

US EPA ARCHIVE DOCUMENT

109701

Date Out EFB: 27 NOV 1984

TO: Tim Gardner
Product Manager 17
Registration Division
TS-767

FROM: Samuel M. Creeger, Chief
Review Section No. 1
Exposure Assessment 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

Submission Purpose: Add new use on artichokes

Date in: 8/23/84

ACTION CODE: 335

Date Completed: 11/27/84

EFB # 4533

TAIS (level II) Days

63

1

Deferrals To:

 Ecological Effects Branch

 Residue Chemistry Branch

 Toxicology Branch

1.0 INTRODUCTION

ICI Americas has submitted an application for the registration of AMBUSH® Insecticide (permethrin as a. i.), Reg. No. 10182-18 for use on artichokes.

1.1 Chemical

See previous EAB reviews for information.

2.0 DIRECTIONS FOR USE

The complete label is appended to this review. Briefly:

Apply 0.1 to 0.3 lb ai/A by ground equipment using sufficient water to obtain uniform coverage. Apply as needed. Do not make more than 5 applications per season. Buds may be harvested on the day of application.

3.0 DISCUSSION OF DATA

3.1 The registrant notes that the following environmental fate data have been previously submitted to support the proposed use:

<u>Study</u>	<u>Date of Submission</u>	<u>Accession Number</u>
Hydrolysis	1/26/78	096765
Photolysis/water	8/25/77	096330
	1/26/78	096765
Photolysis/soil	8/25/77	096330
		096331
Aerobic soil metab.	8/25/77	096331
Anaerobic soil metab.	8/25/77	096331
Leaching	8/25/77	096330
		096331
Soil Dissipation	8/25/77	096331
Rotational crop/confd.	1/26/78	096765
	5/23/78	233991
Rotational crop/field	1/26/78	096765
	5/23/78	233991
Fish accumulation	1/26/78	096765

- 3.2 The data were considered in EAB reviews dated 7/31/78. Also, additional data were considered in reviews dated 5/15/78, 6/9/76, and 4/16/76.
- 3.3 In the latest review, dated 10/22/84, EAB considered an application for registration of AMBUSH® for use on leafy vegetables (kale, turnip and mustard greens, and collards). In this review, EAB concluded that adequate data are not available to define the environmental fate of permethrin residues resulting from the proposed use. The field dissipation studies are deficient in that the soil was not analyzed for residues of the soil degradation products. Also, the rotational crop data do not support any rotational crop interval wherein residues of permethrin and/or its degradation products are not taken up by rotational crops.

4.0 RECOMMENDATION

- 4.1 EAB concludes that adequate data are not available to support the registration of AMBUSH® Insecticide (permethrin as a. i.) for use on artichokes.

The field dissipation studies are deficient in that the soil was not analyzed for residues of the degradation products, namely 3-phenoxybenzoic acid and cis/trans-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropane carboxylic acid (DCVA). These data are now needed to support registration of additional uses of permethrin even though previous registration applications were approved.

Also, an in-depth reconsideration of the rotational crop data shows the data do not support any rotational interval wherein residues of permethrin and/or its degradation products are not taken up by rotational crops. However, the deficiency may be waived provided the registrant can show that artichoke fields are not rotated to other crops.



Clinton Fletcher
Review Section No. 1
Exposure Assessment Branch
Hazard Evaluation Division

RESTRICTED USE PESTICIDE. For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Contribution.

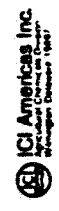
Keep Out of Reach of Children

WARNING

See Side Panel for Additional Precautionary Statements and Statement of Practical Treatment

EPA Est. No. 5905-AR-1
EPA Reg. No. 101192-10

Net Contents
ONE U.S. GALLON
(3.79 LITERS)
Batch No.



U.S. Patent No. 4,824,183



ACTIVE INGREDIENTS:
Permethrin (3-Phenothryl) 26.8%
2,2-dimethyl-4-hydroxyacetophenone 74.4%
INERT INGREDIENTS
TOTAL 100.0%

*Giffling ratio: Min. 35% (±) CG and max. 65% (±) Igit
AMBUSH contains 2 pounds active ingredient per gallon

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

WARNING

IRRITANT IF SWALLOWED OR ABSORBED THROUGH SKIN. MAY CAUSE EYE IRRITATION.

Do not contact with eyes, skin or clothing. Avoid breathing vapor or spray mist. Wash thoroughly if handling.

STATEMENT OF PRACTICAL TREATMENT: IF SWALLOWED: Do not induce vomiting. Call a physician. Vomiting should be supervised by a physician or the professional if because of the possible pulmonary damages via aspiration of the solvent. IF IN EYES: Wash with plenty of water. Get medical attention if irritation persists. IF ON SKIN: Wash with plenty of soap and water.

24-hour emergency assistance call 302/575-3000

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish. Use with caution when applying to areas adjacent to any body of water. Do not apply directly to water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes. This product is highly toxic to bees exposed to contact treatment or residues on crops or weeds. Do not apply AMBUSH, or allow it to drift to crops or weeds on which bees are actively foraging. Additional information may be obtained from your Cooperative Extension Service. Apply this product only as specified on this label. In case of a significant spill, call CHEMTREC 800/424-9300.

PHYSICAL OR CHEMICAL HAZARDS: Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surface, soak up with sand, earth or synthetic absorbent. Move to chemical waste area and dispose of in accordance with State and local regulations. Do not reuse container. Triple rinse residue from empty container and add rinse to mixture in next tank. Pesticide spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures in offer empty container for recycling or reconditioning, or puncture and dispose of in a way landfill or by other approved State and local procedures.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Apply AMBUSH® as indicated in the Supplemental Pamphlet. For all use directions refer to its Supplemental Pamphlet.

RATE CONVERSION CHART

Pounds Active/Acre	Fluid Ounces/Acre	Pints/Acre	Acres Treated/Gallon
0.05	32	0.2	40.0
0.10	64	0.4	20.0
0.125	80	0.5	16.0
0.15	96	0.6	13.3
0.175	112	0.7	11.4
0.20	128	0.8	10.0

NOTICE TO BUYER AND USER: Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Seller and Buyer and User assumes the risk of any such use. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE.

Label

Crop	Target Pest(s)	Dosage (lb ai/A)	Comments
Artichoke	Artichoke plume moth	0.1-0.3	Apply by ground equipment using sufficient water to obtain uniform coverage. Apply as needed. Do not make more than 5 applications per season. Buds may be harvested on the day of application.

AMB/A-D-R-TP