-05	1.300E-04	6.501E-06	1.300E-05	1.95E-05	2.60E-05
	7	31604	(ug/hour)	252.83	4.4531	8.9061	13.3592	17.8122	3.499E-05	6.998E-05	1.050E-04	1.400E-04	6.998E-06	1.400E-05	2.10E-05	2.80E-05
EXPOSURE VALUES NORMALIZED BY POUNDS PICKED																
TOTAL OUTSIDE	0	152.50	(ug/lb picked)	374.54	6.5965	13.1931	19.7896	26.3862	5.183E-05	1.037E-04	1.555E-04	2.073E-04	1.037E-05	2.073E-05	3.11E-05	4.15E-05
	1	126.48	(ug/lb picked)	310.64	5.4711	10.9422	16.4133	21.8844	4.299E-05	8.597E-05	1.290E-04	1.719E-04	8.597E-06	1.719E-05	2.58E-05	3.44E-05
	3	118.53	(ug/lb picked)	291.12	5.1274	10.2547	15.3821	20.5094	4.029E-05	8.057E-05	1.209E-04	1.611E-04	8.057E-06	1.611E-05	2.42E-05	3.22E-05
	7	120.82	(ug/lb picked)	296.73	5.2262	10.4524	15.6786	20.9049	4.106E-05	8.213E-05	1.232E-04	1.643E-04	8.213E-06	1.643E-05	2.46E-05	3.29E-05
TOTAL INSIDE	0	138.86	(ug/lb picked)	341.04	6.0066	12.0132	18.0199	24.0265	4.719E-05	9.439E-05	1.416E-04	1.888E-04	9.439E-06	1.888E-05	2.83E-05	3.78E-05
	1	111.58	(ug/lb picked)	274.03	4.8264	9.6528	14.4792	19.3058	3.792E-05	7.584E-05	1.138E-04	1.517E-04	7.584E-06	1.517E-05	2.28E-05	3.03E-05
	3	102.99	(ug/lb picked)	252.95	4.4551	8.9102	13.3653	17.8204	3.500E-05	7.001E-05	1.050E-04	1.400E-04	7.001E-06	1.400E-05	2.10E-05	2.80E-05
	7	109.53	(ug/lb picked)	269.01	4.7379	9.4757	14.2136	18.9515	3.723E-05	7.445E-05	1.117E-04	1.489E-04	7.445E-06	1.489E-05	2.23E-05	2.98E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* "TOTAL OUTSIDE" REFERS TO VALUES BASED ON THE OUTSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* "TOTAL INSIDE" REFERS TO VALUES BASED ON THE INSIDE PATCH, NONPROTECTED GLOVE AND INHALATION DATA.
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

ATTACHMENT E

LADEs/RISKS
FOR PREDICTED EXPOSURES

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	6
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	36207.6	(ug/hour)	305.66	1.7945	3.5890	5.3835	7.1779	2.620E-04	5.240E-04	8.460E-04	1.126E-03	1.410E-04	2.620E-04	4.23E-04	5.64E-04
	1	37176.4	(ug/hour)	297.41	1.7461	3.4921	5.2382	6.9842	2.744E-04	5.488E-04	8.231E-04	1.098E-03	1.372E-04	2.744E-04	4.12E-04	5.49E-04
	2	36145.1	(ug/hour)	289.16	1.6976	3.3952	5.0929	6.7905	2.666E-04	5.335E-04	8.003E-04	1.067E-03	1.334E-04	2.668E-04	4.00E-04	5.34E-04
	3	35113.9	(ug/hour)	280.91	1.6492	3.2984	4.9476	6.5967	2.592E-04	5.183E-04	7.775E-04	1.037E-03	1.296E-04	2.592E-04	3.89E-04	5.18E-04
	4	34082.6	(ug/hour)	272.66	1.6008	3.2015	4.8023	6.4030	2.515E-04	5.031E-04	7.546E-04	1.006E-03	1.258E-04	2.515E-04	3.77E-04	5.03E-04
	5	33051.4	(ug/hour)	264.41	1.5523	3.1046	4.6570	6.2093	2.439E-04	4.879E-04	7.318E-04	9.757E-04	1.220E-04	2.439E-04	3.66E-04	4.88E-04
	6	32020.2	(ug/hour)	256.16	1.5039	3.0078	4.5116	6.0155	2.363E-04	4.726E-04	7.090E-04	9.453E-04	1.182E-04	2.363E-04	3.54E-04	4.73E-04
	7	30988.9	(ug/hour)	247.91	1.4554	2.9109	4.3663	5.8218	2.287E-04	4.574E-04	6.861E-04	9.149E-04	1.144E-04	2.287E-04	3.43E-04	4.57E-04
	8	29957.7	(ug/hour)	239.66	1.4070	2.8140	4.2210	5.6281	2.211E-04	4.422E-04	6.633E-04	8.844E-04	1.106E-04	2.211E-04	3.32E-04	4.42E-04
	9	28926.5	(ug/hour)	231.41	1.3586	2.7172	4.0757	5.4343	2.135E-04	4.270E-04	6.406E-04	8.540E-04	1.067E-04	2.135E-04	3.20E-04	4.27E-04
	10	27895.2	(ug/hour)	223.16	1.3101	2.6203	3.9304	5.2406	2.059E-04	4.118E-04	6.176E-04	8.235E-04	1.029E-04	2.059E-04	3.09E-04	4.12E-04
	11	26864.0	(ug/hour)	214.91	1.2617	2.5234	3.7851	5.0469	1.983E-04	3.965E-04	5.948E-04	7.931E-04	9.913E-05	1.983E-04	2.97E-04	3.97E-04
	12	25832.7	(ug/hour)	206.66	1.2133	2.4266	3.6398	4.8531	1.907E-04	3.813E-04	5.720E-04	7.626E-04	9.533E-05	1.907E-04	2.86E-04	3.81E-04
	13	24801.5	(ug/hour)	198.41	1.1648	2.3297	3.4945	4.6594	1.830E-04	3.661E-04	5.491E-04	7.322E-04	9.152E-05	1.830E-04	2.75E-04	3.66E-04
	14	23770.3	(ug/hour)	190.16	1.1164	2.2328	3.3492	4.4656	1.754E-04	3.509E-04	5.263E-04	7.017E-04	8.772E-05	1.754E-04	2.63E-04	3.51E-04
	15	22739.0	(ug/hour)	181.91	1.0680	2.1360	3.2039	4.2719	1.678E-04	3.357E-04	5.035E-04	6.713E-04	8.391E-05	1.678E-04	2.52E-04	3.36E-04
	16	21707.8	(ug/hour)	173.66	1.0195	2.0391	3.0586	4.0782	1.602E-04	3.204E-04	4.806E-04	6.408E-04	8.011E-05	1.602E-04	2.40E-04	3.20E-04
	17	20676.6	(ug/hour)	165.41	0.9711	1.9422	2.9133	3.8844	1.526E-04	3.052E-04	4.578E-04	6.104E-04	7.630E-05	1.526E-04	2.29E-04	3.05E-04
	18	19645.3	(ug/hour)	157.16	0.9227	1.8454	2.7680	3.6907	1.450E-04	2.900E-04	4.350E-04	5.800E-04	7.250E-05	1.450E-04	2.17E-04	2.90E-04
	19	18614.1	(ug/hour)	148.91	0.8742	1.7485	2.6227	3.4970	1.374E-04	2.748E-04	4.121E-04	5.495E-04	6.869E-05	1.374E-04	2.06E-04	2.75E-04
	20	17582.8	(ug/hour)	140.66	0.8258	1.6516	2.4774	3.3032	1.298E-04	2.595E-04	3.893E-04	5.191E-04	6.486E-05	1.298E-04	1.95E-04	2.60E-04
	21	16551.6	(ug/hour)	132.41	0.7774	1.5547	2.3321	3.1095	1.222E-04	2.443E-04	3.665E-04	4.886E-04	6.108E-05	1.222E-04	1.83E-04	2.44E-04
	22	15520.4	(ug/hour)	124.16	0.7289	1.4578	2.1868	2.9158	1.145E-04	2.291E-04	3.436E-04	4.582E-04	5.727E-05	1.145E-04	1.72E-04	2.29E-04
	23	14489.1	(ug/hour)	115.91	0.6805	1.3610	2.0415	2.7220	1.069E-04	2.139E-04	3.208E-04	4.277E-04	5.347E-05	1.069E-04	1.60E-04	2.14E-04
	24	13457.9	(ug/hour)	107.66	0.6321	1.2641	1.8962	2.5283	9.933E-05	1.987E-04	2.980E-04	3.973E-04	4.966E-05	9.933E-05	1.49E-04	1.99E-04
	25	12426.6	(ug/hour)	99.41	0.5836	1.1673	1.7509	2.3346	9.171E-05	1.834E-04	2.751E-04	3.668E-04	4.586E-05	9.171E-05	1.38E-04	1.83E-04
	26	11395.4	(ug/hour)	91.16	0.5352	1.0704	1.6056	2.1408	8.410E-05	1.682E-04	2.523E-04	3.364E-04	4.205E-05	8.410E-05	1.26E-04	1.68E-04
	27	10364.2	(ug/hour)	82.91	0.4868	0.9736	1.4603	1.9471	7.648E-05	1.530E-04	2.295E-04	3.060E-04	3.825E-05	7.648E-05	1.15E-04	1.53E-04
	28	9332.9	(ug/hour)	74.66	0.4383	0.8767	1.3150	1.7533	6.888E-05	1.378E-04	2.066E-04	2.755E-04	3.444E-05	6.888E-05	1.03E-04	1.38E-04
	29	8301.7	(ug/hour)	66.41	0.3899	0.7798	1.1697	1.5596	6.127E-05	1.225E-04	1.838E-04	2.451E-04	3.064E-05	6.127E-05	9.19E-05	1.23E-04
	30	7270.5	(ug/hour)	58.16	0.3415	0.6829	1.0244	1.3659	5.366E-05	1.073E-04	1.610E-04	2.146E-04	2.683E-05	5.366E-05	8.05E-05	1.07E-04
	31	6239.2	(ug/hour)	49.91	0.2930	0.5861	0.8791	1.1721	4.605E-05	9.210E-05	1.381E-04	1.842E-04	2.302E-05	4.605E-05	6.91E-05	9.21E-05
	32	5208.0	(ug/hour)	41.66	0.2446	0.4892	0.7338	0.9784	3.844E-05	7.687E-05	1.153E-04	1.537E-04	1.922E-05	3.844E-05	5.77E-05	7.69E-05
	33	4176.7	(ug/hour)	33.41	0.1962	0.3923	0.5885	0.7847	3.083E-05	6.165E-05	9.248E-05	1.233E-04	1.541E-05	3.083E-05	4.62E-05	6.17E-05
	34	3145.5	(ug/hour)	25.16	0.1477	0.2955	0.4432	0.5909	2.322E-05	4.643E-05	6.965E-05	9.286E-05	1.161E-05	2.322E-05	3.48E-05	4.64E-05
	35	2114.3	(ug/hour)	16.91	0.0993	0.1988	0.2979	0.3972	1.560E-05	3.121E-05	4.681E-05	6.242E-05	7.802E-06	1.560E-05	2.34E-05	3.12E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day 1] * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	3.5890	7.1779	10.7669	14.3559	5.640E-04	1.128E-03	1.692E-03	2.256E-03	2.820E-04	5.640E-04	8.46E-04	1.13E-03
	1	37176.4	(ug/hour)	297.41	3.4921	6.9842	10.4763	13.9684	5.488E-04	1.098E-03	1.646E-03	2.195E-03	2.744E-04	5.488E-04	8.23E-04	1.10E-03
	2	36145.1	(ug/hour)	289.16	3.3952	6.7905	10.1857	13.5809	5.335E-04	1.067E-03	1.601E-03	2.134E-03	2.668E-04	5.335E-04	8.00E-04	1.07E-03
	3	35113.9	(ug/hour)	280.91	3.2984	6.5967	9.8951	13.1935	5.183E-04	1.037E-03	1.555E-03	2.073E-03	2.592E-04	5.183E-04	7.77E-04	1.04E-03
	4	34082.6	(ug/hour)	272.66	3.2015	6.4030	9.6045	12.8060	5.031E-04	1.006E-03	1.509E-03	2.012E-03	2.515E-04	5.031E-04	7.55E-04	1.01E-03
	5	33051.4	(ug/hour)	264.41	3.1046	6.2093	9.3139	12.4185	4.879E-04	9.757E-04	1.464E-03	1.951E-03	2.439E-04	4.879E-04	7.32E-04	9.76E-04
	6	32020.2	(ug/hour)	256.16	3.0078	6.0155	9.0233	12.0311	4.728E-04	9.453E-04	1.418E-03	1.891E-03	2.363E-04	4.728E-04	7.09E-04	9.45E-04
	7	30988.9	(ug/hour)	247.91	2.9109	5.8218	8.7327	11.6436	4.574E-04	9.148E-04	1.372E-03	1.830E-03	2.287E-04	4.574E-04	6.86E-04	9.15E-04
	8	29957.7	(ug/hour)	239.66	2.8140	5.6281	8.4421	11.2561	4.422E-04	8.844E-04	1.327E-03	1.769E-03	2.211E-04	4.422E-04	6.63E-04	8.84E-04
	9	28926.5	(ug/hour)	231.41	2.7172	5.4343	8.1515	10.8686	4.270E-04	8.540E-04	1.281E-03	1.708E-03	2.135E-04	4.270E-04	6.40E-04	8.54E-04
	10	27895.2	(ug/hour)	223.16	2.6203	5.2406	7.8609	10.4812	4.118E-04	8.235E-04	1.235E-03	1.647E-03	2.059E-04	4.118E-04	6.18E-04	8.24E-04
	11	26864.0	(ug/hour)	214.91	2.5234	5.0469	7.5703	10.0937	3.965E-04	7.931E-04	1.190E-03	1.586E-03	1.983E-04	3.965E-04	5.95E-04	7.93E-04
	12	25832.7	(ug/hour)	206.66	2.4266	4.8531	7.2797	9.7062	3.813E-04	7.626E-04	1.144E-03	1.525E-03	1.907E-04	3.813E-04	5.72E-04	7.63E-04
	13	24801.5	(ug/hour)	198.41	2.3297	4.6594	6.9891	9.3188	3.661E-04	7.322E-04	1.098E-03	1.464E-03	1.830E-04	3.661E-04	5.49E-04	7.32E-04
	14	23770.3	(ug/hour)	190.16	2.2328	4.4656	6.6985	8.9313	3.509E-04	7.017E-04	1.053E-03	1.403E-03	1.754E-04	3.509E-04	5.26E-04	7.02E-04
	15	22739.0	(ug/hour)	181.91	2.1360	4.2719	6.4079	8.5438	3.357E-04	6.713E-04	1.007E-03	1.343E-03	1.678E-04	3.357E-04	5.03E-04	6.71E-04
	16	21707.8	(ug/hour)	173.66	2.0391	4.0782	6.1173	8.1564	3.204E-04	6.409E-04	9.613E-04	1.282E-03	1.602E-04	3.204E-04	4.81E-04	6.41E-04
	17	20676.6	(ug/hour)	165.41	1.9422	3.8844	5.8267	7.7689	3.052E-04	6.104E-04	9.156E-04	1.221E-03	1.526E-04	3.052E-04	4.58E-04	6.10E-04
	18	19645.3	(ug/hour)	157.16	1.8454	3.6907	5.5361	7.3814	2.900E-04	5.800E-04	8.700E-04	1.160E-03	1.450E-04	2.900E-04	4.35E-04	5.80E-04
	19	18614.1	(ug/hour)	148.91	1.7485	3.4970	5.2455	6.9939	2.748E-04	5.495E-04	8.243E-04	1.099E-03	1.374E-04	2.748E-04	4.12E-04	5.50E-04
	20	17582.8	(ug/hour)	140.66	1.6516	3.3032	4.9549	6.6065	2.595E-04	5.191E-04	7.786E-04	1.038E-03	1.298E-04	2.595E-04	3.89E-04	5.19E-04
	21	16551.6	(ug/hour)	132.41	1.5547	3.1095	4.6642	6.2190	2.443E-04	4.886E-04	7.330E-04	9.773E-04	1.222E-04	2.443E-04	3.66E-04	4.89E-04
	22	15520.4	(ug/hour)	124.16	1.4579	2.9158	4.3736	5.8315	2.291E-04	4.582E-04	6.873E-04	9.164E-04	1.145E-04	2.291E-04	3.44E-04	4.58E-04
	23	14489.1	(ug/hour)	115.91	1.3610	2.7220	4.0830	5.4441	2.139E-04	4.277E-04	6.416E-04	8.555E-04	1.069E-04	2.139E-04	3.21E-04	4.28E-04
	24	13457.9	(ug/hour)	107.66	1.2641	2.5283	3.7924	5.0566	1.987E-04	3.973E-04	5.960E-04	7.946E-04	9.933E-05	1.987E-04	2.98E-04	3.97E-04
	25	12426.6	(ug/hour)	99.41	1.1673	2.3346	3.5018	4.6691	1.834E-04	3.669E-04	5.503E-04	7.337E-04	9.171E-05	1.834E-04	2.75E-04	3.67E-04
	26	11395.4	(ug/hour)	91.16	1.0704	2.1408	3.2112	4.2816	1.682E-04	3.364E-04	5.046E-04	6.728E-04	8.410E-05	1.682E-04	2.52E-04	3.36E-04
	27	10364.2	(ug/hour)	82.91	0.9735	1.9471	2.9206	3.8942	1.530E-04	3.060E-04	4.590E-04	6.119E-04	7.649E-05	1.530E-04	2.29E-04	3.06E-04
	28	9332.9	(ug/hour)	74.66	0.8767	1.7533	2.6300	3.5067	1.378E-04	2.755E-04	4.133E-04	5.511E-04	6.889E-05	1.378E-04	2.07E-04	2.76E-04
	29	8301.7	(ug/hour)	66.41	0.7798	1.5596	2.3394	3.1192	1.225E-04	2.451E-04	3.676E-04	4.902E-04	6.127E-05	1.225E-04	1.84E-04	2.45E-04
	30	7270.5	(ug/hour)	58.16	0.6829	1.3659	2.0488	2.7318	1.073E-04	2.146E-04	3.220E-04	4.293E-04	5.366E-05	1.073E-04	1.61E-04	2.15E-04
	31	6239.2	(ug/hour)	49.91	0.5861	1.1721	1.7582	2.3443	9.210E-05	1.842E-04	2.763E-04	3.684E-04	4.605E-05	9.210E-05	1.38E-04	1.84E-04
	32	5208.0	(ug/hour)	41.66	0.4892	0.9784	1.4676	1.9568	7.687E-05	1.537E-04	2.306E-04	3.075E-04	3.844E-05	7.687E-05	1.15E-04	1.54E-04
	33	4176.7	(ug/hour)	33.41	0.3923	0.7847	1.1770	1.5693	6.165E-05	1.233E-04	1.850E-04	2.466E-04	3.083E-05	6.165E-05	9.25E-05	1.23E-04
	34	3145.5	(ug/hour)	25.16	0.2955	0.5909	0.8864	1.1819	4.643E-05	9.286E-05	1.393E-04	1.857E-04	2.322E-05	4.643E-05	6.96E-05	9.29E-05
	35	2114.3	(ug/hour)	16.91	0.1986	0.3972	0.5958	0.7944	3.121E-05	6.242E-05	9.363E-05	1.248E-04	1.560E-05	3.121E-05	4.68E-05	6.24E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	5.3835	10.7669	16.1504	21.5338	8.460E-04	1.692E-03	2.538E-03	3.384E-03	4.230E-04	8.460E-04	1.27E-03	1.69E-03
	1	37176.4	(ug/hour)	297.41	5.2362	10.4763	15.7145	20.9526	8.231E-04	1.646E-03	2.469E-03	3.293E-03	4.116E-04	8.231E-04	1.23E-03	1.65E-03
	2	36145.1	(ug/hour)	289.16	5.0929	10.1857	15.2786	20.3714	8.003E-04	1.601E-03	2.401E-03	3.201E-03	4.002E-04	8.003E-04	1.20E-03	1.60E-03
	3	35113.9	(ug/hour)	280.91	4.9478	9.8951	14.8427	19.7902	7.775E-04	1.555E-03	2.332E-03	3.110E-03	3.887E-04	7.775E-04	1.17E-03	1.55E-03
	4	34082.6	(ug/hour)	272.66	4.8023	9.6045	14.4068	19.2090	7.546E-04	1.509E-03	2.264E-03	3.019E-03	3.773E-04	7.546E-04	1.13E-03	1.51E-03
	5	33051.4	(ug/hour)	264.41	4.6570	9.3139	13.9709	18.6278	7.318E-04	1.464E-03	2.195E-03	2.927E-03	3.659E-04	7.318E-04	1.10E-03	1.46E-03
	6	32020.2	(ug/hour)	256.16	4.5116	9.0233	13.5349	18.0466	7.090E-04	1.418E-03	2.127E-03	2.836E-03	3.545E-04	7.090E-04	1.06E-03	1.42E-03
	7	30988.9	(ug/hour)	247.91	4.3663	6.7327	13.0990	17.4654	6.861E-04	1.372E-03	2.058E-03	2.745E-03	3.431E-04	6.861E-04	1.03E-03	1.37E-03
	8	29957.7	(ug/hour)	239.66	4.2210	8.4421	12.6631	16.8842	6.633E-04	1.327E-03	1.990E-03	2.653E-03	3.317E-04	6.633E-04	9.95E-04	1.33E-03
	9	28926.5	(ug/hour)	231.41	4.0757	8.1515	12.2272	16.3030	6.405E-04	1.281E-03	1.921E-03	2.562E-03	3.202E-04	6.405E-04	9.61E-04	1.28E-03
	10	27895.2	(ug/hour)	223.16	3.9304	7.8609	11.7913	15.7218	6.176E-04	1.235E-03	1.853E-03	2.471E-03	3.088E-04	6.176E-04	9.26E-04	1.24E-03
	11	26864.0	(ug/hour)	214.91	3.7851	7.5703	11.3554	15.1406	5.948E-04	1.190E-03	1.784E-03	2.379E-03	2.974E-04	5.948E-04	8.92E-04	1.19E-03
	12	25832.7	(ug/hour)	206.66	3.6398	7.2797	10.9195	14.5594	5.720E-04	1.144E-03	1.716E-03	2.288E-03	2.860E-04	5.720E-04	8.58E-04	1.14E-03
	13	24801.5	(ug/hour)	198.41	3.4945	6.9891	10.4836	13.9781	5.491E-04	1.098E-03	1.647E-03	2.197E-03	2.746E-04	5.491E-04	8.24E-04	1.10E-03
	14	23770.3	(ug/hour)	190.16	3.3492	6.6985	10.0477	13.3969	5.263E-04	1.053E-03	1.579E-03	2.105E-03	2.632E-04	5.263E-04	7.89E-04	1.05E-03
	15	22739.0	(ug/hour)	181.91	3.2039	6.4079	9.6118	12.8157	5.035E-04	1.007E-03	1.510E-03	2.014E-03	2.517E-04	5.035E-04	7.55E-04	1.01E-03
	16	21707.8	(ug/hour)	173.66	3.0586	6.1173	9.1759	12.2345	4.806E-04	9.613E-04	1.442E-03	1.923E-03	2.403E-04	4.806E-04	7.21E-04	9.61E-04
	17	20676.6	(ug/hour)	165.41	2.9133	5.8267	8.7400	11.6533	4.578E-04	9.156E-04	1.373E-03	1.831E-03	2.289E-04	4.578E-04	6.87E-04	9.16E-04
	18	19645.3	(ug/hour)	157.16	2.7680	5.5361	8.3041	11.0721	4.350E-04	8.700E-04	1.305E-03	1.740E-03	2.175E-04	4.350E-04	6.52E-04	8.70E-04
	19	18614.1	(ug/hour)	148.91	2.6227	5.2455	7.8682	10.4909	4.121E-04	8.243E-04	1.236E-03	1.649E-03	2.061E-04	4.121E-04	6.18E-04	8.24E-04
	20	17582.8	(ug/hour)	140.66	2.4774	4.9549	7.4323	9.9097	3.893E-04	7.786E-04	1.168E-03	1.557E-03	1.947E-04	3.893E-04	5.84E-04	7.79E-04
	21	16551.6	(ug/hour)	132.41	2.3321	4.6642	6.9964	9.3285	3.665E-04	7.330E-04	1.099E-03	1.466E-03	1.832E-04	3.665E-04	5.50E-04	7.33E-04
	22	15520.4	(ug/hour)	124.16	2.1868	4.3736	6.5605	8.7473	3.436E-04	6.873E-04	1.031E-03	1.375E-03	1.718E-04	3.436E-04	5.15E-04	6.87E-04
	23	14489.1	(ug/hour)	115.91	2.0415	4.0830	6.1246	8.1661	3.208E-04	6.416E-04	9.624E-04	1.283E-03	1.604E-04	3.208E-04	4.81E-04	6.42E-04
	24	13457.9	(ug/hour)	107.66	1.8962	3.7924	5.6887	7.5849	2.980E-04	5.960E-04	8.939E-04	1.192E-03	1.490E-04	2.980E-04	4.47E-04	5.96E-04
	25	12426.6	(ug/hour)	99.41	1.7509	3.5018	5.2527	7.0037	2.751E-04	5.503E-04	8.254E-04	1.101E-03	1.378E-04	2.751E-04	4.13E-04	5.50E-04
	26	11395.4	(ug/hour)	91.16	1.6056	3.2112	4.8168	6.4225	2.523E-04	5.046E-04	7.569E-04	1.009E-03	1.262E-04	2.523E-04	3.78E-04	5.05E-04
	27	10364.2	(ug/hour)	82.91	1.4603	2.9206	4.3809	5.8413	2.295E-04	4.590E-04	6.884E-04	9.179E-04	1.147E-04	2.295E-04	3.44E-04	4.59E-04
	28	9332.9	(ug/hour)	74.66	1.3150	2.6300	3.9450	5.2600	2.066E-04	4.133E-04	6.199E-04	8.266E-04	1.033E-04	2.066E-04	3.10E-04	4.13E-04
	29	8301.7	(ug/hour)	66.41	1.1697	2.3394	3.5091	4.6788	1.838E-04	3.676E-04	5.514E-04	7.352E-04	9.191E-05	1.838E-04	2.76E-04	3.68E-04
	30	7270.5	(ug/hour)	58.16	1.0244	2.0488	3.0732	4.0976	1.610E-04	3.220E-04	4.829E-04	6.439E-04	8.049E-05	1.610E-04	2.41E-04	3.22E-04
	31	6239.2	(ug/hour)	49.91	0.8791	1.7582	2.6373	3.5164	1.381E-04	2.763E-04	4.144E-04	5.526E-04	6.907E-05	1.381E-04	2.07E-04	2.76E-04
	32	5208.0	(ug/hour)	41.66	0.7338	1.4676	2.2014	2.9352	1.153E-04	2.306E-04	3.459E-04	4.612E-04	5.766E-05	1.153E-04	1.73E-04	2.31E-04
	33	4176.7	(ug/hour)	33.41	0.5885	1.1770	1.7655	2.3540	9.248E-05	1.850E-04	2.774E-04	3.699E-04	4.624E-05	9.248E-05	1.39E-04	1.85E-04
	34	3145.5	(ug/hour)	25.16	0.4432	0.8864	1.3296	1.7728	6.965E-05	1.393E-04	2.089E-04	2.786E-04	3.482E-05	6.965E-05	1.04E-04	1.39E-04
	35	2114.3	(ug/hour)	16.91	0.2979	0.5958	0.8937	1.1916	4.681E-05	9.363E-05	1.404E-04	1.873E-04	2.341E-05	4.681E-05	7.02E-05	9.36E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	1.7945	3.5890	5.3835	7.1779	5.840E-05	1.128E-04	1.692E-04	2.256E-04	2.620E-05	5.840E-05	8.46E-05	1.13E-04
	1	37176.4	(ug/hour)	297.41	1.7461	3.4921	5.2382	6.9842	5.488E-05	1.098E-04	1.646E-04	2.195E-04	2.744E-05	5.488E-05	8.23E-05	1.10E-04
	2	36145.1	(ug/hour)	289.16	1.6976	3.3952	5.0929	6.7905	5.335E-05	1.067E-04	1.601E-04	2.134E-04	2.668E-05	5.335E-05	8.00E-05	1.07E-04
	3	35113.9	(ug/hour)	280.91	1.6492	3.2984	4.9476	6.5967	5.183E-05	1.037E-04	1.555E-04	2.073E-04	2.592E-05	5.183E-05	7.77E-05	1.04E-04
	4	34082.6	(ug/hour)	272.66	1.6008	3.2015	4.8023	6.4030	5.031E-05	1.006E-04	1.509E-04	2.012E-04	2.515E-05	5.031E-05	7.55E-05	1.01E-04
	5	33051.4	(ug/hour)	264.41	1.5523	3.1046	4.6570	6.2093	4.879E-05	9.757E-05	1.464E-04	1.951E-04	2.439E-05	4.879E-05	7.32E-05	9.76E-05
	6	32020.2	(ug/hour)	256.16	1.5039	3.0078	4.5116	6.0155	4.726E-05	9.453E-05	1.418E-04	1.891E-04	2.363E-05	4.726E-05	7.09E-05	9.45E-05
	7	30988.9	(ug/hour)	247.91	1.4554	2.9109	4.3663	5.8218	4.574E-05	9.149E-05	1.372E-04	1.830E-04	2.287E-05	4.574E-05	6.86E-05	9.15E-05
	8	29957.7	(ug/hour)	239.66	1.4070	2.8140	4.2210	5.6281	4.422E-05	8.844E-05	1.327E-04	1.769E-04	2.211E-05	4.422E-05	6.63E-05	8.84E-05
	9	28926.5	(ug/hour)	231.41	1.3586	2.7172	4.0757	5.4343	4.270E-05	8.540E-05	1.281E-04	1.708E-04	2.136E-05	4.270E-05	6.40E-05	8.54E-05
	10	27895.2	(ug/hour)	223.16	1.3101	2.6203	3.9304	5.2406	4.118E-05	8.235E-05	1.235E-04	1.647E-04	2.059E-05	4.118E-05	6.18E-05	8.24E-05
	11	26864.0	(ug/hour)	214.91	1.2617	2.5234	3.7851	5.0469	3.965E-05	7.931E-05	1.190E-04	1.586E-04	1.983E-05	3.965E-05	5.95E-05	7.93E-05
	12	25832.7	(ug/hour)	206.66	1.2133	2.4266	3.6398	4.8531	3.813E-05	7.626E-05	1.144E-04	1.525E-04	1.907E-05	3.813E-05	5.72E-05	7.63E-05
	13	24801.5	(ug/hour)	198.41	1.1648	2.3297	3.4945	4.6594	3.661E-05	7.322E-05	1.098E-04	1.464E-04	1.830E-05	3.661E-05	5.49E-05	7.32E-05
	14	23770.3	(ug/hour)	190.16	1.1164	2.2329	3.3492	4.4656	3.509E-05	7.017E-05	1.053E-04	1.403E-04	1.754E-05	3.509E-05	5.26E-05	7.02E-05
	15	22739.0	(ug/hour)	181.91	1.0680	2.1360	3.2039	4.2719	3.357E-05	6.713E-05	1.007E-04	1.343E-04	1.678E-05	3.357E-05	5.03E-05	6.71E-05
	16	21707.8	(ug/hour)	173.66	1.0195	2.0391	3.0586	4.0782	3.204E-05	6.409E-05	9.613E-05	1.282E-04	1.602E-05	3.204E-05	4.81E-05	6.41E-05
	17	20676.6	(ug/hour)	165.41	0.9711	1.9422	2.9133	3.8844	3.052E-05	6.104E-05	9.156E-05	1.221E-04	1.526E-05	3.052E-05	4.58E-05	6.10E-05
	18	19645.3	(ug/hour)	157.16	0.9227	1.8454	2.7680	3.6907	2.900E-05	5.800E-05	8.700E-05	1.160E-04	1.450E-05	2.900E-05	4.35E-05	5.80E-05
	19	18614.1	(ug/hour)	148.91	0.8742	1.7485	2.6227	3.4970	2.748E-05	5.495E-05	8.243E-05	1.099E-04	1.374E-05	2.748E-05	4.12E-05	5.50E-05
	20	17582.8	(ug/hour)	140.66	0.8258	1.6518	2.4774	3.3032	2.595E-05	5.191E-05	7.786E-05	1.038E-04	1.298E-05	2.595E-05	3.89E-05	5.19E-05
	21	16551.6	(ug/hour)	132.41	0.7774	1.5547	2.3321	3.1095	2.443E-05	4.886E-05	7.330E-05	9.773E-05	1.222E-05	2.443E-05	3.66E-05	4.89E-05
	22	15520.4	(ug/hour)	124.16	0.7289	1.4579	2.1868	2.9158	2.291E-05	4.582E-05	6.873E-05	9.164E-05	1.145E-05	2.291E-05	3.44E-05	4.58E-05
	23	14489.1	(ug/hour)	115.91	0.6805	1.3610	2.0415	2.7220	2.139E-05	4.277E-05	6.416E-05	8.555E-05	1.069E-05	2.139E-05	3.21E-05	4.28E-05
	24	13457.9	(ug/hour)	107.66	0.6321	1.2641	1.8962	2.5283	1.987E-05	3.973E-05	5.960E-05	7.946E-05	9.933E-06	1.987E-05	2.98E-05	3.97E-05
	25	12426.6	(ug/hour)	99.41	0.5836	1.1673	1.7509	2.3346	1.834E-05	3.669E-05	5.503E-05	7.337E-05	9.171E-06	1.834E-05	2.75E-05	3.67E-05
	26	11395.4	(ug/hour)	91.16	0.5352	1.0704	1.6056	2.1408	1.682E-05	3.364E-05	5.046E-05	6.728E-05	8.410E-06	1.682E-05	2.52E-05	3.36E-05
	27	10364.2	(ug/hour)	82.91	0.4868	0.9735	1.4603	1.9471	1.530E-05	3.060E-05	4.590E-05	6.119E-05	7.649E-06	1.530E-05	2.29E-05	3.06E-05
	28	9332.9	(ug/hour)	74.66	0.4383	0.8767	1.3150	1.7533	1.378E-05	2.755E-05	4.133E-05	5.511E-05	6.888E-06	1.378E-05	2.07E-05	2.76E-05
	29	8301.7	(ug/hour)	66.41	0.3899	0.7798	1.1697	1.5596	1.225E-05	2.451E-05	3.676E-05	4.902E-05	6.127E-06	1.225E-05	1.84E-05	2.45E-05
	30	7270.5	(ug/hour)	58.16	0.3415	0.6829	1.0244	1.3659	1.073E-05	2.146E-05	3.220E-05	4.293E-05	5.366E-06	1.073E-05	1.61E-05	2.15E-05
	31	6239.2	(ug/hour)	49.91	0.2930	0.5861	0.8791	1.1721	9.210E-06	1.842E-05	2.763E-05	3.684E-05	4.605E-06	9.210E-06	1.38E-05	1.84E-05
	32	5208.0	(ug/hour)	41.66	0.2446	0.4892	0.7338	0.9784	7.687E-06	1.537E-05	2.306E-05	3.075E-05	3.844E-06	7.687E-06	1.15E-05	1.54E-05
	33	4176.7	(ug/hour)	33.41	0.1962	0.3923	0.5885	0.7847	6.165E-06	1.233E-05	1.850E-05	2.466E-05	3.083E-06	6.165E-06	9.25E-06	1.23E-05
	34	3145.5	(ug/hour)	25.16	0.1477	0.2955	0.4432	0.5908	4.643E-06	9.286E-06	1.393E-05	1.857E-05	2.322E-06	4.643E-06	6.96E-06	9.29E-06
	35	2114.3	(ug/hour)	16.91	0.0993	0.1986	0.2979	0.3972	3.121E-06	6.242E-06	9.363E-06	1.248E-05	1.560E-06	3.121E-06	4.68E-06	6.24E-06

