



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

524-652

Date of Issuance:

12/22/17

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

M1839 Growth Regulator

Name and Address of Registrant (include ZIP Code):

Simone Seifert-Higgins
Monsanto Company
1300 I (Eye) Street, NW, Suite 450 East
Washington, D.C. 20005

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Tony Kish, Product Manager 22
Fungicide Branch, Registration Division (7505P)

Date:

12/22/17

2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 524-652.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

- Basic CSF dated 09/01/2017

If you have any questions, please contact Tony Kish by phone at 703 308-9443, or via email at kish.tony@epa.gov; or Craig Reeves by phone at 703 347-0486, or via email at reeves.craig@epa.gov.

Enclosure: Stamped Label



M1839 Growth Regulator

Tree and Turf Growth Regulator

A GROWTH REGULATOR FOR THE REDUCTION OF TERMINAL GROWTH IN TREES HEDGES AND SHOOT GROWTH IN TURFGRASSES

Active Ingredient

Paclobutrazol: ((±)-(R*,R*)-β-[(4-Chlorophenyl)methyl)-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol)	21.8%
<u>Other Ingredients:</u>	<u>78.2%</u>
Total:	100.0%

Contains 2 pounds of active ingredient per one (1) U S gallon

Keep Out of Reach of Children CAUTION / PRECAUCION

Si usted no entiende la etiqueta busque a alguien para que se la explique a usted no detalle (If you do not understand the label find someone to explain it to you in detail)

Refer to inside of label booklet for additional precautionary information and directions for use, including first aid and storage and disposal

Notice: Read the entire label before using. Use only according to label directions. **Before buying or using this product read *Terms and Conditions of Use, Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies* at the end of the label booklet. If terms are unacceptable return at once unopened.**

Specialty Chemical. Do not ship or store with food, feeds, drugs, or clothing

Shake Well Before Use. Product Must be Diluted Before Use

EPA Reg No 524-ALE

EPA Est No _____

Monsanto Company

800 N. Lindbergh Blvd.,
St. Louis, Missouri 63167

Tree and Turf Growth Regulator

Net Contents _____

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

CAUTION / PRECAUCION

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

FIRST AID	
If swallowed	<ul style="list-style-type: none">• 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 a poison control center or doctor• Do not give anything by mouth to an unconscious person
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing• Rinse skin immediately with plenty of water for 15 to 20 minutes• Call a poison control center or doctor for treatment advice
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 to 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	<ul style="list-style-type: none">• 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 further treatment advice
Have the product container or label with you when calling a poison control center or doctor or going for treatment. To contact Monsanto in case of emergency Call Collect Day or Night 1-314-694-4000.	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category F on an EPA chemical resistance category selection chart.

Applicators and other handlers wear

- Long sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material (such as barrier laminate butyl rubber nitrile rubber or Viton® ≥14 mils) and
- Shoes plus socks

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.

USER SAFETY RECOMMENDATIONS

Users should

- Wash hands before eating drinking chewing gum using tobacco or using the toilet
- Remove clothing/PPE immediately if pesticide gets inside Then wash thoroughly and put on clean clothing
- 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

ENVIRONMENTAL HAZARDS

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 when disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read all directions for use carefully before applying this product. Use only according to label directions.

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.

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), restricted entry interval, and notification to workers. 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 into 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:

- Long sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material (such as barrier laminate butyl rubber nitrile rubber or Viton® ≥14 mils) and
- Shoes plus socks

Use Information for Growth Regulation of Trees and Hedges

[InsertBrandName] is a xylem mobile plant growth regulator that slows vegetative growth by inhibiting gibberellin biosynthesis. [InsertBrandName] reduces vegetative growth thereby reducing the volume of woody growth that must be removed from trees and hedges when trimming occurs and may extend the trimming cycle.

