



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

APR 19 1982

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

Subject: PP Nos. 8F2099, 9F2207, 9F2243, 9F2247,
0F2307 and 1F2564. Permethrin on
Several Raw Agricultural Commodities.
Amendments of 3/6/82 and 3/23/82.

From: John H. Onley, Ph.D, Chemist *John H. Onley*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

Thru: Charles L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769) *CT*

To: Franklin D. R. Gee, Product Manager No. 17
Insecticide-Rodenticide Branch
Registration Division (TS-767)

FMC Corporation and ICI Americas Inc. have submitted the subject amendments in response to several deficiencies discussed at a March 15, 1982 meeting (see also our related memoranda of 3/19/82 and 3/22/82); these deficiencies had been outlined previously in several of our reviews relating to the subject petitions. The deficiencies are reiterated below followed by the petitioners' responses and our comments/conclusions.

PP#8F2099/FAP#8H5190 (ICI)

Deficiencies

1. A revised Section B was needed in which a label restriction is imposed against use on small varieties of tomatoes.
2. A revised Section F was needed in which a 5.0 ppm permethrin tolerance is proposed on celery and a 175 ppm food additive tolerance is proposed on dried tomato pomace.

Petitioner's Responses to the Above Deficiencies.

1. The Petitioner has imposed the following restriction on the proposed label: "Do not apply to cherry tomatoes or other varieties which produce mature fruit less than one inch in diameter."
2. A revised Section F was submitted; it contains a proposed tolerance of 5.0 ppm permethrin on celery and a proposed FAT of 175 ppm permethrin on tomato pomace.

Our Comments/Conclusions

We conclude that deficiencies 1 and 2 above have been resolved.

PP#9F2207/FAP#9H5219 (ICI)

Deficiencies

1. A revised Section B was needed in which the label contains a one day PHI on broccoli and cauliflower; a 1-day PHI has already been imposed on brussels sprouts.
2. A revised Section F was needed wherein the 5.0 ppm permethrin FAT on broccoli stalks has been withdrawn.

Petitioner's Responses to the Above Deficiencies.

1. A revised Section B was submitted. It now contains a 1-day PHI for broccoli, cauliflower and brussels sprouts.
2. The proposed FAT of 5 ppm on broccoli stalks was withdrawn in a revised Section F.
3. This amendment also confirms ICI's request that sweet corn be withdrawn from PP#9F2207.

Our Comments/Conclusions

We conclude that deficiencies Nos. 1 and 2 above have been resolved.

PP#9F2243/FAP#9H5234 (FMC)

Deficiency

1. A revised Section F was needed wherein a 2.0 ppm tolerance is proposed on tomatoes and a 175 ppm FAT is proposed on tomato pomace. Previously, a 1.5 ppm permethrin tolerance was proposed on fresh tomatoes and a 185 ppm FAT was proposed on tomato pomace.

Petitioner's Response to the Above Deficiency.

1. The petitioner submitted a revised Section F that proposes a 2.0 ppm permethrin tolerance on fresh tomatoes, a 20 ppm tolerance on lettuce and a 175 ppm permethrin tolerance on tomato pomace.

Our Comments/Conclusions

We conclude that deficiency number 1 above has been resolved.

PP#9F2247/FAP#9H5235 (ICI)

Deficiencies

1. A revised Section B was needed wherein the label contains a restriction for "ground" application only.
2. A revised Section F was needed wherein a 3.0 ppm permethrin tolerance is proposed on fresh apples. Previously, a 2.5 ppm permethrin tolerance was proposed on apples.

Petitioner's Response to the Above Deficiencies.

1. The Petitioner submitted a revised Section B in which a restriction for ground application only has been imposed on the label.
2. A revised Section F has been submitted; it contains a proposed tolerance of 3.0 ppm on apples.

Our Comments/Conclusions.

We conclude that deficiencies 1 and 2 above have been resolved.

PP#0F2307 (ICI)

Deficiency

1. A revised Section F was needed wherein the metabolites DCVA, and 3-PB Alcohol were included in the tolerance proposal.

