GROUP 28 INSECTICIDE



# Insecticide

For foliar and systemic control of Annual Bluegrass Weevil and other listed pests infesting recreational turfgrass (including golf courses) and sod farms

Root absorbed, with systemic movement through plant. Controls multiple pests with one application. Controls annual bluegrass weevils, grubs, billbugs, and caterpillars all with one application.

#### Active Ingredient:

Cyantraniliprole\*:

3-bromo-1-(3-chloro-2-pyridinyl)-N- [4-cyano-2-methyl-6-[(methylamino) carbonyl]phenyl]-1H-

Other Ingredients: 81.34%

*Total:* 100.00%

Ference® is a suspension concentrate.

This product contains 1.67 pounds of active ingredient per gallon. \*Cyantraniliprole belongs to the anthranilic diamide chemical class.

# KEEP OUT OF REACH OF CHILDREN. / MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet. Vea el folleto para Precauciónes e instrucciónes del uso.

EPA Reg. No. 100-1551 EPA Est. No. 72344-MO-004

Product of USA

SCP 1551A-L1A 0515

# 96 fluid ounces

**Net Contents** 



#### **FIRST AID • PRIMEROS AUXILIOS**

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

#### **HOT LINE NUMBER**

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call

#### 1-800-888-8372

Cuando llame a un centro de control de envenenamiento, a un médico, o intente obtener tratamiento, tenga a la mano el envase o la etiqueta del producto. Para más información sobre el tratamiento médico de emergencia, llame al 1-800-888-8372

#### **PRECAUTIONARY STATEMENTS**

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

When used as directed, this product does not present a hazard to humans or domestic animals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

After the product has been diluted in accordance with label directions for use, shirt, pants, socks, and shoes are sufficient Personal Protective Equipment (PPE). Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **USER SAFETY RECOMMENDATIONS**

**USERS SHOULD:** 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.

#### **EQUIPO DE PROTECCIÓN PERSONAL (PPE)**

Los aplicadores y otros manipuladores de pesticidas necesitan usar:

- Camisa de manga larga, pantalones largos.
- Zapatos y calcetines.

Después de diluir el pesticida de acuerdo a las instrucciones de uso en la etiqueta, es suficiente usar el equipo de protección como camisa de manga larga, pantalones, calcetines y zapatos. Sigue las instrucciones del fabricante para la limpieza/mantenimiento del Equipo de Protección Personal. En el caso de no existidichas instrucciones de limpieza para equipos de protección, utilize detergente y agua caliente. Mantenga y lave el Equipo de Protección Personal separadamente de otras prendas de vestir.

# RECOMENDACIONES DE SEGURIDAD PARA LOS MANIPULADORES DE PESTICIDAS

LOS MANIPULADORES DEBEN: Lávese minuciosamente con agua y jabón después de manipular los pesticidas, y antes de comer, beber, masticar chicle, usar tabaco o utilizar el sanitario. Quítese la ropa sucia y lávela antes de volverla a usar.

#### PRECAUTIONARY STATEMENTS (continued)

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming plants or weeds if bees are foraging the treatment area.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. Do not make ground applications within 25 feet of lakes, rivers, reservoirs, permanent streams, marshes, natural ponds, estuaries or coastal areas. Do not cultivate within 25 feet of the aquatic area to allow growth of a vegetative filter strip. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

#### **Ground Water Advisory**

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

#### **Physical or Chemical Hazards**

Do not place product near or allow product to come into contact with strong oxidizing substances (such as potassium permanganate) since a hazardous chemical reaction may occur.

# 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 or Seller 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 State or Tribal agency responsible for pesticide regulation.

Read and understand the entire label before using this product. Ference must be used in accordance with the directions of this label.

#### 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 (sod farms included), 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 the label about personal protective equipment, restricted-entry interval, and notification to workers (as applicable).

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

For early entry into 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, wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

#### **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.

Professional applications to golf courses, residential, industrial and commercial lawns and sports fields are not within the scope of the Worker Protection Standard. Do not enter or allow others to enter the treated area until sprays have dried.

