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

PP #4354

DEC 11 1995

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OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

MEMORANDUM

Subject: PP#4F04354. Abamectin (Avermectin B₁) for Use in/on the Cucurbit Crop Group (Cucumbers, Melons, and Squash). Merck's Response of 11/6/95 to the Lone Remaining Deficiency as Outlined in the Memo of G.J. Herndon dated 9/19/95.
MRID# 438383-01. DP Barcode# D220851. CBTS# 16529.

From: G. Jeffrey Herndon, Chemist
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Health Effects Division (7509C)

G. Jeffrey Herndon

Through: Michael Metzger, Chief
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Michael S. Metzger

To: George LaRocca/Linda Arrington, PM# 13
Insecticide-Rodenticide Branch
Registration Division (7505C)

and

Karen E. Whitby, Head
Registration Section
Risk Characterization and Analysis Branch
Health Effects Division (7509C)

Merck and Co., Inc. is requesting the establishment of permanent tolerances for abamectin (avermectin B₁) insecticide/miticide and its delta-8,9-isomer in/on the following commodities:

<u>Commodity</u>	<u>Tolerance (ppm)</u>
Cucurbit vegetables (including melons, cucumbers, and squashes)	0.005

In the memo of G.J. Herndon dated 3/29/95, CBTS raised two Deficiencies with PP#4F04354: additional information was needed concerning the conditions under which the field trial samples were held and the method needed to be validated by EPA's Analytical Chemistry Lab (ACL). The deficiency concerning the conditions under which the field trial samples were held was resolved in the memo of G.J. Herndon dated 9/19/95. The method was validated by ACL and the results were received (memo of E. Greer, Jr. and D. Wright, Jr. dated 8/4/95). Based on ACL's comments, CBTS provided the following comments/conclusions in the memo of G.J. Herndon dated 9/18/95:

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Additional language should be added to Method 8920 after step# 9 that cautions the analyst that an emulsion can form if the mixture is shaken too vigorously, and if an emulsion forms, the compounds of interest can be lost. Additional guidance on how to clear an emulsion if it forms would also be helpful (additional centrifuge time, etc.).

In the present submission, Merck has provided the following revised method:

"HPLC-Fluorescence Determination for Avermectin B1 and Its 8,9-Z Isomer in Cucumbers and Other Cucurbits", T.A. Wehner, 10/4/95, Merck Method 8920, Rev. 1 (MRID# 438383-01).

Conclusions and Recommendations

The current submission adequately addresses the comments/conclusions that were raised in the memo of G.J. Herndon dated 9/19/95. TOX considerations permitting, CBTS can recommend that a Section 3 registration be approved for use of AGRI-MEK 0.15 EC Miticide/Insecticide (EPA Reg.# 618-98) on the cucurbit vegetable group. Associated with this registration, a permanent tolerance should be established for residues of avermectin and its delta-8,9-isomer on the crop group cucurbit vegetables at 0.005 ppm.

A DRES run has been completed (see memo of B. Steinwand dated 10/13/95).

Merck Method 8920, rev. 1 will be sent to FDA to be incorporated into PAM II as a roman numeral method. Prior to publication in PAM II, the method is available through:

Calvin Furlow
Public Response and Program Resources Branch
Field Operations Division (7506C)
USEPA
401 M St., S.W.
Washington, D.C. 20460

cc: circu., RF, PP#4F04354, E. Haeberer (section head),
G.J. Herndon.

RDI: Section Head: E. Haeberer: 12/5/95,
Branch Senior Scientist: R.A. Loranger: 12/6/95,
Branch Chief: M. Metzger: 12/7/95.

H7509C: CBTS: G.J. Herndon: 305-6362: CM#2, Rm. 804C: 12/4/95.