

US EPA ARCHIVE DOCUMENT



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

PMSD/ISB
2133

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MAR 4 1988

MEMORANDUM

SUBJECT: PP# OF 2389. (RCB #s 3321 and 3271). Permethrin on Alfalfa. Evaluation of Amendment dated 1/18/88. (No MRID#).

FROM: Nancy Dodd, Chemist *Nancy Dodd*
Tolerance Petition Section II
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

THRU: John H. Onley, Ph.D., Section Head *John H. Onley*
Tolerance Petition Section II
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

TO: George LaRocca, PM #15
Insecticide - Rodenticide Branch
Registration Division (TS-767C)

and

Toxicology Branch
Hazard Evaluation Division (TS-769C)

This amendment, consisting of a cover letter dated 1/18/88 and a revised Section F, is submitted in response to RCB's 9/10/87 review of a January 18, 1988 amendment to PP# OF 2389.

Summary of Deficiencies Remaining to be Resolved

The petitioner should again revise Section F so that our records are accurate and also to ensure that the appropriate tolerances are put in the possible upcoming Final Rule (see RCB's Recommendations and RCB's Conclusions on Deficiency #5 that follow in this review).

Recommendations

If TOX and EAB considerations permit, RCB will recommend for establishment of the proposed tolerances for permethrin and its metabolites on alfalfa, alfalfa hay, and animal commodities provided:

- (1) the tolerance expression for animal commodities is revised to include the metabolite 3-phenoxybenzoic acid,
- (2) the wording "a tolerance of 2 ppm" in the first line under Proposed Tolerances is changed to "tolerances" and
- (3) a single tolerance level of 3.0 ppm permethrin is proposed on the fat of cattle, goats, horses, and sheep.

Detailed Considerations

The deficiency discussed in the 9/10/87 review of the amendment dated 2/6/87 is outlined below, followed by the petitioner's response and RCB's discussion/conclusion.

RCB's Deficiency #5

The revised Section F no longer contains proposed tolerances for goats, horses, and sheep commodities (meat, fat, and meat by-products). Since alfalfa forage and hay are feed items for these animals (i.e. 100% of the horse diet; 50 % of the sheep diet; 25 to 80% of the goat diet), the petitioner should submit a revised Section F including tolerances for goats, horses, and sheep.

Petitioner's Response to Deficiency #5

The petitioner has submitted a revised Section F as follows:

Proposed Tolerances

It is proposed that a tolerance of 2.0 ppm be established for residues of permethrin [(3-phenoxyphenyl) methyl

3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane carboxylate)], and the sum of its metabolites, dichlorovinyl acid [3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane carboxylic acid] and m-phenoxybenzyl alcohol [(3-phenoxyphenyl) methanol], calculated as permethrin, in or on the following raw agricultural commodities:

<u>Commodity</u>	<u>Parts Per Million</u>
Alfalfa, Fresh	25.0
Alfalfa, Hay	55.0

It is proposed that a new tolerance be established or a present tolerance be amended for residues of permethrin and the sum of its metabolites, dichlorovinyl acid and m-phenoxybenzyl alcohol, calculated as permethrin, in or on the following raw agricultural commodities:

<u>Commodity</u>	<u>Parts Per Million</u>
Fat of Cattle	2.5
Fat of Goats & Sheep	3.0
Fat of Horses	2.5
Meat of Cattle & Horses	0.25
Meat of Sheep & Goats	0.25
Meat By-Products of Cattle, Goats, Horses and Sheep	2.0
Milk Fat Reflecting 0.25 ppm in Whole Milk	6.25

RCB's Discussion/Conclusion on Deficiency #5

The petitioner has submitted a revised Section F raising the tolerances on goats, horses, and sheep commodities (along with cattle commodities) as requested. However, this tolerance expression for these animal commodities must include 3-phenoxybenzoic

acid and the petitioner should change the wording "a tolerance of 2 ppm" as shown in the first line under Proposed Tolerances to "tolerances".

RCB also notices that the revised Section F has a 3.0 ppm tolerance proposal on goat and sheep fat and a 2.5 ppm tolerance proposal on the fat of cattle and horses. RCB would prefer the petitioner to propose a single tolerance level of 3.0 ppm on the fat of cattle, goats, horses, and sheep.

Other Considerations

An International Residue Limits (IRL) Status sheet is attached to this review. Codex and Candian tolerances are not compatible with U.S. tolerances. No Mexican limits/tolerances are established.

Attachment 1: International Residue Limit Status Sheet

cc: RF., Circu., Reviewer-N. Dodd, PP# OF 2389, PMSD/ISB, PM #15,
TOX
TS-769C:RCB/N. Dodd:MT:CM#2:Rm.800:557-1681:3/1/88
RDI:J. H. Onley; 2/25/88:R. D. Schmitt; 2/26/88

INTERNATIONAL RESIDUE LIMIT STATUS

J. Shes
2/24/88

CHEMICAL permethrin

CODEX NO. 120

CODEX STATUS:

No Codex Proposal
Step 6 or above

Residue(if Step 8): _____
permethrin

PROPOSED U.S. TOLERANCES:

Petition No. OF2389

RCB Reviewer N. Gould

Residue: permethrin and its
metabolites*

<u>Crop(s)</u>	<u>Limit (mg/kg)</u>
alfalfa fodder	100 (dry wt.)
Meat of cattle, pigs, sheep	1 (on the fat)**
cattle, edible offal of	0.1
pig, edible offal of	0.1
sheep, edible offal of	0.1

<u>Crop(s)</u>	<u>Limit (mg/kg)</u>
alfalfa, fresh	25.0
alfalfa, hay	55.0
fat of cattle + horses	2.5
fat of goats + sheep	3.0
meat of cattle + horses	0.25
meat of sheep and goats	0.25
meat by-products of cattle, goats, horses, and sheep	2.0
milk fat (reflecting 0.25 ppm in whole milk)	6.25

CANADIAN LIMITS:

No Canadian limit

Residue: _____
permethrin

MEXICAN LIMITS:

No Mexican limit

Residue: _____

<u>Crop(s)</u>	<u>Limit (mg/kg)</u>
cattle	0.1 (negligible residue)

<u>Crop(s)</u>	<u>Limit (mg/kg)</u>
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NOTES:

*DCVA and 3-phenoxybenzyl alcohol for alfalfa;
DCVA, 3-phenoxybenzyl alcohol and
3-phenoxybenzoic acid for animal commodities

** Revision is proposed which would expand to meat (fat basis) of all non-marine mammals.