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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

February 9, 2000

MEMORANDUM

SUBJECT: Vinclozolin. (Chemical ID No. 113201, Case No. 2740). Dietary Exposure Analyses for the HED Preliminary Human Health Risk Assessment. No MRID #. DP Barcode No. D263049.

FROM: Felecia Fort, Chemist
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Health Effects Division (7509C)

THRU: David Hrdy, Biologist and Christina Swartz, Chemist
Dietary Exposure Science Advisory Council

and

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Reregistration Branch I
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TO: William J. Hazel, Ph.D., Chemist
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Special Review and Reregistration Division (7508W)

BACKGROUND/ACTION REQUESTED

The Health Effects Division (HED) has been asked to develop anticipated residue estimates and to

conduct an acute, chronic and cancer dietary risk analysis for the fungicide vinclozolin in association with the human health risk assessment for the Reregistration Eligibility Document (RED). Acute and chronic assessments are required as well as cancer assessments using both MOE and Q_1* approaches. The supported tolerances include the following crops: cucumbers, Belgian endive, grapes (wine/sherry), bulb onions, kiwifruit, lettuce, peppers, and raspberries. Cucumbers, Belgian endive, wine grapes, kiwifruit and peppers are imported commodities for which there are no U.S. registrations. The registrant has also proposed tolerances for residues in canola and succulent beans (PP#0F6079). Since canola is an animal feed item, livestock tolerances must also be proposed. A temporary tolerance for vinclozolin residues in succulent beans was established in 1997 and expired in October 1999. The petition was submitted to reestablish the succulent bean tolerance and to establish a canola tolerance. Dietary risk analyses were conducted including and excluding canola and succulent beans. Although vinclozolin registrations for use on strawberries and stone fruit have been revoked, an acute dietary assessment both with and without strawberries and stone fruits, taken out separately and together, was conducted, since vinclozolin could have been applied to both of these crops very recently (strawberries until 2/1/00, stone fruits until late 1999).

CONCLUSIONS/SUMMARY

Results

The dietary analyses conducted for vinclozolin are considered to be extremely conservative since field trial data were used for all commodities.

Acute

The refined (Tier 3) acute probabilistic dietary exposure and risk estimates are above HED's level of concern for the population subgroup of concern, females 13-50 years. This is true when considering all commodities and when stone fruit, strawberries, succulent beans and canola are removed from the analyses. Estimated exposure at the 99.9th percentile corresponds to approximately 210% of the acute Population Adjusted Dose (aPAD) when considering all commodities and 170% when the above mentioned commodities are removed. At the 99.5th percentile of exposure, 94% of the aPAD was consumed. Sensitivity analyses were also conducted which indicate that wine grapes and bulb onions are significant contributors to the dietary risk (94% aPAD at the 99.9th % ile consumed after wine grapes and onions are removed).

Chronic

Estimated chronic dietary exposure and risk are below HED's level of concern, with less than 15% of the chronic Population Adjusted Dose (cPAD) consumed for all population subgroups in all assessments. The most highly exposed population subgroup was children 1-6 years old, with 14 %cPAD consumed. When stone fruit, strawberries, succulent beans and canola are removed the most highly exposed population subgroup is females 13-50 (2% cPAD).

Cancer

The cancer dietary exposure assessments were conducted using both the Q_1* and the MOE approach. Using the Q_1* approach results in a maximum lifetime risk of 2.5 X 10^{-5} for the general US population with all commodities included. When the four above mentioned commodities are excluded, the risk becomes 5.3 X 10^{-6}. Risks estimates above 1 x 10^{-6} are considered to be of concern. The Commodity Contribution Analysis indicated that succulent beans and strawberries are major contributors to the risk estimate. Using the MOE approach to estimate cancer exposure resulted in cancer MOEs greater that 57594 for all assessments.

The assessments could be substantially refined if monitoring data (market basket survey), and/or processing (washing/cooking) studies are submitted. Better information on % crop treated for some imported commodities could also better refine the risk estimates. Additionally since wine contributes significantly to the acute dietary risk, a fermentation study is suggested.

Results are shown in Tables 2 and 3 below.

3,5-Dichloroaniline (3,5-DCA)

A cancer risk estimate was also conducted to determine the lifetime risk to 3,5 - DCA, a vinclozolin metabolite. Using a Q1* approach results in a maximum lifetime risk of 5.43 x 10^{-7} . Another analysis was conducted excluding strawberries and stone fruit and resulting a risk estimate of 2.9 x 10^{-7} . These risk estimates are not considered to be of concern.

DETAILED CONSIDERATIONS

Toxicology Information

The doses and endpoints for dietary risk assessment selected by the HED Hazard Identification Assessment Review Committee (HIARC) were discussed in detail in the D. Anderson/E. Mendez memorandum dated 12/99. A summary of this information is presented in Table 1.

The HED FQPA Safety Factor Committee determined that for acute dietary risk analyses, an FQPA factor of 10x is appropriate for females 13 - 50. For chronic dietary risk, the FQPA safety factor is retained at 10x for all population groups (B. Tarplee, 12/15/99).

Vinclozolin has been classified as a Group C - possible human carcinogen (E. Budd and E. Rinde, 4/3/97, HED Doc. No. 012639). A non-linear approach (MOE) based on hormone-related effects from a two-generation reproduction study, should be used for quantitation of human risk. The MOE approach was chosen because benign tumors (Leydig cell) were found at dose levels which were not considered to be excessive, and there was little concern for mutagenicity of vinclozolin. A cancer NOAEL of 4.9 mg/kg was selected. A Q_1^* $(mg/kg/day)^{-1}$, based upon male rat testicular interstitial cell tumor rates was also calculated and is 2.9 x 10^{-1} in human equivalents (see L. Brunsman, 7/10/95). The

cancer dietary assessment includes both approaches.

There is no FIFRA toxicological database for 3,5-DCA, so an RfD or Q_1^* has not been determined. However, per a February 14, 1994, HED Policy memo titled "Risk Assessment for "Chloroanilines", and Other Carcinogenic Metabolites, HED has used the Q_1^* for p-chloroaniline (PCA) as a surrogate for assessing the carcinogenic risk for other structurally related chloroanilines. The policy specifies that all chloroanilines should be evaluated as if it were PCA unless there is sufficient evidence that the chloroaniline is not carcinogenic.

On November 28, 1994, the Q_1^* for PCA was estimated to be 0.0638 $(mg/kg/day)^{-1}$ in human equivalents, that is, converted from animals to humans by the use of the 3/4 interspecies scaling factor. The Q_1^* is based on the spleen sarcoma rate in male rats from an NTP bioassay, using a linearized low dose multistage model, Tox_Risk, 3.5-K. Crump model.

Table 1. Summary of Endpoints and Doses for Vinclozolin and 3,5-Dichloroaniline

EXPOSURE SCENARIO	Subgroup	DOSE (mg/kg/day)	RfD PAD	ENDPOINT	STUDY
Vinlcozolin					
Acute Dietary	General Population, Infant and Children	No dose/endpoint selected	N/A	No appropriate endpoint was identified in oral toxicity studies including the developmental and reproductive toxicity studies in rats and rabbits for risk assessment for these populations.	
	Females 13 - 50	NOAEL = 6.0 UF = 100 FQPA SF = 10	aRfD = 0.06 aPAD =0.006	Reduced prostate weight in male offspring.	Developmental-Rat
Chronic Dietary	All population subgroups	NOAEL = 1.2 UF = 100 FQPA SF = 10	cRfD = 0.012 cPAD =0.0012	Histopathologic al lesions in the in the lungs (males), liver (males), ovaries (females) and eyes (both sexes)	Chronic toxicity/ Carcinogenicity study in rats
Carcinogenicity	U. S. population	NOAEL=4.9	N/A	Vinclozolin is classified as a Group C carcinogen with a non-linear (MOE) approach	2-Generation Reproduction-Rat

EXPOSURE SCENARIO	Subgroup	DOSE (mg/kg/day)	RfD PAD	ENDPOINT	STUDY
Carcinogenicity	U. S. population	n/a	Q1*= 2.9 x 10^{-1}	Vinclozolin is classified as a Group C carcinogen for Testicular Leydig cell tumors.	Combined Chronic Toxicity/ Carcinogenicity-Rat
3,5-Dichloraniline (3, 5 - DCA)					
Carcinogenicity	U. S. population	n/a	Q1*= 6.38 x 10^{-2}	Q1*is based on spleen sarcoma rate in male rats from an NTP bioassay	

Usage Information

BEAD provided information (I. Yusef, 9/11/98 and S. Nako, 11/3/99) on the percent of domestic crop treated and the percent of imported crop treated (%CT). For the chronic analysis, the weighted average %CT was incorporated; for the acute analysis, the estimated maximum %CT was used when appropriate. Percent crop treated data for stone fruits and strawberries were obtained from the Quantitative Usage Analysis (QUA) from 9/98. These data were not provided in the latest QUA because the registrations for use on these commodities have been voluntarily canceled and deleted from labels.

In acute analyses (except canola oil) the adjustment for %CT is incorporated in the residue distribution files (RDFs) via addition of zero residue values corresponding to the % crop not treated. For the chronic analyses as well as the AR for canola oil (the only blended commodity), the %CT is incorporated into the average residue value.

Residue Data

Tolerances are established for the combined residues of the fungicide vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety in or on several raw agricultural commodities (RACs) at levels ranging from 1 to 25 ppm (40 CFR§180.380). Tolerances are currently undergoing reassessment for the HED Chapter of the RED. High consumption food items for infants and children include strawberries and stone fruit, however, these tolerances will no longer be supported after January 2000. New uses are currently proposed for canola and snap beans. Codex MRLs are established for many commodities and are similar or identical to U.S. tolerances.

Although FDA and PDP monitoring data are available for vinclozolin, these data are not useful for risk assessment since all 3,5-dicloroaniline (3-5-DCA) containing metabolites were not analyzed and review of metabolism data indicate that a significant portion of 3,5-DCA and its conjugates may not be found

using the relevant analytical methods. Field trial data on vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety are available on all crops. Detailed information on how the anticipated residues were calculated can be found in Attachment 1. The information was presented to the Chemistry Science Advisory Council on 1/12/2000. A summary of the data used in the analyses can be found in Table 4.

Acute Anticipated Residues

For the probabilistic acute dietary exposure analysis, the entire distribution of field trial data was used to generate residue distribution files (RDFs) for commodities that are considered to be not blended or partially blended (Attachment 2). Canola oil is the only commodity which is considered to be blended in these analyses; the average field trial residue incorporating the likely maximum % CT was used as a point estimate in this case.

Chronic Anticipated Residues

Chronic anticipated residues (ARs) were also calculated from field trial data. Details of the calculations are provided in Attachment 1 and are shown in Table 4 of this document.

Processing Factors

No processing factors are available, therefore the DEEM default processing factors was used in the dietary analyses.

Consumption Data

HED conducts dietary risk assessments using the Dietary Exposure Evaluation Model (DEEM™), which incorporates consumption data generated in USDA's Continuing Surveys of Food Intakes by Individuals (CSFII), 1989-1992. For acute dietary risk assessments, the entire distribution of consumption events for individuals is multiplied by a distribution of residues (probabilistic analysis, referred to as "Monte Carlo") to obtain a distribution of exposures in mg/kg/day. For chronic dietary risk assessments, the three-day average of consumption for each sub-population is combined with average residues in commodities to determine average exposures in mg/kg/day.

Results

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Acute

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The cancer dietary exposure assessments were conducted using both the Q_1* and the MOE approach. Using the Q_1* approach results in a maximum lifetime risk of 2.5×10^{-5} for the general U.S. population with all commodities included. When the four above mentioned commodities are excluded, the risk becomes 5.3×10^{-6}. Risks estimates above 1×10^{-6} are considered to be of concern. The Commodity Contribution Analysis (Attachment 26) indicated that succulent beans and strawberries are major contributors to the risk estimate. Using the MOE approach to estimate cancer exposure resulted in cancer MOEs greater that 57594 for all assessments.

The assessments could be substantially refined if monitoring data (market basket survey), and/or processing (washing/cooking) studies are submitted. Additionally, since wine contributes significantly to the acute dietary risk, a fermentation study is suggested.

Results are shown in Tables 2 and 3 below.

3,5-DCA

A cancer risk estimate was also conducted to determine the lifetime risk to 3,5 - DCA. Using a Q1* approach results in a maximum lifetime risk of 5.43×10^{-7}. Another analysis was conducted excluding strawberries and stone fruit and resulted in a risk estimate of 2.9×10^{-7}. These risk estimates are not considered to be of concern.

Table 2. Results of the Vinclozolin Chronic and Cancer Dietary Analyses.

Scenario	Chronic										Cancer	
	Gen. Population		**All Infants**		**Children 1 - 6**		**Children 7 - 12**		**Females 13 - 50**			
	Exposure (mg/kg/day)	% cPAD	Exposure (mg/kg/day)	% cPAD	Exposure (mg/kg/day)	% cPAD	Exposure (mg/kg/day)	% cPAD	Exposure (mg/kg/day)	% cPAD	Q_1*	MOE
All	0.000085	7	0.000096	8	0.000167	14	0.000100	8	0.000076	6	2.47×10^{-5}	57594
No Stone Fruit	0.000079	7	0.000065	5	0.000153	13	0.000092	8	0.000073	6	2.30×10^{-5}	61810
No Strawberry	0.000051	4	0.00095	8	0.000093	8	0.000055	5	0.000045	4	1.49×10^{-5}	95494
No Strawberry or Stone fruit	0.000046	4	0.000064	5	0.000078	7	0.000046	4	0.000041	3	1.32×10^{-5}	107669
No Succulent beans	0.000061	5	0.000049	4	0.000108	9	0.000071	6	0.000059	5	1.76×10^{-5}	80617
No Canola	0.000082	7	0.000094	8	0.000161	13	0.000096	8	0.000074	6	2.38×10^{-5}	59702
No strawberry, stone fruit, canola or succulent beans	0.000018	2	0.000016	1	0.000013	1	0.000012	1	0.000021	2	5.28×10^{-6}	269194

Table 3. Results of the Acute Dietary Analyses for Females 13-50 years old.

Scenario	**99.9th %ile**		**99.5th %ile**		**99th %ile**	
	Exposure (mg/kg/day)	% aPAD	Exposure (mg/kg/day)	% aPAD	Exposure (mg/kg/day)	% aPAD
All	0.012964	220	0.005619	94	0.003440	57
No Stone Fruit	0.012822	210	0.005468	91	0.003302	55
No Strawberry	0.010407	170	0.003681	61	0.002273	38
No Strawberry or Stone fruit	0.010250	170	0.003417	57	0.002090	35
No Succulent beans	0.013010	220	0.005442	91	0.002988	50
No Canola	0.013303	220	0.005858	98	0.003694	62
No strawberry, stone fruit, canola or succulent bean	0.010480	170	0.002755	46	0.001122	19
No strawberry, stone fruit, or grapes	0.006400	110	0.002807	47	0.001811	30
No strawberry, stone fruit, grapes or onions	0.005637	94	0.002372	40	0.001484	25

Table 4. Summary of Anticipated Residues for Vinclozolin in/on Fruits and Vegetables

Commodity	Food Form	Classification[1]	Data Used[2]	% Imported[3]	%Percent Crop Treated[3]		Residue Distribution for Acute Anticipated Residue	Chronic Anticipated Residue, ppm[5]	3,5 - DCA Anticipated Residue, ppm
					Weighted Avg	Likely Max			
Apricot	Uncooked, Cooked: NFS, Boiled	NB	FT		5	5	APRICOTS % CT = 5% TOTALZ=266 TOTALNZ=14 3.4 0.54 0.39 0.67 0.65 0.65 0.67 0.79 0.77 0.93 0.77 1.5 1.26 0.83	0.99	0.099
	Canned: NFS, Canned: Boiled	PB							
Apricot-dried	Baked, Boiled, Dried	PB	FT	N/A[4]	5	5	same as apricots plus processing factor		
Apricot juice	Uncooked; Cooked: NFS; Canned: NFS; Frozen: Cooked	PB	FT	N/A	5	5	same as apricots plus processing factor		
Beans,succulent	All food forms	PB	FT	N/A	17	38	SNAPBEANS % CT = 38% TOTALZ=64 TOTALNZ=39 1.5 0.57 0.33 0.47 1.2 0.17 0.56 2.4 0.38 0.73 0.53 0.62 0.76 0.64 0.95 1.03 1.06 1.09 1.04 1.84 1.99 1.17 1.22 1.25 0.96 1.15 1.18 0.29 0.35 0.42 0.28 0.3 0.46 0.63 0.66 0.67 0.57 0.62 0.65	0.84	0.084
Canola oil	Refined	B	FT	N/A	4	20	Point estimate =0.005	0.025	0.0025

Commodity	Food Form	Classification[1]	Data Used[2]	% Imported[3]	%Percent Crop Treated[3]		Residue Distribution for Acute Anticipated Residue	Chronic Anticipated Residue, ppm[5]	3,5 - DCA Anticipated Residue, ppm
					Weighted Avg	Likely Max			
Cherries	Uncooked;	PB	FT	N/A	5	15	Sweet CHERRIES % CT = 15% TOTALZ=85 TOTALNZ=15 0.79 0.61 0.51 0.59 0.44 0.36 0.94 0.89 0.81 0.62 0.61 0.57 1.22 0.41 0.38	0.65	0.065
	Cooked: NFS; Baked; Boiled; Canned: NFS; Canned :Baked	PB	FT	N/A	5	15	Tart CHERRIES % CT = 15% TOTALZ=108 TOTALNZ=19 0.55 0.52 0.51 0.47 0.36 0.31 0.31 0.33 0.30 0.29 0.26 0.30 0.28 0.26 0.37 0.37 0.33 0.23 0.18	0.34	0.034
Cherries- dried	Dried	PB	FT	N/A	1	1	Same as sweet cherries plus processing factor		
Cherries-juice	Baked; Boiled; Canned: NFS; Frozen: NFS	PB	FT	N/A	1	1	Same as tart cherries plus processing factor		
Belgian Endive (chicory)	Uncooked	NB	FT	10	30	100	ENDIVE % imported = 10%; % imported CT = 100% TOTALZ=135 TOTALNZ=15 0.58 0.19 0.45 0.21 0.25 0.23 0.22 0.63 0.16 0.11 0.14 0.18 0.32 1.4 0.95	0.4	0.04

Commodity	Food Form	Classification[1]	Data Used[2]	% Imported[3]	%Percent Crop Treated[3]		Residue Distribution for Acute Anticipated Residue	Chronic Anticipated Residue, ppm[5]	3,5 - DCA Anticipated Residue, ppm
					Weighted Avg	Likely Max			
Cucumbers	Uncooked	NB	FT	22	0.25	1	CUCUMBERS % imported = 22%; % imported CT = 1% TOTALZ=16328 TOTALNZ=36 0.27 0.29 0.27 0.23 0.22 0.29 0.27 0.25 0.23 0.31 0.25 0.23 0.25 0.30 0.17 0.32 0.36 0.53 0.22 0.45 0.27 0.29 0.40 0.30 0.23 0.77 0.35 0.20 0.40 0.53 0.65 0.53 0.60 0.50 1.0 0.80	0.38	0.038
	Canned: Boiled, Canned: Cured	PB							
Grapes-wine and sherry	Alcohol/Fermented/Distilled	PB	FT	25	15	30	WINE AND SHERRY % imported =25%; % imported CT =30% TOTALZ=284 TOTALNZ=23 1.2 5.8 4.0 2.2 1.5 2.0 2.0 3.8 3.5 0.9 2.2 0.8 1.0 3.0 1.5 3.6 0.4 0.41 2.0 3.0 2.3 0.6 0.4	2.1	0.21
Kiwifruit	Uncooked	NB	FT	45	5	100	KIWIFRUIT % imported = 45%; % imported CT = 100% TOTALZ=0 TOTALNZ=9 3.61 5.67 1.97 7.91 2.9 6.67 4.78 8.4 4.66	5.2	0.52
	Canned: NFS	PB							
Lettuce, Head	Uncooked	NB	FT	N/A	19	25	HEAD LETTUCE % CT = 25% TOTALZ=9 TOTALNZ=3 0.11 0.05 0.05	0.07	0.007

