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**ACCEPTED**

AUG - 4 1989

Under the Fungicide, Insecticide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 400-155

# HARVADE®-5F

HARVEST GROWTH REGULANT  
FOR COTTON

**UNIROYAL  
CHEMICAL**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS**  
**CAUTION**

Harmful if swallowed or inhaled. Do not breathe vapors or spray mist. Avoid contact with skin, eyes or clothing. Wear a long sleeve shirt and impermeable gloves during mixing, loading, flagging, or application of HARVADE-5F. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists. Keep away from food or food products. Wash hands and face thoroughly with soap and water after use and before eating or smoking.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated area.

**COMPOSITION**

Active Ingredient: (% by weight)

dimethipin (2,3-Dihydro-5,6-dimethyl-1, 4-dithiin 1,1,4,4-tetraoxide*)	48.0% **
Inert Ingredients:	52.0%
<b>Total:</b>	<b>100.0%</b>

\*U.S. Patent No. 3,920,438  
\*\*Contains 4.9 pounds of 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.

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

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**STORAGE AND DISPOSAL**

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

**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:**

Plastic Containers: 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.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED:** Drink two large glasses of water and induce vomiting. Contact a physician.

**IF ON SKIN:** Wash affected area with plenty of soap and water.

**IF IN EYES:** Flush eyes with plenty of water for at least 15 minutes. Contact a physician.

**IF INHALED:** Remove to fresh air; if abnormal symptoms develop, contact a physician.

**SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**

UNIROYAL CHEMICAL COMPANY, INC.  
Middlebury, CT 06749  
EPA REG. NO. 400-155  
EPA EST. NO.  
HARVADE is a registered trademark of UNIROYAL CHEMICAL COMPANY, INC.  
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### MIXING INSTRUCTIONS

SHAKE CONTAINER VIGOROUSLY BEFORE USE. Fill the spray tank with 2/3 of the required amount of water. Add the desired amount of HARVADE-5F, the selected crop oil concentrate and remaining required amount of water. The HARVADE-5F and crop oil concentrate will suspend easily with minimum agitation. To assure that container content is emptied - TRIPLE RINSE INTO SPRAY TANK.

### DIRECTIONS FOR USE

#### General Information

HARVADE-5F is a plant growth regulant that effects certain plant processes which lead to defoliation in cotton. Since HARVADE-5F must enter the plant through the leaves for optimum activity, it must be applied in a manner that will allow maximum penetration through the leaf surface. Complete coverage of the entire plant is essential for optimum effectiveness. HARVADE-5F MUST BE USED WITH A MINIMUM OF ONE PINT/A OF THE DESIGNATED CROP OIL CONCENTRATES. HARVADE-5F will improve the harvest operation by also desiccating most mature morningglory species. Desiccation/defoliation of other weed species such as sicklepod, croton, and teaweed has been observed. Good coverage of these above weeds is necessary for optimum results.

#### Application Equipment:

Nearly all spray application equipment is suitable for applying HARVADE-5F if fine spray droplets can be deposited. If aerial equipment is used, it should be fitted with a fixed boom set at 45-90° relative to the trailing edge of wing and flown 10-12 ft. above the crop canopy.

#### Compatibility:

HARVADE-5F is compatible with most commonly used cotton desiccants, defoliants, and insecticides. HARVADE-5F has been shown to be incompatible with EPN when used as a tank mix. Consult your supplier or Uniroyal for details.

#### Application Timing

Optimum defoliation will be obtained when HARVADE-5F is applied to mature cotton plants; i.e. 70% or more of the bolls open, no active growth, lower leaves have purple tinge. Apply 7-14 days prior to anticipated harvest.

#### Application Rate

##### Air Application:

Mix 8 fl. oz. of HARVADE-5F plus one pint of the crop oil concentrate designated below in a minimum of 5 gallons of spray solution per acre. If cotton is rank or conditions favor regrowth, see application notes.

