



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460**

**OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION**

September 27, 2023

Robyn Clark  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419

**Subject:** Registration Amendment – Amended Terms and Conditions, and Revised Labeling  
Product Names: Fortenza, Fortenza Red, Minecto Duo Insecticide, Minecto Pro, Mainspring GNL, Zyrox Fly Granular Bait, Spinner Insecticide, Ference, Mainspring Flora and A16901B Residential Insecticide  
EPA Registration Numbers: 100-1420, 100-1418, 100-1421, 100-1592, 100-1543, 100-1541, 100-1424, 100-1551, 100-1585 and 100-1423  
Application Date: June 15, 2023  
Decision Numbers: 593337, 593338, 593342, 593343, 593341, 593344, 594352, 593336, 593339 and 593334

Dear Ms. Clark:

The amended labels referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable. Accordingly, EPA has approved the requested registration amendments, provided Syngenta Crop Protection, LLC (“Syngenta”) complies with all terms and conditions listed below.

**Terms and Conditions**

Syngenta must comply with all the following terms and conditions. Release for shipment of these products constitutes acceptance of the below conditions. If these conditions are not complied with, the registrations will be subject to cancellation in accordance with FIFRA section 6.

*Endangered Species Protection and Formal Consultation*

1. For this action, EPA conducted effects determinations under the Endangered Species Act (ESA). In its final effects determinations (included in a biological evaluation), EPA made may affect, likely to adversely affect (LAA), determinations for certain listed species and designated critical habitats for products containing cyantraniliprole (including this product). For these LAA determinations, EPA also assessed the potential likelihood of jeopardy or adverse modification in its effects determination, consistent with 50 C.F.R. § 402.40(b)(1). EPA predicted no potential likelihood of jeopardy for listed species or adverse modification for designated critical habitat. On September 25, 2023, EPA initiated formal consultation with the

Services. The Services will make the final determination as to the potential for jeopardy for listed species or adverse modification for designated critical habitat in any final biological opinions issued at the completion of consultation.

If, following formal consultation with Service(s), additional modifications are identified in any applicable Biological Opinion, EPA will notify Syngenta in writing within 45 calendar days of the issuance of the Biological Opinion of any necessary changes. Within 30 calendar days of receiving EPA's notice, Syngenta must submit an amendment application incorporating the necessary changes, including amended labels. Alternatively, Syngenta may respond by submitting a request for voluntary cancellation of this product. If Syngenta fails to comply with this term, Syngenta has agreed in prior written acceptance of these terms that EPA may cancel the registration under an expedited process under FIFRA 6(e).

#### Implementation of Revised Labeling

2. To ensure the prompt adoption of the mitigations in this registration amendment in newly produced product and previously produced product that is still under Syngenta's control, Syngenta must submit state registrations for approval, in all states where products are currently registered, for the products with the labeling associated with this approval letter no later than November 30, 2023.
3. In accordance with 40 C.F.R. § 152.130(c), product may be distributed or sold by Syngenta under the previously approved labeling for no longer than 12 months from the date of this letter or 75 days after the final state approval from those submitted under Term #2, whichever is earlier.
4. Nothing in Terms #2-3 should be read to obligate Syngenta to provide additional labeling for product that bears the previously approved label but is not under Syngenta's control as of the date of this letter. However, Syngenta should conduct outreach for users of this product to update them on the forthcoming changes to the label and their importance in mitigating potential effects to listed species and avoiding violations of the Endangered Species Act.

#### **EPA's Rationale for Approving This Registration Amendment**

FIFRA section 3(c)(5) requires EPA to unconditionally approve a registration amendment if:

- "its composition is such as to warrant the proposed claims for it";<sup>1</sup>
- "its labeling and other material required to be submitted comply with the requirements of [FIFRA]";<sup>2</sup>

---

<sup>1</sup> FIFRA § 3(c)(5)(A), 7 U.S.C. § 136a(c)(5)(A). Here, EPA reviewed the proposed labeling and determined that the claims made for the product were consistent with composition of the product based on the data submitted.

<sup>2</sup> FIFRA § 3(c)(5)(B), 7 U.S.C. § 136a(c)(5)(B). Here, EPA reviewed the submitted labeling and other materials submitted and found them to be compliant with the requirements of FIFRA. Additionally, there are no data gaps.

