



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

PM 19 400-475
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FEB 12 1996

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Ms. Judith O. Ball
Uniroyal Chemical Co. Inc.
74 Amity Road
Bethany, CT 06524-3402

Subject: Label revision EPA Reg No. 400-473 Dimilin 2F.
Your Amendment Application dated 12/11/95.

Dear Ms. Ball:

The proposed label you submitted will be acceptable provided the following changes are made in the label.

1. Under directions for use against beet armyworm, Early season, Mid season, and Late season change "Use on a 5 to 7 day interval until at least 8 fl. oz. / acre have been applied" to "Use on a 5 to 7 day interval. Do not apply more than 8 Fl. oz. per acre."

2. Move the paragraph on "Use restrictions for cotton" to the top of the "Directions for Use" for cotton.

3. It has come to our attention that there is no "Statement of practical treatment" regarding skin sensitization. All labels for products containing diflubenzuron must bear the statement "Avoid contact with skin. Prolonged or Frequently Repeated Skin Contact May Cause Allergic Reactions in Some Individuals." The following "Statement of Practical Treatment" must be placed on your labels under "Precautionary Statements, Hazards to Humans and Domestic Animals": "If on skin wash with soap and water. Seek medical attention if irritation persists."

The addition of the Statement of Practical Treatment must be made at the next printing of labels within one year of the date stamped on this letter.

Sincerely Yours,

DHE

Dennis H. Edwards Jr.
Product Manager 19
Insecticide-Rodenticide Branch
Registration Division (7505C)

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Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber.

RESTRICTED USE PESTICIDE

Due to toxicity to aquatic invertebrate animals. 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.

ACCEPTED
with COMMENTS
in EPA Letter Dated

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FEB 12 1996

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 400-473

DIMILIN® 2F

INSECT GROWTH REGULATOR

Net contents:

COMPOSITION

Active Ingredient: (% by weight)

N-[[[4-Chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide* 24.0%

Inert Ingredients: 76.0%

TOTAL 100.0%

*Diflubenzuron and other benzoylphenylurea insecticidal compounds, and compositions relating thereto, are covered by U.S. Patent Numbers 4,166,124; 4,399,152; 4,607,044; 4,833,151; 5,142,064 and other patents pending.

*Contains 2 lbs. diflubenzuron per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Avoid contact with skin. Prolonged or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals. Avoid contamination of feed and foodstuffs.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: A long-sleeved shirt & long pants; shoes plus socks.

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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to crab, shrimp and other aquatic invertebrates. For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, except under the forest canopy when aerially applied to control forest pests. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.



Uniroyal Chemical Company, Inc., Middlebury, CT 06749

EPA Reg. No. 400-473

EPA Est. No.

014WPS

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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 through any type of irrigation system.

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 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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
- waterproof gloves
- shoes plus socks.

DIRECTIONS FOR USE

SOYBEANS (except California)

VELVET BEAN CATERPILLAR, MEXICAN BEAN BEETLE AND GREEN CLOVER WORM: DIMILIN 2F will control larvae of velvetbean caterpillar, Mexican bean beetle and green cloverworm. Apply DIMILIN 2F at the rate of 2 to 4 ounces per acre. Make application when larvae are small (less than 0.5 inches) to give greater control and minimum insect damage to leaves. Repeat application if damaging numbers reappear. The minimum reapplication interval is 30 days.

DIMILIN 2F may be applied at the lower rate (2 ounces) to prevent velvetbean caterpillar build-up when the vegetative growth of soybeans is completed and as pod formation begins. Consult local Extension Service regarding infestation levels requiring treatment.

BEET AND FALL ARMYWORM AND SOYBEAN LOOPER: To control larvae of beet and fall armyworm and to provide suppression of soybean looper, apply 4 ounces of DIMILIN 2F per acre. Application must be made when worms are small before the 3rd instar and before populations build.

ADJUVANT USAGE: See Cotton Section.

Aerial Application: Apply recommended amount of DIMILIN 2F in sufficient water (3 to 5 gallons per acre) to achieve uniform coverage of foliage.

