<u>REASON TO ISSUE:</u> To update label and propose minor label revisions in line with specifying "less maintained turf" areas. Date of Draft: 9-9-87

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EMBARK[®] E-Z-TU-USE PLANT GROWTH REGULATOR (PCR)

STOP!

READ THE LABEL E' "ORE USING

EPA Reg. No. 7182-16

EPA Est.

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ACTIVE INGREDIENT:

Diethanolamine salt of mefluidide^{*} (<u>N-[2,4-dimethyl-5-[[(trifluoromethyl)-</u> sulfonyl]amino]phenyl]acetamide).....3.2%^{**}

**Equivalent to 0.2 lbs. (2.1% by weight) of

sulfonyl]amino]phenyl]acetamide per gallon.

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

N[2,4-dimethy1-5-[[(trifluoromethy1)-

REDUCES MOWING REQUIREMENTS ON LESS-MAINTAINED TURFGRASSES FOR UP TO 6 WEEKS

....

ACCEPTÉL OCT 2 01987 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under

Reg. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See other panels for Statement of Practical Treatment and additional Precautionary Statements.

NET CONTENTS:

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

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUTIONARY STATEMENTS

HUMAN 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 glases 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

ENVIRONMENTAL:

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of soap and water.

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 non-target crops or vegetation.

STORAGE AND DISPOSAL IN RESIDENTIAL AND HOUSEHOLD AREAS:

Store product in original container only and in a locked storage area. For disposal, rinse thoroughly and securely wrap original container in several layers of newspaper and discard in trash. Do not reuse empty container.

DIRECTIONS FOR USE

GENERAL INFORMATION:

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

EMBARK[®] E-Z-TU-USE Plant Growth Regulator (PGR) is recommended for use in residential areas for regulating the growth of various species of turfgrasses and ornamentals. When applied to turfgrasses, EMBARK[®] PGR reduces mowing requirements for up to 6 weeks following treatment by regulating growth and suppressing seedhead formation.

RECOMMENDED USE AREAS:		
EMBARK [®] E-Z-TU-USE PGR ma areas:	y be applied to turfgrasses or orname	ntals in the following
Public-Residential:	Home lawns, schools, libraries, h golf courses, parks, walkways, co apartment complexes.	ndominiums, and
Agricultural Premises:	Around farm buildings, storage sh storage areas.	eds, and implement
Edging		

Edging:

EMBARK PGR may also be used for edging and trimming grass or ornamentals when uniformly applied with pump type sprayers or hose-end sprayers.

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For turf, apply along and around obstacles bordering such areas as sidewalks, driveways, trees, and fences where grass is desired to meet the obstacle, but growth regulation is desired to avoid trimming.

EMBARK[®] PGR is recommended for use on less-maintained turf grass areas such as: out-of-the-way backyard areas, vacant lots, road and curbside grass, fenceline areas, steep banks, vacation home areas, rocky or rough terrain grass areas, and other fringe turf areas that are difficult to mow and where pristine, fine quality turf is not a priority.

Note: EMBARK[®] PGR is a plant growth regulator and will not provide herbicidal control of weeds. For weed control, EMBARK[®] PGR should be applied with a broadleaf herbicide such as ACME SUPER WEED-NO-MORE[®] or other WEED-NO-MORE[®] brand products. It is essential to follow label directions exactly for both the EMBARK[®] PGR and the broadleaf herbicide used.

For residential turf areas that are frequently maintained and trimmed, or for home lawn areas which present a pristine quality, fine turf appearance, EMBARK[®] PGR applications may not be suitable.

SPRAY EQUIPMENT

EMBARK[®] E-Z-TU-USF PGR may be applied to localized turfgrass areas with small spray units such as hand pump tank type and hose-end sprayers, or to larger areas with conventional spray equipment fitted with a spray boom, off centered nozzles, or handgun.

It is essential that the spray equipment is operating properly and is delivering the correct recommended dosage rates. Accordingly, a trial application over a measured area is recommended.

MIXING:

Since EMBARK[®] PGR is soluble in water, minimal mixing with the final spray solution is required. Accordingly, when mixing in spray equipment other than a hose-end sprayer, pour the required amount of EMBARK[®] PGR into the spray tank containing approximately one-half the required amount of water. Fill the tank as required with water and spray as recommended.

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 for other purposes until thoroughly cleaned. Flush spray equipment with plenty of water immediately after use to avoid comtamination of later sprays.

For hose-end sprayers, thoroughly rinse spray container and spray solution onto

RECOMMENDED APPLICATIONS USING CONVENTIONAL SPRAY EQUIPMENT

4017.

TURFGRASS

Apply EMBARK[®] E-Z-TU-USE PGR uniformly to green, actively growing grass. 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 two 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 one day before or three to seven days after application. Remove all grass clippings and leaves prior to treatment. Avoid spray overlaps that will increase dosage above those recommended. EMBARK[®] E-Z-TU-USE PGR may be applied more than once per season. However, wait until the grass resumes active growth and then mow prior to the next applications. Use the higher rate of application where the greatest growth regulation and seedhead suppression are desired.

In comparison with untreated, actively growing grass, treated turf which is maintained in height by EMBARK^{\odot} E-Z-TU-USE PGR may appear less dense and temporarily discolored following application. With increasing time, however, turf may appear darker green than untreated areas.