- “it will perform its intended function without unreasonable adverse effects on the environment”;<sup>3</sup> and
- “when used in accordance with widespread and commonly recognized practice it will not generally cause unreasonable adverse effects on the environment.”<sup>4</sup>

Prior to approving the previous registrations and registration amendments for this product and others containing cyantraniliprole, EPA considered risks and benefits of approving the registrations and registration amendments. To determine the risks and benefits, the Agency reviews a large body of information to determine the effects of using these products. In assessing the risks from use of products containing cyantraniliprole, EPA has conducted both human health risk assessments<sup>5</sup> and ecological and environment fate risk assessments.<sup>6</sup> EPA also updated its ecological and environmental fate risk assessments in support of the 2023 draft biological evaluation (BE).<sup>7</sup> EPA believes that that these risk assessments (and the benefits discussed below) are also applicable to the action to approve this amended registration.

---

<sup>3</sup> FIFRA § 3(c)(5)(C), 7 U.S.C. § 136a(c)(5)(C).

<sup>4</sup> FIFRA § 3(c)(5)(D), 7 U.S.C. § 136a(c)(5)(D).

<sup>5</sup> Summary of Analytical Chemistry and Residue Data (Jan. 25, 2013) ([EPA-HQ-OPP-2011-0668-0009](#)); Dietary Exposure and Risk Assessment (Jan. 29, 2013) ([EPA-HQ-OPP-2011-0668-0010](#)); Occupational and Residential Exposure and Risk Assessment for the Proposed New Uses of the New Active Insecticide Cyantraniliprole (Feb. 28, 2013) ([EPA-HQ-OPP-2011-0668-0011](#)); Aggregate Human Health Risk Assessment for the Proposed New Uses of the New Active Insecticide Cyantraniliprole (Mar. 7, 2013) ([EPA-HQ-OPP-2011-0668-0012](#)); Chronic Aggregate Dietary Exposure and Risk Assessments in Support of a Section 3 Registration Action (Sept. 7, 2016) ([EPA-HQ-OPP-2014-0357-0009](#)); Human Health Risk Assessment for Various Proposed Uses and Several Tolerance Requests without U.S. Registration (Jan. 12, 2017) ([EPA-HQ-OPP-2014-0357-0011](#)); Summary of Analytical Chemistry and Residue Data (Apr. 21, 2016) ([EPA-HQ-OPP-2014-0357-0012](#)); Summary of Analytical Chemistry and Residue Data (Aug. 8, 2016) ([EPA-HQ-OPP-2014-0357-0013](#)); Human Health Risk Assessment for Proposed Uses and Tolerance Requests on Coffee; Caneberry Subgroup 13-07A; Low Growing Berry Subgroup 13-07H, Except Strawberry, Lowbush Blueberry and Lingonberry; Brassica Leafy Greens Subgroup 4-16A; Leafy Greens Subgroup 4-16B (June 20, 2018) ([EPA-HQ-OPP-2017-0694-0011](#)); Chronic Aggregate Dietary Exposure and Risk Assessments for Proposed Uses and Tolerance Requests on Coffee; Caneberry Subgroup 13-07A; Low Growing Berry Subgroup 13-07H, Except Strawberry, Lowbush Blueberry and Lingonberry; Brassica Leafy Greens Subgroup 4-16A (May 30, 2018) ([EPA-HQ-OPP-2017-0694-0012](#)); Human Health Risk Assessment for an Inadvertent Tolerance on Sugarcane (Feb. 28, 2022) ([EPA-HQ-OPP-2021-0154-0007](#)); Highly Refined Chronic Aggregate Dietary Exposure and Risk Assessments for Proposed Inadvertent Use and Tolerance Request on Sugarcane (Feb. 28, 2022) ([EPA-HQ-OPP-2021-0154-0008](#)).

<sup>6</sup> Environmental Fate and Ecological Risk Assessment for the Registration of the New Chemical Cyantraniliprole – Amended (April 30, 2013) ([EPA-HQ-OPP-2011-0668-0008](#)); Environmental Risk Assessment of Proposed New Global Chemical Cyantraniliprole – Addendum (Jan. 24, 2014) ([EPA-HQ-OPP-2011-0668-0055](#)); Revised Drinking Water Assessment including Ground Water Exposure Refinements for Proposed New Uses on Leafy, Bulb, Fruiting, and Cucurbit Vegetables with Two Seasons of Applications (June 9, 2016) ([EPA-HQ-OPP-2014-0357-0010](#)); Ecological Risk Assessment and Drinking Water Assessment for the IR-4 New Use Petition for Pronamide on Low Growing Berry Subgroup except Strawberry, Subgroup 13-07H; Stone Fruit Crop group 12-12; Pome Crop Group 11-10; Caneberry subgroup 13-07A; Bushberry subgroup 13-07B; and Small Fruit Vine Climbing Subgroup (except Fuzzy Kiwifruit Subgroup 13-07F) (May 14, 2018) ([EPA-HQ-OPP-2017-0694-0013](#)).

