

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505C) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

Date of Issuance:

100-1424

**EPA Reg. Number:** 

August 15, 2014

replaces version dated 2/7/2014

<b>NOTICE</b>	OF	<b>PESTI</b>	CIDE:
---------------	----	--------------	-------

X Registration \_\_\_ Reregistration

(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product: Spinner Insecticide

Name and Address of Registrant (include ZIP Code):

John Abbott Syngenta Crop Protection, LLC PO Box 18300 Greensboro, NC 27419

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

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

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

This is a corrected Notice of Registration replacing the original issued on 2/7/2014 as an unconditional registration. The registration is conditional since Registration Review Data Call Ins (DCIs) have been issue for thiamethoxam.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must:

- 1. Submit and/or cite all data required for registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data. You must comply with the following DCIs:
  - a. Thiamethoxam GDCI-060109-1308, issued on March 14, 2013
  - b. Thiamethoxam GDCI-060109-1309, issued on March 18, 2013

Signature of Approving Official:

Date:

August 15, 2014

Meredith Laws, Chief

Insecticide-Rodenticide Branch, Registration Division (7505P)

EPA Form 8570-6

If you have questions about the Generic DCIs listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://www.epa.gov/oppsrrd1/contacts\_prd.htm">http://www.epa.gov/oppsrrd1/contacts\_prd.htm</a>.

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No 100-1424."
- 3. Submit one copy of the final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Please also note that the record for this product currently contains the following Confidential Statements of Formula (CSFs):

- Basic CSF, dated 6/24/2011
- Alternate #1 CSF, dated 9/28/2012
- Alternate #2 CSF, dated 9/28/2012
- Alternate #3 CSF, dated 9/28/2012
- Alternate #4 CSF, dated 6/28/2011

If you have any questions, please contact Tom Harris at 703-308-9423 or harris.thomas@epa.gov.

Sincerely,

Meredith Laws, Chief Insecticide-Rodenticide Branch Registration Division (7505P)

Enclosure

#### (Master Label Booklet)

Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

GROUP 4A 28 INSECTICIDES

#### **SPINNER™**

#### Insecticide

[For foliar and systemic control of listed insect pests in turfgrass (including golf courses; institutional, commercial and residential lawns and landscapes; sod farms; sports fields; parks; municipal grounds; and cemeteries)] [Option 1]

[For foliar and systemic control of listed insect pests in ornamental plants, fruit and nut trees (non-bearing), forest seedlings (liner production and field application), and listed vegetables transplants grown for sale to consumers] [Option 2]

[For foliar and systemic control of listed insect pests in turfgrass (including golf courses; institutional, commercial and residential lawns and landscapes; sod farms; sports fields; parks; municipal grounds; and cemeteries) and in ornamental plants, residential and commercial landscapes, fruit and nut trees (non-bearing), forest seedlings (liner production and field application) and listed vegetable transplants grown for sale to consumers.] [Option 3]

Active Ingredients: Thiamethoxam <sup>1</sup>		20.0%
Cyantraniliprole <sup>2</sup> Other Ingredients:	ACCEPTED	20.0% 60.0%
Total: <sup>1</sup> CAS No. 153719-23-4 <sup>2</sup> CAS No. 736994-63-1  Spinner is a water-dispersible granule.	08/15/2014  Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1424	100.0%

Spinner contains 3.2 ounces of thiamethoxam and 3.2 ounces of cyantraniliprole per pound of formulated product.

#### KEEP OUT OF REACH OF CHILDREN.

#### CAUTION

See additional precautionary statements and directions for use in booklet[on bag].

EPA Reg. No. 100-RUEU

EPA Est. [Placeholder]

SCP (DRAFT NEW PRODUCT-E)

[Net contents placeholder] Net Weight Non-refillable container

000100-0RUEU.20121214E.Spinner\_New

	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>					
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>					
If swallowed	<ul> <li>Call a 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 a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>					
If on skin or clothing	<ul> <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 going for treatmer	container or label with you when calling a poison control center or doctor, or nt.					
	HOT LINE NUMBER 24-Hour Medical Emergency Assistance (Human or Animal) or nemical 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
- Chemical-resistant gloves made of any waterproof material Category A (e.g., natural rubber ≥ 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, 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 before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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 wildlife and highly toxic to aquatic invertebrates oysters and shrimp.

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. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds and may cause possible effects to pollinators from exposure to translocated residues in blooming crops. Do not apply this product or allow it to drift to blooming crops while bees are foraging in/or adjacent to the treatment area.

# Surface Water Advisory

This product may impact surface water quality due to spray drift and runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff

for several months 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 fromrunoff water and sediment. Runoff 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

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

# Spray Drift Advisory

Do not allow this product to drift.

