

REASON TO ISSUE: Propose new product formulation based on the current registered formulations for EMBARK Plant Growth regulators (EPA Reg. No.'s 7182-7 and 7182-11)  
1/11/83: revise & a.i.

Date of Draft: 1/11/83  
Supersedes Draft: 12/27/82

EPA Est. 07182-IL-01

NET CONTENTS: 1 gallon

EMBARK® E-Z-Tu- Use  
PLANT GROWTH REGULATOR

3M

STOP!

READ THE LABEL BEFORE USING

EPA Reg. No. 7182

ACCEPTED  
JAN 24 1983  
7182-16

ACTIVE INGREDIENT:

Diethanolamine salt of mefluidide\*  
(N-[2,4-dimethyl-5-[[trifluoromethyl)-sulfonyl]aminophenyl]acetamide)..... 3.2%

INERT INGREDIENTS:..... 96.8%  
100%

\*U.S. Patent Nos. 3,639,474; 3,894,078; 4,013,444

\*\*Equivalent to 0.2 lbs. (2.1% by weight) of  
N-[2,4-dimethyl-5-[[trifluoromethyl)-sulfonyl]aminophenyl]acetamide per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HUMANS AND DOMESTIC ANIMALS:

Harmful if swallowed or absorbed through the skin.

Avoid breathing spray mist.

Avoid contact with skin, eyes or clothing. Wear protective clothing; including rubber gloves when handling.

Statement of Practical Treatment: If swallowed: drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Get medical attention. If in eyes: flush with plenty of water, get medical attention if irritation persists.

If inhaled: remove victim to fresh air. If on skin: wash with plenty of soap and water.

ENVIRONMENTAL:

Do not apply directly to lakes, ponds or streams.

Do not contaminate water by cleaning of equipment or disposal of wastes.

Do not allow spray to drift onto nontarget crops or vegetation.

NOTE: Underlined letters in chemical nomenclature should be italicized when printed, not underlined.

DIRECTIONS FOR USE

GENERAL INFORMATION:

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

EMBARK Plant Growth Regulator (PGR) is recommended for use in public, commercial, and industrial areas for regulating the growth of various species of turfgrasses, broadleaf vegetation, and ornamentals. When applied to turfgrasses, EMBARK PGR reduces mowing requirements for up to 8 weeks following treatment by regulating growth and suppressing seedhead formation.

EMBARK PGR may also be applied as a full coverage spray to certain ornamental species of evergreen shrubs, hedges, trees and groundcover in California only. EMBARK PGR reduces pruning for up to 12 weeks by regulating growth and/or inhibiting flower formation.

SPRAY EQUIPMENT:

EMBARK PGR may be applied to localized areas with small spray units, such as backpack sprayers, or to larger areas with conventional spray equipment. For ornamentals, use a power sprayer (equipped with a handgun or handheld wand). To be assured of proper dosage and uniform spray coverage, it is essential that spray equipment is properly calibrated. Calibrate small spray equipment by making a trial application over a measured area.

MIXING:

Pour the required amount of EMBARK PGR into the spray tank containing approximately 1/2 the required amount of water. Fill the tank as required with water and spray as recommended. Minimal agitation in the spray tank is necessary since the formulation is soluble in water.

RINSING:

Triple rinse the EMBARK PGR container with water and pour the rinse solution into the spray tank prior to spraying. Do not use spray equipment for other purposes until thoroughly cleaned. Flush spray equipment with plenty of water immediately after use to avoid contamination of later sprays.

STORAGE AND DISPOSAL:

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

PESTICIDE DISPOSAL:

Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under the Resource Conservation & Recovery Act.

CONTAINER DISPOSAL:

Triple rinse (or equivalent) and offer for recycling or reconditioning, or dispose of in a sanitary landfill or by incineration if permitted by state and local procedures.

RECOMMENDED APPLICATIONS

TURFGRASSES

Apply EMBARK PGR uniformly to green, actively-growing turf. At the time of treatment, turf should be at the height which is desired to be maintained during the period of growth regulation. For season-long seedhead suppression of cool season grasses, apply no later than when the seedhead can be felt at the base of the stem (approximately 2 weeks prior to seedhead appearance). Do not apply to closely-mowed areas where most of the green growth has been cut. Turf may be mowed up to 1 day before or 3 to 7 days after application. Remove all grass clippings and leaves prior to treatment. Avoid spray overlaps that will increase dosage above those recommended. EMBARK PGR may be applied twice per season on Kentucky bluegrass, fescues, and Bermudagrass; however, an interval of at least 6 weeks should occur before the second application. Use the higher rate of application where the greatest growth regulation and seedhead suppression are desired.

