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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

AUG 23 1990

MEMORANDUM:

SUBJECT: Aldicarb: Additional Monitoring Data for Aldicarb Residues in White Potatoes, Sweet Potatoes, Bananas, and Citrus. No MRID No. DEB No. 6819

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TO: B. Kapner / S. Haddad PM/RM 71
Risk/Benefit Section I
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Rhone-Poulenc, the registrant of aldicarb, has submitted additional data regarding aldicarb residues in white potatoes, citrus, bananas, and sweet potatoes and a discussion of its plans to obtain additional field data for residue values in individual commodities.

Potatoes

Rhone-Poulenc already has provided data on the in-field variability of residues in potatoes from fields in Washington, Oregon, and Maine. The company intends to conduct 28 additional studies at diverse sites; one each in Maine, New Jersey or Delaware, and Florida, two in Michigan and the remaining 22 in the Pacific Northwest. The majority (22) of these studies are designed to assess the effects of the type of irrigation (overhead versus in-furrow) on aldicarb residues.

Rhone-Poulenc has provided a summary of results obtained by various states that monitored commodities for aldicarb residues in the Spring of 1990. [Potatoes harvested in the spring would be early harvest potatoes mainly from states in the Southeast. Of this

crop, Rhone -Poulenc estimates that 34,000 acres were treated in Florida (95% of all acreage), and 300 acres in Va/Md/Del (2% of the acreage).

The Michigan Department of Agriculture examined 8 (composited?) samples of potatoes at grower's storage facilities; 6 had no detectable residues, 2 had residues of 0.04 and 0.06 ppm as sulf-oxide, respectively. The Food and Dairy Division of North Carolina examined 25 retail samples of potatoes (composited?) and found no detectable residues. Virginia's Department of Agriculture and Consumer Services examined potatoes from 20 retail locations and found no detectable residues. Delaware examined 3 samples as composites at the farm gate and found residues ranging from 0.1 ppm to 0.31 ppm. The Florida Department of Agricultural and Consumer Services examined 75 composited potato samples and found 25 with detectable residues with a reported maximum value of 0.80 ppm. A 0.16 ppm composite sample had an individual maximum of 0.26 ppm and a 0.53 ppm composite sample had a 0.66 maximum individual tuber. According to Rhone-Poulenc, the Florida Department of Agricultural and Consumer Services also examined 13 samples of infant bananas, 4 samples of infant potatoes, and 7 samples of infant sweet potatoes. No detectable residues were found in any sample.

Citrus

From 1982 through 1989, the state of Florida examined 985 composited samples of fresh citrus for aldicarb residues. Five samples of oranges and 5 samples of grapefruit are specifically identified. The remainder are listed as fruit samples. Twenty-one fresh samples contained detectable residues and the average level was 0.015 ppm. No detectable residues were found in any of the 216 orange juice samples in this period.

Rhone-Poulenc plans to analyze individual oranges and grapefruit obtained from treated trees during 1990 at 6 locations.

Sweet Potatoes

As the highest level found in individual sweet potatoes was 0.3 ppm, a level that according to Rhone-Poulenc should be of no toxicologic concern, the company does not plan to do any additional analyses of residue levels on individual sweet potato tubers.

Bananas

Bananas from 5 locations in South and Central America will be individually analyzed for aldicarb residues.

Comment

In the absence of more detailed descriptions of analytical procedures, statistical analyses, sample histories, and other

pertinent data, DEB can accept the results of this submission for informational purposes only. The data, as such, will not be used for the assessment of in-field variability or dietary exposure.

In regard to the specific question as to whether or not we will need additional data for individual sweet potatoes: If Rhone-Poulenc chooses not to conduct additional studies, DEB may recommend that the highest value found for sweet potatoes in the ANFS and its incidence be used to estimate exposure to aldicarb from this source. Depending on internal Agency decisions, field residue data for sweet potatoes may still be needed. If such data is needed, the company will be informed in time for the Spring '91 planting.

cc: E. Zager, R. Schmitt, Aldicarb Subject File, RF., Circ.,
Reviewer, FOD/PIB(Furlow)
RDI:PE:8/21/90:RAL:8/21/90
H7509C:DEB:JG:jg:CM:2:Rm:803:557-1405:8/23/90.