Petitioner's Response to the Above Deficiency

1. A revised Section F was submitted; the tolerance proposal now contains the metabolites DCVA and 3-PB Alcohol.

Our Comments/Conclusions

We conclude that the above deficiency has been resolved.

PP#1F2564 (ICI)

Deficiencies

1. A revised Section B was needed wherein the label would have a shipping restriction for swine.
2. A revised Section F was needed wherein all proposed permethrin tolerances on meat, milk, poultry and egg have been consolidated.

Petitioner's Response to the Above Deficiencies.

1. The Petitioner has submitted a Revised Section B in which the label states, "For swine: do not ship animals for slaughter within 5 days of last treatment."

2. A revised Section F has been submitted; it contains the following proposed tolerances on meat, milk, poultry and eggs commodities:

1.0 ppm in the meat of cattle, goats & sheep
5.0 ppm in the fat of cattle, goats & sheep
3.0 ppm in the meat byproducts of cattle, goats & sheep

1.0 ppm in the meat of hogs
5.0 ppm in the fat of hogs
4.0 ppm in the meat byproducts of hogs

1.0 ppm in the meat of horses
4.0 ppm in the fat of horses
3.0 ppm in the meat byproducts of horses

0.2 ppm in the meat of poultry
1.0 ppm in the fat of poultry
1.0 ppm in the meat byproducts of poultry
0.1 ppm in eggs

6.25 ppm in milk fat reflecting residues of 0.25 ppm in whole milk.

Conclusions/Recommendations

ICI has resolved all of the deficiencies relating to PP#8F2099 FAP#8H5190, PP#9F2207/FAP#9H5219, PP#9F2247/FAP#9H5235, PP#0F2307 and PP#1F2564. FMC has resolved those deficiencies related to PP#9F2243/FAP#9H5234; however, in order to resolve all of the present considerations for permethrin tolerances on animal commodities, we will need from FMC a revised Section F giving all of the proposed tolerances on meat, milk, poultry and eggs commodities. Upon receiving this revised Section F, FMC will have resolved all the deficiencies for tolerances on meat, milk, poultry and egg commodities.

If TOX and EFB considerations permit, RCB recommends that those proposed tolerances involving the above amendments be established.

TS-769:RCB:J.H.Onley:MCH:CM#2:RM810:X77377:4/16/82
cc: RF, Circu., J. H. Onley, Thompson, TOX, EEB, EFB, FDA,
PP#s 8F2099, 9F2207, 9F2243, 9F2247, 0F2307 and 1F2564
RDI: Quick, 4/9/82; Schmitt, 4/9/82

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Permethrin

PETITION NO. 8E2009/8H5190

CCPR NO. 120

Codex Status

☒ No Codex Proposal
Step 6 or above

Proposed U.S. Tolerances

Residue (if Step 9): Permethrin

Residue: Permethrin

(sum of isomers)

Crop(s) Limit (mg/kg)

soybeans 0.1*

Crop(s) Tol. (ppm)

- | | | |
|-----|---|------|
| (1) | soybeans (seeds only) | 0.1 |
| (2) | meat and meat byproducts
of cattle, goats, hogs,
horses and sheep | 0.05 |
| (3) | poultry and eggs | 0.05 |
| (4) | milk | 0.05 |

CANADIAN LIMIT

Residue: _____

MEXICAN TOLERANCIA

Residue: _____

Crop Limit (ppm)

None (on above commodities)

Crop Tolerancia (ppm)

None (on above commodities)

NOTES: * As noted, there is no Codex limit at Step 6 or above. There are Step 5 temporary limits on numerous commodities (including soybeans at 0.1 ppm). Temporary limits are ineffect because of TOX and Chemistry deficiencies, as well as scarcity of information on approved uses.