Commodity	Food Form	Classification[1]	Data Used[2]	% Imported[3]	%Percent Crop Treated[3]		Residue Distribution for Acute Anticipated Residue	Chronic Anticipated Residue, ppm[5]	3,5 - DCA Anticipated Residue, ppm
					Weighted Avg	Likely Max			
Lettuce, Leaf	Uncooked	NB	FT	N/A	1	5	LEAF LETTUCE PERCENT CROP TX = 5% TOTALZ=247 TOTALNZ=13 0.36 0.27 0.34 0.34 16.4 12 17.6 10 15.9 11 0.15 0.27 0.07	6.4	0.64
Lettuce-unspecified	Canned: NFS	PB	FT	N/A	1	5	same as leaf lettuce	same as leaf lettuce	same as leaf lettuce
Nectarines	Uncooked	NB	FT	N/A	4	4	NECTARINES % CT = 4% TOTALZ=336 TOTALNZ=14 3.4 0.54 0.39 0.67 0.65 0.65 0.67 0.79 0.77 0.93 0.77 1.5 1.26 0.83	0.99	0.099
Onions, Dry Bulb	Uncooked; Cooked: NFS; Baked; Boiled; Fried	NB	FT	N/A	1	4	ONIONS % CT = 4% TOTALZ=336 TOTALNZ=14 0.13 0.05 0.13 0.13 0.12 0.16 0.29 0.13 7.58 5.18 8.4 4.44 3.33 5.84	2.6	0.26
	Canned: NFS; Canned: Cooked; Canned: Boiled; Frozen:Cooked; Frozen: Baked; Frozen: Boiled; Canned: Cured	PB							
Peaches	Uncooked, Cooked: NFS, Baked, Boiled	NB	FT	N/A	3	11	PEACHES % CT = 11% TOTALZ=113 TOTALNZ=14 3.4 0.54 0.39 0.67 0.65 0.65 0.67 0.79 0.77 0.93 0.77 1.5 1.26 0.83	0.99	0.099
	Canned: NFS, Frozen: NFS	PB							

Commodity	Food Form	Classification[1]	Data Used[2]	% Imported[3]	%Percent Crop Treated[3]		Residue Distribution for Acute Anticipated Residue	Chronic Anticipated Residue, ppm[5]	3,5 - DCA Anticipated Residue, ppm
					Weighted Avg	Likely Max			
Peaches - dried	Boiled, Dried	PB	FT	N/A	3	11	same as peaches plus processing factor		
Peaches-juice	Uncooked; Canned: NFS	PB	FT	N/A	3	11	same as peaches plus processing factor		
Peppers, Bell (sweet)	Uncooked; Cooked: NFS; Baked; Boiled	NB	FT	31	0.001	1	BELL PEPPERS % imported = 31%; % imported CT = 1% TOTALZ=2572 TOTALNZ=8 0.83 1.05 0.81 0.69 0.67 0.66 0.6 0.81	0.77	0.077
	Canned: NFS; Canned: Cooked; Canned: Boiled; Frozen: Cooked; Cured: NFS	PB							
Raspberries	Uncooked; Baked; Boiled;	NB	FT	N/A	43	52	RASPBERRIES PERCENT CROP TX = 52% TOTALZ=11 TOTALNZ=12 2.1 2.1 2.6 2.9 3.4 4.6 0.15 0.17 0.15 2.1 2.4 2.4	2.1	0.21
	Canned: NFS; Canned: Boiled; Frozen: NFS	PB							
Strawberries	Uncooked; Cooked: NFS; Baked; Boiled; Canned: NFS; Canned: Boiled; Frozen: NFS	PB	FT	N/A	42	63	STRAWBERRIES PERCENT CROP TX = 70% TOTALZ=16 TOTALNZ=37 0.58 0.86 1.55 1.07 1.84 2.14 0.69 0.96 0.92 0.62 1.7 1.81 1.65 2.36 1.98 2.62 2.91 1.76 1.53 1.49 1.05 1.66 1.34 0.60 0.98 0.46 1.38 2.55 2.24 0.58 0.55 0.84 0.88 4.51 3.28 2.91 3.42	1.63	0.163
Strawberries-juice	Uncooked; cooked: NFS; Baked; Boiled; Canned: NFS	PB	FT	N/A	42	63	same as strawberries plus DEEM Default processing factor		

Commodity	Food Form	Classification[1]	Data Used[2]	% Imported[3]	%Percent Crop Treated[3]		Residue Distribution for Acute Anticipated Residue	Chronic Anticipated Residue, ppm[5]	3,5 - DCA Anticipated Residue, ppm
					Weighted Avg	Likely Max			
Meat, Milk, and Eggs	All food forms	N/A	Feeding Study	N/A	4 (Canola)	20 (Canola)	Meat, Milk, Eggs % CT = 20% treated TOTALZ=4 TOTALNZ=1 0.025	0.025	0.0025
Poultry	All food forms	N/A	Feeding Study	N/A	4 (Canola)	20 (Canola)	Poultry % CT = 20% treated TOTALZ=4 TOTALNZ=1 0.05	0.05	0.005

[1] Classification from HED SOP 99-6 (8/20/99). NB = Non-blended; PB = partially blended; B = blended.

[2] FT = field trial data.

[3] Percent Crop (percent of the U.S. supply that is treated) and percent crop treated (percent of the imported crop that is treated) information was provided by BEAD (I. Yusef, 9/11/
and S. Nako, 11/3/99).

[4] N/A -Not Available for this review.

5. % CT not incorporated.

Attachments

Attachment 1: Vinclozolin Anticipated Residues Memorandum
Attachment 2: Residue Distribution Files
Attachment 3: Vinclozolin - Chronic Assessment - All Commodities
Attachment 4: Vinclozolin - Cancer Assessment - All Commodities
Attachment 5: Vinclozolin - Acute Assessment - All Commodities
Attachment 6: Vinclozolin - Chronic Assessment - No Stone Fruit
Attachment 7: Vinclozolin - Cancer Assessment - No Stone Fruit
Attachment 8: Vinclozolin - Acute Assessment - No Stone Fruit
Attachment 9: Vinclozolin - Chronic Assessment - No Strawberries
Attachment 10: Vinclozolin - Cancer Assessment - No Strawberries
Attachment 11: Vinclozolin - Acute Assessment - No Strawberries
Attachment 12: Vinclozolin - Chronic Assessment - No Strawberries or Stone Fruit
Attachment 13: Vinclozolin - Cancer Assessment - No Strawberries or Stone Fruit
Attachment 14: Vinclozolin - Acute Assessment - No Strawberries or Stone Fruit
Attachment 15: Vinclozolin - Chronic Assessment - No Succulent Beans
Attachment 16: Vinclozolin - Cancer Assessment - No Succulent Beans
Attachment 17: Vinclozolin - Acute Assessment - No Succulent Beans
Attachment 18: Vinclozolin - Chronic Assessment - No Canola
Attachment 19: Vinclozolin - Cancer Assessment - No Canola
Attachment 20: Vinclozolin - Acute Assessment - No Canola
Attachment 21: Vinclozolin - Chronic Assessment - No Strawberries, Stone Fruit, Canola, or Succulent Beans
Attachment 22: Vinclozolin - Cancer Assessment - No Strawberries, Stone Fruit, Canola, or Succulent Beans
Attachment 23: Vinclozolin - Acute Assessment - No Strawberries, Stone Fruit, Canola, or Succulent Beans
Attachment 24: 3, 5 - DCA - Cancer Assessment - All Commodities
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Attachment 26: Vinclozolin - Cancer - Commodity Contribution Analysis
Attachment 27: Vinclozolin Sensitivity Analysis - Acute- No Strawberry, Stone Fruit, or Grapes
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Attachment 1

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

OFFICE OF

PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

January 5, 2000

MEMORANDUM

SUBJECT: Vinclozolin. (Chemical ID No. 113201). Anticipated Residues for the HED Preliminary Human Health Risk Assessment. No MRID #. DP Barcode No. D261993

FROM: Felecia Fort, Chemist
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THRU: Whang Phang, Ph.D., Branch Senior Scientist
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TO: William J. Hazel, Ph.D., Chemist
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and

Deanna Scher
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Special Review and Reregistration Division (7508W)

BACKGROUND/ACTION REQUESTED

HED has been asked to develop anticipated residue estimates for the fungicide vinclozolin in association with the human health risk assessment for the Reregistration Eligibility Decision (RED). The tolerances being supported include the following crops: cucumbers, Belgian endive, grapes(wine/sherry), bulb onions, kiwifruit, lettuce, peppers, and raspberries. There are no U.S. registrations for cucumbers, Belgian endive, wine grapes, kiwifruit and peppers. The registrant has also proposed tolerances for canola and succulent beans (PP#0F6079). A temporary tolerance for vinclozolin residues in succulent beans was established in 1997 and expired in October, 1999. The petition was submitted to reestablish the succulent bean tolerance. Dietary risk analyses will be conducted including and excluding canola

and succulent beans. Although vinclozolin registrations for use on strawberries and stone fruit have been revoked, an acute dietary assessment both with and without strawberries and stone fruits, taken out separately and together, will also be conducted, since vinclozolin could have been applied to both of these crops very recently (strawberries until 2/1/00, stone fruits until this past season). A separate cancer assessment for 3,5-dicloroaniline will also be conducted.

Some of the anticipated residue information presented in this memorandum were taken from the following documents:

1. Vinclozolin. Anticipated Residues for Acute DRES Analysis. DP Barcode D220964. (S. Knizner, 11/16/95).
1.2 Section 3 Registration and Tolerance Petition for Use of Vinclozolin on Snap Beans, DP Barcode D233000, D233043, D233176, and D235556. (G. J Herndon, 5/14/97)
1.3 Residue Chemistry Considerations for Section 18 Exemption for The Use Of Vinclozolin on Canola In North Dakota and Minnesota. DP Barcode: D248165. (G. J. Herndon, 8/18/98).
1.4 Revision to 2nd Supplementary Report to Acute Dietary Exposure: Vinclozolin, MRID # 43983501. (BASF Corporation, 4/24/97)

Residue Data

Tolerances are established for the combined residues of the fungicide vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety in or on several raw agricultural commodities at levels ranging from 1 to 25 ppm (40 CFR§180.380). Tolerances are currently undergoing tolerance reassessment for the HED Chapter of the RED. High consumption food items for infants and children include strawberries and stone fruit, however, these tolerances will no longer be supported after January 2000. New uses are currently proposed for canola and snap beans. Codex MRLs are established for many commodities and are similar or identical to U.S. tolerances.

Although FDA and PDP monitoring data are available for vinclozolin, these data are not useful for risk assessment since all 3,5-dicloroaniline (3,5-DCA) containing metabolites were not analyzed. Review of metabolism studies indicate that a significant portion of 3,5-DCA and conjugates may not be detected by FDA or PDP. Although HED frequently has used monitoring data and adjusted the residues using a ratio of known residues to unknown residues, sufficient information could not be obtained from the metabolism studies to determine an appropriate factor that could be used to adjust the residues found in monitoring data. Field trial data on the combined residues of vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety are available for all crops. In determining the anticipated residues of 3,5-DCA, a default value of ten percent of the vinclozolin residues as estimated in a chronic DEEM™ analysis was used.

Usage Information

BEAD provided information (I. Yusef, 9/11/98 and S. Nako, 11/3/99) on the percent of domestic crop treated and the percent of imported crop treated (%CT). For the chronic analysis, the weighted average %CT was incorporated; for the acute analysis, the estimated maximum %CT was used when appropriate. Percent crop treated data for stone fruits and strawberries were obtained from the Quantitative Usage Analysis (QUA) from 9/98. These data were not provided in the latest QUA because the registrations for use on these commodities have been voluntarily canceled and deleted from labels.

Acute Dietary Exposure

For the probabilistic acute dietary exposure analysis, the entire distribution of field trial data reflecting label rates will be used to generate residue distribution files (RDFs) for commodities that are considered to be not blended or partially blended. The adjustment for %CT is incorporated in the RDFs via addition of zero residue values corresponding to the % crop not treated . Canola oil is the only commodity which is considered to be blended in these analyses; the average field trial residue was used as a point estimate in this case.

Chronic Dietary Exposure

For the chronic analysis, an average residue value calculated from field trial data was used for all commodities. Details of the calculations are provided below.

Detailed Considerations

Succulent Beans

Proposed Label Rate: A maximum of two applications at 0.5 lbs/ai/A/application, 7 to 21 days apart at early bloom and a 10-day PHI is proposed.

Anticipated Residue Calculation: In conjunction with PP# 0F6079, the registrant submitted residue data from16 residue trials (CA, FL, MI, NY, NC, OR , and WI). Data reflect two applications at 1.0 lbs ai/A/application and a PHI of 14 days (2X). Residues ranged from 0.38 to 2.4 ppm. The field trial residue studies conducted in California exhibit higher residues than those from other states (up to 2.4 ppm); other states (up to 0.95 ppm).

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (17% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
SNAPBEANS % CT = 38% TOTALZ=64 TOTALNZ=39 1.5 0.57 0.33 0.47 1.2 0.17 0.56 2.4 0.38 0.73 0.53 0.62 0.76 0.64 0.95 1.03 1.06 1.09 1.04 1.84 1.99 1.17 1.22 1.25 0.96 1.15 1.18 0.29 0.35 0.42 0.28 0.3 0.46 0.63 0.66 0.67 0.57 0.62 0.65	0.84	0.084

Canola

Proposed Label Rate: One application at 0.5 lb ai/A beginning at 20 to 50% flowering and a 40 day PHI is proposed.

Anticipated Residue Calculation: Four residue trials were conducted in 3 provinces of Canada: Alberta, Manitoba, and Saskatchewan. Canola was treated once at rates of 0.25 to 0.5 lb ai/A. Residues in the canola seeds ranged from 0.08 to 0.42 ppm. A canola processing study was conducted corresponding to one application at 0.5 kg ai/ha. Canola seed was harvested 49 days after application of vinclozolin and processed into canola oil. Initial analysis of the seed showed residues which ranged from 0.62 to 0.89 ppm and averaged 0.76 ppm. Residues in the refined oil showed no residue above the limit of quantitation (0.05 ppm). A tolerance of 1.0 ppm is proposed. For both the acute and chronic dietary analysis an anticipated residue of ½ the LOQ (½ x 0.05 ppm = 0.025 ppm) will be adjusted by the percent crop treated.

	Chronic	Acute	3,5-DCA Avg Residue (10% of Chronic AR)
% Crop Treated	4	20	4
Anticipated residue	0.001 ppm	0.0050 ppm	0.0001 ppm

***Belgian Endive*:**

Label Rate: One application at 10 g ai/10 m^2 (0.02 lbs ai/A) at forcing.

Anticipated Residue Calculation: An import tolerance is established for residues of vinclozolin in/on Belgian endive tops at 5.0 ppm. In conjunction with PP#8E3620 to establish an import tolerance on Belgian endive and again for PP#9E3808, IR-4 submitted residue data from 4 trials conducted in Europe. Combined residues of vinclozolin and its 3,5-DCA metabolites were 0.09-2.21 ppm in/on samples of Belgian endive (tops) grown from roots receiving applications of vinclozolin at 5-20 g ai/10m^2 (0.5-2x). For the 1x treatment rate (10 g ai/10 m^2) combined residues of vinclozolin and its 3,5-DCA metabolites were 0.11-1.40 ppm (average 0.40 ppm).

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (% imported = 10%; % imported CT = 30% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
ENDIVE-% imported = 10%; % imported CT = 100% TOTALZ=135 TOTALNZ=15 0.58 0.19 0.45 0.21 0.25 0.23 0.22 0.63 0.16 0.11 0.14 0.18 0.32 1.4 0.95	0.4	0.04

Cucumbers

Label Use: Label directions specify that several applications at 1.0 kg ai/HA with a PHI close to harvest. No maximum number of applications or PHI is stated.

Anticipated Residue Calculation: In conjunction with PP#8E3688 requesting a 1 ppm import tolerance for cucumbers, BASF submitted data from 7 greenhouse trials in Spain and 4 greenhouse trials in the Netherlands. Combined residues of vinclozolin and its 3,5-DCA metabolites were 0.11-1.0 ppm in samples receiving 1 - 5 applications of the WP or FlC formulations at a rate of 0.75 to 1.25 kg ai/ha/application and harvested at PHIs of 0-7 days.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (% imported = 1%; % imported CT = 1%)	3,5-DCA Avg Residue (10% of Chronic AR)
CUCUMBERS % imported = 22%; % imported CT = 1% TOTALZ=16328 TOTALNZ=36 0.27 0.29 0.27 0.23 0.22 0.29 0.27 0.25 0.23 0.31 0.25 0.23 0.25 0.30 0.17 0.32 0.36 0.53 0.22 0.45 0.27 0.29 0.40 0.30 0.23 0.77 0.35 0.20 0.40 0.53 0.65 0.53 0.60 0.50 1.0 0.80	0.38	0.038

Grapes (wine)

Label use: A maximum of 5 applications at 0.89 lbs ai/A/application beginning at pre-bloom and a PHI of 21 days is specified (4.45 lb. ai/A/season).

Anticipated Residue Calculation: In conjunction with PP#1E2457 requesting a 6 ppm import tolerance for grapes, BASF submitted data from studies conducted in Canada, France, Germany, England, Italy, Spain, and South Africa. Following 2-5 applications at 0.67 to 1.12 lb ai/A/application, residues ranged

from 0.4 to 5.8 ppm in or on grapes harvested at PHIs of 20-22 days. The value of 5.8 ppm resulted from 4 applications at a rate of 0.67 lb ai/A/application. No data were used from the England, Canada, and Spain field trials in calculating the anticipated residues since these data did not reflect the current label rate.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (% imported = 25%; % imported CT = 15%)	3,5-DCA Avg Residue (10% of Chronic AR)
WINE AND SHERRY % imported = 25%; % imported CT = 30% TOTALZ=284 TOTALNZ=23 1.2 5.8 4.0 2.2 1.5 2.0 2.0 3.8 3.5 0.9 2.2 0.8 1.0 3.0 1.5 3.6 0.4 0.41 2.0 3.0 2.3 0.6 0.4	2.1	0.21

Kiwifruit

Label Use: 4 applications at 1 lb ai/A/application and a 7-day PHI is established.

Anticipated Residue Calculation: In conjunction with PP#0E2380, BASF submitted data from 9 field trials in New Zealand using the only commercial variety of kiwifruit grown for export, the Hayward. Combined residues of vinclozolin and its 3,5-DCA metabolites were 1.97 to 8.40 ppm in samples receiving 5 applications (3 during blossom plus 2 pre-harvest) at a rate of 50 gm ai/100 L (equals 1.0 lb ai/A based on a spray volume of 2200 L/ha) and harvested at a 3 day PHI (M. Nelson, 10/15/80).

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (% imported = 45%; % imported CT = 5%)	3,5-DCA Avg Residue (10% of Chronic AR)
KIWIFRUIT % imported = 45%; % imported CT = 100% TOTALZ=11 TOTALNZ=9 3.61 5.67 1.97 7.91 2.9 6.67 4.78 8.4 4.66	5.2	0.52

Head Lettuce

Label Rate: A maximum of 3 applications at 1.0 lb ai/A and a PHI of 28 days.

Anticipated Residue Calculation: Combined residues of vinclozolin and its 3,5-DCA metabolites in head lettuce were 0.05 - 0.11 ppm; The samples were harvested 27-28 days following the last of 3 foliar ground applications of the 50% DF formulation at 1.0 lb ai/A/application (1x) in tests performed in AZ, CA, and FL.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (19% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
HEAD LETTUCE % CT = 25% TOTALZ=9 TOTALNZ=3 0.11 0.05 0.05	0.07	0.007

Leaf Lettuce

Label Rate: A maximum of 3 applications at 1.0 lb ai/A and a PHI of 28 days.

Anticipated Residue Calculation: Combined residues of vinclozolin and its 3,5-DCA metabolites in leaf lettuce were 0.07 - 17.6 ppm; The samples were harvested 27-28 days following the last of 2 - 3 foliar ground applications of the 50% DF formulation at 1.0 lb ai/A/application (1x) in tests performed in AZ, CA, and FL.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (1% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
LEAF LETTUCE PERCENT CROP TX = 5% TOTALZ=247 TOTALNZ=13 0.36 0.27 0.34 0.34 16.4 12 17.6 10 15.9 11 0.15 0.27 0.07	6.5	0.65

Onions - Dry Bulb

Label Rate: Up to five applications at 1.0 lb ai/A and a PHI of 18 days.

Anticipated Residue Calculation: Acceptable data on onions are available for purposes of reregistration. In data summarized for the Phase 4 Review (3/91), combined residues of vinclozolin and its 3,5-DCA

metabolites were <1.0 ppm in/on all samples of onions treated with 4-9 ground applications of vinclozolin and harvested 18 days after treatment in 19 tests performed in NY, MI, OR, MN, and TX. BASF subsequently submitted data in which over-tolerance residues of vinclozolin in/on onions were detected from 4 field trials in CA. Combined residues of vinclozolin and its metabolites containing the 3,5-DCA moiety were 0.12-14.93 ppm in/on onions (bulbs and tops) receiving 5 applications of the WP formulation at 1.0 lb ai/A/application (1x) at 14-day intervals and harvested 18 days after the final application. Reanalysis of only bulbs (without tops) showed residues of 3.33-7.58 ppm in/on bulbs from one test in which residues in/on tops plus bulbs were 9-14.93 ppm..

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (1% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
ONIONS % CT = 4% TOTALZ=336 TOTALNZ=14 0.13 0.05 0.13 0.13 0.12 0.16 0.29 0.13 7.58 5.18 8.4 4.44 3.33 5.84	2.6	0.26

Peppers, Bell:

Label Rate: Up to three applications at 0.75 lb ai/A and a PHI of 3 days.

Anticipated Residue Calculation: In conjunction with PP#4E2998 requesting a 3 ppm import tolerance for green peppers, BASF submitted data from 4 trials in the Netherlands. Combined residues of vinclozolin and its 3,5-DCA metabolites were 0.60-1.05 ppm in samples receiving 3 applications of the WP or FlC formulations at a rate of 0.75 kg ai/ha/application and harvested at PHIs of 3-7 days. No % crop treated data were provided by BEAD; therefore, 100% CT was assumed.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (% imported =31%; % imported CT = 1%)	3,5-DCA Avg Residue (10% of Chronic AR)
BELL PEPPERS % imported =31%; % imported CT = 1% TOTALZ=2572 TOTALNZ=8 0.83 1.05 0.81 0.69 0.67 0.66 0.6 0.81	0.77	0.077

Raspberries:

Label Rate: Apply up to 4 applications at 1.0 lb ai/A/application with a PHI of 9 days.

Anticipated Residue Calculation: In data submitted in conjunction with PP#3F2934, combined residues of vinclozolin and its 3,5-DCA metabolites were 0.15-4.6 ppm in/on 12 samples of raspberries receiving 4 applications of vinclozolin at 1.0 lb ai/A/application (1x) and harvested 5-11 days after treatment in tests performed in NY, NJ, MI, OH, OR, and WA.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (43% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
RASPBERRIES % CT = 52% TOTALZ=11 TOTALNZ=12 2.1 2.1 2.6 2.9 3.4 4.6 0.15 0.17 .15 2.1 2.4 2.4	2.1	0.21

Strawberries:

Label rate: Up to 4 applications at 1.0 lb ai/A/application in California; maximum of 6.0 lb ai/A/season elsewhere. A 0-day PHI is established.

Anticipated Residue Calculation: In data submitted in conjunction with PP#9F2205, combined residues of vinclozolin and its 3,5-DCA metabolites in/on samples of strawberries in CA receiving 1 to 24 applications of vinclozolin at 0.25 to 2.0 lb ai/A/application with a 0 or 1 day PHI, were 0.46 to 4.51 ppm. Samples used to generate anticipated residues totaled 2 to 6 lbs ai/A/season. Percent crop treated data for strawberries were obtained from the Quantitative Usage Analysis(QUA) from 9/98. These data were not provided in the latest QUA because the strawberry registration has been voluntarily canceled by the registrant.

Residue Distribution File for Acute Analysis	Avg Residue for Chronic Analysis (42% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
STRAWBERRIES PERCENT CROP TX = 70% TOTALZ=16 TOTALNZ=37 0.58 0.86 1.55 1.07 1.84 2.14 0.69 0.96 0.92 0.62 1.7 1.81 1.65 2.36 1.98 2.62 2.91 1.76 1.53 1.49 1.05 1.66 1.34 0.60 0.98 0.46 1.38 2.55 2.24 0.58 0.55 0.84 0.88 4.51 3.28 2.91 3.42	1.63	0.16

Peaches/Nectarines/Apricots:

Label Rate: 4 applications of 1.0 lb ai/A; maximum of 4.0 lb ai/A/season and a PHI of 14 days.

Anticipated Residue Calculation: No data are available exactly reflecting the use pattern for peaches or nectarines. Data used reflect samples of apricot, nectarine, and peaches receiving 2, 3 or 7 applications of vinclozolin at 1 to 2.0 lb ai/A/applications with a 13-15 day PHI, were 0.39 to 3.4 ppm (PP#1F3976/FAP#1H5615). Data from all crops were combined. Percent crop treated data for stone fruit were obtained from the Quantitative Usage Analysis(QUA) from 9/98. These data were not provided in the latest QUA because the stone fruit registration has been voluntarily canceled by the registrant

Residue Distribution File for Acute Analysis			Avg Residue for Chronic Analysis (5% CT-Apricot, 4% CT -Nectarines, 3% CT- Peaches)	3,5-DCA Avg Residue (10% of Chronic AR)
Peaches	Nectarines	Apricots		
PEACHES % CT = 11% TOTALZ=113 TOTALNZ=14 3.4 0.54 0.39 0.67 0.65 0.65 0.67 0.79 0.77 0.93 0.77 1.5 1.26 0.83	NECTARINES % CT = 4% TOTALZ=336 TOTALNZ=14 3.4 0.54 0.39 0.67 0.65 0.65 0.67 0.79 0.77 0.93 0.77 1.5 1.26 0.83	APRICOTS % CT = 5% TOTALZ=266 TOTALNZ=14 3.4 0.54 0.39 0.67 0.65 0.65 0.67 0.79 0.77 0.93 0.77 1.5 1.26 0.83	0.99	0.099

Cherries

Label rate: 4 applications of 1.0 lb ai/A; maximum of 4.0 lb ai/A/season and a PHI of 14 days.

Anticipated Residue Calculation: Combined residues of vinclozolin and its 3,5-DCA metabolites were 0.05 - 3.79 ppm in/on 109 samples of sweet and sour cherries harvested 0-14 days following the last of 4 foliar broadcast applications of the DF or WP formulations at 1 lb ai/A/application (1x) in 12 tests performed in CA, MI, NY, UT, and WA. Only the data reflecting 14 day PHI were used for generation of ARs. Percent crop treated data for cherries were obtained from the Quantitative Usage Analysis(QUA) from 9/98. These data were not provided in the latest QUA because the stone fruit registration has been voluntarily canceled by the registrant.

Residue Distribution File for Acute Analyses		Avg Residue for Chronic Analysis (5% CT)	3,5-DCA Avg Residue (10% of Chronic AR)
Sweet Cherries	Tart Cherries		
Sweet CHERRIES % CT = 15% TOTALZ=85 TOTALNZ=15 0.79 0.61 0.51 0.59 0.44 0.36 0.94 0.89 0.81 0.62 0.61 0.57 1.22 0.41 0.38	Tart CHERRIES % CT =15% TOTALZ=107 TOTALNZ=19 0.55 0.52 0.51 0.47 0.36 0.31 0.31 0.33 0.30 0.29 0.26 0.30 0.28 0.26 0.37 0.37 0.33 0.23 0.18	0.65 (sweet) 0.34 (tart)	0.065 (sweet) 0.034 (tart)

Meat, Milk, Poultry and Eggs

The nature of the residue in animals is adequately understood based on ruminant and poultry metabolism studies (see Chemistry Chapter of the RED, memo of S. Knizner dated 10/4/95). The residues of concern are vinclozolin, a mixture of the diastereomers of N-(3,5-dichlorophenyl)-2-methyl-2,3,4-trihydroxybutyramide (BF 352-25), and mixture of diasteromers derived by dihydroxylation of the vinclozolin vinyl group (BF 352-37). These metabolites are covered by the present tolerance expression, as specified in 40 CFR 180.380.

Canola meal can be fed to beef and dairy cattle, poultry, and swine at up to 15% of the diet (Table 1 of OPPTS 860.1000, 7/31/96). Based on the proposed use on canola, theoretical cattle and poultry diets were created. The calculated dietary burden is outlined in Tables 1 and 4.

<u>Cattle</u>

Table 1: Maximum Vinclozolin Residues in Beef and Dairy Cattle from Canola

			maximum vinclozolin residues (ppm)	
ingredients	% in diet (as fed)	% dry matter	in feed items	in the diet (normalized to 100% total of all feed items)
canola meal	15	88	1	0.17

Using a feed factor (dose) for dairy and beef cattle at 0.17 ppm, the potential maximum residues of vinclozolin in milk and tissues can be estimated. In PP#9F3750 (see memo of W.T. Chin dated 7/2/90), ruminant feeding studies were examined. The results are shown in Table 2.

Table 2. Vinclozolin Levels in Dairy Cattle Tissues and Milk from a 28-Day Feeding Study

	Vinclozolin Residues in Various Cattle Commodities (in ppm)		
commodity	100 ppm dose	300 ppm dose	1000 ppm dose
milk	up to 2.3	up to 7.9	up to 31.2
liver	9.02	48.2	141
kidney	8.45	22.6	87.7
fat	5.64	17.4	181
muscle	2.10	5.91	27.9

Using the data in Table 1 along with the data in Table 2 (100 ppm level), the following cattle levels were calculated from a theoretical 0.17 ppm dose.

Table 3: Theoretical Residues in Dairy Cattle Tissues and Milk from Feeding Vinclozolin-Treated Canola Meal

commodity	theoretical residues (ppm)
milk	0.0039
liver	0.015
kidney	0.014
fat	0.0096
muscle	0.0036

Poultry

Table 4: Maximum Vinclozolin Residues in Poultry from Various Crops

		maximum vinclozolin residues (ppm)	
ingredients	% in diet (as fed)	in feed items	in the diet (normalized to 100% total of all feed items)
canola meal	15	1	0.15

Using a feed factor (dose) for poultry at 0.15 ppm, the potential maximum residues of vinclozolin in tissues and eggs can be estimated. In PP#9F3750 (see memo of W.T. Chin dated 7/2/90), poultry feeding studies were examined. The results are shown in Table 5.

Table 5: Vinclozolin Levels in Poultry Tissues and Eggs from a Feeding Study

	Vinclozolin Residues in Various Poultry Commodities (in ppm)		
commodity	100 ppm dose	300 ppm dose	1000 ppm dose

whole egg	1.32	3.84	6.23
liver	2.65	7.20	17.0
kidney	2.26	5.93	15.80
abdominal fat	0.58	1.50	3.46
skin + SC fat	0.98	1.70	4.50
muscle	0.56	1.25	2.19

Using the data in Table 4 along with the data in Table 5 (100 ppm level), the following poultry levels were calculated from a theoretical 0.15 ppm dose.

Table 6: Theoretical Residues in Poultry Tissues and Eggs from Feeding Vinclozolin-Treated Canola Meal

commodity	theoretical residues (ppm)
whole egg	0.0020
liver	0.0040
kidney	0.0034
abdominal fat	0.00087
skin and SC fat	0.0015
muscle	0.00084

Swine

Swine diets are based on an "as fed" basis, similar to poultry (no correction for percentage of dry matter). Therefore, using the feed factor for poultry from Table 4, coupled with the levels from the cattle feeding study in Table 2, HED calculated the following swine residue levels from a 0.15 ppm dose.

Table 7: Theoretical Residues in Swine Tissues from Feeding Vinclozolin-Treated Canola Meal

commodity	theoretical residues (ppm)
liver	0.014
kidney	0.013
fat	0.0085
muscle	0.0032

Although theoretical residues are lower, HED (G.J.Herndon, 8/18/98, D248165) recommended that

one-half the LOQ be used for anticipated residues based on uncertainties from extrapolating high feeding level studies (lowest feeding level was 100 ppm compared with dietary burdens of 0.15 to 0.17 ppm) and uncertainties surrounding the LOD of the enforcement method(s).

Proposed Animal Commodity Tolerances and Anticipated Residues from the Use of Vinclozolin on Canola

animal	commodity	tolerance (ppm)[1]	anticipated residue (ppm)[2]	3,5-DCA Avg Residue (10% of Chronic AR)
cattle, goats, sheep	meat	0.05 (LOQ)	0.025	0.0025
	fat	0.05 (LOQ)	0.025	0.0025
	meat by-products	0.05 (LOQ)	0.025	0.0025
	milk	0.05 (LOQ)	0.025	0.0025
poultry	meat	0.1 (LOQ)	0.05	0.0025
	fat	0.1 (LOQ)	0.05	0.0025
	meat by-products	0.1 (LOQ)	0.05	0.0025
	eggs	0.05 (LOQ)	0.025	0.0025
swine	meat	0.05 (LOQ)	0.025	0.0025
	fat	0.05 (LOQ)	0.025	0.0025
	meat by-products	0.05 (LOQ)	0.025	0.0025

1. As noted in the memo of W.T. Chin dated 7/31/91 concerning PP#9F3750, the enforcement method (#A9004) was determined to be inadequate for the detection of vinclozolin residues in poultry tissues at the proposed tolerances (0.05 ppm). The registrant was given the choice of submitting a revised Section F proposing tolerances of 0.10 ppm for poultry tissues (fat, meat, liver, and kidney) or submitting data supporting sensitivity of 0.05 ppm for poultry tissues. The registrant submitted the revised Section F.

2. Although theoretical residues are lower than shown here (see Tables 3, 6, 7), based on uncertainties from extrapolating high feeding level studies (lowest feeding level was 100 ppm compared with dietary burdens of 0.15 to 0.17 ppm) and uncertainties surrounding the LOD of the enforcement method(s), one-half the LOQ was used for anticipated residues.

Processing Factors

No processing factors are available, therefore the DEEM default concentration factors will be used in the dietary analyses.

HED ChemSAC review of the acute and chronic ARs:
cc: List B Rereg. File
RDI: WPhang / /00, WJHazel 1/7 /2000
7509C:FFort:RRB1:CM2:Rm 722H:703 305-7478:01/06/2000

Attachment 2

Residue Distribution Files

APRICOTS
PERCENT CROP TX = 5%
TOTALZ=266
TOTALNZ=14
3.4
0.54
0.39
0.67
0.65
0.65
0.67
0.79
0.77
0.93
0.77
1.5
1.26
0.83

BELL PEPPERS
% imported = 31%; % imported CT = 1%
TOTALZ=2572
TOTALNZ=8
0.83
1.05
0.81
0.69
0.67
0.66
0.6
0.81

CUCUMBERS-FT
% imported = 22%; % imported CT = 1%
TOTALZ=16328
TOTALNZ=36

0.27	0.29
0.27	0.23
0.22	0.29
0.27	0.25
0.23	0.31
0.25	0.23
0.25	0.30
0.17	0.32
0.36	0.53
0.22	0.45
0.27	0.29
0.40	0.30
0.23	0.77
0.35	0.20
0.40	0.53
0.65	0.53
0.60	0.50
1.02	0.80

ENDIVE-FT
% imported = 10%; % imported CT = 100%
TOTALZ=135
TOTALNZ=15
0.58
0.19
0.45
0.21
0.25
0.23
0.22
0.63
0.16
0.11
0.14
0.18
0.32
1.4
0.95

HEAD LETTUCE
PERCENT CROP TX = 25%
TOTALZ=9
TOTALNZ=3
0.11
0.05
0.05

LEAF LETTUCE
PERCENT CROP TX = 5%
TOTALZ=247
TOTALNZ=13
0.36
0.27
0.34
0.34
16.4
12
17.6
10
15.9
11
0.15
0.27
0.07

KIWIFRUIT
% imported = 45%; % imported CT = 100%
TOTALZ=11
TOTALNZ=9
3.61
5.67
1.97
7.91
2.9
6.67
4.78
8.4
4.66

Meat, Milk, Eggs
PERCENT CROP TX = 20% treated
TOTALZ=4
TOTALNZ=1
0.025

NECTARINES
PERCENT CROP TX = 4%
TOTALZ=336
TOTALNZ=14
3.4
0.54
0.39
0.67
0.65
0.65
0.67
0.79
0.77
0.93
0.77
1.5
1.26
0.83

ONIONS
PERCENT CROP TX = 4%
TOTALZ=336
TOTALNZ=14
0.13
0.05
0.13
0.13
0.12
0.16
0.29
0.13
7.58
5.18
8.4
4.44
3.33
5.84

PEACHES
PERCENT CROP TX = 11%
TOTALZ=113
TOTALNZ=14
3.4
0.54
0.39
0.67
0.65
0.65
0.67
0.79
0.77
0.93
0.77
1.5
1.26
0.83

Poultry
PERCENT CROP TX = 20% treated
TOTALZ=4
TOTALNZ=1
0.05

RASPBERRIES
PERCENT CROP TX = 52%
TOTALZ=11
TOTALNZ=12

2.1	
2.1	
2.6	
2.9	
3.4	
4.6	
0.15	
0.17	
0.15	
2.1	
2.4	
2.4	

SNAPBEANS -FT
PERCENT CROP TX = 38%
TOTALZ=64
TOTALNZ=39

1.5	0.57
0.33	0.47
1.2	0.17
0.56	2.4
0.38	0.73
0.53	0.62
0.76	0.64
0.95	1.03
1.06	1.09
1.04	1.84
1.99	1.17
1.22	1.25
0.96	1.15
1.18	0.29
0.35	0.42
0.28	0.3
0.46	0.63
0.66	0.67
0.57	0.62
0.65	

STRAWBERRIES
PERCENT CROP TX = 70%
TOTALZ=16
TOTALNZ=37

0.58	0.86
1.55	1.07
1.84	2.14
0.69	0.96
0.92	0.62
1.7	1.81
1.65	2.36
1.98	2.62
2.91	1.76
1.53	1.49
1.05	1.66
1.34	0.60
0.98	0.46
1.38	2.55
2.24	0.58
0.55	0.84
0.88	4.51
3.28	2.91
3.42	

Sweet CHERRIES
PERCENT CROP TX = 15%
TOTALZ= 85
TOTALNZ=15

0.79
0.61
0.51
0.59
0.44
0.36
0.94
0.89
0.81
0.62
0.61
0.57
1.22
0.41
0.38

Tart CHERRIES
PERCENT CROP TX = 15%
TOTALZ=107
TOTALNZ=19

0.55
0.52
0.51
0.47
0.36
0.31
0.31
0.33
0.30
0.29
0.26
0.30
0.28
0.26
0.37
0.37
0.33
0.23
0.18

WINE AND SHERRY
% imported = 25%; % imported CT = 30%
TOTALZ=284
TOTALNZ=23

1.2
5.8
4.0
2.2
1.5
2.0
2.0
3.8
3.5
0.9
2.2
0.8
1.0
3.0
1.5
3.6
0.4
0.41
2.0
3.0
2.3
0.6
0.4

