

GROUP 4A INSECTICIDE



# Insecticide

For systemic control of insect pests on turfgrasses on golf courses, residential lawns, commercial grounds (i.e., office and shopping complexes, airports), parks, playgrounds, athletic fields and sod farms, and on ornamental plants grown in residential and commercial landscapes, parks, golf courses and interiorscapes

<i>Active Ingredient:</i>	
Thiamethoxam <sup>1</sup> . . . . .	0.33%
<hr/>	
<i>Other Ingredients:</i>	99.67%
<hr/>	
<i>Total:</i>	100.00%

<sup>1</sup> CAS No. 153719-23-4

Meridian 0.33G is a granule that contains 0.05 ounces of active ingredient per pound of formulated product.

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

See additional precautionary statements and directions for use on bag.

EPA Reg. No. 100-961

EPA Est. 67572-GA-1

SCP 961A-L1C 0316



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. 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 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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center"><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></p>	

## PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals**

### CAUTION

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

#### Personal Protection Equipment

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical resistant-gloves made out of: barrier laminate or butyl rubber ≥ 14 mils, nitrile rubber ≥ 14mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14mils, Viton® ≥ 14 mils
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, 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
<p><b>Users should:</b></p> <ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> <li>• Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>• Remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.</li> </ul>

#### Environmental Hazards

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to inter-tidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

## 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 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 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.

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.

### 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) and restricted-entry interval. 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 to 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:

- Coveralls
- Chemical-resistant gloves made out of: barrier laminate or butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14mils, Viton  $\geq$  14 mils
- Shoes plus socks
- Protective eyewear

### 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.

**Do not enter treated areas without protective clothing 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

Meridian 0.33G is a broad-spectrum insecticide when applied at label rates to turfgrass and soil. It is systemically active against certain foliar (sucking and chewing) and soil pests. Rainfall or irrigation causes the active ingredient of Meridian 0.33G to be released from the granule. Once released, it is readily absorbed by plant foliage or carried into the soil. In the soil, Meridian 0.33G will control soil pests upon contact or ingestion of the active ingredient and is also readily taken up by plant roots. The active ingredient moves upwards in the plant to the site of pest infestation. Through feeding on the plant, pests are exposed to the active ingredient in Meridian 0.33G. Feeding will stop within minutes to hours of exposure and be followed by death of the pest. The moderate persistence of Meridian 0.33G in the soil and foliage also provides long residual control of labeled pests. Meridian 0.33G is not active as an ovicide or as an insect growth regulator.

#### Restrictions:

- Not for use on production ornamentals or non-bearing fruit and nut trees in nurseries.
- Do not exceed 80 pounds (0.265 lb ai) of product per acre per year.
- Do not distribute Meridian 0.33G from the palm of the hand.
- **DO NOT** apply this product, by any application method, to linden, basswood, or *Tilia* species.

## Resistance Management

Meridian 0.33G belongs to the neonicotinoid class of chemistry (Group 4A Insecticide) which is not known to be cross-resistant to any other class of insecticide. However, insect pests are known to develop resistance to products used repeatedly. Because resistance development cannot be predicted, the use of Meridian 0.33G 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.

## APPLICATION TO TURFGRASS

### Sites of Application

Meridian 0.33G can be used for applications to turfgrasses on golf courses, residential lawns, commercial grounds (i.e., office and shopping complexes, airports), parks, playgrounds, athletic fields and sod farms.

**Restriction:** Do not exceed 80 pounds (0.265 lb ai) of product per acre per year

### Application Methods

Apply Meridian 0.33G as a broadcast application to turfgrass for control of targeted pests. With calibrated granular equipment, uniformly broadcast Meridian 0.33G over the area being treated.

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 Meridian 0.33G 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.

### Application Timing

Meridian 0.33G is effective when applied at labeled rates to help prevent and control white grubs.

To help prevent white grubs, apply Meridian 0.33G up to 45 days before the historical peak of adult flight for the targeted species. Irrigate within seven (7) days of application to move Meridian 0.33G into the root zone where grubs feed.

To control white grubs apply Meridian 0.33G from egg hatch to 2nd instar (grubs less than half their full size). For optimum white grub control, apply Meridian 0.33G from peak adult flight through peak egg hatch of the primary species being targeted. Irrigate within one (1) day of application to move Meridian 0.33G into the root zone where grubs feed.

**Suppression only:** Mole Crickets (*Scapteriscus* species)

Apply Meridian 0.33G early in the development of the younger stages when this insect pest is more susceptible (from first to peak egg hatch of the generation being targeted).

