



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 7, 2020

Ronald Hampton, Ph.D.
Senior Regulatory Product Manager
Syngenta Crop Protection, LLC.
P.O. Box 18300
Greensboro, NC 27419

Subject: Label Amendment – Addition of bed bug use sites and lanternfly/seed bug pests
Product Name: Demand Duo
EPA Registration Number: 100-1653
Application Date: October 13, 2020
Decision Number: 568525

Dear Dr. Hampton:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 the Federal Insecticide Fungicide and Rodenticide Act 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 CFR 156.10(a)(5) list 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 website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Kevin Ulrich by phone at 703-347-0464, or via email at ulrich.kevin@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Kevin R. Ulrich".

for
Venus Eagle, Product Manager 01
Invertebrate and Vertebrate Branch 3
Registration Division (7505P)
Office of Pesticide Programs

[Master Label]

THIAMETHOXAM	GROUP	4A	INSECTICIDE
LAMBDA-CYHALOTHRIN	GROUP	3A	INSECTICIDE

[Shake well [before using].]

DEMAND[®] DUO

Insecticide

For use as a spot treatment and perimeter treatment for the control of listed pests in, on, and around residential, institutional, public, commercial, and industrial buildings.

In the State of New York, this product may only be applied for indoor uses.

Active Ingredients:

Thiamethoxam (CAS No. 153719-23-4):.....	11.6%
Lambda-cyhalothrin ¹ (CAS No. 91465-08-6):.....	3.5%
<hr/>	
Other Ingredients:	84.9%
Total:	100.0%

¹Microencapsulated

Demand Duo contains 1.04 lb thiamethoxam and 0.32 lb lambda-cyhalothrin per gallon in a ZC formulation.

KEEP OUT OF REACH OF CHILDREN.

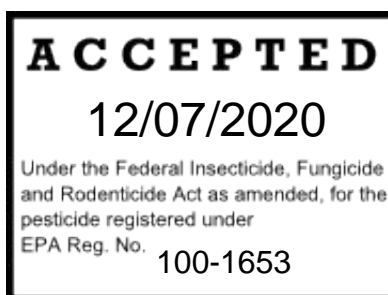
CAUTION/PRECAUCIÓN

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 in booklet.

EPA Reg. No. 100-1653
EPA Est.

Net Contents
1.1 fluid ounces (32 ml)



FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
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	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION/PRECAUCIÓN

Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin or clothing. Avoid breathing vapors.

Environmental Hazards

This product is toxic to wildlife, highly toxic to aquatic invertebrates, and extremely toxic to fish. Use of this pesticide adjacent to water may affect aquatic organisms. To protect these organisms, **do not** apply this pesticide within 25 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. **Do not** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

To protect the environment, **do not** allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind or rain does

not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. **Do not** contaminate water when cleaning equipment or disposing of equipment wash water. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on this label. When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

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

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 a high potential for reaching surface water via run off for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of thiamethoxam water from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is expected to occur within 48 hours.

Ground Water Advisory

Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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: www.npic.orst.edu or directly to EPA at: beekill@epa.gov.

Physical and Chemical Hazards

Do not use this product in or on electrical equipment due to the possibility of shock hazard from the water used in mixing this product.

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 this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS



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

Do not apply this product, by any application method, to linden, basswood, or *Tilia* species.

Do not use this product with oil.

Do not apply this product in any room being used as a living, eating, sleeping, or recovery area by patients, the elderly, or infirm when they are in the room.

Do not apply to classrooms, nurseries, or daycare facilities when in use.

Do not apply to institutions (including libraries, sports facilities, etc.) when occupants are present in the immediate treatment area.

Do not allow animals and people access to treated areas until the spray deposit has dried.

Do not apply this product to edible growing crops or stored raw agricultural commodities used for food or feed.

Do not treat surfaces likely to be contacted by food. **Do not** apply when food-handling establishments are in operation or foods are exposed. Food must be removed from area being treated. **Do not** apply directly to food or allow applications to contaminate food.

Use in all indoor permitted sites, including food-handling establishments, must be restricted to areas that eliminate exposure to food-handling surfaces and areas that are not easily accessible to occupants.

Do not spray less than the labeled rate when treating for ants, fleas, flies, mosquitoes, ticks, bed bugs, scorpions, wasps, hornets, yellow jackets, carpenter bees or termites.

Do not allow applications to contact water inhabited by fish, such as in aquariums and ornamental fish ponds that are located in/around structures being treated.

Do not use water-based sprays of Demand Duo in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment. During application, **do not** allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Treatment to soil or vegetation around structures;
2. Applications to lawns, and other vegetation;
3. Applications to building foundations, up to a maximum height of 3 feet above grade;
4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
6. Applications made through the use of a coarse, low-pressure spray to only those portions of surfaces that are directly above bare soil, lawn, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pest.

Do not water treated area to the point of runoff.

Do not make applications during rain.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitats can occur. **Do not** allow the product to enter any drain during or after application.

USE PRECAUTIONS

Shake well [before using].