#### **USE RESTRICTIONS AND PRECAUTIONS**

- DO NOT formulate this product into other end-use products without written permission from Syngenta Crop Protection, LLC.
- **DO NOT** use on turf grown for seed production.
- DO NOT allow this product to contact plants in bloom if bees are foraging in the treatment area.
- DO NOT apply this product through any type of irrigation system.
- DO NOT apply this product with aerial application equipment.
- DO NOT apply more than 32 fluid ounces (equivalent to 0.4 lb of active ingredient) of product per acre per year.
- · Wait a minimum of 7 days to retreat.
- Not for Sale, Sale Into, Distribution and/or Use in Nassau, Suffolk, Kings, Queens Counties of New York State.

#### **PRODUCT INFORMATION**

Ference is a suspension concentrate that may be applied for the control of annual bluegrass weevils, white grubs, billbugs, caterpillars and other listed pests infesting landscape and recreational turfgrass (including golf courses and sod farms).

Ference may be used on turfgrasses that are being grown for aesthetic or recreational purposes in or around home lawns, residential dwellings, business and office complexes, shopping complexes, multi-family residential complexes, institutional buildings, airports, cemeteries, parks, playgrounds, schools, daycare facilities, golf courses (tee box areas, roughs, fairways, greens, collars etc.), athletic fields and sod farms. Ference may also be used on turfgrass in and around small and large companion animal (including horses) boarding and exercising areas providing that the animals exposed to the treated areas are not used for human consumption.

#### **INTEGRATED PEST MANAGEMENT (IPM) PROGRAMS**

Ference is recommended for IPM programs on turf. The feeding behavior of predatory beneficial arthropods will aid in extending natural control of other insect and mite pests and will reduce the possibility of secondary pest outbreaks. Ference will reduce the target pest species that may serve as a food source for beneficial arthropods. If Ference is tank-mixed with an insect control product that negatively impacts beneficial arthropods, then the full benefit of Ference to the IPM program may not be realized.

#### **RESISTANCE MANAGEMENT**

Ference is in GROUP 28 of the EPA's Insecticide and Acaricide Groups based on target site of action and may be used in rotational resistance management programs.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the labeled dosages fail to suppress the pest population below threshold levels. As the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local Syngenta representative, Cooperative Extension Service specialist or pest control advisor for the latest information on resistance management in your area.

#### **APPLICATION TIMING**

Consult your local Syngenta representative, Cooperative Extension Service specialist or pest control advisor for regionally specific information regarding application timing.

#### **Annual Bluegrass Weevil**

For preventive control of annual bluegrass weevils, apply Ference when early instar larvae are hatching and penetrating into the turfgrass sheaths.

For curative control of summer annual bluegrass weevils, Ference can be applied to any asynchronous larval stage. The higher rate in Table 1 may be required to control late instar larvae.

Use Ference as part of a season-long program to prevent turf damage from overwintering and following generations of annual bluegrass weevil larvae. Consult your local Syngenta representative, Cooperative Extension Service specialist or pest control advisor for the latest information on using Ference to control annual bluegrass weevil larvae.

**Billbugs:** Apply Ference when overwintered adult billbugs are first observed. The higher rates listed in Table 1 may be required for applications made in late spring or when billbug species other than bluegrass billbug are present.

**Chinch Bugs:** For suppression of chinch bugs, apply Ference before eggs hatch.

**European Crane Fly:** Apply Ference between midsummer and fall to control the fall generation of European crane fly larvae in turfgrass. An application of Ference in early summer will also provide white grub control. The higher rate listed in Table 1 may be required to achieve European crane fly control when fall applications are made.

**Turf Caterpillars:** Ference will provide curative and residual caterpillar control in turfgrass. To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application.

