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

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

JUL 31 1986

MEMORANDUM

SUBJECT: PP#4E3146 (no Acc. number): Permethrin (Ambush®) In Or On Avocados and Papayas. Amendment of 4/29/86 (RCB #947).

FROM: W. T. Chin, Chemist *W. T. Chin*  
Tolerance Petition Section III  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769)

THRU: Philip V. Errico, Section Head *for*  
Tolerance Petition Section III  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769)

TO: Hoyt L. Jamerson, PM #23  
Minor Uses Officer  
Registration Division (TS-767)

and

Toxicology Branch  
Hazard Evaluation Division (TS-769)

In a previous review of PP#4E3146 (1/27/86 memo of L. L. Kutney), RCB recommended against the proposed tolerance of 1.0 ppm for residues of the insecticide permethrin [(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane-carboxylate] and its metabolites 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane-carboxylic acid (DCVA) and (3-phenoxybenzyl)methanol (3-PBA) in or on the raw agricultural commodities avocados and papayas (PP#4E3146, Acc. #072887, L. L. Kutney, 11/23/84) for the two deficiencies identified in L. L. Kutney's 1/27/86 review.

In response to these deficiencies, the petitioner, Dr. George M. Markle (National coordinator, IR-4), submits a cover letter of 4/29/86 to H. L. Jamerson (EPA) with a revised Section B. The two deficiencies are restated below, followed by the petitioner's responses and RCB's comments/conclusions.

Deficiency No. 1

The petitioner was requested to revise Section B by specifying "the application rate on the label in two columns, one for lbs. a.i./100 gallons and another for lbs. a.i./Acre. The column for dosage in terms of lbs. a.i./Acre is asterisked to explain that the rate for this column is based on a standard of X gallons of dilute spray per acre to run-off for one's respective orchard (based on tree size and number of trees/acre), or the equivalent amount of product per acre in concentrate sprays. The label must also bear the following instructions for clarification:

"In order to apply the correct amount of product to your orchard, you must know the number of gallons of water needed to spray one acre of your trees to the point of drip. If you do not already know this gallonage, you should conduct a test to determine it. If you do not know how to conduct such a test with your equipment, you should ask for assistance from your equipment dealer."

The Petitioner's Response to Deficiency No. 1

The application rates of Ambush®/acre shown in the revised Section B are as follows:

For Avocados:	12.8 oz/100 gallon,	12.8 oz/A (do not use in less than 100 gallons of spray/A)
For Papayas:	6.4 oz/100 gallon,	12.8 oz/A (based on a standard 200 gallons of dilute spray/A)

(Note: 6.4 oz of product = 0.1 lb a.i.)

The instructions for clarification specified above are also added to the revised label.

RCB's Comment/Conclusion on the Petitioner's Response to Deficiency No. 1

The avocado label does not include the explanation as to how to determine the number of gallons per acre. The avocado label should be revised so that footnote 1/ reads:

"1/ Do not use more than 12.8 oz. Ambush®/A. The final spray should be no more concentrated than 12.8 oz./100 gallons. Since tree size and spacing will affect the amount of spray needed for dilute sprays, the applicator must know the number of gallons of water/A needed to spray the trees to the point of drip. If you do not know this gallonage, you should conduct a test to determine it. If you do not know how to conduct such a test with your equipment, you should ask for assistance from your equipment dealer. For dilute sprays (i.e. sprayed to the point of runoff) 12.8 oz Ambush® should be diluted with the gallonage determined by this test."

RCB requires this on the label because it is not clear whether the residue experiments on avocados involved sprays to the point of runoff, or were not sprayed to runoff but used the maximum proposed rate per acre. The label must clearly state that no more than 12.8 oz Ambush®/A may be applied.

Similarly, the use on papayas, footnote 1/ should be revised to read:

1/ Do not use more than 12.8 oz. a.i. Ambush®/A, and do not use in less than 200 gallons of spray/A. These Ambush® rates are based on 200 gallons of dilute spray per acre. However, since tree size and spacing will affect the amount of spray needed for dilute sprays, the applicator must know the number of gallons of water per acre needed to spray the trees to the point of drip. If you do not know this gallonage, you should conduct a test to determine it. If you do not know how to conduct such a test with your equipment, you should ask for assistance from your equipment dealer. For dilute sprays (i.e. sprayed to the point of runoff) 12.8 oz Ambush® should be diluted with the gallonage determined by this test."

#### Deficiency No. 2

"The data which were previously submitted did not specify the number of pounds a.i. per 100 gallons which were used in the pesticide trials. Additional data should be supplied by the petitioner to support the use of X pounds of active ingredient per 100 gallons."

#### The Petitioner's Response to Deficiency No. 2

In the current cover letter, the petitioner indicates that this "is addressed in the petition on pages 37 and 38" which are also attached in the current amendment. The rates for avocados were 0.1, 0.2 and 0.4 lbs a.i./100 gallons/A (P.37 and 38). The rate for papayas was 0.2 lbs a.i./200 gallons/A (page 112 and 114).

#### RCB's Comment/Conclusion on the Petitioner's Response to Deficiency No. 2

The petitioner's responses adequately answered the questions raised in deficiency No.2. Therefore, RCB concludes that deficiency No. 2 has been resolved.

#### RECOMMENDATION

At this time, RCB continues to recommend against the establishment of the proposed tolerances for residues of the insecticide permethrin and its metabolites DCVA and 3-PBA in or on the raw agricultural commodities avocados and papayas at 1.0 ppm

because of the outstanding deficiency No. 1. The petitioner is requested to revise the footnote 1/ on the labels of avacodos and papayas as given under RCB's Comment/ Conclusion on the Petitioner's Response to Deficiency No. 1.

cc: Circu., R.F., EAB, PP#4E3146, EEB TOX, PM#23, W.T.Chin, PMSD-ISB  
RDI: P.V.Errico(7/30/86)  
TS-769: RCB: CM#2, RM812,557-4352, W.T.Chin,wc(7/30/86)