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.8	(ug/hour)	305.66	3.5690	7.1779	10.7869	14.3559	1.128E-04	2.258E-04	3.384E-04	4.512E-04	5.640E-05	1.128E-04	1.69E-04	2.26E-04
	1	37176.4	(ug/hour)	297.41	3.4921	6.9642	10.4763	13.9684	1.098E-04	2.195E-04	3.293E-04	4.390E-04	5.488E-05	1.098E-04	1.65E-04	2.20E-04
	2	36145.1	(ug/hour)	289.16	3.3952	6.7905	10.1857	13.5809	1.067E-04	2.134E-04	3.201E-04	4.268E-04	5.335E-05	1.067E-04	1.60E-04	2.13E-04
	3	35113.9	(ug/hour)	280.91	3.2984	6.5967	9.8951	13.1935	1.037E-04	2.073E-04	3.110E-04	4.147E-04	5.183E-05	1.037E-04	1.55E-04	2.07E-04
	4	34082.6	(ug/hour)	272.66	3.2015	6.4030	9.6045	12.8060	1.006E-04	2.012E-04	3.019E-04	4.025E-04	5.031E-05	1.006E-04	1.51E-04	2.01E-04
	5	33051.4	(ug/hour)	264.41	3.1046	6.2093	9.3139	12.4185	9.757E-05	1.951E-04	2.927E-04	3.903E-04	4.879E-05	9.757E-05	1.46E-04	1.95E-04
	6	32020.2	(ug/hour)	256.16	3.0078	6.0155	9.0233	12.0311	9.453E-05	1.891E-04	2.836E-04	3.781E-04	4.726E-05	9.453E-05	1.42E-04	1.89E-04
	7	30988.9	(ug/hour)	247.91	2.9109	5.8218	8.7327	11.6436	9.149E-05	1.830E-04	2.745E-04	3.659E-04	4.574E-05	9.149E-05	1.37E-04	1.83E-04
	8	29957.7	(ug/hour)	239.66	2.8140	5.6281	8.4421	11.2561	8.844E-05	1.769E-04	2.653E-04	3.538E-04	4.422E-05	8.844E-05	1.33E-04	1.77E-04
	9	28926.5	(ug/hour)	231.41	2.7172	5.4343	8.1515	10.8686	8.540E-05	1.708E-04	2.562E-04	3.416E-04	4.270E-05	8.540E-05	1.28E-04	1.71E-04
	10	27895.2	(ug/hour)	223.16	2.6203	5.2406	7.8609	10.4812	8.235E-05	1.647E-04	2.471E-04	3.294E-04	4.118E-05	8.235E-05	1.24E-04	1.65E-04
	11	26864.0	(ug/hour)	214.91	2.5234	5.0469	7.5703	10.0937	7.931E-05	1.586E-04	2.379E-04	3.172E-04	3.965E-05	7.931E-05	1.19E-04	1.59E-04
	12	25832.7	(ug/hour)	206.66	2.4266	4.8531	7.2797	9.7062	7.626E-05	1.525E-04	2.288E-04	3.051E-04	3.813E-05	7.626E-05	1.14E-04	1.53E-04
	13	24801.5	(ug/hour)	198.41	2.3297	4.6594	6.9891	9.3188	7.322E-05	1.464E-04	2.197E-04	2.929E-04	3.661E-05	7.322E-05	1.10E-04	1.46E-04
	14	23770.3	(ug/hour)	190.16	2.2328	4.4656	6.6985	8.9313	7.017E-05	1.403E-04	2.105E-04	2.807E-04	3.509E-05	7.017E-05	1.05E-04	1.40E-04
	15	22739.0	(ug/hour)	181.91	2.1360	4.2718	6.4078	8.5438	6.713E-05	1.343E-04	2.014E-04	2.685E-04	3.357E-05	6.713E-05	1.01E-04	1.34E-04
	16	21707.8	(ug/hour)	173.66	2.0391	4.0782	6.1173	8.1564	6.409E-05	1.282E-04	1.923E-04	2.563E-04	3.204E-05	6.409E-05	9.61E-05	1.28E-04
	17	20676.6	(ug/hour)	165.41	1.9422	3.8844	5.8267	7.7689	6.104E-05	1.221E-04	1.831E-04	2.442E-04	3.052E-05	6.104E-05	9.16E-05	1.22E-04
	18	19645.3	(ug/hour)	157.16	1.8454	3.6907	5.5361	7.3814	5.800E-05	1.160E-04	1.740E-04	2.320E-04	2.900E-05	5.800E-05	8.70E-05	1.16E-04
	19	18614.1	(ug/hour)	148.91	1.7485	3.4970	5.2455	6.9939	5.495E-05	1.099E-04	1.648E-04	2.198E-04	2.748E-05	5.495E-05	8.24E-05	1.10E-04
	20	17582.8	(ug/hour)	140.66	1.6516	3.3032	4.9549	6.6065	5.191E-05	1.038E-04	1.557E-04	2.076E-04	2.595E-05	5.191E-05	7.79E-05	1.04E-04
	21	16551.6	(ug/hour)	132.41	1.5547	3.1095	4.6642	6.2190	4.886E-05	9.773E-05	1.466E-04	1.955E-04	2.443E-05	4.886E-05	7.33E-05	9.77E-05
	22	15520.4	(ug/hour)	124.16	1.4579	2.9158	4.3736	5.8315	4.582E-05	9.164E-05	1.375E-04	1.833E-04	2.291E-05	4.582E-05	6.87E-05	9.16E-05
	23	14489.1	(ug/hour)	115.91	1.3610	2.7220	4.0830	5.4441	4.277E-05	8.555E-05	1.283E-04	1.711E-04	2.139E-05	4.277E-05	6.42E-05	8.55E-05
	24	13457.9	(ug/hour)	107.66	1.2641	2.5283	3.7924	5.0566	3.973E-05	7.946E-05	1.192E-04	1.589E-04	1.987E-05	3.973E-05	5.96E-05	7.95E-05
	25	12426.6	(ug/hour)	99.41	1.1673	2.3346	3.5018	4.6691	3.669E-05	7.337E-05	1.101E-04	1.467E-04	1.834E-05	3.669E-05	5.50E-05	7.34E-05
	26	11395.4	(ug/hour)	91.16	1.0704	2.1408	3.2112	4.2816	3.364E-05	6.728E-05	1.009E-04	1.346E-04	1.682E-05	3.364E-05	5.05E-05	6.73E-05
	27	10364.2	(ug/hour)	82.91	0.9735	1.9471	2.9206	3.8942	3.060E-05	6.119E-05	9.179E-05	1.224E-04	1.530E-05	3.060E-05	4.59E-05	6.12E-05
	28	9332.9	(ug/hour)	74.66	0.8767	1.7533	2.6300	3.5067	2.755E-05	5.511E-05	8.266E-05	1.102E-04	1.378E-05	2.755E-05	4.13E-05	5.51E-05
	29	8301.7	(ug/hour)	66.41	0.7798	1.5596	2.3394	3.1192	2.451E-05	4.902E-05	7.352E-05	9.803E-05	1.225E-05	2.451E-05	3.68E-05	4.90E-05
	30	7270.5	(ug/hour)	58.16	0.6829	1.3659	2.0488	2.7318	2.146E-05	4.293E-05	6.439E-05	8.586E-05	1.073E-05	2.146E-05	3.22E-05	4.29E-05
	31	6239.2	(ug/hour)	49.91	0.5861	1.1721	1.7582	2.3443	1.842E-05	3.684E-05	5.526E-05	7.368E-05	9.210E-06	1.842E-05	2.76E-05	3.68E-05
	32	5208.0	(ug/hour)	41.66	0.4892	0.9784	1.4676	1.9568	1.537E-05	3.075E-05	4.612E-05	6.150E-05	7.687E-06	1.537E-05	2.31E-05	3.07E-05
	33	4176.7	(ug/hour)	33.41	0.3923	0.7847	1.1770	1.5693	1.233E-05	2.466E-05	3.699E-05	4.932E-05	6.166E-06	1.233E-05	1.85E-05	2.47E-05
	34	3145.5	(ug/hour)	25.16	0.2955	0.5909	0.8864	1.1819	9.286E-06	1.857E-05	2.786E-05	3.714E-05	4.643E-06	9.286E-06	1.39E-05	1.86E-05
	35	2114.3	(ug/hour)	16.91	0.1986	0.3972	0.5958	0.7944	6.242E-06	1.248E-05	1.873E-05	2.497E-05	3.121E-06	6.242E-06	9.36E-06	1.25E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	5.3835	10.7669	16.1504	21.5338	1.692E-04	3.384E-04	5.076E-04	6.768E-04	8.460E-05	1.692E-04	2.54E-04	3.38E-04
	1	37178.4	(ug/hour)	297.41	5.2362	10.4763	15.7145	20.9526	1.646E-04	3.293E-04	4.939E-04	6.585E-04	8.231E-05	1.646E-04	2.47E-04	3.29E-04
	2	36145.1	(ug/hour)	289.16	5.0929	10.1857	15.2786	20.3714	1.601E-04	3.201E-04	4.802E-04	6.402E-04	8.003E-05	1.601E-04	2.40E-04	3.20E-04
	3	35113.9	(ug/hour)	280.91	4.9476	9.8951	14.8427	19.7902	1.555E-04	3.110E-04	4.665E-04	6.220E-04	7.775E-05	1.555E-04	2.33E-04	3.11E-04
	4	34082.6	(ug/hour)	272.66	4.8023	9.6045	14.4068	19.2090	1.509E-04	3.019E-04	4.528E-04	6.037E-04	7.546E-05	1.509E-04	2.26E-04	3.02E-04
	5	33051.4	(ug/hour)	264.41	4.6570	9.3139	13.9709	18.6278	1.464E-04	2.927E-04	4.391E-04	5.854E-04	7.318E-05	1.464E-04	2.20E-04	2.93E-04
	6	32020.2	(ug/hour)	256.16	4.5116	9.0233	13.5349	18.0466	1.418E-04	2.836E-04	4.254E-04	5.672E-04	7.090E-05	1.418E-04	2.13E-04	2.84E-04
	7	30988.9	(ug/hour)	247.91	4.3663	8.7327	13.0990	17.4654	1.372E-04	2.745E-04	4.117E-04	5.489E-04	6.861E-05	1.372E-04	2.06E-04	2.74E-04
	8	29957.7	(ug/hour)	239.66	4.2210	8.4421	12.6631	16.8842	1.327E-04	2.653E-04	3.980E-04	5.306E-04	6.633E-05	1.327E-04	1.99E-04	2.65E-04
	9	28926.5	(ug/hour)	231.41	4.0757	8.1515	12.2272	16.3030	1.281E-04	2.562E-04	3.843E-04	5.124E-04	6.405E-05	1.281E-04	1.92E-04	2.56E-04
	10	27895.2	(ug/hour)	223.16	3.9304	7.8608	11.7913	15.7218	1.235E-04	2.471E-04	3.706E-04	4.941E-04	6.176E-05	1.235E-04	1.85E-04	2.47E-04
	11	26864.0	(ug/hour)	214.91	3.7851	7.5703	11.3554	15.1406	1.190E-04	2.379E-04	3.569E-04	4.758E-04	5.948E-05	1.190E-04	1.78E-04	2.38E-04
	12	25832.7	(ug/hour)	206.66	3.6396	7.2797	10.9195	14.5594	1.144E-04	2.288E-04	3.432E-04	4.576E-04	5.720E-05	1.144E-04	1.72E-04	2.29E-04
	13	24801.5	(ug/hour)	198.41	3.4945	6.9891	10.4836	13.9781	1.098E-04	2.197E-04	3.295E-04	4.393E-04	5.491E-05	1.098E-04	1.65E-04	2.20E-04
	14	23770.3	(ug/hour)	190.16	3.3492	6.6985	10.0477	13.3969	1.053E-04	2.105E-04	3.158E-04	4.210E-04	5.263E-05	1.053E-04	1.58E-04	2.11E-04
	15	22739.0	(ug/hour)	181.91	3.2039	6.4079	9.6118	12.8157	1.007E-04	2.014E-04	3.021E-04	4.028E-04	5.035E-05	1.007E-04	1.51E-04	2.01E-04
	16	21707.8	(ug/hour)	173.66	3.0586	6.1173	9.1759	12.2345	9.613E-05	1.922E-04	2.884E-04	3.845E-04	4.806E-05	9.613E-05	1.44E-04	1.92E-04
	17	20676.6	(ug/hour)	165.41	2.9133	5.8267	8.7400	11.6533	9.156E-05	1.831E-04	2.747E-04	3.662E-04	4.578E-05	9.156E-05	1.37E-04	1.83E-04
	18	19645.3	(ug/hour)	157.16	2.7680	5.5361	8.3041	11.0721	8.700E-05	1.740E-04	2.610E-04	3.480E-04	4.350E-05	8.700E-05	1.30E-04	1.74E-04
	19	18614.1	(ug/hour)	148.91	2.6227	5.2455	7.8682	10.4909	8.243E-05	1.649E-04	2.473E-04	3.297E-04	4.121E-05	8.243E-05	1.24E-04	1.65E-04
	20	17582.8	(ug/hour)	140.66	2.4774	4.9549	7.4323	9.9097	7.786E-05	1.557E-04	2.336E-04	3.114E-04	3.893E-05	7.786E-05	1.17E-04	1.56E-04
	21	16551.6	(ug/hour)	132.41	2.3321	4.6642	6.9964	9.3285	7.330E-05	1.466E-04	2.199E-04	2.932E-04	3.665E-05	7.330E-05	1.10E-04	1.47E-04
	22	15520.4	(ug/hour)	124.16	2.1868	4.3736	6.5605	8.7473	6.873E-05	1.375E-04	2.062E-04	2.749E-04	3.436E-05	6.873E-05	1.03E-04	1.37E-04
	23	14489.1	(ug/hour)	115.91	2.0415	4.0830	6.1246	8.1661	6.416E-05	1.283E-04	1.925E-04	2.566E-04	3.208E-05	6.416E-05	9.62E-05	1.28E-04
	24	13457.9	(ug/hour)	107.66	1.8962	3.7924	5.6887	7.5849	5.960E-05	1.192E-04	1.788E-04	2.384E-04	2.980E-05	5.960E-05	8.94E-05	1.19E-04
	25	12426.6	(ug/hour)	99.41	1.7509	3.5018	5.2527	7.0037	5.503E-05	1.101E-04	1.651E-04	2.201E-04	2.751E-05	5.503E-05	8.25E-05	1.10E-04
	26	11395.4	(ug/hour)	91.16	1.6056	3.2112	4.8168	6.4225	5.046E-05	1.009E-04	1.514E-04	2.018E-04	2.523E-05	5.046E-05	7.57E-05	1.01E-04
	27	10364.2	(ug/hour)	82.91	1.4603	2.9206	4.3809	5.8413	4.590E-05	9.179E-05	1.377E-04	1.836E-04	2.295E-05	4.590E-05	6.88E-05	9.18E-05
	28	9332.9	(ug/hour)	74.66	1.3150	2.6300	3.9450	5.2600	4.133E-05	8.266E-05	1.240E-04	1.653E-04	2.066E-05	4.133E-05	6.20E-05	8.27E-05
	29	8301.7	(ug/hour)	66.41	1.1697	2.3394	3.5091	4.6788	3.676E-05	7.352E-05	1.103E-04	1.470E-04	1.838E-05	3.676E-05	5.51E-05	7.35E-05
	30	7270.5	(ug/hour)	58.16	1.0244	2.0488	3.0732	4.0976	3.220E-05	6.439E-05	9.659E-05	1.288E-04	1.610E-05	3.220E-05	4.83E-05	6.44E-05
	31	6239.2	(ug/hour)	49.91	0.8791	1.7582	2.6373	3.5164	2.763E-05	5.526E-05	8.289E-05	1.105E-04	1.381E-05	2.763E-05	4.14E-05	5.53E-05
	32	5208.0	(ug/hour)	41.66	0.7338	1.4676	2.2014	2.9352	2.306E-05	4.612E-05	6.919E-05	9.225E-05	1.153E-05	2.306E-05	3.46E-05	4.61E-05
	33	4176.7	(ug/hour)	33.41	0.5885	1.1770	1.7655	2.3540	1.850E-05	3.699E-05	5.549E-05	7.398E-05	9.248E-06	1.850E-05	2.77E-05	3.70E-05
	34	3145.5	(ug/hour)	25.16	0.4432	0.8864	1.3296	1.7728	1.393E-05	2.786E-05	4.179E-05	5.572E-05	6.965E-06	1.393E-05	2.09E-05	2.79E-05
	35	2114.3	(ug/hour)	16.91	0.2979	0.5958	0.8937	1.1916	9.363E-06	1.873E-05	2.809E-05	3.746E-05	4.681E-06	9.363E-06	1.40E-05	1.87E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	1.7945	3.5890	5.3835	7.1779	1.410E-05	2.820E-05	4.230E-05	5.640E-05	2.820E-06	5.640E-06	8.46E-06	1.13E-05
	1	37176.4	(ug/hour)	297.41	1.7461	3.4921	5.2382	6.9842	1.372E-05	2.744E-05	4.116E-05	5.488E-05	2.744E-06	5.488E-06	8.23E-06	1.10E-05
	2	35145.1	(ug/hour)	289.16	1.6976	3.3952	5.0929	6.7905	1.334E-05	2.668E-05	4.002E-05	5.335E-05	2.668E-06	5.335E-06	8.00E-06	1.07E-05
	3	35113.9	(ug/hour)	280.91	1.6492	3.2984	4.9476	6.5967	1.296E-05	2.592E-05	3.887E-05	5.183E-05	2.592E-06	5.183E-06	7.77E-06	1.04E-05
	4	34082.6	(ug/hour)	272.66	1.6008	3.2015	4.8023	6.4030	1.258E-05	2.515E-05	3.773E-05	5.031E-05	2.515E-06	5.031E-06	7.55E-06	1.01E-05
	5	33051.4	(ug/hour)	264.41	1.5523	3.1046	4.6570	6.2093	1.220E-05	2.439E-05	3.659E-05	4.879E-05	2.439E-06	4.879E-06	7.32E-06	9.76E-06
	6	32020.2	(ug/hour)	256.16	1.5039	3.0078	4.5118	6.0155	1.182E-05	2.363E-05	3.545E-05	4.726E-05	2.363E-06	4.726E-06	7.09E-06	9.45E-06
	7	30988.9	(ug/hour)	247.91	1.4554	2.9109	4.3663	5.8218	1.144E-05	2.287E-05	3.431E-05	4.574E-05	2.287E-06	4.574E-06	6.86E-06	9.15E-06
	8	29957.7	(ug/hour)	239.66	1.4070	2.8140	4.2210	5.6281	1.106E-05	2.211E-05	3.317E-05	4.422E-05	2.211E-06	4.422E-06	6.63E-06	8.84E-06
	9	28926.5	(ug/hour)	231.41	1.3586	2.7172	4.0757	5.4343	1.067E-05	2.135E-05	3.202E-05	4.270E-05	2.135E-06	4.270E-06	6.40E-06	8.54E-06
	10	27895.2	(ug/hour)	223.16	1.3101	2.6203	3.9304	5.2406	1.029E-05	2.059E-05	3.088E-05	4.118E-05	2.059E-06	4.118E-06	6.18E-06	8.24E-06
	11	26864.0	(ug/hour)	214.91	1.2617	2.5234	3.7851	5.0468	9.913E-06	1.983E-05	2.974E-05	3.965E-05	1.983E-06	3.965E-06	5.95E-06	7.93E-06
	12	25832.7	(ug/hour)	206.66	1.2133	2.4266	3.6398	4.8531	9.533E-06	1.907E-05	2.860E-05	3.813E-05	1.907E-06	3.813E-06	5.72E-06	7.63E-06
	13	24801.5	(ug/hour)	198.41	1.1648	2.3297	3.4945	4.6594	9.152E-06	1.830E-05	2.746E-05	3.661E-05	1.830E-06	3.661E-06	5.49E-06	7.32E-06
	14	23770.3	(ug/hour)	190.16	1.1164	2.2328	3.3492	4.4656	8.772E-06	1.754E-05	2.632E-05	3.509E-05	1.754E-06	3.509E-06	5.26E-06	7.02E-06
	15	22739.0	(ug/hour)	181.91	1.0680	2.1360	3.2039	4.2719	8.391E-06	1.678E-05	2.517E-05	3.357E-05	1.678E-06	3.357E-06	5.03E-06	6.71E-06
	16	21707.8	(ug/hour)	173.66	1.0195	2.0391	3.0586	4.0782	8.011E-06	1.602E-05	2.403E-05	3.204E-05	1.602E-06	3.204E-06	4.81E-06	6.41E-06
	17	20676.6	(ug/hour)	165.41	0.9711	1.9422	2.9133	3.8844	7.630E-06	1.526E-05	2.289E-05	3.052E-05	1.526E-06	3.052E-06	4.58E-06	6.10E-06
	18	19645.3	(ug/hour)	157.16	0.9227	1.8454	2.7680	3.6907	7.250E-06	1.450E-05	2.175E-05	2.900E-05	1.450E-06	2.900E-06	4.35E-06	5.80E-06
	19	18614.1	(ug/hour)	148.91	0.8742	1.7485	2.6227	3.4970	6.869E-06	1.374E-05	2.061E-05	2.748E-05	1.374E-06	2.748E-06	4.12E-06	5.50E-06
	20	17582.8	(ug/hour)	140.66	0.8258	1.6518	2.4774	3.3032	6.488E-06	1.298E-05	1.947E-05	2.595E-05	1.298E-06	2.595E-06	3.89E-06	5.19E-06
	21	16551.6	(ug/hour)	132.41	0.7774	1.5547	2.3321	3.1095	6.108E-06	1.222E-05	1.832E-05	2.443E-05	1.222E-06	2.443E-06	3.66E-06	4.89E-06
	22	15520.4	(ug/hour)	124.16	0.7288	1.4579	2.1868	2.9158	5.727E-06	1.145E-05	1.718E-05	2.291E-05	1.145E-06	2.291E-06	3.44E-06	4.58E-06
	23	14489.1	(ug/hour)	115.91	0.6805	1.3610	2.0415	2.7220	5.347E-06	1.069E-05	1.604E-05	2.139E-05	1.069E-06	2.139E-06	3.21E-06	4.28E-06
	24	13457.9	(ug/hour)	107.66	0.6321	1.2641	1.8962	2.5283	4.966E-06	9.933E-06	1.490E-05	1.987E-05	9.933E-07	1.987E-06	2.98E-06	3.97E-06
	25	12426.6	(ug/hour)	99.41	0.5836	1.1673	1.7509	2.3346	4.586E-06	9.171E-06	1.376E-05	1.834E-05	9.171E-07	1.834E-06	2.75E-06	3.67E-06
	26	11395.4	(ug/hour)	91.16	0.5352	1.0704	1.6056	2.1408	4.206E-06	8.410E-06	1.262E-05	1.682E-05	8.410E-07	1.682E-06	2.52E-06	3.36E-06
	27	10364.2	(ug/hour)	82.91	0.4868	0.9735	1.4603	1.9471	3.825E-06	7.649E-06	1.147E-05	1.530E-05	7.649E-07	1.530E-06	2.29E-06	3.06E-06
	28	9332.9	(ug/hour)	74.66	0.4383	0.8767	1.3150	1.7533	3.444E-06	6.888E-06	1.033E-05	1.378E-05	6.888E-07	1.378E-06	2.07E-06	2.76E-06
	29	8301.7	(ug/hour)	66.41	0.3899	0.7798	1.1697	1.5596	3.064E-06	6.127E-06	9.191E-06	1.225E-05	6.127E-07	1.225E-06	1.84E-06	2.45E-06
	30	7270.5	(ug/hour)	58.16	0.3415	0.6829	1.0244	1.3659	2.683E-06	5.366E-06	8.049E-06	1.073E-05	5.366E-07	1.073E-06	1.61E-06	2.15E-06
	31	6239.2	(ug/hour)	49.91	0.2930	0.5861	0.8791	1.1721	2.302E-06	4.605E-06	6.907E-06	9.210E-06	4.605E-07	9.210E-07	1.38E-06	1.84E-06
	32	5208.0	(ug/hour)	41.66	0.2446	0.4892	0.7338	0.9784	1.922E-06	3.844E-06	5.766E-06	7.687E-06	3.844E-07	7.687E-07	1.15E-06	1.54E-06
	33	4176.7	(ug/hour)	33.41	0.1962	0.3923	0.5885	0.7847	1.541E-06	3.083E-06	4.624E-06	6.165E-06	3.083E-07	6.165E-07	9.25E-07	1.23E-06
	34	3145.5	(ug/hour)	25.16	0.1477	0.2955	0.4432	0.5909	1.161E-06	2.322E-06	3.482E-06	4.643E-06	2.322E-07	4.643E-07	6.96E-07	9.29E-07
	35	2114.3	(ug/hour)	16.91	0.0993	0.1986	0.2979	0.3972	7.802E-07	1.560E-06	2.341E-06	3.121E-06	1.560E-07	3.121E-07	4.68E-07	6.24E-07

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	3.5890	7.1779	10.7669	14.3559	2.820E-05	5.640E-05	8.460E-05	1.128E-04	5.640E-06	1.128E-05	1.69E-05	2.26E-05
	1	37178.4	(ug/hour)	297.41	3.4921	6.9842	10.4763	13.9684	2.744E-05	5.488E-05	8.231E-05	1.098E-04	5.488E-06	1.098E-05	1.65E-05	2.20E-05
	2	36145.1	(ug/hour)	289.16	3.3952	6.7905	10.1857	13.5809	2.668E-05	5.335E-05	8.003E-05	1.067E-04	5.335E-06	1.067E-05	1.60E-05	2.13E-05
	3	35113.9	(ug/hour)	280.91	3.2984	6.5967	9.8951	13.1935	2.592E-05	5.183E-05	7.775E-05	1.037E-04	5.183E-06	1.037E-05	1.55E-05	2.07E-05
	4	34082.6	(ug/hour)	272.66	3.2015	6.4030	9.6045	12.8060	2.515E-05	5.031E-05	7.546E-05	1.006E-04	5.031E-06	1.006E-05	1.51E-05	2.01E-05
	5	33051.4	(ug/hour)	264.41	3.1046	6.2093	9.3139	12.4185	2.439E-05	4.879E-05	7.318E-05	9.757E-05	4.879E-06	9.757E-06	1.46E-05	1.95E-05
	6	32020.2	(ug/hour)	256.16	3.0078	6.0155	9.0233	12.0311	2.363E-05	4.726E-05	7.090E-05	9.453E-05	4.726E-06	9.453E-06	1.42E-05	1.89E-05
	7	30988.9	(ug/hour)	247.91	2.9109	5.8218	8.7327	11.6436	2.287E-05	4.574E-05	6.861E-05	9.149E-05	4.574E-06	9.149E-06	1.37E-05	1.83E-05
	8	29957.7	(ug/hour)	239.66	2.8140	5.6281	8.4421	11.2561	2.211E-05	4.422E-05	6.633E-05	8.844E-05	4.422E-06	8.844E-06	1.33E-05	1.77E-05
	9	28926.5	(ug/hour)	231.41	2.7172	5.4343	8.1515	10.8686	2.135E-05	4.270E-05	6.405E-05	8.540E-05	4.270E-06	8.540E-06	1.28E-05	1.71E-05
	10	27895.2	(ug/hour)	223.16	2.6203	5.2406	7.8609	10.4812	2.059E-05	4.118E-05	6.176E-05	8.235E-05	4.118E-06	8.235E-06	1.24E-05	1.65E-05
	11	26864.0	(ug/hour)	214.91	2.5234	5.0469	7.5703	10.0937	1.983E-05	3.965E-05	5.948E-05	7.931E-05	3.965E-06	7.931E-06	1.19E-05	1.58E-05
	12	25832.7	(ug/hour)	206.66	2.4266	4.8531	7.2797	9.7062	1.907E-05	3.813E-05	5.720E-05	7.626E-05	3.813E-06	7.626E-06	1.14E-05	1.53E-05
	13	24801.5	(ug/hour)	196.41	2.3297	4.6594	6.9891	9.3188	1.830E-05	3.661E-05	5.491E-05	7.322E-05	3.661E-06	7.322E-06	1.10E-05	1.46E-05
	14	23770.3	(ug/hour)	190.16	2.2328	4.4656	6.6985	8.9313	1.754E-05	3.509E-05	5.263E-05	7.017E-05	3.509E-06	7.017E-06	1.05E-05	1.40E-05
	15	22739.0	(ug/hour)	181.91	2.1360	4.2719	6.4079	8.5438	1.678E-05	3.357E-05	5.035E-05	6.713E-05	3.357E-06	6.713E-06	1.01E-05	1.34E-05
	16	21707.8	(ug/hour)	173.66	2.0391	4.0782	6.1173	8.1564	1.602E-05	3.204E-05	4.806E-05	6.409E-05	3.204E-06	6.409E-06	9.61E-06	1.28E-05
	17	20676.6	(ug/hour)	165.41	1.9422	3.8844	5.8267	7.7689	1.526E-05	3.052E-05	4.578E-05	6.104E-05	3.052E-06	6.104E-06	9.16E-06	1.22E-05
	18	19645.3	(ug/hour)	157.16	1.8454	3.6907	5.5361	7.3814	1.450E-05	2.900E-05	4.350E-05	5.800E-05	2.900E-06	5.800E-06	8.70E-06	1.16E-05
	19	18614.1	(ug/hour)	148.91	1.7485	3.4970	5.2455	6.9939	1.374E-05	2.748E-05	4.121E-05	5.495E-05	2.748E-06	5.495E-06	8.24E-06	1.10E-05
	20	17582.8	(ug/hour)	140.66	1.6516	3.3032	4.9549	6.6065	1.298E-05	2.595E-05	3.893E-05	5.191E-05	2.595E-06	5.191E-06	7.79E-06	1.04E-05
	21	16551.6	(ug/hour)	132.41	1.5547	3.1095	4.6642	6.2190	1.222E-05	2.443E-05	3.665E-05	4.886E-05	2.443E-06	4.886E-06	7.33E-06	9.77E-06
	22	15520.4	(ug/hour)	124.16	1.4579	2.9158	4.3736	5.8315	1.145E-05	2.291E-05	3.436E-05	4.582E-05	2.291E-06	4.582E-06	6.87E-06	9.16E-06
	23	14489.1	(ug/hour)	115.91	1.3610	2.7220	4.0830	5.4441	1.069E-05	2.139E-05	3.208E-05	4.277E-05	2.139E-06	4.277E-06	6.42E-06	8.55E-06
	24	13457.9	(ug/hour)	107.66	1.2641	2.5283	3.7924	5.0566	9.933E-06	1.987E-05	2.980E-05	3.973E-05	1.987E-06	3.973E-06	5.96E-06	7.95E-06
	25	12426.6	(ug/hour)	99.41	1.1673	2.3346	3.5018	4.6691	9.171E-06	1.834E-05	2.751E-05	3.669E-05	1.834E-06	3.669E-06	5.50E-06	7.34E-06
	26	11395.4	(ug/hour)	91.16	1.0704	2.1408	3.2112	4.2816	8.410E-06	1.682E-05	2.523E-05	3.364E-05	1.682E-06	3.364E-06	5.05E-06	6.73E-06
	27	10364.2	(ug/hour)	82.91	0.9735	1.9471	2.9206	3.8942	7.649E-06	1.530E-05	2.295E-05	3.060E-05	1.530E-06	3.060E-06	4.59E-06	6.12E-06
	28	9332.9	(ug/hour)	74.66	0.8767	1.7533	2.6300	3.5067	6.888E-06	1.378E-05	2.066E-05	2.755E-05	1.378E-06	2.755E-06	4.13E-06	5.51E-06
	29	8301.7	(ug/hour)	66.41	0.7798	1.5596	2.3394	3.1192	6.127E-06	1.225E-05	1.838E-05	2.451E-05	1.225E-06	2.451E-06	3.68E-06	4.90E-06
	30	7270.5	(ug/hour)	58.16	0.6829	1.3658	2.0486	2.7318	5.366E-06	1.073E-05	1.610E-05	2.146E-05	1.073E-06	2.146E-06	3.22E-06	4.29E-06
	31	6239.2	(ug/hour)	49.91	0.5861	1.1721	1.7582	2.3443	4.605E-06	9.210E-06	1.381E-05	1.842E-05	9.210E-07	1.842E-06	2.76E-06	3.68E-06
	32	5208.0	(ug/hour)	41.66	0.4892	0.9784	1.4678	1.9566	3.844E-06	7.687E-06	1.153E-05	1.537E-05	7.687E-07	1.537E-06	2.31E-06	3.07E-06
	33	4176.7	(ug/hour)	33.41	0.3923	0.7847	1.1770	1.5693	3.083E-06	6.165E-06	9.248E-06	1.233E-05	6.165E-07	1.233E-06	1.85E-06	2.47E-06
	34	3145.5	(ug/hour)	25.16	0.2955	0.5909	0.8864	1.1819	2.322E-06	4.643E-06	6.965E-06	9.286E-06	4.643E-07	9.286E-07	1.39E-06	1.86E-06
	35	2114.3	(ug/hour)	16.91	0.1986	0.3972	0.5958	0.7944	1.560E-06	3.121E-06	4.681E-06	6.242E-06	3.121E-07	6.242E-07	9.36E-07	1.25E-06