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL _____

PETITION NO. 8F2099/8H5190

CCPR No. _____

Codex Status

Proposed U.S. Tolerances

☐ No Codex Proposal
Step 6 or above

Residue (if Step 9): _____

Residue: Permethrin

Crop(s) Limit (mg/kg)

Crop(s) Tol. (ppm)

soybeans oil 0.5
soybeans hulls 0.5
soybeans soapstocks 0.5

CANADIAN LIMIT

MEXICAN TOLERANCIA

Residue: _____

Residue: _____

Crop Limit (ppm)

Crop Tolerancia (ppm)

None (on above commodities)

None (on above commodities)

NOTES:

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Permethrin

PETITION NO. 8F2099/8H5190

CCPR NO. 120

Reviewer: J. Onley

Codex Status

Proposed U.S. Tolerances

☒ No Codex Proposal Step
6 or above

Residue (if Step 9): permethrin

Residue: Permethrin

(sum of isomers) 1/

Crop(s) Limit (mg/kg)

Crop(s) Tol. (ppm)

Celery 5^{1/}

Celery 5

CANADIAN LIMIT

MEXICAN TOLERANCIA

Residue: _____

Residue: _____

Crop Limit (ppm)

Crop Tolerancia (ppm)

None (on celery)

None

Notes: 1/ Codex temporary limit is currently at step 5 (10/22/81) and
is a temporary limit

Permethrin

PETITION NO.

912207/E-AP 7/15/2/9

None

Proposed U. S. Tolerances

Codex Proposal
Step 6 or above

Step 9):

Limit (mg/kg)

2

1

0.5

proposed

FMPR, thus

yet in the

ess.

oxybenzyl (±) cis,

vinyl)-2,2-dimethyl-

phosphate

Limit (ppm)

0.1

0.1

0.1

0.1

essentially

tolerances.

Residue: (3-phenoxyphenyl)methyl (±)-

cis, trans-3-(2,2-dichloroethyl)-2,2-
dimethylcyclopropanecarboxylate

Crop(s)

Tol. (ppm)

(See pages 1 and 2)

broccoli

1

broccoli sprouts

1

cauliflower

0.5

sweet corn

0.1

corn fodder and forage

115

meat and meat by-products

of cattle, goats, hogs,

horses and sheep

0.2

fat of cattle, goats, hogs,

horses and sheep

2

MEXICAN TOLERANCIA

Residue: _____

Crop

Tolerancia (ppm)

none

MICAL

Permethrin

PETITION NO

02207/FAP 9/15/19

CPR NO.

none

Codex Status

Proposed U. S. Tolerances



No Codex Proposal
Step 6 or above

Residue (if Step 9): _____

Residue: (3-phenoxyphenyl) methyl (±) -

cis, trans-3-(2,2-dichloroethenyl)-2,2-
dimethylpropanecarboxylate

Crop(s) Limit (mg/kg)

Crop(s) Tol. (ppm)

none on milk or
milk fat

milk 0.1
milk fat 2

CANADIAN LIMIT

MEXICAN TOLERANCIA

Residue: _____

Residue: _____

Crop Limit (ppm)

Crop Tolerancia (ppm)

none on milk
or milk fat

none

Notes:

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL _____

CCPR NO. _____

PETITION NO. 9F2243/FAP#9H5234

Reviewer: J. Onley

Codex Status



No Codex Proposal Step
6 or above

Proposed U.S. Tolerances

Residue (if Step 9): _____

Residue: Permethrin

Crop(s) Limit (mg/kg)

None on these commodities

Crop(s) Tol. (ppm)

Milk fat	7.5
reflecting 0.3 ppm in whole milk	
Tomato pomace	230

CANADIAN LIMIT

Residue: _____

MEXICAN TOLERANCIA

Residue: _____

Crop Limit (ppm)

None on these commodities

Crop Tolerancia (ppm)

None

Notes:

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL _____

CCPR NO. _____

PETITION NO. 9F2243/FAP#9H5234

Reviewer: J. Onley

Codex Status

☐ No Codex Proposal Step
6 or above

Proposed U.S. Tolerances

Residue (if Step 9): Permethrin

(sum of isomers)

Crop(s) Limit (mg/kg)

None of these commodities

CANADIAN LIMIT

Residue: _____

Crop Limit (ppm)