[InsertBrandName] is equally effective when applied as a soil directed spray basal soil drench or by soil injection. [InsertBrandName] can be used on listed trees and hedges found in areas to include utility rights of way (i.e. below transmission lines and railroad and highway rights of ways), urban environments (i.e. in parks and parking lot areas, storage areas, street medians and easements, commercial/municipal building or office sites, plazas around walkways and sidewalks above ground, planters and around schools, hospitals, and other buildings), residential areas, and other non-crop areas (i.e. industrial sites, athletic fields, and other recreational areas, naturalized areas, and other uncultivated, nonagricultural areas, fence and property lines, and airports).

Symptoms of Growth Regulation: [InsertBrandName] demonstrates little or no phloem mobility. Activity occurs following root uptake and xylem translocation throughout the tree canopy. Symptoms of growth regulation may not be visible for up to 18 months following application of [InsertBrandName]. Initial effects of [InsertBrandName] may be observed as intense greening of foliage with no resulting phytotoxicity. At the time when normal vegetative growth extension should occur trees treated with [InsertBrandName] will exhibit shortened internodes which may be somewhat thickened. Smaller leaf size and increased flowering may also be observed in some species.

Use Precautions for Applications to Trees and Hedges

- **DO NOT** treat sugar maple trees or any other trees that are or could be tapped for sugar within one year of application.
- **DO NOT** treat nut or fruit trees that will be harvested within one year of application.
- **DO NOT** treat trees which are severely stressed or rapidly declining due to moisture temperature low soil fertility or exhibit mechanical or chemical injury.
- **DO NOT** reapply [InsertBrandName] until symptoms from previous applications begin to subside or within 3 years of the last application whichever comes first.
- **Chemigation: DO NOT** apply this product through any type of irrigation system.
- Trees not used for food production that are not specifically listed on this label may be treated if all other label directions are followed.
- Soil type and environmental conditions can affect the degree and longevity of growth regulation following application of [InsertBrandName]. Follow label instructions to increase effectiveness depending on these factors.
- For soils that are hard to wet [InsertBrandName] mobility can be enhanced by using a nonionic organosilicone surfactant.
- If soil around tree or hedge is heavily compacted or a high-water table exists use of a registered trunk injectable tree growth regulator such as Mastiff™ PGR may be more satisfactory.
- Spray basal drench and soil injection application of [InsertBrandName] may result in localized, temporary discoloration of turfgrass immediately adjacent to the treatment site.

- Avoid spray or basal drench applications on slopes or other areas where [InsertBrandName] of treated soil may be washed away from the base of the tree or hedge by air fall or irrigation.
- Treatment of trees bordered by shrubs and/or herbaceous ornamentals may cause these plants to be affected if their roots extend into the treatment zone.

Application Information

Application Timing

Applications can be made throughout the year weather permitting, except when soil is frozen or saturated with water. NOTE: [InsertBrandName] is absorbed by plant roots and translocated to the growing tissues in response to evaporative water loss (transpiration). If applications are made after fall leaf drop, uptake of [InsertBrandName] will not occur until development of new leaves in the spring and resumption of evaporative water loss.

Mixing Directions

Mix 317 ml (10.7 fl oz.) of [InsertBrandName] with water to make one gallon of diluted mixture. One gallon of [InsertBrandName] will make 12 gallons of diluted mixture. To improve the handling characteristics of the diluted mixture the addition of a suspension aid is recommended. Follow all label directions and precautions on the product label of the suspension aid.

Application Methods

[InsertBrandName] may be applied as a spray directed at the soil beneath the trees or shrubs as a basal drench or by soil injection. Treat only trees and hedges that are well established in their final location. Treatment of trees less than 4 inches in diameter is not recommended.

Basal Drench and spray

Based on tree or hedge size and species, apply the required dose around the base of the tree or hedge near the point of contact between the soil and the trunk (refer to Table 1 and Figure 1). The diluted mixture of [InsertBrandName] may be carefully applied around the tree or hedge or an applicator which provides a controlled rate of flow may be used. If there is potential for rainfall or irrigation to move surface applied product to non-target plants, apply [InsertBrandName] diluted mixture to the bottom of a shallow furrow around the base of the tree or hedge. After applying refill the furrow with untreated soil.

