TO: Product Manager 17 Gee
TS-767

FROM: Sam Creeger, Acting Chief
Review Branch No. 1
Environmental Fate Branch
Hazard Evaluation Division

Attached please find the environmental fate review of:

Reg./File No.: 10182-18

Chemical: Permethrin

Type Product: Insecticide

Product Name: AMBUSH

Company Name: ICI Americas, Inc.

Submission Purpose: New use in pine seed orchards

ZBB Code: Sec 3

ACTION CODE: 315

Date in: 9/8/82

EFB #: 468

Date Completed: 11/2/82

TAIS (level II) Days

61 4

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch
1.0 INTRODUCTION

ICI Americas, Inc., has submitted an application for registration of AMBUSH for use on pine seed orchards for control of certain insects.

1.1 Chemical

Common name: Permethrin

Chemical name: (3-phenoxyphenyl)methyl (+)-cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethyl cyclopropane carboxylate

Chemical Structure

2.0 DIRECTIONS FOR USE

<table>
<thead>
<tr>
<th>Crop</th>
<th>Insect</th>
<th>AMBUSH*</th>
<th>Further Use Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern pine seed</td>
<td>Coneworms,</td>
<td>13 fl oz/100 gals water</td>
<td>Apply first application within 1 week of female flower closure or peak pollen flight for</td>
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<tr>
<td>orchards</td>
<td>Seed bugs</td>
<td>(0.025% dilution by wt.)</td>
<td>webbing coneworm control. For other coneworms and seed bugs, apply first</td>
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<td></td>
<td></td>
<td>4.25 pts/100 gals water</td>
<td>application within 30 days following female flower closure. Repeat applications at</td>
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<tr>
<td></td>
<td></td>
<td>(0.125% dilution by wt.)</td>
<td>intervals of 4 weeks, but do not apply more than 6 applications.</td>
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<tr>
<td></td>
<td></td>
<td>0.75 lbs ai/ac/application</td>
<td>Apply approximately 5-10 gals of the 0.025% dilution per tree with high volume</td>
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<tr>
<td></td>
<td></td>
<td>in not less than 10 gals</td>
<td>sprayers. With low volume sprayers, apply 100 gallons of the 0.125% dilution per</td>
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<tr>
<td></td>
<td></td>
<td>of water for aerial</td>
<td>acre. Do not graze or harvest cover crop. Avoid contact with open water.</td>
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<tr>
<td></td>
<td></td>
<td>applications</td>
<td></td>
</tr>
</tbody>
</table>

3.0 DISCUSSION OF DATA

All environmental chemistry data referenced have been reviewed and judged acceptable. For complete discussion of data see previous EFB review of 7/31/78 (EPA Reg No. 10182-RI). In this review certain deficiencies were noted. However, in subsequent reviews, the data were judged acceptable.
4.0 EXECUTIVE SUMMARY

4.1 The environmental fate of permethrin is known for the proposed use. It is noted that pine seed orchards are not food crop areas and rotational crop data or a restriction is not required.

5.0 RECOMMENDATION

5.1 EFB concurs with the proposed application of registration of permethrin for use on pine seed orchards for control of certain insects.

Clinton Fletcher  
Review Section No. 1  
Environmental Fate Branch  
Hazard Evaluation Division