

# APEX® 5E

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

**ACTIVE INGREDIENT:**

Methoprene [Isopropyl (E,E)-11-Methoxy-3,7,11-trimethyl-2,4-dodecadienoate]..... 67.0%

**INERT INGREDIENTS:**..... 33.0%

Total 100.0%

This product contains 5 lb/gallon (600 grams/liter) methoprene active ingredient

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See side panel for additional Precautionary Statements

Net Contents:

<b>ACCEPTED</b>
SEP 22 1997
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 2724-452

**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 AND DOMESTIC ANIMALS - CAUTION:** Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**FIRST AID: If on Skin** - Wash with plenty of soap and water. Get medical attention. **If in Eyes** - Flush eyes with plenty of water. Call a physician if irritation persists.

**Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as butyl rubber, nitrile rubber, barrier laminate or viton. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENVIRONMENTAL HAZARDS**

Do not contaminate water when disposing of rinsate or equipment washwaters.

**DIRECTIONS FOR USE** - It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as butyl rubber, nitrile rubber, barrier laminate or viton
- Shoes plus socks

Do not apply this product through any type of irrigation system.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, APEX 5E should be incorporated in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C** Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX 5E at the rate of 5½ fluid ounces per 1000 sq ft (fl oz/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 5½ fl oz/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 2¼ fl oz/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.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, a split application can be used.

**First Application, on compost:** Apply APEX 5E 12-13 days after spawning. Drench APEX 5E evenly on the surface at the rate of 2¾ fl oz/1000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX 5E at the rate of 2¾ fl oz/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.

**STORAGE AND DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. **STORAGE:** Store in a cool place. Pesticides must be stored away from food, feed or other products. In case of spill or leak, soak up with soil or other absorbent material. **DISPOSAL:** Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other state and local procedures. Pesticide wastes can be toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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Seller makes no warranty, express or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and handling of this material when such use and handling are contrary to label instructions.

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For information or in case of emergency, call 1-800-XXX-XXXX.

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Made in USA