

EMBARK® **Turf and Ornamental Growth Regulator**

***Reduces Frequency of Mowing of
Certain Grasses and Trimming of Ornamentals.***

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS: 96.8%
TOTAL 100.0%

Equivalent to 0.2 lb. (2.4% by weight) (N-[2,4-dimethyl-5-[[[(trifluoromethyl)sulfonyl]
amino]phenyl]acetamide) per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**



**READ THE ENTIRE LABEL FIRST.
OBSERVE ALL PRECAUTIONS AND
FOLLOW DIRECTIONS CAREFULLY.**

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Harmful if swallowed.

Personal Protective Equipment (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt,
- Long pants and,
- Shoes plus socks.

User Safety Requirements

Follow manufacturer's instructions for cleaning maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If inhaled:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for treatment advice.

(cont. on next column)

First Aid (cont.)

If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If on skin or clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

This chemical [mefluidide] has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

DIRECTIONS FOR USE

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

USE PRECAUTIONS AND RESTRICTIONS:

- Do not enter or allow others to enter until sprays have dried.
- 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.
- Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

1. Sites and Benefits

EMBARK® Turf and Ornamental Growth Regulator may be applied to cool-season and warm-season turfgrass in commercial, public and noncropland areas such as:

- **Commercial lawns**, defined as areas around properties or facilities providing a service to public or private organizations including, but not limited to office buildings, hospitals, nursing homes, schools, universities, museums, libraries, sport facilities (golf courses), recreation areas, and athletic fields.
- **Residential lawns**, defined as areas associated with the household or home life including, but not limited to, apartment complexes, condominiums, and patient care areas of nursing homes, mental institutions, or convalescent homes.
- **Noncropland areas**, defined as vacant lots, road and curbside grass, fencelines, steep banks, rocky or rough terrain, and other fringe turf areas.
- **Agricultural premises**, such as around farm buildings, storage sheds, implement storage areas, and roadsides.

EMBARK® Turf and Ornamental Growth Regulator suppresses seed-head formation, decreases the amount of clippings, and reduces the mowing requirements for up to 4 weeks.

2. Spray Equipment and Mixing Instructions

The following spray equipment is recommended:

EQUIPMENT: Use conventional power spray equipment fitted with a spray boom, off-center nozzles, or spray gun. Hose end sprayers and backpack sprayers are appropriate for localized spot treatments or broadcast treatments on larger turfgrass areas. Hand pump and backpack sprayers are suitable for edging or spot treatments.

CALIBRATION: It is essential that spray equipment is properly adjusted and calibrated to ensure proper dosage and uniform spray coverage. Follow the spray equipment manufacturer's directions for cleaning, adjusting pressure and selecting appropriate nozzles.

MIXING:

1. Pour the required amount of EMBARK® Turf and Ornamental Growth Regulator into the spray tank containing approximately one-half the required amount of water.

7. Spray Volumes

Spray volumes of 20 to 175 gallons per acre or 0.5 to 4.0 gallons per 1,000 square feet are recommended. Uniform applications are essential. Avoid spray overlaps that will increase the dosage above those recommended.

8. Multiple Applications

Cool-Season and Warm-Season Turfgrass: EMBARK® Turf and Ornamental Growth Regulator may be applied more than once per season; however, wait at least 6 weeks between applications. For fall applications, apply at least 1 month before winter dormancy. In turf-grass renovation programs, areas treated with EMBARK® Turf and Ornamental Growth Regulator may be reseeded 3 days following application (except California where reseeding may not occur within 2 weeks).

The maximum application rate is 20.0 pints of product per acre per application (0.5 lb. mefluidide ae per acre per application). The maximum seasonal rate is 40.0 pints of product per acre per year (1.0 lb. mefluidide ae per acre per season).

TURF COLOR AND NITROGEN/IRON COMBINATIONS: Turf treated with EMBARK® Turf and Ornamental Growth Regulator may appear less dense and temporarily discolored when compared with untreated turf. However, turf quality and color may be increased when compared to the untreated areas after the end growth regulation period.

Turf color and quality during weeks 1 through 3 of the growth regulation period may be improved with an application of Ferromec® AC Liquid Iron. Schedule the application of Ferromec® AC Liquid Iron within 10 days before the application of EMBARK® Turf and Ornamental Growth Regulator. Refer to the Ferromec® AC Liquid Iron label for the fertilizer rates.

HERBICIDE COMBINATIONS FOR TURFGRASS: EMBARK® Turf and Ornamental Growth Regulator is a plant growth regulator and will not provide weed control. EMBARK® Turf and Ornamental Growth Regulator may be applied with a broadleaf herbicide such as Trimec® Classic Brand Broadleaf Herbicide, Super Trimec® Broadleaf Herbicide, Trimec® Southern Broadleaf Herbicide, and other herbicides EPA-registered for use in turfgrass. It is essential to follow label directions exactly for both the EMBARK® Turf and Ornamental Growth Regulator and the broadleaf herbicide used.