Soil Injection

The diluted mixture of [InsertBrandName] should be injected approximately 6 inches deep. Use soil injection equipment capable of delivery at 100 to 200 psi. Injection orifices should be oriented to release the diluted product horizontally at the point of injection. The required dose should be divided evenly among injection sites spaced as uniformly as possible around the trunk. The injection sites should be positioned to release [InsertBrandName] diluted mixture as close as possible to the point of contact between soil and unthickened bark beneath the soil so that the active ingredient may be readily absorbed by the tree. Injection sites should also be located

next to buttress roots (refer to Figure 2). For trees less than 6 inches in diameter at breast height (DBH) use at least 4 evenly spaced injection sites per tree.

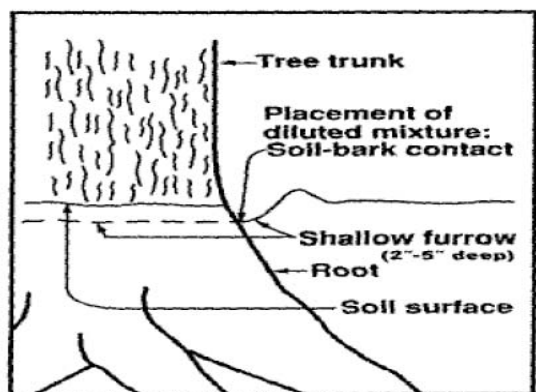


Figure 1: Placement of [InsertBrandName] as basal drench

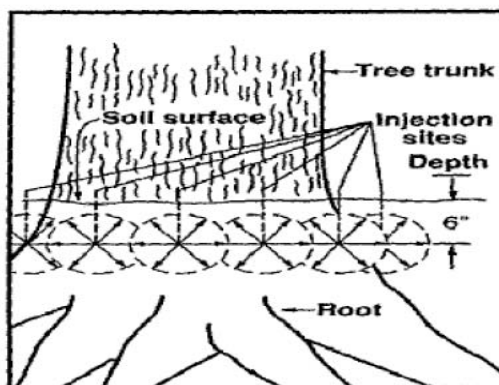


Figure 2: Placement of [InsertBrandName] as a soil injected treatment

Application Rates

50 to 100 ml (1 to 2 grams ai) per inch DBH ²	100 to 150 ml (2 to 3 grams ai) per inch DBH ²	150 to 200 ml (3 to 4 grams ai) per inch DBH ²
Sweetgum Australian Pine	Basswood Boxelder Elm(s) Eucalyptus Hackberry Littleleaf Linden Locust Maple(s) Oak(s) Sassafras	Ash Bradford Pear Sycamore Tuliptree Weeping Willow Ficus ³

¹For acidic soils (low pH) soils with high organic matter content or soils with high clay content use the higher rate. Not to exceed 4 grams per inch DHB.

² DBH = diameter at breast height.

³Not for use in California

TABLE 2				
Amount of [InsertBrandName] Diluted Mixture Required For Specific Application Rates and Tree and Hedge Sizes				
DBH¹ (Inches)	50 ml per inch DBH¹	100 ml per inch DBH¹	150 ml per inch DBH¹	200 ml per inch DBH¹
	Total ml Required	Total ml Required	Total ml Required	Total ml Required
4	200	400	600	800
5	250	500	750	1,000
6	300	600	900	1,200
7	350	700	1,050	1,400
8	400	800	1,200	1,600
9	450	900	1,350	1,800
10	500	1,000	1,500	2,000
11	550	1,100	1,650	2,200
12	600	1,200	1,800	2,400
13	650	1,300	1,950	2,600
14	700	1,400	2,100	2,800
15	750	1,500	2,250	3,000
16	800	1,600	2,400	3,200
17	850	1,700	2,550	3,400
18	900	1,800	2,700	3,600
19	950	1,900	2,850	3,800
20	1,000	2,000	3,000	4,000
21	1,050	2,100	3,150	4,200
22	1,100	2,200	3,300	4,400
23	1,150	2,300	3,450	4,600
24	1,200	2,400	3,600	4,800
25	1,250	2,500	3,750	5,000
26	1,300	2,600	3,900	5,200
27	1,350	2,700	4,050	5,400
28	1,400	2,800	4,200	5,600
29	1,450	2,900	4,350	5,800
30	1,500	3,000	4,500	6,000
31	1,550	3,100	4,650	6,200
32	1,600	3,200	4,800	6,400
33	1,650	3,300	4,950	6,600
34	1,700	3,400	5,100	6,800
35	1,750	3,500	5,250	7,000
36	1,800	3,600	5,400	7,200

¹diameter at breast height

Use Information for Growth Regulation of Turfgrass

[InsertBrandName] is a plant growth regulator (PGR) which reduces leaf blade length and stem internode elongation in turfgrasses resulting in a more compact growth form for up to two (2) months after application. Growth regulation results from suppression of gibberellic acid biosynthesis. Under normal growing conditions, root growth and lateral expansion of turf are not affected. An appropriate fertility program for the desired turf species should be followed in conjunction with [InsertBrandName] applications to provide best turfgrass enhancement and reduce potential for discoloration. Broadcast treatments should be made on medium to high quality turfgrass areas of uniform species composition. Turf containing significant amounts of coarse textured species such as tall fescue, orchardgrass, timothy, dallisgrass, etc. may respond unevenly to [InsertBrandName] treatment.

[InsertBrandName] can be used on turfgrass grown in the following areas: golf courses (tees fairways greens and rough), athletic fields, commercial, and industrial areas parks and boulevards.

NOTICE TO USER The rates indicated may need to be adjusted within the approved rate ranges on this label to achieve the desired level of growth regulation on turfgrass species. Turfgrass response to [InsertBrandName] may vary within turfgrass species due to the large number of cultivars and varieties available. The specified rate ranges permit the users to adjust the application rate to best address the growth conditions of the turfgrass being treated. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]. Neither the manufacturer nor seller has determined if [InsertBrandName] can be used safely or effectively on turfgrass species not mentioned on this label. For turfgrass species not listed on this label the user should apply [InsertBrandName] to a small test area to determine growth response and desired level of growth regulation prior to large scale applications.

Use Precautions and Restrictions for Applications to Turfgrass

- **DO NOT** use on residential turf
- **DO NOT** apply to putting greens other than predominantly bentgrass
- **DO NOT** apply to overseeded bermudagrass putting greens
- **DO NOT** apply this product to sod farms turfgrasses grown for seed including plants or plant materials grown for sale or research purposes
- **DO NOT** use on areas to be cultivated for food or food crops or to be resown with grasses within two years of treatment
- **DO NOT** apply to shrubs or bedding plants
- **DO NOT** apply during prolonged periods of temperature (heat or cold) or moisture stress. Also avoid applications during periods of extreme disease and insect pressure
- **DO NOT** apply to saturated soils or when a significant moisture event is anticipated [InsertBrandName] may accumulate in low lying areas and cause prolonged and excessive growth regulation in those areas
- **DO NOT** apply to areas where *Poa annua* is the desired turfgrass species or areas that contain >70% *Poa annua*
- **DO NOT** apply to turf used for livestock production
- **DO NOT** graze treated areas or harvest for forage or hay
- **DO NOT** apply more than 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]
- **Chemigation: DO NOT** apply [InsertBrandName] through any type of irrigation system
- Delay applications of [InsertBrandName] to newly seeded turfgrasses until turf is well established and actively growing
- **DO NOT** apply [InsertBrandName] until 4 weeks after turfgrass sprigging or laying sod. Turfgrass should be well established and actively growing prior to application
- Delay [InsertBrandName] applications for 4 weeks after treatment of a pre-emergence herbicide
- Additional turfgrass growth regulation may occur when [InsertBrandName] is tank mixed or used in conjunction with demethylation inhibitor (DMI) or sterol inhibiting fungicides