Attachment 3

Vinclozolin - Chronic - All Commodites - Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                               1989-92 data
Residue file: A:\VinclozolinDEEM\$vinchronic2.R96                Adjust. #2 used
Analysis Date 01-23-2000             Residue file dated: 01-21-2000/10:48:43/8
Reference dose (NOEL) = 4.9 mg/kg bw/day
Comment:Reregistration File
```

Food Code	Crop Grp	Food Name	RESIDUE (ppm)	Adj.Factors #1	#2
5	13A	Raspberries	2.100000	1.000	0.430
17	O	Strawberries	1.630000	1.000	0.420
59	12	Apricots	0.990000	1.000	0.050
60	12	Apricots-dried	0.990000	6.000	0.050
61	12	Cherries			
		11-Uncooked	0.650000	1.000	0.050
		12-Cooked: NFS	0.330000	1.000	0.050
		13-Baked	0.330000	1.000	0.050
		14-Boiled	0.330000	1.000	0.050
		31-Canned: NFS	0.330000	1.000	0.050
		33-Canned: Baked	0.330000	1.000	0.050
		41-Frozen: NFS	0.330000	1.000	0.050
62	12	Cherries-dried	0.330000	4.000	0.050
63	12	Cherries-juice	0.330000	1.500	0.050
64	12	Nectarines	0.990000	1.000	0.040
65	12	Peaches	0.990000	1.000	0.030
66	12	Peaches-dried	0.990000	7.000	0.030
97	O	Kiwi fruit	5.200000	1.000	0.023
148	9B	Cucumbers	0.380000	1.000	0.002
155	8	Peppers-sweet(garden)	0.770000	1.000	0.003
167	4A	Chicory(french/belgian endive)	0.400000	1.000	0.030
176	4A	Lettuce-leafy varieties	6.500000	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	1.000	0.170
234	6A	Beans-succulent-green	0.840000	1.000	0.170
235	6A	Beans-succulent-other	0.840000	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	1.000	0.170
253	6	Beans-unspecified	0.840000	1.000	0.170
257		Beans-succulent-hyacinth	0.840000	1.000	0.170
301	O	Canola oil (rape seed oil)	0.025000	1.000	0.040
315	O	Grapes-wine and sherry	2.100000	1.000	0.038
321	M	Beef-meat byproducts	0.025000	1.000	0.040
322	M	Beef-other organ meats	0.025000	1.000	0.040
323	M	Beef-dried	0.025000	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	1.000	0.040
325	M	Beef-kidney	0.025000	1.000	0.040
326	M	Beef-liver	0.025000	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	1.000	0.040
328	M	Goat-meat byproducts	0.025000	1.000	0.040
329	M	Goat-other organ meats	0.025000	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	1.000	0.040
331	M	Goat-kidney	0.025000	1.000	0.040
332	M	Goat-liver	0.025000	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	1.000	0.040

337	M	Sheep-other organ meats	0.025000	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	1.000	0.040
339	M	Sheep-kidney	0.025000	1.000	0.040
340	M	Sheep-liver	0.025000	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	1.000	0.040
342	M	Pork-meat byproducts	0.025000	1.000	0.040
343	M	Pork-other organ meats	0.025000	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	1.000	0.040
345	M	Pork-kidney	0.025000	1.000	0.040
346	M	Pork-liver	0.025000	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	1.000	0.040
355	P	Turkey-byproducts	0.050000	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	1.000	0.040
363	P	Eggs-whole	0.025000	1.000	0.040
364	P	Eggs-white only	0.025000	1.000	0.040
365	P	Eggs-yolk only	0.025000	1.000	0.040
366	P	Chicken-byproducts	0.050000	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	1.000	0.040
402	12	Peaches-juice	0.990000	1.000	0.030
410	12	Apricot juice	0.990000	1.000	0.050
416	O	Strawberries-juice	1.630000	1.000	0.420
424	M	Veal-fat w/o bones	0.025000	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	1.000	0.040
426	M	Veal-kidney	0.025000	1.000	0.040
427	M	Veal-liver	0.025000	1.000	0.040
428	M	Veal-other organ meats	0.025000	1.000	0.040
429	M	Veal-dried	0.025000	1.920	0.040
430	M	Veal-meat byproducts	0.025000	1.000	0.040
449	P	Turkey-other organ meats	0.050000	1.000	0.040

```
U.S. Environmental Protection Agency                                Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: A:\VinclozolinDEEM\$vinchronic2.R96
                                                  Adjustment factor #2 used.
Analysis Date 01-23-2000/17:27:45     Residue file dated: 01-21-2000/10:48:43/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
================================================================================
                     Total exposure by population subgroup
--------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000085	7.1%
U.S. Population (spring season)	0.000126	10.5%
U.S. Population (summer season)	0.000087	7.2%
U.S. Population (autumn season)	0.000065	5.4%
U.S. Population (winter season)	0.000066	5.5%
Northeast region	0.000097	8.1%
Midwest region	0.000092	7.7%
Southern region	0.000073	6.0%
Western region	0.000085	7.1%
Hispanics	0.000048	4.0%
Non-hispanic whites	0.000088	7.3%
Non-hispanic blacks	0.000073	6.1%
Non-hisp/non-white/non-black)	0.000177	14.8%
All infants (< 1 year)	0.000096	8.0%
Nursing infants	0.000013	1.1%
Non-nursing infants	0.000131	10.9%
Children 1-6 yrs	0.000167	13.9%
Children 7-12 yrs	0.000100	8.4%
Females 13-19(not preg or nursing)	0.000055	4.6%
Females 20+ (not preg or nursing)	0.000087	7.2%
Females 13-50 yrs	0.000076	6.4%
Females 13+ (preg/not nursing)	0.000068	5.7%
Females 13+ (nursing)	0.000143	11.9%
Males 13-19 yrs	0.000041	3.4%
Males 20+ yrs	0.000065	5.4%
Seniors 55+	0.000093	7.8%
Pacific Region	0.000091	7.6%

Attachment 4

Vinclozolin - All Commodities - Cancer (Q_1*) Results

```
U.S. Environmental Protection Agency                                Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                          (1989-92 data)
Residue file name: A:\VinclozolinDEEM\$vinchronic2.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-23-2000/17:27:59     Residue file dated: 01-21-2000/10:48:43/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
-------------------------------------   -------------     -------------
U.S. Population (total)                     0.000085         2.47E-05
```

Vinclozolin - All Commodities - Cancer (MOE) Results

```
U.S. Environmental Protection Agency                                Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                          (1989-92 data)
Residue file name: A:\VinclozolinDEEM\$vinchronic2.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-23-2000/17:28:14     Residue file dated: 01-21-2000/10:48:43/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
-------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000085        0.00%      57,594
```

Attachment 5

Vinclozolin - All Commodities - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                               1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\$vinacute2.R96
                                                            Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:29:04/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  apricotvin.rdf
 2  Snapbeanvin.rdf
 3  Meatmilkvin.rdf
 4  sweetcherriesvin.rdf
 5  tartcherriesvin.rdf
 6  endivevin.rdf
 7  Cucumbervin2.rdf
 8  kiwifruitvin.rdf
 9  leaflettucevin.rdf
 10 headlettucevin.rdf
 11 nectarinevin.rdf
 12 onionsvin.rdf
 13 peachvin.rdf
 14 bellpeppervin.rdf
 15 raspberriesvin.rdf
 16 strawberryvin.rdf
 17 Winevin.rdf
 18 Poultryvin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	15	1.000	0.430
17	O	Strawberries	1.630000	16	1.000	0.420
59	12	Apricots	0.990000	1	1.000	0.050
60	12	Apricots-dried	0.990000	1	6.000	0.050
61	12	Cherries				
		11-Uncooked	0.650000	4	1.000	0.050
		12-Cooked: NFS	0.330000	5	1.000	0.050
		13-Baked	0.330000	5	1.000	0.050
		14-Boiled	0.330000	5	1.000	0.050
		31-Canned: NFS	0.330000	5	1.000	0.050
		33-Canned: Baked	0.330000	5	1.000	0.050
		41-Frozen: NFS	0.330000	5	1.000	0.050
62	12	Cherries-dried	0.330000	5	4.000	0.050
63	12	Cherries-juice	0.330000	5	1.500	0.050
64	12	Nectarines	0.990000	11	1.000	0.040
65	12	Peaches	0.990000	13	1.000	0.030
66	12	Peaches-dried	0.990000	13	7.000	0.030
97	O	Kiwi fruit	5.200000	8	1.000	0.050
148	9B	Cucumbers	0.380000	7	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	14	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	6	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	9	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	9	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	10	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	12	1.000	0.010

233	6B	Beans-succulent-lima	0.840000	2	1.000	0.170
234	6A	Beans-succulent-green	0.840000	2	1.000	0.170
235	6A	Beans-succulent-other	0.840000	2	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	2	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	2	1.000	0.170
253	6	Beans-unspecified	0.840000	2	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	2	1.000	0.170
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
315	O	Grapes-wine and sherry	6.000000	17	1.000	0.150
321	M	Beef-meat byproducts	0.025000	3	1.000	0.040
322	M	Beef-other organ meats	0.025000	3	1.000	0.040
323	M	Beef-dried	0.025000	3	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	3	1.000	0.040
325	M	Beef-kidney	0.025000	3	1.000	0.040
326	M	Beef-liver	0.025000	3	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	3	1.000	0.040
328	M	Goat-meat byproducts	0.025000	3	1.000	0.040
329	M	Goat-other organ meats	0.025000	3	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	3	1.000	0.040
331	M	Goat-kidney	0.025000	3	1.000	0.040
332	M	Goat-liver	0.025000	3	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	3	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	3	1.000	0.040
337	M	Sheep-other organ meats	0.025000	3	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	3	1.000	0.040
339	M	Sheep-kidney	0.025000	3	1.000	0.040
340	M	Sheep-liver	0.025000	3	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	3	1.000	0.040
342	M	Pork-meat byproducts	0.025000	3	1.000	0.040
343	M	Pork-other organ meats	0.025000	3	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	3	1.000	0.040
345	M	Pork-kidney	0.025000	3	1.000	0.040
346	M	Pork-liver	0.025000	3	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	3	1.000	0.040
355	P	Turkey-byproducts	0.050000	18	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	18	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	18	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	18	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	18	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	18	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	18	1.000	0.040
363	P	Eggs-whole	0.025000	3	1.000	0.040
364	P	Eggs-white only	0.025000	3	1.000	0.040
365	P	Eggs-yolk only	0.025000	3	1.000	0.040
366	P	Chicken-byproducts	0.050000	18	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	18	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	18	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	18	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	18	1.000	0.040
402	12	Peaches-juice	0.990000	13	1.000	0.030
410	12	Apricot juice	0.990000	1	1.000	0.050
416	O	Strawberries-juice	1.630000	16	1.000	0.420
424	M	Veal-fat w/o bones	0.025000	3	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	3	1.000	0.040
426	M	Veal-kidney	0.025000	3	1.000	0.040
427	M	Veal-liver	0.025000	3	1.000	0.040
428	M	Veal-other organ meats	0.025000	3	1.000	0.040
429	M	Veal-dried	0.025000	3	1.920	0.040
430	M	Veal-meat byproducts	0.025000	3	1.000	0.040
449	P	Turkey-other organ meats	0.050000	18	1.000	0.040

```
U.S. Environmental Protection Agency                                    Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                              (1989-92 data)
Residue file: $VINACUTE2.R96                        Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/12:01:07    Residue file dated: 01-21-2000/11:29:04/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                    95th Percentile      99th Percentile      99.9th Percentile
                   Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                  ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                    0.000639    10.65    0.003440    57.33    0.012964   216.07
```

Attachment 6

Vinclozolin - Chronic - No Stone Fruit- Residue Input Results

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                             1989-92 data
Residue file: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostone.R96
                                                                Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:02:46/8
Reference dose (NOEL) = 4.9 mg/kg bw/day
Comment:Reregistration File
--------------------------------------------------------------------------------
Food Crop                                     RESIDUE         Adj.Factors
Code  Grp  Food Name                           (ppm)           #1     #2
---- ---- ------------------------------  ----------      ------ ------
   5 13A  Raspberries                        2.100000       1.000  0.430
  17 O    Strawberries                       1.630000       1.000  0.420
  97 O    Kiwi fruit                         5.200000       1.000  0.023
 148 9B   Cucumbers                          0.380000       1.000  0.002
 155 8    Peppers-sweet(garden)              0.770000       1.000  0.003
 167 4A   Chicory(french/belgian endive)     0.400000       1.000  0.030
 176 4A   Lettuce-leafy varieties            6.500000       1.000  0.010
 182 4A   Lettuce-unspecified                6.500000       1.000  0.010
 192 4A   Lettuce-head varieties             0.070000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)        2.600000       1.000  0.010
 233 6B   Beans-succulent-lima               0.840000       1.000  0.170
 234 6A   Beans-succulent-green              0.840000       1.000  0.170
 235 6A   Beans-succulent-other              0.840000       1.000  0.170
 236 6A   Beans-succulent-yellow/wax         0.840000       1.000  0.170
 250 6B   Beans-succulent-broadbeans         0.840000       1.000  0.170
 253 6    Beans-unspecified                  0.840000       1.000  0.170
 257      Beans-succulent-hyacinth           0.840000       1.000  0.170
 301 O    Canola oil (rape seed oil)         0.025000       1.000  0.040
 315 O    Grapes-wine and sherry             2.100000       1.000  0.038
 321 M    Beef-meat byproducts               0.025000       1.000  0.040
 322 M    Beef-other organ meats             0.025000       1.000  0.040
 323 M    Beef-dried                         0.025000       1.920  0.040
 324 M    Beef-fat w/o bones                 0.025000       1.000  0.040
 325 M    Beef-kidney                        0.025000       1.000  0.040
 326 M    Beef-liver                         0.025000       1.000  0.040
 327 M    Beef-lean (fat/free) w/o bones     0.025000       1.000  0.040
 328 M    Goat-meat byproducts               0.025000       1.000  0.040
 329 M    Goat-other organ meats             0.025000       1.000  0.040
 330 M    Goat-fat w/o bone                  0.025000       1.000  0.040
 331 M    Goat-kidney                        0.025000       1.000  0.040
 332 M    Goat-liver                         0.025000       1.000  0.040
 333 M    Goat-lean (fat/free) w/o bone      0.025000       1.000  0.040
 336 M    Sheep-meat byproducts              0.025000       1.000  0.040
 337 M    Sheep-other organ meats            0.025000       1.000  0.040
 338 M    Sheep-fat w/o bone                 0.025000       1.000  0.040
 339 M    Sheep-kidney                       0.025000       1.000  0.040
 340 M    Sheep-liver                        0.025000       1.000  0.040
 341 M    Sheep-lean (fat free) w/o bone     0.025000       1.000  0.040
 342 M    Pork-meat byproducts               0.025000       1.000  0.040
 343 M    Pork-other organ meats             0.025000       1.000  0.040
 344 M    Pork-fat w/o bone                  0.025000       1.000  0.040
 345 M    Pork-kidney                        0.025000       1.000  0.040
 346 M    Pork-liver                         0.025000       1.000  0.040
 347 M    Pork-lean (fat free) w/o bone      0.025000       1.000  0.040
```

355	P	Turkey-byproducts	0.050000	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	1.000	0.040
363	P	Eggs-whole	0.025000	1.000	0.040
364	P	Eggs-white only	0.025000	1.000	0.040
365	P	Eggs-yolk only	0.025000	1.000	0.040
366	P	Chicken-byproducts	0.050000	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	1.000	0.040
416	O	Strawberries-juice	1.630000	1.000	0.420
424	M	Veal-fat w/o bones	0.025000	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	1.000	0.040
426	M	Veal-kidney	0.025000	1.000	0.040
427	M	Veal-liver	0.025000	1.000	0.040
428	M	Veal-other organ meats	0.025000	1.000	0.040
429	M	Veal-dried	0.025000	1.920	0.040
430	M	Veal-meat byproducts	0.025000	1.000	0.040
449	P	Turkey-other organ meats	0.050000	1.000	0.040

```
U.S. Environmental Protection Agency                                  Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                            (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostone.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:50:44     Residue file dated: 01-21-2000/11:02:46/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
==============================================================================
                    Total exposure by population subgroup
------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000079	6.6%
U.S. Population (spring season)	0.000121	10.1%
U.S. Population (summer season)	0.000079	6.6%
U.S. Population (autumn season)	0.000060	5.0%
U.S. Population (winter season)	0.000061	5.0%
Northeast region	0.000091	7.6%
Midwest region	0.000087	7.2%
Southern region	0.000068	5.7%
Western region	0.000078	6.5%
Hispanics	0.000043	3.6%
Non-hispanic whites	0.000082	6.8%
Non-hispanic blacks	0.000069	5.7%
Non-hisp/non-white/non-black)	0.000168	14.0%
All infants (< 1 year)	0.000065	5.4%
Nursing infants	0.000002	0.1%
Non-nursing infants	0.000092	7.7%
Children 1-6 yrs	0.000153	12.7%
Children 7-12 yrs	0.000092	7.6%
Females 13-19(not preg or nursing)	0.000052	4.3%
Females 20+ (not preg or nursing)	0.000082	6.9%
Females 13-50 yrs	0.000073	6.1%
Females 13+ (preg/not nursing)	0.000063	5.2%
Females 13+ (nursing)	0.000136	11.4%
Males 13-19 yrs	0.000038	3.2%
Males 20+ yrs	0.000061	5.1%
Seniors 55+	0.000087	7.2%
Pacific Region	0.000082	6.9%

Attachment 7

Vinclozolin - No Stone Fruit - Cancer (Q_1*)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostone.R96
                                                     Adjustment factor #2 used.
Analysis Date 01-21-2000/11:50:58     Residue file dated: 01-21-2000/11:02:46/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                   Total Exposure
                                          ----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
-------------------------------------   -------------     -------------
U.S. Population (total)                     0.000079         2.30E-05
```

Vinclozolin - No Stone Fruit - Cancer (MOE)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostone.R96
                                                     Adjustment factor #2 used.
Analysis Date 01-21-2000/11:51:13     Residue file dated: 01-21-2000/11:02:46/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                   Total Exposure
                                          ----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
-------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000079        0.00%      61,810
```

Attachment 8

Vinclozolin - No Stone Fruit - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                                 1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anostone.R96
                                                          Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:31:17/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  Snapbeanvin.rdf
 2  Meatmilkvin.rdf
 3  endivevin.rdf
 4  Cucumbervin2.rdf
 5  kiwifruitvin.rdf
 6  leaflettucevin.rdf
 7  headlettucevin.rdf
 8  onionsvin.rdf
 9  bellpeppervin.rdf
 10 raspberriesvin.rdf
 11 strawberryvin.rdf
 12 Winevin.rdf
 13 Poultryvin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	10	1.000	0.430
17	O	Strawberries	1.630000	11	1.000	0.420
97	O	Kiwi fruit	5.200000	5	1.000	0.050
148	9B	Cucumbers	0.380000	4	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	9	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	3	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	6	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	6	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	7	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	8	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	1	1.000	0.170
234	6A	Beans-succulent-green	0.840000	1	1.000	0.170
235	6A	Beans-succulent-other	0.840000	1	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	1	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	1	1.000	0.170
253	6	Beans-unspecified	0.840000	1	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	1	1.000	0.170
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
315	O	Grapes-wine and sherry	6.000000	12	1.000	0.150
321	M	Beef-meat byproducts	0.025000	2	1.000	0.040
322	M	Beef-other organ meats	0.025000	2	1.000	0.040
323	M	Beef-dried	0.025000	2	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	2	1.000	0.040
325	M	Beef-kidney	0.025000	2	1.000	0.040
326	M	Beef-liver	0.025000	2	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	2	1.000	0.040
328	M	Goat-meat byproducts	0.025000	2	1.000	0.040
329	M	Goat-other organ meats	0.025000	2	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	2	1.000	0.040

331	M	Goat-kidney	0.025000	2	1.000	0.040
332	M	Goat-liver	0.025000	2	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	2	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	2	1.000	0.040
337	M	Sheep-other organ meats	0.025000	2	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	2	1.000	0.040
339	M	Sheep-kidney	0.025000	2	1.000	0.040
340	M	Sheep-liver	0.025000	2	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	2	1.000	0.040
342	M	Pork-meat byproducts	0.025000	2	1.000	0.040
343	M	Pork-other organ meats	0.025000	2	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	2	1.000	0.040
345	M	Pork-kidney	0.025000	2	1.000	0.040
346	M	Pork-liver	0.025000	2	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	2	1.000	0.040
355	P	Turkey-byproducts	0.050000	13	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	13	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	13	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	13	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	13	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	13	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	13	1.000	0.040
363	P	Eggs-whole	0.025000	2	1.000	0.040
364	P	Eggs-white only	0.025000	2	1.000	0.040
365	P	Eggs-yolk only	0.025000	2	1.000	0.040
366	P	Chicken-byproducts	0.050000	13	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	13	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	13	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	13	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	13	1.000	0.040
416	O	Strawberries-juice	1.630000	11	1.000	0.420
424	M	Veal-fat w/o bones	0.025000	2	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	2	1.000	0.040
426	M	Veal-kidney	0.025000	2	1.000	0.040
427	M	Veal-liver	0.025000	2	1.000	0.040
428	M	Veal-other organ meats	0.025000	2	1.000	0.040
429	M	Veal-dried	0.025000	2	1.920	0.040
430	M	Veal-meat byproducts	0.025000	2	1.000	0.040
449	P	Turkey-other organ meats	0.050000	13	1.000	0.040