Ground Application: Apply recommended amount of DIMILIN 2F in 9 to 35 gallons of water per acre to give uniform coverage.

Do not make more than two applications per season. Do not apply within 21 days of harvest.

DIMILIN 2F inhibits the molting process of larvae, therefore it does not provide immediate kill. From 5 to 7 days may be required before populations are reduced.

USE AND MIXING DIRECTIONS: See Cotton Section.

COTTON

BEET ARMYWORM.

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EARLY SEASON (before first bloom): For early infestations on young cotton, DIMILIN 2F should be applied at the first sign of beet armyworm activity (2 egg masses or hatch outs/100 feet of row) with 2 to 4 fl. oz. per acre in multiple applications, either as a directed or broadcast spray. Use on a 5 to 7 day interval until at least 8 fl. oz. per acre have been applied. Multiple applications of DIMILIN 2F will provide acceptable beet armyworm control and, because it has little activity on beneficial insects (parasites and predators) and has good persistence, will help prevent populations of beet armyworm from building up later in the growing season. Use of DIMILIN 2F in this way allows for more complete coverage of new foliage during the period of rapid vegetative growth.

MID SEASON: Starting around first bloom and through mid-bloom, apply 4 to 8 fl. oz. of DIMILIN 2F per acre. Repeat application until at least 8 fl. oz. per acre have been applied, using a 5 to 7 day interval between applications. The higher application rate should be used on larger cotton or under conditions of greater larval pressure. First application should coincide with peak beet armyworm moth catches in pheromone traps, indicating another generation of larvae is imminent. DIMILIN is more effective on early stages of larval development, therefore cotton leaves should be treated before populations become established.

LATE SEASON: After mid-bloom and prior to 14 days before harvest, apply 6 to 8 fl. oz. of DIMILIN 2F per acre. The higher application rate should be used on more advanced cotton or under conditions of greater larval pressure. Application should coincide with peak beet armyworm moth catches in pheromone traps. Additional applications of 6 to 8 fl. oz. per acre may be needed if larval pressure continues.

Adjuvant Usage: Always use oil (1 to 2 quarts) with DIMILIN 2F if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial LV application, 1 pint to 2 quarts of emulsified vegetable or paraffinic crop oil is recommended to enhance canopy penetration, and to reduce spray droplet evaporation and subsequent drift. For ULV application use DIMILIN 2F in a minimum of 20 oz. of non-emulsified cottonseed oil, or vegetable or petroleum based oil carriers. Consult your supplier or Uniroyal representative for oil specifications.

Aerial Application: Apply in 3 to 5 gallons of total volume per acre. For ULV, use a total volume of 20 to 48 oz. per acre. (See notes on use of adjuvants above and mixing directions below).

Ground Application: Apply in 10 to 20 gallons of total volume per acre to give uniform coverage. For ULV, use a total volume of 20 to 64 oz. per acre (see notes on use of adjuvants above and mixing directions below).

Use sufficient application volume to assure adequate coverage. DIMILIN 2F may be mixed with other insecticides being applied for other cotton insects. When emulsifiable concentrate insecticide formulations are used with oil and DIMILIN in tank mixes, they may result in phytotoxicity. Care should be taken where such mixture is used. Because of the unique mode of action of DIMILIN, its effects may be delayed for 5 to 7 days following application.

FALL ARMYWORM, YELLOWSTRIPED ARMYWORM, SOUTHERN ARMYWORM, SOYBEAN LOOPER, CABBAGE LOOPER AND SALT MARSH CATERPILLAR: For larvae of fall armyworm, yellowstriped armyworm and southern armyworm, and larval suppression of soybean looper, cabbage looper and saltmarsh caterpillar, apply 4 to 8 fl. oz. of DIMILIN 2F per acre. Application should be made during early stages of larval development. Repeat application until at least 8 fl. oz. per acre have been applied using a 5 to 7 days interval. See **BEET ARMYWORM** for recommendations on adjuvants, and applications by air or ground.

