

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

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

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

in 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
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
lots of soap and water.

24-hour emergency assistance call 800/575-3000

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish. Use with
care when applying to areas adjacent to any body of water. Do not apply directly to water. Do not
allow when weather conditions favor drift from treated areas. Do not contaminate water by
washing of equipment or disposal of wastes. This product is highly toxic to bees exposed to
it during 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
in 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

Do not store near food or feed. Protect from freezing. In
case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent
material. Remove 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 other empty container for recycling or reconditioning, or purchase and dispose of in a
responsible landfill or by other approved State and local procedures.

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 certification.

Keep Out
of Reach
of Children
WARNING

See Side Panel For Additional
Precautionary Statements and
Treatment

EPA Est. No. 5905-AR-1
EPA Reg. No. 10102-10

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



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

ACTIVE INGREDIENT:
Permethrin (3-Phenothrinyl) methyl (2-Ethyl-5-Hydroxy-2-Methyl-3-Pyridyl)
2,2-dimethyl-3-hydroxy-1-methyl-2-pyridyl
INERT INGREDIENTS
TOTAL 28.8% 74.4% 100.0%

*Clif/ings ratio: Min. 35% (±) CG and max. 65% (±) Lign
AMBUSH contains 2 pounds active ingredient per gallon

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/ Acres	Fluid Ounces/ Acres	Pints/ Acres	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.
ABILITY SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL SPECIAL OR INCIDENTAL
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 uni- form coverage. Apply as needed. Do not make more than 5 applica- tions per season. Buds may be harvested on the day of application.

AMB/A-D-R-TP