No Stone Fruit - Acute-Results

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                            (1989-92 data)
Residue file: ANOSTONE.R96                        Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/12:48:58    Residue file dated: 01-21-2000/11:31:17/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                     95th Percentile      99th Percentile      99.9th Percentile
                    Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                   ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                     0.000551     9.18    0.003302    55.03    0.012822   213.69
```

Attachment 9

Vinclozolin - No Strawberries-Chronic- Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                               1989-92 data
Residue file: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostraw.R96
                                                                  Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:09:42/8
Reference dose (NOEL) = 4.9 mg/kg bw/day
Comment:Reregistration File
--------------------------------------------------------------------------------
Food Crop                                  RESIDUE         Adj.Factors
Code  Grp  Food Name                        (ppm)           #1     #2
---- ---- ------------------------------  ----------      ------ ------
   5 13A  Raspberries                       2.100000       1.000  0.430
  59 12   Apricots                          0.990000       1.000  0.050
  60 12   Apricots-dried                    0.990000       6.000  0.050
  61 12   Cherries
             11-Uncooked                   0.650000       1.000  0.050
             12-Cooked: NFS                0.330000       1.000  0.050
             13-Baked                      0.330000       1.000  0.050
             14-Boiled                     0.330000       1.000  0.050
             31-Canned: NFS                0.330000       1.000  0.050
             33-Canned: Baked              0.330000       1.000  0.050
             41-Frozen: NFS                0.330000       1.000  0.050
  62 12   Cherries-dried                   0.330000       4.000  0.050
  63 12   Cherries-juice                   0.330000       1.500  0.050
  64 12   Nectarines                       0.990000       1.000  0.040
  65 12   Peaches                          0.990000       1.000  0.030
  66 12   Peaches-dried                    0.990000       7.000  0.030
  97 O    Kiwi fruit                       5.200000       1.000  0.023
 148 9B   Cucumbers                        0.380000       1.000  0.002
 155 8    Peppers-sweet(garden)            0.770000       1.000  0.003
 167 4A   Chicory(french/belgian endive)   0.400000       1.000  0.030
 176 4A   Lettuce-leafy varieties          6.500000       1.000  0.010
 182 4A   Lettuce-unspecified              6.500000       1.000  0.010
 192 4A   Lettuce-head varieties           0.070000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)      2.600000       1.000  0.010
 233 6B   Beans-succulent-lima             0.840000       1.000  0.170
 234 6A   Beans-succulent-green            0.840000       1.000  0.170
 235 6A   Beans-succulent-other            0.840000       1.000  0.170
 236 6A   Beans-succulent-yellow/wax       0.840000       1.000  0.170
 250 6B   Beans-succulent-broadbeans       0.840000       1.000  0.170
 253 6    Beans-unspecified                0.840000       1.000  0.170
 257      Beans-succulent-hyacinth         0.840000       1.000  0.170
 301 O    Canola oil (rape seed oil)       0.025000       1.000  0.040
 315 O    Grapes-wine and sherry           2.100000       1.000  0.038
 321 M    Beef-meat byproducts             0.025000       1.000  0.040
 322 M    Beef-other organ meats           0.025000       1.000  0.040
 323 M    Beef-dried                       0.025000       1.920  0.040
 324 M    Beef-fat w/o bones               0.025000       1.000  0.040
 325 M    Beef-kidney                      0.025000       1.000  0.040
 326 M    Beef-liver                       0.025000       1.000  0.040
 327 M    Beef-lean (fat/free) w/o bones   0.025000       1.000  0.040
 328 M    Goat-meat byproducts             0.025000       1.000  0.040
 329 M    Goat-other organ meats           0.025000       1.000  0.040
 330 M    Goat-fat w/o bone                0.025000       1.000  0.040
 331 M    Goat-kidney                      0.025000       1.000  0.040
 332 M    Goat-liver                       0.025000       1.000  0.040
```

333	M	Goat-lean (fat/free) w/o bone	0.025000	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	1.000	0.040
337	M	Sheep-other organ meats	0.025000	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	1.000	0.040
339	M	Sheep-kidney	0.025000	1.000	0.040
340	M	Sheep-liver	0.025000	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	1.000	0.040
342	M	Pork-meat byproducts	0.025000	1.000	0.040
343	M	Pork-other organ meats	0.025000	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	1.000	0.040
345	M	Pork-kidney	0.025000	1.000	0.040
346	M	Pork-liver	0.025000	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	1.000	0.040
355	P	Turkey-byproducts	0.050000	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	1.000	0.040
363	P	Eggs-whole	0.025000	1.000	0.040
364	P	Eggs-white only	0.025000	1.000	0.040
365	P	Eggs-yolk only	0.025000	1.000	0.040
366	P	Chicken-byproducts	0.050000	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	1.000	0.040
402	12	Peaches-juice	0.990000	1.000	0.030
410	12	Apricot juice	0.990000	1.000	0.050
424	M	Veal-fat w/o bones	0.025000	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	1.000	0.040
426	M	Veal-kidney	0.025000	1.000	0.040
427	M	Veal-liver	0.025000	1.000	0.040
428	M	Veal-other organ meats	0.025000	1.000	0.040
429	M	Veal-dried	0.025000	1.920	0.040
430	M	Veal-meat byproducts	0.025000	1.000	0.040
449	P	Turkey-other organ meats	0.050000	1.000	0.040

Vinclozolin - No Strawberry- Chronic

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                            (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostraw.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:56:01     Residue file dated: 01-21-2000/11:09:42/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
==============================================================================
                    Total exposure by population subgroup
------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000051	4.3%
U.S. Population (spring season)	0.000044	3.7%
U.S. Population (summer season)	0.000056	4.7%
U.S. Population (autumn season)	0.000053	4.4%
U.S. Population (winter season)	0.000051	4.3%
Northeast region	0.000050	4.2%
Midwest region	0.000051	4.3%
Southern region	0.000048	4.0%
Western region	0.000057	4.8%
Hispanics	0.000036	3.0%
Non-hispanic whites	0.000054	4.5%
Non-hispanic blacks	0.000048	4.0%
Non-hisp/non-white/non-black)	0.000045	3.7%
All infants (< 1 year)	0.000095	7.9%
Nursing infants	0.000013	1.1%
Non-nursing infants	0.000129	10.7%
Children 1-6 yrs	0.000093	7.7%
Children 7-12 yrs	0.000055	4.6%
Females 13-19(not preg or nursing)	0.000032	2.7%
Females 20+ (not preg or nursing)	0.000050	4.2%
Females 13-50 yrs	0.000045	3.7%
Females 13+ (preg/not nursing)	0.000041	3.4%
Females 13+ (nursing)	0.000050	4.2%
Males 13-19 yrs	0.000030	2.5%
Males 20+ yrs	0.000044	3.6%
Seniors 55+	0.000055	4.6%
Pacific Region	0.000062	5.1%

Attachment 10

Vinclozolin - -No Strawberry- Cancer (Q_1*)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostraw.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:56:17     Residue file dated: 01-21-2000/11:09:42/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
--------------------------------------   -------------     -------------
U.S. Population (total)                     0.000051         1.49E-05
```

Vinclozolin - No Strawberry -Cancer (MOE)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostraw.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:56:32     Residue file dated: 01-21-2000/11:09:42/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
--------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000051        0.00%      95,494
```

Attachment 11

No Strawberries - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                               1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anostraw.R96
                                                          Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:34:54/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  apricotvin.rdf
 2  Snapbeanvin.rdf
 3  Meatmilkvin.rdf
 4  sweetcherriesvin.rdf
 5  tartcherriesvin.rdf
 6  endivevin.rdf
 7  Cucumbervin2.rdf
 8  kiwifruitvin.rdf
 9  leaflettucevin.rdf
 10 headlettucevin.rdf
 11 nectarinevin.rdf
 12 onionsvin.rdf
 13 peachvin.rdf
 14 bellpeppervin.rdf
 15 raspberriesvin.rdf
 16 Winevin.rdf
 17 Poultryvin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	15	1.000	0.430
59	12	Apricots	0.990000	1	1.000	0.050
60	12	Apricots-dried	0.990000	1	6.000	0.050
61	12	Cherries				
		11-Uncooked	0.650000	4	1.000	0.050
		12-Cooked: NFS	0.330000	5	1.000	0.050
		13-Baked	0.330000	5	1.000	0.050
		14-Boiled	0.330000	5	1.000	0.050
		31-Canned: NFS	0.330000	5	1.000	0.050
		33-Canned: Baked	0.330000	5	1.000	0.050
		41-Frozen: NFS	0.330000	5	1.000	0.050
62	12	Cherries-dried	0.330000	5	4.000	0.050
63	12	Cherries-juice	0.330000	5	1.500	0.050
64	12	Nectarines	0.990000	11	1.000	0.040
65	12	Peaches	0.990000	13	1.000	0.030
66	12	Peaches-dried	0.990000	13	7.000	0.030
97	O	Kiwi fruit	5.200000	8	1.000	0.050
148	9B	Cucumbers	0.380000	7	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	14	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	6	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	9	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	9	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	10	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	12	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	2	1.000	0.170
234	6A	Beans-succulent-green	0.840000	2	1.000	0.170

235	6A	Beans-succulent-other	0.840000	2	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	2	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	2	1.000	0.170
253	6	Beans-unspecified	0.840000	2	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	2	1.000	0.170
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
315	O	Grapes-wine and sherry	6.000000	16	1.000	0.150
321	M	Beef-meat byproducts	0.025000	3	1.000	0.040
322	M	Beef-other organ meats	0.025000	3	1.000	0.040
323	M	Beef-dried	0.025000	3	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	3	1.000	0.040
325	M	Beef-kidney	0.025000	3	1.000	0.040
326	M	Beef-liver	0.025000	3	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	3	1.000	0.040
328	M	Goat-meat byproducts	0.025000	3	1.000	0.040
329	M	Goat-other organ meats	0.025000	3	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	3	1.000	0.040
331	M	Goat-kidney	0.025000	3	1.000	0.040
332	M	Goat-liver	0.025000	3	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	3	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	3	1.000	0.040
337	M	Sheep-other organ meats	0.025000	3	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	3	1.000	0.040
339	M	Sheep-kidney	0.025000	3	1.000	0.040
340	M	Sheep-liver	0.025000	3	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	3	1.000	0.040
342	M	Pork-meat byproducts	0.025000	3	1.000	0.040
343	M	Pork-other organ meats	0.025000	3	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	3	1.000	0.040
345	M	Pork-kidney	0.025000	3	1.000	0.040
346	M	Pork-liver	0.025000	3	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	3	1.000	0.040
355	P	Turkey-byproducts	0.050000	17	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	17	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	17	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	17	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	17	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	17	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	17	1.000	0.040
363	P	Eggs-whole	0.025000	3	1.000	0.040
364	P	Eggs-white only	0.025000	3	1.000	0.040
365	P	Eggs-yolk only	0.025000	3	1.000	0.040
366	P	Chicken-byproducts	0.050000	17	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	17	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	17	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	17	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	17	1.000	0.040
402	12	Peaches-juice	0.990000	13	1.000	0.030
410	12	Apricot juice	0.990000	1	1.000	0.050
424	M	Veal-fat w/o bones	0.025000	3	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	3	1.000	0.040
426	M	Veal-kidney	0.025000	3	1.000	0.040
427	M	Veal-liver	0.025000	3	1.000	0.040
428	M	Veal-other organ meats	0.025000	3	1.000	0.040
429	M	Veal-dried	0.025000	3	1.920	0.040
430	M	Veal-meat byproducts	0.025000	3	1.000	0.040
449	P	Turkey-other organ meats	0.050000	17	1.000	0.040

```
U.S. Environmental Protection Agency                                Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                           (1989-92 data)
Residue file: ANOSTRAW.R96                        Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/12:33:19    Residue file dated: 01-21-2000/11:34:54/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================
```

Summary calculations:

	95th Percentile		99th Percentile		99.9th Percentile	
	Exposure	% aRfD	Exposure	% aRfD	Exposure	% aRfD
Females (13-50 years):						
	0.000332	5.54	0.002273	37.89	0.010407	173.45

Attachment 12

Vinclozolin - No Strawberry or Stone Fruit - Chronic - Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                               1989-92 data
Residue file: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestraw.R96
                                                                  Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:03:41/8
Reference dose (NOEL) = 4.9 mg/kg bw/day
Comment:Reregistration File
```

Food Code	Crop Grp	Food Name	RESIDUE (ppm)	Adj.Factors #1	#2
5	13A	Raspberries	2.100000	1.000	0.430
97	O	Kiwi fruit	5.200000	1.000	0.023
148	9B	Cucumbers	0.380000	1.000	0.002
155	8	Peppers-sweet(garden)	0.770000	1.000	0.003
167	4A	Chicory(french/belgian endive)	0.400000	1.000	0.030
176	4A	Lettuce-leafy varieties	6.500000	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	1.000	0.170
234	6A	Beans-succulent-green	0.840000	1.000	0.170
235	6A	Beans-succulent-other	0.840000	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	1.000	0.170
253	6	Beans-unspecified	0.840000	1.000	0.170
257		Beans-succulent-hyacinth	0.840000	1.000	0.170
301	O	Canola oil (rape seed oil)	0.025000	1.000	0.040
315	O	Grapes-wine and sherry	2.100000	1.000	0.038
321	M	Beef-meat byproducts	0.025000	1.000	0.040
322	M	Beef-other organ meats	0.025000	1.000	0.040
323	M	Beef-dried	0.025000	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	1.000	0.040
325	M	Beef-kidney	0.025000	1.000	0.040
326	M	Beef-liver	0.025000	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	1.000	0.040
328	M	Goat-meat byproducts	0.025000	1.000	0.040
329	M	Goat-other organ meats	0.025000	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	1.000	0.040
331	M	Goat-kidney	0.025000	1.000	0.040
332	M	Goat-liver	0.025000	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	1.000	0.040
337	M	Sheep-other organ meats	0.025000	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	1.000	0.040
339	M	Sheep-kidney	0.025000	1.000	0.040
340	M	Sheep-liver	0.025000	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	1.000	0.040
342	M	Pork-meat byproducts	0.025000	1.000	0.040
343	M	Pork-other organ meats	0.025000	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	1.000	0.040
345	M	Pork-kidney	0.025000	1.000	0.040
346	M	Pork-liver	0.025000	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	1.000	0.040
355	P	Turkey-byproducts	0.050000	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	1.000	0.040

358	P	Turkey- lean/fat free w/o bones	0.050000	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	1.000	0.040
363	P	Eggs-whole	0.025000	1.000	0.040
364	P	Eggs-white only	0.025000	1.000	0.040
365	P	Eggs-yolk only	0.025000	1.000	0.040
366	P	Chicken-byproducts	0.050000	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	1.000	0.040
424	M	Veal-fat w/o bones	0.025000	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	1.000	0.040
426	M	Veal-kidney	0.025000	1.000	0.040
427	M	Veal-liver	0.025000	1.000	0.040
428	M	Veal-other organ meats	0.025000	1.000	0.040
429	M	Veal-dried	0.025000	1.920	0.040
430	M	Veal-meat byproducts	0.025000	1.000	0.040
449	P	Turkey-other organ meats	0.050000	1.000	0.040

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                            (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestraw.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:51:59     Residue file dated: 01-21-2000/11:03:41/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
==============================================================================
                    Total exposure by population subgroup
------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000046	3.8%
U.S. Population (spring season)	0.000039	3.3%
U.S. Population (summer season)	0.000048	4.0%
U.S. Population (autumn season)	0.000049	4.0%
U.S. Population (winter season)	0.000046	3.8%
Northeast region	0.000045	3.7%
Midwest region	0.000045	3.8%
Southern region	0.000044	3.6%
Western region	0.000050	4.2%
Hispanics	0.000031	2.6%
Non-hispanic whites	0.000048	4.0%
Non-hispanic blacks	0.000044	3.6%
Non-hisp/non-white/non-black)	0.000036	3.0%
All infants (< 1 year)	0.000064	5.3%
Nursing infants	0.000001	0.1%
Non-nursing infants	0.000091	7.6%
Children 1-6 yrs	0.000078	6.5%
Children 7-12 yrs	0.000046	3.8%
Females 13-19(not preg or nursing)	0.000029	2.4%
Females 20+ (not preg or nursing)	0.000045	3.8%
Females 13-50 yrs	0.000041	3.4%
Females 13+ (preg/not nursing)	0.000036	3.0%
Females 13+ (nursing)	0.000043	3.6%
Males 13-19 yrs	0.000027	2.2%
Males 20+ yrs	0.000040	3.4%
Seniors 55+	0.000048	4.0%
Pacific Region	0.000053	4.4%

Attachment 13

Vinclozolin - -No Strawberry or Stone Fruit - Cancer (Q_1*)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestraw.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:52:13     Residue file dated: 01-21-2000/11:03:41/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
--------------------------------------   -------------     -------------
U.S. Population (total)                     0.000046         1.32E-05
```

Vinclozolin - No Strawberry or Stone Fruit -Cancer (MOE)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestraw.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:52:30     Residue file dated: 01-21-2000/11:03:41/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
--------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000046        0.00%     107,669
```

Attachment 14

Vinclozolin - No Strawberries or Stone Fruit - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                                 1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anostonestraw.R96
                                                            Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:31:48/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  Snapbeanvin.rdf
 2  Meatmilkvin.rdf
 3  endivevin.rdf
 4  Cucumbervin2.rdf
 5  kiwifruitvin.rdf
 6  leaflettucevin.rdf
 7  headlettucevin.rdf
 8  onionsvin.rdf
 9  bellpeppervin.rdf
 10 raspberriesvin.rdf
 11 Winevin.rdf
 12 Poultryvin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	10	1.000	0.430
97	O	Kiwi fruit	5.200000	5	1.000	0.050
148	9B	Cucumbers	0.380000	4	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	9	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	3	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	6	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	6	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	7	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	8	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	1	1.000	0.170
234	6A	Beans-succulent-green	0.840000	1	1.000	0.170
235	6A	Beans-succulent-other	0.840000	1	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	1	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	1	1.000	0.170
253	6	Beans-unspecified	0.840000	1	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	1	1.000	0.170
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
315	O	Grapes-wine and sherry	6.000000	11	1.000	0.150
321	M	Beef-meat byproducts	0.025000	2	1.000	0.040
322	M	Beef-other organ meats	0.025000	2	1.000	0.040
323	M	Beef-dried	0.025000	2	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	2	1.000	0.040
325	M	Beef-kidney	0.025000	2	1.000	0.040
326	M	Beef-liver	0.025000	2	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	2	1.000	0.040
328	M	Goat-meat byproducts	0.025000	2	1.000	0.040
329	M	Goat-other organ meats	0.025000	2	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	2	1.000	0.040
331	M	Goat-kidney	0.025000	2	1.000	0.040

332	M	Goat-liver	0.025000	2	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	2	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	2	1.000	0.040
337	M	Sheep-other organ meats	0.025000	2	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	2	1.000	0.040
339	M	Sheep-kidney	0.025000	2	1.000	0.040
340	M	Sheep-liver	0.025000	2	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	2	1.000	0.040
342	M	Pork-meat byproducts	0.025000	2	1.000	0.040
343	M	Pork-other organ meats	0.025000	2	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	2	1.000	0.040
345	M	Pork-kidney	0.025000	2	1.000	0.040
346	M	Pork-liver	0.025000	2	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	2	1.000	0.040
355	P	Turkey-byproducts	0.050000	12	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	12	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	12	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	12	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	12	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	12	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	12	1.000	0.040
363	P	Eggs-whole	0.025000	2	1.000	0.040
364	P	Eggs-white only	0.025000	2	1.000	0.040
365	P	Eggs-yolk only	0.025000	2	1.000	0.040
366	P	Chicken-byproducts	0.050000	12	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	12	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	12	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	12	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	12	1.000	0.040
424	M	Veal-fat w/o bones	0.025000	2	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	2	1.000	0.040
426	M	Veal-kidney	0.025000	2	1.000	0.040
427	M	Veal-liver	0.025000	2	1.000	0.040
428	M	Veal-other organ meats	0.025000	2	1.000	0.040
429	M	Veal-dried	0.025000	2	1.920	0.040
430	M	Veal-meat byproducts	0.025000	2	1.000	0.040
449	P	Turkey-other organ meats	0.050000	12	1.000	0.040

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                            (1989-92 data)
Residue file: ANOSTONESTRAW.R96                   Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/13:05:03    Residue file dated: 01-21-2000/11:31:48/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                     95th Percentile      99th Percentile      99.9th Percentile
                    Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                   ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                     0.000251     4.18    0.002090    34.83    0.010250   170.84
```