##### Ground Application:

Mix 8 fl. oz. of HARVADE-5F plus one pint of the crop oil concentrates designated below in 10-20 gallons of spray solution per acre. If cotton is rank or conditions favor regrowth, see application notes.

One gallon of HARVADE-5F will treat 16 acres of cotton, when applied at the 8 fl. oz. rate.

#### Application Notes:

Partial defoliation from the first application will most likely result from one or more of the following conditions:

- Rank cotton foliage is dense enough to inhibit spray droplets from reaching bottom leaves.
- Plants are actively growing, with new growth and fruiting evident at the top.
- Bolls are not 70% open.
- Cotton is drought stressed. Under this condition, applications should be made before mid morning or at late afternoon.
- Night temperatures are below 60°F for 3-4 nights before or after application.
- Rainfall occurs within 6 hours after application.

Under these conditions a second application of 8 oz/A may be required 5-7 days after initial application. If only one application is desired on rank or actively growing cotton, a mixture of HARVADE-5F with a phosphate defoliant has been shown to be advantageous.

#### TANK MIX COMBINATIONS

##### HARVADE-5F plus PREP®:

HARVADE-5F may be applied with 1 1/2-2 1/2 pints of PREP® to enhance boll opening and control regrowth. Apply this tank mixture when the bolls are 60-70% open.

##### HARVADE-5F plus GRAMOXONE® SUPER™:

On rain-belt cotton if a high percentage of cotton leaves are still actively growing, then 4-6 fl. oz./A of GRAMOXONE - SUPER should be added to the labeled rate of HARVADE-5F for more complete defoliation.

##### HARVADE-5F plus DROPP® 50WP™:

Under conditions that promote excessive regrowth, a tank mix of HARVADE-5F at 6.5 oz/A with one pint of crop oil plus DROPP 50WP at 0.1 - 0.2 lb/A provides excellent regrowth control. This combination also provides defoliation when night time temperatures are below 60°-70°F for 2 - 3 nights preceding or following application.

®PREP® is the registered trademark of Rhone Poulenc Ag Company

™GRAMOXONE® SUPER is the registered trademark of ICI Americas, Inc.

™DROPP® is the registered trademark of NOR-AM Chemical Co.

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**CROP OIL CONCENTRATES REQUIRED WITH HARVADE-5F**

Any petroleum based crop oil concentrate (83-17) or similar to those listed below must be added at 1-2 pints per acre: Agridex<sup>1</sup>, Prime Oil<sup>2</sup>, Super Oil<sup>3</sup>, Surf Oil<sup>4</sup>, Peptoll<sup>5</sup>, Clean Crop Oil Concentrate<sup>6</sup> and Super Savol<sup>7</sup>. These crop oil concentrates are trademarks of <sup>1</sup> Helena Chemical Company, <sup>2</sup> Terra International Inc., <sup>3</sup> Red Panther Cooperative, <sup>4</sup> Cleveland Chemical Company, <sup>5</sup> Drexel Chemical Co., <sup>6</sup> United Agri-Products, Inc. and <sup>7</sup> Leffingwell.

**USE PRECAUTIONS**

1. Do not plant rotational crops within 6 months after application.
2. Keep HARVADE drift from non-target areas.
- 3a. Do not apply HARVADE-5F directly to, or permit mist to drift onto citrus, broccoli, almonds, grapes, peppers, tomatoes, lettuce, alfalfa, sugarbeets or wheat. These crops may sustain significant injury if contacted with HARVADE-5F.
- b. Do not apply HARVADE-5F to, or permit mist to drift onto soil that will subsequently be seeded to peppers, tomatoes, lettuce, broccoli, alfalfa or sugarbeets. Significant crop injury may occur from such an application.
- c. Do not apply HARVADE-5F to, or permit mist to drift onto, irrigation water that will subsequently be applied to peppers, tomatoes or lettuce.

**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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