

400-482

04/16/99

✓ Jacket 1/4



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

APR 16 1999

Willard F. Cummings
UNIROYAL CHEMICAL Company
74 Amity Road
Bethany, Connecticut 06524-3402

Attn: Allen R. Blem

Dear Mr. Cummings:

Subject: Application for Amendment of Registration
EPA Registration No. 400-482 STIFLE
Your applications dated January 26, 1999

The amendment referred to above, was submitted for:

1. Reiteration of advisory statement "Always shake or stir this product well before using", this time in the Mixing Directions.
2. Addition of a lower application rate for flue-cured tobacco, with description when rate range is to be used.

This amendment submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable.

A stamped copy of the approved label is enclosed.

If you have any questions concerning this letter, please contact "C. P." Moran of the Fungicide Branch at (703) 308-8590.

Sincerely,

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Cynthia Giles-Parker
Product Manager (22)
Fungicide Branch
Registration Division (7505C)

Enclosure

STIFLE™

ACCEPTED
with COMMENTS
In EPA Letter Dated:

APR 16 1999

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

400-482

FOR CONTROL OF SUCKERS ON TOBACCO

Net contents:

COMPOSITION

Active Ingredients: (% by weight)

potassium salt of 1,2-dihydro-3,6-pyridazinedione 20.6%*

butralin [4-(1,1-dimethylethyl)-N-(1-methylpropyl)-2,6-dinitrobenzeneamine] 11.6%*

Inert Ingredients: 67.8%

Total: 100.0%

* Contains 1.5 pound of maleic hydrazide and 1.125 pound of butralin per gallon.

* Contains 180 grams of maleic hydrazide and 135 grams of butralin per liter.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: long-sleeved shirt and long pants; waterproof gloves; shoes plus socks; protective eyewear.

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 or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-5)], 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 product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment washwaters.

**UNIROYAL
CHEMICAL**

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all label directions carefully before use.

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

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 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; protective eyewear

FOR USE ON TOBACCO

GENERAL

STIFLE™ is a plant growth regulator, containing both maleic hydrazide and butralin, for control of suckers on tobacco, including flue-cured, air-cured (burley, Maryland, and cigar-types) and dark types. Consult with your local Extension Service tobacco specialist for recommended treatments for your area.

ALWAYS SHAKE OR STIR THIS PRODUCT WELL BEFORE USE.

STIFLE mixes readily with water to form a light yellow suspension. If a spray mixture is allowed to stand several hours, agitate thoroughly before resuming treatments.

See APPLICATION NOTES for additional important information.

APPLICATION EQUIPMENT

STIFLE may be applied with motorized field sprayers (high-clearance or tractor-mounted) equipped with solid-cone nozzles that deliver a coarse spray. For example, a three solid-cone nozzle arrangement directed over the row, operating at 20 to 30 psi, delivers a coarse spray that runs down the stalk and wets suckers in the leaf axils.

This product may also be applied to individual plants by using a hand-held dropline, a knapsack sprayer, or jug application.

All sprayers should be equipped with a pressure regulator and pressure gauge.

TIMING OF APPLICATION

Apply STIFLE when tobacco plants are in the elongated button to early flower stage. Top leaves to be harvested should be at least 8 inches long at treatment time. All suckers greater than 1 inch long should be removed by hand prior to treating with this product. Any suckers that were shielded and escaped treatment should be removed by hand two to three weeks after treatment.

ON FLUE-CURED TOBACCO, apply STIFLE 5 to 7 days after the last fatty alcohol contact treatment.

ON AIR-CURED AND DARK TOBACCO, STIFLE may be applied either just before or immediately after topping (within 24 hours).

Sucker control may not be consistent within a field if tobacco plants are not uniform in development when treated.

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DO NOT HARVEST FIRST LEAVES FOR AT LEAST 7 DAYS AFTER TREATING FLUE-CURED TOBACCO AND AT LEAST 30 DAYS AFTER TREATING AIR-CURED (BURLEY, MARYLAND AND CIGAR TYPES) AND DARK TYPES OF TOBACCO.

RATE OF APPLICATION

At the indicated volume per acre., the amount of spray mixture per plant should be sufficient to run down the entire stalk, contacting all leaf axils and suckers buds. No excess mixture should be allowed to reach the ground and puddle around the base of each plant.

When applying this product using the knapsack sprayer or jug method, mix 4 to 5 fluid ounces of STIFLE per gallon of water, and apply about one-half fluid ounce of spray mixture per plant. One gallon of spray mixture should treat about 250 plants.

