HED SI/ISB
1765

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

AUG 20 1987

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#6F3383 - RCB No. 2561 - POAST® Sethoxydim In/On Strawberries and Raspberries - Amendment Dated December 11, 1986 - No MRID Number

FROM: Stephanie H. Brooks, Chemist SHB
Tolerance Petition Section II
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (TS-767C)

and

Toxicology Branch
Hazard Evaluation Division (TS-769C)

THRU: Charles L. Trichilo, Ph.D., Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

Background

BASF Wyandotte Corporation proposes the establishment of a permanent tolerance for combined residues of the herbicide 2-[1-(ethoxyimino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one and its metabolites containing the 2-cyclohexen-1-one moiety (calculated as the herbicide) on the raw agricultural commodities strawberries and raspberries at 10.00 ppm. Two deficiencies were cited in the initial review by RCB, placing the petition in a reject status (see F. Boyd memorandum dated July 16, 1986).

Permanent tolerances have been established on cotton, alfalfa, peanuts, soybeans, sugar beets, sunflowers, and animal commodities at levels ranging from 0.05 to 75 ppm (40 CFR 180.412).

Permanent tolerances are pending for residues of sethoxydim on flax (PP#6E3411), brassica and cucurbits (PP#6F3452), and tomatoes and tomato products (PP#5F3284/PP#5H5475).

Conclusions

With the exception of lowering the proposed tolerances from 10 to 5 ppm, RCB considers all residue chemistry issues concerning sethoxydim on strawberries and raspberries to be resolved as a result of these Section B revisions (see Recommendations section below). A revised Section F reflecting proposed tolerances of 5 ppm sethoxydim on strawberries and raspberries should be submitted.

Since no Codex, Canadian, or Mexican tolerances have been established for sethoxydim in or on strawberries and raspberries, there are no compatibility problems.

Recommendations

If TB and EAB considerations permit, RCB recommends the establishment of permanent tolerances of 5 ppm, instead of the proposed 10 ppm tolerances, for residues of sethoxydim and its metabolites in or on strawberries and raspberries.

Basis for Recommendation

A tolerance level of 5 ppm is presently justifiable according to the residue data discussed in our July 16, 1986 review of PP#6F3383 (see also recap of residue data under RCB's Comments/Conclusions--Deficiency 4b, later in this review). Accordingly, the tolerances should not be larger than is needed for the proposed use [see 171-6, Proposed Tolerances of Residue Chemistry Guidelines (Subdivision O)]. A revised Section F reflecting proposed tolerances of 5 ppm sethoxydim on strawberries and raspberries should be submitted.

Present Considerations

BASF submitted a revised label/Section B as a resolution to Deficiencies 1 and 4b, described in the initial evaluation of the petition (see PP#6F3383--F. Boyd memorandum dated July 16, 1986). The deficiencies are restated below, followed by the petitioner's responses and comments/conclusions by RCB.

Deficiency 1

The petitioner will need to specify the method of application used in his field trials. If the residue data do not reflect the proposed use of application by both air and ground equipment, then the petitioner will have the option of submitting the appropriate data or revising the Section B labeling to comply with that method of application used in his field trials.

Petitioner's Response to Deficiency 1

The method of application in the reported field trials was by ground equipment. The label has been revised to limit application by ground equipment only.

RCB's Comments/Conclusions, re: Deficiency 1

RCB considers this deficiency to be resolved since the petitioner's revised label limits application by ground equipment only.

Deficiency 4b

The residue data presented are not reflective of the proposed use and/or are insufficient in number and correlatable parameters to establish a residue level of sethoxydim for tolerance purposes. Sufficient residue data reflecting the proposed label rate and preharvest interval (PHI) are not presented and it seems that the proposed 10 ppm residue level is too high for a tolerance based on the presented data.

Additional residue data reflecting the proposed use are required or the Section B/label should be revised wherein there is a better reflection of the residue data presented (see the Residue Data section of this review for more details).

Petitioner's Response to Deficiency 4b

The petitioner originally requested a maximum of 7 1/2 pt/A/season (1 5 lb ai/A/season) and a 10-day PHI for strawberries. The present label specifies a maximum of 2 1/2 pt/A/season (0.5 lb ai/A/season) and a 30-day PHI.

The original label for raspberries specified a maximum of 7 1/2 pt/A/season (1.5 lb ai/A/season) and a 10-day PHI. The present label specifies a maximum of 5 pt/A/season (1.0 lb ai/A/season) and a 45-day PHI. The petitioner noted that the time interval from blossom to berry ripening is 25 to 30 days making a field study with a 45-day PHI unnecessary.

RCB's Comments/Conclusions, re: Deficiency 4b

The petitioner has revised Section B as suggested by RCB. The label now more nearly reflects the field trial data.

However, the petitioner should now submit a revised Section F to reflect a lower tolerance level on strawberries and raspberries. A tolerance level of 5 ppm is presently justifiable according to the residue data (proposed use). For strawberries, at a treatment rate of 0.5 lb ai/A and 19- to 21-day PHIs the maximum sethoxydim residue was 3.6 ppm. For raspberries, at a treatment rate of 1.5 lb ai/A and a 26-day PHI, the maximum sethoxydim residue was 1.7 ppm. A complete summary of the residue data may be observed in RCB's July 16, 1986 review of PP#6F3383.

Other Considerations

No Codex, Canadian, or Mexican tolerances have been established for sethoxydim in or on strawberries or raspberries Thus no compatibility problems exist. An International Residue Status sheet is attached.

Attachment

Attachment 1: International Residue Limit Status Sheet
TS-769C:RCB:SHB:Kendrick&Co.-8/19/87:CM#2:RM804:X1669
cc: R.F., Circu ,Brooks TOX, PP#6F3383, PM#25, PMSD/ISB
RDI: J. Onley, 8/11/87; R. Schmitt, 8/11/87

completed by S. Brooks 8-6-87

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Sethoxydim

CODEX NO. _____

CODEX STATUS:

☑ No Codex Proposal Step 6 or above

Residue(if Step 8): _____

Crop(s)	Limit (mg/kg)

PROPOSED U.S. TOLERANCES:

Petition No. 6F3383

RCB Reviewer S.H. Brooks 8-6-87

Residue: parent plus metabolites containing 2-cyclohexen-1-one

Crop(s)	Limit (mg/kg)
strawberries	10.0
raspberries	10.0

CANADIAN LIMITS:

☑ No Canadian limit

Residue: _____

Crop(s)	Limit (mg/kg)
None on above commodities	

MEXICAN LIMITS:

☑ No Mexican limit

Residue: _____

Crop(s)	Limit (mg/kg)

NOTES: