

GROUP	3	FUNGICIDE
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# MIRAGE STRESSGARD

Fungicide

COMMERCIAL

Suspension

For control of listed diseases of turfgrass on golf courses and sod farms

GUARANTEE:

Tebuconazole ..... 240 g/L

Contains 1,2-benzisothiazolin-3-one at 0.05% as a preservative or  
Contains 1,2-benzisothiazolin-3-one at 0.05% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0017%  
and 2-methyl-4-isothiazolin-3-one at 0.00055% as preservatives

REGISTRATION NO.: 32405  
PEST CONTROL PRODUCTS ACT

Net Contents:

**READ THE LABEL AND BOOKLET BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION: EYE IRRITANT**

BAYER CROPSCIENCE INC.  
Suite 200, 160 Quarry Park Blvd. S.E.  
CALGARY, ALBERTA  
T2C 3G3

IN CASE OF SPILLS, POISONING OR FIRE, TELEPHONE EMERGENCY RESPONSE NUMBER  
1-800-334-7577 (24 HOURS A DAY)

FOR PRODUCT USE INFORMATION CALL 1-888-283-6847

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

**PRECAUTIONS:**

**KEEP OUT OF REACH OF CHILDREN.** May irritate eyes. Avoid contact with eyes. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilets.

**DO NOT** use in residential areas. Residential areas are defined as any use site where bystanders including children could be exposed during or after application. This includes homes, schools, parks, playgrounds, playing fields, public buildings, or any other areas where the general public including children could be exposed.

Apply only when the potential for drift to areas of human habitation or areas of human activity (other than golf courses) such as parks, school grounds, and playing fields is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

**PROTECTIVE CLOTHING AND EQUIPMENT:**

During mixing, loading, application, clean-up and repair activities, workers must wear long sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves.

**RE-ENTRY RESTRICTION:**

Golf Courses: **DO NOT** enter, or allow entry until spray has dried.

Sod Farms: **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

**FIRST AID:**

If swallowed: Call a poison control centre 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 centre 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 centre 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 by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION:** The patient should be treated symptomatically.

## ENVIRONMENTAL HAZARDS:

TOXIC to aquatic organisms, birds, small wild mammals and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

Tebuconazole is persistent and may carryover. It is recommended that any products containing tebuconazole not be used in areas treated with this product during the previous season.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

## STORAGE:

Store the product in the original container. Store the product in an area that is out of reach of children and animals, away from food, feedstuffs, fertilizers and seed. Protect from frost.

## DISPOSAL:

### *For recyclable containers*

#### Disposal of Container:

DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

### *For returnable containers*

#### Disposal of Container:

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

### *For containers that can be refilled for the user by the distributor/dealer*

#### Disposal of Container:

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

#### Disposal of unused, unwanted product:

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

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## DIRECTIONS FOR USE

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

**DO NOT** apply when wind speed is greater than 16 km/hr at the application site as measured outside of the treatment area on the upwind side.

**DO NOT** apply this product through any type of irrigation system.

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

**DO NOT** apply by air.

### Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Turf	5	1	1	1	2

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

## APPLICATION INFORMATION

MIRAGE STRESSGARD is absorbed rapidly and works systemically from within the plant. Good coverage and wetting of the foliage are necessary. An application is rainfast after drying (~30 minutes) and rain or sprinkler irrigation after this time does not decrease effectiveness.

MIRAGE STRESSGARD should be used as part of an integrated pest management plan that promotes plant growth and minimizes stress conditions. Apply in all cases when plants are fully established and actively growing. Applications should be applied at prescribed interval to maintain disease control.

This product may cause staining. Avoid off-target hardscapes such as cart paths, driveways, pavers, or similar materials. Rinse spray equipment thoroughly with warm water and detergent. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. Do not make applications when conditions favor drift. All applications of MIRAGE STRESSGARD must be made in accordance with the use directions of this label.

## SPRAY MIXING AND COMPATIBILITY

Begin with clean spray equipment and add one-half of the required quantity of water to the spray or mixing tank and start agitation. In general, follow the order beginning first with water-soluble packaging (wait for it to completely dissolve), wettable powders and water-dispersible granular products, liquid flowables and suspension concentrates and emulsifiable concentrates last. Maintain agitation throughout spraying. Do not allow spray mixture to remain in the tank overnight, or for long periods during the day without agitation.

The turf safety of all potential tank-mixes with MIRAGE STRESSGARD including additives and other pesticides has not been tested on all turf species and varieties. Before applying any tank-mixture not specifically prescribed on this label, safety to the target plant should be confirmed. In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Bayer CropScience at 1-888-283-6847 or at [www.bayercropscience.ca](http://www.bayercropscience.ca) for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Bayer CropScience.

The physical compatibility of MIRAGE STRESSGARD with all potential tank-mix partners has not been fully investigated. If tank mixing with other pesticides is desirable, conduct a jar test with the volumes and rates typically used for turfgrass application. Using a small container of water, add the proportionate amounts of the products: wettable powders and water-dispersible granular products first, then liquid flowables and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 15 minutes. Look for signs of separation, globules, sludge, flakes, or other precipitates. Physical compatibility is indicated if the combination remains mixed or can be remixed readily.

## SPRAY DRIFT MANAGEMENT

Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Avoiding spray drift is the responsibility of the applicator. The application equipment must be set to apply medium to coarse droplets (i.e., ASAE Standard 572) with corresponding spray pressure to reduce the potential for drift. Use high flow rate nozzles to apply the highest practical spray volume, using the appropriate droplet size to ensure adequate canopy distribution, coverage, and penetration. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.



## Wind

Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Do not spray near sensitive plants if wind is gusty, below 3 kph, or in excess of 16 kph and moving in the direction of adjacent areas of sensitive crops or plants. Do not apply during temperature inversions. Always make applications when there is some air movement to determine the direction and distance of possible spray drift.

Local terrain may influence wind patterns; the applicator should be familiar with local conditions and understand how they may impact spray drift. Boom or nozzle shielding can reduce the effects of wind or air currents on drift. Verify that the shields do not interfere with uniform deposition of product prior to application.

## Temperature Inversion

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Avoid application when conditions are favorable to inversion. Presence of ground fog is a good indicator of a surface temperature inversion.

## Sensitive Areas

Sensitive areas for MIRAGE STRESSGARD are defined as bodies of water (ponds, lakes, rivers, and streams), wetlands, habitats for endangered species, and non-labeled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas.

## APPLICATIONS FOR TURF DISEASES CONTROL

### TURF TOLERANCE

Use MIRAGE STRESSGARD in accordance with the label instructions on:

- all cool season turf such as bentgrasses, bluegrasses, fescues, ryegrasses, including mixtures thereof

When applied as directed, MIRAGE STRESSGARD is not phytotoxic to these aforementioned grasses.

### MIRAGE STRESSGARD controls the diseases listed below

Target Disease	Product Rate ( ml / 100m <sup>2</sup> )	Application Interval (days)	Instructions
Dollar Spot ( <i>Sclerotinia homoeocarpa</i> )	32 - 64	14-21	Apply MIRAGE STRESSGARD at the first sign of Dollar Spot symptoms or preventatively when stressful environmental conditions (extended periods of dew >8hrs at temperatures between 13C-27C) favour dollar spot development. The highest rate is recommended to be used with the 21 day application interval.
Brown Patch ( <i>Rhizoctonia solani</i> )	32 - 64	14-21	Apply MIRAGE STRESSGARD at the first sign of Brown Patch symptoms or preventatively when stressful environmental conditions (surface moisture and humidity is greater than 80%, night time temperatures >20°C) favour disease development. The highest rate is recommended to be used with the 21 day application interval.
Anthrachnose(basal rot and foliar) ( <i>Colletotrichum cereale</i> )	32 - 64	14-21	Apply MIRAGE STRESSGARD preventatively when stressful environmental conditions favour anthracnose disease development.  For basal rot control and/or under severe disease pressure, use the highest rate and shortest interval.

Fairy Ring <i>(Basidiomycetes)</i>	32 - 64	14-21	Apply MIRAGE STRESSGARD in the spring when average soil temperatures at 5 cm depth are between 13 – 18°C. Subsequent applications should be made 14-21 days later, and applications should be made in high water volumes (8 L /100 m <sup>2</sup> ). In addition, applications should be watered in with 3-6 mm of irrigation applied immediately after application. Use the highest rate and shortest interval under severe disease pressure and where there is a prior history of disease.
Summer Patch <i>(Magnaporthe poae)</i>	32 - 64	14 - 28	Begin MIRAGE STRESSGARD applications preventively when soil temperatures reach 15-18°C at a 5 cm soil depth in areas previously afflicted by summer patch. Continue as needed, on a 14-28 day interval. Use the highest rate and shortest interval under severe disease pressure and where there is a prior history of disease.
Pink Snow Mould, <i>(Microdochium nivale)</i> (suppression)	30 - 60	One application applied just before permanent snow cover	Apply MIRAGE STRESSGARD before permanent snow cover. Use the highest rate under severe under disease pressure and where there is a prior history of disease. MIRAGE STRESSGARD, applied as a solo product, is recommended where lower level of control is acceptable.  For optimal pink snow mould control it is recommended to tank mix MIRAGE STRESSGARD with at least one of the following partners: Compass 50 WG at 6.1 g/100 m <sup>2</sup> , Compass 50 WG + Daconil Ultrex Fungicide at 6.1 g + 145 g/100 m <sup>2</sup>
Grey Snow Mould <i>(Typhula incarnata and T. ishikariensis)</i>	30 - 60	One application applied just before permanent snow cover	Apply MIRAGE STRESSGARD before permanent snow cover. Use the highest rate under severe under disease pressure and where there is a prior history of disease.  For optimal grey snow mould control, MIRAGE STRESSGARD may be tank mixed with at least one of the following partners: Compass 50 WG at 6.1 g/100 m <sup>2</sup> , Compass 50 WG + Daconil Ultrex Fungicide at 6.1 g + 145 g/100 m <sup>2</sup>

Apply the prescribed amount in 6 to 8L of water per 100m<sup>2</sup>.

Do not apply more than 12.8 L /ha (3.1 kg a.i./ha) per year.

Tebuconazole is persistent and may carryover. It is recommended that any products containing tebuconazole not be used in areas treated with this product during the previous season.

For resistance management it is recommended to rotate product use with other fungicides with a different mode of action. See Resistance Management Recommendations below.

When applied as a tank-mix combination, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product used in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.

## Resistance Management Recommendations:

For resistance management, please note that MIRAGE STRESSGARD contains a group 3 fungicide. Any fungal population may contain individuals naturally resistant to MIRAGE STRESSGARD and other group 3 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to the site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

### To delay fungicide resistance:

- Where possible, rotate the use of MIRAGE STRESSGARD or other Group 3 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that is effective on the target pathogen when such use is permitted.
- Fungicide use should be based on an integrated disease management program that includes scouting, historical information related to pesticide use and crop rotation and considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications.
- Monitor treated fungal/bacterial populations for resistance development. Notify Bayer CropScience if reduced sensitivity of the pathogen to MIRAGE STRESSGARD is suspected.
- Contact your local extension specialist or certified turf advisors for any additional pesticide resistance-management and IPM recommendations for specific site and pest problems in the area.
- For further information and to report suspected resistance, contact Bayer CropScience at 1-888-283-6847 or at [www.bayercropscience.ca](http://www.bayercropscience.ca).

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