PP# 4354

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

SEP 21 1995

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

Subject: PP#4F04354. Abamectin (Avermectin B_1) for Use in/on the Cucurbit Crop Group (Cucumbers, Melons, and Squash). Registrant's Submission of 6/16/95 to Deficiencies Raised in the 3/29/95 Memo of G.J. Herndon.
No MRID#. DP Barcode# D216742. CBTS# 15759.

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and

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Merck and Co., Inc. is requesting the establishment of permanent tolerances for abamectin (avermectin B_1) insecticide/miticide and its delta-8,9-isomer in/on the following commodities:

Commodity	Tolerance (ppm)
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).

Conclusions and Recommendations

As a result of this memo, Deficiency 6a has been resolved. **However, CBTS continues to recommend against the issuance of a permanent tolerance on cucurbits until Deficiency 5a is resolved (as outlined in the memo of G.J. Herndon dated 9/18/95).** However, a DRES run can be initiated at the following levels specified in Conclusion 7b of the memo of G.J. Herndon dated 3/29/95:

Acute and Chronic Residue Values to be Used in the Dietary Risk Assessment of Avermectin

DRES entry	Entry for ACUTE Risk Assessment (ppm)	Entry for CHRONIC Risk Assessment (ppm)
bitter melon	0.005	0.0013
cantaloupe	0.005	0.0013
casaba	0.005	0.0013
cucumber	0.005	0.0013
honeydew melon	0.005	0.0013
pumpkin	0.005	0.0013
squash, summer	0.005	0.0013
squash, winter	0.005	0.0013
watermelon	0.005	0.0013

Previous Deficiencies

The Deficiencies listed below were cited by CBTS in the 3/29/95 memo of G.J. Herndon concerning PP#4F04354.

Deficiency 5a from the 3/29/95 Memo

Merck Method 8920 for analysis of avermectin B_1 and its delta-8,9-isomer in/on cucurbit vegetables appears to be adequate to gather magnitude of the residue data and suitable for enforcement purposes. The method has been independently validated. However, CBTS believes that Method 8920 is sufficiently different from the other validated avermectin methods that it should be sent to the EPA Beltsville lab for validation (see memo of G.J. Herndon dated 3/27/95). Until the EPA lab validation is completed, CBTS cannot make any final conclusions concerning the adequacy of the proposed enforcement method for analysis of avermectin B_1 and its delta-8,9-isomer in/on cucurbits.

Registrant's Response to Deficiency 5a

This was addressed in the memo of G.J. Herndon dated 9/18/95.

CBTS's Comment's and Conclusions to Deficiency 5a

This was addressed in the memo of G.J. Herndon dated 9/18/95. **Deficiency 5a has not been resolved.**

Deficiency 6a from the 3/29/95 Memo

Samples from the submitted field trials were stored up to 204 days (6.8 months). Storage temperatures were not specified, except at the field facilities, where samples were held at about -31°C over storage intervals up to 110 days. CBTS would like Merck to comment on whether the samples were maintained in frozen condition until extraction.

Registrant's Response to Deficiency 6a

The samples from the submitted field trials were maintained in frozen condition, on dry ice (at temperatures less than 32°F) during transportation, and remained frozen until extraction.

CBTS's Comment's and Conclusions to Deficiency 6a

Deficiency 6a has been resolved.

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

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Branch Senior Scientist: R.A. Loranger: 9/14/95,
Branch Chief: M. Metzger: 9/18/95.

H7509C: CBTS: G.J. Herndon: 305-6362: CM#2, Rm. 804C: 9/13/95.