Application Timing

Spring applications should be made after resumption of active seasonal growth of turfgrass. The final application of the season should be timed at least 4 weeks before the onset of inactive grass growth or winter dormancy. Applications to overseeded turfgrasses in dormant bermudagrass stands should be completed 4 weeks prior to expected bermudagrass group up.

Irrigation

[InsertBrandName] is primarily root absorbed. To maximize growth regulator activity treated areas should receive 0.25 to 0.5 inch of rain or supplemental irrigation within 24 hours following application and prior to the first mowing after treatment.

Turf Color and Post Treatment Turf Management

Turfgrass treated with [InsertBrandName] may appear darker green in color. This color change which appears 1 to 2 weeks after treatment may persist an additional 3 to 8 weeks depending upon rate used and species treated. Treated areas should be managed to encourage the growth of a healthy vigorous turf

***Poa annua* (Annual Bluegrass) Conversion to Perennial Turfgrasses**

Applications of [InsertBrandName] followed by management practices designed to encourage vigorous growth of perennial turfgrasses can reduce the *Poa annua* (annual bluegrass) competition in cool season turf and increase the cover of more desirable perennial species. *Poa annua* is more sensitive to [InsertBrandName] treatments and is therefore more strongly suppressed than perennial turfgrass species. Discoloration of *Poa annua* can be expected from treatments that provide a desired level of growth regulator activity in perennial grass species. This effect becomes visible 7 to 10 days after treatment and lasts 3 to 6 weeks. The degree of discoloration will be proportional to the *Poa annua* composition of the turf. Application of [InsertBrandName] in conjunction with soluble nitrogen fertilizers will also minimize discoloration. Application timing rate recommendations and precautions for perennial grass conversion through selective reduction of *Poa annua* are provided in the *Poa annua (Annual Bluegrass) Conversion to Perennial Turfgrasses* section of this label. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName].

Application Directions

Mixing Directions

Add [InsertBrandName] to a spray tank half filled with clean water. Allow sufficient mixing time to ensure complete dispersion and mixing of [InsertBrandName]. Finish filling the spray tank. Continue vigorous agitation throughout the spraying operation to ensure uniform application while avoiding overlaps and skips. [InsertBrandName] should be applied using a boom type sprayer with bypass and/or mechanical agitation calibrated to deliver 40 to 200 gallons/acre of spray solution (1 to 4-6 gallons/1,000 ft²). In line strainers and nozzle screens should be 50 mesh or larger. The use of a coloring agent to mark areas already sprayed is suggested for uniform application without skips and overlaps. Performance may be improved with the addition to the

spray mix of a readily available nitrogen (N) source at 0.125 to 0.5 lb. N/1,000 ft² or iron (Fe) at suggested label rates.

[InsertBrandName] RATE RECOMMENDATIONS FOR GROWTH REDUCTION OF PERENNIAL TURFGRASS SPECIES — MULTIPLE APPLICATION PROGRAM

➤ **Cool Season Turfgrasses**

Golf courses

- Bentgrass (Golf Course Fairway Type Turf)

Multiple application program. Apply [InsertBrandName] to fairway height bentgrass of a late of 16 to 32 fl oz. /acre in early spring following resumption of active growth. Repeat applications of 8 to 32 fl oz. /acre of [InsertBrandName] should be made at 2 to 6 week intervals until late summer. Or early fall or repeat applications of 8 to 32 fl oz. /acre can be made within the same growing season as long as the turf is actively growing. Turfgrass species growth rate and use rate will dictate the timing of repeat applications — not to exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName].