Let treated surfaces dry before allowing humans and pets to contact surfaces.

Surface Staining: Demand Duo **has not stained** or caused damage to painted or varnished surfaces, plastics, fabrics, tile, siding or other surfaces where water applied alone causes no damage. However, treat a small area and allow it to dry to determine whether staining will occur. To avoid contamination from previous treatments, thoroughly wash out sprayer, hoses and screens with water and detergent before using Demand Duo.

Resistance Management Recommendations

THIAMETHOXAM	GROUP	4A	INSECTICIDE
LAMBDA-CYHALOTHRIN	GROUP	3A	INSECTICIDE

For resistance management, please note that Demand Duo contains both a Group 4A/Thiamethoxam and Group 3A/Lambda-cyhalothrin insecticides/acaricides. Any insect/mite population may contain individuals naturally resistant to Demand Duo and other Group 3A or 4A insecticides. The resistant individuals may dominate the insect/mite population if these insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Demand Duo or other Group 3A or Group 4A insecticides with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classifications are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local Syngenta representative, retailer, or extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

- For further information or to report suspected resistance contact Syngenta at 1-866-SYNGENT(A) (866-796-4368).

If resistance is suspected, do not reapply Demand Duo or other Group 3A or Group 4A insecticides.

SYNGENTA encourages responsible use of Demand Duo to ensure effective long-term control of the insects on the label. For additional information about implementing these or other resistance management practices, consult a local or state Extension specialist or Syngenta representative.

STRUCTURAL AND PERIMETER PEST CONTROL

USE SITES

Use Demand Duo as a perimeter, crack-and-crevice, and/or spot treatment in and around structures or modes of transportation. Permitted areas of use include the following buildings, structures, and modes of transport:

- aircraft (cargo and other non-cabin areas only)
- apartment buildings
- boiler rooms
- buses
- closets
- correctional facilities
- decks
- dumpsters
- entries
- factories
- fencing
- food manufacturing, processing and serving establishments, such as bakeries, breweries, canneries, granaries, grain mills, etc.
- furniture
- garages
- garbage rooms
- greenhouses (non-commercial)
- hospitals
- hotels and motels
- houses
- industrial buildings
- laboratories
- landscape vegetation
- locker rooms
- machine rooms
- mausoleums
- mobile homes
- mop closets
- mulch
- nursing homes
- offices
- patios
- pet kennels
- porches
- railcars
- restaurants
- storage rooms
- schools
- stores
- trailers
- trees
- trucks
- utility passages
- vessels, vestibules
- warehouses
- wineries
- yards

Use in all indoor permitted sites, including food-handling establishments, must be restricted to areas that eliminate exposure to food-handling surfaces and areas that are not easily accessible to occupants.

For indoor applications, retreat at 21-day intervals or as necessary to maintain control.

Refer to the outdoor use restrictions in the **Outdoor Pests** section.

Mixing Instructions

Demand Duo is intended for dilution with water for application using hand-held or power-operated application equipment as a coarse spray for crack-and-crevice, spot, and surface treatments. Application equipment that delivers low-volume treatments may also be used. A surface treatment of Demand Duo may be applied by using a paintbrush or other porous applicator attached to a handle. Fill applicator tank with the desired volume of water and add Demand Duo. Close and agitate before use in order to ensure proper mixing. Re-agitate applicator tank before use if application is interrupted. Mix only amount of treatment volume as required.

Tank Mixing

Demand Duo may be tank-mixed with other currently registered pesticides unless expressly prohibited by the product label. To ensure compatibility, conduct a small volume mixing test with the other products. If mixed with sanitizers, add Demand Duo to the tank first. If other chemicals are added to the applicator tank, add Demand Duo last. Fill tank to desired volume and re-agitate while making applications.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Foam Applications

Demand Duo may be converted to foam and the foam used to treat structural voids to control or prevent pests including ants, wasps, wood-destroying insects, or other arthropods harboring in walls, under slabs, or in other void areas. Mix end-use dilution with manufacturer's recommended volume of foaming agent. For applications inside wall voids, expansion ratios of 15:1 or drier are suggested.

Spot Treatments

Spot treatments may be made by spraying, misting, painting, or otherwise applying to surfaces covering an area no larger than 2 sq ft. For areas limited to spot or crack-and-crevice treatments, multiple spot treatments can be made to surfaces as long as 20% of the total target area is not exceeded.

HOUSEHOLD PESTS

Use the rate specified to control the listed pests in Table 1.