When populations are high and/or the insects are near the adult stage, mix Meridian 0.33G with another insecticide active against mole crickets.

## Applications to Turfgrass

Use sites include turfgrass on golf courses, residential lawns, commercial grounds (i.e., office and shopping complexes, airports), parks, playgrounds, athletic fields, and sod farms.

Pests	Application Timing	Dosage of Meridian 0.33G
Larvae (white grubs) of: <i>Aphodius</i> species Asiatic garden beetle Billbugs ( <i>Sphenophorus</i> species) Black turfgrass ataenius European chafer Green June beetle Japanese beetle May or June beetle ( <i>Phyllophaga</i> species) Northern masked chafer Oriental beetle Southern masked chafer	Apply up to 45 days before the historical peak of adult flight to 2 <sup>nd</sup> instar grub of the species being targeted.  For optimum control, treat from peak flight to peak egg hatch.  To control grubs, make the application from egg hatch to second instar (grubs less than half their full size).	7 - 9 lb/5,000 sq ft  or  60 - 80 lb/A (1.5 to-2 bags/A)  See table below for spreader calibrations settings
Craneflies (Tipula species)	For optimum control, apply at oviposition (egg lay)	
Mole crickets (suppression) ( <i>Scapteriscus</i> species)	To reduce mole cricket damage, treat from first egg hatch to peak egg hatch. See note below.	
Chinch bugs ( <i>Blissus</i> 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. <b>Green and tee surfaces:</b> To achieve optimum control, treat the affected area plus a surrounding 30 foot buffer. <b>Fairways and roughs:</b> 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.	

For specific information about developmental stages of the target pest and optimal timing of applications, consult with your State Cooperative Extension Service.

**Note:** For turf with heavy thatch (more than 0.75"), use the higher rates within the specified rate range. Do not exceed 80 pounds of Meridian 0.33G per acre per year. Meridian 0.33G (is not phytotoxic) can be used on all major turfgrass species.

**Note:** Meridian 0.33G provides suppression of mole crickets on turfgrass. Suppression can mean either erratic control, ranging from good to poor, or a consistent level of control below that generally acceptable for commercial purposes. Refer to additional comments under **Use Information** section relating to turfgrass applications.

## Spreader settings for Meridian 0.33G Insecticide

Spreader settings are influenced by factors such as speed, equipment wear, and condition of spreader. Use the following chart as a guide in establishing accurate calibration of your spreader to properly apply Meridian 0.33G at labeled rates. Carefully calibrate application equipment prior to commercial use of this product.

Spreader Type	Speed	Meridian 0.33G Spreader Settings	
	(mph)	60 lb/Acre	80 lb/Acre
AgriFab Rotary	3	6 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>
Anderson's Rotary Model SR 2000	3	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>
Earthway Ev-N-Spred Rotary Model 2170	3	10 <sup>1</sup> / <sub>2</sub>	13
Gandy Drop	3	22 <sup>1</sup> / <sub>2</sub>	25
Lesco Commercial Plus	3	9	11
Lesco Drop	3	23	25
Lesco Rotary	3	C	D
Permagreen Magnum B1B Rider -Side hole setting= 7	4	9	11 <sup>1</sup> / <sub>2</sub>
Prizelawn BF1 Pull behind rotary model	3	L	N
Prizelawn Rotary Model CBR-III	3	J	K <sup>1</sup> / <sub>3</sub>
Scotts Precision Green drop	3	3 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>
Scotts Pro Turf Professional Drop	3	3	3 <sup>1</sup> / <sub>2</sub>
Scotts Rotary Model SR-2000	3	1 <sup>1</sup> / <sub>2</sub>	K <sup>1</sup> / <sub>2</sub>
Spyker Rotary Model 46-22	3	3 <sup>1</sup> / <sub>3</sub>	3 <sup>1</sup> / <sub>2</sub>
Vicon	4 <sup>1</sup> / <sub>4</sub>	23	28

## APPLICATION TO INTERIORESCAPE AND LANDSCAPE ORNAMENTAL PLANTS

### Sites of Application

Meridian 0.33G can be applied to ornamentals grown in residential and commercial landscapes, parks, golf courses and interiorscapes.

### Restrictions:

- Do not exceed 80 pounds (0.265 lb ai) of product per acre per year.
- DO NOT** apply this product, by any application method, to linden, basswood, or *Tilia* species.

### Application Methods

Meridian 0.33G is active as a soil and systemic insecticide when applied to the soil or soilless media. To apply, use calibrated granular equipment that uniformly broadcasts Meridian 0.33G to the desired area.