- Bentgrass Putting Greens

Multiple application program. Apply [InsertBrandName] to bentgrass as part of an overall greens management program. An initial application of [InsertBrandName] should be made after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Apply [InsertBrandName] at a rate of 4 to 16 fl oz. /acre. Repeat applications of 4 to 16 fl oz. /acre should be made at 2 to 4 week intervals. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName].

Golf courses, athletic fields, commercial and industrial areas parks, and boulevards

- Kentucky Bluegrass and Perennial Ryegrass

Multiple application program: Apply [InsertBrandName] to Kentucky bluegrass and perennial ryegrass at a rate of 16 to 32 fl oz. /acre in early spring following resumption of active growth. Repeat applications of 16 to 32 fl oz./acre should be made at 4 to 6 week intervals until late summer or early fall. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]. NOTE: Certain varieties of Kentucky Bluegrass are very sensitive to [InsertBrandName]. It is recommended that [InsertBrandName] be applied to a small test area to determine growth response and desired level of growth regulation prior to large scale applications.

➤ **Warm Season Grasses**

Golf courses, athletic fields, commercial and industrial areas, parks and boulevards

- Tifway (419), TifSport, and GN 1 Bermudagrass

Multiple application program: Apply [InsertBrandName] to Tifway (419), TifSport, and GN 1. Bermudagrass at a rate of 32 to 48 fl oz. /acre when turfgrass has completely recovered from winter dormancy and is growing vigorously. Repeat applications of 32 to 48 fl oz. /acre of [InsertBrandName] should be made at 4 to 8 week intervals until late summer or early fall. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName].

TABLE 3			
Recommended Rate Ranges for Growth Regulation of Perennial Turfgrass Species Using a Multiple Application Program			
Turfgrass Species	Fl oz. [InsertBrandName]	Lbs. ai /A	Treatment Interval¹
Cool Season Turfgrasses			
Bentgrass (golf course fairway)	16 to 32	0.25 to 0.5	2 to 6 weeks
Bentgrass putting greens	4 to 16	0.063 to 0.25	2 to 4 weeks
Kentucky Bluegrass/ Perennial Ryegrass	16 to 32	0.25 to 0.5	4 to 6 weeks
Warm Season Turfgrasses			
Tifway TifSport and GN 1 Bermudagrass	32 to 48	0.5 to 0.75	4 to 8 weeks

¹ Repeat applications can be made within the same growing season – not to exceed 2.0 lbs ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]. *When conducting repeat applications use shorter treatment intervals when making applications at the lower end of the rate range, use longer treatment intervals when making applications at the higher end of the rate range.*

POA ANNUA (annual bluegrass) conversion to perennial turfgrasses

➤ **Multiple Application Program**

A multiple application perennial grass conversion program using [InsertBrandName] provides *Poa annua* suppression and cool season turf conversion. This program provides a gradual perennial grass conversion reducing *Poa annua* populations over one to several growing seasons. To maximize seedling establishment do not apply [InsertBrandName] six (6) weeks prior to and/or 2 weeks after interseeding or overseeding of perennial turfgrasses.

Golf courses

- **Bentgrass (Golf Course Fairway type turf)**

Apply [InsertBrandName] to fairway height bentgrass at a rate of 16 to 32 fl oz. /acre in early spring following resumption of active growth of the grass. Repeat applications of 8 to 32 fl oz. /acre of [InsertBrandName] should be made at 2 to 6 week intervals until late summer or early fall. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]. Normal management practices such as fertilization aeration and interseeding/overseeding will encourage growth of bentgrass.

- **Bentgrass Putting Greens**

Because annual turfgrass species such as *Poa annua* are more strongly regulated by [InsertBrandName], careful use of [InsertBrandName] on putting greens with a high percentage of *Poa annua* can shift the competitive balance between bentgrass and *Poa annua* to favor bentgrass. Follow normal management practices such as fertilization aeration and interseeding/overseeding that encourages growth of bentgrass. Use of [InsertBrandName] on bentgrass greens may increase putting speed without reducing the height of cut.