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	38207.6	(ug/hour)	305.66	5.3835	10.7669	16.1504	21.5338	4.230E-05	8.460E-05	1.269E-04	1.692E-04	8.460E-06	1.692E-05	2.54E-05	3.38E-05
	1	37178.4	(ug/hour)	297.41	5.2382	10.4763	15.7145	20.9526	4.116E-05	8.231E-05	1.235E-04	1.646E-04	8.231E-06	1.646E-05	2.47E-05	3.29E-05
	2	36145.1	(ug/hour)	289.16	5.0929	10.1857	15.2786	20.3714	4.002E-05	8.003E-05	1.200E-04	1.601E-04	8.003E-06	1.601E-05	2.40E-05	3.20E-05
	3	35113.9	(ug/hour)	280.91	4.9476	9.8951	14.8427	19.7902	3.887E-05	7.775E-05	1.166E-04	1.555E-04	7.775E-06	1.555E-05	2.33E-05	3.11E-05
	4	34082.6	(ug/hour)	272.66	4.8023	9.6045	14.4068	19.2090	3.773E-05	7.546E-05	1.132E-04	1.509E-04	7.546E-06	1.509E-05	2.26E-05	3.02E-05
	5	33051.4	(ug/hour)	264.41	4.6570	9.3139	13.9709	18.6278	3.659E-05	7.318E-05	1.098E-04	1.464E-04	7.318E-06	1.464E-05	2.20E-05	2.93E-05
	6	32020.2	(ug/hour)	256.16	4.5116	9.0233	13.5349	18.0466	3.545E-05	7.090E-05	1.063E-04	1.418E-04	7.090E-06	1.418E-05	2.13E-05	2.84E-05
	7	30988.9	(ug/hour)	247.91	4.3663	8.7327	13.0990	17.4654	3.431E-05	6.861E-05	1.029E-04	1.372E-04	6.861E-06	1.372E-05	2.06E-05	2.74E-05
	8	29957.7	(ug/hour)	239.66	4.2210	8.4421	12.6631	16.8842	3.317E-05	6.633E-05	9.950E-05	1.327E-04	6.633E-06	1.327E-05	1.99E-05	2.65E-05
	9	28926.5	(ug/hour)	231.41	4.0757	8.1515	12.2272	16.3030	3.202E-05	6.405E-05	9.607E-05	1.281E-04	6.405E-06	1.281E-05	1.92E-05	2.56E-05
	10	27895.2	(ug/hour)	223.16	3.9304	7.8609	11.7913	15.7218	3.088E-05	6.176E-05	9.265E-05	1.235E-04	6.176E-06	1.235E-05	1.85E-05	2.47E-05
	11	26864.0	(ug/hour)	214.91	3.7851	7.5703	11.3554	15.1406	2.974E-05	5.948E-05	8.922E-05	1.190E-04	5.948E-06	1.190E-05	1.78E-05	2.38E-05
	12	25832.7	(ug/hour)	206.66	3.6398	7.2797	10.9196	14.5594	2.860E-05	5.720E-05	8.580E-05	1.144E-04	5.720E-06	1.144E-05	1.72E-05	2.29E-05
	13	24801.5	(ug/hour)	198.41	3.4945	6.9891	10.4836	13.9781	2.746E-05	5.491E-05	8.237E-05	1.098E-04	5.491E-06	1.098E-05	1.65E-05	2.20E-05
	14	23770.3	(ug/hour)	190.16	3.3492	6.6985	10.0477	13.3969	2.632E-05	5.263E-05	7.895E-05	1.053E-04	5.263E-06	1.053E-05	1.58E-05	2.11E-05
	15	22739.0	(ug/hour)	181.91	3.2039	6.4079	9.6118	12.8157	2.517E-05	5.035E-05	7.552E-05	1.007E-04	5.035E-06	1.007E-05	1.51E-05	2.01E-05
	16	21707.8	(ug/hour)	173.66	3.0586	6.1173	9.1759	12.2345	2.403E-05	4.806E-05	7.210E-05	9.613E-05	4.806E-06	9.613E-06	1.44E-05	1.92E-05
	17	20676.6	(ug/hour)	165.41	2.9133	5.8267	8.7400	11.6533	2.289E-05	4.578E-05	6.867E-05	9.156E-05	4.578E-06	9.156E-06	1.37E-05	1.83E-05
	18	19645.3	(ug/hour)	157.16	2.7680	5.5361	8.3041	11.0721	2.175E-05	4.350E-05	6.525E-05	8.700E-05	4.350E-06	8.700E-06	1.30E-05	1.74E-05
	19	18614.1	(ug/hour)	148.91	2.6227	5.2455	7.8682	10.4909	2.061E-05	4.121E-05	6.182E-05	8.243E-05	4.121E-06	8.243E-06	1.24E-05	1.65E-05
	20	17582.8	(ug/hour)	140.66	2.4774	4.9548	7.4323	9.9097	1.947E-05	3.893E-05	5.840E-05	7.786E-05	3.893E-06	7.786E-06	1.17E-05	1.56E-05
	21	16551.6	(ug/hour)	132.41	2.3321	4.6642	6.9964	9.3285	1.832E-05	3.665E-05	5.497E-05	7.330E-05	3.665E-06	7.330E-06	1.10E-05	1.47E-05
	22	15520.4	(ug/hour)	124.16	2.1868	4.3736	6.5605	8.7473	1.718E-05	3.436E-05	5.155E-05	6.873E-05	3.436E-06	6.873E-06	1.03E-05	1.37E-05
	23	14489.1	(ug/hour)	115.91	2.0415	4.0830	6.1246	8.1661	1.604E-05	3.208E-05	4.812E-05	6.416E-05	3.208E-06	6.416E-06	9.62E-06	1.28E-05
	24	13457.9	(ug/hour)	107.66	1.8962	3.7924	5.6887	7.5849	1.490E-05	2.980E-05	4.470E-05	5.960E-05	2.980E-06	5.960E-06	8.94E-06	1.19E-05
	25	12426.6	(ug/hour)	99.41	1.7509	3.5018	5.2527	7.0037	1.376E-05	2.751E-05	4.127E-05	5.503E-05	2.751E-06	5.503E-06	8.25E-06	1.10E-05
	26	11395.4	(ug/hour)	91.16	1.6056	3.2112	4.8168	6.4225	1.262E-05	2.523E-05	3.785E-05	5.046E-05	2.523E-06	5.046E-06	7.57E-06	1.01E-05
	27	10364.2	(ug/hour)	82.91	1.4603	2.9206	4.3808	5.8413	1.147E-05	2.295E-05	3.442E-05	4.590E-05	2.295E-06	4.590E-06	6.88E-06	9.18E-06
	28	9332.9	(ug/hour)	74.66	1.3150	2.6300	3.9450	5.2600	1.033E-05	2.066E-05	3.100E-05	4.133E-05	2.066E-06	4.133E-06	6.20E-06	8.27E-06
	29	8301.7	(ug/hour)	66.41	1.1697	2.3394	3.5091	4.6788	9.191E-06	1.838E-05	2.757E-05	3.676E-05	1.838E-06	3.676E-06	5.51E-06	7.35E-06
	30	7270.5	(ug/hour)	58.16	1.0244	2.0488	3.0732	4.0976	8.049E-06	1.610E-05	2.415E-05	3.220E-05	1.610E-06	3.220E-06	4.83E-06	6.44E-06
	31	6239.2	(ug/hour)	49.91	0.8791	1.7582	2.6373	3.5164	6.907E-06	1.381E-05	2.072E-05	2.763E-05	1.381E-06	2.763E-06	4.14E-06	5.53E-06
	32	5208.0	(ug/hour)	41.66	0.7338	1.4676	2.2014	2.9352	5.766E-06	1.153E-05	1.730E-05	2.306E-05	1.153E-06	2.306E-06	3.46E-06	4.61E-06
	33	4176.7	(ug/hour)	33.41	0.5885	1.1770	1.7655	2.3540	4.624E-06	9.248E-06	1.387E-05	1.850E-05	9.248E-07	1.850E-06	2.77E-06	3.70E-06
	34	3145.5	(ug/hour)	25.16	0.4432	0.8864	1.3296	1.7728	3.482E-06	6.965E-06	1.045E-05	1.393E-05	6.965E-07	1.393E-06	2.09E-06	2.79E-06
	35	2114.3	(ug/hour)	16.91	0.2979	0.5958	0.8937	1.1916	2.341E-06	4.681E-06	7.022E-06	9.363E-06	4.681E-07	9.363E-07	1.40E-06	1.87E-06

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	6
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	1.8378	3.6757	5.5135	7.3514	2.868E-04	5.736E-04	8.604E-04	1.155E-03	1.434E-04	2.868E-04	4.33E-04	5.78E-04
	1	37763.6	(ug/hour)	302.11	1.7736	3.5473	5.3209	7.0945	2.767E-04	5.574E-04	8.361E-04	1.115E-03	1.384E-04	2.767E-04	4.18E-04	5.57E-04
	2	36396.5	(ug/hour)	291.17	1.7094	3.4188	5.1283	6.8377	2.666E-04	5.372E-04	8.059E-04	1.074E-03	1.343E-04	2.666E-04	4.03E-04	5.37E-04
	3	35029.5	(ug/hour)	280.24	1.6452	3.2904	4.9357	6.5809	2.565E-04	5.171E-04	7.756E-04	1.034E-03	1.293E-04	2.565E-04	3.86E-04	5.17E-04
	4	33662.4	(ug/hour)	269.30	1.5810	3.1620	4.7430	6.3240	2.464E-04	4.969E-04	7.453E-04	9.938E-04	1.242E-04	2.484E-04	3.73E-04	4.97E-04
	5	32295.3	(ug/hour)	258.36	1.5168	3.0336	4.5504	6.0672	2.364E-04	4.767E-04	7.151E-04	9.534E-04	1.192E-04	2.384E-04	3.58E-04	4.77E-04
	6	30928.2	(ug/hour)	247.43	1.4526	2.9052	4.3578	5.8104	2.263E-04	4.565E-04	6.848E-04	9.131E-04	1.141E-04	2.283E-04	3.42E-04	4.57E-04
	7	29561.2	(ug/hour)	236.49	1.3884	2.7768	4.1652	5.5536	2.162E-04	4.364E-04	6.545E-04	8.727E-04	1.091E-04	2.182E-04	3.27E-04	4.36E-04
	8	28194.1	(ug/hour)	225.55	1.3242	2.6484	3.9726	5.2967	2.061E-04	4.162E-04	6.243E-04	8.323E-04	1.040E-04	2.081E-04	3.12E-04	4.16E-04
	9	26827.0	(ug/hour)	214.62	1.2600	2.5200	3.7799	5.0399	1.960E-04	3.960E-04	5.940E-04	7.920E-04	9.800E-05	1.960E-04	2.97E-04	3.96E-04
	10	25459.9	(ug/hour)	203.68	1.1958	2.3915	3.5873	4.7831	1.879E-04	3.758E-04	5.637E-04	7.516E-04	9.395E-05	1.879E-04	2.82E-04	3.76E-04
	11	24092.8	(ug/hour)	192.74	1.1316	2.2631	3.3947	4.5262	1.778E-04	3.556E-04	5.335E-04	7.113E-04	8.891E-05	1.778E-04	2.67E-04	3.56E-04
	12	22725.8	(ug/hour)	181.81	1.0674	2.1347	3.2021	4.2694	1.677E-04	3.355E-04	5.032E-04	6.709E-04	8.386E-05	1.677E-04	2.52E-04	3.35E-04
	13	21358.7	(ug/hour)	170.87	1.0031	2.0063	3.0094	4.0126	1.576E-04	3.153E-04	4.729E-04	6.305E-04	7.882E-05	1.576E-04	2.36E-04	3.15E-04
	14	19991.6	(ug/hour)	159.93	0.9389	1.8779	2.8168	3.7558	1.475E-04	2.951E-04	4.426E-04	5.902E-04	7.377E-05	1.475E-04	2.21E-04	2.95E-04
	15	18624.5	(ug/hour)	149.00	0.8747	1.7495	2.6242	3.4989	1.375E-04	2.749E-04	4.124E-04	5.498E-04	6.873E-05	1.375E-04	2.06E-04	2.75E-04
	16	17257.4	(ug/hour)	138.06	0.8105	1.6211	2.4316	3.2421	1.274E-04	2.547E-04	3.821E-04	5.095E-04	6.368E-05	1.274E-04	1.91E-04	2.55E-04
	17	15890.4	(ug/hour)	127.12	0.7463	1.4926	2.2390	2.9853	1.173E-04	2.346E-04	3.518E-04	4.691E-04	5.864E-05	1.173E-04	1.76E-04	2.35E-04
	18	14523.3	(ug/hour)	116.19	0.6821	1.3642	2.0463	2.7284	1.072E-04	2.144E-04	3.216E-04	4.288E-04	5.359E-05	1.072E-04	1.61E-04	2.14E-04
	19	13156.2	(ug/hour)	105.25	0.6179	1.2358	1.8537	2.4716	9.710E-05	1.942E-04	2.913E-04	3.884E-04	4.855E-05	9.710E-05	1.46E-04	1.94E-04
	20	11789.1	(ug/hour)	94.31	0.5537	1.1074	1.6611	2.2148	8.701E-05	1.740E-04	2.610E-04	3.480E-04	4.350E-05	8.701E-05	1.31E-04	1.74E-04
	21	10422.1	(ug/hour)	83.38	0.4895	0.9790	1.4685	1.9580	7.692E-05	1.538E-04	2.308E-04	3.077E-04	3.846E-05	7.692E-05	1.15E-04	1.54E-04
	22	9055.0	(ug/hour)	72.44	0.4253	0.8506	1.2758	1.7011	6.683E-05	1.337E-04	2.005E-04	2.673E-04	3.342E-05	6.683E-05	1.00E-04	1.34E-04
	23	7687.9	(ug/hour)	61.50	0.3611	0.7222	1.0832	1.4443	5.674E-05	1.135E-04	1.702E-04	2.270E-04	2.837E-05	5.674E-05	8.51E-05	1.13E-04
	24	6320.8	(ug/hour)	50.57	0.2969	0.5937	0.8906	1.1875	4.665E-05	9.330E-05	1.400E-04	1.866E-04	2.333E-05	4.665E-05	7.00E-05	9.33E-05
	25	4953.7	(ug/hour)	39.63	0.2327	0.4653	0.6980	0.9306	3.656E-05	7.312E-05	1.097E-04	1.462E-04	1.828E-05	3.656E-05	5.48E-05	7.31E-05
	26	3586.7	(ug/hour)	28.69	0.1685	0.3369	0.5054	0.6738	2.647E-05	5.294E-05	7.941E-05	1.059E-04	1.324E-05	2.647E-05	3.97E-05	5.29E-05
	27	2219.6	(ug/hour)	17.76	0.1042	0.2085	0.3127	0.4170	1.638E-05	3.276E-05	4.914E-05	6.553E-05	8.191E-06	1.638E-05	2.46E-05	3.28E-05
	28	852.5	(ug/hour)	6.82	0.0400	0.0801	0.1201	0.1602	6.292E-06	1.258E-05	1.888E-05	2.517E-05	3.146E-06	6.292E-06	9.44E-06	1.26E-05
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	3.6757	7.3514	11.0270	14.7027	5.776E-04	1.155E-03	1.733E-03	2.310E-03	2.888E-04	5.776E-04	8.66E-04	1.16E-03
	1	37763.6	(ug/hour)	302.11	3.5473	7.0945	10.6418	14.1891	5.574E-04	1.115E-03	1.672E-03	2.230E-03	2.787E-04	5.574E-04	8.36E-04	1.11E-03
	2	36396.5	(ug/hour)	291.17	3.4189	6.8377	10.2566	13.6754	5.372E-04	1.074E-03	1.612E-03	2.149E-03	2.686E-04	5.372E-04	8.06E-04	1.07E-03
	3	35029.5	(ug/hour)	280.24	3.2904	6.5809	9.8713	13.1618	5.171E-04	1.034E-03	1.551E-03	2.068E-03	2.585E-04	5.171E-04	7.76E-04	1.03E-03
	4	33662.4	(ug/hour)	269.30	3.1620	6.3240	9.4861	12.6481	4.969E-04	9.938E-04	1.491E-03	1.988E-03	2.484E-04	4.969E-04	7.45E-04	9.94E-04
	5	32295.3	(ug/hour)	258.36	3.0336	6.0672	9.1008	12.1344	4.767E-04	9.534E-04	1.430E-03	1.907E-03	2.384E-04	4.767E-04	7.15E-04	9.53E-04
	6	30928.2	(ug/hour)	247.43	2.9052	5.8104	8.7156	11.6208	4.565E-04	9.131E-04	1.370E-03	1.826E-03	2.283E-04	4.565E-04	6.85E-04	9.13E-04
	7	29561.2	(ug/hour)	236.49	2.7768	5.5536	8.3303	11.1071	4.364E-04	8.727E-04	1.309E-03	1.745E-03	2.182E-04	4.364E-04	6.55E-04	8.73E-04
	8	28194.1	(ug/hour)	225.55	2.6484	5.2967	7.9451	10.5935	4.162E-04	8.323E-04	1.248E-03	1.665E-03	2.081E-04	4.162E-04	6.24E-04	8.32E-04
	9	26827.0	(ug/hour)	214.62	2.5200	5.0399	7.5599	10.0798	3.960E-04	7.920E-04	1.188E-03	1.584E-03	1.980E-04	3.960E-04	5.94E-04	7.92E-04
	10	25459.9	(ug/hour)	203.68	2.3915	4.7831	7.1746	9.5662	3.758E-04	7.516E-04	1.127E-03	1.503E-03	1.879E-04	3.758E-04	5.64E-04	7.52E-04
	11	24092.8	(ug/hour)	192.74	2.2631	4.5262	6.7894	9.0525	3.556E-04	7.113E-04	1.067E-03	1.423E-03	1.778E-04	3.556E-04	5.33E-04	7.11E-04
	12	22725.8	(ug/hour)	181.81	2.1347	4.2694	6.4041	8.5388	3.355E-04	6.709E-04	1.006E-03	1.342E-03	1.677E-04	3.355E-04	5.03E-04	6.71E-04
	13	21358.7	(ug/hour)	170.87	2.0063	4.0126	6.0188	8.0252	3.153E-04	6.306E-04	9.458E-04	1.261E-03	1.576E-04	3.153E-04	4.73E-04	6.31E-04
	14	19991.6	(ug/hour)	159.93	1.8779	3.7558	5.6336	7.5115	2.951E-04	5.902E-04	8.853E-04	1.180E-03	1.476E-04	2.951E-04	4.43E-04	5.90E-04
	15	18624.5	(ug/hour)	149.00	1.7495	3.4989	5.2484	6.9979	2.749E-04	5.498E-04	8.247E-04	1.100E-03	1.375E-04	2.749E-04	4.12E-04	5.50E-04
	16	17257.4	(ug/hour)	138.06	1.6211	3.2421	4.8632	6.4842	2.547E-04	5.095E-04	7.642E-04	1.019E-03	1.274E-04	2.547E-04	3.82E-04	5.09E-04
	17	15890.4	(ug/hour)	127.12	1.4926	2.9853	4.4779	5.9706	2.346E-04	4.691E-04	7.037E-04	9.382E-04	1.173E-04	2.346E-04	3.52E-04	4.69E-04
	18	14523.3	(ug/hour)	116.19	1.3642	2.7284	4.0927	5.4569	2.144E-04	4.288E-04	6.431E-04	8.575E-04	1.072E-04	2.144E-04	3.22E-04	4.29E-04
	19	13156.2	(ug/hour)	105.25	1.2358	2.4716	3.7074	4.9432	1.942E-04	3.884E-04	5.826E-04	7.768E-04	9.710E-05	1.942E-04	2.91E-04	3.88E-04
	20	11789.1	(ug/hour)	94.31	1.1074	2.2146	3.3222	4.4296	1.740E-04	3.480E-04	5.221E-04	6.961E-04	8.701E-05	1.740E-04	2.61E-04	3.48E-04
	21	10422.1	(ug/hour)	83.38	0.9790	1.9580	2.9369	3.9158	1.538E-04	3.077E-04	4.615E-04	6.154E-04	7.692E-05	1.538E-04	2.31E-04	3.08E-04
	22	9055.0	(ug/hour)	72.44	0.8506	1.7011	2.5517	3.4023	1.337E-04	2.673E-04	4.010E-04	5.346E-04	6.683E-05	1.337E-04	2.00E-04	2.67E-04
	23	7687.9	(ug/hour)	61.50	0.7222	1.4443	2.1665	2.8886	1.135E-04	2.270E-04	3.404E-04	4.539E-04	5.674E-05	1.135E-04	1.70E-04	2.27E-04
	24	6320.8	(ug/hour)	50.57	0.5937	1.1875	1.7812	2.3749	9.330E-05	1.866E-04	2.799E-04	3.732E-04	4.665E-05	9.330E-05	1.40E-04	1.87E-04
	25	4953.7	(ug/hour)	39.63	0.4653	0.9306	1.3960	1.8613	7.312E-05	1.462E-04	2.194E-04	2.925E-04	3.656E-05	7.312E-05	1.10E-04	1.46E-04
	26	3586.7	(ug/hour)	28.69	0.3369	0.6736	1.0107	1.3476	5.294E-05	1.059E-04	1.588E-04	2.118E-04	2.647E-05	5.294E-05	7.94E-05	1.06E-04
	27	2219.6	(ug/hour)	17.76	0.2085	0.4170	0.6255	0.8340	3.276E-05	6.553E-05	9.829E-05	1.311E-04	1.638E-05	3.276E-05	4.91E-05	6.55E-05
	28	852.5	(ug/hour)	6.82	0.0801	0.1602	0.2402	0.3203	1.258E-05	2.517E-05	3.775E-05	5.034E-05	6.292E-06	1.258E-05	1.89E-05	2.52E-05
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	5.5135	11.0270	16.5406	22.0541	8.664E-04	1.733E-03	2.599E-03	3.466E-03	4.332E-04	8.664E-04	1.30E-03	1.73E-03
	1	37763.6	(ug/hour)	302.11	5.3209	10.6418	15.9627	21.2836	8.361E-04	1.672E-03	2.508E-03	3.345E-03	4.181E-04	8.361E-04	1.25E-03	1.67E-03
	2	36396.5	(ug/hour)	291.17	5.1283	10.2566	15.3848	20.5131	8.059E-04	1.612E-03	2.418E-03	3.223E-03	4.029E-04	8.059E-04	1.21E-03	1.61E-03
	3	35029.5	(ug/hour)	280.24	4.9357	9.8713	14.8070	19.7426	7.756E-04	1.551E-03	2.327E-03	3.102E-03	3.878E-04	7.756E-04	1.16E-03	1.55E-03
	4	33662.4	(ug/hour)	269.30	4.7430	9.4861	14.2291	18.9721	7.453E-04	1.491E-03	2.236E-03	2.981E-03	3.727E-04	7.453E-04	1.12E-03	1.49E-03
	5	32295.3	(ug/hour)	258.36	4.5504	9.1008	13.6512	18.2017	7.151E-04	1.430E-03	2.145E-03	2.860E-03	3.575E-04	7.151E-04	1.07E-03	1.43E-03
	6	30928.2	(ug/hour)	247.43	4.3578	8.7156	13.0734	17.4312	6.848E-04	1.370E-03	2.054E-03	2.739E-03	3.424E-04	6.848E-04	1.03E-03	1.37E-03
	7	29561.2	(ug/hour)	236.49	4.1652	8.3303	12.4955	16.6607	6.545E-04	1.309E-03	1.964E-03	2.618E-03	3.273E-04	6.545E-04	9.82E-04	1.31E-03
	8	28194.1	(ug/hour)	225.55	3.9726	7.9451	11.9177	15.8902	6.243E-04	1.249E-03	1.873E-03	2.497E-03	3.121E-04	6.243E-04	9.36E-04	1.25E-03
	9	26827.0	(ug/hour)	214.62	3.7799	7.5599	11.3398	15.1197	5.940E-04	1.188E-03	1.782E-03	2.376E-03	2.970E-04	5.940E-04	8.91E-04	1.19E-03
	10	25459.9	(ug/hour)	203.68	3.5873	7.1746	10.7619	14.3492	5.637E-04	1.127E-03	1.691E-03	2.255E-03	2.819E-04	5.637E-04	8.46E-04	1.13E-03
	11	24092.8	(ug/hour)	192.74	3.3947	6.7894	10.1841	13.5787	5.335E-04	1.067E-03	1.600E-03	2.134E-03	2.667E-04	5.335E-04	8.00E-04	1.07E-03
	12	22725.8	(ug/hour)	181.81	3.2021	6.4041	9.6062	12.8083	5.032E-04	1.006E-03	1.510E-03	2.013E-03	2.516E-04	5.032E-04	7.55E-04	1.01E-03
	13	21358.7	(ug/hour)	170.87	3.0094	6.0189	9.0283	12.0376	4.729E-04	9.458E-04	1.419E-03	1.892E-03	2.365E-04	4.729E-04	7.09E-04	9.46E-04
	14	19991.6	(ug/hour)	159.93	2.8168	5.6336	8.4505	11.2673	4.426E-04	8.853E-04	1.328E-03	1.771E-03	2.213E-04	4.426E-04	6.64E-04	8.85E-04
	15	18624.5	(ug/hour)	149.00	2.6242	5.2484	7.8726	10.4968	4.124E-04	8.247E-04	1.237E-03	1.649E-03	2.062E-04	4.124E-04	6.19E-04	8.25E-04
	16	17257.4	(ug/hour)	138.06	2.4316	4.8632	7.2947	9.7263	3.821E-04	7.642E-04	1.146E-03	1.528E-03	1.911E-04	3.821E-04	5.73E-04	7.64E-04
	17	15890.4	(ug/hour)	127.12	2.2390	4.4779	6.7169	8.9558	3.518E-04	7.037E-04	1.056E-03	1.407E-03	1.759E-04	3.518E-04	5.28E-04	7.04E-04
	18	14523.3	(ug/hour)	116.19	2.0463	4.0927	6.1390	8.1853	3.216E-04	6.431E-04	9.647E-04	1.286E-03	1.608E-04	3.216E-04	4.82E-04	6.43E-04
	19	13156.2	(ug/hour)	105.25	1.8537	3.7074	5.5611	7.4149	2.913E-04	5.826E-04	8.739E-04	1.165E-03	1.456E-04	2.913E-04	4.37E-04	5.83E-04
	20	11789.1	(ug/hour)	94.31	1.6611	3.3222	4.9833	6.6444	2.610E-04	5.221E-04	7.831E-04	1.044E-03	1.305E-04	2.610E-04	3.92E-04	5.22E-04
	21	10422.1	(ug/hour)	83.38	1.4685	2.9369	4.4054	5.8738	2.306E-04	4.615E-04	6.923E-04	9.230E-04	1.154E-04	2.306E-04	3.46E-04	4.62E-04
	22	9055.0	(ug/hour)	72.44	1.2758	2.5517	3.8275	5.1034	2.005E-04	4.010E-04	6.015E-04	8.020E-04	1.002E-04	2.005E-04	3.01E-04	4.01E-04
	23	7687.9	(ug/hour)	61.50	1.0832	2.1665	3.2497	4.3329	1.702E-04	3.404E-04	5.107E-04	6.809E-04	8.511E-05	1.702E-04	2.55E-04	3.40E-04
	24	6320.8	(ug/hour)	50.57	0.8906	1.7812	2.6718	3.5624	1.400E-04	2.799E-04	4.199E-04	5.598E-04	6.998E-05	1.400E-04	2.10E-04	2.80E-04
	25	4953.7	(ug/hour)	39.63	0.6980	1.3960	2.0940	2.7919	1.097E-04	2.194E-04	3.290E-04	4.387E-04	5.484E-05	1.097E-04	1.65E-04	2.19E-04
	26	3586.7	(ug/hour)	28.69	0.5054	1.0107	1.5161	2.0214	7.941E-05	1.588E-04	2.382E-04	3.177E-04	3.971E-05	7.941E-05	1.19E-04	1.59E-04
	27	2219.6	(ug/hour)	17.76	0.3127	0.6255	0.9382	1.2510	4.914E-05	9.828E-05	1.474E-04	1.966E-04	2.457E-05	4.914E-05	7.37E-05	9.83E-05
	28	552.5	(ug/hour)	8.82	0.1201	0.2402	0.3604	0.4805	1.888E-05	3.775E-05	5.663E-05	7.550E-05	9.438E-06	1.888E-05	2.83E-05	3.78E-05
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	1.8378	3.6757	5.5135	7.3514	5.776E-05	1.155E-04	1.733E-04	2.310E-04	2.888E-05	5.776E-05	8.66E-05	1.16E-04
	1	37763.6	(ug/hour)	302.11	1.7736	3.5473	5.3209	7.0945	5.574E-05	1.115E-04	1.672E-04	2.230E-04	2.787E-05	5.574E-05	8.36E-05	1.11E-04
	2	36396.5	(ug/hour)	291.17	1.7094	3.4189	5.1283	6.8377	5.372E-05	1.074E-04	1.612E-04	2.149E-04	2.686E-05	5.372E-05	8.06E-05	1.07E-04
	3	35029.5	(ug/hour)	280.24	1.6452	3.2904	4.9357	6.5808	5.171E-05	1.034E-04	1.551E-04	2.068E-04	2.585E-05	5.171E-05	7.76E-05	1.03E-04
	4	33662.4	(ug/hour)	269.30	1.5810	3.1620	4.7430	6.3240	4.969E-05	9.938E-05	1.491E-04	1.988E-04	2.484E-05	4.969E-05	7.45E-05	9.94E-05
	5	32295.3	(ug/hour)	258.36	1.5168	3.0336	4.5504	6.0672	4.767E-05	9.534E-05	1.430E-04	1.907E-04	2.384E-05	4.767E-05	7.15E-05	9.53E-05
	6	30928.2	(ug/hour)	247.43	1.4526	2.9052	4.3578	5.8104	4.565E-05	9.131E-05	1.370E-04	1.826E-04	2.283E-05	4.565E-05	6.85E-05	9.13E-05
	7	29561.2	(ug/hour)	236.49	1.3884	2.7768	4.1652	5.5536	4.364E-05	8.727E-05	1.309E-04	1.745E-04	2.182E-05	4.364E-05	6.55E-05	8.73E-05
	8	28194.1	(ug/hour)	225.55	1.3242	2.6484	3.9726	5.2967	4.162E-05	8.323E-05	1.249E-04	1.665E-04	2.081E-05	4.162E-05	6.24E-05	8.32E-05
	9	26827.0	(ug/hour)	214.62	1.2600	2.5200	3.7799	5.0399	3.960E-05	7.920E-05	1.188E-04	1.584E-04	1.980E-05	3.960E-05	5.94E-05	7.92E-05
	10	25459.9	(ug/hour)	203.68	1.1958	2.3915	3.5873	4.7831	3.758E-05	7.516E-05	1.127E-04	1.503E-04	1.879E-05	3.758E-05	5.64E-05	7.52E-05
	11	24092.8	(ug/hour)	192.74	1.1316	2.2631	3.3947	4.5262	3.556E-05	7.113E-05	1.067E-04	1.423E-04	1.778E-05	3.556E-05	5.33E-05	7.11E-05
	12	22725.8	(ug/hour)	181.81	1.0674	2.1347	3.2021	4.2694	3.355E-05	6.709E-05	1.006E-04	1.342E-04	1.677E-05	3.355E-05	5.03E-05	6.71E-05
	13	21358.7	(ug/hour)	170.87	1.0031	2.0063	3.0094	4.0126	3.153E-05	6.305E-05	9.458E-05	1.261E-04	1.576E-05	3.153E-05	4.73E-05	6.31E-05
	14	19991.6	(ug/hour)	159.93	0.9389	1.8779	2.8168	3.7558	2.951E-05	5.902E-05	8.853E-05	1.180E-04	1.475E-05	2.951E-05	4.43E-05	5.90E-05
	15	18624.5	(ug/hour)	149.00	0.8747	1.7495	2.6242	3.4989	2.749E-05	5.498E-05	8.247E-05	1.100E-04	1.375E-05	2.749E-05	4.12E-05	5.50E-05
	16	17257.4	(ug/hour)	138.06	0.8105	1.6211	2.4316	3.2421	2.547E-05	5.095E-05	7.642E-05	1.019E-04	1.274E-05	2.547E-05	3.82E-05	5.09E-05
	17	15890.4	(ug/hour)	127.12	0.7463	1.4926	2.2390	2.9853	2.346E-05	4.691E-05	7.037E-05	9.382E-05	1.173E-05	2.346E-05	3.52E-05	4.69E-05
	18	14523.3	(ug/hour)	116.19	0.6821	1.3642	2.0463	2.7284	2.144E-05	4.288E-05	6.431E-05	8.575E-05	1.072E-05	2.144E-05	3.22E-05	4.29E-05
	19	13156.2	(ug/hour)	105.25	0.6179	1.2358	1.8537	2.4716	1.942E-05	3.884E-05	5.826E-05	7.768E-05	9.710E-06	1.942E-05	2.91E-05	3.88E-05
	20	11789.1	(ug/hour)	94.31	0.5537	1.1074	1.6611	2.2148	1.740E-05	3.480E-05	5.221E-05	6.961E-05	8.701E-06	1.740E-05	2.61E-05	3.48E-05
	21	10422.1	(ug/hour)	83.38	0.4895	0.9790	1.4685	1.9580	1.538E-05	3.077E-05	4.615E-05	6.154E-05	7.692E-06	1.538E-05	2.31E-05	3.08E-05
	22	9055.0	(ug/hour)	72.44	0.4253	0.8506	1.2758	1.7011	1.337E-05	2.673E-05	4.010E-05	5.346E-05	6.683E-06	1.337E-05	2.00E-05	2.67E-05
	23	7687.9	(ug/hour)	61.50	0.3611	0.7222	1.0832	1.4443	1.135E-05	2.270E-05	3.404E-05	4.539E-05	5.674E-06	1.135E-05	1.70E-05	2.27E-05
	24	6320.8	(ug/hour)	50.57	0.2969	0.5937	0.8906	1.1875	9.330E-06	1.866E-05	2.799E-05	3.732E-05	4.665E-06	9.330E-06	1.40E-05	1.87E-05
	25	4953.7	(ug/hour)	39.63	0.2327	0.4653	0.6980	0.9306	7.312E-06	1.462E-05	2.194E-05	2.925E-05	3.656E-06	7.312E-06	1.10E-05	1.46E-05
	26	3586.7	(ug/hour)	28.69	0.1685	0.3369	0.5054	0.6738	5.294E-06	1.059E-05	1.588E-05	2.116E-05	2.647E-06	5.294E-06	7.94E-06	1.06E-05
	27	2219.6	(ug/hour)	17.76	0.1042	0.2085	0.3127	0.4170	3.276E-06	6.553E-06	9.829E-06	1.311E-05	1.638E-06	3.276E-06	4.91E-06	6.55E-06
	28	852.5	(ug/hour)	6.82	0.0400	0.0801	0.1201	0.1602	1.258E-06	2.517E-06	3.775E-06	5.034E-06	6.292E-07	1.258E-06	1.89E-06	2.52E-06
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	3.6757	7.3514	11.0270	14.7027	1.155E-04	2.310E-04	3.466E-04	4.621E-04	5.776E-05	1.155E-04	1.73E-04	2.31E-04
	1	37763.6	(ug/hour)	302.11	3.5473	7.0945	10.6418	14.1891	1.115E-04	2.230E-04	3.345E-04	4.459E-04	5.574E-05	1.115E-04	1.67E-04	2.23E-04
	2	36396.5	(ug/hour)	291.17	3.4189	6.8377	10.2566	13.6754	1.074E-04	2.149E-04	3.223E-04	4.298E-04	5.372E-05	1.074E-04	1.61E-04	2.15E-04
	3	35029.5	(ug/hour)	280.24	3.2904	6.5809	9.8713	13.1618	1.034E-04	2.068E-04	3.102E-04	4.137E-04	5.171E-05	1.034E-04	1.55E-04	2.07E-04
	4	33662.4	(ug/hour)	269.30	3.1620	6.3240	9.4861	12.6481	9.938E-05	1.988E-04	2.981E-04	3.975E-04	4.969E-05	9.938E-05	1.49E-04	1.99E-04
	5	32295.3	(ug/hour)	258.36	3.0336	6.0672	9.1008	12.1344	9.534E-05	1.907E-04	2.860E-04	3.814E-04	4.767E-05	9.534E-05	1.43E-04	1.91E-04
	6	30928.2	(ug/hour)	247.43	2.9052	5.8104	8.7156	11.6208	9.131E-05	1.826E-04	2.739E-04	3.652E-04	4.565E-05	9.131E-05	1.37E-04	1.83E-04
	7	29561.2	(ug/hour)	236.49	2.7768	5.5536	8.3303	11.1071	8.727E-05	1.745E-04	2.618E-04	3.491E-04	4.364E-05	8.727E-05	1.31E-04	1.75E-04
	8	28194.1	(ug/hour)	225.55	2.6484	5.2967	7.9451	10.5935	8.323E-05	1.665E-04	2.497E-04	3.329E-04	4.162E-05	8.323E-05	1.25E-04	1.66E-04
	9	26827.0	(ug/hour)	214.62	2.5200	5.0399	7.5599	10.0798	7.920E-05	1.584E-04	2.376E-04	3.168E-04	3.960E-05	7.920E-05	1.19E-04	1.58E-04
	10	25459.9	(ug/hour)	203.68	2.3915	4.7831	7.1746	9.5662	7.516E-05	1.503E-04	2.255E-04	3.007E-04	3.758E-05	7.516E-05	1.13E-04	1.50E-04
	11	24092.8	(ug/hour)	192.74	2.2631	4.5262	6.7894	9.0525	7.113E-05	1.423E-04	2.134E-04	2.845E-04	3.556E-05	7.113E-05	1.07E-04	1.42E-04
	12	22725.8	(ug/hour)	181.81	2.1347	4.2694	6.4041	8.5388	6.709E-05	1.342E-04	2.013E-04	2.684E-04	3.355E-05	6.709E-05	1.01E-04	1.34E-04
	13	21358.7	(ug/hour)	170.87	2.0063	4.0126	6.0189	8.0252	6.305E-05	1.261E-04	1.892E-04	2.522E-04	3.153E-05	6.305E-05	9.46E-05	1.26E-04
	14	19991.6	(ug/hour)	159.93	1.8779	3.7558	5.6336	7.5115	5.902E-05	1.180E-04	1.771E-04	2.361E-04	2.951E-05	5.902E-05	8.85E-05	1.18E-04
	15	18624.5	(ug/hour)	149.00	1.7495	3.4990	5.2484	6.9979	5.498E-05	1.100E-04	1.649E-04	2.199E-04	2.749E-05	5.498E-05	8.25E-05	1.10E-04
	16	17257.4	(ug/hour)	138.06	1.6211	3.2421	4.8632	6.4842	5.095E-05	1.019E-04	1.528E-04	2.038E-04	2.547E-05	5.095E-05	7.64E-05	1.02E-04
	17	15890.4	(ug/hour)	127.12	1.4926	2.9853	4.4779	5.9706	4.691E-05	9.382E-05	1.407E-04	1.876E-04	2.346E-05	4.691E-05	7.04E-05	9.38E-05
	18	14523.3	(ug/hour)	116.19	1.3642	2.7284	4.0927	5.4569	4.288E-05	8.575E-05	1.286E-04	1.715E-04	2.144E-05	4.288E-05	6.43E-05	8.58E-05
	19	13156.2	(ug/hour)	105.25	1.2358	2.4716	3.7074	4.9432	3.884E-05	7.768E-05	1.165E-04	1.554E-04	1.942E-05	3.884E-05	5.83E-05	7.77E-05
	20	11789.1	(ug/hour)	94.31	1.1074	2.2148	3.3222	4.4296	3.480E-05	6.961E-05	1.044E-04	1.392E-04	1.740E-05	3.480E-05	5.22E-05	6.96E-05
	21	10422.1	(ug/hour)	83.38	0.9790	1.9580	2.9369	3.9159	3.077E-05	6.154E-05	9.230E-05	1.231E-04	1.538E-05	3.077E-05	4.62E-05	6.15E-05
	22	9055.0	(ug/hour)	72.44	0.8506	1.7011	2.5517	3.4023	2.673E-05	5.346E-05	8.020E-05	1.069E-04	1.337E-05	2.673E-05	4.01E-05	5.35E-05
	23	7687.9	(ug/hour)	61.50	0.7222	1.4443	2.1665	2.8886	2.270E-05	4.539E-05	6.809E-05	9.078E-05	1.135E-05	2.270E-05	3.40E-05	4.54E-05
	24	6320.8	(ug/hour)	50.57	0.5937	1.1875	1.7812	2.3749	1.866E-05	3.732E-05	5.598E-05	7.464E-05	9.330E-06	1.866E-05	2.80E-05	3.73E-05
	25	4953.7	(ug/hour)	39.63	0.4653	0.9306	1.3960	1.8613	1.462E-05	2.925E-05	4.387E-05	5.850E-05	7.312E-06	1.462E-05	2.19E-05	2.92E-05
	26	3586.7	(ug/hour)	28.69	0.3369	0.6738	1.0107	1.3476	1.059E-05	2.118E-05	3.177E-05	4.235E-05	5.294E-06	1.059E-05	1.59E-05	2.12E-05
	27	2219.6	(ug/hour)	17.76	0.2085	0.4170	0.6255	0.8340	6.553E-06	1.311E-05	1.966E-05	2.621E-05	3.276E-06	6.553E-06	9.83E-06	1.31E-05
	28	852.5	(ug/hour)	6.82	0.0801	0.1602	0.2402	0.3203	2.517E-06	5.034E-06	7.550E-06	1.007E-05	1.258E-06	2.517E-06	3.78E-06	5.03E-06
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 92 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	5.5135	11.0270	16.5406	22.0541	1.733E-04	3.466E-04	5.199E-04	6.931E-04	8.664E-05	1.733E-04	2.60E-04	3.47E-04
	1	37783.8	(ug/hour)	302.11	5.3209	10.6418	15.9627	21.2836	1.672E-04	3.345E-04	5.017E-04	6.689E-04	8.361E-05	1.672E-04	2.51E-04	3.34E-04
	2	36396.5	(ug/hour)	291.17	5.1283	10.2566	15.3848	20.5131	1.612E-04	3.223E-04	4.835E-04	6.447E-04	8.059E-05	1.612E-04	2.42E-04	3.22E-04
	3	35029.5	(ug/hour)	280.24	4.9357	9.8713	14.8070	19.7426	1.551E-04	3.102E-04	4.654E-04	6.205E-04	7.756E-05	1.551E-04	2.33E-04	3.10E-04
	4	33662.4	(ug/hour)	269.30	4.7430	9.4861	14.2291	18.9721	1.491E-04	2.981E-04	4.472E-04	5.963E-04	7.453E-05	1.491E-04	2.24E-04	2.98E-04
	5	32295.3	(ug/hour)	258.36	4.5504	9.1008	13.6512	18.2017	1.430E-04	2.860E-04	4.290E-04	5.721E-04	7.151E-05	1.430E-04	2.15E-04	2.86E-04
	6	30928.2	(ug/hour)	247.43	4.3578	8.7156	13.0734	17.4312	1.370E-04	2.739E-04	4.109E-04	5.478E-04	6.848E-05	1.370E-04	2.05E-04	2.74E-04
	7	29561.2	(ug/hour)	236.49	4.1652	8.3303	12.4955	16.6607	1.309E-04	2.618E-04	3.927E-04	5.236E-04	6.545E-05	1.309E-04	1.96E-04	2.62E-04
	8	28194.1	(ug/hour)	225.55	3.9726	7.9451	11.9177	15.8902	1.249E-04	2.497E-04	3.746E-04	4.994E-04	6.243E-05	1.249E-04	1.87E-04	2.50E-04
	9	26827.0	(ug/hour)	214.62	3.7799	7.5599	11.3398	15.1197	1.188E-04	2.376E-04	3.564E-04	4.752E-04	5.940E-05	1.188E-04	1.78E-04	2.38E-04
	10	25459.9	(ug/hour)	203.68	3.5873	7.1746	10.7619	14.3492	1.127E-04	2.255E-04	3.382E-04	4.510E-04	5.637E-05	1.127E-04	1.69E-04	2.25E-04
	11	24092.8	(ug/hour)	192.74	3.3947	6.7894	10.1841	13.5787	1.067E-04	2.134E-04	3.201E-04	4.268E-04	5.335E-05	1.067E-04	1.60E-04	2.13E-04
	12	22725.8	(ug/hour)	181.81	3.2021	6.4041	9.6062	12.8083	1.006E-04	2.013E-04	3.019E-04	4.025E-04	5.032E-05	1.006E-04	1.51E-04	2.01E-04
	13	21358.7	(ug/hour)	170.87	3.0094	6.0189	9.0283	12.0378	9.458E-05	1.892E-04	2.837E-04	3.783E-04	4.729E-05	9.458E-05	1.42E-04	1.89E-04
	14	19991.6	(ug/hour)	159.93	2.8168	5.6336	8.4505	11.2673	8.853E-05	1.771E-04	2.656E-04	3.541E-04	4.426E-05	8.853E-05	1.33E-04	1.77E-04
	15	18624.5	(ug/hour)	149.00	2.6242	5.2484	7.8726	10.4968	8.247E-05	1.649E-04	2.474E-04	3.299E-04	4.124E-05	8.247E-05	1.24E-04	1.65E-04
	16	17257.4	(ug/hour)	138.06	2.4316	4.8632	7.2947	9.7263	7.642E-05	1.528E-04	2.293E-04	3.057E-04	3.821E-05	7.642E-05	1.15E-04	1.53E-04
	17	15890.4	(ug/hour)	127.12	2.2390	4.4779	6.7169	8.9558	7.037E-05	1.407E-04	2.111E-04	2.815E-04	3.518E-05	7.037E-05	1.06E-04	1.41E-04
	18	14523.3	(ug/hour)	116.19	2.0463	4.0927	6.1390	8.1853	6.431E-05	1.286E-04	1.929E-04	2.573E-04	3.216E-05	6.431E-05	9.65E-05	1.29E-04
	19	13156.2	(ug/hour)	105.25	1.8537	3.7074	5.5611	7.4149	5.826E-05	1.165E-04	1.748E-04	2.330E-04	2.913E-05	5.826E-05	8.74E-05	1.17E-04
	20	11789.1	(ug/hour)	94.31	1.6611	3.3222	4.9833	6.6444	5.221E-05	1.044E-04	1.566E-04	2.088E-04	2.610E-05	5.221E-05	7.83E-05	1.04E-04
	21	10422.1	(ug/hour)	83.38	1.4685	2.9369	4.4054	5.8739	4.615E-05	9.230E-05	1.385E-04	1.846E-04	2.308E-05	4.615E-05	6.92E-05	9.23E-05
	22	9055.0	(ug/hour)	72.44	1.2758	2.5517	3.8275	5.1034	4.010E-05	8.020E-05	1.203E-04	1.604E-04	2.005E-05	4.010E-05	6.01E-05	8.02E-05
	23	7687.9	(ug/hour)	61.50	1.0832	2.1665	3.2497	4.3329	3.404E-05	6.809E-05	1.021E-04	1.362E-04	1.702E-05	3.404E-05	5.11E-05	6.81E-05
	24	6320.8	(ug/hour)	50.57	0.8906	1.7812	2.6718	3.5624	2.799E-05	5.598E-05	8.397E-05	1.120E-04	1.400E-05	2.799E-05	4.20E-05	5.60E-05
	25	4953.7	(ug/hour)	39.63	0.6980	1.3960	2.0940	2.7919	2.194E-05	4.387E-05	6.581E-05	8.775E-05	1.097E-05	2.194E-05	3.29E-05	4.39E-05
	26	3586.7	(ug/hour)	28.69	0.5054	1.0107	1.5161	2.0214	1.588E-05	3.177E-05	4.765E-05	6.353E-05	7.941E-06	1.588E-05	2.38E-05	3.18E-05
	27	2219.6	(ug/hour)	17.76	0.3127	0.6255	0.9382	1.2510	9.829E-06	1.966E-05	2.949E-05	3.932E-05	4.914E-06	9.829E-06	1.47E-05	1.97E-05
	28	852.5	(ug/hour)	6.82	0.1201	0.2402	0.3604	0.4805	3.775E-06	7.550E-06	1.133E-05	1.510E-05	1.888E-06	3.775E-06	5.66E-06	7.55E-06
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1)] * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	1.8378	3.6757	5.5135	7.3514	1.444E-05	2.888E-05	4.332E-05	5.776E-05	2.888E-06	5.776E-06	8.66E-06	1.16E-05
	1	37763.6	(ug/hour)	302.11	1.7736	3.5473	5.3209	7.0945	1.394E-05	2.787E-05	4.181E-05	5.574E-05	2.787E-06	5.574E-06	8.36E-06	1.11E-05
	2	36396.5	(ug/hour)	291.17	1.7094	3.4189	5.1283	6.8377	1.343E-05	2.686E-05	4.029E-05	5.372E-05	2.686E-06	5.372E-06	8.06E-06	1.07E-05
	3	35029.5	(ug/hour)	280.24	1.6452	3.2904	4.9357	6.5809	1.293E-05	2.585E-05	3.878E-05	5.171E-05	2.585E-06	5.171E-06	7.76E-06	1.03E-05
	4	33662.4	(ug/hour)	269.30	1.5810	3.1620	4.7430	6.3240	1.242E-05	2.484E-05	3.727E-05	4.969E-05	2.484E-06	4.969E-06	7.45E-06	9.94E-06
	5	32295.3	(ug/hour)	258.36	1.5168	3.0336	4.5504	6.0672	1.192E-05	2.384E-05	3.575E-05	4.767E-05	2.384E-06	4.767E-06	7.15E-06	9.53E-06
	6	30928.2	(ug/hour)	247.43	1.4526	2.9052	4.3578	5.8104	1.141E-05	2.283E-05	3.424E-05	4.565E-05	2.283E-06	4.565E-06	6.85E-06	9.13E-06
	7	29561.2	(ug/hour)	236.49	1.3884	2.7768	4.1652	5.5536	1.091E-05	2.182E-05	3.273E-05	4.364E-05	2.182E-06	4.364E-06	6.55E-06	8.73E-06
	8	28194.1	(ug/hour)	225.55	1.3242	2.6484	3.9726	5.2967	1.040E-05	2.081E-05	3.121E-05	4.162E-05	2.081E-06	4.162E-06	6.24E-06	8.32E-06
	9	26827.0	(ug/hour)	214.62	1.2600	2.5200	3.7799	5.0399	9.900E-06	1.980E-05	2.970E-05	3.960E-05	1.980E-06	3.960E-06	5.94E-06	7.92E-06
	10	25459.9	(ug/hour)	203.68	1.1958	2.3915	3.5873	4.7831	9.395E-06	1.879E-05	2.819E-05	3.758E-05	1.879E-06	3.758E-06	5.64E-06	7.52E-06
	11	24092.8	(ug/hour)	192.74	1.1316	2.2631	3.3947	4.5262	8.891E-06	1.778E-05	2.667E-05	3.556E-05	1.778E-06	3.556E-06	5.33E-06	7.11E-06
	12	22725.8	(ug/hour)	181.81	1.0674	2.1347	3.2021	4.2694	8.386E-06	1.677E-05	2.516E-05	3.355E-05	1.677E-06	3.355E-06	5.03E-06	6.71E-06
	13	21358.7	(ug/hour)	170.87	1.0031	2.0063	3.0094	4.0126	7.882E-06	1.576E-05	2.365E-05	3.153E-05	1.576E-06	3.153E-06	4.73E-06	6.31E-06
	14	19991.6	(ug/hour)	159.93	0.9389	1.8779	2.8166	3.7558	7.377E-06	1.475E-05	2.213E-05	2.951E-05	1.475E-06	2.951E-06	4.43E-06	5.90E-06
	15	18624.5	(ug/hour)	149.00	0.8747	1.7495	2.6242	3.4989	6.873E-06	1.375E-05	2.062E-05	2.749E-05	1.375E-06	2.749E-06	4.12E-06	5.50E-06
	16	17257.4	(ug/hour)	138.06	0.8105	1.6211	2.4316	3.2421	6.368E-06	1.274E-05	1.911E-05	2.547E-05	1.274E-06	2.547E-06	3.82E-06	5.09E-06
	17	15890.4	(ug/hour)	127.12	0.7463	1.4926	2.2390	2.9853	5.864E-06	1.173E-05	1.759E-05	2.346E-05	1.173E-06	2.346E-06	3.52E-06	4.69E-06
	18	14523.3	(ug/hour)	116.19	0.6821	1.3642	2.0463	2.7284	5.359E-06	1.072E-05	1.608E-05	2.144E-05	1.072E-06	2.144E-06	3.22E-06	4.29E-06
	19	13156.2	(ug/hour)	105.25	0.6179	1.2358	1.8537	2.4716	4.855E-06	9.710E-06	1.456E-05	1.942E-05	9.710E-07	1.942E-06	2.91E-06	3.88E-06
	20	11789.1	(ug/hour)	94.31	0.5537	1.1074	1.6611	2.2148	4.350E-06	8.701E-06	1.305E-05	1.740E-05	8.701E-07	1.740E-06	2.61E-06	3.48E-06
	21	10422.1	(ug/hour)	83.38	0.4895	0.9790	1.4685	1.9580	3.846E-06	7.692E-06	1.154E-05	1.538E-05	7.692E-07	1.538E-06	2.31E-06	3.08E-06
	22	9055.0	(ug/hour)	72.44	0.4253	0.8506	1.2758	1.7011	3.342E-06	6.683E-06	1.002E-05	1.337E-05	6.683E-07	1.337E-06	2.00E-06	2.67E-06
	23	7687.9	(ug/hour)	61.50	0.3611	0.7222	1.0832	1.4443	2.837E-06	5.674E-06	8.511E-06	1.135E-05	5.674E-07	1.135E-06	1.70E-06	2.27E-06
	24	6320.8	(ug/hour)	50.57	0.2969	0.5937	0.8906	1.1875	2.333E-06	4.665E-06	6.998E-06	9.330E-06	4.665E-07	9.330E-07	1.40E-06	1.87E-06
	25	4953.7	(ug/hour)	39.63	0.2327	0.4653	0.6980	0.9306	1.828E-06	3.656E-06	5.484E-06	7.312E-06	3.656E-07	7.312E-07	1.10E-06	1.46E-06
	26	3586.7	(ug/hour)	28.69	0.1685	0.3369	0.5054	0.6738	1.324E-06	2.647E-06	3.971E-06	5.294E-06	2.647E-07	5.294E-07	7.94E-07	1.06E-06
	27	2219.6	(ug/hour)	17.76	0.1042	0.2085	0.3127	0.4170	8.191E-07	1.638E-06	2.457E-06	3.276E-06	1.638E-07	3.276E-07	4.91E-07	6.55E-07
	28	852.5	(ug/hour)	6.82	0.0400	0.0801	0.1201	0.1602	3.146E-07	6.292E-07	9.438E-07	1.258E-06	6.292E-08	1.258E-07	1.89E-07	2.52E-07
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	3.8757	7.3514	11.0270	14.7027	2.868E-05	5.776E-05	8.984E-05	1.155E-04	5.776E-06	1.155E-05	1.73E-05	2.31E-05
	1	37783.6	(ug/hour)	302.11	3.5473	7.0945	10.6418	14.1891	2.787E-05	5.574E-05	8.361E-05	1.115E-04	5.574E-06	1.115E-05	1.67E-05	2.23E-05
	2	36396.5	(ug/hour)	291.17	3.4189	6.8377	10.2566	13.6754	2.686E-05	5.372E-05	8.059E-05	1.074E-04	5.372E-06	1.074E-05	1.61E-05	2.15E-05
	3	35029.5	(ug/hour)	280.24	3.2904	6.5809	9.8713	13.1618	2.585E-05	5.171E-05	7.756E-05	1.034E-04	5.171E-06	1.034E-05	1.55E-05	2.07E-05
	4	33662.4	(ug/hour)	269.30	3.1620	6.3240	9.4861	12.6481	2.484E-05	4.968E-05	7.453E-05	9.938E-05	4.968E-06	9.938E-06	1.49E-05	1.99E-05
	5	32295.3	(ug/hour)	258.36	3.0336	6.0672	9.1008	12.1344	2.384E-05	4.767E-05	7.151E-05	9.534E-05	4.767E-06	9.534E-06	1.43E-05	1.91E-05
	6	30928.2	(ug/hour)	247.43	2.9052	5.8104	8.7156	11.6208	2.283E-05	4.565E-05	6.848E-05	9.131E-05	4.565E-06	9.131E-06	1.37E-05	1.83E-05
	7	29561.2	(ug/hour)	236.49	2.7768	5.5536	8.3303	11.1071	2.182E-05	4.364E-05	6.545E-05	8.727E-05	4.364E-06	8.727E-06	1.31E-05	1.75E-05
	8	28194.1	(ug/hour)	225.55	2.6484	5.2967	7.9451	10.5935	2.081E-05	4.162E-05	6.243E-05	8.323E-05	4.162E-06	8.323E-06	1.25E-05	1.66E-05
	9	26827.0	(ug/hour)	214.62	2.5200	5.0399	7.5599	10.0798	1.980E-05	3.960E-05	5.940E-05	7.920E-05	3.960E-06	7.920E-06	1.19E-05	1.58E-05
	10	25459.9	(ug/hour)	203.68	2.3915	4.7831	7.1746	9.5662	1.879E-05	3.758E-05	5.637E-05	7.516E-05	3.758E-06	7.516E-06	1.13E-05	1.50E-05
	11	24092.8	(ug/hour)	192.74	2.2631	4.5262	6.7894	9.0525	1.778E-05	3.556E-05	5.335E-05	7.113E-05	3.556E-06	7.113E-06	1.07E-05	1.42E-05
	12	22725.8	(ug/hour)	181.81	2.1347	4.2694	6.4041	8.5388	1.677E-05	3.355E-05	5.032E-05	6.709E-05	3.355E-06	6.709E-06	1.01E-05	1.34E-05
	13	21358.7	(ug/hour)	170.87	2.0063	4.0126	6.0189	8.0252	1.576E-05	3.153E-05	4.729E-05	6.305E-05	3.153E-06	6.305E-06	9.46E-06	1.26E-05
	14	19991.8	(ug/hour)	159.93	1.8779	3.7558	5.6336	7.5115	1.475E-05	2.951E-05	4.426E-05	5.902E-05	2.951E-06	5.902E-06	8.85E-06	1.18E-05
	15	18624.5	(ug/hour)	149.00	1.7495	3.4989	5.2484	6.9979	1.375E-05	2.749E-05	4.124E-05	5.498E-05	2.749E-06	5.498E-06	8.25E-06	1.10E-05
	16	17257.4	(ug/hour)	138.06	1.6211	3.2421	4.8632	6.4842	1.274E-05	2.547E-05	3.821E-05	5.095E-05	2.547E-06	5.095E-06	7.64E-06	1.02E-05
	17	15890.4	(ug/hour)	127.12	1.4928	2.9853	4.4779	5.9706	1.173E-05	2.346E-05	3.518E-05	4.691E-05	2.346E-06	4.691E-06	7.04E-06	9.38E-06
	18	14523.3	(ug/hour)	116.19	1.3642	2.7284	4.0927	5.4569	1.072E-05	2.144E-05	3.216E-05	4.288E-05	2.144E-06	4.288E-06	6.43E-06	8.58E-06
	19	13156.2	(ug/hour)	105.25	1.2356	2.4716	3.7074	4.9432	9.710E-06	1.942E-05	2.913E-05	3.884E-05	1.942E-06	3.884E-06	5.83E-06	7.77E-06
	20	11789.1	(ug/hour)	94.31	1.1074	2.2148	3.3222	4.4296	8.701E-06	1.740E-05	2.610E-05	3.480E-05	1.740E-06	3.480E-06	5.22E-06	6.96E-06
	21	10422.1	(ug/hour)	83.38	0.9790	1.9580	2.9369	3.9159	7.692E-06	1.538E-05	2.306E-05	3.077E-05	1.538E-06	3.077E-06	4.62E-06	6.15E-06
	22	9055.0	(ug/hour)	72.44	0.8506	1.7011	2.5517	3.4023	6.683E-06	1.337E-05	2.005E-05	2.673E-05	1.337E-06	2.673E-06	4.01E-06	5.35E-06
	23	7687.9	(ug/hour)	61.50	0.7222	1.4443	2.1665	2.8886	5.674E-06	1.135E-05	1.702E-05	2.270E-05	1.135E-06	2.270E-06	3.40E-06	4.54E-06
	24	6320.8	(ug/hour)	50.57	0.5937	1.1875	1.7812	2.3749	4.665E-06	9.330E-06	1.400E-05	1.866E-05	9.330E-07	1.866E-06	2.80E-06	3.73E-06
	25	4953.7	(ug/hour)	39.63	0.4653	0.9306	1.3960	1.8613	3.656E-06	7.312E-06	1.097E-05	1.462E-05	7.312E-07	1.462E-06	2.19E-06	2.92E-06
	26	3586.7	(ug/hour)	28.69	0.3369	0.6738	1.0107	1.3476	2.647E-06	5.294E-06	7.941E-06	1.059E-05	5.294E-07	1.059E-06	1.59E-06	2.12E-06
	27	2219.6	(ug/hour)	17.76	0.2085	0.4170	0.6255	0.8340	1.636E-06	3.276E-06	4.914E-06	6.553E-06	3.276E-07	6.553E-07	9.83E-07	1.31E-06
	28	852.5	(ug/hour)	6.82	0.0801	0.1602	0.2402	0.3203	6.292E-07	1.258E-06	1.888E-06	2.517E-06	1.258E-07	2.517E-07	3.78E-07	5.03E-07
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 92 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	39130.7	(ug/hour)	313.05	5.5135	11.0270	16.5406	22.0541	4.332E-05	8.664E-05	1.300E-04	1.733E-04	8.664E-06	1.733E-05	2.60E-05	3.47E-05
	1	37763.6	(ug/hour)	302.11	5.3209	10.6418	15.9627	21.2836	4.181E-05	8.361E-05	1.254E-04	1.672E-04	8.361E-06	1.672E-05	2.51E-05	3.34E-05
	2	36396.5	(ug/hour)	291.17	5.1283	10.2566	15.3848	20.5131	4.029E-05	8.059E-05	1.209E-04	1.612E-04	8.059E-06	1.612E-05	2.42E-05	3.22E-05
	3	35029.5	(ug/hour)	280.24	4.9357	9.8713	14.8070	19.7426	3.878E-05	7.756E-05	1.163E-04	1.551E-04	7.756E-06	1.551E-05	2.33E-05	3.10E-05
	4	33662.4	(ug/hour)	269.30	4.7430	9.4861	14.2291	18.9721	3.727E-05	7.453E-05	1.118E-04	1.491E-04	7.453E-06	1.491E-05	2.24E-05	2.98E-05
	5	32295.3	(ug/hour)	258.36	4.5504	9.1008	13.6512	18.2017	3.575E-05	7.151E-05	1.073E-04	1.430E-04	7.151E-06	1.430E-05	2.15E-05	2.86E-05
	6	30928.2	(ug/hour)	247.43	4.3578	8.7156	13.0734	17.4312	3.424E-05	6.848E-05	1.027E-04	1.370E-04	6.848E-06	1.370E-05	2.05E-05	2.74E-05
	7	29561.2	(ug/hour)	236.49	4.1652	8.3303	12.4955	16.6607	3.273E-05	6.545E-05	9.818E-05	1.309E-04	6.545E-06	1.309E-05	1.96E-05	2.62E-05
	8	28194.1	(ug/hour)	225.55	3.9726	7.9451	11.9177	15.8902	3.121E-05	6.243E-05	9.364E-05	1.249E-04	6.243E-06	1.249E-05	1.87E-05	2.50E-05
	9	26827.0	(ug/hour)	214.62	3.7799	7.5598	11.3396	15.1197	2.970E-05	5.940E-05	8.910E-05	1.188E-04	5.940E-06	1.188E-05	1.78E-05	2.38E-05
	10	25459.9	(ug/hour)	203.68	3.5873	7.1746	10.7619	14.3492	2.819E-05	5.637E-05	8.456E-05	1.127E-04	5.637E-06	1.127E-05	1.69E-05	2.25E-05
	11	24092.8	(ug/hour)	192.74	3.3947	6.7894	10.1841	13.5787	2.667E-05	5.335E-05	8.002E-05	1.067E-04	5.335E-06	1.067E-05	1.60E-05	2.13E-05
	12	22725.8	(ug/hour)	181.81	3.2021	6.4041	9.6062	12.8083	2.516E-05	5.032E-05	7.548E-05	1.006E-04	5.032E-06	1.006E-05	1.51E-05	2.01E-05
	13	21358.7	(ug/hour)	170.87	3.0094	6.0189	9.0283	12.0376	2.365E-05	4.729E-05	7.094E-05	9.458E-05	4.729E-06	9.458E-06	1.42E-05	1.89E-05
	14	19991.6	(ug/hour)	159.93	2.8168	5.6336	8.4505	11.2673	2.213E-05	4.426E-05	6.640E-05	8.853E-05	4.426E-06	8.853E-06	1.33E-05	1.77E-05
	15	18624.5	(ug/hour)	149.00	2.6242	5.2484	7.8726	10.4968	2.062E-05	4.124E-05	6.186E-05	8.247E-05	4.124E-06	8.247E-06	1.24E-05	1.65E-05
	16	17257.4	(ug/hour)	138.06	2.4316	4.8632	7.2947	9.7263	1.911E-05	3.821E-05	5.732E-05	7.642E-05	3.821E-06	7.642E-06	1.15E-05	1.53E-05
	17	15890.4	(ug/hour)	127.12	2.2390	4.4779	6.7169	8.9558	1.758E-05	3.516E-05	5.275E-05	7.037E-05	3.516E-06	7.037E-06	1.06E-05	1.41E-05
	18	14523.3	(ug/hour)	116.19	2.0463	4.0927	6.1390	8.1853	1.606E-05	3.216E-05	4.824E-05	6.431E-05	3.216E-06	6.431E-06	9.65E-06	1.29E-05
	19	13156.2	(ug/hour)	105.25	1.8537	3.7074	5.5611	7.4149	1.456E-05	2.913E-05	4.369E-05	5.826E-05	2.913E-06	5.826E-06	8.74E-06	1.17E-05
	20	11789.1	(ug/hour)	94.31	1.6611	3.3222	4.9833	6.6444	1.305E-05	2.610E-05	3.915E-05	5.221E-05	2.610E-06	5.221E-06	7.83E-06	1.04E-05
	21	10422.1	(ug/hour)	83.38	1.4685	2.9369	4.4054	5.8739	1.154E-05	2.308E-05	3.461E-05	4.615E-05	2.308E-06	4.615E-06	6.92E-06	9.23E-06
	22	9055.0	(ug/hour)	72.44	1.2758	2.5517	3.8275	5.1034	1.002E-05	2.005E-05	3.007E-05	4.010E-05	2.005E-06	4.010E-06	6.01E-06	8.02E-06
	23	7687.9	(ug/hour)	61.50	1.0832	2.1665	3.2497	4.3329	8.511E-06	1.702E-05	2.553E-05	3.404E-05	1.702E-06	3.404E-06	5.11E-06	6.81E-06
	24	6320.8	(ug/hour)	50.57	0.8906	1.7812	2.6718	3.5624	6.998E-06	1.400E-05	2.099E-05	2.799E-05	1.400E-06	2.799E-06	4.20E-06	5.60E-06
	25	4953.7	(ug/hour)	39.63	0.6980	1.3960	2.0940	2.7919	5.484E-06	1.097E-05	1.645E-05	2.194E-05	1.097E-06	2.194E-06	3.29E-06	4.39E-06
	26	3586.7	(ug/hour)	28.69	0.5054	1.0107	1.5161	2.0214	3.971E-06	7.941E-06	1.191E-05	1.588E-05	7.941E-07	1.588E-06	2.38E-06	3.18E-06
	27	2219.8	(ug/hour)	17.76	0.3127	0.6255	0.9382	1.2510	2.457E-06	4.914E-06	7.372E-06	9.829E-06	4.914E-07	9.829E-07	1.47E-06	1.97E-06
	28	852.5	(ug/hour)	6.82	0.1201	0.2402	0.3604	0.4805	9.436E-07	1.888E-06	2.831E-06	3.775E-06	1.888E-07	3.775E-07	5.66E-07	7.55E-07
	29	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	30	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	31	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	32	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	33	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	34	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00
	35	0.0	(ug/hour)	0.00	0.0000	0.0000	0.0000	0.0000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00E+00	0.00E+00