<sup>7</sup> See EPA’s Draft Biological Evaluation for Cyantraniliprole and supporting documentation, available at [EPA-HQ-OPP-2011-0668](#), Document ID Nos. 71-72, 75-87.

In the human health risk assessments, EPA did not select an acute dietary toxicity endpoint because the Agency did not identify any effect attributed to a single dose (*i.e.*, CTP is not expected to pose an acute risk to humans). In general, CTP produces both adverse and adaptive changes in the liver, thyroid gland, and adrenal cortex. With repeat dosing, consistent findings of mild to moderate increases in liver weights are observed across multiple species (rats, mice, dogs). CTP was classified as “not likely to be carcinogenic to humans” based upon data demonstrating lack of treatment-related increase in tumor incidence in rats and mice. No cumulative effects were identified. CTP presents no mutagenicity, neurotoxicity, immunotoxicity, developmental reproductive toxicity.

In the environmental risk assessments, EPA identified risks of concern for both aquatic and terrestrial invertebrates. Overall, however, the major risks of concerns are for direct effects to freshwater, estuarine/marine, and benthic invertebrates. EPA did not identify direct risks of concerns for birds, reptiles, amphibians, freshwater fish, terrestrial plants, or aquatic plants.

EPA also considered the benefits of products containing cyantraniliprole, including CTP’s activity on a wide variety of target insects on a variety of crops. CTP is effective for controlling aphids, weevils and thrips—all major agricultural pests. CTP is not expected to pose any acute risk to humans and was registered in 2013 as a reduced risk pesticide due to it posing lower relative risk to alternative chemicals available at that time. CTP also poses lower risk to non-target organisms relative to alternatives and is compatible with IPM practices.

This amended registration includes additional mitigation measures to address effects to listed species, including the following:

- Requirement that applicators use coarse/coarser droplets for ground and aerial applications to reduce spray drift
- Requirement that aerial applications abide by wind-directional buffers, as identified in Bulletins Live Two (BLT), also to reduce spray drift
- Increase in distance of vegetative filter strips from 25 to 30 feet to mitigate the potential for runoff to aquatic habitats
- Use of a 25’ buffer for airblast applications to dormant, non-bearing and/or vegetation that is not yet fully leafed out
- Requirement that treated seeds be immediately covered or collected if spilled during loading

After consideration, EPA has determined that approving this amended registration will not cause unreasonable adverse effects because the amended registrations are not expected to result in increased exposures<sup>8</sup> and because EPA continues to believe that—consistent with the 2014 registration decision<sup>9</sup>

---

<sup>8</sup> While the mitigations in the amended registrations are intended to reduce exposures to listed species, EPA expects that the mitigations will (1) not increase exposures to other non-listed non-target organisms, and (2) will generally reduce exposures to all non-target organisms (both listed and non-listed).

<sup>9</sup> For EPA’s full risk-benefit analysis, *see* Registration of New Active Ingredient Cyantraniliprole, at 13-14 (Jan. 24, 2014) ([EPA-HQ-OPP-2011-0668-0057](#)).

Page 5 of 5

EPA Reg. Nos.

Decision Nos. 593337, 593338, 593342, 593343, 593341, 593344, 594352, 593336, 593339 and 593334

and other previous registration decision for products contain cyantraniliprole—the benefits of these registrations outweigh any remaining risks of concern from its use and there are no human dietary risks from uses of cyantraniliprole that are inconsistent with the FFDCA safety standard.<sup>10</sup> Accordingly, EPA is approving these registration amendments because the FIFRA registration standard is met.

## Conclusion

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. Consistent with Terms 2-5 above, and notwithstanding 40 C.F.R. § 152.130(c), you may only distribute or sell<sup>11</sup> this product under either the final stamped label associated with this approval letter or with accompanying labeling that incorporates the mitigations in this registration amendment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 C.F.R. § 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the product will be referred to EPA's Office of Enforcement and Compliance.

If you have any questions, please contact Gene Benbow at 703-712-9669 or at [benbow.gene@epa.gov](mailto:benbow.gene@epa.gov).

Sincerely,



Deanna (Dee) Colby, Chief  
Invertebrate & Vertebrate Branch 3  
Registration Division  
Office of Pesticide Programs

Enclosure

---

<sup>10</sup> See FIFRA § 2(bb) (defining “unreasonable adverse effects on the environment” as, in relevant part, “any unreasonable risk to [humans] or the environment, taking into account the economic, social, and environmental costs and benefits of the use of the pesticide” or any “human dietary risks” from pesticidal residues in or on food).

<sup>11</sup> See FIFRA § 2(gg), 7 U.S.C. § 136(gg); 40 C.F.R. § 152.3.

[Master Label]

Not for Sale, Sale Into, Distribution and/or Use in Nassau, Suffolk, Kings, Queens Counties of New York State unless permitted under FIFRA Section 24(c) Special Local Need Registration

**GROUP 28 INSECTICIDE**

**Ference®**

**Insecticide**

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

[Optional Claims]

1. [Provides quick knockdown and residual control]
2. [Taken up by the roots and protects plants from insect pests]
3. [Systemically moves through the plant]
4. [Root absorbed, with systemic movement through plant]
5. [Controls multiple pests with one application]
6. [Single application controls annual bluegrass weevils, white grubs, billbugs, and surface feeders [caterpillars]]
7. [Controls annual bluegrass weevils, grubs, billbugs, and surface feeders [caterpillars] all with one application]
8. [Starts impacting labeled insect pests upon ingestion [contact]]

Active Ingredient:

Cyantraniliprole\*:

3-bromo-1-(3-chloro-2-pyridinyl)-N-[4-cyano-2-methyl-6-[(methylamino) carbonyl]phenyl]-1H-pyrazole-5-carboxamide:..... 18.66%

Other Ingredients:..... 81.34%

Total:..... 100.00%

Ference® is a suspension concentrate.

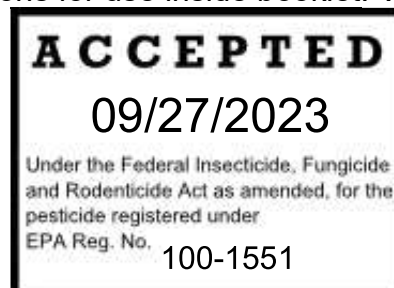
This product contains 1.67 pounds of active ingredient per gallon.

\*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 Precauciones e instrucciones del uso.

EPA Reg. No. 100-1551



EPA Est. No.

Net Contents

[Refillable Container] [Non-refillable Container]

<b>FIRST AID ● PRIMEROS AUXILIOS</b>
Have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>HOTLINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>
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 <b>1-800-888-8372</b>

---

## 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 existir dichas instrucciones de limpieza para equipos de protección, utilice 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.

### **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** apply within 50 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, wetlands or natural ponds, estuaries, and commercial fish farm ponds).
- **Do not** cultivate within 30 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.

### **Spray Drift Advisory**

Ference may be applied by ground equipment or aerial application.

### **Ground Application**

- For broadcast applications made at planting or prior to the emergence of crops, applicators are required to use a coarse or coarser droplet size (ASABE S572.1). For all other broadcast applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).

**Aerial Application (sod farms)**

- Avoid spraying at a height greater than 10 ft above the ground or vegetative canopy unless a greater application height is necessary for pilot safety.
- If the windspeed is 10 miles per hour or less, applicators must use  $\frac{3}{4}$  swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use a full swath displacement upwind at the downwind edge of the field.
- **DO NOT** spray when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- **DO NOT** apply during temperature inversions.

**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.

## **ENDANGERED AND THREATENED SPECIES PROTECTION REQUIREMENTS**

Before using this product, you must obtain any applicable Endangered Species Protection Bulletins ('Bulletins') within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at <https://www.epa.gov/pesticides/bulletins>. When using this product, you must follow all directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of federal law to use this product in a manner inconsistent with its labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov).

### **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.
- For foliar uses: **DO NOT** apply during rain.
- 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 unless permitted under FIFRA Section 24© Special Local Need Registration.

---

## 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 mid-instar 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.

1. 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.
6. 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**

Target Pest	FERENCE Turf Application Rates		
	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 <i>Aphodius</i> spp., Asiatic garden beetle, black turfgrass ataenius*, European chafer, green June beetle, Japanese beetle, May/June beetles ( <i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle, [and] southern masked chafer [and sugarcane grub])	8 to 16	0.184 to 0.367	0.104 to 0.208

\*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.

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

**Table 2: Turf Application Dilution Chart**

Application Volume (gallons per 1,000 sq ft)	Turf Application Rates			Fluid ounces of FERENCE diluted to these volumes of finished spray			
	Fl oz product per acre	Fl oz product per 1,000 sq ft	Lb ai per acre	1 gal	5 gal	10 gal	100 gal
1	1	0.023	0.013	0.023	0.115	0.23	2.3
	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
3	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
	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

Application Volume (gallons per 1,000 sq ft)	Turf Application Rates			Fluid ounces of Ference diluted to these volumes of finished spray			
	Fl oz product per acre	Fl oz product per 1,000 sq ft	Lb ai per acre	1 gal	5 gal	10 gal	100 gal
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.

## 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.

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

©20XX Syngenta

For non-emergency information (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

Ference 1551 MAS 0619 AMEND-B JUNE2023-CL-jd-8/7/23  
000100-01551.20230615B.FERENCE.AMEND.0623-CL