Attachment 15

Vinclozolin - No Succulent Beans - Chronic - Residue Input File

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                             1989-92 data
Residue file: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnobeans.R96
                                                                 Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:01:01/8
Reference dose (RfD) = 0.0012 mg/kg bw/day
Comment:Reregistration File
--------------------------------------------------------------------------------
Food Crop                                   RESIDUE         Adj.Factors
Code  Grp  Food Name                         (ppm)           #1     #2
---- ---- -------------------------------  ----------      ------ ------
   5 13A  Raspberries                        2.100000       1.000  0.430
  17 O    Strawberries                       1.630000       1.000  0.420
  59 12   Apricots                           0.990000       1.000  0.050
  60 12   Apricots-dried                     0.990000       6.000  0.050
  61 12   Cherries
             11-Uncooked                     0.650000       1.000  0.050
             12-Cooked: NFS                  0.330000       1.000  0.050
             13-Baked                        0.330000       1.000  0.050
             14-Boiled                       0.330000       1.000  0.050
             31-Canned: NFS                  0.330000       1.000  0.050
             33-Canned: Baked                0.330000       1.000  0.050
             41-Frozen: NFS                  0.330000       1.000  0.050
  62 12   Cherries-dried                     0.330000       4.000  0.050
  63 12   Cherries-juice                     0.330000       1.500  0.050
  64 12   Nectarines                         0.990000       1.000  0.040
  65 12   Peaches                            0.990000       1.000  0.030
  66 12   Peaches-dried                      0.990000       7.000  0.030
  97 O    Kiwi fruit                         5.200000       1.000  0.023
 148 9B   Cucumbers                          0.380000       1.000  0.002
 155 8    Peppers-sweet(garden)              0.770000       1.000  0.003
 167 4A   Chicory(french/belgian endive)     0.400000       1.000  0.030
 176 4A   Lettuce-leafy varieties            6.500000       1.000  0.010
 182 4A   Lettuce-unspecified                6.500000       1.000  0.010
 192 4A   Lettuce-head varieties             0.070000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)        2.600000       1.000  0.010
 301 O    Canola oil (rape seed oil)         0.025000       1.000  0.040
 315 O    Grapes-wine and sherry             2.100000       1.000  0.038
 321 M    Beef-meat byproducts               0.025000       1.000  0.040
 322 M    Beef-other organ meats             0.025000       1.000  0.040
 323 M    Beef-dried                         0.025000       1.920  0.040
 324 M    Beef-fat w/o bones                 0.025000       1.000  0.040
 325 M    Beef-kidney                        0.025000       1.000  0.040
 326 M    Beef-liver                         0.025000       1.000  0.040
 327 M    Beef-lean (fat/free) w/o bones     0.025000       1.000  0.040
 328 M    Goat-meat byproducts               0.025000       1.000  0.040
 329 M    Goat-other organ meats             0.025000       1.000  0.040
 330 M    Goat-fat w/o bone                  0.025000       1.000  0.040
 331 M    Goat-kidney                        0.025000       1.000  0.040
 332 M    Goat-liver                         0.025000       1.000  0.040
 333 M    Goat-lean (fat/free) w/o bone      0.025000       1.000  0.040
 336 M    Sheep-meat byproducts              0.025000       1.000  0.040
 337 M    Sheep-other organ meats            0.025000       1.000  0.040
```

338	M	Sheep-fat w/o bone	0.025000	1.000	0.040
339	M	Sheep-kidney	0.025000	1.000	0.040
340	M	Sheep-liver	0.025000	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	1.000	0.040
342	M	Pork-meat byproducts	0.025000	1.000	0.040
343	M	Pork-other organ meats	0.025000	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	1.000	0.040
345	M	Pork-kidney	0.025000	1.000	0.040
346	M	Pork-liver	0.025000	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	1.000	0.040
355	P	Turkey-byproducts	0.050000	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	1.000	0.040
363	P	Eggs-whole	0.025000	1.000	0.040
364	P	Eggs-white only	0.025000	1.000	0.040
365	P	Eggs-yolk only	0.025000	1.000	0.040
366	P	Chicken-byproducts	0.050000	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	1.000	0.040
402	12	Peaches-juice	0.990000	1.000	0.030
410	12	Apricot juice	0.990000	1.000	0.050
416	O	Strawberries-juice	1.630000	1.000	0.420
424	M	Veal-fat w/o bones	0.025000	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	1.000	0.040
426	M	Veal-kidney	0.025000	1.000	0.040
427	M	Veal-liver	0.025000	1.000	0.040
428	M	Veal-other organ meats	0.025000	1.000	0.040
429	M	Veal-dried	0.025000	1.920	0.040
430	M	Veal-meat byproducts	0.025000	1.000	0.040
449	P	Turkey-other organ meats	0.050000	1.000	0.040

```
U.S. Environmental Protection Agency                                Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\VinclozolinDEEM\Cnobeans.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-17-2000/23:47:33     Residue file dated: 01-17-2000/23:30:14/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
==============================================================================
                    Total exposure by population subgroup
------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000061	5.1%
U.S. Population (spring season)	0.000104	8.7%
U.S. Population (summer season)	0.000064	5.3%
U.S. Population (autumn season)	0.000038	3.2%
U.S. Population (winter season)	0.000040	3.3%
Northeast region	0.000075	6.2%
Midwest region	0.000068	5.7%
Southern region	0.000044	3.6%
Western region	0.000066	5.5%
Hispanics	0.000032	2.6%
Non-hispanic whites	0.000063	5.3%
Non-hispanic blacks	0.000042	3.5%
Non-hisp/non-white/non-black)	0.000161	13.4%
All infants (< 1 year)	0.000049	4.1%
Nursing infants	0.000013	1.1%
Non-nursing infants	0.000064	5.3%
Children 1-6 yrs	0.000108	9.0%
Children 7-12 yrs	0.000071	5.9%
Females 13-19(not preg or nursing)	0.000036	3.0%
Females 20+ (not preg or nursing)	0.000066	5.5%
Females 13-50 yrs	0.000059	4.9%
Females 13+ (preg/not nursing)	0.000051	4.2%
Females 13+ (nursing)	0.000124	10.3%
Males 13-19 yrs	0.000024	2.0%
Males 20+ yrs	0.000047	3.9%
Seniors 55+	0.000069	5.7%
Pacific Region	0.000073	6.1%

Attachment 16

Vinclozolin - -No Succulent Beans - Cancer (Q_1*)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnobeans.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:47:55     Residue file dated: 01-21-2000/11:01:01/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                   Total Exposure
                                          -----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
--------------------------------------   -------------     -------------
U.S. Population (total)                     0.000061         1.76E-05
```

Vinclozolin - No Succulent Beans -Cancer (MOE)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnobeans.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:48:09     Residue file dated: 01-21-2000/11:01:01/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                   Total Exposure
                                          -----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
--------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000061        0.00%      80,617
```

Attachment 17

No Succulent Beans - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                               1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anobeans.R96
                                                          Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:30:03/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  apricotvin.rdf
 2  Meatmilkvin.rdf
 3  sweetcherriesvin.rdf
 4  tartcherriesvin.rdf
 5  endivevin.rdf
 6  Cucumbervin2.rdf
 7  kiwifruitvin.rdf
 8  leaflettucevin.rdf
 9  headlettucevin.rdf
 10 nectarinevin.rdf
 11 onionsvin.rdf
 12 peachvin.rdf
 13 bellpeppervin.rdf
 14 raspberriesvin.rdf
 15 strawberryvin.rdf
 16 Winevin.rdf
 17 Poultryvin.rdf

Food Crop                                  RESIDUE    RDF  Adj.FactorsCode
      Grp  Food Name                        (ppm)      #    #1     #2
---- ---- -------------------------------  ----------  --- ------ ------
   5 13A  Raspberries                        2.100000   14  1.000  0.430
  17 O    Strawberries                       1.630000   15  1.000  0.420
  59 12   Apricots                           0.990000    1  1.000  0.050
  60 12   Apricots-dried                     0.990000    1  6.000  0.050
  61 12   Cherries
             11-Uncooked                     0.650000    3  1.000  0.050
             12-Cooked: NFS                  0.330000    4  1.000  0.050
             13-Baked                        0.330000    4  1.000  0.050
             14-Boiled                       0.330000    4  1.000  0.050
             31-Canned: NFS                  0.330000    4  1.000  0.050
             33-Canned: Baked                0.330000    4  1.000  0.050
             41-Frozen: NFS                  0.330000    4  1.000  0.050
  62 12   Cherries-dried                     0.330000    4  4.000  0.050
  63 12   Cherries-juice                     0.330000    4  1.500  0.050
  64 12   Nectarines                         0.990000   10  1.000  0.040
  65 12   Peaches                            0.990000   12  1.000  0.030
  66 12   Peaches-dried                      0.990000   12  7.000  0.030
  97 O    Kiwi fruit                         5.200000    7  1.000  0.050
 148 9B   Cucumbers                          0.380000    6  1.000  1.000
 155 8    Peppers-sweet(garden)              0.770000   13  1.000  1.000
 167 4A   Chicory(french/belgian endive)     0.400000    5  1.000  0.300
 176 4A   Lettuce-leafy varieties            6.500000    8  1.000  0.010
 182 4A   Lettuce-unspecified                6.500000    8  1.000  0.010
```

192	4A	Lettuce-head varieties	0.070000	9	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	11	1.000	0.010
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
315	O	Grapes-wine and sherry	6.000000	16	1.000	0.150
321	M	Beef-meat byproducts	0.025000	2	1.000	0.040
322	M	Beef-other organ meats	0.025000	2	1.000	0.040
323	M	Beef-dried	0.025000	2	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	2	1.000	0.040
325	M	Beef-kidney	0.025000	2	1.000	0.040
326	M	Beef-liver	0.025000	2	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	2	1.000	0.040
328	M	Goat-meat byproducts	0.025000	2	1.000	0.040
329	M	Goat-other organ meats	0.025000	2	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	2	1.000	0.040
331	M	Goat-kidney	0.025000	2	1.000	0.040
332	M	Goat-liver	0.025000	2	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	2	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	2	1.000	0.040
337	M	Sheep-other organ meats	0.025000	2	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	2	1.000	0.040
339	M	Sheep-kidney	0.025000	2	1.000	0.040
340	M	Sheep-liver	0.025000	2	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	2	1.000	0.040
342	M	Pork-meat byproducts	0.025000	2	1.000	0.040
343	M	Pork-other organ meats	0.025000	2	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	2	1.000	0.040
345	M	Pork-kidney	0.025000	2	1.000	0.040
346	M	Pork-liver	0.025000	2	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	2	1.000	0.040
355	P	Turkey-byproducts	0.050000	17	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	17	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	17	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	17	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	17	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	17	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	17	1.000	0.040
363	P	Eggs-whole	0.025000	2	1.000	0.040
364	P	Eggs-white only	0.025000	2	1.000	0.040
365	P	Eggs-yolk only	0.025000	2	1.000	0.040
366	P	Chicken-byproducts	0.050000	17	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	17	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	17	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	17	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	17	1.000	0.040
402	12	Peaches-juice	0.990000	12	1.000	0.030
410	12	Apricot juice	0.990000	1	1.000	0.050
416	O	Strawberries-juice	1.630000	15	1.000	0.420
424	M	Veal-fat w/o bones	0.025000	2	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	2	1.000	0.040
426	M	Veal-kidney	0.025000	2	1.000	0.040
427	M	Veal-liver	0.025000	2	1.000	0.040
428	M	Veal-other organ meats	0.025000	2	1.000	0.040
429	M	Veal-dried	0.025000	2	1.920	0.040
430	M	Veal-meat byproducts	0.025000	2	1.000	0.040
449	P	Turkey-other organ meats	0.050000	17	1.000	0.040

```
U.S. Environmental Protection Agency                                    Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                              (1989-92 data)
Residue file: ANOBEANS.R96                          Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/12:17:05    Residue file dated: 01-21-2000/11:30:03/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                     95th Percentile      99th Percentile      99.9th Percentile
                    Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                   ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                     0.000221     3.68    0.002988    49.81    0.013010   216.83
```

Attachment 18

Vinclozolin - No Canola - Chronic - Residue Input File

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                             1989-92 data
Residue file: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnocanolammpe.R96
                                                                Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:01:42/8
Reference dose (NOEL) = 4.9 mg/kg bw/day
Comment:Reregistration File
--------------------------------------------------------------------------------
Food Crop                                   RESIDUE         Adj.Factors
Code  Grp  Food Name                         (ppm)           #1     #2
---- ---- ------------------------------  ----------      ------ ------
   5 13A  Raspberries                        2.100000       1.000  0.430
  17 O    Strawberries                       1.630000       1.000  0.420
  59 12   Apricots                           0.990000       1.000  0.050
  60 12   Apricots-dried                     0.990000       6.000  0.050
  61 12   Cherries
             11-Uncooked                     0.650000       1.000  0.050
             12-Cooked: NFS                  0.330000       1.000  0.050
             13-Baked                        0.330000       1.000  0.050
             14-Boiled                       0.330000       1.000  0.050
             31-Canned: NFS                  0.330000       1.000  0.050
             33-Canned: Baked                0.330000       1.000  0.050
             41-Frozen: NFS                  0.330000       1.000  0.050
  62 12   Cherries-dried                     0.330000       4.000  0.050
  63 12   Cherries-juice                     0.330000       1.500  0.050
  64 12   Nectarines                         0.990000       1.000  0.040
  65 12   Peaches                            0.990000       1.000  0.030
  66 12   Peaches-dried                      0.990000       7.000  0.030
  97 O    Kiwi fruit                         5.200000       1.000  0.023
 148 9B   Cucumbers                          0.380000       1.000  0.002
 155 8    Peppers-sweet(garden)              0.770000       1.000  0.003
 167 4A   Chicory(french/belgian endive)     0.400000       1.000  0.030
 176 4A   Lettuce-leafy varieties            6.500000       1.000  0.010
 182 4A   Lettuce-unspecified                6.500000       1.000  0.010
 192 4A   Lettuce-head varieties             0.070000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)        2.600000       1.000  0.010
 233 6B   Beans-succulent-lima               0.840000       1.000  0.170
 234 6A   Beans-succulent-green              0.840000       1.000  0.170
 235 6A   Beans-succulent-other              0.840000       1.000  0.170
 236 6A   Beans-succulent-yellow/wax         0.840000       1.000  0.170
 250 6B   Beans-succulent-broadbeans         0.840000       1.000  0.170
 253 6    Beans-unspecified                  0.840000       1.000  0.170
 257      Beans-succulent-hyacinth           0.840000       1.000  0.170
 315 O    Grapes-wine and sherry             2.100000       1.000  0.038
 402 12   Peaches-juice                      0.990000       1.000  0.030
 410 12   Apricot juice                      0.990000       1.000  0.050
 416 O    Strawberries-juice                 1.630000       1.000  0.420
```

Vinclozolin - No Canola -Chronic Results

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnocanolammpe.R96
                                                     Adjustment factor #2 used.
Analysis Date 01-21-2000/11:49:13     Residue file dated: 01-21-2000/11:01:42/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
================================================================================
                    Total exposure by population subgroup
--------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000082	6.8%
U.S. Population (spring season)	0.000123	10.2%
U.S. Population (summer season)	0.000083	7.0%
U.S. Population (autumn season)	0.000062	5.2%
U.S. Population (winter season)	0.000063	5.2%
Northeast region	0.000094	7.8%
Midwest region	0.000090	7.5%
Southern region	0.000069	5.8%
Western region	0.000082	6.9%
Hispanics	0.000044	3.7%
Non-hispanic whites	0.000085	7.1%
Non-hispanic blacks	0.000070	5.8%
Non-hisp/non-white/non-black)	0.000174	14.5%
All infants (< 1 year)	0.000094	7.9%
Nursing infants	0.000013	1.1%
Non-nursing infants	0.000129	10.7%
Children 1-6 yrs	0.000161	13.4%
Children 7-12 yrs	0.000096	8.0%
Females 13-19(not preg or nursing)	0.000053	4.4%
Females 20+ (not preg or nursing)	0.000085	7.1%
Females 13-50 yrs	0.000074	6.2%
Females 13+ (preg/not nursing)	0.000066	5.5%
Females 13+ (nursing)	0.000141	11.7%
Males 13-19 yrs	0.000038	3.1%
Males 20+ yrs	0.000062	5.1%
Seniors 55+	0.000091	7.6%
Pacific Region	0.000088	7.3%

Attachment 19

Vinclozolin - -No Canola - Cancer (Q_1*)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnocanolammpe.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:49:22     Residue file dated: 01-21-2000/11:01:42/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
-------------------------------------   -------------     -------------
U.S. Population (total)                     0.000082         2.38E-05
```

Vinclozolin - No Canola -Cancer (MOE)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnocanolammpe.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:49:33     Residue file dated: 01-21-2000/11:01:42/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                  Total Exposure
                                          ----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
-------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000082        0.00%      59,702
```

Attachment 20

Vinclozolin - No Canola - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                                 1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anocanolammpe.R96
                                                                 Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:30:43/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  apricotvin.rdf
 2  Snapbeanvin.rdf
 3  sweetcherriesvin.rdf
 4  tartcherriesvin.rdf
 5  endivevin.rdf
 6  Cucumbervin2.rdf
 7  kiwifruitvin.rdf
 8  leaflettucevin.rdf
 9  headlettucevin.rdf
 10 nectarinevin.rdf
 11 onionsvin.rdf
 12 peachvin.rdf
 13 bellpeppervin.rdf
 14 raspberriesvin.rdf
 15 strawberryvin.rdf
 16 Winevin.rdf
```

Food Crop Grp		Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	14	1.000	0.430
17	O	Strawberries	1.630000	15	1.000	0.420
59	12	Apricots	0.990000	1	1.000	0.050
60	12	Apricots-dried	0.990000	1	6.000	0.050
61	12	Cherries				
		11-Uncooked	0.650000	3	1.000	0.050
		12-Cooked: NFS	0.330000	4	1.000	0.050
		13-Baked	0.330000	4	1.000	0.050
		14-Boiled	0.330000	4	1.000	0.050
		31-Canned: NFS	0.330000	4	1.000	0.050
		33-Canned: Baked	0.330000	4	1.000	0.050
		41-Frozen: NFS	0.330000	4	1.000	0.050
62	12	Cherries-dried	0.330000	4	4.000	0.050
63	12	Cherries-juice	0.330000	4	1.500	0.050
64	12	Nectarines	0.990000	10	1.000	0.040
65	12	Peaches	0.990000	12	1.000	0.030
66	12	Peaches-dried	0.990000	12	7.000	0.030
97	O	Kiwi fruit	5.200000	7	1.000	0.050
148	9B	Cucumbers	0.380000	6	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	13	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	5	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	8	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	8	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	9	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	11	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	2	1.000	0.170
234	6A	Beans-succulent-green	0.840000	2	1.000	0.170
235	6A	Beans-succulent-other	0.840000	2	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	2	1.000	0.170

250	6B	Beans-succulent-broadbeans	0.840000	2	1.000	0.170
253	6	Beans-unspecified	0.840000	2	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	2	1.000	0.170
315	O	Grapes-wine and sherry	6.000000	16	1.000	0.150
402	12	Peaches-juice	0.990000	12	1.000	0.030
410	12	Apricot juice	0.990000	1	1.000	0.050
416	O	Strawberries-juice	1.630000	15	1.000	0.420

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                            (1989-92 data)
Residue file: ANOCANOLAMMPE.R96                    Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/13:11:48    Residue file dated: 01-21-2000/11:30:43/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                    95th Percentile      99th Percentile      99.9th Percentile
                   Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                  ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                    0.000723    12.05    0.003694    61.56    0.013303   221.71
```