# PROTECTION OF POLLINATORS



# **APPLICATION RESTRICTIONS** EXIST FOR

THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

# This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off—site pollinator attractive habitat. Drift of this product onto beehives or off—site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: <a href="www.npic.orst.edu">www.npic.orst.edu</a> or directly to EPA at: <a href="mailto:beekill@epa.gov">beekill@epa.gov</a>

#### 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 of 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.

Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

See individual use sites for specific pollinator protection application restrictions. If none exist, follow these directions for foliar applications to commercially-grown plants and ornamentals that are attractive to pollinators and non-agricultural use sites:

# FOR FOOD/FEED CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS



Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

# FOR NON-AGRICULTURAL USES



 Do not apply Spinner while bees are foraging. Do not apply Spinner to plants that are flowering. Only apply after all flower petals have fallen off.

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.

[Option 1]

#### 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 of any waterproof material Category A (e.g., natural rubber ≥ 14 mils)
- Shoes plus socks
- Protective eyewear

#### 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 except for automatic fogger use in greenhouses (See "Automatic Cold Fogger Use in Greenhouses" below). 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 of any waterproof material Category A (e.g., natural rubber ≥ 14 mils)
- Shoes plus socks
- Protective eyewear

#### Automatic Cold Fogger Use in Greenhouses: Early entry is based on ventilation criteria.

- If there is no ventilation, the REI is 24 hours.
- Early entry is permitted (with the PPE listed above) and respiratory protection consisting of a protection factor (PF) 10 respirator fitted with an organic-vapor removing filter) after four (4) hours to perform short duration activities such as opening windows or turning on fans or ventilation systems.
- Early entry is permitted (with the PPE listed above) after two (2) hours of ventilation using fans or other mechanical ventilation systems.
- Early entry is permitted (with the PPE listed above) after four (4) hours of ventilation using vents, windows or other passive ventilation.
- Early entry is permitted (with the PPE listed above) after ten (10) complete air exchanges have been completed.

After 12 hours, if the greenhouse has been ventilated according to the above criteria, no PPE is required to enter the treated area.

#### 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 sprays have dried.

# 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**

#### RESISTANCE MANAGEMENT

Some insect pests are known to develop resistance to products after repeated use. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

Spinner contains a Group 4A insecticide (thiamethoxam, belonging to the neonicotinoid class of chemistry) and a Group 28 insecticide (cyantraniliprole, belonging to the diamide class of chemistry). Insect biotypes with acquired or inherent resistance to Group 4A or Group 28 insecticides may eventually dominate the insect population if Group 4A or Group 28 insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by Spinner or other Group 4A or Group 28 insecticides.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

#### In order to maintain susceptibility to these classes of chemistry:

- Avoid using Group 4A and/or Group 28 insecticides exclusively for season-long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, apply Spinner or other Group 4A and/or Group 28 insecticides using a "treatment window" approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (seed treatment, soil, foliar, unless otherwise stated in the Directions for Use) of the Group 4A and/or Group 28 insecticides. Do not exceed the maximum Spinner allowed per growing season.
- Following a treatment window of Group 4A and/or Group 28 insecticides, rotate to a treatment window of effective products with a different mode of action before making additional applications of Group 4A and/or Group 28 insecticides.
- A treatment window rotation, along with other IPM practices for the crop and use area, is considered an effective strategy for preventing or delaying a pest's ability to develop resistance to these classes of chemistry.
- If resistance is suspected, do not reapply Spinner or other Group 4A or Group 28 insecticides.

#### Other Insect Resistance Management (IRM) practices include:

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.

 Using tank-mixtures or premixes with insecticides from a different target site of action group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

#### For additional information on Insect Resistance Management:

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org/.

#### **POLLINATOR PRECAUTIONS**

- Spinner is highly toxic to bees exposed to direct treatment on blooming crops or weeds and may cause possible effects to pollinators from exposure to translocated residues in blooming crops.
- Do not apply Spinner or allow it to drift to blooming crops while bees are foraging in/or adjacent to the treatment area. This is especially critical if there are adjacent orchards that are blooming (Refer to Spray Drift Precautions for additional information).
- If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide.
- Consult with your local cooperative extension service or state agency responsible for regulating pesticide use for additional pollinator safety practices.

#### MIXING PROCEDURES

Prepare only the amount of spray mixture that is needed for the immediate application. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation.

Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

#### **Spinner Applied Alone**

Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the Spinner to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Spinner has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

#### **Spinner + Tank Mixtures**

Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. Add the tank mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Spinner, liquid flowables, liquids and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

**Note:** When using Spinner in tank mixtures, add all products in water-soluble packaging to the tank before any other tank mix partner, including Spinner. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

When an adjuvant is to be used with this product, use an adjuvant that meets the standard of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program. Spinner is compatible with most commonly used pesticides, crop oils, adjuvants, and nutritional sprays. However, since it is not possible to test all possible mixtures, the user should pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with Spinner.