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	306.32	1.8101	3.6202	5.4303	7.2404	2.844E-04	5.689E-04	8.533E-04	1.138E-03	1.422E-04	2.844E-04	4.267E-04	5.689E-04
	1	121.953	(ug/lb picked)	299.52	1.7584	3.5168	5.2752	7.0337	2.763E-04	5.526E-04	8.290E-04	1.105E-03	1.382E-04	2.763E-04	4.145E-04	5.526E-04
	2	118.368	(ug/lb picked)	290.71	1.7067	3.4134	5.1202	6.8269	2.682E-04	5.364E-04	8.046E-04	1.073E-03	1.341E-04	2.682E-04	4.023E-04	5.364E-04
	3	114.783	(ug/lb picked)	281.91	1.6550	3.3101	4.9651	6.6201	2.601E-04	5.202E-04	7.802E-04	1.040E-03	1.300E-04	2.601E-04	3.901E-04	5.202E-04
	4	111.198	(ug/lb picked)	273.10	1.6033	3.2067	4.8100	6.4134	2.520E-04	5.039E-04	7.559E-04	1.008E-03	1.260E-04	2.520E-04	3.779E-04	5.039E-04
	5	107.613	(ug/lb picked)	264.30	1.5516	3.1033	4.6549	6.2066	2.438E-04	4.877E-04	7.315E-04	9.753E-04	1.219E-04	2.438E-04	3.657E-04	4.877E-04
	6	104.028	(ug/lb picked)	255.49	1.5000	2.9999	4.4998	5.9998	2.357E-04	4.714E-04	7.071E-04	9.428E-04	1.179E-04	2.357E-04	3.536E-04	4.714E-04
	7	100.443	(ug/lb picked)	246.69	1.4483	2.8965	4.3448	5.7930	2.276E-04	4.552E-04	6.828E-04	9.103E-04	1.138E-04	2.276E-04	3.414E-04	4.552E-04
	8	96.858	(ug/lb picked)	237.88	1.3966	2.7931	4.1897	5.5863	2.195E-04	4.389E-04	6.584E-04	8.778E-04	1.097E-04	2.195E-04	3.292E-04	4.389E-04
	9	93.273	(ug/lb picked)	229.08	1.3449	2.6898	4.0346	5.3795	2.113E-04	4.227E-04	6.340E-04	8.454E-04	1.057E-04	2.113E-04	3.170E-04	4.227E-04
	10	89.687	(ug/lb picked)	220.27	1.2932	2.5864	3.8796	5.1727	2.032E-04	4.064E-04	6.096E-04	8.129E-04	1.016E-04	2.032E-04	3.048E-04	4.064E-04
	11	86.102	(ug/lb picked)	211.47	1.2415	2.4830	3.7245	4.9660	1.951E-04	3.902E-04	5.853E-04	7.804E-04	9.755E-05	1.951E-04	2.928E-04	3.902E-04
	12	82.517	(ug/lb picked)	202.66	1.1898	2.3796	3.5694	4.7592	1.870E-04	3.739E-04	5.609E-04	7.479E-04	9.348E-05	1.870E-04	2.805E-04	3.739E-04
	13	78.932	(ug/lb picked)	193.86	1.1381	2.2762	3.4143	4.5524	1.788E-04	3.577E-04	5.365E-04	7.154E-04	8.942E-05	1.788E-04	2.683E-04	3.577E-04
	14	75.347	(ug/lb picked)	185.05	1.0864	2.1728	3.2592	4.3457	1.707E-04	3.414E-04	5.122E-04	6.829E-04	8.536E-05	1.707E-04	2.561E-04	3.414E-04
	15	71.762	(ug/lb picked)	176.25	1.0347	2.0694	3.1042	4.1389	1.626E-04	3.252E-04	4.878E-04	6.504E-04	8.130E-05	1.626E-04	2.439E-04	3.252E-04
	16	68.177	(ug/lb picked)	167.44	0.9830	1.9661	2.9491	3.9321	1.545E-04	3.090E-04	4.634E-04	6.179E-04	7.724E-05	1.545E-04	2.317E-04	3.090E-04
	17	64.592	(ug/lb picked)	158.64	0.9313	1.8627	2.7940	3.7253	1.464E-04	2.927E-04	4.391E-04	5.854E-04	7.318E-05	1.464E-04	2.195E-04	2.927E-04
	18	61.007	(ug/lb picked)	149.83	0.8796	1.7593	2.6389	3.5186	1.382E-04	2.765E-04	4.147E-04	5.529E-04	6.911E-05	1.382E-04	2.073E-04	2.765E-04
	19	57.422	(ug/lb picked)	141.03	0.8280	1.6559	2.4839	3.3118	1.301E-04	2.602E-04	3.903E-04	5.204E-04	6.505E-05	1.301E-04	1.952E-04	2.602E-04
	20	53.837	(ug/lb picked)	132.22	0.7763	1.5525	2.3288	3.1050	1.220E-04	2.440E-04	3.660E-04	4.879E-04	6.099E-05	1.220E-04	1.830E-04	2.440E-04
	21	50.252	(ug/lb picked)	123.42	0.7246	1.4491	2.1737	2.8983	1.139E-04	2.277E-04	3.416E-04	4.554E-04	5.693E-05	1.139E-04	1.708E-04	2.277E-04
	22	46.667	(ug/lb picked)	114.61	0.6729	1.3458	2.0186	2.6915	1.057E-04	2.115E-04	3.172E-04	4.230E-04	5.287E-05	1.057E-04	1.586E-04	2.115E-04
	23	43.081	(ug/lb picked)	105.81	0.6212	1.2424	1.8635	2.4847	9.761E-05	1.952E-04	2.928E-04	3.905E-04	4.881E-05	9.761E-05	1.464E-04	1.952E-04
	24	39.496	(ug/lb picked)	97.00	0.5695	1.1390	1.7085	2.2780	8.949E-05	1.790E-04	2.685E-04	3.580E-04	4.475E-05	8.949E-05	1.342E-04	1.790E-04
	25	35.911	(ug/lb picked)	88.20	0.5178	1.0356	1.5534	2.0712	8.137E-05	1.627E-04	2.441E-04	3.255E-04	4.068E-05	8.137E-05	1.221E-04	1.627E-04
	26	32.326	(ug/lb picked)	79.39	0.4661	0.9322	1.3983	1.8644	7.325E-05	1.465E-04	2.197E-04	2.930E-04	3.662E-05	7.325E-05	1.099E-04	1.465E-04
	27	28.741	(ug/lb picked)	70.59	0.4144	0.8288	1.2432	1.6577	6.512E-05	1.302E-04	1.954E-04	2.606E-04	3.256E-05	6.512E-05	9.768E-05	1.302E-04
	28	25.156	(ug/lb picked)	61.78	0.3627	0.7254	1.0882	1.4509	5.700E-05	1.140E-04	1.710E-04	2.280E-04	2.850E-05	5.700E-05	8.550E-05	1.140E-04
	29	21.571	(ug/lb picked)	52.96	0.3110	0.6221	0.9331	1.2441	4.888E-05	9.775E-05	1.466E-04	1.955E-04	2.444E-05	4.888E-05	7.331E-05	9.775E-05
	30	17.986	(ug/lb picked)	44.17	0.2593	0.5187	0.7780	1.0373	4.075E-05	8.151E-05	1.223E-04	1.630E-04	2.038E-05	4.075E-05	6.113E-05	8.151E-05
	31	14.401	(ug/lb picked)	35.37	0.2076	0.4153	0.6229	0.8306	3.263E-05	6.526E-05	9.789E-05	1.305E-04	1.631E-05	3.263E-05	4.894E-05	6.526E-05
	32	10.816	(ug/lb picked)	26.56	0.1560	0.3119	0.4678	0.6236	2.451E-05	4.901E-05	7.352E-05	9.803E-05	1.225E-05	2.451E-05	3.676E-05	4.901E-05
	33	7.231	(ug/lb picked)	17.76	0.1043	0.2085	0.3128	0.4170	1.638E-05	3.277E-05	4.915E-05	6.553E-05	8.192E-06	1.638E-05	2.458E-05	3.277E-05
	34	3.646	(ug/lb picked)	8.95	0.0526	0.1051	0.1577	0.2103	8.260E-06	1.652E-05	2.478E-05	3.304E-05	4.130E-06	8.260E-06	1.239E-05	1.652E-05
	35	0.061	(ug/lb picked)	0.15	0.0009	0.0017	0.0026	0.0035	1.374E-07	2.747E-07	4.121E-07	5.495E-07	6.868E-08	1.374E-07	2.061E-07	2.747E-07

