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

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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: ID# 93GA0006 (Addendum to CBTS Review of 3/11/93; D188229): Anticipated Residues of Chlorothalonil in or on collards, turnip greens and mustard greens

FROM: Debra Edwards, Chief
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3/31/93

TO: Susan Stanton
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CBTS has been asked to provide an estimate of anticipated residues that will result from the use of chlorothalonil on collards, turnip greens, and mustard greens following use of the fungicide under a crisis exemption in Georgia. This estimate has been requested to allow a comparison of risk between use of chlororthalonil under crisis exemption and the previously registered use of EBDCs.

Our 3/11/93 estimate of maximum expected residues (25 ppm) was taken from a 1976 review prepared by W.S. Cox in conjunction with PP#6E1841. In order to obtain the raw data used in support of the 1976 review, we searched PDMS and located two MRIDs (00161165 and 00161190) with titles indicating documents that contain residue data for leafy greens and spinach. These documents were retrieved and used to develop the anticipated residue estimates in this review.

Trials selected include residue data for turnip greens, collards, kale and spinach harvested 8-14 days after 3-8 applications of Bravo 6F at 1.125-2.25 lb ai/A. Residue trials were conducted in VA, OH, TX, TN, and GA. The following is a summary of average residues from each field trial selected:

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CROP	RATE (lb ai/A), [# APPL.]	PHI (Days)	RESIDUE (PPM[a])	STATE	COMMENTS
Turnip Greens	1.5, [3]	10	10.1	VA	Unwashed
Collards	2.25, [3]	14	5.73	OH	Unwashed
"	" "	"	1.7	"	Washed
Kale	2.25, [5]	14	2.8	OH	Unwashed
"	" "	"	1.6	""	Washed
Spinach	1.125, [6]	10	6.9	TX	Unwashed
"	1.5, [8]	11	0.39	TN	"
"	1.5, [3]	10	15.7	VA	"
"	1.125, [7]	10	12.7	GA	"
"	1.125, [5]	8	13.6	TX	"
Spinach	1.5, [5]	14	55.9[b]	TX	Unwashed
"	" "	"	3.87[b]	"	Washed

[a] Residue values are for chlorothalonil per se. Residues of the hydroxy metabolite that is included in the tolerance are not included in anticipated residue estimates because the regulated endpoint is based on carcinogenicity and the hydroxy metabolite has been shown not to induce cancer.

[b] The TX spinach trial in which 55.9 ppm were found in unwashed samples was not used in calculating an average residue because no rainfall was recorded at that site, a condition which is unlikely to be duplicated in Georgia. Similarly, the >90% reduction on postharvest washing observed in this trial is also unrealistic since, under normal rainfall conditions in Georgia, more of the residues would have been washed off prior to harvest. Also, this spinach washing factor is not consistent with the 40-70% reduction observed in collards and kale.

The average value for unwashed samples in all field trials (except the TX spinach trial described in table footnote "b") is 8.5 ppm. If a reduction of 50% on washing is assumed based on the collard and kale data summarized in the table, this value is reduced to 4.25 ppm. **This 4.25 ppm value should be used in risk comparisons with EBDCs on leafy greens since the anticipated residue value used in the EBDC PD4 was based on average field trial residues corrected for reduction upon washing.**

cc: SF, RF, Circu., Section 18 File, R. Griffin, D. Edwards