In comparison with untreated, actively-growing turf, treated turf which is being maintained in height by EMBARK PGR may appear less dense and temporarily discolored following application. However, with increasing time, turf may appear darker green than untreated areas.

ORNAMENTALS (CALIFORNIA ONLY)

For growth regulation, apply EMBARK PGR to foliage as a full coverage spray to runoff and foliage penetration. Applications should be made to healthy, actively-growing plants 7-14 days after pruning or trimming.

For flower inhibition of olive trees, apply EMBARK PGR to foliage as a full coverage spray to runoff at pre-bloom (tight bud stage) through the 5% bloom stage.

**RECOMMENDED USE AREAS:** EMBARK PGR may be applied to specified turfgrasses and ornamentals in the following commercial and public areas:

**COMMERCIAL-INDUSTRIAL:** Highway rights-of-way, utility rights-of-way, buildings, industrial parks, tank farms, airports.

**PUBLIC:** Schools, libraries, hospitals, cemeteries, golf courses, parks, roads and walkways.

APPLICATION RATE TABLE	
USE ON	AMOUNT OF EMBARK PGR per 1,000 sq. ft. in 3 gallon water
<b>TURFGRASSES:</b> Kentucky and Annual Bluegrasses Tall, Red and Chewings Fescues Perennial Ryegrass Timothy Reed Canarygrass Quackgrass Centipedegrass Kikuyugrass	4-8 fl. oz. (8-16 Tbsp.)  4-6 Fl. oz. Calif. only
Crested Wheatgrass* Orchardgrass* Smooth Bromegrass*	6-8 fl. oz. (12-16 Tbsp.)
St. Augustinegrass	4 fl. oz. (8 Tbsp.)
Common Bermudagrass	16 fl. oz. (32 Tbsp.)
<b>CALIFORNIA NATIVE GRASSES AND                      BROADLEAF VEGETATION:</b> <u>Grasses -</u> Wild Barley, Red Brome, Ripgut Brome Wild Oats <u>Broadleaves -</u> Cheeseweed, Sour Clover, Fiddleneck, Redstem Filaree, Black Mustard	8-16 fl. oz. (16-32 Tbsp.)

\*Except California

ORNAMENTALS. (California Only)	fl. ozs./gallon water
Privet Photinia Pyracantha Pittosporum Ivy, English and Algerian Iceplant Oleander	6 2/3
Ornamental olive trees	1 2/3

LIMITATIONS

Turfgrasses and broadleaf vegetation:

EMBARK PGR should not be applied to golf greens.

Do not apply EMBARK PGR to turf areas within 4 growing months after seeding and do not reseed within 2 weeks following application.

Do not allow animals to graze on treated areas.

Optimum results may not be obtained if rainfall or overhead irrigation occurs within 8 hours following application.

Ornamentals:

Avoid spray drift on to non-target foliage. Avoid drift on to food crops. Do not wash foliage for at least 24 hours. If rain occurs within 8 hours, dilution of spray may occur. Do not apply to stressed, diseased, or otherwise unhealthy plants. Do not apply to plants grown in containers. Do not apply more than once a season. To avoid 2,4D damage to ornamentals thoroughly rinse spray tank prior to applying EMBARK PGR.

NOTICE - LIMITED WARRANTY:

The Directions for Use for this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Permanent injury, ineffectiveness or other unintended consequences may result because of such factors as adverse weather conditions, presence of fertilizers or other pesticides, or use inconsistent with label directions, all of which are beyond the control of 3M or the Seller. All such risks shall be assumed by the Buyer.

3M WARRANTS that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the inherent risks referred to above. 3M makes no other expressed or implied Warranty of Fitness or Merchantability or any other expressed or implied warranty. In no case shall 3M or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

3M and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of 3M.

Not intended for household use or resale.

EMBARK is a registered trademark of 3M.

AGRICULTURAL PRODUCTS/3M  
3M, St. Paul, MN 55144