ORNAMENTALS

EMBARK[®] E-Z-TU-USE PGR reduces pruning and trimming for up to 8 weeks by regulating growth and/or inhibiting flower formation. Apply to foliage as a full coverage spray to the point of 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 $EMBARK^{\textcircled{B}}$ E-Z-TU-USE PGR to foliage as a full coverage spray to runoff at pre-bloom (tight bud stage) through the 5% bloom stage.

When applied according to the application rates specified, EMBARK[®] PGR will regulate the growth of the following ornamentals:

APPLICATION RATE TABLE

USING CONVENTIONAL OR PORTABI	LE TANK TYPE PRESSURE SPRAYER		
Use On: Turfgrasses	Amount of EMBARK [®] E-Z-TU-US Per 1,000 Sq. Ft. in 3 Gal.		
Kentucky and Annual Bluegrass Tall, Red and Chewings Fescue Perennial Ryegrass Timothy Reed Canarygrass Quackgrass Kikuygrass Centipedegrass	4-8 Fl. Oz.		
Crested Wheatgrass Orchardgrass Smooth_Bromegrass	6-8 Fl. Oz.	· · · · · · · · · · · · · · · · · · ·	
St. Augustinegrass	<u>4</u> Fl. Oz.	- -	- ~ ~
_ Common_Bermudagrass	16 Fl. 0z.		

Use on : Ornamentals	• 	Amount of EMBARK [®] E-Z-TU-USE PGR Per Gallon Water
Abelia	I	
Barberry		
Bottlebrush	•	
Bougainvillea		
Boxwood (Buxus sp.)	•	
Crepe Myrtle	1	· · · · · · · · · · · · · · · · · · ·
Eleagnus	1	6-1/2 Fl. 0z.
Euronymous	1	· ·
Ficus	•	
Hibìscus	1	
Holly (Ilex sp.)	•	•
Jasmine		
Laurel	•	
Melaleuca	1	
Nandina	•	
Oleander		
Osmanthus	٠	
Photinia	1	
Pittosporum	I	
Podocarpus		
Privet (Ligustrum sp.)		
Pyracantha	ļ	
Viburnam	,	•
Xylosma		
Yopan	,	

RECOMMENDED APPLICATIONS USING HOSE END/HIGH VOLUME APPLICATIONS

TURFGRASS

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Apply EMBARK[®] E-Z-TU-USE PGR to well established turf areas when grass is green and actively growing. To ensure good coverage, spray until grass is thoroughly wet down to the soil without drenching the soil. For best results use a hose-end sprayer capable of delivering 7-10 gallons of water per 1,000 sq. ft. For a uniform appearance to the grass area, a mowing is recommended one to two days prior to spraying EMBARK[®] E-Z-TU-USE PGR. While a second mowing after spraying Should not be necessary for 3-6 weeks, some trim mowing may be required to maintain a uniform; even appearing turf area. A repeat application may be made to turf; however, wait... till the grass resumes active growth and then mow prior to the next application for a more uniform turf appearance. Wait at least 6 weeks between applications.... To maintain a healthy, well groomed turf area, continue to water grass on a regular basis and use fertilizers, herbicides, insecticides, or fungicides as needed.

When applied according to the application rates specified, EMBARK PGR will regulate the growth of the following turfgrasses:

Kentucky and Annual Bluegrass Tall, Red and Chewings Fescue Perennial Ryegrass Timothy Reed Canarygrass Quackgrass Kikuygrass Centipedegrass Crested Wheatgrass Orchardgrass Smooth Bromegrass

HOW MUCH TO USE TURFGRASS

Pressure Sprayers: Measure indicated amount of EMBARK[®] PGR into tank and dilute with water according to the following chart. Use a spray pattern that will give a uniform full coverage spray to the area indicated. Avoid spray overlaps that will increase dosage above those recommended.

Amt. EMBARK (Tbsp.)	[®] PGR To Use (Fl. Oz.)	Amt. of Water in Sprayer (Gallons)	Area To Be Sprayed (Sq. Ft.)
2	1	1	200
4	2	2	400
6	3	3	600

Hose end sprayers: Use a hose end sprayer designed for lawns. Put recommended amount of product (column 1) in bottle and add water to indicated level (column 2), and spray on area shown in column 3.

Col	<u>umn 1</u>	Column 2	Column 3
Amt. EMBAR (Tbsp.)	K [®] PGR To Use (F1. Oz.)	Fill Bottle To (Gallons)	Area To Treat (Sq. Ft.)
4	2	4	400
10	5	10	1000
14	7	14	1400
20	10	20	2000
32	<u>r 16</u>	32	3000

LIMITATIONS

 $EMBARK^{\oplus}$ E-Z-TU-USE PGR should not be applied to golf greens.

Do not appy EMBARK[®] E-Z-TU-USE PGR to turf areas within four growing months after seeding and do not reseed within two weeks following application.

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

Avoid spray drift onto non-target foliage.

Avoid drift onto 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 grass or ornamentals.

Do not apply to plants grown in containers.

To avoid 2, 4-D damage to ornamentals, thoroughly rinse spray tank prior to applying EMBARK[®] E-2-TU-USE PGR.

NOTICE - LIMITED WARRANTY:

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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 express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall 3M or the Seller be liable for consequential, special or indirect damages resulting from the use or hand ing of this product. The liability of 3M or Seller for damages arising from the use of this product is limited to the replacement of the product use or a refund of the purchase price.

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.

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Page 7 of 7