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * (WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.538	(ug/lb picked)	308.32	3.8202	7.2404	10.8606	14.4809	5.669E-04	1.136E-03	1.707E-03	2.276E-03	2.844E-04	5.669E-04	8.533E-04	1.136E-03
	1	121.953	(ug/lb picked)	299.52	3.5168	7.0337	10.5505	14.0673	5.526E-04	1.105E-03	1.658E-03	2.211E-03	2.763E-04	5.526E-04	8.290E-04	1.105E-03
	2	118.368	(ug/lb picked)	290.71	3.4134	6.8269	10.2403	13.6538	5.364E-04	1.073E-03	1.609E-03	2.146E-03	2.682E-04	5.364E-04	8.046E-04	1.073E-03
	3	114.783	(ug/lb picked)	281.91	3.3101	6.6201	9.9302	13.2402	5.202E-04	1.040E-03	1.560E-03	2.081E-03	2.601E-04	5.202E-04	7.802E-04	1.040E-03
	4	111.198	(ug/lb picked)	273.10	3.2067	6.4134	9.6200	12.8267	5.039E-04	1.008E-03	1.512E-03	2.016E-03	2.520E-04	5.039E-04	7.559E-04	1.008E-03
	5	107.613	(ug/lb picked)	264.30	3.1033	6.2066	9.3099	12.4132	4.877E-04	9.753E-04	1.463E-03	1.951E-03	2.438E-04	4.877E-04	7.315E-04	9.753E-04
	6	104.028	(ug/lb picked)	255.49	2.9999	5.9998	8.9997	11.9996	4.714E-04	9.428E-04	1.414E-03	1.886E-03	2.357E-04	4.714E-04	7.071E-04	9.428E-04
	7	100.443	(ug/lb picked)	246.69	2.8965	5.7930	8.6896	11.5861	4.552E-04	9.103E-04	1.366E-03	1.821E-03	2.276E-04	4.552E-04	6.828E-04	9.103E-04
	8	96.858	(ug/lb picked)	237.88	2.7931	5.5863	8.3794	11.1726	4.389E-04	8.778E-04	1.317E-03	1.756E-03	2.195E-04	4.389E-04	6.584E-04	8.778E-04
	9	93.273	(ug/lb picked)	229.08	2.6896	5.3795	8.0693	10.7590	4.227E-04	8.454E-04	1.268E-03	1.691E-03	2.113E-04	4.227E-04	6.340E-04	8.454E-04
	10	89.687	(ug/lb picked)	220.27	2.5864	5.1727	7.7591	10.3455	4.064E-04	8.129E-04	1.219E-03	1.626E-03	2.032E-04	4.064E-04	6.096E-04	8.129E-04
	11	86.102	(ug/lb picked)	211.47	2.4830	4.9660	7.4490	9.9319	3.902E-04	7.804E-04	1.171E-03	1.561E-03	1.951E-04	3.902E-04	5.853E-04	7.804E-04
	12	82.517	(ug/lb picked)	202.66	2.3796	4.7592	7.1388	9.5184	3.739E-04	7.479E-04	1.122E-03	1.496E-03	1.870E-04	3.739E-04	5.609E-04	7.479E-04
	13	78.932	(ug/lb picked)	193.86	2.2762	4.5524	6.8286	9.1049	3.577E-04	7.154E-04	1.073E-03	1.431E-03	1.788E-04	3.577E-04	5.365E-04	7.154E-04
	14	75.347	(ug/lb picked)	185.05	2.1728	4.3457	6.5185	8.6913	3.414E-04	6.828E-04	1.024E-03	1.366E-03	1.707E-04	3.414E-04	5.122E-04	6.828E-04
	15	71.762	(ug/lb picked)	176.25	2.0694	4.1389	6.2083	8.2778	3.252E-04	6.504E-04	9.756E-04	1.301E-03	1.626E-04	3.252E-04	4.878E-04	6.504E-04
	16	68.177	(ug/lb picked)	167.44	1.9661	3.9321	5.8982	7.8642	3.090E-04	6.179E-04	9.269E-04	1.236E-03	1.545E-04	3.090E-04	4.634E-04	6.179E-04
	17	64.592	(ug/lb picked)	158.64	1.8627	3.7253	5.5880	7.4507	2.927E-04	5.854E-04	8.781E-04	1.171E-03	1.464E-04	2.927E-04	4.391E-04	5.854E-04
	18	61.007	(ug/lb picked)	149.83	1.7593	3.5186	5.2779	7.0372	2.765E-04	5.529E-04	8.294E-04	1.106E-03	1.382E-04	2.765E-04	4.147E-04	5.529E-04
	19	57.422	(ug/lb picked)	141.03	1.6559	3.3118	4.9677	6.6236	2.602E-04	5.204E-04	7.806E-04	1.041E-03	1.301E-04	2.602E-04	3.903E-04	5.204E-04
	20	53.837	(ug/lb picked)	132.22	1.5525	3.1050	4.6576	6.2101	2.440E-04	4.879E-04	7.319E-04	9.759E-04	1.220E-04	2.440E-04	3.660E-04	4.879E-04
	21	50.252	(ug/lb picked)	123.42	1.4491	2.8983	4.3474	5.7966	2.277E-04	4.554E-04	6.832E-04	9.109E-04	1.139E-04	2.277E-04	3.416E-04	4.554E-04
	22	46.667	(ug/lb picked)	114.61	1.3458	2.6915	4.0373	5.3830	2.115E-04	4.230E-04	6.344E-04	8.459E-04	1.057E-04	2.115E-04	3.172E-04	4.230E-04
	23	43.081	(ug/lb picked)	105.81	1.2424	2.4847	3.7271	4.9695	1.952E-04	3.905E-04	5.857E-04	7.809E-04	9.761E-05	1.952E-04	2.928E-04	3.905E-04
	24	39.496	(ug/lb picked)	97.00	1.1390	2.2780	3.4169	4.5559	1.790E-04	3.580E-04	5.369E-04	7.159E-04	8.949E-05	1.790E-04	2.685E-04	3.580E-04
	25	35.911	(ug/lb picked)	88.20	1.0356	2.0712	3.1068	4.1424	1.627E-04	3.255E-04	4.882E-04	6.509E-04	8.137E-05	1.627E-04	2.441E-04	3.255E-04
	26	32.326	(ug/lb picked)	79.39	0.9322	1.8644	2.7966	3.7288	1.465E-04	2.930E-04	4.395E-04	5.860E-04	7.325E-05	1.465E-04	2.197E-04	2.930E-04
	27	28.741	(ug/lb picked)	70.59	0.8288	1.6577	2.4866	3.3153	1.302E-04	2.605E-04	3.907E-04	5.210E-04	6.512E-05	1.302E-04	1.954E-04	2.605E-04
	28	25.156	(ug/lb picked)	61.78	0.7254	1.4509	2.1763	2.9018	1.140E-04	2.280E-04	3.420E-04	4.560E-04	5.700E-05	1.140E-04	1.710E-04	2.280E-04
	29	21.571	(ug/lb picked)	52.98	0.6221	1.2441	1.8662	2.4882	9.775E-05	1.955E-04	2.933E-04	3.910E-04	4.888E-05	9.775E-05	1.466E-04	1.955E-04
	30	17.986	(ug/lb picked)	44.17	0.5187	1.0373	1.5560	2.0747	8.151E-05	1.630E-04	2.445E-04	3.260E-04	4.075E-05	8.151E-05	1.223E-04	1.630E-04
	31	14.401	(ug/lb picked)	35.37	0.4153	0.8306	1.2458	1.6612	6.526E-05	1.305E-04	1.958E-04	2.610E-04	3.263E-05	6.526E-05	9.789E-05	1.305E-04
	32	10.816	(ug/lb picked)	26.56	0.3119	0.6238	0.9357	1.2476	4.901E-05	9.803E-05	1.470E-04	1.961E-04	2.451E-05	4.901E-05	7.352E-05	9.803E-05
	33	7.231	(ug/lb picked)	17.76	0.2085	0.4170	0.6256	0.8341	3.277E-05	6.553E-05	9.830E-05	1.311E-04	1.638E-05	3.277E-05	4.915E-05	6.553E-05
	34	3.646	(ug/lb picked)	8.95	0.1051	0.2103	0.3154	0.4205	1.652E-05	3.304E-05	4.956E-05	6.608E-05	8.260E-06	1.652E-05	2.478E-05	3.304E-05
	35	0.061	(ug/lb picked)	0.15	0.0017	0.0035	0.0052	0.0070	2.747E-07	5.495E-07	8.242E-07	1.099E-06	1.374E-07	2.747E-07	4.121E-07	5.495E-07

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK 2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	308.32	5.4303	10.8606	16.2910	21.7213	8.533E-04	1.707E-03	2.560E-03	3.413E-03	4.267E-04	8.533E-04	1.280E-03	1.707E-03
	1	121.953	(ug/lb picked)	299.52	5.2752	10.5505	15.8257	21.1010	8.290E-04	1.658E-03	2.487E-03	3.316E-03	4.145E-04	8.290E-04	1.243E-03	1.658E-03
	2	118.368	(ug/lb picked)	290.71	5.1202	10.2403	15.3605	20.4807	8.046E-04	1.609E-03	2.414E-03	3.218E-03	4.023E-04	8.046E-04	1.207E-03	1.609E-03
	3	114.783	(ug/lb picked)	281.91	4.9651	9.9302	14.8953	19.8604	7.802E-04	1.560E-03	2.341E-03	3.121E-03	3.901E-04	7.802E-04	1.170E-03	1.560E-03
	4	111.198	(ug/lb picked)	273.10	4.8100	9.6200	14.4300	19.2401	7.559E-04	1.512E-03	2.268E-03	3.023E-03	3.779E-04	7.559E-04	1.134E-03	1.512E-03
	5	107.613	(ug/lb picked)	264.30	4.6549	9.3099	13.9648	18.6198	7.315E-04	1.463E-03	2.194E-03	2.926E-03	3.657E-04	7.315E-04	1.097E-03	1.463E-03
	6	104.028	(ug/lb picked)	255.49	4.4999	8.9997	13.4996	17.9994	7.071E-04	1.414E-03	2.121E-03	2.829E-03	3.536E-04	7.071E-04	1.061E-03	1.414E-03
	7	100.443	(ug/lb picked)	246.69	4.3448	8.6896	13.0344	17.3791	6.828E-04	1.366E-03	2.048E-03	2.731E-03	3.414E-04	6.828E-04	1.024E-03	1.366E-03
	8	96.858	(ug/lb picked)	237.88	4.1897	8.3794	12.5691	16.7588	6.584E-04	1.317E-03	1.975E-03	2.634E-03	3.292E-04	6.584E-04	9.876E-04	1.317E-03
	9	93.273	(ug/lb picked)	229.08	4.0346	8.0693	12.1039	16.1385	6.340E-04	1.268E-03	1.902E-03	2.536E-03	3.170E-04	6.340E-04	9.510E-04	1.268E-03
	10	89.687	(ug/lb picked)	220.27	3.8796	7.7591	11.6387	15.5182	6.096E-04	1.219E-03	1.829E-03	2.439E-03	3.048E-04	6.096E-04	9.145E-04	1.219E-03
	11	86.102	(ug/lb picked)	211.47	3.7245	7.4490	11.1734	14.8979	5.853E-04	1.171E-03	1.756E-03	2.341E-03	2.926E-04	5.853E-04	8.779E-04	1.171E-03
	12	82.517	(ug/lb picked)	202.66	3.5694	7.1388	10.7082	14.2776	5.609E-04	1.122E-03	1.683E-03	2.244E-03	2.805E-04	5.609E-04	8.414E-04	1.122E-03
	13	78.932	(ug/lb picked)	193.86	3.4143	6.8286	10.2430	13.6573	5.365E-04	1.073E-03	1.610E-03	2.146E-03	2.683E-04	5.365E-04	8.048E-04	1.073E-03
	14	75.347	(ug/lb picked)	185.05	3.2592	6.5185	9.7777	13.0370	5.122E-04	1.024E-03	1.537E-03	2.049E-03	2.561E-04	5.122E-04	7.683E-04	1.024E-03
	15	71.762	(ug/lb picked)	176.25	3.1042	6.2083	9.3125	12.4167	4.878E-04	9.756E-04	1.463E-03	1.951E-03	2.439E-04	4.878E-04	7.317E-04	9.756E-04
	16	68.177	(ug/lb picked)	167.44	2.9491	5.8982	8.8473	11.7964	4.634E-04	9.269E-04	1.390E-03	1.854E-03	2.317E-04	4.634E-04	6.951E-04	9.269E-04
	17	64.592	(ug/lb picked)	158.64	2.7940	5.5880	8.3820	11.1760	4.391E-04	8.781E-04	1.317E-03	1.756E-03	2.195E-04	4.391E-04	6.586E-04	8.781E-04
	18	61.007	(ug/lb picked)	149.83	2.6389	5.2779	7.9168	10.5557	4.147E-04	8.294E-04	1.244E-03	1.658E-03	2.073E-04	4.147E-04	6.220E-04	8.294E-04
	19	57.422	(ug/lb picked)	141.03	2.4839	4.9677	7.4516	9.9354	3.903E-04	7.806E-04	1.171E-03	1.561E-03	1.952E-04	3.903E-04	5.855E-04	7.806E-04
	20	53.837	(ug/lb picked)	132.22	2.3288	4.6576	6.9863	9.3151	3.660E-04	7.319E-04	1.098E-03	1.464E-03	1.830E-04	3.660E-04	5.489E-04	7.319E-04
	21	50.252	(ug/lb picked)	123.42	2.1737	4.3474	6.5211	6.6948	3.416E-04	6.832E-04	1.025E-03	1.366E-03	1.708E-04	3.416E-04	5.124E-04	6.832E-04
	22	46.667	(ug/lb picked)	114.61	2.0186	4.0373	6.0559	8.0745	3.172E-04	6.344E-04	9.516E-04	1.269E-03	1.586E-04	3.172E-04	4.758E-04	6.344E-04
	23	43.081	(ug/lb picked)	105.81	1.8635	3.7271	5.5906	7.4542	2.928E-04	5.857E-04	8.785E-04	1.171E-03	1.464E-04	2.928E-04	4.393E-04	5.857E-04
	24	39.496	(ug/lb picked)	97.00	1.7085	3.4169	5.1254	6.8339	2.685E-04	5.369E-04	8.054E-04	1.074E-03	1.342E-04	2.685E-04	4.027E-04	5.369E-04
	25	35.911	(ug/lb picked)	88.20	1.5534	3.1068	4.6602	6.2136	2.441E-04	4.882E-04	7.323E-04	9.764E-04	1.221E-04	2.441E-04	3.662E-04	4.882E-04
	26	32.326	(ug/lb picked)	79.39	1.3983	2.7966	4.1950	5.5933	2.197E-04	4.395E-04	6.592E-04	8.789E-04	1.099E-04	2.197E-04	3.296E-04	4.395E-04
	27	28.741	(ug/lb picked)	70.59	1.2432	2.4865	3.7297	4.9730	1.954E-04	3.907E-04	5.861E-04	7.815E-04	9.768E-05	1.954E-04	2.930E-04	3.907E-04
	28	25.156	(ug/lb picked)	61.78	1.0882	2.1763	3.2645	4.3527	1.710E-04	3.420E-04	5.130E-04	6.840E-04	8.550E-05	1.710E-04	2.565E-04	3.420E-04
	29	21.571	(ug/lb picked)	52.98	0.9331	1.8662	2.7993	3.7323	1.466E-04	2.933E-04	4.399E-04	5.865E-04	7.331E-05	1.466E-04	2.199E-04	2.933E-04
	30	17.986	(ug/lb picked)	44.17	0.7780	1.5560	2.3340	3.1120	1.223E-04	2.445E-04	3.668E-04	4.890E-04	6.113E-05	1.223E-04	1.834E-04	2.445E-04
	31	14.401	(ug/lb picked)	35.37	0.6229	1.2458	1.8688	2.4917	9.789E-05	1.958E-04	2.937E-04	3.916E-04	4.894E-05	9.789E-05	1.468E-04	1.958E-04
	32	10.816	(ug/lb picked)	26.56	0.4679	0.9357	1.4036	1.8714	7.352E-05	1.470E-04	2.206E-04	2.941E-04	3.676E-05	7.352E-05	1.103E-04	1.470E-04
	33	7.231	(ug/lb picked)	17.76	0.3128	0.6256	0.9383	1.2511	4.915E-05	9.830E-05	1.475E-04	1.966E-04	2.458E-05	4.915E-05	7.373E-05	9.830E-05
	34	3.646	(ug/lb picked)	8.95	0.1577	0.3154	0.4731	0.6308	2.478E-05	4.956E-05	7.434E-05	9.913E-05	1.239E-05	2.478E-05	3.717E-05	4.956E-05
	35	0.061	(ug/lb picked)	0.15	0.0026	0.0052	0.0079	0.0105	4.121E-07	8.242E-07	1.236E-06	1.648E-06	2.061E-07	4.121E-07	6.182E-07	8.242E-07

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = {LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)}/(BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	306.32	1.8101	3.6202	5.4303	7.2404	5.689E-05	1.138E-04	1.707E-04	2.276E-04	2.844E-05	5.689E-05	8.533E-05	1.138E-04
	1	121.953	(ug/lb picked)	299.52	1.7584	3.5168	5.2752	7.0337	5.528E-05	1.105E-04	1.658E-04	2.211E-04	2.763E-05	5.526E-05	8.290E-05	1.105E-04
	2	118.368	(ug/lb picked)	290.71	1.7067	3.4134	5.1202	6.8269	5.364E-05	1.073E-04	1.609E-04	2.146E-04	2.682E-05	5.364E-05	8.046E-05	1.073E-04
	3	114.783	(ug/lb picked)	281.91	1.6550	3.3101	4.9651	6.6201	5.202E-05	1.040E-04	1.560E-04	2.081E-04	2.601E-05	5.202E-05	7.802E-05	1.040E-04
	4	111.198	(ug/lb picked)	273.10	1.6033	3.2067	4.8100	6.4134	5.039E-05	1.008E-04	1.512E-04	2.016E-04	2.520E-05	5.039E-05	7.559E-05	1.008E-04
	5	107.613	(ug/lb picked)	264.30	1.5516	3.1033	4.6549	6.2066	4.877E-05	9.753E-05	1.463E-04	1.951E-04	2.438E-05	4.877E-05	7.315E-05	9.753E-05
	6	104.028	(ug/lb picked)	255.49	1.5000	2.9999	4.4999	5.9998	4.714E-05	9.428E-05	1.414E-04	1.886E-04	2.357E-05	4.714E-05	7.071E-05	9.426E-05
	7	100.443	(ug/lb picked)	246.69	1.4483	2.8965	4.3448	5.7930	4.552E-05	9.103E-05	1.366E-04	1.821E-04	2.276E-05	4.552E-05	6.828E-05	9.103E-05
	8	96.858	(ug/lb picked)	237.88	1.3966	2.7931	4.1897	5.5863	4.389E-05	8.778E-05	1.317E-04	1.756E-04	2.196E-05	4.389E-05	6.584E-05	8.778E-05
	9	93.273	(ug/lb picked)	229.08	1.3449	2.6898	4.0346	5.3795	4.227E-05	8.454E-05	1.268E-04	1.691E-04	2.113E-05	4.227E-05	6.340E-05	8.454E-05
	10	89.687	(ug/lb picked)	220.27	1.2932	2.5864	3.8796	5.1727	4.064E-05	8.129E-05	1.219E-04	1.626E-04	2.032E-05	4.064E-05	6.096E-05	8.129E-05
	11	86.102	(ug/lb picked)	211.47	1.2415	2.4830	3.7245	4.9660	3.902E-05	7.804E-05	1.171E-04	1.561E-04	1.951E-05	3.902E-05	5.853E-05	7.804E-05
	12	82.517	(ug/lb picked)	202.66	1.1898	2.3796	3.5694	4.7592	3.739E-05	7.479E-05	1.122E-04	1.496E-04	1.870E-05	3.739E-05	5.609E-05	7.479E-05
	13	78.932	(ug/lb picked)	193.86	1.1381	2.2762	3.4143	4.5524	3.577E-05	7.154E-05	1.073E-04	1.431E-04	1.788E-05	3.577E-05	5.365E-05	7.154E-05
	14	75.347	(ug/lb picked)	185.05	1.0864	2.1728	3.2592	4.3457	3.414E-05	6.829E-05	1.024E-04	1.366E-04	1.707E-05	3.414E-05	5.122E-05	6.829E-05
	15	71.762	(ug/lb picked)	176.25	1.0347	2.0694	3.1042	4.1389	3.252E-05	6.504E-05	9.756E-05	1.301E-04	1.626E-05	3.252E-05	4.878E-05	6.504E-05
	16	68.177	(ug/lb picked)	167.44	0.9830	1.9661	2.9491	3.9321	3.090E-05	6.179E-05	9.269E-05	1.236E-04	1.545E-05	3.090E-05	4.634E-05	6.179E-05
	17	64.592	(ug/lb picked)	158.64	0.9313	1.8627	2.7940	3.7253	2.927E-05	5.854E-05	8.781E-05	1.171E-04	1.464E-05	2.927E-05	4.391E-05	5.854E-05
	18	61.007	(ug/lb picked)	149.83	0.8796	1.7593	2.6389	3.5186	2.765E-05	5.529E-05	8.294E-05	1.106E-04	1.383E-05	2.765E-05	4.147E-05	5.529E-05
	19	57.422	(ug/lb picked)	141.03	0.8280	1.6559	2.4839	3.3118	2.602E-05	5.204E-05	7.806E-05	1.041E-04	1.301E-05	2.602E-05	3.903E-05	5.204E-05
	20	53.837	(ug/lb picked)	132.22	0.7763	1.5525	2.3288	3.1050	2.440E-05	4.879E-05	7.319E-05	9.759E-05	1.220E-05	2.440E-05	3.660E-05	4.879E-05
	21	50.252	(ug/lb picked)	123.42	0.7246	1.4491	2.1737	2.8983	2.277E-05	4.554E-05	6.832E-05	9.109E-05	1.139E-05	2.277E-05	3.416E-05	4.554E-05
	22	46.667	(ug/lb picked)	114.61	0.6729	1.3458	2.0186	2.6915	2.115E-05	4.230E-05	6.344E-05	8.459E-05	1.057E-05	2.115E-05	3.172E-05	4.230E-05
	23	43.081	(ug/lb picked)	105.81	0.6212	1.2424	1.8635	2.4847	1.952E-05	3.905E-05	5.857E-05	7.809E-05	9.761E-06	1.952E-05	2.928E-05	3.905E-05
	24	39.496	(ug/lb picked)	97.00	0.5695	1.1390	1.7085	2.2780	1.790E-05	3.580E-05	5.369E-05	7.159E-05	8.949E-06	1.790E-05	2.685E-05	3.580E-05
	25	35.911	(ug/lb picked)	88.20	0.5178	1.0356	1.5534	2.0712	1.627E-05	3.255E-05	4.882E-05	6.509E-05	8.137E-06	1.627E-05	2.441E-05	3.255E-05
	26	32.326	(ug/lb picked)	79.39	0.4661	0.9322	1.3983	1.8644	1.465E-05	2.930E-05	4.395E-05	5.860E-05	7.325E-06	1.465E-05	2.197E-05	2.930E-05
	27	28.741	(ug/lb picked)	70.59	0.4144	0.8288	1.2432	1.6577	1.302E-05	2.605E-05	3.907E-05	5.210E-05	6.512E-06	1.302E-05	1.954E-05	2.605E-05
	28	25.156	(ug/lb picked)	61.78	0.3627	0.7254	1.0882	1.4509	1.140E-05	2.280E-05	3.420E-05	4.560E-05	5.700E-06	1.140E-05	1.710E-05	2.280E-05
	29	21.571	(ug/lb picked)	52.98	0.3110	0.6221	0.9331	1.2441	9.775E-06	1.955E-05	2.933E-05	3.910E-05	4.888E-06	9.775E-06	1.466E-05	1.955E-05
	30	17.986	(ug/lb picked)	44.17	0.2593	0.5187	0.7780	1.0373	8.151E-06	1.630E-05	2.445E-05	3.260E-05	4.075E-06	8.151E-06	1.223E-05	1.630E-05
	31	14.401	(ug/lb picked)	35.37	0.2076	0.4153	0.6229	0.8306	6.526E-06	1.305E-05	1.958E-05	2.610E-05	3.263E-06	6.526E-06	9.789E-06	1.305E-05
	32	10.816	(ug/lb picked)	26.56	0.1560	0.3119	0.4679	0.6238	4.901E-06	9.803E-06	1.470E-05	1.961E-05	2.451E-06	4.901E-06	7.352E-06	9.803E-06
	33	7.231	(ug/lb picked)	17.76	0.1043	0.2085	0.3128	0.4170	3.277E-06	6.553E-06	9.830E-06	1.311E-05	1.638E-06	3.277E-06	4.915E-06	6.553E-06
	34	3.646	(ug/lb picked)	8.95	0.0526	0.1051	0.1577	0.2103	1.652E-06	3.304E-06	4.956E-06	6.608E-06	8.260E-07	1.652E-06	2.478E-06	3.304E-06
	35	0.061	(ug/lb picked)	0.15	0.0009	0.0017	0.0026	0.0035	2.747E-08	5.495E-08	8.242E-08	1.099E-07	1.374E-08	2.747E-08	4.121E-08	5.495E-08

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.538	(ug/lb picked)	308.32	3.8202	7.2404	10.8606	14.4809	1.136E-04	2.276E-04	3.413E-04	4.551E-04	5.689E-05	1.136E-04	1.707E-04	2.276E-04
	1	121.953	(ug/lb picked)	299.52	3.5166	7.0337	10.5505	14.0673	1.105E-04	2.211E-04	3.316E-04	4.421E-04	5.526E-05	1.105E-04	1.658E-04	2.211E-04
	2	118.368	(ug/lb picked)	290.71	3.4134	6.8269	10.2403	13.6538	1.073E-04	2.146E-04	3.218E-04	4.291E-04	5.364E-05	1.073E-04	1.609E-04	2.146E-04
	3	114.783	(ug/lb picked)	281.91	3.3101	6.6201	9.9302	13.2402	1.040E-04	2.081E-04	3.121E-04	4.161E-04	5.202E-05	1.040E-04	1.560E-04	2.081E-04
	4	111.198	(ug/lb picked)	273.10	3.2067	6.4134	9.6200	12.8267	1.008E-04	2.016E-04	3.023E-04	4.031E-04	5.039E-05	1.008E-04	1.512E-04	2.016E-04
	5	107.613	(ug/lb picked)	264.30	3.1033	6.2066	9.3099	12.4132	9.753E-05	1.951E-04	2.926E-04	3.901E-04	4.877E-05	9.753E-05	1.463E-04	1.951E-04
	6	104.028	(ug/lb picked)	255.49	2.9999	5.9998	8.9997	11.9996	9.428E-05	1.886E-04	2.828E-04	3.771E-04	4.714E-05	9.428E-05	1.414E-04	1.886E-04
	7	100.443	(ug/lb picked)	246.69	2.8965	5.7930	8.6896	11.5861	9.103E-05	1.821E-04	2.731E-04	3.641E-04	4.552E-05	9.103E-05	1.366E-04	1.821E-04
	8	96.858	(ug/lb picked)	237.88	2.7931	5.5863	8.3794	11.1726	8.778E-05	1.756E-04	2.634E-04	3.511E-04	4.389E-05	8.778E-05	1.317E-04	1.756E-04
	9	93.273	(ug/lb picked)	229.08	2.6898	5.3795	8.0693	10.7590	8.454E-05	1.691E-04	2.536E-04	3.381E-04	4.227E-05	8.454E-05	1.268E-04	1.691E-04
	10	89.687	(ug/lb picked)	220.27	2.5864	5.1727	7.7591	10.3455	8.129E-05	1.626E-04	2.439E-04	3.251E-04	4.064E-05	8.129E-05	1.219E-04	1.626E-04
	11	86.102	(ug/lb picked)	211.47	2.4830	4.9660	7.4490	9.9319	7.804E-05	1.561E-04	2.341E-04	3.121E-04	3.902E-05	7.804E-05	1.171E-04	1.561E-04
	12	82.517	(ug/lb picked)	202.66	2.3796	4.7592	7.1388	9.5184	7.479E-05	1.496E-04	2.244E-04	2.991E-04	3.739E-05	7.479E-05	1.122E-04	1.496E-04
	13	78.932	(ug/lb picked)	193.86	2.2762	4.5524	6.8286	9.1049	7.154E-05	1.431E-04	2.146E-04	2.862E-04	3.577E-05	7.154E-05	1.073E-04	1.431E-04
	14	75.347	(ug/lb picked)	185.05	2.1728	4.3457	6.5185	8.6913	6.829E-05	1.366E-04	2.049E-04	2.732E-04	3.414E-05	6.829E-05	1.024E-04	1.366E-04
	15	71.762	(ug/lb picked)	176.25	2.0694	4.1389	6.2083	8.2778	6.504E-05	1.301E-04	1.951E-04	2.602E-04	3.252E-05	6.504E-05	9.756E-05	1.301E-04
	16	68.177	(ug/lb picked)	167.44	1.9661	3.9321	5.8982	7.8642	6.179E-05	1.236E-04	1.854E-04	2.472E-04	3.090E-05	6.179E-05	9.269E-05	1.236E-04
	17	64.592	(ug/lb picked)	158.64	1.8627	3.7253	5.5880	7.4507	5.854E-05	1.171E-04	1.756E-04	2.342E-04	2.927E-05	5.854E-05	8.781E-05	1.171E-04
	18	61.007	(ug/lb picked)	149.83	1.7593	3.5186	5.2779	7.0372	5.529E-05	1.106E-04	1.658E-04	2.212E-04	2.765E-05	5.529E-05	8.294E-05	1.106E-04
	19	57.422	(ug/lb picked)	141.03	1.6559	3.3118	4.9677	6.6236	5.204E-05	1.041E-04	1.561E-04	2.082E-04	2.602E-05	5.204E-05	7.806E-05	1.041E-04
	20	53.837	(ug/lb picked)	132.22	1.5525	3.1050	4.6576	6.2101	4.879E-05	9.759E-05	1.464E-04	1.952E-04	2.440E-05	4.879E-05	7.319E-05	9.759E-05
	21	50.252	(ug/lb picked)	123.42	1.4491	2.8983	4.3474	5.7965	4.554E-05	9.109E-05	1.366E-04	1.822E-04	2.277E-05	4.554E-05	6.832E-05	9.109E-05
	22	46.667	(ug/lb picked)	114.61	1.3458	2.6915	4.0373	5.3830	4.230E-05	8.459E-05	1.269E-04	1.692E-04	2.115E-05	4.230E-05	6.344E-05	8.459E-05
	23	43.081	(ug/lb picked)	105.81	1.2424	2.4847	3.7271	4.9695	3.905E-05	7.809E-05	1.171E-04	1.562E-04	1.952E-05	3.905E-05	5.857E-05	7.809E-05
	24	39.496	(ug/lb picked)	97.00	1.1390	2.2780	3.4169	4.5559	3.580E-05	7.159E-05	1.074E-04	1.432E-04	1.790E-05	3.580E-05	5.369E-05	7.159E-05
	25	35.911	(ug/lb picked)	88.20	1.0356	2.0712	3.1068	4.1424	3.255E-05	6.509E-05	9.764E-05	1.302E-04	1.627E-05	3.255E-05	4.882E-05	6.509E-05
	26	32.326	(ug/lb picked)	79.39	0.9322	1.8644	2.7966	3.7288	2.930E-05	5.860E-05	8.789E-05	1.172E-04	1.465E-05	2.930E-05	4.395E-05	5.860E-05
	27	28.741	(ug/lb picked)	70.59	0.8288	1.6577	2.4865	3.3153	2.605E-05	5.210E-05	7.815E-05	1.042E-04	1.302E-05	2.605E-05	3.907E-05	5.210E-05
	28	25.156	(ug/lb picked)	61.78	0.7254	1.4509	2.1763	2.9018	2.280E-05	4.560E-05	6.840E-05	9.120E-05	1.140E-05	2.280E-05	3.420E-05	4.560E-05
	29	21.571	(ug/lb picked)	52.98	0.6221	1.2441	1.8662	2.4882	1.955E-05	3.910E-05	5.865E-05	7.820E-05	9.775E-06	1.955E-05	2.933E-05	3.910E-05
	30	17.986	(ug/lb picked)	44.17	0.5187	1.0373	1.5560	2.0747	1.630E-05	3.260E-05	4.890E-05	6.520E-05	8.151E-06	1.630E-05	2.445E-05	3.260E-05
	31	14.401	(ug/lb picked)	35.37	0.4153	0.8306	1.2459	1.6612	1.305E-05	2.610E-05	3.916E-05	5.221E-05	6.526E-06	1.305E-05	1.958E-05	2.610E-05
	32	10.816	(ug/lb picked)	26.56	0.3119	0.6239	0.9357	1.2476	9.803E-06	1.961E-05	2.941E-05	3.921E-05	4.901E-06	9.803E-06	1.470E-05	1.961E-05
	33	7.231	(ug/lb picked)	17.76	0.2085	0.4170	0.6256	0.8341	6.553E-06	1.311E-05	1.966E-05	2.621E-05	3.277E-06	6.553E-06	9.830E-06	1.311E-05
	34	3.646	(ug/lb picked)	8.95	0.1051	0.2103	0.3154	0.4205	3.304E-06	6.608E-06	9.913E-06	1.322E-05	1.652E-06	3.304E-06	4.956E-06	6.608E-06
	35	0.061	(ug/lb picked)	0.15	0.0017	0.0035	0.0052	0.0070	5.495E-08	1.099E-07	1.648E-07	2.198E-07	2.747E-08	5.495E-08	8.242E-08	1.099E-07

