GROUP 4A INSECTICIDE GROUP 11



# syngenta

**FUNGICIDE** 

# Insecticide Fungicide

For systemic control of both insect pests and diseases with **one product** applied to turf grasses on residential lawns, commercial grounds (office and shopping complexes, airports), parks, playgrounds, golf courses, and athletic fields

Active Ingredients:

Other Ingredients:	99.47%
Thiamethoxam (CAS No. 153719-23-4)	0.22%
Azoxystrobin (CAS No. 131860-33-8)	

Total: 100.00% This product contains 0.05 oz. of azoxystrobin and 0.04 oz. of thiamethoxam per pound.

# KEEP OUT OF REACH OF CHILDREN. CAUTION

See back panel for additional precautionary statements.

EPA Reg. No. 100-1415 EPA Est. 67572-GA-1

SCP 1415A-L1 0112 4010620

PRODUCT ID.

47129

30 pounds
Net Weight

	FIRST AID		
If in eyes	<ul> <li>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.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
Have the pro- going for trea	duct container or label with you when calling a poison control center or doctor, or atment.		
HOT LINE NUMBER  For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372			

## PRECAUTIONARY STATEMENTS

### **Hazards to Humans and Domestic Animals**

#### CAUTION

Causes moderate eye irritation. Avoid contact with 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)

### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · 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 Control Statements**

When handlers use closed systems, enclosed cabs, 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 before eating, drinking, chewing gum, using tobacco, or using the toilet. Wash thoroughly with soap and water after handling.
- 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 product is toxic to wildlife and highly toxic to aquatic invertebrates. This product contains thiamethoxam, which is highly toxic to bees. Do not apply granules to non-turf areas.

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. Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

### Surface Water Advisory

This product may impact surface water quality due to run-off of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via run-off for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of thiamethoxam water from runoff and sediment. Run-off of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. (See manual at the following internet address: http://www.wsi.nrcs.usda.gov/products/W2Q/pest/core4.html.)

# Ground Water Advisory

Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

### 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. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, 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 the directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the 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 I ARFL.

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 BASES 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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers are allowed in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### **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 only when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of the treated areas until application is complete.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR INSECT CONTROL, AND/OR ILLEGAL RESIDUES.

### **USE INFORMATION**

Caravan G contains two active ingredients: an insecticide, thiamethoxam, plus a fungicide, azoxystrobin. Thiamethoxam and azoxystrobin provide broad-spectrum, systemic control of turf insects and diseases listed on the label. Rainfall or irrigation allows the active ingredients in Caravan G to be released from the granule. Once released, thiamethoxam and azoxystrobin are readily absorbed by plant foliage and plant roots. The active ingredients translocate (move upwards and outward) in the plant to the sites of pest infestation.

Thiamethoxam is a systemically active insecticide active against certain foliar (sucking and chewing), crown, and soil pests. In the soil, thiamethoxam will control soil pests upon contact or ingestion of the active ingredient. Through insect feeding on the plant, pests are exposed to thiamethoxam. Feeding will stop within minutes to hours of exposure and be followed by death of the pest. The moderate persistence of thiamethoxam in the soil and foliage also provides residual control of labeled pests. Thiamethoxam is not active as an ovicide or as an insect growth regulator.

Azoxystrobin is a broad-spectrum, preventative fungicide with systemic uptake and distribution within plant foliage and roots with residual preventative and curative activity recommended for the control of many important turf diseases.

### **Resistance Management**

# GROUP 4A INSECTICIDE

**Thiamethoxam** – Thiamethoxam, the active insecticide in Caravan G, belongs to the neonicotinoid class of chemistry (Group 4A Insecticide), which is not known to be cross-resistant to any other class of insecticides. However, insect pests are known to develop resistance to products used repeatedly. Because resistance development cannot be predicted, the use of Caravan G should conform to sound resistance management strategies established for the crop and use area. Strategies should include rotation of chemicals with different modes of action, limitation of the number of successive generations of the target pest being treated with the same compound, and adherence to labeled directions.

Consult your local pest control advisor or extension office for additional methods for preventing resistance development. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insect pests on this label.

# GROUP 11 FUNGICIDE

Azoxystrobin -- Azoxystrobin is a Group 11 fungicide. The mode of action of azoxystrobin is the inhibition of the Qo (quinone outside) site within the electron transport system (QoI) [Group 11]. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Azoxystrobin 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 on 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 Qols, such as pyraclostrobin and trifloxystrobin. Caravan G should not be alternated with fungicides to which resistance has already developed. Continual use of Caravan G may allow less sensitive strains of pathogens to increase in the population and reduce the efficacy of Caravan G. Syngenta Crop Protection encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

## **APPLICATION TO TURFGRASS**

### **Sites of Application**

Caravan G can be used for applications to turf grasses on residential lawns, commercial grounds (office and shopping complexes, airports), parks, playgrounds, golf courses, and athletic fields.

### Restrictions

Apply only to turf areas. Do not apply to non-turf areas.

Not for use on production ornamentals or non-bearing fruit and nut trees in nurseries.

Do not exceed 120 pounds of product per acre per year (0.37 lb. azoxystrobin and 0.26 lb. thiamethoxam per acre per year).

Do not distribute Caravan G from the palm of the hand.

Caravan G is extremely phytotoxic to certain apple varieties. Extreme care must be taken to prevent injury to apple trees. DO NOT spread Caravan G where granules may reach apple trees.

### **Application Methods**

Apply Caravan G as a broadcast application to turfgrass for control of targeted pests. With calibrated granular equipment, uniformly broadcast Caravan G over the area being treated. Apply with a broadcast or drop spreader. (See **Spreader Settings**.) Uniform coverage is necessary to provide the most effective level of control.

### **Application Timing**

Caravan G can be applied to established turf or at seeding or during seed germination. Caravan G is effective when applied at labeled rates to help prevent and control turf insects and diseases.

To help prevent white grubs, apply Caravan G up to 45 days before the historical peak of adult flight for the targeted species. Irrigate within seven (7) days of application to move Caravan G into the root zone where grubs feed.

To control white grubs, apply Caravan G from egg hatch to 2<sup>nd</sup> instar. For optimum white grub control, apply Caravan G from peak adult flight through egg hatch of the primary species being targeted. Irrigate within one (1) day of application to move Caravan G into the root zone where grubs feed. Maintain adequate soil moisture before and after application for optimum control and healthy turfgrass growth. Excessively wet or dry conditions may impact the performance of Caravan G against white grubs and mole crickets. Do not mow the turf until the treated area has been irrigated or rainfall has occurred to allow for maximum and uniform uptake into the turfgrass or soil.

**Suppression only Mole Crickets:** For suppression of mole crickets, apply Caravan G preventively from first to peak egg hatch of the generation being targeted. Apply Caravan G early in the development of the younger stages when mole crickets are more susceptible. When populations are high and/or the insects are near the adult stage, mix Caravan G with another insecticide active against mole crickets.

# **DIRECTIONS FOR APPLICATION FOR TURF INSECTS**

	WHEN TO APPLY			
Insect Pests	Application Timing	Dosage of Caravan G		
Aphodius species Asiatic garden beetle Billbugs (Sphenophorus species) Black turfgrass ataenius European chafer Green June beetle Japanese beetle May or June beetle (Phyllophaga species) Northern masked chafer Oriental beetle Southern masked chafer	For optimum control, treat from peak flight to peak egg hatch.  Apply up to 2 <sup>nd</sup> instar grub of the species being targeted.	Apply 2 to 2.8 lbs per 1000 square feet. Use the higher rate for turf with heavy thatch (greater than <sup>3</sup> / <sub>4</sub> inch).		
Craneflies (Tipula species)	For optimum control, apply at oviposition (egg lay).			
Mole crickets (suppression) (Scapteriscus species)	To reduce mole cricket damage, treat from first egg hatch to peak egg hatch.			
Chinch bugs (Blissus species)	Apply when young nymphs are first observed.			
Flea beetles Leafhoppers Greenbugs Sod webworms Spittlebugs	For optimum control, make application when populations are first observed.			
Ants (excluding Carpenter, Fire, Harvester, and Pharaoh ants)	To control ants, treat when ant mounds are first observed.  Lawns: Apply 1 teaspoon around each ant hill. Waterin to adequately move active ingredient to target area.  Green and tee surfaces: To achieve optimum control, treat the affected area plus a surrounding 30 foot buffer.  Fairways and roughs: Treat at least 1.5 times the infested area. Water-in to adequately move active ingredient to target area. For additional knockdown activity, utilize with Scimitar® GC Insecticide in an insect control spray program. Consult the Scimitar GC Insecticide label for use.			

# **DIRECTIONS FOR APPLICATION FOR TURF DISEASES**

Application of Caravan G is recommended in a full-season turf disease control program with Heritage® G or Headway® G.

	WHEN TO APPLY		
Target Diseases	Use Rate (lb. product per 1000 sq. ft.)	Length of Control	Remarks
Anthracnose (Colletotrichum cereale)	2.0 - 2.8	14 - 21	Use preventively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development. Under high disease pressure, use higher rates of Caravan G. Alternate with a contact fungicide such as Daconil®.
Brown Patch ( <i>Rhizoctonia solani</i> )	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development. Follow up with an application of Heritage G or Headway G 14-21 days after the Caravan G application if needed.
Cool Weather Brown Patch Yellow Patch (Rhizoctonia/Ceratorhiza cerealis)	2.0- 2.8	14 - 21	Apply in the fall or when conditions are favorable for disease development.
Fairy Ring (Lycoperdon spp., Agrocybe pediades, and Bovistra plumbea)	2.0- 2.8	14 - 21	Apply as soon as possible after fairy ring symptoms develop. Irrigate with at least 0.5 inches 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. A follow-up application of Heritage G or Headway G after 14-21 days may be required in some cases.
Microdochium Patch (formerly known as Fusarium Patch) ( <i>Microdochium nivale</i> )	2.0- 2.8	14 - 21	Use preventatively. Apply when conditions are favorable for disease infection, prior to disease symptom development.
Gray Leaf Spot ( <i>Pyricularia grisea</i> )	2.0- 2.8	14 - 21	Use Caravan G in a preventive disease control program. Apply before disease is present and alternate with other fungicide chemistries that control gray leaf spot.
Leaf Rust Stem Rust Stripe Rust ( <i>Puccinia</i> spp.)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease infection, prior to disease symptom development.
Leaf spot (Bipolaris sorokiniana)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development.
Melting Out (Drechslera poae)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development
Necrotic Ring Spot ( <i>Ophiosphaerella korrae</i> )	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development.
Pink Patch (Limonomyses roseipellis)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development.
Powdery Mildew ( <i>Erysiphe graminis</i> )	2.0- 2.8	14 - 21	Apply applications when conditions are favorable for disease infection, prior to disease symptom development.
*Pythium Blight Pythium Root Rot ( <i>Pythium aphanidermatum,</i> <i>Pythium</i> spp.)	2.0- 2.8	14 - 21	Use preventatively. Apply before disease is present. During periods of prolonged favorable conditions, follow up by treating with Heritage G or Headway G. For use on newly seeded as well as established turf.

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	WHEN TO APPLY		
Target Diseases	Use Rate (lb. product per 1000 sq. ft.)	Length of Control	Remarks
Red Thread (Laetisaria fuciformis)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development.
Southern Blight (Sclerotium rolfsii)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development.
Summer Patch ( <i>Magnaporthe poae</i> )	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development. Initiate applications when soil temperatures reach 65°F at a 2-inch soil depth.
Take-all patch (Gaeumannomyces graminis var. avenae)	2.0- 2.8	14 - 21	Begin applications in the fall and spring when conditions are favorable for disease infection, prior to disease symptom development. Follow up with an application of Heritage G or Headway G 14-21 days after the Caravan G application.
Large Patch, Zoysia Patch, (Rhizoctonia solani)	2.0- 2.8	14 - 21	For Large Patch of all warm season turfgrasses, apply in the fall prior to infection or when conditions are favorable for infection. Follow up with a repeat application of Heritage G.  For Zoysia Patch, apply approximately one month prior to zoysiagrass dormancy. Follow up with an application of Heritage G 14 to 21 days later.
Rhizoctonia Leaf & Sheath Blight ( <i>Rhizoctonia zeae</i> )	2.0- 2.8	14 - 21	For Leaf & Sheath Spot ( <i>R. zeae</i> ), apply when conditions are favorable for infection such as sequential periods of temperatures at or above 90 degrees Fahrenheit. For curative control, follow up with applications of Heritage G.
Brown Ring Patch (Waitea/Chrysorhiza circinata var. circinata)	2.0- 2.8	14 - 21	Apply when conditions are favorable for disease development

# **Spreader Settings**

Spreader Brand	Model	2.0 lb. per 1,000 ft <sup>2</sup>	2.8 lb. per 1,000 ft <sup>2</sup>	Approximate Swath Width
Agri-Fab	45-03881	N/A	2	6 ft.
Andersons	AccuPro 1000	L 1/2	M <sup>1</sup> / <sub>2</sub>	10 ft.
Andersons	AccuPro 2000	L <sup>1</sup> / <sub>2</sub>	M <sup>1</sup> / <sub>2</sub>	10 ft.
Andersons	SR-2000	L 1/2	M <sup>1</sup> / <sub>2</sub>	10 ft.
Earthway Ev-N-Spread	2050	7	8	8 ft.
Earthway Ev-N-Spread	2170	13	14	8 ft.
Lesco	Commercial Plus	8	10	10 ft.
Lesco	Commercial Rotary	A 1/2	B 1/2	10 ft.
Perma-Green	Magnum B1B	5.5	6	7 ft.
Prizelawn	BF I	М	N	10 ft.
Prizelawn	CBR III	J 1/2	К	10 ft.
Scotts	Precision Green	3.5	4.5	2 ft.
Spyker Rotary	46-22	2.5	3	6 ft.
Turfco	T-3000	3.5	4	13 ft.

Spreader settings are approximate. Differences may occur due to condition of spreader, speed at which applied, and roughness of area treated. Be sure to check spreader at the beginning of the application; adjust spreader if necessary.

**Broadcast Spreaders:** If your lawn is rectangular, apply two border strips across each end for a turning area. If your lawn is an irregular shape, apply a border strip completely around it. Then apply product back and forth in the longest direction. Turn the spreader off and on at the edge of each strip to prevent uneven application. Overlap the throw pattern by about a foot to ensure complete coverage.

**Drop Spreaders:** First, apply two border strips along the edge of each end of the lawn. Then apply product along the length of lawn, overlapping slightly and shutting off the spreader before turning as you reach the edge of the border strips.

# STORAGE AND DISPOSAL

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

### **Pesticide Storage**

Store in a cool, dry place.

### **Pesticide Disposal**

Pesticide wastes are toxic. Improper disposal of unused pesticide is a violation of Federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

# **Container Handling**

Non-refillable container. Do not reuse or refill this container. Completely empty the bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration.

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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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