Attachment 21

Vinclozolin - No Strawberry, Stone Fruit, Canola or Succulent Beans - Chronic - Residue Input File

```
U.S. Environmental Protection Agency                                    Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                               1989-92 data
Residue file: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestrawcanolabeanmmpe.R96
                                                                 Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:06:13/8
Reference dose (NOEL) = 4.9 mg/kg bw/day
Comment:Reregistration File
--------------------------------------------------------------------------------
Food Crop                                    RESIDUE         Adj.Factors
Code  Grp  Food Name                          (ppm)           #1     #2
---- ---- -------------------------------  ----------      ------ ------
   5 13A  Raspberries                        2.100000       1.000  0.430
  97 O    Kiwi fruit                         5.200000       1.000  0.023
 148 9B   Cucumbers                          0.380000       1.000  0.002
 155 8    Peppers-sweet(garden)              0.770000       1.000  0.002
 167 4A   Chicory(french/belgian endive)     0.400000       1.000  0.030
 176 4A   Lettuce-leafy varieties            6.500000       1.000  0.010
 182 4A   Lettuce-unspecified                6.500000       1.000  0.010
 192 4A   Lettuce-head varieties             0.070000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)        2.600000       1.000  0.010
 315 O    Grapes-wine and sherry             2.100000       1.000  0.038
```

```
U.S. Environmental Protection Agency                                    Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                              (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestrawcanolabeanmmpe.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:54:13     Residue file dated: 01-21-2000/11:06:13/8
Reference dose (RfD, CHRONIC) = .0012 mg/kg bw/day
COMMENT 1: Reregistration File
================================================================================
                    Total exposure by population subgroup
--------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Percent of Rfd
U.S. Population (total)	0.000018	1.5%
U.S. Population (spring season)	0.000015	1.2%
U.S. Population (summer season)	0.000022	1.8%
U.S. Population (autumn season)	0.000019	1.6%
U.S. Population (winter season)	0.000017	1.4%
Northeast region	0.000019	1.6%
Midwest region	0.000018	1.5%
Southern region	0.000012	1.0%
Western region	0.000028	2.3%
Hispanics	0.000011	0.9%
Non-hispanic whites	0.000020	1.7%
Non-hispanic blacks	0.000009	0.8%
Non-hisp/non-white/non-black)	0.000016	1.3%
All infants (< 1 year)	0.000016	1.3%
Nursing infants	0.000001	0.1%
Non-nursing infants	0.000022	1.9%
Children 1-6 yrs	0.000013	1.1%
Children 7-12 yrs	0.000012	1.0%
Females 13-19(not preg or nursing)	0.000007	0.6%
Females 20+ (not preg or nursing)	0.000023	1.9%
Females 13-50 yrs	0.000021	1.8%
Females 13+ (preg/not nursing)	0.000016	1.3%
Females 13+ (nursing)	0.000022	1.8%
Males 13-19 yrs	0.000007	0.6%
Males 20+ yrs	0.000020	1.6%
Seniors 55+	0.000021	1.8%
Pacific Region	0.000032	2.7%

Attachment 22

Vinclozolin - -No Strawberry, Stone Fruit, Canola or Succulent Beans - Cancer (Q_1*)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestrawcanolabeanmmpe.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:54:28     Residue file dated: 01-21-2000/11:06:13/8
Q* = 0.29
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                   Total Exposure
                                          -----------------------------------
          Population                          mg/kg         Lifetime risk
           Subgroup                        body wt/day       (Q*= .29)
--------------------------------------   -------------     -------------
U.S. Population (total)                     0.000018         5.28E-06
```

Vinclozolin - No Strawberry, Stone Fruit, Canola or Succulent Beans -Cancer (MOE)

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Cnostonestrawcanolabeanmmpe.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-21-2000/11:54:42     Residue file dated: 01-21-2000/11:06:13/8
NOEL (CHRONIC) = 4.9 mg/kg bw/day
COMMENT 1: Reregistration File
===============================================================================
                    Total exposure by population subgroup
-------------------------------------------------------------------------------

                                                   Total Exposure
                                          -----------------------------------
          Population                          mg/kg       Percent   Margin of
           Subgroup                        body wt/day    of NOEL   Exposr 1/
--------------------------------------   -------------  ---------  ---------
U.S. Population (total)                     0.000018        0.00%     269,194
```

Attachment 23

No Strawberry, Stone Fruit, Canola or Succulent Beans - Acute- Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                                 1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anostonestrawcanolabeanmmpe.R96
                                                              Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:32:18/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  endivevin.rdf
 2  Cucumbervin2.rdf
 3  kiwifruitvin.rdf
 4  leaflettucevin.rdf
 5  headlettucevin.rdf
 6  onionsvin.rdf
 7  bellpeppervin.rdf
 8  raspberriesvin.rdf
 9  Winevin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	8	1.000	0.430
97	O	Kiwi fruit	5.200000	3	1.000	0.050
148	9B	Cucumbers	0.380000	2	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	7	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	1	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	4	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	4	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	5	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	6	1.000	0.010
315	O	Grapes-wine and sherry	6.000000	9	1.000	0.150

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                            (1989-92 data)
Residue file: ANOSTONESTRAWCANOLABEANMMPE.R96     Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/14:11:18    Residue file dated: 01-21-2000/11:32:18/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                    95th Percentile      99th Percentile      99.9th Percentile
                   Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                  ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                    0.000055     0.92    0.001122    18.71    0.010480   174.67
```

Attachment 24

3,5 - DCA - Cancer Residue Input Files

```
U.S. Environmental Protection Agency                                  Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                               1989-92 data
Residue file: A:\VinclozolinDEEM\$35dca.R96                       Adjust. #2 used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/10:46:41/8
Q* = 0.0638
Comment:Reregistration File
-------------------------------------------------------------------------------
Food Crop                                   RESIDUE         Adj.Factors
Code  Grp  Food Name                         (ppm)           #1     #2
---- ---- ------------------------------  ----------      ------ ------
   5 13A  Raspberries                        0.210000       1.000  0.430
  17 O    Strawberries                       0.163000       1.000  0.420
  59 12   Apricots                           0.099000       1.000  0.050
  60 12   Apricots-dried                     0.099000       6.000  0.050
  61 12   Cherries
             11-Uncooked                     0.065000       1.000  0.050
             12-Cooked: NFS                  0.033000       1.000  0.050
             13-Baked                        0.033000       1.000  0.050
             14-Boiled                       0.033000       1.000  0.050
             31-Canned: NFS                  0.033000       1.000  0.050
             33-Canned: Baked                0.033000       1.000  0.050
             41-Frozen: NFS                  0.033000       1.000  0.050
  62 12   Cherries-dried                     0.033000       4.000  0.050
  63 12   Cherries-juice                     0.033000       1.500  0.050
  64 12   Nectarines                         0.099000       1.000  0.040
  65 12   Peaches                            0.099000       1.000  0.030
  66 12   Peaches-dried                      0.099000       7.000  0.030
  97 O    Kiwi fruit                         0.520000       1.000  0.023
 148 9B   Cucumbers                          0.038000       1.000  0.002
 155 8    Peppers-sweet(garden)              0.077000       1.000  0.003
 167 4A   Chicory(french/belgian endive)     0.040000       1.000  0.030
 176 4A   Lettuce-leafy varieties            0.650000       1.000  0.010
 182 4A   Lettuce-unspecified                0.650000       1.000  0.010
 192 4A   Lettuce-head varieties             0.007000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)        0.260000       1.000  0.010
 233 6B   Beans-succulent-lima               0.084000       1.000  0.170
 234 6A   Beans-succulent-green              0.084000       1.000  0.170
 235 6A   Beans-succulent-other              0.084000       1.000  0.170
 236 6A   Beans-succulent-yellow/wax         0.084000       1.000  0.170
 250 6B   Beans-succulent-broadbeans         0.084000       1.000  0.170
 253 6    Beans-unspecified                  0.084000       1.000  0.170
 257      Beans-succulent-hyacinth           0.084000       1.000  0.170
 301 O    Canola oil (rape seed oil)         0.002500       1.000  0.040
 315 O    Grapes-wine and sherry             0.210000       1.000  0.038
 321 M    Beef-meat byproducts               0.002500       1.000  0.040
 322 M    Beef-other organ meats             0.002500       1.000  0.040
 323 M    Beef-dried                         0.002500       1.920  0.040
 324 M    Beef-fat w/o bones                 0.002500       1.000  0.040
 325 M    Beef-kidney                        0.002500       1.000  0.040
 326 M    Beef-liver                         0.002500       1.000  0.040
 327 M    Beef-lean (fat/free) w/o bones     0.002500       1.000  0.040
 328 M    Goat-meat byproducts               0.002500       1.000  0.040
 329 M    Goat-other organ meats             0.002500       1.000  0.040
```

330	M	Goat-fat w/o bone	0.002500	1.000	0.040
331	M	Goat-kidney	0.002500	1.000	0.040
332	M	Goat-liver	0.002500	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.002500	1.000	0.040
336	M	Sheep-meat byproducts	0.002500	1.000	0.040
337	M	Sheep-other organ meats	0.002500	1.000	0.040
338	M	Sheep-fat w/o bone	0.002500	1.000	0.040
339	M	Sheep-kidney	0.002500	1.000	0.040
340	M	Sheep-liver	0.002500	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.002500	1.000	0.040
342	M	Pork-meat byproducts	0.002500	1.000	0.040
343	M	Pork-other organ meats	0.002500	1.000	0.040
344	M	Pork-fat w/o bone	0.002500	1.000	0.040
345	M	Pork-kidney	0.002500	1.000	0.040
346	M	Pork-liver	0.002500	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.002500	1.000	0.040
355	P	Turkey-byproducts	0.005000	1.000	0.040
356	P	Turkey-giblets (liver)	0.005000	1.000	0.040
357	P	Turkey--fat w/o bones	0.005000	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.005000	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.005000	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.005000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.005000	1.000	0.040
363	P	Eggs-whole	0.002500	1.000	0.040
364	P	Eggs-white only	0.002500	1.000	0.040
365	P	Eggs-yolk only	0.002500	1.000	0.040
366	P	Chicken-byproducts	0.005000	1.000	0.040
367	P	Chicken-giblets(liver)	0.005000	1.000	0.040
368	P	Chicken-fat w/o bones	0.005000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.005000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.005000	1.000	0.040
402	12	Peaches-juice	0.099000	1.000	0.030
410	12	Apricot juice	0.099000	1.000	0.050
416	O	Strawberries-juice	0.163000	1.000	0.420
424	M	Veal-fat w/o bones	0.002500	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.002500	1.000	0.040
426	M	Veal-kidney	0.002500	1.000	0.040
427	M	Veal-liver	0.002500	1.000	0.040
428	M	Veal-other organ meats	0.002500	1.000	0.040
429	M	Veal-dried	0.002500	1.920	0.040
430	M	Veal-meat byproducts	0.002500	1.000	0.040
449	P	Turkey-other organ meats	0.005000	1.000	0.040

3,5 - DCA - All Commodities - Cancer Results

```
U.S. Environmental Protection Agency                                Ver. 6.76
DEEM Chronic analysis for VINCLOZOLIN                            (1989-92 data)
Residue file name: A:\VinclozolinDEEM\$35dca.R96     Adjustment factor #2 used.
Analysis Date 01-21-2000/10:54:37     Residue file dated: 01-21-2000/10:46:41/8
Q* = 0.0638
COMMENT 1: Reregistration File
==============================================================================
                    Total exposure by population subgroup
------------------------------------------------------------------------------
```

Population Subgroup	Total Exposure mg/kg body wt/day	Total Exposure Lifetime risk (Q*= .0638)
U.S. Population (total)	0.000009	5.43E-07

Attachment 25

3,5 - DCA - No Stone Fruit or Strawberries - Residue Input File

```
U.S. Environmental Protection Agency                                  Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                               1989-92 data
Residue file: A:\VinclozolinDEEM\$35dcanoss.R96                  Adjust. #2 used
Analysis Date 01-23-2000            Residue file dated: 01-23-2000/23:05:18/8
Q* = 0.0638
Comment:Reregistration File
-------------------------------------------------------------------------------
Food Crop                                  RESIDUE         Adj.Factors
Code  Grp  Food Name                        (ppm)           #1     #2
---- ---- ------------------------------  ----------      ------ ------
   5 13A  Raspberries                       0.210000       1.000  0.430
  97 O    Kiwi fruit                        0.520000       1.000  0.023
 148 9B   Cucumbers                         0.038000       1.000  0.002
 155 8    Peppers-sweet(garden)             0.077000       1.000  0.003
 167 4A   Chicory(french/belgian endive)    0.040000       1.000  0.030
 176 4A   Lettuce-leafy varieties           0.650000       1.000  0.010
 182 4A   Lettuce-unspecified               0.650000       1.000  0.010
 192 4A   Lettuce-head varieties            0.007000       1.000  0.190
 205 3    Onions-dry-bulb (cipollini)       0.260000       1.000  0.010
 233 6B   Beans-succulent-lima              0.084000       1.000  0.170
 234 6A   Beans-succulent-green             0.084000       1.000  0.170
 235 6A   Beans-succulent-other             0.084000       1.000  0.170
 236 6A   Beans-succulent-yellow/wax        0.084000       1.000  0.170
 250 6B   Beans-succulent-broadbeans        0.084000       1.000  0.170
 253 6    Beans-unspecified                 0.084000       1.000  0.170
 257      Beans-succulent-hyacinth          0.084000       1.000  0.170
 301 O    Canola oil (rape seed oil)        0.002500       1.000  0.040
 315 O    Grapes-wine and sherry            0.210000       1.000  0.038
 321 M    Beef-meat byproducts              0.002500       1.000  0.040
 322 M    Beef-other organ meats            0.002500       1.000  0.040
 323 M    Beef-dried                        0.002500       1.920  0.040
 324 M    Beef-fat w/o bones                0.002500       1.000  0.040
 325 M    Beef-kidney                       0.002500       1.000  0.040
 326 M    Beef-liver                        0.002500       1.000  0.040
 327 M    Beef-lean (fat/free) w/o bones    0.002500       1.000  0.040
 328 M    Goat-meat byproducts              0.002500       1.000  0.040
 329 M    Goat-other organ meats            0.002500       1.000  0.040
 330 M    Goat-fat w/o bone                 0.002500       1.000  0.040
 331 M    Goat-kidney                       0.002500       1.000  0.040
 332 M    Goat-liver                        0.002500       1.000  0.040
 333 M    Goat-lean (fat/free) w/o bone     0.002500       1.000  0.040
 336 M    Sheep-meat byproducts             0.002500       1.000  0.040
 337 M    Sheep-other organ meats           0.002500       1.000  0.040
 338 M    Sheep-fat w/o bone                0.002500       1.000  0.040
 339 M    Sheep-kidney                      0.002500       1.000  0.040
 340 M    Sheep-liver                       0.002500       1.000  0.040
 341 M    Sheep-lean (fat free) w/o bone    0.002500       1.000  0.040
 342 M    Pork-meat byproducts              0.002500       1.000  0.040
 343 M    Pork-other organ meats            0.002500       1.000  0.040
 344 M    Pork-fat w/o bone                 0.002500       1.000  0.040
 345 M    Pork-kidney                       0.002500       1.000  0.040
 346 M    Pork-liver                        0.002500       1.000  0.040
 347 M    Pork-lean (fat free) w/o bone     0.002500       1.000  0.040
 355 P    Turkey-byproducts                 0.005000       1.000  0.040
 356 P    Turkey-giblets (liver)            0.005000       1.000  0.040
 357 P    Turkey--fat w/o bones             0.005000       1.000  0.040
 358 P    Turkey- lean/fat free w/o bones   0.005000       1.000  0.040
 360 P    Poultry-other-lean (fat free) w/  0.005000       1.000  0.040
```

361	P	Poultry-other-giblets(liver)	0.005000	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.005000	1.000	0.040
363	P	Eggs-whole	0.002500	1.000	0.040
364	P	Eggs-white only	0.002500	1.000	0.040
365	P	Eggs-yolk only	0.002500	1.000	0.040
366	P	Chicken-byproducts	0.005000	1.000	0.040
367	P	Chicken-giblets(liver)	0.005000	1.000	0.040
368	P	Chicken-fat w/o bones	0.005000	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.005000	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.005000	1.000	0.040
424	M	Veal-fat w/o bones	0.002500	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.002500	1.000	0.040
426	M	Veal-kidney	0.002500	1.000	0.040
427	M	Veal-liver	0.002500	1.000	0.040
428	M	Veal-other organ meats	0.002500	1.000	0.040
429	M	Veal-dried	0.002500	1.920	0.040
430	M	Veal-meat byproducts	0.002500	1.000	0.040
449	P	Turkey-other organ meats	0.005000	1.000	0.040