- **Bentgrass Greens with less than 50% *Poa annua* (annual bluegrass):** Apply [InsertBrandName] to bentgrass as part of an overall greens management program. An initial application of [InsertBrandName] should be made in the spring months after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Apply [InsertBrandName] at a rate of 8 fl oz. /acre. Repeat applications of 8 to 16 fl oz. /acre of [InsertBrandName] should be made at 2 to 4 week intervals through early fall. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName].
- **Bentgrass Greens with 50 to 70% *Poa annua* (annual bluegrass):** Apply [InsertBrandName] to bentgrass greens at a rate of 4 to 8 fl oz. /acre in the spring months after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Repeat applications of 4 to 16 fl oz. /acre of [InsertBrandName] should be made at 2 to 4 week intervals through early fall. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName].

Golf courses, athletic fields, commercial and industrial areas parks and boulevards

- **Kentucky bluegrass, Perennial ryegrass**

Apply [InsertBrandName] to Kentucky bluegrass and perennial ryegrass at a rate of 16 to 12 fl oz. /acre in early spring following resumption of active growth of the grass. Repeat applications of 16 to 32 fl oz. /acre of [InsertBrandName] should be made at 4 to 6 week intervals until late summer or early fall. Total applications must not exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]. Normal management practices such as fertilization aeration and interseeding/overseeding will encourage growth of bluegrass and/or ryegrass. NOTE: Certain varieties of Kentucky Bluegrass are very sensitive to [InsertBrandName]. It is recommended that [InsertBrandName] be applied to a small test area to determine growth response and desired level of growth regulation prior to large scale applications.

TABLE 4						
Recommended Rate Ranges for <i>Poa annua</i> (Annual Bluegrass) Conversion to Perennial Turfgrasses with [InsertBrandName] Using a Multiple Application Program						
Turfgrass Species	% <i>Poa annua</i>	Initial spring application ¹		Repeat applications ¹		
		Fl oz. [InsertBrand Name]	Lbs. ai /A	Fl oz. [InsertBrand Name]	Lbs. ai /A	Treatment Interval ²

Bentgrass (golf course fairway)	0 to 70%	16 to 32	0.25 to 0.5	8 to 32	0.125 to 0.5	2 to 6 weeks
Bentgrass Putting Greens	0 to 50%	8	0.125	8 to 16	0.125 to 0.25	2 to 4 weeks
Bentgrass Putting Greens	50 to 70%	4 to 8	0.063 to 0.125	4 to 16	0.063 to 0.25	2 to 4 weeks
Kentucky Bluegrass/ Perennial Ryegrass Fairways	0 to 70%	16 to 32	0.25 to 0.5	8 to 32	0.125 to 0.5	4 to 6 weeks

¹ Apply in early spring following resumption of active growth of the grass. Fall applications should be discontinued 4 weeks before the onset of inactive grass growth or winter dormancy.

² Repeat applications can be made within the same growing season — not to exceed 2.0 lbs. ai /acre/year or 128 fl oz. /acre/year of [InsertBrandName]. *When conducting repeat applications use shorter treatment intervals when making applications at the lower end of the rate range; use longer treatment intervals when making applications at the higher end of the rate range.*

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

Pesticide Storage: Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these cannot be used 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.

Container Handling

Nonrefillable Container (rigid, 5 gallons or less): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¹/₄ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat the procedure two more times. Then offer the container for recycling (if available) or reconditioning or puncture and dispose of in a sanitary landfill or by incineration or, if allowed by State and local authorities by burning. If burned stay out of smoke.

Nonrefillable Container (rigid, larger than 5 gal): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¹/₄ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank treatment area or store rinsate for later use or disposal. Repeat this procedure two more times. Then

offer for recycling (if available) or reconditioning or puncture and dispose of in a sanitary landfill or by incineration or, if allowed by state and local authorities by burning. If burned stay out of smoke.

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