If using Spinner in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. Do not exceed any label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product, which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

#### **Tank Mix Compatibility**

Spinner is compatible with most insecticide, fungicide, and foliar nutrients products. However, test the physical compatibility of Spinner with tank-mix partners before use. To determine the physical compatibility of Spinner with other products, use a jar test, as described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

# [Options 1 and 3]

#### **USE INFORMATION - TURF**

Spinner is a combination of two broad-spectrum insecticides, thiamethoxam and\_cyantraniliprole that are effective when applied at label rates for control of specified turfgrass insects. When applied at label rates, it is active against annual white grubs including Asiatic garden beetle (*Maladera castanea*), European chafer (*Amphimallon majale*), green June beetle (*Cotinis nitida*), Japanese beetle (*Popillia japonica*), May or June beetle (*Phyllophaga* spp.), Northern masked chafer (*Cyclocephala borealis*), oriental beetle (*Anomala orientalis*), Southern masked chafer (*Cyclocephala lurida*), *Aphodius beetle* (*Aphodius omissus omissus*) and black turfgrass Ataenius (*Ataenius spretulus*). Spinner also controls many key surface-feeding pests including annual bluegrass weevils, billbugs and caterpillars.

Spinner is active against many sucking and chewing insect pests by contact and ingestion. Spinner is readily absorbed into plant tissue, and is rainfast once it has dried. The rapid translaminar absorption and distribution within leaves provides excellent residual control of turfgrass insects.

In the soil, the active ingredients in Spinner will control listed soil pests upon contact or ingestion and is also readily taken up by plant roots. Both thiamethoxam and cyantraniliprole move upwards in the plant to the site of pest infestation.

Through feeding on the plant, pests are exposed to the active ingredient in Spinner. Feeding will stop within minutes to hours of exposure and be followed by death of the pest. The moderate persistence of Spinner in the soil and foliage also provides residual control of labeled pests. Spinner is not active as an ovicide or as an insect growth regulator. Because residues on leaf surfaces are quickly degraded, Spinner is compatible with beneficial arthropods.

#### **APPLICATION TO TURFGRASS**

# **Sites of Application**

Spinner can be applied to turfgrass on golf courses; institutional, commercial and residential lawns and landscapes; sod farms; sports fields; parks; municipal grounds; and cemeteries.

#### **Restrictions:**

- **DO NOT** apply this product through any type of irrigation system.
- DO NOT apply with aerial equipment.
- **DO NOT** apply more than 21.2 ounces of Spinner per acre per year.
- Do not make ground applications within 25' of lakes, rivers, reservoirs, permanent streams, marshes, natural ponds, estuaries, or coastal areas. Do not cultivate within 25' of the aquatic area to allow growth of a vegetative filter strip.

# **Broadcast Applications to Turfgrass**

Apply Spinner as a broadcast application to turfgrass for control of targeted pests. Use sufficient water volume (1.5 - 5 gallons/ 1,000 square feet) to uniformly distribute Spinner over the area being treated and to adequately move the active ingredient into the canopy and thatch layers.

To help prevent grubs, irrigate within seven (7) days of application to move Spinner into the root zone where grubs feed. To control grubs, irrigate within one (1) day of application to move Spinner 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 Spinner against white grubs and mole crickets. Do not mow turf until the treated area has been irrigated or rainfall has occurred to allow for maximum and uniform uptake into turfgrass.

Use Pattern	Pests	Application Timing	Dosage of Spinner
Broadcast	Larvae (white grubs) of:  Asiatic Garden Beetle (Maladera castanea) European Chafer (Amphimallon majale) Green June Beetle (Cotinis nitida) Jpanese Beetle (Popillia japonica) May or June Beetle (Phyllophaga spp.) Northern Masked Chafer (Cyclocephala borealis) Oriental Beetle (Anomala orientalis) Southern Masked Chafer (Cyclocephala lurida) Aphodius (Aphodius omissus omissus) Black Turfgrass Ataenius (Ataenius spretulus)	Begin applications 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. Optimal control will be obtained from egg hatch to second instar (grubs less than half their full size).	Apply at 7.85 to 10.5 ounces per acre.  Apply two applications on a 30- to 45-day interval.  Do not apply more than 21 oz/A per year.
	Turf caterpillars including: Armyworms Cutworms Sod webworms	For optimum control, begin applications when populations are first observed. Spinner will provide excellent curative caterpillar control. To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application.	
	Annual Bluegrass Weevil (Listronotus maculicolis)	Apply when overwintering adult annual bluegrass weevils are observed in late April and early May. Spinner provides control of larvae, pupae and adults. Applications of Spinner will also provide white grub control.	
	Billbugs Bluegrass billbug (Sphenophorus parvulus) Denver billbug (Sphenophorus	Apply when overwintering adult billbugs are observed in late April and early May. Applications of Spinner will also provide white grub	