9. Edging with Pump Type Sprayers

EMBARK® Turf and Ornamental Growth Regulator may be used for edging grass when uniformly applied with pump type sprayers. The benefits of EMBARK® Turf and Ornamental Growth Regulator will be extended trimming intervals, reduced time and labor associated with yard maintenance, and reduced growth in areas difficult to trim.

This edging treatment can be used as a substitute for trimming in areas including:

- along sidewalks, driveways, parking areas, road and curbside grass
- around trees, shrubs, ornamental plantings, and under fencelines or guardrails
- around rocks, signposts, or fringe areas
- around buildings, patios, houses, mobile homes, and areas associated with household or home life.
- and other turfgrass areas requiring hand or mechanical trimming.

WHEN TO USE: Generally, begin applications in the spring after full green-up and continue applications until early fall.

At the time of application, the turfgrass should have developed the desired appearance, the desired height, and sufficient foliage for uptake. Avoid scalping for all turf species. If mowing or trimming removes most of the green leaf tissue, spraying should be delayed until sufficient new growth develops to assure product absorption into green leaves. Allow one or two days after mowing or trimming before applying EMBARK® Turf and Ornamental Growth Regulator. Clippings and other debris should be removed before spraying.

Refer to Table 2 for use rates.

TABLE 2. Use rates for edging treatments

Species	Amount of EMBARK® Turf and Ornamental Growth Regulator* fl. oz./1,000 sq. ft.
Cool-Season Turf	
Kentucky Bluegrass, Perennial Ryegrass, Tall Fescue, Red Fescue (Chewing Fescue, Slender Creeping Fescue, Spreading Fescue)	4
Warm-Season Turf	
Common Bermudagrass	16
Hybrid Bermudagrass, Centipedegrass, Zoysiagrass	8
St. Augustinegrass	4
*Apply the specified amount of product in a 12 inch band for 1,000 linear feet. Or apply the specified amount of product in a 6 inch band for 2,000 linear feet.	

10. Field Marking Paints

FIELD MARKINGS: Temporary field markings can be achieved by applying EMBARK® Turf and Ornamental Growth Regulator with line marking paints.

WHERE TO USE: Sport stadiums, sport fields (schools, colleges/universities, parks, professional facilities), and athletic fields (football, baseball, soccer, lacrosse, softball, others).

TURFGRASS:

Cool-Season Species: Including Kentucky bluegrass, perennial ryegrass, and fescues.

Warm-Season Species: Including bermudagrass and St. Augustinegrass. This product is not recommended for bahiagrass.

EQUIPMENT: Powered strippers/sprayers, walk behind strippers, or wet line paint applicators capable of delivering lines (bands) 2 to 6 inches wide.

MATERIALS: Water based or latex formulations of paint. Line marking paints should comply with the requirements of the appropriate governing body (eg. National Collegiate Athletic Association (NCAA), State High School Athletic Association, or others).

APPLICATION SCHEDULE: Generally, begin applications after full green-up in the spring and apply during active growth until early fall. Applications to turfgrass weakened by drought, insects, or disease may increase the potential for discoloration or injury.

NUMBER OF APPLICATIONS: Top quality water based latex paints may remain visible for one season provided that heavy use areas are resprayed or touched-up periodically. Generally, one application of EMBARK® Turf and Ornamental Growth Regulator with the line marking paint is recommended per season.

APPLICATION RATE: The amount of paint per unit area to assure complete opacity and color of the lines should be recommended by the manufacturer. Our recommendations for plant growth regulation with EMBARK® Turf and Ornamental Growth Regulator are based upon applying one gallon of marking paint per 1,000 square feet.

For Cool-Season Turfgrass: Apply 2 to 4 fluid ounces of EMBARK® Turf and Ornamental Growth Regulator per one gallon of marking paint to treat 1,000 square feet of line surface area.

For Warm-Season Turfgrass: Apply 2 to 16 fluid ounces of EMBARK® Turf and Ornamental Growth Regulator per one gallon of marking paint to treat 1,000 square feet of line surface area.

Refer to Table 3 for specific use rates.

TABLE 3. Use rates for field markings

SPECIES	AMOUNT TO USE fl. oz. of EMBARK® Turf and Ornamental Growth Regulator per 1 gal. of Marking Paint per 1,000 sq. ft.
Cool-Season Turf	
Kentucky Bluegrass, Perennial Ryegrass, Fescues	2 to 4 fl. oz.
Warm-Season Turf	
Common Bermudagrass	15 to 16 fl. oz.
Hybrid Bermudagrass	6 to 8 fl. oz.
St. Augustinegrass	2 to 4 fl. oz.