When the area being treated is maintained at a mowing height of greater than one inch, then the higher rate listed in Table 1 may be required during periods of high pest pressure. Ference provides long term residual control of turfgrass-infesting caterpillars and the duration of control increases with the application rate. For golf course green, tee and fairway applications, extend the treatment one boom length around the perimeter of the treated area to minimize subsequent movement of large caterpillars onto the treated area.

White Grubs: Apply Ference for preventative and early curative control of white grub species infesting turfgrass. For optimum control, treat from peak adult flight through peak egg hatch of the primary white grub species targeted. The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. The higher rate listed for white grub control in Table 1 may be required for curative control when less sensitive midinstar grubs are present. Irrigate turf immediately after application or allow rainfall to move the product into the soil.

# APPLICATION RATES FOR LAWNS, GOLF COURSES, OTHER RECREATIONAL TURFGRASS AREAS AND SOD FARMS

For maximum residual effectiveness or for optimal control of large pest infestations, apply Ference at up to 24 fluid ounces per acre (= 0.55 fluid ounces per 1,000 square feet or 0.313 lb ai/A) to control any of the pests listed below. Apply Ference in sufficient water to provide optimal distribution in the treated area (refer to Table 2). Use properly calibrated application equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift.

**Restriction:** Do not apply more than 32 fluid ounces of product (equivalent to 0.4 lb of active ingredient) per acre per year.

## APPLICATION EQUIPMENT CLEANING

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all application equipment to reduce the risk of forming hardened deposits that might become difficult to remove. Drain application equipment. Thoroughly rinse application equipment and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. DO NOT clean equipment near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### MIXING DIRECTIONS

Ference is a suspension concentrate (SC) formulation. Ference must be diluted with water before application.

- Use clean, well maintained and properly calibrated application equipment.
- 2. Fill sprayer tank 1/4 to 1/2 full of water.
- 3. Shake the container of Ference well before pouring.
- 4. Add Ference directly to the sprayer tank.
- 5. Mix thoroughly to fully disperse the insecticide and continue agitation to keep the insecticide in suspension. Use mechanical or hydraulic agitation. Do not use air agitation.
- It is recommended that the mixture not be stored in the spray or mix tank overnight.

#### **Tank Mixtures**

Ference may be tank-mixed with other pesticides. When tank-mixing Ference with other pesticides, observe all precautions and limitations on each separate product label. DO NOT exceed label dosage rates. Ference may not be mixed with any product containing a label prohibition against such mixing. The physical compatibility of Ference will vary with different sources of pesticide products and local cultural practices. For a tank-mixture test, prepare on a small scale (pint or quart jar) using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture. Always follow the tank mix instructions of the product label that is most restrictive.

## **Tank-mixing Sequence:**

Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after the addition of each product.

- 1. Water-soluble bags
- 2. Water-dispersible granules
- 3. Wettable powders
- 4. Ference and other water-based suspension concentrates
- 5. Water-soluble concentrates
- 6. Oil-based suspension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift retardants

**Table 1: Turf Application Rates** 

	Ference Turf Application Rates					
Target Pest	Fl oz product per acre**	Fl oz product per 1,000 sq ft	Lb ai per acre			
Annual bluegrass weevil	12 to 20	0.275 to 0.459	0.157 to 0.261			
Billbugs	8 to 16	0.184 to 0.367	0.104 to 0.208			
Chinch bugs (suppression only)	8 to 20	0.184 to 0.459	0.104 to 0.261			
European Crane Fly	8 to 16	0.184 to 0.367	0.104 to 0.208			
Turf Caterpillars (including armyworms, cutworms and sod webworms)	2 to 16	0.046 to 0.367	0.026 to 0.208			
White Grubs (including Aphodius spp., Asiatic garden beetle, black turfgrass ataenius*, European chafer, green June beetle, Japanese beetle, May/June beetles (Phyllophaga spp.), northern masked chafer, oriental beetle, southern masked chafer and sugarcane grub	8 to 16	0.184 to 0.367	0.104 to 0.208			

<sup>\*</sup>Applications targeting black turfgrass ataenius larvae should be made from peak adult flight through peak egg hatch to ensure control of the first-generation larvae. A second Ference application may be required to control second-generation black turfgrass ataenius.