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1)] * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	306.32	5.4303	10.8606	16.2910	21.7213	1.707E-04	3.413E-04	5.120E-04	6.827E-04	8.533E-05	1.707E-04	2.560E-04	3.413E-04
	1	121.953	(ug/lb picked)	299.52	5.2752	10.5505	15.8257	21.1010	1.658E-04	3.316E-04	4.974E-04	6.632E-04	8.290E-05	1.658E-04	2.487E-04	3.316E-04
	2	118.368	(ug/lb picked)	290.71	5.1202	10.2403	15.3605	20.4807	1.609E-04	3.218E-04	4.828E-04	6.437E-04	8.046E-05	1.609E-04	2.414E-04	3.218E-04
	3	114.783	(ug/lb picked)	281.91	4.9651	9.9302	14.8953	19.8604	1.560E-04	3.121E-04	4.681E-04	6.242E-04	7.802E-05	1.560E-04	2.341E-04	3.121E-04
	4	111.198	(ug/lb picked)	273.10	4.8100	9.6200	14.4300	19.2401	1.512E-04	3.023E-04	4.535E-04	6.047E-04	7.559E-05	1.512E-04	2.268E-04	3.023E-04
	5	107.613	(ug/lb picked)	264.30	4.6549	9.3099	13.9648	18.6198	1.463E-04	2.926E-04	4.389E-04	5.852E-04	7.315E-05	1.463E-04	2.194E-04	2.926E-04
	6	104.028	(ug/lb picked)	255.49	4.4999	8.9997	13.4996	17.9994	1.414E-04	2.828E-04	4.243E-04	5.657E-04	7.071E-05	1.414E-04	2.121E-04	2.828E-04
	7	100.443	(ug/lb picked)	246.69	4.3448	8.6896	13.0344	17.3791	1.366E-04	2.731E-04	4.097E-04	5.462E-04	6.828E-05	1.366E-04	2.048E-04	2.731E-04
	8	96.858	(ug/lb picked)	237.88	4.1897	8.3794	12.5691	16.7588	1.317E-04	2.634E-04	3.950E-04	5.267E-04	6.584E-05	1.317E-04	1.975E-04	2.634E-04
	9	93.273	(ug/lb picked)	229.08	4.0346	8.0693	12.1039	16.1385	1.268E-04	2.536E-04	3.804E-04	5.072E-04	6.340E-05	1.268E-04	1.902E-04	2.536E-04
	10	89.687	(ug/lb picked)	220.27	3.8796	7.7591	11.6387	15.5182	1.219E-04	2.439E-04	3.658E-04	4.877E-04	6.096E-05	1.219E-04	1.829E-04	2.439E-04
	11	86.102	(ug/lb picked)	211.47	3.7245	7.4490	11.1734	14.8979	1.171E-04	2.341E-04	3.512E-04	4.682E-04	5.853E-05	1.171E-04	1.756E-04	2.341E-04
	12	82.517	(ug/lb picked)	202.66	3.5694	7.1388	10.7082	14.2776	1.122E-04	2.244E-04	3.365E-04	4.487E-04	5.609E-05	1.122E-04	1.683E-04	2.244E-04
	13	78.932	(ug/lb picked)	193.86	3.4143	6.8286	10.2430	13.6573	1.073E-04	2.146E-04	3.219E-04	4.292E-04	5.365E-05	1.073E-04	1.610E-04	2.146E-04
	14	75.347	(ug/lb picked)	185.05	3.2592	6.5185	9.7777	13.0370	1.024E-04	2.048E-04	3.073E-04	4.097E-04	5.122E-05	1.024E-04	1.537E-04	2.049E-04
	15	71.762	(ug/lb picked)	176.25	3.1042	6.2083	9.3125	12.4167	9.756E-05	1.951E-04	2.927E-04	3.902E-04	4.878E-05	9.756E-05	1.463E-04	1.951E-04
	16	68.177	(ug/lb picked)	167.44	2.9491	5.8982	8.8473	11.7964	9.269E-05	1.854E-04	2.781E-04	3.707E-04	4.634E-05	9.269E-05	1.390E-04	1.854E-04
	17	64.592	(ug/lb picked)	158.64	2.7940	5.5880	8.3820	11.1760	8.781E-05	1.756E-04	2.634E-04	3.512E-04	4.391E-05	8.781E-05	1.317E-04	1.756E-04
	18	61.007	(ug/lb picked)	149.83	2.6389	5.2779	7.9168	10.5557	8.294E-05	1.659E-04	2.488E-04	3.318E-04	4.147E-05	8.294E-05	1.244E-04	1.659E-04
	19	57.422	(ug/lb picked)	141.03	2.4839	4.9677	7.4516	9.9354	7.806E-05	1.561E-04	2.342E-04	3.123E-04	3.903E-05	7.806E-05	1.171E-04	1.561E-04
	20	53.837	(ug/lb picked)	132.22	2.3288	4.6576	6.9863	9.3151	7.319E-05	1.464E-04	2.196E-04	2.928E-04	3.660E-05	7.319E-05	1.098E-04	1.464E-04
	21	50.252	(ug/lb picked)	123.42	2.1737	4.3474	6.5211	8.6948	6.832E-05	1.366E-04	2.049E-04	2.733E-04	3.416E-05	6.832E-05	1.025E-04	1.366E-04
	22	46.667	(ug/lb picked)	114.61	2.0186	4.0373	6.0559	8.0745	6.344E-05	1.269E-04	1.903E-04	2.538E-04	3.172E-05	6.344E-05	9.516E-05	1.269E-04
	23	43.081	(ug/lb picked)	105.81	1.8635	3.7271	5.5906	7.4542	5.857E-05	1.171E-04	1.757E-04	2.343E-04	2.928E-05	5.857E-05	8.785E-05	1.171E-04
	24	39.496	(ug/lb picked)	97.00	1.7085	3.4169	5.1254	6.8339	5.369E-05	1.074E-04	1.611E-04	2.148E-04	2.685E-05	5.369E-05	8.054E-05	1.074E-04
	25	35.911	(ug/lb picked)	88.20	1.5534	3.1068	4.6602	6.2136	4.882E-05	9.764E-05	1.465E-04	1.953E-04	2.441E-05	4.882E-05	7.323E-05	9.764E-05
	26	32.326	(ug/lb picked)	79.39	1.3983	2.7966	4.1950	5.5933	4.395E-05	8.789E-05	1.318E-04	1.758E-04	2.197E-05	4.395E-05	6.592E-05	8.789E-05
	27	28.741	(ug/lb picked)	70.58	1.2432	2.4865	3.7297	4.9730	3.907E-05	7.815E-05	1.172E-04	1.563E-04	1.954E-05	3.907E-05	5.861E-05	7.815E-05
	28	25.156	(ug/lb picked)	61.78	1.0882	2.1763	3.2645	4.3527	3.420E-05	6.840E-05	1.026E-04	1.368E-04	1.710E-05	3.420E-05	5.130E-05	6.840E-05
	29	21.571	(ug/lb picked)	52.98	0.9331	1.8662	2.7993	3.7323	2.933E-05	5.865E-05	8.798E-05	1.173E-04	1.466E-05	2.933E-05	4.399E-05	5.865E-05
	30	17.986	(ug/lb picked)	44.17	0.7780	1.5560	2.3340	3.1120	2.445E-05	4.890E-05	7.336E-05	9.781E-05	1.223E-05	2.445E-05	3.668E-05	4.890E-05
	31	14.401	(ug/lb picked)	35.37	0.6229	1.2458	1.8688	2.4917	1.958E-05	3.916E-05	5.873E-05	7.831E-05	9.786E-06	1.958E-05	2.937E-05	3.916E-05
	32	10.816	(ug/lb picked)	26.56	0.4679	0.9357	1.4036	1.8714	1.470E-05	2.941E-05	4.411E-05	5.882E-05	7.352E-06	1.470E-05	2.206E-05	2.941E-05
	33	7.231	(ug/lb picked)	17.76	0.3128	0.6256	0.9383	1.2511	9.830E-06	1.966E-05	2.949E-05	3.932E-05	4.915E-06	9.830E-06	1.475E-05	1.966E-05
	34	3.646	(ug/lb picked)	8.95	0.1577	0.3154	0.4731	0.6308	4.956E-06	9.913E-06	1.487E-05	1.983E-05	2.478E-06	4.956E-06	7.434E-06	9.913E-06
	35	0.061	(ug/lb picked)	0.15	0.0026	0.0052	0.0078	0.0105	8.242E-08	1.648E-07	2.473E-07	3.297E-07	4.121E-08	8.242E-08	1.236E-07	1.648E-07

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	306.32	1.8101	3.6202	5.4303	7.2404	1.422E-05	2.844E-05	4.267E-05	5.689E-05	2.844E-06	5.689E-06	8.533E-06	1.138E-05
	1	121.953	(ug/lb picked)	299.52	1.7584	3.5168	5.2752	7.0337	1.382E-05	2.763E-05	4.145E-05	5.526E-05	2.763E-06	5.526E-06	8.290E-06	1.105E-05
	2	118.368	(ug/lb picked)	290.71	1.7067	3.4134	5.1202	6.8269	1.341E-05	2.682E-05	4.023E-05	5.364E-05	2.682E-06	5.364E-06	8.046E-06	1.073E-05
	3	114.783	(ug/lb picked)	281.91	1.6550	3.3101	4.9651	6.6201	1.300E-05	2.601E-05	3.901E-05	5.202E-05	2.601E-06	5.202E-06	7.802E-06	1.040E-05
	4	111.198	(ug/lb picked)	273.10	1.6033	3.2067	4.8100	6.4134	1.260E-05	2.520E-05	3.779E-05	5.039E-05	2.520E-06	5.039E-06	7.559E-06	1.008E-05
	5	107.613	(ug/lb picked)	264.30	1.5516	3.1033	4.6549	6.2066	1.219E-05	2.438E-05	3.657E-05	4.877E-05	2.438E-06	4.877E-06	7.315E-06	9.753E-06
	6	104.028	(ug/lb picked)	255.49	1.5000	2.9999	4.4999	5.9998	1.179E-05	2.357E-05	3.536E-05	4.714E-05	2.357E-06	4.714E-06	7.071E-06	9.428E-06
	7	100.443	(ug/lb picked)	246.69	1.4483	2.8965	4.3448	5.7930	1.138E-05	2.276E-05	3.414E-05	4.552E-05	2.276E-06	4.552E-06	6.828E-06	9.103E-06
	8	96.858	(ug/lb picked)	237.88	1.3966	2.7931	4.1897	5.5863	1.097E-05	2.195E-05	3.292E-05	4.389E-05	2.195E-06	4.389E-06	6.584E-06	8.778E-06
	9	93.273	(ug/lb picked)	229.08	1.3449	2.6898	4.0346	5.3795	1.057E-05	2.113E-05	3.170E-05	4.227E-05	2.113E-06	4.227E-06	6.340E-06	8.454E-06
	10	89.687	(ug/lb picked)	220.27	1.2932	2.5864	3.8796	5.1727	1.016E-05	2.032E-05	3.048E-05	4.064E-05	2.032E-06	4.064E-06	6.096E-06	8.129E-06
	11	86.102	(ug/lb picked)	211.47	1.2415	2.4830	3.7245	4.9660	9.755E-06	1.951E-05	2.926E-05	3.902E-05	1.951E-06	3.902E-06	5.853E-06	7.804E-06
	12	82.517	(ug/lb picked)	202.66	1.1898	2.3796	3.5694	4.7592	9.348E-06	1.870E-05	2.805E-05	3.739E-05	1.870E-06	3.739E-06	5.609E-06	7.479E-06
	13	78.932	(ug/lb picked)	193.86	1.1381	2.2762	3.4143	4.5524	8.942E-06	1.788E-05	2.683E-05	3.577E-05	1.788E-06	3.577E-06	5.365E-06	7.154E-06
	14	75.347	(ug/lb picked)	185.05	1.0864	2.1728	3.2592	4.3457	8.536E-06	1.707E-05	2.561E-05	3.414E-05	1.707E-06	3.414E-06	5.122E-06	6.829E-06
	15	71.762	(ug/lb picked)	176.25	1.0347	2.0694	3.1042	4.1389	8.130E-06	1.626E-05	2.439E-05	3.252E-05	1.626E-06	3.252E-06	4.878E-06	6.504E-06
	16	68.177	(ug/lb picked)	167.44	0.9830	1.9661	2.9491	3.9321	7.724E-06	1.545E-05	2.317E-05	3.090E-05	1.545E-06	3.090E-06	4.634E-06	6.179E-06
	17	64.592	(ug/lb picked)	158.64	0.9313	1.8627	2.7940	3.7253	7.318E-06	1.464E-05	2.195E-05	2.927E-05	1.464E-06	2.927E-06	4.391E-06	5.854E-06
	18	61.007	(ug/lb picked)	149.83	0.8796	1.7593	2.6389	3.5186	6.911E-06	1.382E-05	2.073E-05	2.765E-05	1.382E-06	2.765E-06	4.147E-06	5.529E-06
	19	57.422	(ug/lb picked)	141.03	0.8280	1.6559	2.4839	3.3118	6.505E-06	1.301E-05	1.952E-05	2.602E-05	1.301E-06	2.602E-06	3.903E-06	5.204E-06
	20	53.837	(ug/lb picked)	132.22	0.7763	1.5525	2.3288	3.1050	6.099E-06	1.220E-05	1.830E-05	2.440E-05	1.220E-06	2.440E-06	3.660E-06	4.879E-06
	21	50.252	(ug/lb picked)	123.42	0.7246	1.4491	2.1737	2.8983	5.693E-06	1.139E-05	1.708E-05	2.277E-05	1.139E-06	2.277E-06	3.416E-06	4.554E-06
	22	46.667	(ug/lb picked)	114.61	0.6729	1.3458	2.0186	2.6915	5.287E-06	1.057E-05	1.586E-05	2.115E-05	1.057E-06	2.115E-06	3.172E-06	4.230E-06
	23	43.081	(ug/lb picked)	105.81	0.6212	1.2424	1.8635	2.4847	4.881E-06	9.761E-06	1.464E-05	1.952E-05	9.761E-07	1.952E-06	2.928E-06	3.905E-06
	24	39.496	(ug/lb picked)	97.00	0.5695	1.1390	1.7085	2.2780	4.475E-06	8.949E-06	1.342E-05	1.790E-05	8.949E-07	1.790E-06	2.685E-06	3.580E-06
	25	35.911	(ug/lb picked)	88.20	0.5178	1.0356	1.5534	2.0712	4.068E-06	8.137E-06	1.221E-05	1.627E-05	8.137E-07	1.627E-06	2.441E-06	3.255E-06
	26	32.326	(ug/lb picked)	79.39	0.4661	0.9322	1.3983	1.8644	3.662E-06	7.325E-06	1.099E-05	1.465E-05	7.325E-07	1.465E-06	2.197E-06	2.930E-06
	27	28.741	(ug/lb picked)	70.59	0.4144	0.8288	1.2432	1.6577	3.256E-06	6.512E-06	9.768E-06	1.302E-05	6.512E-07	1.302E-06	1.954E-06	2.605E-06
	28	25.156	(ug/lb picked)	61.78	0.3627	0.7254	1.0882	1.4509	2.850E-06	5.700E-06	8.550E-06	1.140E-05	5.700E-07	1.140E-06	1.710E-06	2.280E-06
	29	21.571	(ug/lb picked)	52.98	0.3110	0.6221	0.9331	1.2441	2.444E-06	4.888E-06	7.331E-06	9.775E-06	4.888E-07	9.775E-07	1.466E-06	1.955E-06
	30	17.986	(ug/lb picked)	44.17	0.2593	0.5187	0.7780	1.0373	2.038E-06	4.075E-06	6.113E-06	8.151E-06	4.075E-07	8.151E-07	1.223E-06	1.630E-06
	31	14.401	(ug/lb picked)	35.37	0.2076	0.4153	0.6229	0.8306	1.631E-06	3.263E-06	4.894E-06	6.526E-06	3.263E-07	6.526E-07	9.789E-07	1.305E-06
	32	10.815	(ug/lb picked)	26.56	0.1560	0.3119	0.4678	0.6238	1.225E-06	2.451E-06	3.676E-06	4.901E-06	2.451E-07	4.901E-07	7.352E-07	9.803E-07
	33	7.231	(ug/lb picked)	17.76	0.1043	0.2085	0.3128	0.4170	8.192E-07	1.638E-06	2.458E-06	3.277E-06	1.638E-07	3.277E-07	4.915E-07	6.553E-07
	34	3.646	(ug/lb picked)	8.95	0.0526	0.1051	0.1577	0.2103	4.130E-07	8.260E-07	1.239E-06	1.652E-06	8.260E-08	1.652E-07	2.478E-07	3.304E-07
	35	0.061	(ug/lb picked)	0.15	0.0009	0.0017	0.0026	0.0035	6.869E-09	1.374E-08	2.061E-08	2.747E-08	1.374E-09	2.747E-09	4.121E-09	5.495E-09

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	308.32	3.6202	7.2404	10.8606	14.4809	2.644E-05	5.288E-05	8.533E-05	1.138E-04	5.288E-06	1.138E-05	1.707E-05	2.276E-05
	1	121.953	(ug/lb picked)	299.52	3.5166	7.0337	10.5505	14.0673	2.763E-05	5.526E-05	8.290E-05	1.105E-04	5.526E-06	1.105E-05	1.658E-05	2.211E-05
	2	118.368	(ug/lb picked)	290.71	3.4134	6.8269	10.2403	13.6536	2.682E-05	5.364E-05	8.046E-05	1.073E-04	5.364E-06	1.073E-05	1.609E-05	2.146E-05
	3	114.783	(ug/lb picked)	281.91	3.3101	6.6201	9.9302	13.2402	2.601E-05	5.202E-05	7.802E-05	1.040E-04	5.202E-06	1.040E-05	1.560E-05	2.081E-05
	4	111.198	(ug/lb picked)	273.10	3.2067	6.4134	9.6200	12.8267	2.520E-05	5.039E-05	7.559E-05	1.008E-04	5.039E-06	1.008E-05	1.512E-05	2.016E-05
	5	107.613	(ug/lb picked)	264.30	3.1033	6.2066	9.3099	12.4132	2.438E-05	4.877E-05	7.315E-05	9.753E-05	4.877E-06	9.753E-06	1.463E-05	1.951E-05
	6	104.028	(ug/lb picked)	255.49	2.9999	5.9998	8.9997	11.9996	2.357E-05	4.714E-05	7.071E-05	9.428E-05	4.714E-06	9.428E-06	1.414E-05	1.886E-05
	7	100.443	(ug/lb picked)	246.69	2.8965	5.7930	8.6896	11.5861	2.276E-05	4.552E-05	6.828E-05	9.103E-05	4.552E-06	9.103E-06	1.366E-05	1.821E-05
	8	96.858	(ug/lb picked)	237.88	2.7931	5.5863	8.3794	11.1726	2.195E-05	4.389E-05	6.584E-05	8.778E-05	4.389E-06	8.778E-06	1.317E-05	1.756E-05
	9	93.273	(ug/lb picked)	229.08	2.6898	5.3795	8.0693	10.7590	2.113E-05	4.227E-05	6.340E-05	8.454E-05	4.227E-06	8.454E-06	1.268E-05	1.691E-05
	10	89.687	(ug/lb picked)	220.27	2.5864	5.1727	7.7591	10.3455	2.032E-05	4.064E-05	6.096E-05	8.128E-05	4.064E-06	8.128E-06	1.219E-05	1.626E-05
	11	86.102	(ug/lb picked)	211.47	2.4830	4.9660	7.4490	9.9319	1.951E-05	3.902E-05	5.853E-05	7.804E-05	3.902E-06	7.804E-06	1.171E-05	1.561E-05
	12	82.517	(ug/lb picked)	202.66	2.3796	4.7592	7.1388	9.5184	1.870E-05	3.739E-05	5.609E-05	7.479E-05	3.739E-06	7.479E-06	1.122E-05	1.496E-05
	13	78.932	(ug/lb picked)	193.86	2.2762	4.5524	6.8286	9.1049	1.788E-05	3.577E-05	5.365E-05	7.154E-05	3.577E-06	7.154E-06	1.073E-05	1.431E-05
	14	75.347	(ug/lb picked)	185.05	2.1728	4.3457	6.5185	8.6913	1.707E-05	3.414E-05	5.122E-05	6.829E-05	3.414E-06	6.829E-06	1.024E-05	1.366E-05
	15	71.762	(ug/lb picked)	176.25	2.0694	4.1389	6.2083	8.2778	1.626E-05	3.252E-05	4.878E-05	6.504E-05	3.252E-06	6.504E-06	9.756E-06	1.301E-05
	16	68.177	(ug/lb picked)	167.44	1.9661	3.9321	5.8982	7.8642	1.545E-05	3.090E-05	4.634E-05	6.179E-05	3.090E-06	6.179E-06	9.268E-06	1.236E-05
	17	64.592	(ug/lb picked)	158.64	1.8627	3.7253	5.5880	7.4507	1.464E-05	2.927E-05	4.391E-05	5.854E-05	2.927E-06	5.854E-06	8.781E-06	1.171E-05
	18	61.007	(ug/lb picked)	149.83	1.7593	3.5186	5.2779	7.0372	1.382E-05	2.765E-05	4.147E-05	5.529E-05	2.765E-06	5.529E-06	8.294E-06	1.106E-05
	19	57.422	(ug/lb picked)	141.03	1.6559	3.3118	4.9677	6.6236	1.301E-05	2.602E-05	3.903E-05	5.204E-05	2.602E-06	5.204E-06	7.806E-06	1.041E-05
	20	53.837	(ug/lb picked)	132.22	1.5525	3.1050	4.6576	6.2101	1.220E-05	2.440E-05	3.660E-05	4.879E-05	2.440E-06	4.879E-06	7.319E-06	9.758E-06
	21	50.252	(ug/lb picked)	123.42	1.4491	2.8983	4.3474	5.7965	1.139E-05	2.277E-05	3.416E-05	4.554E-05	2.277E-06	4.554E-06	6.832E-06	9.109E-06
	22	46.667	(ug/lb picked)	114.61	1.3458	2.6915	4.0373	5.3830	1.057E-05	2.115E-05	3.172E-05	4.230E-05	2.115E-06	4.230E-06	6.344E-06	8.459E-06
	23	43.081	(ug/lb picked)	105.81	1.2424	2.4847	3.7271	4.9695	9.761E-06	1.952E-05	2.928E-05	3.905E-05	1.952E-06	3.905E-06	5.857E-06	7.809E-06
	24	39.496	(ug/lb picked)	97.00	1.1390	2.2780	3.4169	4.5559	8.949E-06	1.790E-05	2.685E-05	3.580E-05	1.790E-06	3.580E-06	5.369E-06	7.159E-06
	25	35.911	(ug/lb picked)	88.20	1.0356	2.0712	3.1068	4.1424	8.137E-06	1.627E-05	2.441E-05	3.255E-05	1.627E-06	3.255E-06	4.882E-06	6.509E-06
	26	32.326	(ug/lb picked)	79.39	0.9322	1.8644	2.7966	3.7288	7.325E-06	1.465E-05	2.197E-05	2.930E-05	1.465E-06	2.930E-06	4.395E-06	5.860E-06
	27	28.741	(ug/lb picked)	70.59	0.8288	1.6577	2.4865	3.3153	6.512E-06	1.302E-05	1.954E-05	2.605E-05	1.302E-06	2.605E-06	3.907E-06	5.210E-06
	28	25.156	(ug/lb picked)	61.78	0.7254	1.4508	2.1763	2.9018	5.700E-06	1.140E-05	1.710E-05	2.280E-05	1.140E-06	2.280E-06	3.420E-06	4.560E-06
	29	21.571	(ug/lb picked)	52.98	0.6221	1.2441	1.8662	2.4882	4.888E-06	9.775E-06	1.466E-05	1.955E-05	9.775E-07	1.955E-06	2.933E-06	3.910E-06
	30	17.986	(ug/lb picked)	44.17	0.5187	1.0373	1.5560	2.0747	4.075E-06	8.151E-06	1.223E-05	1.630E-05	8.151E-07	1.630E-06	2.445E-06	3.260E-06
	31	14.401	(ug/lb picked)	35.37	0.4153	0.8306	1.2459	1.6612	3.263E-06	6.526E-06	9.789E-06	1.305E-05	6.526E-07	1.305E-06	1.958E-06	2.610E-06
	32	10.816	(ug/lb picked)	26.56	0.3119	0.6238	0.9357	1.2476	2.451E-06	4.901E-06	7.352E-06	9.803E-06	4.901E-07	9.803E-07	1.470E-06	1.961E-06
	33	7.231	(ug/lb picked)	17.76	0.2085	0.4170	0.6256	0.8341	1.638E-06	3.277E-06	4.915E-06	6.553E-06	3.277E-07	6.553E-07	9.830E-07	1.311E-06
	34	3.646	(ug/lb picked)	8.95	0.1051	0.2103	0.3154	0.4205	8.260E-07	1.652E-06	2.478E-06	3.304E-06	1.652E-07	3.304E-07	4.956E-07	6.608E-07
	35	0.061	(ug/lb picked)	0.15	0.0017	0.0035	0.0052	0.0070	1.374E-08	2.747E-08	4.121E-08	5.495E-08	2.747E-09	5.495E-09	8.242E-09	1.099E-08

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON WHOLE TOMATO (ppm) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	125.536	(ug/lb picked)	308.32	5.4303	10.8606	16.2910	21.7213	4.267E-05	8.533E-05	1.280E-04	1.707E-04	8.533E-06	1.707E-05	2.560E-05	3.413E-05
	1	121.953	(ug/lb picked)	299.52	5.2752	10.5505	15.8257	21.1010	4.145E-05	8.290E-05	1.243E-04	1.658E-04	8.290E-06	1.658E-05	2.487E-05	3.316E-05
	2	118.368	(ug/lb picked)	290.71	5.1202	10.2403	15.3605	20.4807	4.023E-05	8.046E-05	1.207E-04	1.609E-04	8.046E-06	1.609E-05	2.414E-05	3.218E-05
	3	114.783	(ug/lb picked)	281.91	4.9651	9.9302	14.8953	19.8604	3.901E-05	7.802E-05	1.170E-04	1.560E-04	7.802E-06	1.560E-05	2.341E-05	3.121E-05
	4	111.198	(ug/lb picked)	273.10	4.8100	9.6200	14.4300	19.2401	3.779E-05	7.559E-05	1.134E-04	1.512E-04	7.559E-06	1.512E-05	2.268E-05	3.023E-05
	5	107.613	(ug/lb picked)	264.30	4.6549	9.3099	13.9648	18.6198	3.657E-05	7.315E-05	1.097E-04	1.463E-04	7.315E-06	1.463E-05	2.194E-05	2.926E-05
	6	104.028	(ug/lb picked)	255.49	4.4998	8.9997	13.4996	17.9994	3.536E-05	7.071E-05	1.061E-04	1.414E-04	7.071E-06	1.414E-05	2.121E-05	2.828E-05
	7	100.443	(ug/lb picked)	246.69	4.3448	8.6896	13.0344	17.3791	3.414E-05	6.828E-05	1.024E-04	1.366E-04	6.828E-06	1.366E-05	2.048E-05	2.731E-05
	8	96.858	(ug/lb picked)	237.88	4.1897	8.3794	12.5691	16.7588	3.292E-05	6.584E-05	9.876E-05	1.317E-04	6.584E-06	1.317E-05	1.975E-05	2.634E-05
	9	93.273	(ug/lb picked)	229.08	4.0346	8.0693	12.1039	16.1385	3.170E-05	6.340E-05	9.510E-05	1.268E-04	6.340E-06	1.268E-05	1.902E-05	2.536E-05
	10	89.687	(ug/lb picked)	220.27	3.8796	7.7591	11.6387	15.5182	3.048E-05	6.096E-05	9.145E-05	1.219E-04	6.096E-06	1.219E-05	1.829E-05	2.439E-05
	11	86.102	(ug/lb picked)	211.47	3.7245	7.4490	11.1734	14.8979	2.926E-05	5.853E-05	8.779E-05	1.171E-04	5.853E-06	1.171E-05	1.756E-05	2.341E-05
	12	82.517	(ug/lb picked)	202.66	3.5694	7.1388	10.7082	14.2776	2.805E-05	5.609E-05	8.414E-05	1.122E-04	5.609E-06	1.122E-05	1.683E-05	2.244E-05
	13	78.932	(ug/lb picked)	193.86	3.4143	6.8286	10.2430	13.6573	2.683E-05	5.365E-05	8.048E-05	1.073E-04	5.365E-06	1.073E-05	1.610E-05	2.146E-05
	14	75.347	(ug/lb picked)	185.05	3.2592	6.5185	9.7777	13.0370	2.561E-05	5.122E-05	7.683E-05	1.024E-04	5.122E-06	1.024E-05	1.537E-05	2.049E-05
	15	71.762	(ug/lb picked)	176.25	3.1042	6.2083	9.3125	12.4167	2.439E-05	4.878E-05	7.317E-05	9.756E-05	4.878E-06	9.756E-06	1.463E-05	1.951E-05
	16	68.177	(ug/lb picked)	167.44	2.9491	5.8982	8.8473	11.7964	2.317E-05	4.634E-05	6.951E-05	9.269E-05	4.634E-06	9.269E-06	1.390E-05	1.854E-05
	17	64.592	(ug/lb picked)	158.64	2.7940	5.5880	8.3820	11.1760	2.195E-05	4.391E-05	6.586E-05	8.781E-05	4.391E-06	8.781E-06	1.317E-05	1.756E-05
	18	61.007	(ug/lb picked)	149.83	2.6389	5.2779	7.9168	10.5557	2.073E-05	4.147E-05	6.220E-05	8.294E-05	4.147E-06	8.294E-06	1.244E-05	1.659E-05
	19	57.422	(ug/lb picked)	141.03	2.4838	4.9677	7.4516	9.9354	1.952E-05	3.903E-05	5.855E-05	7.806E-05	3.903E-06	7.806E-06	1.171E-05	1.561E-05
	20	53.837	(ug/lb picked)	132.22	2.3288	4.6576	6.9863	9.3151	1.830E-05	3.660E-05	5.489E-05	7.319E-05	3.660E-06	7.319E-06	1.098E-05	1.464E-05
	21	50.252	(ug/lb picked)	123.42	2.1737	4.3474	6.5211	8.6948	1.708E-05	3.416E-05	5.124E-05	6.832E-05	3.416E-06	6.832E-06	1.025E-05	1.366E-05
	22	46.667	(ug/lb picked)	114.61	2.0186	4.0373	6.0559	8.0745	1.586E-05	3.172E-05	4.758E-05	6.344E-05	3.172E-06	6.344E-06	9.516E-06	1.269E-05
	23	43.081	(ug/lb picked)	105.81	1.8635	3.7271	5.5906	7.4542	1.464E-05	2.928E-05	4.393E-05	5.857E-05	2.928E-06	5.857E-06	8.785E-06	1.171E-05
	24	39.496	(ug/lb picked)	97.00	1.7085	3.4169	5.1254	6.8339	1.342E-05	2.685E-05	4.027E-05	5.369E-05	2.685E-06	5.369E-06	8.054E-06	1.074E-05
	25	35.911	(ug/lb picked)	88.20	1.5534	3.1068	4.6602	6.2136	1.221E-05	2.441E-05	3.662E-05	4.882E-05	2.441E-06	4.882E-06	7.323E-06	9.764E-06
	26	32.326	(ug/lb picked)	79.39	1.3983	2.7966	4.1950	5.5933	1.099E-05	2.197E-05	3.296E-05	4.395E-05	2.197E-06	4.395E-06	6.592E-06	8.788E-06
	27	28.741	(ug/lb picked)	70.59	1.2432	2.4865	3.7297	4.9730	9.768E-06	1.954E-05	2.930E-05	3.907E-05	1.954E-06	3.907E-06	5.861E-06	7.815E-06
	28	25.156	(ug/lb picked)	61.78	1.0882	2.1763	3.2645	4.3527	8.550E-06	1.710E-05	2.565E-05	3.420E-05	1.710E-06	3.420E-06	5.130E-06	6.840E-06
	29	21.571	(ug/lb picked)	52.98	0.9331	1.8662	2.7993	3.7323	7.331E-06	1.466E-05	2.199E-05	2.933E-05	1.466E-06	2.933E-06	4.399E-06	5.865E-06
	30	17.986	(ug/lb picked)	44.17	0.7780	1.5560	2.3340	3.1120	6.113E-06	1.223E-05	1.834E-05	2.445E-05	1.223E-06	2.445E-06	3.668E-06	4.890E-06
	31	14.401	(ug/lb picked)	35.37	0.6229	1.2459	1.8688	2.4917	4.894E-06	9.789E-06	1.468E-05	1.958E-05	9.789E-07	1.958E-06	2.937E-06	3.916E-06
	32	10.816	(ug/lb picked)	26.56	0.4679	0.9357	1.4036	1.8714	3.676E-06	7.352E-06	1.103E-05	1.470E-05	7.352E-07	1.470E-06	2.206E-06	2.941E-06
	33	7.231	(ug/lb picked)	17.76	0.3128	0.6256	0.9383	1.2511	2.456E-06	4.915E-06	7.373E-06	9.830E-06	4.915E-07	9.830E-07	1.475E-06	1.966E-06
	34	3.646	(ug/lb picked)	8.95	0.1577	0.3154	0.4731	0.6308	1.239E-06	2.478E-06	3.717E-06	4.956E-06	2.478E-07	4.956E-07	7.434E-07	9.913E-07
	35	0.061	(ug/lb picked)	0.15	0.0026	0.0052	0.0079	0.0105	2.081E-06	4.121E-06	6.182E-06	8.242E-06	4.121E-09	8.242E-09	1.236E-08	1.648E-08