Use Pattern	Pests	Application Timing	Dosage of Spinner
	cicastristriatus)	control.	•
	Craneflies ( <i>Tipula</i> spp.)	For optimum control, apply at oviposition (egg lay).	
	Mole crickets (suppression) (Scapteriscus spp.)	To suppress damage, treat from first egg hatch to peak egg hatch. See note below.	
	Chinch bugs (Blissus spp.)	Apply when young nymphs are first observed. See note below.	
	Flea beetles Greenbugs Leafhoppers Spittlebugs	For optimum control, make application when populations are first observed.	
	Ants (excluding Carpenter, Harvester, and Pharaoh ants)	To control ants, treat when ant mounds are first observed. To achieve optimum control on green and tee surfaces, treat the affected area plus a surrounding 30-foot buffer. For 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.	

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

- For turf with heavy thatch (more than 0.75 inches), use the higher rates within the specified range.
- Spinner is not phytotoxic to any major turfgrass species.
- Spinner 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.

#### USE INFORMATION - COMMERCIAL AND RESIDENTIAL LANDSCAPE PLANTS

Spinner is a broad-spectrum insecticide that is effective when applied at label rates to the foliage. Spinner is active against listed sucking and chewing insect pests by contact and ingestion.

#### **Plant Safety**

Spinner is safe on most ornamental plants. Determine the plant safety of Spinner applied alone to a particular plant or with a particular tank mix, including adjuvants. Test Spinner alone or the mixture to be applied on a small number of plants to determine any adverse plant safety effects before making large-scale applications.

Applications of Spinner to yellow varieties of Honey Locust (*Gleditsia triacanthos*) may result in leaf chlorosis and leaf abscission. The effects are temporary. Test Spinner alone or the mixture to be applied on a small number of the Honey Locust varieties you intend to treat and determine any adverse plant safety effects before making large-scale applications.

#### APPLICATION PROCEDURES

#### **Foliar Applications**

Make foliar applications in an adequate water volume to achieve thorough and uniform coverage without excessive runoff (to drip). Use of an adjuvant applied with Spinner may increase efficacy. Select an adjuvant that does not bind Spinner to the leaf surface, limiting absorption into the foliage. Spinner can be applied in a range of spray volumes (concentrate to dilute spray volumes), provided thorough and uniform coverage is obtained.

#### **Handheld Application Equipment**

Applications can be made through most types of low-pressure handheld application equipment.

**DO NOT** apply through any type of handheld fogger equipment.

# **Application Timing**

Begin foliar applications when labeled pests first appear or when economic thresholds have been reached.

Apply Spinner preventatively to plants that have low economic thresholds or are prone to infestation by listed insect pests.

#### **Spray Drift Precautions**

As with all crop protection products, it is important to avoid off-target movement. Do not allow spray to drift onto adjacent land, crops, or aquatic areas. To avoid spray drift:

- Make applications when wind velocity favors on-target product deposition (approximately 3-10 mph). Do not apply when wind velocity exceeds 10 mph. Do not make applications when wind gusts approach 10 mph.
- Do not make applications when wind direction is toward the aquatic area to reduce the risk of exposure to sensitive aquatic areas.
- Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increased height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Use the largest droplet size consistent with good pest control. Small droplets are more
  prone to spray drift, and can be minimized by appropriate nozzle selection, by orienting
  nozzles away from the air stream as much as possible, and by avoiding excessive spray
  boom pressure.
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage.

# SPECIFIC USE DIRECTIONS - COMMERCIAL AND RESIDENTIAL LANDSCAPE PLANTS

# **Foliar Applications**

Pests	Rate	Use Restrictions
Ants (excluding harvester, carpenter and Pharaoh ants) Aphids Beet Armyworm Cabbage Looper Cabbage Webworm Corn Earworm Diamondback Moth Fall Armyworm Flea Beetles Imported Cabbageworm Southern Armyworm Sugarbeet Armyworm Yellowstriped Armyworm	5-10.0 oz./A or 0.6-1.1 oz./5,000 sq. ft.	Make the first application when economic action levels for the target pest are reached. For crops without action levels, make the first application before pest populations cause significant damage to the host plant. A second application, if needed, may be made but no sooner than 14 days  Apply higher use rates in rate range for longer control or high insect populations.  For leaf-gall-forming insects, apply during egg laying of the generation being targeted.
Adelgids (including Hemlock Woolly Adelgid) Lace Bugs Leaf Beetles Leafhoppers Leafminers Leaf gall forming insects Mealybugs Midges Plant Bug Psyllids (including Asian Citrus Psyllid) Sawflies Soft Scales Thrips – foliar feeding Whiteflies	10.5 oz./A or 1.2 oz./5,000 sq. ft.	For concentrated spray volumes, apply the same amount of product per unit area as would be applied with dilute spray volumes.

