

9 SEP 1988

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55947-88

[Handwritten signature]

Ms. Ada M. Breaux
Sandoz Crop Protection Corporation
Corporate Headquarters
341 East Ohio Street
Chicago, IL 60611

Dear Ms. Breaux:

Subject: APEX 5E
EPA Registration No. 20954-89
Your Amendment Request Dated November 17, 1986

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Joseph M. Tavan
Acting Product Manager (17)
Insecticide-Rodenticide Branch
Registration Division (TS-767C)

Enclosure

PS 87854:J:Nelson:C:Disk:KEMCO:10/6/87:SeeCee:vo:JL:rw:

Please update label with new Registrations

SYMBOL	W/numbers.	Pg.					
SURNAME							
DATE							

Reg no: 55947-88

PM-17

294

ZOECON

APEXTM 5 E

AN INSECT GROWTH REGULATOR TO PREVENT THE EMERGENCE OF ADULT SCIARID FLIES IN MUSHROOM CULTURE

ACTIVE INGREDIENTS

Methoprene (Isopropyl (E,E) - 11- Methoxy 3,7,11-Trimethyl-2,4 dodecadienoate	65.7%
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INERT INGREDIENTS	34.3%
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TOTAL	100.0%
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This product contains 5 lbs/gallon (600 grams/liter) methoprene active ingredient

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

(See side panel for additional precautionary statements).

NET CONTENTS:

ZOECON CORPORATION
Palo Alto, California 94304

U.S. Patents 3,904,622 & 3,912,815
EPA Reg No 20954-89

EPA Est. No. 20954-CA-1

ACCEPTED
MAY 20 1989
EPA REGISTRATION DIVISION

Insecticide, Fungicide, and Miteicide - Act as contact and systemic pesticide
Manufactured by ZOECON CORPORATION
EPA Reg. No. 20954-89

20954-89

INTRODUCTION

Methoprene, the active ingredient in APEX 5E insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of methoprene does not result in immediate insect kill, it interferes with the normal process of insect development. APEX 5E will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best over-all results. After treatment with APEX 5E, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than two weeks after treatment to assess the full benefit of APEX 5E.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS CAUTION

Avoid contact with eyes. In case of contact, immediately flush eyes with plenty of water. Get medical attention if irritation persists.

STORAGE AND DISPOSAL

Store in a cool place. Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Triple rinse and offer for recycling, reconditioning, or disposal in approved landfill or bury in safe place.

Pesticide, spray mixture, or rinsate that cannot be used or chemically reprocessed should be disposed of according to procedures approved by Federal, State or Local disposal authorities.

Rinse container and offer for recycling, reconditioning or bury in a safe place.

Consult Federal, State, or Local disposal authorities for approved alternative procedures.

WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of sciarid flies as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Label No. 980

**DIRECTIONS FOR USE
GENERAL CLASSIFICATION**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

METHOD, RATE, AND TIMING OF APPLICATION

For best results, APEX should be incorporated in the mushroom growing medium.

FOLLOW EITHER METHOD A OR METHOD B APPLICATION INSTRUCTIONS.

A. - Incorporate in casing at time of casing.

Apply APEX 5E at the rate of 5-1/2 fluid oz. per 1000 sq. ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

B. - Incorporate in compost at time of spawning and in casing at time of placement of casing layer.

In Compost: Apply APEX 5E at the rate of 5-1/2 fluid oz. per 1000 sq. ft. in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

In Casing: Apply APEX 5E at the rate of 2-1/4 fluid oz. per 1000 sq. ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

MIXING AND HANDLING INSTRUCTIONS

1. Add the measured amount of APEX 5E to a spray tank partially filled with water, mix and complete filling with recommended quantity of water.
2. Use diluted spray solution within 48 hours of mixing. Agitate before each use.

EFFECT ON MUSHROOMS

In most cases treatment with APEX 5E has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. Due to the widely differing practices followed in mushroom culture, the user should conduct test treatments on small plots to determine that reduced crop yields will not occur under his own cultural conditions.