### Application Timing

Meridian 0.33G must move to the site of pest infestation, such as in the root zone or the above-ground portion of the host plant. With irrigation or rainfall, move Meridian 0.33G into the root zone of plants or the location of soil-dwelling pests. Water in within 3 days of treatment, and optimally within 24 hours. Excessive watering may reduce the effectiveness of Meridian 0.33G if it occurs within 7 days of application. Meridian 0.33G is readily taken up by the roots and moves upwards in the plant to feeding sites of pests. Systemic activity of Meridian 0.33G may be delayed for one or more weeks depending on plant size, rate of uptake from the soil and rate of translocation within the plant. Systemic activity in large plants may require several weeks before control of stem and foliar pests is achieved. If economic thresholds for target pests are low, or plants are historically damaged, apply Meridian 0.33G to the growing media before pests are evident.

## APPLICATIONS TO ORNAMENTAL PLANTS

For plants grown in residential and commercial landscapes, parks, golf courses and interiorscapes.

### Soil-Inhabiting Pests

Pests	Plant Type	Dosage of Meridian 0.33G
Larvae (white grubs) of: <i>Aphodius</i> species Asiatic garden beetle Billbugs ( <i>Sphenophorus</i> species) Black turfgrass ataenius European chafer Green June beetle Japanese beetle May or June beetle ( <i>Phyllophaga</i> species) Northern masked chafer Oriental beetle Southern masked chafer	All plant types	7 – 9 lb/5,000 sq ft  or  60 - 80 lb/A (1.5 to 2 bags/A)

### Application timing for Grubs:

- Apply up to 45 days before the historical peak of adult flight to 2nd instar grub of the species being targeted.
- For optimum control, treat from peak flight to peak egg hatch.
- To control grubs, make the application from egg hatch to second instar (grubs less than half their full size).
- Note:** If leaching, wait a minimum of 7 days after application to allow for maximum uptake of Meridian 0.33G by the plant's root system.
- Apply to the soil before pests are evident in situations where tolerance of insects or damage is low. Allow a minimum of one week for smaller plants and at least 2 weeks for large plants to trans-locate Meridian 0.33G to feeding sites of the target pest.
- Do not exceed 80 pounds per acre per year when making applications to the soil for ornamentals.

For specific information about developmental stages of the target pest associated damage, and action thresholds to properly time applications consult with your State Cooperative Extension Service. Refer to additional comments under **Use Information** section relating to turfgrass applications.

### Above-Ground Pests

Pests	Plant Type	Dosage of Meridian 0.33G
Adelgids (including Hemlock Woolly Adelgid) Aphids Flea beetles Japanese beetle adults Lace Bug Leaf beetles Leafminers Mealybugs Root Aphid Root Weevil larvae (including <i>Diaprepes abbreviatus</i> ) Sawflies Soft Scales Spittlebugs Tent caterpillars Thrips-foliar feeding (suppression) Whiteflies	Annuals & small woody landscape plants	7 – 9 lb/5,000 sq ft  or  60 - 80 lb/A (1.5 to 2 bags/A)

### Application Timing for Above-Ground Pests:

**Preventive:** Apply 1 to 4 weeks before pest has historically been observed.

**Curative:** Allow 1 to 4 weeks for reduction in pest density to occur.

**Note:** Larger plants require the longer interval.

- **Note:** If leaching, wait a minimum of 7 days after application to allow for maximum uptake of Meridian 0.33G by the plant's root system.
- Apply to the soil before pests are evident in situations where tolerance of insects or damage is low. Allow a minimum of one week for smaller plants and at least 2 weeks for large plants to trans-locate Meridian 0.33G to feeding sites of the target pest.
- Apply to landscape ornamental plants to reduce populations of aphids, whiteflies, and mealybugs, which produce honeydew which serves as a food source for some ant species.
- **Do not** exceed 80 pounds per acre per year when making applications to the soil for ornamentals.
- Apply the proper rate as a broadcast treatment to the root zone of plants.
- Irrigate after application for optimum control.

For specific information about developmental stages of the target pest associated damage, and action thresholds to properly time applications, consult with your State Cooperative Extension Service. Refer to additional comments under **Use Information** section relating to turfgrass applications.

## STORAGE AND DISPOSAL

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

### Pesticide Storage

Store in a cool, dry place.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup, procedures and disposal of wastes. In the event of a major spill, fire, or other emergency call 1-800-888-8372, day or night.

### 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 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.

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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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