3,5 -DCA - No Stone Fruit or Strawberries - Cancer Results

```
U.S. Environmental Protection Agency                                Ver. 6.74
DEEM Chronic analysis for VINCLOZOLIN                           (1989-92 data)
Residue file name: A:\VinclozolinDEEM\$35dcanoss.R96
                                                   Adjustment factor #2 used.
Analysis Date 01-23-2000/23:06:15     Residue file dated: 01-23-2000/23:05:18/8
Q* = 0.0638
COMMENT 1: Reregistration File
================================================================================
                    Total exposure by population subgroup
--------------------------------------------------------------------------------

                                                   Total Exposure
                                            -----------------------------------
          Population                            mg/kg         Lifetime risk
           Subgroup                          body wt/day       (Q*= .0638)
--------------------------------------    -------------     -------------
U.S. Population (total)                       0.000005         2.90E-07
```

```
U.S. Environmental Protection Agency                                  V
DEEM Chronic analysis for VINCLOZOLIN                              (1989-
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\$vinchronic
                                                     Adjustment factor
used.
Analysis Date 01-24-2000/12:03:43     Residue file dated:
01-21-2000/10:48:43/8
Q* = 0.29
COMMENT 1: Reregistration File
=========================================================================
=
                  Complete commodity contribution analysis for
                              U.S. Population (total)
-------------------------------------------------------------------------
-

Crop Group = (O)  Other
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Strawberries                   1.630000   1.000  0.420   0.0000325
9.44E-06
Kiwi fruit                     5.200000   1.000  0.023   0.0000004
1.21E-07
Canola oil (rape seed oil)     0.025000   1.000  0.040   0.0000000
1.31E-09
Grapes-wine and sherry         2.100000   1.000  0.038   0.0000069
2.02E-06
Strawberries-juice             1.630000   1.000  0.420   0.0000012
3.55E-07
                                                         -----------
-------------
       Crop group subtotal                                 0.0000411
1.19E-05

Crop Group = (M)  Meat
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
```

```
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Beef-meat byproducts          0.025000   1.000  0.040   0.0000000
2.89E-09
Beef-other organ meats        0.025000   1.000  0.040   0.0000000
1.08E-09
Beef-dried                    0.025000   1.920  0.040   no exposure
Beef-fat w/o bones            0.025000   1.000  0.040   0.0000002
5.17E-08
Beef-kidney                   0.025000   1.000  0.040   0.0000000
4.06E-12
Beef-liver                    0.025000   1.000  0.040   0.0000000
1.29E-09
Beef-lean (fat/free) w/o bon  0.025000   1.000  0.040   0.0000008
2.20E-07
Goat-meat byproducts          0.025000   1.000  0.040   no exposure
Goat-other organ meats        0.025000   1.000  0.040   no exposure
Goat-fat w/o bone             0.025000   1.000  0.040   no exposure
Goat-kidney                   0.025000   1.000  0.040   no exposure
Goat-liver                    0.025000   1.000  0.040   no exposure
Goat-lean (fat/free) w/o bon  0.025000   1.000  0.040   0.0000000
2.32E-12
Sheep-meat byproducts         0.025000   1.000  0.040   no exposure
Sheep-other organ meats       0.025000   1.000  0.040   no exposure
Sheep-fat w/o bone            0.025000   1.000  0.040   0.0000000
3.76E-10
Sheep-kidney                  0.025000   1.000  0.040   no exposure
Sheep-liver                   0.025000   1.000  0.040   no exposure
Sheep-lean (fat free) w/o bo  0.025000   1.000  0.040   0.0000000
2.36E-09
Pork-meat byproducts          0.025000   1.000  0.040   0.0000000
6.53E-10
Pork-other organ meats        0.025000   1.000  0.040   0.0000000
2.18E-11
Pork-fat w/o bone             0.025000   1.000  0.040   0.0000001
3.11E-08
Pork-kidney                   0.025000   1.000  0.040   no exposure
Pork-liver                    0.025000   1.000  0.040   0.0000000
2.52E-10
Pork-lean (fat free) w/o bon  0.025000   1.000  0.040   0.0000003
9.60E-08
Veal-fat w/o bones            0.025000   1.000  0.040   0.0000000
1.99E-10
Veal-lean (fat free) w/o bon  0.025000   1.000  0.040   0.0000000
2.66E-09
Veal-kidney                   0.025000   1.000  0.040   no exposure
Veal-liver                    0.025000   1.000  0.040   no exposure
Veal-other organ meats        0.025000   1.000  0.040   no exposure
```

```
Veal-dried                    0.025000   1.920  0.040   no exposure
Veal-meat byproducts          0.025000   1.000  0.040   no exposure
                                                        -----------
-------------
       Crop group subtotal                                0.0000014
4.11E-07



Crop Group = (P)  Poultry
                                                            Exposure ana

-------------------------
                               Residue   Adjustment      mg/kg    Life
risk
       Food name                (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Turkey-byproducts             0.050000   1.000  0.040   0.0000000
1.48E-09
Turkey-giblets (liver)        0.050000   1.000  0.040   0.0000000
2.26E-11
Turkey--fat w/o bones         0.050000   1.000  0.040   0.0000000
6.02E-09
Turkey- lean/fat free w/o bo  0.050000   1.000  0.040   0.0000002
5.87E-08
Poultry-other-lean (fat free  0.050000   1.000  0.040   0.0000000
1.29E-09
Poultry-other-giblets(liver)  0.050000   1.000  0.040   no exposure
Poultry-other-fat w/o bones   0.050000   1.000  0.040   0.0000000
2.43E-10
Eggs-whole                    0.025000   1.000  0.040   0.0000004
1.06E-07
Eggs-white only               0.025000   1.000  0.040   0.0000000
3.36E-09
Eggs-yolk only                0.025000   1.000  0.040   0.0000000
8.51E-10
Chicken-byproducts            0.050000   1.000  0.040   0.0000000
3.86E-10
Chicken-giblets(liver)        0.050000   1.000  0.040   0.0000000
1.68E-09
Chicken-fat w/o bones         0.050000   1.000  0.040   0.0000001
2.84E-08
Chicken-lean/fat free w/o bo  0.050000   1.000  0.040   0.0000009
2.50E-07
Chicken-giblets (excl. liver  0.050000   1.000  0.040   0.0000000
4.79E-10
Turkey-other organ meats      0.050000   1.000  0.040   0.0000000
2.96E-11
```

```
                                                          -----------
-------------
       Crop group subtotal                                  0.0000016
4.58E-07

Crop Group = (3)  Bulb Vegetables
                                                             Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
----------------------------- ---------- ------------- -----------
-------------
Onions-dry-bulb (cipollini)   2.600000   1.000  0.010   0.0000042
1.21E-06
                                                          -----------
-------------
       Crop group subtotal                                  0.0000042
1.21E-06

Crop Group = (4)  Leafy Vegetables (except Brassica)
                                                             Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
----------------------------- ---------- ------------- -----------
-------------
Chicory(french/belgian endiv  0.400000   1.000  0.030   0.0000000
7.51E-09
Lettuce-leafy varieties       6.500000   1.000  0.010   0.0000003
1.01E-07
Lettuce-unspecified           6.500000   1.000  0.010   0.0000000
8.09E-09
Lettuce-head varieties        0.070000   1.000  0.190   0.0000026
7.65E-07
                                                          -----------
-------------
       Crop group subtotal                                  0.0000030
8.82E-07

Crop Group = (4A) Leafy Greens
                                                             Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
```

```
---------------------------- ---------- ------------- -----------
-------------
Chicory(french/belgian endiv  0.400000   1.000  0.030   0.0000000
7.51E-09
Lettuce-leafy varieties       6.500000   1.000  0.010   0.0000003
1.01E-07
Lettuce-unspecified           6.500000   1.000  0.010   0.0000000
8.09E-09
Lettuce-head varieties        0.070000   1.000  0.190   0.0000026
7.65E-07
                                                        -----------
-------------
       Crop group subtotal                                0.0000030
8.82E-07

Crop Group = (6)  Legume Vegetables (Succulent or Dried)
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Beans-succulent-lima          0.840000   1.000  0.170   0.0000016
4.73E-07
Beans-succulent-green         0.840000   1.000  0.170   0.0000223
6.48E-06
Beans-succulent-other         0.840000   1.000  0.170   0.0000000
1.34E-08
Beans-succulent-yellow/wax    0.840000   1.000  0.170   0.0000003
7.85E-08
Beans-succulent-broadbeans    0.840000   1.000  0.170   no exposure
Beans-unspecified             0.840000   1.000  0.170   no exposure
                                                        -----------
-------------
       Crop group subtotal                                0.0000243
7.05E-06

Crop Group = (6A) Edible-pod Legume Vegetables
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Beans-succulent-green         0.840000   1.000  0.170   0.0000223
6.48E-06
```

```
Beans-succulent-other         0.840000   1.000  0.170   0.0000000
1.34E-08
Beans-succulent-yellow/wax    0.840000   1.000  0.170   0.0000003
7.85E-08
                                                        -----------
-------------
       Crop group subtotal                               0.0000227
6.57E-06

Crop Group = (6B) Succulent shelled peas and beans
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Beans-succulent-lima          0.840000   1.000  0.170   0.0000016
4.73E-07
Beans-succulent-broadbeans    0.840000   1.000  0.170   no exposure
                                                        -----------
-------------
       Crop group subtotal                               0.0000016
4.73E-07

Crop Group = (8)  Fruiting Vegetables
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Peppers-sweet(garden)         0.770000   1.000  0.003   0.0000000
7.75E-09
                                                        -----------
-------------
       Crop group subtotal                               0.0000000
7.75E-09

Crop Group = (9)  Curcurbit Vegetables
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
```

```
-------------
Cucumbers                      0.380000   1.000  0.002   0.0000001
1.75E-08
                                                        -----------
-------------
       Crop group subtotal                                0.0000001
1.75E-08


Crop Group = (9B) Squash/Cucumbers
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Cucumbers                      0.380000   1.000  0.002   0.0000001
1.75E-08
                                                        -----------
-------------
       Crop group subtotal                                0.0000001
1.75E-08

Crop Group = (12) Stone Fruits
                                                          Exposure ana

-------------------------
                                Residue   Adjustment      mg/kg    Life
risk
       Food name                 (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Apricots                       0.990000   1.000  0.050   0.0000005
1.49E-07
Apricots-dried                 0.990000   6.000  0.050   0.0000003
9.94E-08
Cherries
   Uncooked                    0.650000   1.000  0.050   0.0000001
3.21E-08
   Cooked: NFS                 0.330000   1.000  0.050   0.0000001
1.93E-08
   Baked                       0.330000   1.000  0.050   0.0000001
1.90E-08
   Boiled                      0.330000   1.000  0.050   0.0000000
7.84E-09
   Canned: NFS                 0.330000   1.000  0.050   0.0000000
8.12E-09
   Canned: Baked               0.330000   1.000  0.050   0.0000000
```

```
5.14E-09
   Frozen: NFS                 0.330000   1.000  0.050   0.0000000
5.12E-09
Cherries-dried                 0.330000   4.000  0.050   no exposure
Cherries-juice                 0.330000   1.500  0.050   0.0000001
2.29E-08
Nectarines                     0.990000   1.000  0.040   0.0000005
1.51E-07
Peaches                        0.990000   1.000  0.030   0.0000037
1.08E-06
Peaches-dried                  0.990000   7.000  0.030   0.0000001
2.17E-08
Peaches-juice                  0.990000   1.000  0.030   0.0000001
3.05E-08
Apricot juice                  0.990000   1.000  0.050   0.0000001
2.77E-08
                                                         -----------
-------------
       Crop group subtotal                                 0.0000058
1.68E-06

Crop Group = (13) Berries
                                                            Exposure ana

-------------------------
                               Residue   Adjustment      mg/kg    Life
risk
       Food name                (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Raspberries                    2.100000   1.000  0.430   0.0000035
1.02E-06
                                                         -----------
-------------
       Crop group subtotal                                 0.0000035
1.02E-06



Crop Group = (13A)Berries: Caneberry Group
                                                            Exposure ana

-------------------------
                               Residue   Adjustment      mg/kg    Life
risk
       Food name                (ppm)      Factors    body wt/day (Q*=
---------------------------- ---------- ------------- -----------
-------------
Raspberries                    2.100000   1.000  0.430   0.0000035
```

```
1.02E-06
                                                          -----------
-------------
       Crop group subtotal                                 0.0000035
1.02E-06

     Population subgroup total                             0.0000851
2.47E-05
-----------------------------------------------------------------------
-
```

Attachment 27

Vinclozolin Sensitivity Analysis - Acute - No Strawberries, Stone Fruit and Grapes - Residue Input Files

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                                 1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anostonestrawgrape.R96
                                                              Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:33:39/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  Snapbeanvin.rdf
 2  Meatmilkvin.rdf
 3  endivevin.rdf
 4  Cucumbervin2.rdf
 5  kiwifruitvin.rdf
 6  leaflettucevin.rdf
 7  headlettucevin.rdf
 8  onionsvin.rdf
 9  bellpeppervin.rdf
 10 raspberriesvin.rdf
 11 Poultryvin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	10	1.000	0.430
97	O	Kiwi fruit	5.200000	5	1.000	0.050
148	9B	Cucumbers	0.380000	4	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	9	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	3	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	6	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	6	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	7	1.000	0.190
205	3	Onions-dry-bulb (cipollini)	2.600000	8	1.000	0.010
233	6B	Beans-succulent-lima	0.840000	1	1.000	0.170
234	6A	Beans-succulent-green	0.840000	1	1.000	0.170
235	6A	Beans-succulent-other	0.840000	1	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	1	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	1	1.000	0.170
253	6	Beans-unspecified	0.840000	1	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	1	1.000	0.170
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
321	M	Beef-meat byproducts	0.025000	2	1.000	0.040
322	M	Beef-other organ meats	0.025000	2	1.000	0.040
323	M	Beef-dried	0.025000	2	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	2	1.000	0.040
325	M	Beef-kidney	0.025000	2	1.000	0.040
326	M	Beef-liver	0.025000	2	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	2	1.000	0.040
328	M	Goat-meat byproducts	0.025000	2	1.000	0.040
329	M	Goat-other organ meats	0.025000	2	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	2	1.000	0.040
331	M	Goat-kidney	0.025000	2	1.000	0.040

332	M	Goat-liver	0.025000	2	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	2	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	2	1.000	0.040
337	M	Sheep-other organ meats	0.025000	2	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	2	1.000	0.040
339	M	Sheep-kidney	0.025000	2	1.000	0.040
340	M	Sheep-liver	0.025000	2	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	2	1.000	0.040
342	M	Pork-meat byproducts	0.025000	2	1.000	0.040
343	M	Pork-other organ meats	0.025000	2	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	2	1.000	0.040
345	M	Pork-kidney	0.025000	2	1.000	0.040
346	M	Pork-liver	0.025000	2	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	2	1.000	0.040
355	P	Turkey-byproducts	0.050000	11	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	11	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	11	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	11	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	11	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	11	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	11	1.000	0.040
363	P	Eggs-whole	0.025000	2	1.000	0.040
364	P	Eggs-white only	0.025000	2	1.000	0.040
365	P	Eggs-yolk only	0.025000	2	1.000	0.040
366	P	Chicken-byproducts	0.050000	11	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	11	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	11	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	11	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	11	1.000	0.040
424	M	Veal-fat w/o bones	0.025000	2	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	2	1.000	0.040
426	M	Veal-kidney	0.025000	2	1.000	0.040
427	M	Veal-liver	0.025000	2	1.000	0.040
428	M	Veal-other organ meats	0.025000	2	1.000	0.040
429	M	Veal-dried	0.025000	2	1.920	0.040
430	M	Veal-meat byproducts	0.025000	2	1.000	0.040
449	P	Turkey-other organ meats	0.050000	11	1.000	0.040

```
U.S. Environmental Protection Agency                                Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                          (1989-92 data)
Residue file: ANOSTONESTRAWGRAPE.R96              Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/13:27:32    Residue file dated: 01-21-2000/11:33:39/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================

Summary calculations:

                    95th Percentile      99th Percentile      99.9th Percentile
                   Exposure   % aRfD    Exposure   % aRfD    Exposure   % aRfD
                  ---------- --------  ---------- --------  ---------- --------
Females (13-50 years):
                    0.000219     3.65    0.001811    30.18    0.006400   106.67
```

Attachment 28

Vinclozolin Sensitivity Analysis - Acute - No Strawberries, Stone Fruit, Grapes (Wine) or Onions

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM Acute analysis for VINCLOZOLIN                                 1994-96 data
Residue file name: C:\$MyFiles\Vinclozolin\VinclozolinDEEM\Anostonestrawgrapeonion.R96
                                                              Adjust. #2 NOT used
Analysis Date 01-21-2000            Residue file dated: 01-21-2000/11:34:20/8
Reference dose (aRfD)0.006 mg/day
Comment: Reregistration File
--------------------------------------------------------------------------------
RDF indices and file names for Monte Carlo Analysis
 1  Snapbeanvin.rdf
 2  Meatmilkvin.rdf
 3  endivevin.rdf
 4  Cucumbervin2.rdf
 5  kiwifruitvin.rdf
 6  leaflettucevin.rdf
 7  headlettucevin.rdf
 8  bellpeppervin.rdf
 9  raspberriesvin.rdf
 10 Poultryvin.rdf
```

Food	Crop Grp	Food Name	RESIDUE (ppm)	RDF #	Adj.Factors #1	Code #2
5	13A	Raspberries	2.100000	9	1.000	0.430
97	O	Kiwi fruit	5.200000	5	1.000	0.050
148	9B	Cucumbers	0.380000	4	1.000	1.000
155	8	Peppers-sweet(garden)	0.770000	8	1.000	1.000
167	4A	Chicory(french/belgian endive)	0.400000	3	1.000	0.300
176	4A	Lettuce-leafy varieties	6.500000	6	1.000	0.010
182	4A	Lettuce-unspecified	6.500000	6	1.000	0.010
192	4A	Lettuce-head varieties	0.070000	7	1.000	0.190
233	6B	Beans-succulent-lima	0.840000	1	1.000	0.170
234	6A	Beans-succulent-green	0.840000	1	1.000	0.170
235	6A	Beans-succulent-other	0.840000	1	1.000	0.170
236	6A	Beans-succulent-yellow/wax	0.840000	1	1.000	0.170
250	6B	Beans-succulent-broadbeans	0.840000	1	1.000	0.170
253	6	Beans-unspecified	0.840000	1	1.000	0.170
257	6	Beans-succulent-hyacinth	0.840000	1	1.000	0.170
301	O	Canola oil (rape seed oil)	0.005000	0	1.000	1.000
321	M	Beef-meat byproducts	0.025000	2	1.000	0.040
322	M	Beef-other organ meats	0.025000	2	1.000	0.040
323	M	Beef-dried	0.025000	2	1.920	0.040
324	M	Beef-fat w/o bones	0.025000	2	1.000	0.040
325	M	Beef-kidney	0.025000	2	1.000	0.040
326	M	Beef-liver	0.025000	2	1.000	0.040
327	M	Beef-lean (fat/free) w/o bones	0.025000	2	1.000	0.040
328	M	Goat-meat byproducts	0.025000	2	1.000	0.040
329	M	Goat-other organ meats	0.025000	2	1.000	0.040
330	M	Goat-fat w/o bone	0.025000	2	1.000	0.040
331	M	Goat-kidney	0.025000	2	1.000	0.040
332	M	Goat-liver	0.025000	2	1.000	0.040
333	M	Goat-lean (fat/free) w/o bone	0.025000	2	1.000	0.040
336	M	Sheep-meat byproducts	0.025000	2	1.000	0.040
337	M	Sheep-other organ meats	0.025000	2	1.000	0.040
338	M	Sheep-fat w/o bone	0.025000	2	1.000	0.040
339	M	Sheep-kidney	0.025000	2	1.000	0.040

340	M	Sheep-liver	0.025000	2	1.000	0.040
341	M	Sheep-lean (fat free) w/o bone	0.025000	2	1.000	0.040
342	M	Pork-meat byproducts	0.025000	2	1.000	0.040
343	M	Pork-other organ meats	0.025000	2	1.000	0.040
344	M	Pork-fat w/o bone	0.025000	2	1.000	0.040
345	M	Pork-kidney	0.025000	2	1.000	0.040
346	M	Pork-liver	0.025000	2	1.000	0.040
347	M	Pork-lean (fat free) w/o bone	0.025000	2	1.000	0.040
355	P	Turkey-byproducts	0.050000	10	1.000	0.040
356	P	Turkey-giblets (liver)	0.050000	10	1.000	0.040
357	P	Turkey--fat w/o bones	0.050000	10	1.000	0.040
358	P	Turkey- lean/fat free w/o bones	0.050000	10	1.000	0.040
360	P	Poultry-other-lean (fat free) w/	0.050000	10	1.000	0.040
361	P	Poultry-other-giblets(liver)	0.050000	10	1.000	0.040
362	P	Poultry-other-fat w/o bones	0.050000	10	1.000	0.040
363	P	Eggs-whole	0.025000	2	1.000	0.040
364	P	Eggs-white only	0.025000	2	1.000	0.040
365	P	Eggs-yolk only	0.025000	2	1.000	0.040
366	P	Chicken-byproducts	0.050000	10	1.000	0.040
367	P	Chicken-giblets(liver)	0.050000	10	1.000	0.040
368	P	Chicken-fat w/o bones	0.050000	10	1.000	0.040
369	P	Chicken-lean/fat free w/o bones	0.050000	10	1.000	0.040
385	P	Chicken-giblets (excl. liver)	0.050000	10	1.000	0.040
424	M	Veal-fat w/o bones	0.025000	2	1.000	0.040
425	M	Veal-lean (fat free) w/o bones	0.025000	2	1.000	0.040
426	M	Veal-kidney	0.025000	2	1.000	0.040
427	M	Veal-liver	0.025000	2	1.000	0.040
428	M	Veal-other organ meats	0.025000	2	1.000	0.040
429	M	Veal-dried	0.025000	2	1.920	0.040
430	M	Veal-meat byproducts	0.025000	2	1.000	0.040
449	P	Turkey-other organ meats	0.050000	10	1.000	0.040

```
U.S. Environmental Protection Agency                                  Ver. 6.78
DEEM ACUTE analysis for VINCLOZOLIN                            (1989-92 data)
Residue file: ANOSTONESTRAWGRAPEONION.R96         Adjustment factor #2 NOT used.
Analysis Date: 01-21-2000/13:52:13    Residue file dated: 01-21-2000/11:34:20/8
Acute Reference Dose (aRfD) =   0.006000 mg/kg body-wt/day
MC iterations = 1000     MC list in residue file     MC seed =    10
File Comment: Reregistration File
===============================================================================
```

Summary calculations:

	95th Percentile		99th Percentile		99.9th Percentile	
	Exposure	% aRfD	Exposure	% aRfD	Exposure	% aRfD
Females (13-50 years):	0.000159	2.64	0.001484	24.74	0.005637	93.95