- Do not exceed 21 oz./A per year.
- 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.

#### [Options 2 and 3]

USE INFORMATION – ORNAMENTAL PLANTS, FRUIT AND NUT TREES (NON-BEARING), FOREST SEEDLINGS (LINER PRODUCTION AND FIELD APPLICATION), AND LISTED VEGETABLE TRANSPLANTS GROWN FOR SALE TO CONSUMERS

Spinner is a broad-spectrum insecticide that is effective when applied at label rates to the foliage, soil and growing media. Spinner is active against listed sucking and chewing insect pests by contact and ingestion.

# **Plant Safety**

Spinner is safe on most ornamental plants. Determine the plant safety of Spinner applied alone to a particular plant or with a particular tank mix, including adjuvants. Test Spinner alone or the mixture to be applied on a small number of plants to determine any adverse plant safety effects before making large scale applications.

Among container-grown ornamentals and ornamentals grown in planting or liner beds, some plant species may be sensitive to fertilizers. Determine the plant safety of Spinner applied with fertilizers. Test the mixture on a small number of plants to determine any adverse plant safety effects before making large-scale applications.

Applications of Spinner to yellow varieties of Honey Locust (*Gleditsia triacanthos*) may result in leaf chlorosis and leaf abscission. The effects are temporary. Test Spinner alone or the mixture to be applied on a small number of the Honey Locust varieties you intend to treat and determine any adverse plant safety effects before making large-scale applications.

#### **APPLICATION PROCEDURES**

#### **Foliar Applications**

Make foliar applications in an adequate water volume to achieve thorough and uniform coverage without excessive runoff (to drip). Use of an adjuvant applied with Spinner may increase efficacy. Select an adjuvant that does not bind Spinner to the leaf surface, limiting absorption into the foliage. Spinner can be applied in a range of spray volumes (concentrate to dilute spray volumes), provided thorough and uniform coverage is obtained.

#### **Handheld Application Equipment**

Applications can be made through most types of low-pressure handheld application equipment.

**DO NOT** apply through any type of handheld fogger equipment.

**DO NOT** apply with aerial equipment.

#### **Automatic Cold Fogger Applications – Greenhouses**

Applications can be made in greenhouses with automatic cold fogger equipment. Apply the same amount of Spinner per unit area as would be applied in a dilute spray volume over the same area.

**Do not** apply through fogger equipment requiring workers to be present in the greenhouse during the fogger application.

**Important:** Read and follow the REI and PPE requirements for **Automatic Cold Fogger Use in Greenhouses** in the Worker Protection Standard **AGRICULTURAL USE REQUIREMENTS** box.

#### Soil or Soil-less Media Applications

Spinner is effective as a soil and systemic insecticide when applied to the soil using band, broadcast, or drench applications. When applying Spinner as a drench to plants in pots and containers, apply enough solution to sufficiently wet ½ -¾ of the root zone without allowing runoff out of the container. With irrigation or rainfall, move Spinner into the root zone of plants or the location of soil-dwelling pests, preferably within 3 days of treatment and, optimally, within 24 hours. Excessive watering or heavy rainfall may reduce the effectiveness of Spinner. Allow a minimum of 7 days after watering in for maximum uptake of Spinner by the plant's root system.

Do not apply to soils or growing media above field or pot capacity. Do not apply to waterlogged soil or growing media.

# **Application Timing**

Begin foliar applications when labeled pests first appear or when economic thresholds have been reached.

For applications made to growing media (soil or soil-less media), Spinner must move to the feeding site of the target pest, whether this is in the root zone or the above-ground portion of the host plant. Therefore, control of pests from the systemic activity of Spinner may be delayed for 1 or more weeks depending on plant size, rate of uptake from the soil, or rate of translocation within the plant, etc.

Systemic activity in large plants such as those in field nurseries may require several weeks for control of stem and foliar pests. Apply Spinner preventatively to plants that have low economic thresholds or are prone to infestation by listed insect pests.

# **Application through Irrigation Systems**

Apply Spinner only through micro-irrigation systems (for example, drip, trickle, spaghetti tubes, and micro-sprinklers), overhead irrigation, ebb-and-flow and flood-floor irrigation, or hand-held or motorized calibrated irrigation equipment. Do not apply this product through any other type of irrigation equipment. Do not overwater for a minimum of 7 days after watering in for maximum uptake of Spinner by the plant's root system. See additional precautions regarding irrigation system application below.