None on these commodities

Residue: Permethrin

Crop(s) Tol. (ppm)

Meat of cattle, goats	
hogs, horses and sheep	0.4
Meat of poultry	0.1
Meat by-product of cattle,	
goats, hogs, horses and	
sheep	2.0

MEXICAN TOLERANCIA

Residue: _____

Crop Tolerancia (ppm)

None

Notes:

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Permethrin
 CCPR NO. 120

PETITION NO. 9F2243/EAP#9H5234
 Reviewer: J. Onley

Codex Status

☒ No Codex Proposal Step
 6 or above

Proposed U.S. Tolerances

Residue (if Step 9): Permethrin
 (sum of isomers)

Residue: Permethrin

Crop(s)	Limit (mg/kg)
Lettuce	20 $\frac{1}{2}$
Tomatoes	2 $\frac{1}{2}$
Eggs	None
Fat	None
Fat	None

Crop(s)	Tol. (ppm)
Lettuce	20.0
Tomatoes	1.5
Eggs	0.2
Fat of cattle, goats, hogs, horses, and sheep	3.0
Fat & meat by-products of poultry	0.5

CANADIAN LIMIT

Residue: _____

MEXICAN TOLERANCIA

Residue: _____

Crop Limit (ppm)

None on these commodities

Crop Tolerancia (ppm)

None

Notes: $\frac{1}{2}$ These proposed Codex temporary MRL's are only at step 5 and are for permethrin per se.

INTERNATIONAL RESIDUE LIMIT STATUS

J. Onley

CHEMICAL Permethrin

PETITION NO 9F2247/9H5235

CCPR NO. None

Codex Status

Proposed U.S. Tolerances

☒ No Codex Proposal
Step 6 or above

Residue (if Step 9): _____

Residue: Permethrin

Crops(s) Limit (mg/kg)

Crop(s) Tol. (ppm)

None
Proposals were made on
other commodities by the
1979 JMPR

Apples 2.5
dried apple pomace 65

CANADIAN LIMIT

MEXICAN TOLERANCIA

Residue: 3-phenoxybenzyl

Residue: _____

+cis, trans 3-(2,2-dichlorovinyl)-

2,2-dimethylcyclopropane carboxylate

Crop Limit (ppm)

Crop Tolerancia (ppm)

Apples 1

None

Notes:

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Permethrin

PETITION NO OF2307
Reviewer: J. Onley

CCPR NO. None

Codex Status

☒ No Codex Proposal
Step 6 or above

Proposed U. S. Tolerances

Residue (if Step 9): _____

Residue: Permethrin

Crop(s) Limit (mg/kg)

None

Crop(s) Tol. (ppm)

Potatoes 0.05

Proposal made by the 1979 JMPR for
0.05 ppm on Potatoes at or about
the limit of detection

CANADIAN LIMIT

Residue: 3-Phenoxybenzyl+ cis,trans3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropane carboxylate

MEXICAN TOLERANCIA

Residue: _____

Crop Limit (ppm)

Negligible Residue of 0.1 ppm
on potatoes

Crop Tolerancia (ppm)

None

Notes:

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Permethrin

PETITION NO. 1F2564

CCPR NO. _____

Reviewer J. Onley,

Codex Status

Proposed U.S. Tolerances

☒ No Codex Proposal Step
6 or above

Residue (if Step 9): _____

Residue: Permethrin

isomers (metabolites excluded) 1/

<u>Crop(s)</u>	<u>Limit (mg/kg) 1/</u>
Milk	0.1 (whole)
poultry meats	0.1 (tol. applies)
eggs	0.1 to fat

<u>Crop(s)</u>	<u>Tol. (ppm)</u>
Milk	0.1
Milk fat	2.
Poultry	0.1
Eggs	0.05

CANADIAN LIMIT

Residue: _____

<u>Crop</u>	<u>Limit (ppm)</u>
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none (on above products)

MEXICAN TOLERANCIA

Residue: _____

<u>Crop</u>	<u>Tolerancia (ppm)</u>
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none

Notes: 1/ see p. 1

1/5