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	1.7948	3.5897	5.3845	7.1793	2.820E-04	5.641E-04	8.461E-04	1.128E-03	1.410E-04	2.820E-04	4.231E-04	5.641E-04
	1	121.300	(ug/lb picked)	297.91	1.7490	3.4980	5.2470	6.9960	2.748E-04	5.497E-04	8.245E-04	1.099E-03	1.374E-04	2.748E-04	4.123E-04	5.497E-04
	2	118.121	(ug/lb picked)	290.11	1.7032	3.4063	5.1095	6.8127	2.676E-04	5.353E-04	8.029E-04	1.071E-03	1.338E-04	2.676E-04	4.015E-04	5.353E-04
	3	114.943	(ug/lb picked)	282.30	1.6573	3.3147	4.9720	6.6293	2.604E-04	5.209E-04	7.813E-04	1.042E-03	1.302E-04	2.604E-04	3.907E-04	5.209E-04
	4	111.764	(ug/lb picked)	274.49	1.6115	3.2230	4.8345	6.4460	2.532E-04	5.065E-04	7.597E-04	1.013E-03	1.266E-04	2.532E-04	3.799E-04	5.065E-04
	5	108.585	(ug/lb picked)	266.68	1.5657	3.1313	4.6970	6.2627	2.460E-04	4.921E-04	7.381E-04	9.841E-04	1.230E-04	2.460E-04	3.690E-04	4.921E-04
	6	105.406	(ug/lb picked)	258.88	1.5198	3.0397	4.5595	6.0793	2.388E-04	4.777E-04	7.165E-04	9.553E-04	1.194E-04	2.388E-04	3.582E-04	4.777E-04
	7	102.227	(ug/lb picked)	251.07	1.4740	2.9480	4.4220	5.8960	2.316E-04	4.633E-04	6.949E-04	9.265E-04	1.158E-04	2.316E-04	3.474E-04	4.633E-04
	8	99.048	(ug/lb picked)	243.26	1.4282	2.8563	4.2845	5.7126	2.244E-04	4.489E-04	6.733E-04	8.977E-04	1.122E-04	2.244E-04	3.366E-04	4.489E-04
	9	95.870	(ug/lb picked)	235.46	1.3823	2.7646	4.1470	5.5293	2.172E-04	4.344E-04	6.517E-04	8.689E-04	1.086E-04	2.172E-04	3.258E-04	4.344E-04
	10	92.691	(ug/lb picked)	227.65	1.3365	2.6730	4.0095	5.3460	2.100E-04	4.200E-04	6.301E-04	8.401E-04	1.050E-04	2.100E-04	3.150E-04	4.200E-04
	11	89.512	(ug/lb picked)	219.84	1.2907	2.5813	3.8720	5.1626	2.028E-04	4.056E-04	6.085E-04	8.113E-04	1.014E-04	2.028E-04	3.042E-04	4.056E-04
	12	86.333	(ug/lb picked)	212.03	1.2448	2.4896	3.7345	4.9793	1.956E-04	3.912E-04	5.868E-04	7.825E-04	9.781E-05	1.956E-04	2.934E-04	3.912E-04
	13	83.154	(ug/lb picked)	204.23	1.1990	2.3980	3.5970	4.7959	1.884E-04	3.768E-04	5.652E-04	7.536E-04	9.421E-05	1.884E-04	2.826E-04	3.768E-04
	14	79.976	(ug/lb picked)	196.42	1.1532	2.3063	3.4595	4.6126	1.812E-04	3.624E-04	5.436E-04	7.248E-04	9.060E-05	1.812E-04	2.718E-04	3.624E-04
	15	76.797	(ug/lb picked)	188.61	1.1073	2.2146	3.3220	4.4293	1.740E-04	3.480E-04	5.220E-04	6.960E-04	8.700E-05	1.740E-04	2.610E-04	3.480E-04
	16	73.618	(ug/lb picked)	180.81	1.0615	2.1230	3.1844	4.2459	1.668E-04	3.336E-04	5.004E-04	6.672E-04	8.340E-05	1.668E-04	2.502E-04	3.336E-04
	17	70.439	(ug/lb picked)	173.00	1.0156	2.0313	3.0469	4.0626	1.596E-04	3.192E-04	4.788E-04	6.384E-04	7.980E-05	1.596E-04	2.394E-04	3.192E-04
	18	67.260	(ug/lb picked)	165.19	0.9698	1.9396	2.9094	3.8793	1.524E-04	3.048E-04	4.572E-04	6.096E-04	7.620E-05	1.524E-04	2.286E-04	3.048E-04
	19	64.082	(ug/lb picked)	157.38	0.9240	1.8480	2.7719	3.6959	1.452E-04	2.904E-04	4.356E-04	5.808E-04	7.260E-05	1.452E-04	2.178E-04	2.904E-04
	20	60.903	(ug/lb picked)	149.56	0.8781	1.7563	2.6344	3.5126	1.380E-04	2.760E-04	4.140E-04	5.520E-04	6.900E-05	1.380E-04	2.070E-04	2.760E-04
	21	57.724	(ug/lb picked)	141.77	0.8323	1.6646	2.4969	3.3292	1.308E-04	2.616E-04	3.924E-04	5.232E-04	6.540E-05	1.308E-04	1.962E-04	2.616E-04
	22	54.545	(ug/lb picked)	133.96	0.7865	1.5730	2.3594	3.1459	1.236E-04	2.472E-04	3.708E-04	4.944E-04	6.179E-05	1.236E-04	1.854E-04	2.472E-04
	23	51.366	(ug/lb picked)	126.16	0.7406	1.4813	2.2219	2.9626	1.164E-04	2.328E-04	3.492E-04	4.655E-04	5.819E-05	1.164E-04	1.746E-04	2.328E-04
	24	48.188	(ug/lb picked)	118.35	0.6948	1.3896	2.0844	2.7792	1.092E-04	2.184E-04	3.276E-04	4.367E-04	5.459E-05	1.092E-04	1.638E-04	2.184E-04
	25	45.009	(ug/lb picked)	110.54	0.6490	1.2979	1.9469	2.5959	1.020E-04	2.040E-04	3.059E-04	4.079E-04	5.099E-05	1.020E-04	1.530E-04	2.040E-04
	26	41.830	(ug/lb picked)	102.73	0.6031	1.2063	1.8094	2.4126	9.478E-05	1.896E-04	2.843E-04	3.791E-04	4.739E-05	9.478E-05	1.422E-04	1.896E-04
	27	38.651	(ug/lb picked)	94.93	0.5573	1.1146	1.6719	2.2292	8.756E-05	1.752E-04	2.627E-04	3.503E-04	4.379E-05	8.756E-05	1.314E-04	1.752E-04
	28	35.472	(ug/lb picked)	87.12	0.5115	1.0229	1.5344	2.0458	8.037E-05	1.607E-04	2.411E-04	3.215E-04	4.019E-05	8.037E-05	1.206E-04	1.607E-04
	29	32.294	(ug/lb picked)	79.31	0.4656	0.9313	1.3969	1.8625	7.317E-05	1.463E-04	2.195E-04	2.927E-04	3.659E-05	7.317E-05	1.098E-04	1.463E-04
	30	29.115	(ug/lb picked)	71.51	0.4198	0.8396	1.2594	1.6792	6.597E-05	1.319E-04	1.979E-04	2.639E-04	3.298E-05	6.597E-05	9.895E-05	1.319E-04
	31	25.936	(ug/lb picked)	63.70	0.3740	0.7479	1.1219	1.4958	5.877E-05	1.175E-04	1.763E-04	2.351E-04	2.938E-05	5.877E-05	8.815E-05	1.175E-04
	32	22.757	(ug/lb picked)	55.89	0.3281	0.6563	0.9844	1.3125	5.156E-05	1.031E-04	1.547E-04	2.063E-04	2.578E-05	5.156E-05	7.735E-05	1.031E-04
	33	19.578	(ug/lb picked)	48.08	0.2823	0.5646	0.8469	1.1292	4.436E-05	8.872E-05	1.331E-04	1.774E-04	2.218E-05	4.436E-05	6.654E-05	8.872E-05
	34	16.400	(ug/lb picked)	40.28	0.2365	0.4729	0.7094	0.9458	3.716E-05	7.432E-05	1.115E-04	1.486E-04	1.858E-05	3.716E-05	5.574E-05	7.432E-05
	35	13.221	(ug/lb picked)	32.47	0.1906	0.3813	0.5719	0.7625	2.996E-05	5.991E-05	8.987E-05	1.198E-04	1.498E-05	2.996E-05	4.493E-05	5.991E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	3.5697	7.1793	10.7690	14.3587	5.641E-04	1.128E-03	1.692E-03	2.256E-03	2.820E-04	5.641E-04	8.461E-04	1.128E-03
	1	121.300	(ug/lb picked)	297.91	3.4960	6.9960	10.4940	13.9920	5.497E-04	1.099E-03	1.649E-03	2.199E-03	2.748E-04	5.497E-04	8.245E-04	1.099E-03
	2	118.121	(ug/lb picked)	290.11	3.4063	6.8127	10.2190	13.6253	5.353E-04	1.071E-03	1.606E-03	2.141E-03	2.676E-04	5.353E-04	8.029E-04	1.071E-03
	3	114.943	(ug/lb picked)	282.30	3.3147	6.6293	9.9440	13.2587	5.209E-04	1.042E-03	1.563E-03	2.084E-03	2.604E-04	5.209E-04	7.813E-04	1.042E-03
	4	111.764	(ug/lb picked)	274.49	3.2230	6.4460	9.6690	12.8920	5.065E-04	1.013E-03	1.519E-03	2.026E-03	2.532E-04	5.065E-04	7.597E-04	1.013E-03
	5	108.585	(ug/lb picked)	266.68	3.1313	6.2627	9.3940	12.5253	4.921E-04	9.841E-04	1.476E-03	1.968E-03	2.460E-04	4.921E-04	7.381E-04	9.841E-04
	6	105.406	(ug/lb picked)	258.86	3.0397	6.0793	9.1190	12.1586	4.777E-04	9.553E-04	1.433E-03	1.911E-03	2.388E-04	4.777E-04	7.165E-04	9.553E-04
	7	102.227	(ug/lb picked)	251.07	2.9480	5.8960	8.8440	11.7919	4.633E-04	9.265E-04	1.390E-03	1.853E-03	2.316E-04	4.633E-04	6.949E-04	9.265E-04
	8	99.048	(ug/lb picked)	243.26	2.8563	5.7126	8.5690	11.4253	4.489E-04	8.977E-04	1.347E-03	1.795E-03	2.244E-04	4.489E-04	6.733E-04	8.977E-04
	9	95.870	(ug/lb picked)	235.46	2.7646	5.5293	8.2939	11.0586	4.344E-04	8.689E-04	1.303E-03	1.738E-03	2.172E-04	4.344E-04	6.517E-04	8.689E-04
	10	92.691	(ug/lb picked)	227.65	2.6730	5.3460	8.0189	10.6919	4.200E-04	8.401E-04	1.260E-03	1.680E-03	2.100E-04	4.200E-04	6.301E-04	8.401E-04
	11	89.512	(ug/lb picked)	219.84	2.5813	5.1626	7.7439	10.3252	4.056E-04	8.113E-04	1.217E-03	1.623E-03	2.028E-04	4.056E-04	6.085E-04	8.113E-04
	12	86.333	(ug/lb picked)	212.03	2.4896	4.9793	7.4689	9.9586	3.912E-04	7.825E-04	1.174E-03	1.565E-03	1.956E-04	3.912E-04	5.868E-04	7.825E-04
	13	83.154	(ug/lb picked)	204.23	2.3980	4.7959	7.1939	9.5919	3.768E-04	7.536E-04	1.130E-03	1.507E-03	1.884E-04	3.768E-04	5.652E-04	7.536E-04
	14	79.976	(ug/lb picked)	196.42	2.3063	4.6126	6.9189	9.2252	3.624E-04	7.248E-04	1.087E-03	1.450E-03	1.812E-04	3.624E-04	5.436E-04	7.248E-04
	15	76.797	(ug/lb picked)	188.61	2.2146	4.4293	6.6439	8.8585	3.480E-04	6.960E-04	1.044E-03	1.392E-03	1.740E-04	3.480E-04	5.220E-04	6.960E-04
	16	73.618	(ug/lb picked)	180.81	2.1230	4.2459	6.3689	8.4919	3.336E-04	6.672E-04	1.001E-03	1.334E-03	1.668E-04	3.336E-04	5.004E-04	6.672E-04
	17	70.439	(ug/lb picked)	173.00	2.0313	4.0626	6.0939	8.1252	3.192E-04	6.384E-04	9.576E-04	1.277E-03	1.596E-04	3.192E-04	4.788E-04	6.384E-04
	18	67.260	(ug/lb picked)	165.19	1.9396	3.8793	5.8189	7.7585	3.048E-04	6.096E-04	9.144E-04	1.219E-03	1.524E-04	3.048E-04	4.572E-04	6.096E-04
	19	64.082	(ug/lb picked)	157.38	1.8480	3.6959	5.5439	7.3918	2.904E-04	5.808E-04	8.712E-04	1.162E-03	1.452E-04	2.904E-04	4.356E-04	5.808E-04
	20	60.903	(ug/lb picked)	149.58	1.7563	3.5126	5.2689	7.0252	2.760E-04	5.520E-04	8.280E-04	1.104E-03	1.380E-04	2.760E-04	4.140E-04	5.520E-04
	21	57.724	(ug/lb picked)	141.77	1.6646	3.3292	4.9939	6.6585	2.616E-04	5.232E-04	7.848E-04	1.046E-03	1.308E-04	2.616E-04	3.924E-04	5.232E-04
	22	54.545	(ug/lb picked)	133.96	1.5730	3.1459	4.7189	6.2918	2.472E-04	4.944E-04	7.415E-04	9.887E-04	1.236E-04	2.472E-04	3.708E-04	4.944E-04
	23	51.366	(ug/lb picked)	126.16	1.4813	2.9626	4.4439	5.9251	2.328E-04	4.655E-04	6.983E-04	9.311E-04	1.164E-04	2.328E-04	3.492E-04	4.655E-04
	24	48.188	(ug/lb picked)	118.35	1.3896	2.7792	4.1688	5.5585	2.184E-04	4.367E-04	6.551E-04	8.735E-04	1.092E-04	2.184E-04	3.276E-04	4.367E-04
	25	45.009	(ug/lb picked)	110.54	1.2979	2.5959	3.8938	5.1918	2.040E-04	4.079E-04	6.119E-04	8.158E-04	1.020E-04	2.040E-04	3.059E-04	4.079E-04
	26	41.830	(ug/lb picked)	102.73	1.2063	2.4126	3.6188	4.8251	1.896E-04	3.791E-04	5.687E-04	7.582E-04	9.478E-05	1.896E-04	2.843E-04	3.791E-04
	27	38.651	(ug/lb picked)	94.93	1.1146	2.2292	3.3438	4.4584	1.752E-04	3.503E-04	5.255E-04	7.006E-04	8.758E-05	1.752E-04	2.627E-04	3.503E-04
	28	35.472	(ug/lb picked)	87.12	1.0229	2.0459	3.0688	4.0918	1.607E-04	3.215E-04	4.822E-04	6.430E-04	8.037E-05	1.607E-04	2.411E-04	3.215E-04
	29	32.294	(ug/lb picked)	79.31	0.9313	1.8625	2.7938	3.7251	1.463E-04	2.927E-04	4.390E-04	5.854E-04	7.317E-05	1.463E-04	2.195E-04	2.927E-04
	30	29.115	(ug/lb picked)	71.51	0.8396	1.6792	2.5188	3.3584	1.319E-04	2.639E-04	3.958E-04	5.277E-04	6.597E-05	1.319E-04	1.979E-04	2.639E-04
	31	25.936	(ug/lb picked)	63.70	0.7479	1.4958	2.2438	2.9917	1.175E-04	2.351E-04	3.526E-04	4.701E-04	5.877E-05	1.175E-04	1.763E-04	2.351E-04
	32	22.757	(ug/lb picked)	55.89	0.6563	1.3125	1.9688	2.6250	1.031E-04	2.063E-04	3.094E-04	4.125E-04	5.156E-05	1.031E-04	1.547E-04	2.063E-04
	33	19.578	(ug/lb picked)	48.08	0.5646	1.1292	1.6938	2.2584	8.872E-05	1.774E-04	2.662E-04	3.549E-04	4.436E-05	8.872E-05	1.331E-04	1.774E-04
	34	16.400	(ug/lb picked)	40.26	0.4729	0.9458	1.4188	1.8917	7.432E-05	1.486E-04	2.230E-04	2.973E-04	3.716E-05	7.432E-05	1.115E-04	1.486E-04
	35	13.221	(ug/lb picked)	32.47	0.3813	0.7625	1.1438	1.5250	5.991E-05	1.198E-04	1.797E-04	2.396E-04	2.996E-05	5.991E-05	8.987E-05	1.198E-04

NOTES:

* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	100
DERMAL ABS. FACT. #2 (%):	50

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	5.3845	10.7690	16.1535	21.5380	8.461E-04	1.692E-03	2.538E-03	3.385E-03	4.231E-04	8.461E-04	1.269E-03	1.692E-03
	1	121.300	(ug/lb picked)	297.91	5.2470	10.4940	15.7410	20.9880	8.245E-04	1.649E-03	2.474E-03	3.298E-03	4.123E-04	8.245E-04	1.237E-03	1.649E-03
	2	118.121	(ug/lb picked)	290.11	5.1095	10.2190	15.3285	20.4380	8.029E-04	1.606E-03	2.409E-03	3.212E-03	4.015E-04	8.029E-04	1.204E-03	1.606E-03
	3	114.943	(ug/lb picked)	282.30	4.9720	9.9440	14.9160	19.8880	7.813E-04	1.563E-03	2.344E-03	3.125E-03	3.907E-04	7.813E-04	1.172E-03	1.563E-03
	4	111.764	(ug/lb picked)	274.49	4.8345	9.6690	14.5035	19.3380	7.597E-04	1.519E-03	2.279E-03	3.039E-03	3.799E-04	7.597E-04	1.140E-03	1.519E-03
	5	108.585	(ug/lb picked)	266.68	4.6970	9.3940	14.0910	18.7880	7.381E-04	1.476E-03	2.214E-03	2.952E-03	3.690E-04	7.381E-04	1.107E-03	1.476E-03
	6	105.406	(ug/lb picked)	258.88	4.5595	9.1190	13.6785	18.2379	7.165E-04	1.433E-03	2.149E-03	2.866E-03	3.582E-04	7.165E-04	1.075E-03	1.433E-03
	7	102.227	(ug/lb picked)	251.07	4.4220	8.8440	13.2659	17.6879	6.949E-04	1.390E-03	2.085E-03	2.780E-03	3.474E-04	6.949E-04	1.042E-03	1.390E-03
	8	99.046	(ug/lb picked)	243.26	4.2845	8.5690	12.8534	17.1379	6.733E-04	1.347E-03	2.020E-03	2.693E-03	3.366E-04	6.733E-04	1.010E-03	1.347E-03
	9	95.870	(ug/lb picked)	235.46	4.1470	8.2939	12.4409	16.5879	6.517E-04	1.303E-03	1.955E-03	2.607E-03	3.258E-04	6.517E-04	9.775E-04	1.303E-03
	10	92.691	(ug/lb picked)	227.65	4.0095	8.0189	12.0284	16.0379	6.301E-04	1.260E-03	1.890E-03	2.520E-03	3.150E-04	6.301E-04	9.451E-04	1.260E-03
	11	89.512	(ug/lb picked)	219.84	3.8720	7.7439	11.6159	15.4879	6.085E-04	1.217E-03	1.825E-03	2.434E-03	3.042E-04	6.085E-04	9.127E-04	1.217E-03
	12	86.333	(ug/lb picked)	212.03	3.7345	7.4689	11.2034	14.9379	5.868E-04	1.174E-03	1.761E-03	2.347E-03	2.934E-04	5.868E-04	8.803E-04	1.174E-03
	13	83.154	(ug/lb picked)	204.23	3.5970	7.1938	10.7909	14.3878	5.652E-04	1.130E-03	1.696E-03	2.261E-03	2.826E-04	5.652E-04	8.479E-04	1.130E-03
	14	79.976	(ug/lb picked)	196.42	3.4595	6.9189	10.3784	13.8378	5.436E-04	1.087E-03	1.631E-03	2.175E-03	2.718E-04	5.436E-04	8.154E-04	1.087E-03
	15	76.797	(ug/lb picked)	188.61	3.3220	6.6439	9.9659	13.2878	5.220E-04	1.044E-03	1.566E-03	2.088E-03	2.610E-04	5.220E-04	7.830E-04	1.044E-03
	16	73.618	(ug/lb picked)	180.81	3.1844	6.3688	9.5533	12.7378	5.004E-04	1.001E-03	1.501E-03	2.002E-03	2.502E-04	5.004E-04	7.506E-04	1.001E-03
	17	70.439	(ug/lb picked)	173.00	3.0469	6.0938	9.1408	12.1878	4.788E-04	9.576E-04	1.436E-03	1.915E-03	2.394E-04	4.788E-04	7.182E-04	9.576E-04
	18	67.260	(ug/lb picked)	165.19	2.9094	5.8188	8.7283	11.6378	4.572E-04	9.144E-04	1.372E-03	1.829E-03	2.286E-04	4.572E-04	6.858E-04	9.144E-04
	19	64.082	(ug/lb picked)	157.38	2.7719	5.5439	8.3158	11.0878	4.356E-04	8.712E-04	1.307E-03	1.742E-03	2.178E-04	4.356E-04	6.534E-04	8.712E-04
	20	60.903	(ug/lb picked)	149.58	2.6344	5.2689	7.9033	10.5377	4.140E-04	8.280E-04	1.242E-03	1.656E-03	2.070E-04	4.140E-04	6.210E-04	8.280E-04
	21	57.724	(ug/lb picked)	141.77	2.4969	4.9939	7.4908	9.9877	3.924E-04	7.848E-04	1.177E-03	1.570E-03	1.962E-04	3.924E-04	5.886E-04	7.848E-04
	22	54.545	(ug/lb picked)	133.96	2.3594	4.7189	7.0783	9.4377	3.708E-04	7.415E-04	1.112E-03	1.483E-03	1.854E-04	3.708E-04	5.562E-04	7.415E-04
	23	51.366	(ug/lb picked)	126.16	2.2219	4.4438	6.6658	8.8877	3.492E-04	6.983E-04	1.047E-03	1.397E-03	1.746E-04	3.492E-04	5.237E-04	6.983E-04
	24	48.188	(ug/lb picked)	118.35	2.0844	4.1688	6.2533	8.3377	3.276E-04	6.551E-04	9.827E-04	1.310E-03	1.638E-04	3.276E-04	4.913E-04	6.551E-04
	25	45.009	(ug/lb picked)	110.54	1.9469	3.8938	5.8408	7.7877	3.059E-04	6.119E-04	9.178E-04	1.224E-03	1.530E-04	3.059E-04	4.589E-04	6.119E-04
	26	41.830	(ug/lb picked)	102.73	1.8094	3.6188	5.4282	7.2377	2.843E-04	5.687E-04	8.530E-04	1.137E-03	1.422E-04	2.843E-04	4.265E-04	5.687E-04
	27	38.651	(ug/lb picked)	94.93	1.6719	3.3438	5.0157	6.6876	2.627E-04	5.255E-04	7.882E-04	1.051E-03	1.314E-04	2.627E-04	3.941E-04	5.255E-04
	28	35.472	(ug/lb picked)	87.12	1.5344	3.0688	4.6032	6.1376	2.411E-04	4.822E-04	7.234E-04	9.645E-04	1.206E-04	2.411E-04	3.617E-04	4.822E-04
	29	32.294	(ug/lb picked)	79.31	1.3969	2.7938	4.1907	5.5876	2.195E-04	4.390E-04	6.585E-04	8.781E-04	1.098E-04	2.195E-04	3.293E-04	4.390E-04
	30	29.115	(ug/lb picked)	71.51	1.2594	2.5188	3.7782	5.0376	1.979E-04	3.958E-04	5.937E-04	7.916E-04	9.895E-05	1.979E-04	2.969E-04	3.958E-04
	31	25.936	(ug/lb picked)	63.70	1.1219	2.2438	3.3657	4.4876	1.763E-04	3.526E-04	5.289E-04	7.052E-04	8.815E-05	1.763E-04	2.644E-04	3.526E-04
	32	22.757	(ug/lb picked)	55.89	0.9844	1.9688	2.9532	3.9376	1.547E-04	3.094E-04	4.641E-04	6.188E-04	7.735E-05	1.547E-04	2.320E-04	3.094E-04
	33	19.578	(ug/lb picked)	48.08	0.8469	1.6938	2.5407	3.3876	1.331E-04	2.662E-04	3.992E-04	5.323E-04	6.654E-05	1.331E-04	1.996E-04	2.662E-04
	34	16.400	(ug/lb picked)	40.28	0.7094	1.4188	2.1282	2.8375	1.115E-04	2.230E-04	3.344E-04	4.459E-04	5.574E-05	1.115E-04	1.672E-04	2.230E-04
	35	13.221	(ug/lb picked)	32.47	0.5719	1.1438	1.7156	2.2875	8.987E-05	1.797E-04	2.696E-04	3.595E-04	4.493E-05	8.987E-05	1.348E-04	1.797E-04

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	1.7948	3.5897	5.3845	7.1793	5.641E-05	1.128E-04	1.692E-04	2.256E-04	2.820E-05	5.641E-05	8.461E-05	1.128E-04
	1	121.300	(ug/lb picked)	297.91	1.7490	3.4980	5.2470	6.9960	5.497E-05	1.099E-04	1.649E-04	2.199E-04	2.748E-05	5.497E-05	8.245E-05	1.099E-04
	2	118.121	(ug/lb picked)	290.11	1.7032	3.4063	5.1095	6.8127	5.353E-05	1.071E-04	1.606E-04	2.141E-04	2.676E-05	5.353E-05	8.029E-05	1.071E-04
	3	114.943	(ug/lb picked)	282.30	1.6573	3.3147	4.9720	6.6293	5.209E-05	1.042E-04	1.563E-04	2.084E-04	2.604E-05	5.209E-05	7.813E-05	1.042E-04
	4	111.764	(ug/lb picked)	274.49	1.6115	3.2230	4.8345	6.4460	5.065E-05	1.013E-04	1.519E-04	2.026E-04	2.532E-05	5.065E-05	7.597E-05	1.013E-04
	5	108.585	(ug/lb picked)	266.68	1.5657	3.1313	4.6970	6.2627	4.921E-05	9.841E-05	1.476E-04	1.968E-04	2.460E-05	4.921E-05	7.381E-05	9.841E-05
	6	105.406	(ug/lb picked)	258.88	1.5198	3.0397	4.5595	6.0793	4.777E-05	9.553E-05	1.433E-04	1.911E-04	2.388E-05	4.777E-05	7.165E-05	9.553E-05
	7	102.227	(ug/lb picked)	251.07	1.4740	2.9480	4.4220	5.8960	4.633E-05	9.265E-05	1.390E-04	1.853E-04	2.316E-05	4.633E-05	6.949E-05	9.265E-05
	8	99.048	(ug/lb picked)	243.26	1.4282	2.8563	4.2845	5.7126	4.489E-05	8.977E-05	1.347E-04	1.795E-04	2.244E-05	4.489E-05	6.733E-05	8.977E-05
	9	95.870	(ug/lb picked)	235.46	1.3823	2.7646	4.1470	5.5293	4.344E-05	8.689E-05	1.303E-04	1.738E-04	2.172E-05	4.344E-05	6.517E-05	8.689E-05
	10	92.691	(ug/lb picked)	227.65	1.3365	2.6730	4.0095	5.3460	4.200E-05	8.401E-05	1.260E-04	1.680E-04	2.100E-05	4.200E-05	6.301E-05	8.401E-05
	11	89.512	(ug/lb picked)	219.84	1.2907	2.5813	3.8720	5.1626	4.056E-05	8.113E-05	1.217E-04	1.623E-04	2.028E-05	4.056E-05	6.085E-05	8.113E-05
	12	86.333	(ug/lb picked)	212.03	1.2448	2.4896	3.7345	4.9793	3.912E-05	7.825E-05	1.174E-04	1.565E-04	1.956E-05	3.912E-05	5.868E-05	7.825E-05
	13	83.154	(ug/lb picked)	204.23	1.1990	2.3980	3.5970	4.7959	3.768E-05	7.536E-05	1.130E-04	1.507E-04	1.884E-05	3.768E-05	5.652E-05	7.536E-05
	14	79.976	(ug/lb picked)	196.42	1.1532	2.3063	3.4595	4.6126	3.624E-05	7.248E-05	1.087E-04	1.450E-04	1.812E-05	3.624E-05	5.436E-05	7.248E-05
	15	76.797	(ug/lb picked)	188.61	1.1073	2.2146	3.3220	4.4293	3.480E-05	6.960E-05	1.044E-04	1.392E-04	1.740E-05	3.480E-05	5.220E-05	6.960E-05
	16	73.618	(ug/lb picked)	180.81	1.0615	2.1230	3.1844	4.2459	3.336E-05	6.672E-05	1.001E-04	1.334E-04	1.668E-05	3.336E-05	5.004E-05	6.672E-05
	17	70.439	(ug/lb picked)	173.00	1.0156	2.0313	3.0469	4.0626	3.192E-05	6.384E-05	9.576E-05	1.277E-04	1.596E-05	3.192E-05	4.788E-05	6.384E-05
	18	67.260	(ug/lb picked)	165.19	0.9698	1.9396	2.9094	3.8793	3.048E-05	6.096E-05	9.144E-05	1.219E-04	1.524E-05	3.048E-05	4.572E-05	6.096E-05
	19	64.082	(ug/lb picked)	157.38	0.9240	1.8480	2.7719	3.6959	2.904E-05	5.808E-05	8.712E-05	1.162E-04	1.452E-05	2.904E-05	4.356E-05	5.808E-05
	20	60.903	(ug/lb picked)	149.58	0.8781	1.7563	2.6344	3.5126	2.760E-05	5.520E-05	8.280E-05	1.104E-04	1.380E-05	2.760E-05	4.140E-05	5.520E-05
	21	57.724	(ug/lb picked)	141.77	0.8323	1.6646	2.4969	3.3292	2.616E-05	5.232E-05	7.848E-05	1.046E-04	1.308E-05	2.616E-05	3.924E-05	5.232E-05
	22	54.545	(ug/lb picked)	133.96	0.7865	1.5730	2.3594	3.1459	2.472E-05	4.944E-05	7.415E-05	9.887E-05	1.236E-05	2.472E-05	3.708E-05	4.944E-05
	23	51.366	(ug/lb picked)	126.16	0.7406	1.4813	2.2219	2.9626	2.328E-05	4.655E-05	6.983E-05	9.311E-05	1.164E-05	2.328E-05	3.492E-05	4.655E-05
	24	48.186	(ug/lb picked)	118.35	0.6948	1.3896	2.0844	2.7792	2.184E-05	4.367E-05	6.551E-05	8.735E-05	1.092E-05	2.184E-05	3.276E-05	4.367E-05
	25	45.009	(ug/lb picked)	110.54	0.6490	1.2979	1.9469	2.5958	2.040E-05	4.079E-05	6.119E-05	8.159E-05	1.020E-05	2.040E-05	3.059E-05	4.079E-05
	26	41.830	(ug/lb picked)	102.73	0.6031	1.2063	1.8094	2.4125	1.896E-05	3.791E-05	5.687E-05	7.582E-05	9.478E-06	1.896E-05	2.843E-05	3.791E-05
	27	38.651	(ug/lb picked)	94.93	0.5573	1.1146	1.6719	2.2292	1.752E-05	3.503E-05	5.255E-05	7.006E-05	8.758E-06	1.752E-05	2.627E-05	3.503E-05
	28	35.472	(ug/lb picked)	87.12	0.5115	1.0229	1.5344	2.0459	1.607E-05	3.215E-05	4.822E-05	6.430E-05	8.037E-06	1.607E-05	2.411E-05	3.215E-05
	29	32.294	(ug/lb picked)	79.31	0.4656	0.9313	1.3969	1.8625	1.463E-05	2.927E-05	4.390E-05	5.854E-05	7.317E-06	1.463E-05	2.195E-05	2.927E-05
	30	29.115	(ug/lb picked)	71.51	0.4198	0.8396	1.2594	1.6792	1.319E-05	2.639E-05	3.958E-05	5.277E-05	6.597E-06	1.319E-05	1.979E-05	2.639E-05
	31	25.936	(ug/lb picked)	63.70	0.3740	0.7479	1.1219	1.4959	1.175E-05	2.351E-05	3.526E-05	4.701E-05	5.877E-06	1.175E-05	1.763E-05	2.351E-05
	32	22.757	(ug/lb picked)	55.89	0.3281	0.6563	0.9844	1.3125	1.031E-05	2.063E-05	3.094E-05	4.125E-05	5.156E-06	1.031E-05	1.547E-05	2.063E-05
	33	19.578	(ug/lb picked)	48.08	0.2823	0.5646	0.8469	1.1292	8.872E-06	1.774E-05	2.662E-05	3.549E-05	4.436E-06	8.872E-06	1.331E-05	1.774E-05
	34	16.400	(ug/lb picked)	40.28	0.2365	0.4729	0.7094	0.9458	7.432E-06	1.486E-05	2.230E-05	2.973E-05	3.716E-06	7.432E-06	1.115E-05	1.486E-05
	35	13.221	(ug/lb picked)	32.47	0.1906	0.3813	0.5719	0.7625	5.991E-06	1.198E-05	1.797E-05	2.396E-05	2.996E-06	5.991E-06	8.987E-06	1.198E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	3.5697	7.1793	10.7690	14.3587	1.128E-04	2.256E-04	3.385E-04	4.513E-04	5.641E-05	1.128E-04	1.692E-04	2.256E-04
	1	121.300	(ug/lb picked)	297.91	3.4960	6.9960	10.4940	13.9920	1.099E-04	2.199E-04	3.298E-04	4.397E-04	5.497E-05	1.099E-04	1.649E-04	2.199E-04
	2	118.121	(ug/lb picked)	290.11	3.4063	6.8127	10.2190	13.6253	1.071E-04	2.141E-04	3.212E-04	4.282E-04	5.353E-05	1.071E-04	1.606E-04	2.141E-04
	3	114.943	(ug/lb picked)	282.30	3.3147	6.6293	9.9440	13.2587	1.042E-04	2.084E-04	3.125E-04	4.167E-04	5.209E-05	1.042E-04	1.563E-04	2.084E-04
	4	111.764	(ug/lb picked)	274.49	3.2230	6.4460	9.6690	12.8920	1.013E-04	2.026E-04	3.039E-04	4.052E-04	5.065E-05	1.013E-04	1.519E-04	2.026E-04
	5	108.585	(ug/lb picked)	266.68	3.1313	6.2627	9.3940	12.5253	9.841E-05	1.968E-04	2.952E-04	3.937E-04	4.921E-05	9.841E-05	1.476E-04	1.968E-04
	6	105.406	(ug/lb picked)	258.86	3.0397	6.0793	9.1190	12.1586	9.553E-05	1.911E-04	2.866E-04	3.821E-04	4.777E-05	9.553E-05	1.433E-04	1.911E-04
	7	102.227	(ug/lb picked)	251.07	2.9480	5.8960	8.8440	11.7919	9.265E-05	1.853E-04	2.780E-04	3.706E-04	4.633E-05	9.265E-05	1.390E-04	1.853E-04
	8	99.048	(ug/lb picked)	243.26	2.8563	5.7126	8.5690	11.4253	8.977E-05	1.795E-04	2.693E-04	3.591E-04	4.488E-05	8.977E-05	1.347E-04	1.795E-04
	9	95.870	(ug/lb picked)	235.46	2.7646	5.5293	8.2939	11.0586	8.689E-05	1.738E-04	2.607E-04	3.476E-04	4.344E-05	8.689E-05	1.303E-04	1.738E-04
	10	92.691	(ug/lb picked)	227.65	2.6730	5.3460	8.0189	10.6919	8.401E-05	1.680E-04	2.520E-04	3.360E-04	4.200E-05	8.401E-05	1.260E-04	1.680E-04
	11	89.512	(ug/lb picked)	219.84	2.5813	5.1626	7.7439	10.3252	8.113E-05	1.623E-04	2.434E-04	3.245E-04	4.056E-05	8.113E-05	1.217E-04	1.623E-04
	12	86.333	(ug/lb picked)	212.03	2.4896	4.9793	7.4689	9.9586	7.825E-05	1.565E-04	2.347E-04	3.130E-04	3.912E-05	7.825E-05	1.174E-04	1.565E-04
	13	83.154	(ug/lb picked)	204.23	2.3980	4.7959	7.1939	9.5919	7.536E-05	1.507E-04	2.261E-04	3.015E-04	3.768E-05	7.536E-05	1.130E-04	1.507E-04
	14	79.976	(ug/lb picked)	196.42	2.3063	4.6126	6.9189	9.2252	7.248E-05	1.450E-04	2.175E-04	2.899E-04	3.624E-05	7.248E-05	1.087E-04	1.450E-04
	15	76.797	(ug/lb picked)	188.61	2.2146	4.4293	6.6439	8.8585	6.960E-05	1.392E-04	2.088E-04	2.784E-04	3.480E-05	6.960E-05	1.044E-04	1.392E-04
	16	73.618	(ug/lb picked)	180.81	2.1230	4.2459	6.3689	8.4919	6.672E-05	1.334E-04	2.002E-04	2.669E-04	3.336E-05	6.672E-05	1.001E-04	1.334E-04
	17	70.439	(ug/lb picked)	173.00	2.0313	4.0626	6.0939	8.1252	6.384E-05	1.277E-04	1.915E-04	2.554E-04	3.192E-05	6.384E-05	9.576E-05	1.277E-04
	18	67.260	(ug/lb picked)	165.19	1.9396	3.8793	5.8189	7.7585	6.096E-05	1.219E-04	1.829E-04	2.438E-04	3.048E-05	6.096E-05	9.144E-05	1.219E-04
	19	64.082	(ug/lb picked)	157.38	1.8480	3.6959	5.5439	7.3919	5.808E-05	1.162E-04	1.742E-04	2.323E-04	2.904E-05	5.808E-05	8.712E-05	1.162E-04
	20	60.903	(ug/lb picked)	149.58	1.7563	3.5126	5.2689	7.0252	5.520E-05	1.104E-04	1.656E-04	2.208E-04	2.760E-05	5.520E-05	8.280E-05	1.104E-04
	21	57.724	(ug/lb picked)	141.77	1.6646	3.3292	4.9939	6.6586	5.232E-05	1.046E-04	1.570E-04	2.093E-04	2.616E-05	5.232E-05	7.848E-05	1.046E-04
	22	54.545	(ug/lb picked)	133.96	1.5730	3.1459	4.7189	6.2918	4.944E-05	9.887E-05	1.483E-04	1.977E-04	2.472E-05	4.944E-05	7.415E-05	9.887E-05
	23	51.366	(ug/lb picked)	126.16	1.4813	2.9626	4.4438	5.9251	4.655E-05	9.311E-05	1.397E-04	1.862E-04	2.328E-05	4.655E-05	6.983E-05	9.311E-05
	24	48.186	(ug/lb picked)	118.35	1.3896	2.7792	4.1688	5.5585	4.367E-05	8.735E-05	1.310E-04	1.747E-04	2.184E-05	4.367E-05	6.551E-05	8.735E-05
	25	45.009	(ug/lb picked)	110.54	1.2979	2.5959	3.8938	5.1918	4.079E-05	8.159E-05	1.224E-04	1.632E-04	2.040E-05	4.079E-05	6.119E-05	8.159E-05
	26	41.830	(ug/lb picked)	102.73	1.2063	2.4126	3.6188	4.8251	3.791E-05	7.582E-05	1.137E-04	1.516E-04	1.896E-05	3.791E-05	5.687E-05	7.582E-05
	27	38.651	(ug/lb picked)	94.93	1.1146	2.2292	3.3438	4.4584	3.503E-05	7.006E-05	1.051E-04	1.401E-04	1.752E-05	3.503E-05	5.255E-05	7.006E-05
	28	35.472	(ug/lb picked)	87.12	1.0229	2.0459	3.0688	4.0918	3.215E-05	6.430E-05	9.645E-05	1.286E-04	1.607E-05	3.215E-05	4.822E-05	6.430E-05
	29	32.294	(ug/lb picked)	79.31	0.9313	1.8625	2.7938	3.7251	2.927E-05	5.854E-05	8.781E-05	1.171E-04	1.463E-05	2.927E-05	4.390E-05	5.854E-05
	30	29.115	(ug/lb picked)	71.51	0.8396	1.6792	2.5188	3.3584	2.639E-05	5.277E-05	7.916E-05	1.055E-04	1.319E-05	2.639E-05	3.958E-05	5.277E-05
	31	25.936	(ug/lb picked)	63.70	0.7479	1.4959	2.2438	2.9917	2.351E-05	4.701E-05	7.052E-05	9.403E-05	1.175E-05	2.351E-05	3.526E-05	4.701E-05
	32	22.757	(ug/lb picked)	55.89	0.6563	1.3125	1.9688	2.6250	2.063E-05	4.125E-05	6.188E-05	8.250E-05	1.031E-05	2.063E-05	3.094E-05	4.125E-05
	33	19.578	(ug/lb picked)	48.08	0.5646	1.1292	1.6938	2.2584	1.774E-05	3.548E-05	5.323E-05	7.098E-05	8.872E-06	1.774E-05	2.662E-05	3.549E-05
	34	16.400	(ug/lb picked)	40.28	0.4729	0.9458	1.4188	1.8917	1.486E-05	2.973E-05	4.459E-05	5.945E-05	7.432E-06	1.486E-05	2.230E-05	2.973E-05
	35	13.221	(ug/lb picked)	32.47	0.3813	0.7625	1.1438	1.5250	1.198E-05	2.396E-05	3.595E-05	4.793E-05	5.991E-06	1.198E-05	1.797E-05	2.396E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	20
DERMAL ABS. FACT. #2 (%):	10