Flue-Cured Tobacco

To control suckers on flue-cured tobacco, begin with a standard fatty alcohol contact program. Five to 7 days after contacts, apply 1.5 to 2.0 gallons of STIFLE in 50 gallons of water per acre. Use the higher rate in seasons when sucker pressure is heavier, or when the product is being applied to known heavy suckering varieties. Apply as a coarse spray to get rundown on the stalk.

Air-Cured Tobacco (burley, Maryland, cigar)

On heavy suckering varieties or when extended sucker control is desired, to reduce escapes, use 1.5 to 2.0 gallons of STIFLE in 50 gallons of water per acre. Use the higher rate on 14L8, 2110, or other heavy suckering varieties or in seasons when sucker pressure is heavier. Apply as coarse spray to get rundown on the stalk. Apply within 24 hours after topping.

Dark Tobacco

To control suckers on dark types, apply 1.5 to 2.0 gallons of STIFLE in 50 gallons of water per acre as a single application just before or after topping. Use the higher rate in seasons when sucker pressure is heavier or when the product is being applied to known heavy suckering varieties. Apply as a coarse spray to get rundown on the stalk. Apply within 24 hours after topping.

APPLICATION NOTES

1. Always follow dosage recommendations carefully and spray field uniformly. Applying too little of this product may result in less than desired sucker control; applying too much may reduce quality of tips.
2. Use this product only once per season.
3. Rain occurring more than six hours after STIFLE application should not affect the effectiveness of this product.
4. This product is most effective when the spray contacts the sucker buds directly. In fields where tobacco plants are excessively lodged, plants should be straightened prior to treatments, so spray mixture runs down the stalk evenly and contacts all sucker buds.
5. To control tobacco suckers effectively, apply this product at the proper time. Spraying too early in the season may prevent normal development of top leaves; spraying too late will allow some sucker growth.
6. Immature leaves that are less than 8 inches long at the time of treatment with this product may develop cupped or curled appearance.
7. Closely hand-suckered tobacco or tobacco treated with maleic hydrazide will not ripen as rapidly as poorly suckered tobacco. Also, under some conditions maleic hydrazide treated tips have a tendency to turn yellow prematurely. This is not harmful and does not mean that your tobacco is ripe. Therefore, do not harvest tobacco treated with maleic hydrazide by using time and color of the leaves as your only guide to ripeness. Use other characteristics indicative of ripeness such as:
 - a. Fading of color from midrib.
 - b. Change in apparent leaf texture.

- 8. Do not apply on windy days, since sprays may not be deposited uniformly on the leaf axils and sucker buds. Avoid drift to adjacent crops, as injury may result.
- 9. Do not apply to wet plants, such as immediately after heavy rain or when there is heavy dew.
- 10. Do not spray tobacco in the middle of hot, dry days when leaves are severely wilted. For best results, apply during the early morning, or all day on cloudy days, avoiding late afternoon or night applications.
- 11. If tobacco plants have been grown under drought conditions, absorption of this product may be slow, and results may not be as good as when plants have been grown under normal conditions.
- 12. **SURFACE WATER ADVISORY:** Under some conditions, maleic hydrazide may have a significant potential for runoff into surface water (primarily via dissolution in runoff water), for several days post-application. Conditions favoring runoff include poorly draining soils or wet soils with readily visible slopes, frequently flooded areas, areas where an intense or sustained rainfall is forecast to occur within 48 hours, areas overlying extremely shallow ground water, and areas overlying tile drainage systems that flow to surface water.
- 13. **COMPATIBILITY:** Studies on this product in tank mixtures with other tobacco chemicals have not been completed. Separate applications are recommended.
- 14. Do not use on tobacco plants grown for seed production.

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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ALWAYS SHAKE OR STIR WELL BEFORE USE

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.
STORAGE: Do not store near fertilizers, seeds, insecticides or fungicides. Store in original container only. After partial use, replace lid and close tightly. Store in a secure place that is temperate and dry. Do not store this product at temperatures below 32°F or above 90°F. Do not store under conditions which might adversely affect the container or its ability to function properly. ALWAYS SHAKE OR STIR WELL BEFORE USE.
PESTICIDE DISPOSAL: Pesticide wastes are 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.
EQUIPMENT CLEANING: Following use, all application equipment should be thoroughly rinsed with water. Do not contaminate water by disposal of equipment washwaters.
CONTAINER DISPOSAL: Plastic Containers: Triple rinse (or equivalent). Pressure rinse is preferred. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

EMERGENCY ASSISTANCE:

UNIROYAL CHEMICAL EMERGENCY PHONE 203-723-3670
SAFETY DATA AND INFORMATION 203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300

