



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

SEP 12 1990

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Memorandum:

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: PP#9F3787. Abamectin in/on pears. (MRID#'s 412064-01, 411885-01 to -16, DEB#5700). Petition Method Validation Request.

FROM: Jerry B. Stokes, Chemist  
Dietary Exposure Branch  
Health Effects Division (H7509C)

THRU: Richard D. Schmitt, Ph. D., Chief  
Dietary Exposure Branch  
Health Effects Division (H7509C)

TO: Donald A. Marlow, Chief  
Analytical Chemistry Branch, BEAD (H7503C)

Merck & Co., Inc. is proposing a 0.035 ppm tolerance for the combined residues of abamectin (avermectin B<sub>1</sub>) and its delta 8,9-isomer in/on pears.

A method validation is requested for abamectin and its delta 8,9-isomer in/on r.a.c. pears.

Samples should be run in duplicate at the requested fortification levels (See attached tables). Two copies of the appropriate method along with recoveries and sample chromatograms, are attached. Also attached are two copies of suggestions provided by the company to assist the analyst when using Method No. 8000.

Please return the requested information on the attached forms and any other information concerning the method validation that we should be aware of including copies of the chromatograms for the representative control and tolerance level samples, standard curves, examples of sample calculations, and all data generated according to your branch's SOP for method validations.

The EPA Repository was contacted on 5/18/90. The standards for abamectin and the delta 8,9-isomer are available. The Repository codes are #F774 and #F941, respectively.

Please forward results of this method validation directly to:

Philip V. Errico, Section Head  
Dietary Exposure Branch, HED (H7509C)

- Attachments: 1) Method: "HPLC-Fluorescence Determination for Avermectin B<sub>1</sub> and its Delta 8,9-Isomer in Pears." Method No. 8000, Merck & Co., Inc., dated November 18, 1987, 24 pages.
- 2) Suggestions for the Analyst Performing Merck Residue Method No. 8000, dated November 18, 1987, 16 pages.

cc with Attachments 1 and 2: D. A. Marlow

cc without Attachments: R.F.; Circu; M. Bradley (DEB); Thompson (FDA); J. Stokes (DEB); G. LaRocca (PM-15); K. Kissler (ACS); D. Wright (ACS); PP#9F3787; abamectin S. F.  
RDI: JGarbus:9/11/90:RLoranger:9/11/90  
TS-769:RCB:JStokes:js:Rm 803C:CM#2:557-1478:9/12/90

Method: "HPLC-Fluorescence Determination for Avermectin B<sub>1</sub> and its Delta 8,9-Isomer in Pears." Method No. 8000, Merck & Co., Inc., dated November 18, 1987, 24 pages.

Do not use control values for recovery corrections.

Do not report control values as 0; if less than limit of detection, report as such.

<u>Commodity</u>	<u>Chemical Added</u>	<u>PPM Added</u>	<u>PMM Found</u>	<u>%Recovery</u>
pears	control	none		
pears	abamectin*	0.035		
pears	delta 8,9- isomer of abamectin	0.035		
pears	abamectin	0.070		
pears	delta 8,9- isomer of abamectin	0.070		

\* avermectin B<sub>1</sub>

Method: "HPLC-Fluorescence Determination for Avermectin B<sub>1</sub> and its Delta 8,9-Isomer in Pears." Method No. 8000, Merck & Co., Inc., dated November 18, 1987, 24 pages.

Modification to method (major or minor):

Special precautions to be taken:

Source of analytical reference standards:

If derivitized standard is used, give source:

Instrumentation for quantitation:

Instrumentation for confirmation:

If instrument parameters differ from method given,  
list parameters used:

Commercial source for any special chemicals or apparatus:

Comments:

Chromatograms: