

ACCEPTED  
FOR REGISTRATION

GROUP 3 | 11 FUNGICIDES

Oct 21, 2011

New York State Department  
of Environmental Conservation  
Division of Materials Management  
Pesticide Product Registration



# Headway® G

syngenta®

## Fungicide

Broad spectrum fungicide for control of plant diseases

**Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.**

**Active Ingredients:**

Azoxystrobin: methyl(E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate*	0.31%
Propiconazole: (CAS No. 60207-90-1)	0.75%
Other Ingredients:	98.94%
<b>Total:</b>	<b>100.00%</b>

Contains 0.0075 lb. ai propiconazole and 0.0031 lb. ai azoxystrobin per lb. of product.  
\*IUPAC



**KEEP OUT OF REACH OF CHILDREN.**

### CAUTION

See additional precautionary statements and directions for use inside booklet.

**EPA Reg. No. 100-1378 EPA Est. 9198-AL-1**

**Formulated in the USA**

Headway®, the ALLIANCE FRAME  the SYNGENTA Logo and the PURPOSE ICON  are Trademarks of a Syngenta Group Company

PRODUCT ID.

**44882**

Manufactured for:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300

**SCP 1378A-L1 0311 342468**

**30 pounds**  
Net Weight

TM

# Headway® G

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Causes moderate eye irritation. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### Personal Protective Equipment (PPE)

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

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- 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.

#### Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### User Safety Recommendations

##### Users should:

- Wash hands thoroughly with soap and water after handling and 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

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Do not apply directly to water except as specified on this label. For terrestrial uses: 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 washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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## Ground Water Advisory

The active ingredient, azoxystrobin, in this product can be persistent for several months or longer. Azoxystrobin is known to leach through soil to ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Notify state and/or federal authorities and Syngenta immediately if you observe any adverse environmental effects due to use of this product.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

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

**FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.**

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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## NON-AGRICULTURAL USES

For use to control diseases on turf on golf courses, lawns and landscape areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. The area being treated must be vacated by unprotected persons.

Do not treat areas while unprotected humans or domestic animals are present in the treatment areas. Because certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

Do not allow entry into treatment area until area that was treated with Headway G is dry.

## USE INFORMATION

Headway G is a combination of two broad-spectrum, preventative fungicides with systemic properties recommended for the control of many important plant diseases. All applications should be made according to the use directions that follow.

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## USE PRECAUTIONS AND RESTRICTIONS

Do not graze or feed clippings from treated turf areas to animals.

**Do not** apply more than 19.2 lb. product/1000 sq. ft./calendar year. Applications may be made by ground only.

### ATTENTION

Headway G is extremely phytotoxic to certain apple varieties.

Extreme care must be used to prevent injury to apple trees (and apple fruit).

**DO NOT** spread Headway G where granules may reach apple trees.

Do not apply when weather conditions favor product blowing from treated areas to non-target aquatic habitat.

### INTEGRATED PEST (DISEASE) MANAGEMENT

Headway G should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. The **DIRECTIONS FOR USE** section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural, turf authorities for additional IPM strategies established for your area. Headway G may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

## RESISTANCE MANAGEMENT

Headway G is a mixture of a Group 3 (propiconazole) and a Group 11 (azoxystrobin) fungicide. Headway G has two modes of action: (1) DMI (Demethylation Inhibitor of sterol biosynthesis) [Group 3], and (2) inhibitor of the Qo (quinone outside) site within the electron transport system QoI (quinone outside inhibiting) as well as disrupting membrane synthesis by blocking demethylation [Group 11]. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Headway G is not cross-resistant with other classes of fungicides which have different modes of action. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for turf in your area. Consult your local or state turf authorities for resistance management strategies that are complementary to those in this label.

Resistance management strategies may include rotating or alternating with products having different modes of action or limiting the total number of applications per season. Avoid alternation with other QoIs, such as pyraclostrobin and trifloxystrobin or other DMI's such as triadimefon, fenarimol, and myclobutanil. Headway G should not be alternated with fungicides to which resistance has already developed. Continual use of Headway G may allow less sensitive strains of pathogens to increase in the population and reduce the efficacy of Headway G. Syngenta Crop Protection encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

Follow the crop specific resistance management recommendations in the directions for use.

If no resistance recommendation on the number of applications is specified in the directions for use, follow the recommendations in the table below.

If planned total number of fungicide applications per crop is:	1	2	3	4	5	6	7	8	9	10	11	12
<b>Recommended Solo QoI fungicide applications</b>	1	1	2	2	2	2	2	3	3	3	3	4
<b>Recommended QoI fungicide applications in mixture (formulated)</b>	1	2	2	2	2	3	3	4	4	5	5	6

In situations requiring multiple applications, develop season-long programs for Group 11 (QoI) fungicides. In crops where two sequential Group 11 fungicide applications are made, they should be alternated with two or more applications of a fungicide that is not in Group 11. If more than 12 applications are made, observe the following guidelines:

- When using a QoI fungicide as a solo product, the number of applications should be no more than  $\frac{1}{3}$  (33%) of the total number of fungicide applications per season.
- For QoI mixes in programs in which tank mixes or premixes of QoI with mixing partners of a different mode of action are utilized, the number of QoI containing applications should be no more than  $\frac{1}{2}$  (50%) of the total number of fungicide applications per season.
- In programs in which applications of QoI are made with both solo products and mixtures, the number of QoI containing applications should be no more than  $\frac{1}{2}$  (50%) of the total number of fungicides applied per season.

If a Group 11 fungicide is applied to the seed or soil, do not make another application with a Group 11 fungicide for at least 3 weeks.

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## APPLICATION INSTRUCTIONS

Apply Headway G at rates and timings as described in this label. Headway G may be applied with all types of spreader equipment commonly used for making ground applications excluding bellygrinder equipment. Proper adjustments and calibration of application equipment to give good coverage is essential for good disease control. The higher rates in the rate range and/or shorter application intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist.

## TURF

Headway G is recommended for control of certain pathogens causing foliar, stem, and root diseases, including leaf and stem blights, leaf spots, patch diseases, mildews, anthracnose, fairy rings, molds, and rusts of turfgrass plants. Headway G may be used to control certain diseases on turf in golf courses, lawns and landscape areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

**Integrated Pest (Disease) Management (IPM):** Sound turf management resulting in healthy, vigorous turf is the foundation of a good IPM program. Cultural practices such as proper choice of turf variety, nutrient management, proper cutting height, thatch management, and proper watering, drainage, and moisture stress management should be integrated with the use of fungicides to increase turf vigor and reduce the susceptibility to disease. Immunoassay detection kits and extension service diagnostic services can assist in the early and accurate identification of causal organisms and corresponding selection of the proper fungicide when required.

**Resistance Management:** Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. Headway G should be applied in an alternation program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Do not apply more than two sequential Headway G applications for *Pythium* spp. control. For all other diseases when *Pythium* spp. is not present, do not apply more than four sequential applications of Headway G.

**Application Directions:** Headway G should be applied prior to disease development. Repeat applications at specified intervals for as long as required.

Do not apply more than 19.2 lb. product/1000 sq. ft./calendar year. Applications may be made by ground only.

### ATTENTION

Bermudagrass can be sensitive to Headway G. Do not exceed 3 lb. product/1,000 sq. ft. every 30 days on any variety of bermudagrass. In Florida do not apply Headway G to bermudagrass golf course greens when temperatures exceed 90°F.

#### **For use in the establishment of turfgrass from seed or in overseeding of dormant turfgrass:**

Headway G may be used for control of certain turfgrass diseases associated with turfgrass establishment from seed. Headway G may also be used during overseeding of dormant turfgrass.

Headway G may be safely applied before or after seeding or at seedling germination and emergence to ryegrass, bentgrass, bluegrass, and fescue turfgrass types. Optimum application timing is during seeding. See Application Directions section.

**Rate Ranges:** Use the shorter specified application interval and/or use the higher specified rate when prolonged favorable disease conditions exist.

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## DIRECTIONS FOR APPLICATION FOR TURF DISEASES

Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

Target Diseases	Use Rate (lb. product per 1000 sq. ft.)	Application Interval (days)	Remarks*
Anthracnose ( <i>Colletotrichum cereale</i> ) (formerly known as <i>C. graminicola</i> )	2-2.5	14	Use preventively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development. Under high disease pressure, use higher rates of Headway G and shorter intervals. Alternate with a contact fungicide such as Daconil®.
	3.5-4	28	
Bentgrass Dead Spot ( <i>Ophiosphaerella agrostis</i> )	2-2.5	14	Begin applications prior to disease development.
	3.5-4	28	
Brown Patch ( <i>Rhizoctonia solani</i> ) and other Rhizoctonia ( <i>R. spp.</i> ) diseases such as Large Patch, Zoysia Patch, Leaf & Sheath Spot ( <i>R. zeae</i> )	2-2.5	14	Apply when conditions are favorable for disease development.  For Large Patch of all warm season turf-grasses, make 1 or 2 applications in the fall prior to infection or when conditions are favorable for infection.  For Zoysia Patch, make 1 or 2 applications approximately one month prior to zoysiagrass dormancy. Reapply 14 to 28 days later.  For Leaf and Sheath Spot ( <i>R. zeae</i> ), apply when conditions are favorable for infection such as sequential or periods of temperatures at or above 90°F. Curative control may necessitate several applications.
	3.5-4	28	
Cool Weather Brown Patch Yellow Patch ( <i>Rhizoctonia cerealis</i> )	2-2.5	14	Make one or two applications in fall or when conditions are favorable for disease development.
	3.5-4	28	
Dichondra Rust ( <i>Puccinia dichondrae</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	28	
Dollar Spot ( <i>Sclerotinia homoeocarpa</i> )	2-2.5	14	Apply preventively when conditions are favorable for disease development. For non-residential turf with active Dollar Spot, use the higher rate and apply Daconil.
	3.5-4	28	
Fairy Ring ( <i>Lycoperdon spp.</i> , <i>Agrocybe pediades</i> , and <i>Bovistia plumbea</i> )	2-2.5	14	Apply as soon as possible after Fairy Ring symptoms develop. Irrigate with at least 0.5 inch of water within 24 hours after application if rainfall is not expected. Severely damaged or thin turf may require reseeding. Fairy Ring symptoms may take 2 to 3 weeks to disappear following application. Reapplication after 14-28 days may be required in some cases.
	3.5-4	28	
Gray Leaf Spot ( <i>Pyricularia grisea</i> )	2-2.5	14	Use Headway G in a preventive disease control program. Begin applications before disease is present and alternate with other fungicide chemistries that control Gray Leaf Spot.
	3.5-4	28	
Gray Snow Mold Typhula blight ( <i>Typhula incarnata</i> )	5	single application	Make a single application of 5 lb. or two applications of 4 lb. spaced 28 days apart in late fall just before snow cover. Alternating with another snow mold fungicide, such as Daconil, Medallion®, or Banner MAXX® may enhance control under severe disease pressure.
	3.5-4	28	

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## Headway® G

Target Diseases	Use Rate (lb. product per 1000 sq. ft.)	Application Interval (days)	Remarks*
Leaf Rust Stem Rust Stripe Rust ( <i>Puccinia</i> spp.)	2-2.5	14	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
	3.5-4	28	
Leaf Spot ( <i>Bipolaris sorokiniana</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	21	
Melting Out ( <i>Drechslera poae</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	21	
Microdochium Patch (formerly known as Fusarium Patch ( <i>Microdochium nivale</i> )	2-2.5	14	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
	3.5-4	28	
Necrotic Ring Spot ( <i>Ophiosphaerella korrae</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	28	
Pink Patch ( <i>Limonomyces roseipellis</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	28	
Pink Snow Mold ( <i>Microdochium nivale</i> )	5	Single application	Make a single application in late fall just before snow cover. Applying another snow mold fungicide, such as Daconil or Banner MAXX may enhance control under severe disease pressure.
Powdery Mildew ( <i>Erysiphe graminis</i> )	2-2.5	14	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
	3.5-4	28	
*Pythium Blight Pythium Root Rot ( <i>Pythium aphanidermatum</i> , <i>Pythium</i> spp.)	2-2.5	14	Use preventatively. Begin applications before disease is present. During periods of prolonged favorable conditions, treat on the 10 day application interval. For use on newly seeded as well as established turf.
	3.5-4	28	
Red Thread ( <i>Laetisaria fuciformis</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	28	
Southern Blight ( <i>Sclerotium rolfsii</i> )	2-2.5	14	Apply when conditions are favorable for disease development.
	3.5-4	28	
Spring Dead Spot ( <i>Ophiosphaerella korrae</i> ) or ( <i>Ophiosphaerella narmari</i> ) or ( <i>Ophiosphaerella herpotricha</i> )	2-2.5	14	Apply 1 or 2 applications approximately one month prior to bermudagrass dormancy. It is recommended to use 1/4" to 1/2" of irrigation directly after application. Reapply 14 to 28 days later.
	3.5-4	28	
Summer Patch ( <i>Magnaporthe poae</i> )	2-2.5	14	Apply when conditions are favorable for disease development. Initiate applications when soil temperatures reach 65°F at a 2 inch soil depth.
	3.5-4	28	
Take-All Patch ( <i>Gaeumannomyces graminis var. avenae</i> )	3.5-4	28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development. Make two applications 28 days apart in the spring and two applications 28 days apart in the fall.

\*Do not apply more than two sequential applications of Headway G for control of *Pythium* spp. For all other diseases when *Pythium* spp. is not present, do not apply more than three sequential applications of Headway G.

# Headway® G

## Headway G Rate Conversion Chart for Turf

Lb. Product Per 1000 Sq. Ft.	Lb. Product Per Acre	Lb. Azoxystrobin Per 1000 Sq. Ft.	Lb. Azoxystrobin Per Acre	Lb. Propiconazole Per 1000 Sq. Ft.	Lb. Propiconazole Per Acre
2	87.1	0.006	0.27	0.015	0.65
4	174.2	0.012	0.54	0.030	1.31
5	217.8	0.016	0.68	0.038	1.63

### STORAGE AND DISPOSAL

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

#### Pesticide Storage

Store in a cool, dry, secure place. Do not store near seeds, fertilizers, or foodstuffs.

#### Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticides, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use 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

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

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For non-emergency (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481.

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**SCP 1378A-L1 0311**  
**342468**