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BOLL WEEVIL:

EARLY SEASON (before first bloom): DIMILIN 2F will control boll weevil by suppressing reproduction. Apply 4 to 8 fluid ounces of DIMILIN 2F per acre in combination with 2 to 4 quarts of non-emulsified cottonseed oil, vegetable oil, or paraffinic crop oil. For ULV application, use 4 fluid ounces of DIMILIN 2F in a minimum of 8 fluid ounces of non-emulsified cottonseed oil, oil based insecticide, or vegetable or petroleum based oil carriers. Consult your supplier or Uniroyal representative for oil specifications.

For best suppression of boll weevil reproduction, make first application at pinhead square stage of cotton growth when overwintering boll weevils are entering the fields. Repeat treatments should allow at least 5 to 7 day intervals between applications.

LATE SEASON: DIMILIN 2F will reduce the numbers of weevils that emerge in the following spring if applications are made when adult weevils are going into diapause to overwinter. Apply when cotton plant has reached full vegetative growth or when it begins blooming out the top. For ground or aerial LV applications, spray 2 to 4 fluid ounces of DIMILIN 2F per acre in combination with 2 to 4 quarts of an emulsified vegetable or paraffinic oil per acre. For ULV application, use 2 to 4 fl. oz. of DIMILIN 2F in a minimum of 8 oz. of non-emulsified cottonseed oil, oil based insecticide, or vegetable or petroleum based oil carriers. At least 2, but not more than 3, applications at 7 to 14 day intervals should be made.

Aerial application: Apply in 3 to 5 gallons total volume per acre. For ULV, use total volume of 20 to 32 oz. per acre. (See notes on use of adjuvants above and mixing directions below).

Ground application: Apply in 10 to 20 gallons of total volume per acre to give uniform coverage. For ULV, use total volume of 20 to 64 oz. per acre. (See notes on use of adjuvants above and mixing directions below).

DIMILIN 2F does not kill the adult boll weevils, however, eggs deposited by affected female weevils will not hatch, thus limiting reproduction. The control of egg hatch and larval development within the square prevents its shedding and will then allow normal boll development. After initial treatment of the female weevil, 7 to 10 days are required before non-hatching eggs are laid.

When DIMILIN 2F is used alone for boll weevil control, it allows normal build-up of beneficial insects which may aid in control of bollworm and budworm. Emulsifiable concentrate insecticide formulations used in tank mixes, in the presence of oil, may result in phytotoxicity. Care should be taken where such mixture is used.

USE AND MIXING DIRECTIONS FOR COTTON IF USED WITH WATER:

1. Fill tank with half of the required amount of water.
2. Begin agitation and add required amount of DIMILIN 2F.
3. Continue agitation while adding remainder of water.
4. Add proper quantity of oil slowly. To avoid formation of an invert emulsion, use at least 2 parts of water for each part of oil.

USE AND MIXING DIRECTIONS FOR COTTON IF USED WITHOUT WATER:

Always evaluate any potential mixture for compatibility and sprayability. To ensure thorough mixing of DIMILIN 2F with insecticides or other carriers, it is recommended that ingredients be premixed in a nurse tank, prior to being transferred to aerial or ground ULV application equipment. If nurse tank is not available, or unable to simultaneously mix:

1. Fill tank with the required amount of oil and/or oil based insecticide.
2. Begin agitation and add required amount of DIMILIN 2F.
3. After the contents of the tank have been thoroughly agitated, a volume of carrier sufficient to fill the booms and piping system should be drained and then added back to the tank.

Aerial or ground application: Spray should be applied with aerial or ground equipment designed or modified to insure full uniform coverage of the entire plant. Adjust equipment to provide droplets with a diameter of 150 to 220 microns. Provide agitation prior to, during, and after blending and while applying.

USE RESTRICTIONS FOR COTTON: Do not exceed 6 applications and do not exceed 24 oz. DIMILIN 2F per season. Do not exceed 3 applications and 12 fl. oz. DIMILIN 2F post boll opening. Do not apply closer than 14 days before harvest.

RESTRICTIONS ON ROTATIONAL CROPS: Do not plant food or feed crops in DIMILIN treated soils within 6 months following last application, unless DIMILIN is authorized for use on these crops.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE - Store in a dry location.

PESTICIDE DISPOSAL - Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT NOTICE — Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

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