# Chemigation

**Uniform Water Distribution and System Calibration:** The irrigation system must provide uniform distribution of treated water. Plant injury, lack of effectiveness, or illegal pesticide residues in the plant may result from non-uniform distribution of treated water.

The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

**Chemigation Monitoring:** A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

**Required System Safety Devices:** The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or Venturi injector) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Specific Instructions for Public Water Systems**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or Venturi injector) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Ebb-and-Flow and Flood-Floor Application**

To determine the water volume uptake of Spinner in ebb-and-flow and flood-floor applications, bring a minimum of 10 plants up to a known field capacity and allow them to dry out for one to two days. Re-wet these plants to determine how much water on average each plant will absorb to bring it back to field capacity. Use the water volume absorbed per plant, multiply by the number of pots of the same size being treated, and add the minimum water volume to irrigate the area. This should minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants. Dilute Spinner in a minimum of 100 gallons for ebb-and-flow and flood-floor application.

#### **Spray Drift Precautions**

As with all crop protection products, it is important to avoid off-target movement. Do not allow spray to drift onto adjacent land, crops, or aquatic areas. To avoid spray drift:

- Make applications when wind velocity favors on-target product deposition (approximately 3-10 mph). Do not apply when wind velocity exceeds 10 mph. Do not make applications when wind gusts approach 10 mph.
- Do not make applications when wind direction is toward the aquatic area to reduce the risk of exposure to sensitive aquatic areas.
- Do not cultivate or plant crops within 25 ft. of the aquatic area as to allow growth of a vegetative filter strip.
- Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increased height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Use the largest droplet size consistent with good pest control. Small droplets are more
  prone to spray drift, and can be minimized by appropriate nozzle selection, by orienting
  nozzles away from the air stream as much as possible, and by avoiding excessive spray
  boom pressure.
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage. Do not make applications more than 10 ft. above the crop canopy.

# **SPECIFIC USE DIRECTIONS**

# **Foliar Applications**

Ornamental plants, fruit and nut trees (non-bearing), and forest seedlings grown in greenhouses, lath and shade houses, containers, field nurseries and interiorscapes

Pests	Rate	Use Restrictions
Ants (excluding harvester, carpenter and Pharaoh ants) Aphids Beet Armyworm Cabbage Looper Cabbage Webworm Corn Earworm Diamondback Moth Fall Armyworm Flea Beetles Imported Cabbageworm Southern Armyworm Sugarbeet Armyworm Yellowstriped Armyworm	2.5-5.0 oz./100 gal. or 5-10.0 oz./A or 0.6-1.1 oz. 5,000 sq. ft.	Make the first application when economic action levels for the target pest are reached. For crops without action levels, make the first application before pest populations cause significant damage to the host plant. Reapply as needed but no sooner than every 14 days.  Apply higher use rates in rate range for longer control or high insect populations.  For leaf- gall-forming insects, apply during egg laying of the generation being targeted.
Adelgids (including Hemlock Woolly Adelgid) Lace Bugs Leaf Beetles Leafhoppers Leafminers Leaf gall forming insects Mealybugs Midges Plant Bug Psyllids (including Asian Citrus Psyllid) Sawflies Soft Scales Thrips – foliar feeding Whiteflies	10.5 oz./100 gal. or 10.5 oz./A or 1.2 oz./5,000 sq. ft.	For concentrated spray volumes, apply the same amount of product per unit area as would be applied with dilute spray volumes.

- For ornamental crops grown outdoors, do not exceed 21 oz./A per year.
- For ornamental crops grown indoors, do not exceed 21 oz./A per crop.
- For specific information about developmental stages of the target pest, associated damage and action thresholds to properly time applications, consult your State Cooperative Extension Service.

# **Applications to Soil or Other Growing Media**

Ornamental plants, fruit and nut trees (non-bearing) and forest seedlings grown in greenhouses, lath and shade houses, containers, field nurseries and interiorscapes

Pests	Rate	Use Restrictions
Aphids Fungus gnats Leaf Beetles Leafminers Mealybugs Root Aphid Root Weevil larvae (including Diaprepes abbreviatus) Soft Scales Thrips – foliar feeding (suppression)	5-10.5 oz./100 gal. or 10.5 oz./A or 1.2 oz./5,000 sq. ft.	Apply to the soil or growing media to help prevent pests in situations where tolerance of insects or damage is low. Allow a minimum of 1 week for smaller plants and at least 2 weeks for large plants (typically found in nurseries, plantations) to translocate Spinner to feeding sites of the target pest.  Re-apply as needed, but no sooner than every 14 days.
Whiteflies		Apply as a broadcast, band, or drench.
Larvae (Grubs) of: Aphodius spp. Asiatic garden beetle Billbugs European chafer Green June beetle Japanese beetle May or June beetle Northern masked chafer Oriental beetle Scarab beetle Southern masked chafer	7.5-10.5 oz./100 gal.	Apply from adult flight through peak egg hatch of the targeted species.  Apply as a drench treatment to containers and over the active root zone.  For drench and chemigation applications made to containerized plant material, apply sufficient volume to moisten the media around the root zone without loss from the bottom of the container.
Fire Ants	1.3-3.8 oz./10 gal.	Individual Mound Treatment: For small mounds (<6 inch in diameter), apply 1 gal. of water per mound and for larger mounds apply 2-3 gal. of dilute solution per mound for optimum control. Direct the application to the center of the mound, including a 6-inch diameter circle.

- For broadcast applications, typical water volume is 1.5 5 gal./1,000 sq. ft.
- For ornamental crops grown outdoors, do not exceed 21 oz./A per year.
- For ornamental crops grown indoors, do not exceed 21 oz./A per crop.
- Do not over-water for a minimum of 7 days after watering in for maximum uptake of Spinner by the plant root system.
- 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.

# **Banded Application**

For banded applications, apply uniformly over the row or active root zone in a minimum water volume of 5 gallons per 1,000 linear feet. For optimum activity, rainfall or irrigation is necessary within 24 hours of application.

Spinner rate (ounces of product) per 1,000 linear feet of row for specific row spacing

	Lb		Row Spacing									
Rate/A	ai./A	3 ft.	4 ft.	4.5 ft.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.
10.5 oz./A	0.26	0.7	1.0	1.1	1.2	1.4	1.7	1.9	2.2	2.41	2.66	2.9

#### **Drench Application**

When applying Spinner as a drench, apply enough solution to sufficiently wet  $\frac{1}{2}$  - $\frac{3}{4}$  of the root zone without allowing runoff out of the container. Use the following chart as a guideline for the number of pots that this volume will treat based on the size of the pot and drench volume. Use higher drench volumes for woody ornamentals, containers having multiple plants, and those crops with longer production times or needing longer protection.

**Note:** Drench volumes will vary based on the porosity of the growing media. Conduct your own tests to determine correct drench volumes for your growing media.

Pot Size	Suggested Drench Volume fl. oz./pot	Pots Treated per 100 gal.
4-inch standard	2-3	6,400 - 4,267
6-inch standard	3-4	4,267 -3,200
8-inch standard	5-10	2,560 - 1,280
10-inch standard	12.5 - 25	1,024 - 512

#### Foliar Application to Vegetable Plants Grown for Sale to Consumers

For tomatoes, peppers, eggplant, and cucurbit plants grown for sale to consumers

Crop	Pests	Rate	Use Restrictions
Fruiting Vegetables Eggplant Ground-cherry Pepino Peppers (bell, chili, cooking, pimento, and sweet) Tomatillo Tomato	Aphids Beet Armyworm Colorado Potato Beetle Fall Armyworm Flea Beetles Hornworm species Leafhoppers Leafminers Loopers Potato Psyllid Southern Armyworm Thrips (Foliar Feeding) Tomato Fruitworm Tomato Pinworm Whiteflies Yellowstriped Armyworm	5.0–7.0 oz./A or 0.6–0.8 oz./ 5,000 sq. ft.	Apply before pests reach damaging levels. Apply higher rates within the listed rate range for heavy infestations.

- For transplants grown outdoors, do not exceed 14.0 oz./A (1.6 oz./5,000 sq. ft.) of Spinner.
- For transplants grown indoors, do not exceed 14.0 oz./A (1.6 oz./5000 sq. ft) of Spinner per crop.
- Allow at least 5 days between applications.
- Pre-Harvest Interval: 1 Day
- Water Volume: Use sufficient water volume to insure thorough coverage of foliage. Do not use less than 10 GPA.

Cucurbit Vegetables Chayote Chinese waxgourd Citron melon Cucumber Edible gourd Gherkin Momordica species Muskmelon Pumpkin Squash: summer and	Aphids Cabbage Looper Corn Earworm Cucumber Beetles¹ Flea Beetles Leafminers Melonworm Pickleworm Rindworm species complex Tobacco Budworm	5.0–7.0 oz./A <b>or</b> 0.6–0.8 oz./ 5,000 sq. ft.	Apply before pests reach damaging levels. Apply higher rates within the listed rate range for heavy infestations.
winter Watermelon	Whiteflies		

- For transplants grown outdoors, do not exceed 14 oz./A (1.6 oz./5,000 sq. ft.) of Spinner.
- For tranplants grown indoors, do not exceed 14 oz./A (1.6 oz./5,000 sq. ft.) of Spinner per crop.
- Allow at least 5 days between applications.
- Pre-Harvest Interval: 1 day
- Water Volume: Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA.
- Pest Control: ¹Suppression