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	5.3845	10.7690	16.1535	21.5380	1.892E-04	3.385E-04	5.077E-04	6.769E-04	9.461E-05	1.692E-04	2.538E-04	3.385E-04
	1	121.300	(ug/lb picked)	297.91	5.2470	10.4940	15.7410	20.9880	1.849E-04	3.298E-04	4.947E-04	6.596E-04	9.245E-05	1.649E-04	2.474E-04	3.298E-04
	2	118.121	(ug/lb picked)	290.11	5.1095	10.2190	15.3285	20.4380	1.606E-04	3.212E-04	4.818E-04	6.423E-04	8.029E-05	1.606E-04	2.409E-04	3.212E-04
	3	114.943	(ug/lb picked)	282.30	4.9720	9.9440	14.9160	19.8880	1.563E-04	3.125E-04	4.688E-04	6.251E-04	7.813E-05	1.563E-04	2.344E-04	3.125E-04
	4	111.764	(ug/lb picked)	274.49	4.8345	9.6690	14.5035	19.3380	1.519E-04	3.039E-04	4.558E-04	6.078E-04	7.597E-05	1.519E-04	2.279E-04	3.039E-04
	5	108.585	(ug/lb picked)	266.68	4.6970	9.3940	14.0910	18.7880	1.476E-04	2.952E-04	4.429E-04	5.905E-04	7.381E-05	1.476E-04	2.214E-04	2.952E-04
	6	105.406	(ug/lb picked)	258.88	4.5595	9.1190	13.6785	18.2379	1.433E-04	2.866E-04	4.299E-04	5.732E-04	7.165E-05	1.433E-04	2.149E-04	2.866E-04
	7	102.227	(ug/lb picked)	251.07	4.4220	8.8440	13.2659	17.6879	1.390E-04	2.780E-04	4.169E-04	5.559E-04	6.949E-05	1.390E-04	2.085E-04	2.780E-04
	8	99.048	(ug/lb picked)	243.26	4.2845	8.5690	12.8534	17.1379	1.347E-04	2.693E-04	4.040E-04	5.386E-04	6.733E-05	1.347E-04	2.020E-04	2.693E-04
	9	95.870	(ug/lb picked)	235.46	4.1470	8.2939	12.4409	16.5879	1.303E-04	2.607E-04	3.910E-04	5.213E-04	6.517E-05	1.303E-04	1.955E-04	2.607E-04
	10	92.691	(ug/lb picked)	227.65	4.0095	8.0189	12.0284	16.0379	1.260E-04	2.520E-04	3.780E-04	5.040E-04	6.301E-05	1.260E-04	1.890E-04	2.520E-04
	11	89.512	(ug/lb picked)	219.84	3.8720	7.7439	11.6159	15.4879	1.217E-04	2.434E-04	3.651E-04	4.868E-04	6.085E-05	1.217E-04	1.825E-04	2.434E-04
	12	86.333	(ug/lb picked)	212.03	3.7345	7.4689	11.2034	14.9379	1.174E-04	2.347E-04	3.521E-04	4.695E-04	5.868E-05	1.174E-04	1.761E-04	2.347E-04
	13	83.154	(ug/lb picked)	204.23	3.5970	7.1939	10.7909	14.3878	1.130E-04	2.261E-04	3.391E-04	4.522E-04	5.652E-05	1.130E-04	1.696E-04	2.261E-04
	14	79.976	(ug/lb picked)	196.42	3.4595	6.9189	10.3784	13.8378	1.087E-04	2.175E-04	3.262E-04	4.349E-04	5.436E-05	1.087E-04	1.631E-04	2.175E-04
	15	76.797	(ug/lb picked)	188.61	3.3220	6.6439	9.9659	13.2878	1.044E-04	2.088E-04	3.132E-04	4.176E-04	5.220E-05	1.044E-04	1.566E-04	2.088E-04
	16	73.618	(ug/lb picked)	180.81	3.1844	6.3689	9.5533	12.7378	1.001E-04	2.002E-04	3.002E-04	4.003E-04	5.004E-05	1.001E-04	1.501E-04	2.002E-04
	17	70.439	(ug/lb picked)	173.00	3.0469	6.0939	9.1408	12.1878	9.576E-05	1.915E-04	2.873E-04	3.830E-04	4.788E-05	9.576E-05	1.436E-04	1.915E-04
	18	67.260	(ug/lb picked)	165.19	2.9094	5.8189	8.7283	11.6378	9.144E-05	1.829E-04	2.743E-04	3.658E-04	4.572E-05	9.144E-05	1.372E-04	1.829E-04
	19	64.082	(ug/lb picked)	157.38	2.7719	5.5439	8.3158	11.0878	8.712E-05	1.742E-04	2.614E-04	3.485E-04	4.356E-05	8.712E-05	1.307E-04	1.742E-04
	20	60.903	(ug/lb picked)	149.58	2.6344	5.2689	7.9033	10.5377	8.280E-05	1.656E-04	2.484E-04	3.312E-04	4.140E-05	8.280E-05	1.242E-04	1.656E-04
	21	57.724	(ug/lb picked)	141.77	2.4969	4.9938	7.4908	9.9877	7.848E-05	1.570E-04	2.354E-04	3.139E-04	3.924E-05	7.848E-05	1.177E-04	1.570E-04
	22	54.545	(ug/lb picked)	133.96	2.3594	4.7189	7.0783	9.4377	7.415E-05	1.483E-04	2.225E-04	2.966E-04	3.708E-05	7.415E-05	1.112E-04	1.483E-04
	23	51.366	(ug/lb picked)	126.16	2.2219	4.4439	6.6658	8.8877	6.983E-05	1.397E-04	2.095E-04	2.793E-04	3.492E-05	6.983E-05	1.047E-04	1.397E-04
	24	48.188	(ug/lb picked)	118.35	2.0844	4.1688	6.2533	8.3377	6.551E-05	1.310E-04	1.965E-04	2.620E-04	3.276E-05	6.551E-05	9.827E-05	1.310E-04
	25	45.009	(ug/lb picked)	110.54	1.9469	3.8938	5.8408	7.7877	6.119E-05	1.224E-04	1.836E-04	2.448E-04	3.059E-05	6.119E-05	9.178E-05	1.224E-04
	26	41.830	(ug/lb picked)	102.73	1.8094	3.6188	5.4282	7.2377	5.687E-05	1.137E-04	1.706E-04	2.275E-04	2.843E-05	5.687E-05	8.530E-05	1.137E-04
	27	38.651	(ug/lb picked)	94.93	1.6719	3.3438	5.0157	6.6876	5.255E-05	1.051E-04	1.576E-04	2.102E-04	2.627E-05	5.255E-05	7.882E-05	1.051E-04
	28	35.472	(ug/lb picked)	87.12	1.5344	3.0688	4.6032	6.1376	4.822E-05	9.645E-05	1.447E-04	1.929E-04	2.411E-05	4.822E-05	7.234E-05	9.645E-05
	29	32.294	(ug/lb picked)	79.31	1.3969	2.7938	4.1907	5.5876	4.390E-05	8.781E-05	1.317E-04	1.756E-04	2.195E-05	4.390E-05	6.585E-05	8.781E-05
	30	29.115	(ug/lb picked)	71.51	1.2594	2.5188	3.7782	5.0376	3.958E-05	7.916E-05	1.187E-04	1.583E-04	1.979E-05	3.958E-05	5.937E-05	7.916E-05
	31	25.936	(ug/lb picked)	63.70	1.1219	2.2438	3.3657	4.4876	3.526E-05	7.052E-05	1.058E-04	1.410E-04	1.763E-05	3.526E-05	5.289E-05	7.052E-05
	32	22.757	(ug/lb picked)	55.89	0.9844	1.9688	2.9532	3.9376	3.094E-05	6.188E-05	9.281E-05	1.238E-04	1.547E-05	3.094E-05	4.641E-05	6.188E-05
	33	19.578	(ug/lb picked)	48.08	0.8468	1.6938	2.5407	3.3876	2.662E-05	5.323E-05	7.985E-05	1.065E-04	1.331E-05	2.662E-05	3.992E-05	5.323E-05
	34	16.400	(ug/lb picked)	40.28	0.7094	1.4188	2.1282	2.8375	2.230E-05	4.459E-05	6.689E-05	8.918E-05	1.115E-05	2.230E-05	3.344E-05	4.459E-05
	35	13.221	(ug/lb picked)	32.47	0.5719	1.1438	1.7156	2.2875	1.797E-05	3.595E-05	5.392E-05	7.189E-05	8.987E-06	1.797E-05	2.696E-05	3.595E-05

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	10
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	1.7948	3.5897	5.3845	7.1793	1.410E-05	2.820E-05	4.231E-05	5.641E-05	2.820E-06	5.641E-06	8.461E-06	1.128E-05
	1	121.300	(ug/lb picked)	297.91	1.7490	3.4980	5.2470	6.9960	1.374E-05	2.748E-05	4.123E-05	5.497E-05	2.748E-06	5.497E-06	8.245E-06	1.099E-05
	2	118.121	(ug/lb picked)	290.11	1.7032	3.4063	5.1095	6.8127	1.338E-05	2.676E-05	4.015E-05	5.353E-05	2.676E-06	5.353E-06	8.029E-06	1.071E-05
	3	114.943	(ug/lb picked)	282.30	1.6573	3.3147	4.9720	6.6293	1.302E-05	2.604E-05	3.907E-05	5.209E-05	2.604E-06	5.209E-06	7.813E-06	1.042E-05
	4	111.764	(ug/lb picked)	274.49	1.6115	3.2230	4.8345	6.4460	1.266E-05	2.532E-05	3.799E-05	5.065E-05	2.532E-06	5.065E-06	7.597E-06	1.013E-05
	5	108.585	(ug/lb picked)	266.68	1.5657	3.1313	4.6970	6.2627	1.230E-05	2.460E-05	3.690E-05	4.921E-05	2.460E-06	4.921E-06	7.381E-06	9.841E-06
	6	105.406	(ug/lb picked)	258.86	1.5198	3.0397	4.5595	6.0793	1.194E-05	2.388E-05	3.582E-05	4.777E-05	2.388E-06	4.777E-06	7.165E-06	9.553E-06
	7	102.227	(ug/lb picked)	251.07	1.4740	2.9480	4.4220	5.8960	1.158E-05	2.316E-05	3.474E-05	4.633E-05	2.316E-06	4.633E-06	6.949E-06	9.265E-06
	8	99.048	(ug/lb picked)	243.26	1.4282	2.8563	4.2845	5.7126	1.122E-05	2.244E-05	3.366E-05	4.489E-05	2.244E-06	4.489E-06	6.733E-06	8.977E-06
	9	95.870	(ug/lb picked)	235.46	1.3823	2.7646	4.1470	5.5293	1.086E-05	2.172E-05	3.258E-05	4.344E-05	2.172E-06	4.344E-06	6.517E-06	8.689E-06
	10	92.691	(ug/lb picked)	227.65	1.3365	2.6730	4.0095	5.3460	1.050E-05	2.100E-05	3.150E-05	4.200E-05	2.100E-06	4.200E-06	6.301E-06	8.401E-06
	11	89.512	(ug/lb picked)	219.84	1.2907	2.5813	3.8720	5.1626	1.014E-05	2.028E-05	3.042E-05	4.056E-05	2.028E-06	4.056E-06	6.085E-06	8.113E-06
	12	86.333	(ug/lb picked)	212.03	1.2448	2.4896	3.7345	4.9793	9.781E-06	1.956E-05	2.934E-05	3.912E-05	1.956E-06	3.912E-06	5.868E-06	7.825E-06
	13	83.154	(ug/lb picked)	204.23	1.1990	2.3980	3.5970	4.7960	9.421E-06	1.884E-05	2.826E-05	3.768E-05	1.884E-06	3.768E-06	5.652E-06	7.536E-06
	14	79.976	(ug/lb picked)	196.42	1.1532	2.3063	3.4595	4.6126	9.060E-06	1.812E-05	2.718E-05	3.624E-05	1.812E-06	3.624E-06	5.436E-06	7.248E-06
	15	76.797	(ug/lb picked)	188.61	1.1073	2.2146	3.3220	4.4293	8.700E-06	1.740E-05	2.610E-05	3.480E-05	1.740E-06	3.480E-06	5.220E-06	6.960E-06
	16	73.618	(ug/lb picked)	180.81	1.0615	2.1230	3.1844	4.2458	8.340E-06	1.668E-05	2.502E-05	3.336E-05	1.668E-06	3.336E-06	5.004E-06	6.672E-06
	17	70.439	(ug/lb picked)	173.00	1.0156	2.0313	3.0469	4.0626	7.980E-06	1.596E-05	2.394E-05	3.192E-05	1.596E-06	3.192E-06	4.788E-06	6.384E-06
	18	67.260	(ug/lb picked)	165.19	0.9698	1.9396	2.9094	3.8793	7.620E-06	1.524E-05	2.286E-05	3.048E-05	1.524E-06	3.048E-06	4.572E-06	6.096E-06
	19	64.082	(ug/lb picked)	157.38	0.9240	1.8480	2.7719	3.6959	7.260E-06	1.452E-05	2.178E-05	2.904E-05	1.452E-06	2.904E-06	4.356E-06	5.808E-06
	20	60.903	(ug/lb picked)	149.58	0.8781	1.7563	2.6344	3.5126	6.900E-06	1.380E-05	2.070E-05	2.760E-05	1.380E-06	2.760E-06	4.140E-06	5.520E-06
	21	57.724	(ug/lb picked)	141.77	0.8323	1.6646	2.4969	3.3292	6.540E-06	1.308E-05	1.962E-05	2.616E-05	1.308E-06	2.616E-06	3.924E-06	5.232E-06
	22	54.545	(ug/lb picked)	133.96	0.7865	1.5730	2.3594	3.1459	6.179E-06	1.236E-05	1.854E-05	2.472E-05	1.236E-06	2.472E-06	3.708E-06	4.944E-06
	23	51.366	(ug/lb picked)	126.16	0.7406	1.4813	2.2219	2.9626	5.819E-06	1.164E-05	1.746E-05	2.328E-05	1.164E-06	2.328E-06	3.492E-06	4.655E-06
	24	48.188	(ug/lb picked)	118.35	0.6948	1.3896	2.0844	2.7792	5.459E-06	1.092E-05	1.638E-05	2.184E-05	1.092E-06	2.184E-06	3.276E-06	4.367E-06
	25	45.009	(ug/lb picked)	110.54	0.6490	1.2979	1.9469	2.5959	5.099E-06	1.020E-05	1.530E-05	2.040E-05	1.020E-06	2.040E-06	3.059E-06	4.079E-06
	26	41.830	(ug/lb picked)	102.73	0.6031	1.2063	1.8094	2.4126	4.739E-06	9.478E-06	1.422E-05	1.896E-05	9.478E-07	1.896E-06	2.843E-06	3.791E-06
	27	38.651	(ug/lb picked)	94.93	0.5573	1.1146	1.6719	2.2292	4.379E-06	8.758E-06	1.314E-05	1.752E-05	8.758E-07	1.752E-06	2.627E-06	3.503E-06
	28	35.472	(ug/lb picked)	87.12	0.5115	1.0229	1.5344	2.0459	4.019E-06	8.037E-06	1.206E-05	1.607E-05	8.037E-07	1.607E-06	2.411E-06	3.215E-06
	29	32.294	(ug/lb picked)	79.31	0.4656	0.9313	1.3969	1.8625	3.659E-06	7.317E-06	1.098E-05	1.463E-05	7.317E-07	1.463E-06	2.195E-06	2.927E-06
	30	29.115	(ug/lb picked)	71.51	0.4198	0.8396	1.2594	1.6792	3.299E-06	6.597E-06	9.895E-06	1.319E-05	6.597E-07	1.319E-06	1.979E-06	2.639E-06
	31	25.936	(ug/lb picked)	63.70	0.3740	0.7479	1.1219	1.4958	2.938E-06	5.877E-06	8.815E-06	1.175E-05	5.877E-07	1.175E-06	1.763E-06	2.351E-06
	32	22.757	(ug/lb picked)	55.89	0.3281	0.6563	0.9844	1.3125	2.578E-06	5.156E-06	7.735E-06	1.031E-05	5.156E-07	1.031E-06	1.547E-06	2.063E-06
	33	19.578	(ug/lb picked)	48.08	0.2823	0.5646	0.8469	1.1292	2.218E-06	4.436E-06	6.654E-06	8.872E-06	4.436E-07	8.872E-07	1.331E-06	1.774E-06
	34	16.400	(ug/lb picked)	40.28	0.2365	0.4729	0.7094	0.9458	1.858E-06	3.716E-06	5.574E-06	7.432E-06	3.716E-07	7.432E-07	1.115E-06	1.486E-06
	35	13.221	(ug/lb picked)	32.47	0.1908	0.3813	0.5719	0.7625	1.498E-06	2.996E-06	4.493E-06	5.991E-06	2.996E-07	5.991E-07	8.987E-07	1.198E-06

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	8
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	20
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS: DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	3.5687	7.1793	10.7690	14.3587	2.920E-06	5.841E-06	8.461E-06	1.128E-04	5.841E-06	1.128E-05	1.692E-05	2.256E-05
	1	121.300	(ug/lb picked)	297.91	3.4980	6.9960	10.4940	13.9920	2.748E-06	5.497E-06	8.245E-06	1.099E-04	5.497E-06	1.099E-06	1.649E-05	2.199E-05
	2	118.121	(ug/lb picked)	290.11	3.4063	6.8127	10.2190	13.6253	2.676E-06	5.353E-06	8.029E-06	1.071E-04	5.353E-06	1.071E-05	1.606E-05	2.141E-05
	3	114.943	(ug/lb picked)	282.30	3.3147	6.6293	9.9440	13.2587	2.604E-06	5.208E-06	7.813E-06	1.042E-04	5.208E-06	1.042E-05	1.563E-05	2.084E-05
	4	111.764	(ug/lb picked)	274.49	3.2230	6.4460	9.6690	12.8920	2.532E-06	5.065E-06	7.597E-06	1.013E-04	5.065E-06	1.013E-05	1.519E-05	2.026E-05
	5	108.585	(ug/lb picked)	266.68	3.1313	6.2627	9.3940	12.5253	2.460E-06	4.921E-06	7.381E-06	9.841E-05	4.921E-06	9.841E-06	1.476E-05	1.968E-05
	6	105.406	(ug/lb picked)	258.88	3.0397	6.0793	9.1190	12.1586	2.388E-06	4.777E-06	7.165E-06	9.553E-05	4.777E-06	9.553E-06	1.433E-05	1.911E-05
	7	102.227	(ug/lb picked)	251.07	2.9480	5.8960	8.8440	11.7919	2.316E-06	4.633E-06	6.949E-06	9.265E-05	4.633E-06	9.265E-06	1.390E-05	1.853E-05
	8	99.048	(ug/lb picked)	243.26	2.8563	5.7126	8.5690	11.4253	2.244E-06	4.488E-06	6.733E-06	8.977E-05	4.488E-06	8.977E-06	1.347E-05	1.795E-05
	9	95.870	(ug/lb picked)	235.46	2.7646	5.5293	8.2939	11.0586	2.172E-06	4.344E-06	6.517E-06	8.689E-05	4.344E-06	8.689E-06	1.303E-05	1.738E-05
	10	92.691	(ug/lb picked)	227.65	2.6730	5.3460	8.0189	10.6918	2.100E-06	4.200E-06	6.301E-06	8.401E-05	4.200E-06	8.401E-06	1.260E-05	1.680E-05
	11	89.512	(ug/lb picked)	219.84	2.5813	5.1626	7.7439	10.3252	2.028E-06	4.056E-06	6.085E-06	8.113E-05	4.056E-06	8.113E-06	1.217E-05	1.623E-05
	12	86.333	(ug/lb picked)	212.03	2.4896	4.9793	7.4689	9.9586	1.956E-06	3.912E-06	5.868E-06	7.825E-05	3.912E-06	7.825E-06	1.174E-05	1.565E-05
	13	83.154	(ug/lb picked)	204.23	2.3980	4.7959	7.1939	9.5919	1.884E-06	3.768E-06	5.652E-06	7.536E-05	3.768E-06	7.536E-06	1.130E-05	1.507E-05
	14	79.976	(ug/lb picked)	196.42	2.3063	4.6126	6.9189	9.2252	1.812E-06	3.624E-06	5.436E-06	7.248E-05	3.624E-06	7.248E-06	1.087E-05	1.450E-05
	15	76.797	(ug/lb picked)	188.61	2.2146	4.4293	6.6439	8.8585	1.740E-06	3.480E-06	5.220E-06	6.960E-05	3.480E-06	6.960E-06	1.044E-05	1.392E-05
	16	73.618	(ug/lb picked)	180.81	2.1230	4.2459	6.3689	8.4919	1.668E-06	3.336E-06	5.004E-06	6.672E-05	3.336E-06	6.672E-06	1.001E-05	1.334E-05
	17	70.439	(ug/lb picked)	173.00	2.0313	4.0626	6.0939	8.1252	1.596E-06	3.192E-06	4.788E-06	6.384E-05	3.192E-06	6.384E-06	9.576E-06	1.277E-05
	18	67.260	(ug/lb picked)	165.19	1.9396	3.8793	5.8189	7.7585	1.524E-06	3.048E-06	4.572E-06	6.096E-05	3.048E-06	6.096E-06	9.144E-06	1.219E-05
	19	64.082	(ug/lb picked)	157.38	1.8480	3.6959	5.5439	7.3918	1.452E-06	2.904E-06	4.356E-06	5.808E-05	2.904E-06	5.808E-06	8.712E-06	1.162E-05
	20	60.903	(ug/lb picked)	149.58	1.7563	3.5126	5.2689	7.0252	1.380E-06	2.760E-06	4.140E-06	5.520E-05	2.760E-06	5.520E-06	8.280E-06	1.104E-05
	21	57.724	(ug/lb picked)	141.77	1.6646	3.3292	4.9939	6.6585	1.308E-06	2.616E-06	3.924E-06	5.232E-05	2.616E-06	5.232E-06	7.848E-06	1.046E-05
	22	54.545	(ug/lb picked)	133.96	1.5730	3.1459	4.7189	6.2918	1.236E-06	2.472E-06	3.708E-06	4.944E-05	2.472E-06	4.944E-06	7.415E-06	9.887E-06
	23	51.366	(ug/lb picked)	126.16	1.4813	2.9626	4.4438	5.9251	1.164E-06	2.328E-06	3.492E-06	4.655E-05	2.328E-06	4.655E-06	6.983E-06	9.311E-06
	24	48.188	(ug/lb picked)	118.35	1.3896	2.7792	4.1688	5.5585	1.092E-06	2.184E-06	3.276E-06	4.367E-05	2.184E-06	4.367E-06	6.551E-06	8.735E-06
	25	45.009	(ug/lb picked)	110.54	1.2979	2.5959	3.8938	5.1918	1.020E-06	2.040E-06	3.059E-06	4.079E-05	2.040E-06	4.079E-06	6.119E-06	8.159E-06
	26	41.830	(ug/lb picked)	102.73	1.2063	2.4126	3.6188	4.8251	9.478E-06	1.896E-05	2.843E-05	3.791E-05	1.896E-06	3.791E-06	5.687E-06	7.582E-06
	27	38.651	(ug/lb picked)	94.93	1.1146	2.2292	3.3438	4.4584	8.756E-06	1.752E-05	2.627E-05	3.503E-05	1.752E-06	3.503E-06	5.255E-06	7.006E-06
	28	35.472	(ug/lb picked)	87.12	1.0229	2.0459	3.0688	4.0918	8.037E-06	1.607E-05	2.411E-05	3.215E-05	1.607E-06	3.215E-06	4.822E-06	6.430E-06
	29	32.294	(ug/lb picked)	79.31	0.9313	1.8625	2.7938	3.7251	7.317E-06	1.463E-05	2.195E-05	2.927E-05	1.463E-06	2.927E-06	4.390E-06	5.854E-06
	30	29.115	(ug/lb picked)	71.51	0.8396	1.6792	2.5188	3.3584	6.597E-06	1.319E-05	1.979E-05	2.639E-05	1.319E-06	2.639E-06	3.958E-06	5.277E-06
	31	25.936	(ug/lb picked)	63.70	0.7479	1.4959	2.2438	2.9917	5.877E-06	1.175E-05	1.763E-05	2.351E-05	1.175E-06	2.351E-06	3.526E-06	4.701E-06
	32	22.757	(ug/lb picked)	55.89	0.6563	1.3125	1.9688	2.6250	5.156E-06	1.031E-05	1.547E-05	2.063E-05	1.031E-06	2.063E-06	3.094E-06	4.125E-06
	33	19.578	(ug/lb picked)	48.08	0.5646	1.1292	1.6938	2.2584	4.436E-06	8.872E-06	1.331E-05	1.774E-05	8.872E-07	1.774E-06	2.662E-06	3.549E-06
	34	16.400	(ug/lb picked)	40.26	0.4729	0.9458	1.4188	1.8917	3.716E-06	7.432E-06	1.115E-05	1.486E-05	7.432E-07	1.486E-06	2.230E-06	2.973E-06
	35	13.221	(ug/lb picked)	32.47	0.3813	0.7625	1.1438	1.5250	2.996E-06	5.991E-06	8.987E-06	1.198E-05	5.991E-07	1.198E-06	1.797E-06	2.396E-06

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

PPA SUPPORT TASK:2110.003
VERSAR,INC. 9/15/93 JLD
REVIEW OF CHLOROTHALONIL FOLIAR DISLODGEABLE RESIDUE/EXPOSURE STUDY
LADE/RISK CALCULATIONS USING EXPOSURES CALCULATED BASED ON THE RELATIONSHIP TO RESIDUE LEVEL
ALL LADE/RISK VALUES ARE BASED ON INSIDE EXPOSURE LEVELS
EXPOSURES CALCULATED BASED ON FDR (ug/cm2) LEVELS

EXPOSURE PARAMETERS	
DAILY WORK HOURS:	6
ANNUAL EXPOSURE (days):	15/30/45/60
TOTAL WORK INTERVAL (yrs):	30
AVERAGE LIFETIME (yrs):	70
AVERAGE PICKING RATE (lb/hour):	307

TOXICOLOGICAL PARAMETERS	
CHLOROTHALONIL Q1* (mg/kg/day)-1:	0.011
AVERAGE WEIGHT:	70
DERMAL ABS. FACT.#1 (%):	5
DERMAL ABS. FACT. #2 (%):	1

DESCRIPTION	STUDY DAY	EXPOSURE LEVELS	EXPOSURE FACTOR	EXPOSURE (mg/day)	LADE CALCULATIONS (mg/day)				RISK ANALYSIS							
									DERMAL ABSORPTION FACTOR #1				DERMAL ABSORPTION FACTOR #2			
					15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS	15 DAYS	30 DAYS	45 DAYS	60 DAYS
TOTAL INSIDE	0	124.479	(ug/lb picked)	305.72	5.3845	10.7690	16.1535	21.5380	4.231E-05	8.461E-05	1.269E-04	1.692E-04	8.461E-06	1.692E-05	2.538E-05	3.385E-05
	1	121.300	(ug/lb picked)	297.91	5.2470	10.4940	15.7410	20.9880	4.123E-05	8.245E-05	1.237E-04	1.649E-04	8.245E-06	1.649E-05	2.474E-05	3.298E-05
	2	118.121	(ug/lb picked)	290.11	5.1095	10.2190	15.3285	20.4380	4.015E-05	8.029E-05	1.204E-04	1.606E-04	8.029E-06	1.606E-05	2.409E-05	3.212E-05
	3	114.943	(ug/lb picked)	282.30	4.9720	9.9440	14.9160	19.8880	3.907E-05	7.813E-05	1.172E-04	1.563E-04	7.813E-06	1.563E-05	2.344E-05	3.125E-05
	4	111.764	(ug/lb picked)	274.49	4.8345	9.6690	14.5035	19.3380	3.799E-05	7.597E-05	1.140E-04	1.519E-04	7.597E-06	1.519E-05	2.279E-05	3.039E-05
	5	108.585	(ug/lb picked)	266.68	4.6970	9.3940	14.0910	18.7880	3.690E-05	7.381E-05	1.107E-04	1.476E-04	7.381E-06	1.476E-05	2.214E-05	2.952E-05
	6	105.406	(ug/lb picked)	258.88	4.5595	9.1190	13.6785	18.2379	3.582E-05	7.165E-05	1.075E-04	1.433E-04	7.165E-06	1.433E-05	2.149E-05	2.866E-05
	7	102.227	(ug/lb picked)	251.07	4.4220	8.8440	13.2659	17.6879	3.474E-05	6.949E-05	1.042E-04	1.390E-04	6.949E-06	1.390E-05	2.085E-05	2.780E-05
	8	99.046	(ug/lb picked)	243.26	4.2845	8.5690	12.8534	17.1379	3.366E-05	6.733E-05	1.010E-04	1.347E-04	6.733E-06	1.347E-05	2.020E-05	2.693E-05
	9	95.870	(ug/lb picked)	235.46	4.1470	8.2939	12.4409	16.5879	3.258E-05	6.517E-05	9.775E-05	1.303E-04	6.517E-06	1.303E-05	1.955E-05	2.607E-05
	10	92.691	(ug/lb picked)	227.65	4.0095	8.0189	12.0284	16.0379	3.150E-05	6.301E-05	9.451E-05	1.260E-04	6.301E-06	1.260E-05	1.890E-05	2.520E-05
	11	89.512	(ug/lb picked)	219.84	3.8720	7.7439	11.6159	15.4879	3.042E-05	6.085E-05	9.127E-05	1.217E-04	6.085E-06	1.217E-05	1.825E-05	2.434E-05
	12	86.333	(ug/lb picked)	212.03	3.7345	7.4689	11.2034	14.9379	2.934E-05	5.868E-05	8.803E-05	1.174E-04	5.868E-06	1.174E-05	1.761E-05	2.347E-05
	13	83.154	(ug/lb picked)	204.23	3.5970	7.1939	10.7909	14.3878	2.826E-05	5.652E-05	8.479E-05	1.130E-04	5.652E-06	1.130E-05	1.696E-05	2.261E-05
	14	79.976	(ug/lb picked)	196.42	3.4595	6.9189	10.3784	13.8378	2.718E-05	5.436E-05	8.154E-05	1.087E-04	5.436E-06	1.087E-05	1.631E-05	2.175E-05
	15	76.797	(ug/lb picked)	188.61	3.3220	6.6439	9.9659	13.2878	2.610E-05	5.220E-05	7.830E-05	1.044E-04	5.220E-06	1.044E-05	1.566E-05	2.088E-05
	16	73.618	(ug/lb picked)	180.81	3.1844	6.3689	9.5533	12.7378	2.502E-05	5.004E-05	7.506E-05	1.001E-04	5.004E-06	1.001E-05	1.501E-05	2.002E-05
	17	70.439	(ug/lb picked)	173.00	3.0469	6.0939	9.1408	12.1878	2.394E-05	4.788E-05	7.182E-05	9.576E-05	4.788E-06	9.576E-06	1.436E-05	1.915E-05
	18	67.260	(ug/lb picked)	165.19	2.9094	5.8189	8.7283	11.6378	2.286E-05	4.572E-05	6.858E-05	9.144E-05	4.572E-06	9.144E-06	1.372E-05	1.829E-05
	19	64.082	(ug/lb picked)	157.38	2.7719	5.5439	8.3158	11.0878	2.178E-05	4.356E-05	6.534E-05	8.712E-05	4.356E-06	8.712E-06	1.307E-05	1.742E-05
	20	60.903	(ug/lb picked)	149.58	2.6344	5.2689	7.9033	10.5377	2.070E-05	4.140E-05	6.210E-05	8.280E-05	4.140E-06	8.280E-06	1.242E-05	1.656E-05
	21	57.724	(ug/lb picked)	141.77	2.4969	4.9938	7.4908	9.9877	1.962E-05	3.924E-05	5.886E-05	7.848E-05	3.924E-06	7.848E-06	1.177E-05	1.570E-05
	22	54.545	(ug/lb picked)	133.96	2.3594	4.7188	7.0783	9.4377	1.854E-05	3.708E-05	5.562E-05	7.415E-05	3.708E-06	7.415E-06	1.112E-05	1.483E-05
	23	51.366	(ug/lb picked)	126.16	2.2219	4.4438	6.6658	8.8877	1.746E-05	3.492E-05	5.237E-05	6.983E-05	3.492E-06	6.983E-06	1.047E-05	1.397E-05
	24	48.188	(ug/lb picked)	118.35	2.0844	4.1688	6.2533	8.3377	1.638E-05	3.276E-05	4.913E-05	6.551E-05	3.276E-06	6.551E-06	9.827E-06	1.310E-05
	25	45.009	(ug/lb picked)	110.54	1.9469	3.8938	5.8408	7.7877	1.530E-05	3.059E-05	4.589E-05	6.119E-05	3.059E-06	6.119E-06	9.178E-06	1.224E-05
	26	41.830	(ug/lb picked)	102.73	1.8094	3.6188	5.4282	7.2377	1.422E-05	2.843E-05	4.265E-05	5.687E-05	2.843E-06	5.687E-06	8.530E-06	1.137E-05
	27	38.651	(ug/lb picked)	94.93	1.6719	3.3438	5.0157	6.6876	1.314E-05	2.627E-05	3.941E-05	5.255E-05	2.627E-06	5.255E-06	7.882E-06	1.051E-05
	28	35.472	(ug/lb picked)	87.12	1.5344	3.0688	4.6032	6.1376	1.206E-05	2.411E-05	3.617E-05	4.822E-05	2.411E-06	4.822E-06	7.234E-06	9.645E-06
	29	32.294	(ug/lb picked)	79.31	1.3969	2.7938	4.1907	5.5876	1.098E-05	2.195E-05	3.293E-05	4.390E-05	2.195E-06	4.390E-06	6.585E-06	8.781E-06
	30	29.115	(ug/lb picked)	71.51	1.2594	2.5188	3.7782	5.0376	9.885E-06	1.979E-05	2.969E-05	3.958E-05	1.979E-06	3.958E-06	5.937E-06	7.916E-06
	31	25.936	(ug/lb picked)	63.70	1.1219	2.2438	3.3657	4.4876	8.815E-06	1.763E-05	2.644E-05	3.526E-05	1.763E-06	3.526E-06	5.289E-06	7.052E-06
	32	22.757	(ug/lb picked)	55.89	0.9844	1.9688	2.9532	3.9376	7.735E-06	1.547E-05	2.320E-05	3.094E-05	1.547E-06	3.094E-06	4.641E-06	6.188E-06
	33	19.578	(ug/lb picked)	48.08	0.8469	1.6938	2.5407	3.3876	6.654E-06	1.331E-05	1.996E-05	2.662E-05	1.331E-06	2.662E-06	3.992E-06	5.323E-06
	34	16.400	(ug/lb picked)	40.28	0.7094	1.4188	2.1282	2.8375	5.574E-06	1.115E-05	1.672E-05	2.230E-05	1.115E-06	2.230E-06	3.344E-06	4.459E-06
	35	13.221	(ug/lb picked)	32.47	0.5719	1.1438	1.7156	2.2875	4.493E-06	8.987E-06	1.348E-05	1.797E-05	8.987E-07	1.797E-06	2.696E-06	3.595E-06

NOTES:
* (ug/hour) LEVELS REPRESENT EXPOSURE LEVELS FOR EACH HOUR SPENT HARVESTING TOMATOES
* EXPOSURE (mg/day) = EXPOSURE (mg/hour) * DAILY HOURS or EXPOSURE (mg/lb tomatoes picked) * PICKING RATE (lb/hour) * DAILY HOURS
* TOMATO PICKING RATE BASED ON DATA AVAILABLE IN THE STUDY. RATES WERE CALCULATED FOR ALL REPLICATES AND THE OVERALL AVERAGE RATE IS USED ABOVE (307 +/- 52 lb/hour).
* LADE (mg/day) = EXPOSURE PER EVENT CYCLE (mg/day) * [ANNUAL EXPOSURE (days)/365 (days)] * [WORK INTERVAL (yrs)/AVG. LIFETIME (yrs)]
* RISK = [LADE(mg/day) * Q1*(mg/kg/day-1) * (DERMAL ABS. FACTOR/100)]/[BODY WEIGHT(kg)]

13544

R117875

Chemical: Chlorothalonil

PC Code: 081901
HED File Code: 14000 Risk Reviews
Memo Date: 10/5/1993
File ID:
Accession #: 412-06-0009

HED Records Reference Center
2/21/2006