**Table 2: Turf Application Dilution Chart** 

Application Volume	Turf Application Rates			Fluid ounces of Ference diluted to these volumes of finished spray			
(gallons per 1,000 sq ft)	Fl oz product per acre	Fl oz product per 1,000 sq ft	Lb ai per acre	1 gal	5 gal	10 gal	100 ga
	1	0.023	0.013	0.023	0.115	0.23	2.3
1	2	0.046	0.026	0.046	0.23	0.46	4.6
	4	0.092	0.052	0.092	0.46	0.92	9.2
	8	0.184	0.104	0.184	0.92	1.84	18.4
	16	0.367	0.208	0.367	1.84	3.67	36.7
	20	0.46	0.26	0.46	2.3	4.6	46.0
	24	0.55	0.313	0.55	2.76	5.5	55.0
2	1	0.023	0.013	0.0115	0.058	0.115	1.15
	2	0.046	0.026	0.023	0.115	0.23	2.3
	4	0.092	0.052	0.046	0.23	0.46	4.6
	8	0.184	0.104	0.092	0.46	0.92	9.2
	16	0.367	0.208	0.184	0.92	1.84	18.4
	20	0.46	0.26	0.23	1.15	2.3	23.0
	24	0.55	0.313	0.275	1.38	2.75	27.5
	1	0.023	0.013	0.0077	0.039	0.077	0.77
	2	0.046	0.026	0.015	0.077	0.15	1.5
	4	0.092	0.052	0.03	0.154	0.3	3.0
3	8	0.184	0.104	0.06	0.308	0.6	6.0
	16	0.367	0.208	0.123	0.616	1.23	12.3
	20	0.46	0.26	0.153	0.77	1.53	15.3
	24	0.55	0.313	0.184	0.92	1.84	18.4
4	1	0.023	0.013	0.0058	0.029	0.058	0.58
	2	0.046	0.026	0.0115	0.058	0.115	1.15
	4	0.092	0.052	0.023	0.116	0.23	2.3
	8	0.184	0.104	0.046	0.23	0.46	4.6
	16	0.367	0.208	0.092	0.46	0.92	9.2
	20	0.46	0.26	0.115	0.58	1.15	11.5
	24	0.55	0.313	0.138	0.7	1.38	13.8
5	1	0.023	0.013	0.0046	0.023	0.046	0.46
	2	0.046	0.026	0.0092	0.046	0.092	0.92
	4	0.092	0.052	0.0184	0.092	0.184	1.84
	8	0.184	0.104	0.037	0.184	0.37	3.7
	16	0.367	0.208	0.074	0.368	0.74	7.4
	20	0.46	0.26	0.092	0.46	0.92	9.2
	24	0.55	0.313	0.11	0.55	1.1	11.0
10	1	0.023	0.013	0.0023	0.0115	0.023	0.23
	2	0.046	0.026	0.0046	0.023	0.046	0.46
	4	0.092	0.052	0.0092	0.046	0.092	0.92
	8	0.184	0.104	0.0184	0.092	0.184	1.84
	16	0.367	0.208	0.0367	0.184	0.367	3.67
	20	0.46	0.26	0.046	0.23	0.46	4.6
	24	0.55	0.313	0.055	0.276	0.55	5.5

- To convert from fluid ounces to milliliters, multiply by 29.57.
- 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons.
- Do not use household utensils to measure Ference.

<sup>\*\*</sup>Do not apply more than 32 fl oz of product per acre per calendar year.

#### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Do not subject to temperatures below 32°F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

## **Pesticide Disposal**

Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Container Handling [less than or equal to 5 gallons]

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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## Container Handling [greater than 5 gallons- mini-bulk]

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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## Container Handling [greater than 5 gallons - bulk]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

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