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0 6 FEB 1984 Date Out EFB:

TO:

Tim Gardner/Heyward Product Manager 17 Registration Division

TS-767

FROM:

Sam Creeger, Chief Review Section No. 1

Exposure Assessment Branch Hazard Evaluation Division Attached please find the environmental fate review of: Reg./File No.:10182-AL Chemical: Cypermethrin Type Product: Insecticide Product Name: Cymbush 2EC Company Name: ICI Americas Submission Purpose: Review data on file to support use use on pecans. ACTION CODE: 106 ZBB Code: Other Date in: 10/28/83 EFB # 4050 Date Completed: TAIS (level II) Days 63 1.5 Deferrals To: Ecological Effects Branch Residue Chemistry Branch Toxicology Branch

1.0 INTRODUCTION

ICI Americas has submitted an application for registration of Cymbush 3E (cypermethrin, as a. i.) for use on pecans.

1.1 Chemical

Common name: Cypermethrin

Chemical name*: (\pm) -a-cyano-3-(phenoxyphenyl)methyl (\pm) -cis,trans-

3-(2,2-dichl oroethenyl)-2,2-dimethyl cycl opropane-

carboxylate

Chemical structure

$$C1 \ 2C = CH$$

$$C \ CH$$

$$C \ CH$$

$$C \ CH$$

$$C \ CH$$

2.0 DIRECTIONS FOR USE

Use directions are appended to this review. Briefly, 0.16-0.27 pint/acre (0.06-0.10 lb ai/acre) per application is applied by ground equipment using sufficient water to obtain uniform coverage. Application can be made up to shuck split. No more than 8 applications per season are permitted.

3.0 DISCUSSION OF DATA

- 3.1 No additional data were submitted with the application. Previously submitted data were referenced for review.
- 3.2 EAB reviewed the data previously submitted in support of other uses of cypermethrin. See EAB reviews dated 5/14/81, 4/29/82 and 5/14/82.

All data requirements, with the exception of an adequate field dissipation study, have been satisfied for cypermethrin for the proposed use.

In EAB review dated 4/29/82 the field dissipation study was found inadequate since the soil analyses were for parent cypermethrin only and did not include the major soil metabolites found in the aerobic soil metabolism study. The degradation products were identified as DCVA (cis, trans-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropane-carboxylic acid) and PBAC (3-phenoxybenzoic acid).

^{*}Al ternate chemical name: (\pm) -a-cyano-3-phenoxybenzyl (\pm) -cis, trans-3-(2,2-dichlorovinyl)-2,2-dimethyl cyclopropanecarboxylate

4.0 CONCLUSION

- 4.1 EAB does not consider all the data requirements as being satisfied for registration of cypermethrin for the proposed use. The field dissipation study is not adequate to describe the field dissipation of cypermethrin.
- 4.2 EAB, in review dated 4/29/82 recommended for conditional registration of cypermethrin on the condition that the registrant submit the data on formation and decline of the degradates of cypermethrin under field conditions.
- 4.3 In reviews dated 5/4/83 and 10/3/83, EAB requested that the registrant provide the data or justification. Because the data were not available EAB objected to the registration of the proposed uses. To date, no response has been received.

5.0 RECOMMENDATION

The registrant must provide either data on the formation and decline of soil metabolites for the field study or provide a justification as to why analysis of these metabolites was not done in the studies submitted. Open literature studies on field dissipation of cypermethrin or of similar compounds having the same degradation products may suffice.

Clinton Fletcher Review Section No. 1

Exposure Assessment Branch Hazard Evaluation Division

Cypermethrin exposure assessment review

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