Crop	Pests	Rate	Use Restrictions
Brassica (Cole) Leafy Vegetables	Alfalfa Looper Aphids	5.0–7.0 oz./A or 0.6.0.8 oz./5.000 sg. ft	Apply before pests reach damaging levels. Apply
Head & Stem Brassica Broccoli, Broccoli Chinese (gai lon) Brussels sprouts Cabbage Cabbage, Chinese (napa) Cabbage, Chinese mustard (gai choy) Cauliflower Cavalo broccolo Kohlrabi  Leafy Brassica Greens Broccoli raab (rapini) Cabbage, Chinese (bok choy) Collards	Beet Armyworm Cabbage Looper Cabbage Webworm Corn Earworm Diamondback Moth Fall Armyworm Flea Beetles Imported Cabbageworm Leafminers (larvae) Sugarbeet Armyworm Thrips (Foliar Feeding) Whiteflies Yellowstriped Armyworm	0.6–0.8 oz./ 5,000 sq. ft.	higher rates within the listed rate range for heavy infestations.
Kale Mizuna Mustard greens Mustard spinach Rape greens			

- For transplants grown outdoors, do not exceed 14 oz./A (1.6 oz./5,000 sq. ft.) of Spinner.
- For transplants grown indoors, do not exceed 14 oz./A (1.6 oz. oz./5,000 sq. ft.) of Spinner per crop.
- Allow at least 5 days between applications.
- Pre-Harvest Interval (PHI):
  - o 1 day for Head & Stem Brassica
  - o 7 days for Leafy Brassica Greens
- Water Volume: Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA.

#### 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 may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water 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.

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.

#### **Container Handling** (bag)

**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 by other procedures allowed by state and local authorities.

#### **Container Handling** (plastic container)

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Spinner™, the ALLIANCE FRAME, the Syngenta logo, and the PURPOSE ICON are trademarks of a Syngenta Group Company

©201 Syngenta

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

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

#### (Non-detachable Container Label)

Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

GROUP 4A 28 INSECTICIDES

#### **SPINNER™**

#### Insecticide

[For foliar and systemic control of listed insect pests in turfgrass (including golf courses; institutional, commercial and residential lawns and landscapes; sod farms; sports fields; parks; municipal grounds; and cemeteries)] [Option 1]

[For foliar and systemic control of listed insect pests in ornamental plants, fruit and nut trees (non-bearing), forest seedlings (liner production and field application), and listed vegetables transplants grown for sale to consumers] [Option 2]

[For foliar and systemic control of listed insect pests in turfgrass (including golf courses; institutional, commercial and residential lawns and landscapes; sod farms; sports fields; parks; municipal grounds; and cemeteries) and in ornamental plants, residential and commercial landscapes, fruit and nut trees (non-bearing), forest seedlings (liner production and field application) and listed vegetable transplants grown for sale to consumers.] [Option 3]

#### Active Ingredients:

Thiamethoxam <sup>1</sup>	20.0%
Cyantraniliprole <sup>2</sup>	20.0%
Other Ingredients:	60.0%
Total:	100.0%

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

Spinner is a water-dispersible granule.

Spinner contains 3.2 ounces of thiamethoxam and 3.2 ounces of cyantraniliprole per pound of formulated product.

#### KEEP OUT OF REACH OF CHILDREN.

#### CAUTION

See additional precautionary statements and directions for use in booklet[on bag].

EPA Reg. No. 100-RUEU

EPA Est. [Placeholder]

<sup>&</sup>lt;sup>2</sup> CAS No. 736994-63-1

[Net contents placeholder] Net Weight Non-refillable container

# PRECAUTIONARY STATEMENTS

# **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt, long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A).

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>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If swallowed	<ul> <li>Call a 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 a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>	
If on skin or clothing  Have the product of going for treatments	<ul> <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> container or label with you when calling a poison control center or doctor, or the container or label with you when calling a poison control center or doctor, or the container or label with you when calling a poison control center or doctor, or the container or label with you when calling a poison control center or doctor, or the container or label with you when calling a poison control center or doctor.	
For	HOT LINE NUMBER  24-Hour Medical Emergency Assistance (Human or Animal) or emical Emergency Assistance (Spill, Leak, Fire, or Accident),  Call  1-800-888-8372	

#### 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 may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water 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.

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.

# **Container Handling** (bag)

**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 by other procedures allowed by state and local authorities.

#### **Container Handling** (plastic container)

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

# Refer to Environmental Hazards and Chemigation sections in booklet.

Spinner and the Syngenta logo is a trademark of a Syngenta Group Company

©201\_ Syngenta