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

APR 6 1988

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#8E3583/EPA Reg. Nos. 279-3014, 279-3051.  
Permethrin in or on Dry Bulb Onions and Garlic  
RCB No. 3591. No MRID No.

FROM: Michael T. Flood, Ph.D., Chemist  
Tolerance Petition Section I  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769C) *MTF*

THROUGH: Robert S. Quick, Section Head  
Tolerance Petition Section I  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769C) *RW*

TO: Hoyt Jamerson, PM-43  
Emergency Response and Minor Use Section  
Registration Division (TS-767C)

and

Toxicology Branch  
Hazard Evaluation Division (TS-769C)

The petitioner, IR-4, has submitted supplementary information to PP#8E3583. This information consists of a response, dated 3/3/88, to RCB's request for additional experimental details of the residue trials and a cover letter, dated 3/4/88.

Summary of Deficiencies Remaining to be Resolved

Note: All previous deficiencies are fully discussed in the Detailed Considerations section that follows this review.

All deficiencies have been resolved.

Recommendation

TOX considerations permitting, RCB recommends that a tolerance of 0.1 ppm for residues of permethrin and the sum of its two metabolites be established in or on onions (dry bulb) and garlic. In accord with 40 CFR 180.1(h), the tolerance can be set as onions (dry bulb only). This will include both onions (dry bulb only) and garlic.

### Conclusions

1. IR-4 has provided a satisfactory description of the residue trials. Residue data are available from onions planted as seeds and from onions planted as sets.
2. The proposed tolerance of 0.1 ppm for residues of permethrin and its metabolites in or on onions and garlic is appropriate.

### DETAILED CONSIDERATIONS

The deficiency listed in RCB's 12/24/87 memo is outlined below followed by the petitioner's responses and RCB's comments.

#### RCB's Deficiency #6

The petitioner should submit additional experimental details of the residue field trials. Details should include plot dimensions, spacing of crops and volume pesticide applied per acre. The petitioner should also state whether the onions were planted as sets or seeds.

#### Petitioner's Response to Deficiency #6

The petitioner has submitted details of the field trials. Plot design and row spacings are listed and vary considerably. Volume of spray ranged from 10 gallons per acre (GPA) to 50 GPA. Onions were planted as sets in the Washington, New Jersey and two Wisconsin field trials and as seeds in the other trials.

#### RCB's Comments

The proposed label specifies application of Pounce in a minimum of 20 GPA water. The GPA for the trials in Texas and one of the trials in Wisconsin were below this value. Because all other trials had GPA values at or above 20 GPA, our conclusion concerning the adequacy of the proposed tolerance is not affected.

Because onions were planted from both sets and seeds and permethrin residues were similar in all cases ( $\leq 0.05$  ppm), we are confident that the proposed tolerance of 0.1 ppm is adequate.

The present submission refers to a field trial in Georgia (GA) but not in Washington (WA). Dr. George M. Markle of IR-4 (201-932-9575) confirmed in a telephone conversation of 4/5/88 that the "Georgia" trial was really the Washington trial.

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Other Considerations

An International Residue Limit (IRL) Status sheet was appended to the previous review.

cc: Reviewer(Mike Flood), RF, Circu., TOX, PM#43, PP#8E3583,  
ISB/PMSD(Eldredge).

TS-769C:RCB:Reviewer(MTF):CM#2:Rm810:557-4362:typist(mtf):4/6/88.

RDI:SectionHead:RSQuick:4/6/88:DeputyChief:RDSchmitt:4/6/88.