TABLE 1: Household Pests (Indoor and Outdoor)

Pests Controlled	Concentration of Combined Active Ingredients in Final Dilution
Ants Bed Bugs	0.13%

<p>Beetles (including Multicolored Asian Lady Beetle) Boxelder Bugs Carpenter Bees Carpet Beetles Centipedes Cigarette Beetles Clover Mites Cluster Flies Cockroaches Confused Flour Beetles Crickets Earwigs Firebrats Fleas Flies Grasshoppers Lesser Grain Borers Millipedes Mosquitoes Red Flour Beetles Rice Weevils Saw-toothed Grain Beetles Scorpions Silverfish Sowbugs Spiders Springtails Stink Bugs (including Brown Marmorated Stink Bug and Kudzu Stink Bug) Ticks Wasps, Hornets and Yellow Jackets</p>	<p>Mix 1.1 fl oz (32 ml) of Demand Duo per gallon of water.</p>
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INDOOR PESTS

Ants (Including Carpenter Ants and Nuisance Ants)

Apply as a spot, crack-and-crevice, and/or void treatment to ant trails around doors and windows and other places where ants may be found. Indoors, apply as a residual surface treatment to active areas such as baseboards; corners; around pipes; in and behind cabinets; behind and under refrigerators, sinks, furnaces and stoves; and in cracks and crevices. For best results, locate and treat nests. Outdoors, apply as a crack-and-crevice, spot, or perimeter barrier treatment; also see **Outdoor Pests**.

Bed Bugs

Efficacy of this product is not affected by heat treatments, so applications can be made before and after heat treatments in integrated bed bug elimination programs.

Apply dilution as a spot, crack-and-crevice, or void treatment to harborage areas. Example harborages include voids behind [attached] non-upholstered headboards, bed frames (wood and metal only), baseboards, moldings, doorframes, window frames, and shelving; behind mirrors and picture frames; and around edges of carpet or other floor coverings.

Apply a 0.13% dilution with pin-stream, coarse spray or low pressure equipment to cracks and joints of bed frames (wood and metal only), non-upholstered headboards and wood slats and metal coils of box springs. Apply only to areas where prolonged contact by humans or pets will not occur. **Do not use on bed linens, mattresses, or other areas where human contact is common.** Applications can be repeated at 7-day intervals as needed to achieve control.

To help remove bed bugs, clean and vacuum infested areas, such as floor surfaces, furniture and mattresses before treatment. Dispose of vacuum bag off-site, and with bag-less vacuums, remove all bed bug eggs, nymphs and adults from the canister or capsule off-site.

Crawling Insects (Beetles, Clover Mites, Cockroaches, Crickets, Earwigs, Firebrats, Silverfish, and Spiders)

Apply as a spot, crack-and-crevice, and/or void treatment to areas where these pests hide, such as baseboards; corners; storage areas; closets; around water pipes, doors, and windows; attics and eaves; cabinets; behind and under refrigerators or other household items such as furniture, sinks, furnaces, and stoves; and to the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices.

Flying Insects (Flies, Mosquitoes, and Wasps)

Demand Duo may be applied as a spot or crack-and-crevice treatment directly into cracks and crevices or other non-exposure areas as a low-pressure spray using equipment capable of delivering a pin stream of insecticide inside residential buildings (in attics, crawl spaces, and other non-living spaces), as well as in and around carports, garages, and storage sheds; also see **Outdoor Pests** for specified rates. Do not make surface applications to living spaces. For wasps, hornets, and yellow jackets, see section on **Control of Yellow Jackets, Hornets, and Wasps**.

Occasional Invaders (Boxelder Bugs, Centipedes, Millipedes, Multicolored Asian Lady Beetles, Pillbugs, Scorpions, Sowbugs, and Stink Bugs)

Apply as a spot, crack-and-crevice, and/or void treatment around doors and windows, baseboards and other places where these pests may be found or where they may enter premises. Apply outdoor treatments to prevent infestation as described below; also see **Outdoor Pests – Perimeter Treatments around Structures**.

Pantry Pests (i.e., Carpet beetle, Cigarette beetle, Confused flour beetle, Lesser grain borer, Red flour beetle, Rice weevil, and Saw-toothed grain beetle)

Apply as a spot or crack-and-crevice treatment to cupboards, shelving, and storage areas. Remove all utensils, uncovered foodstuffs (or any having original package

opened), and shelf paper before making application. Allow treated surfaces to dry and cover shelves with clean paper before replacing any utensils, foodstuff, or other items. Any foodstuff accidentally contaminated with treatment solution should be destroyed.

Application within Food-Handling Establishments (places other than private residences in which exposed food is held, processed, prepared, or served, including, but not limited to, areas for receiving, storing, packing (canning, bottling, wrapping, boxing), and preparing foods; edible waste storage; enclosed processing systems (mills, dairies, edible oils, syrups); and serving areas)

Use as a crack-and-crevice, spot, or void treatment in and around both food and non-food areas. Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply in small amounts directly into cracks and crevices, using equipment capable of delivering a pin stream of insecticide; in points between different elements of construction; between equipment and floor; in openings leading to voids; and in hollow spaces in walls, equipment and bases. Clean food-contact surfaces and equipment with an effective cleaning compound and rinse with potable water before using.

Limit spot treatments to an area no larger than 20% of the treated surface. Individual spot treatments should not exceed 2 sq ft. Take extreme care that the product is not introduced into the air.

Do not contaminate food and food-processing surfaces. **Do not** treat surfaces likely to be contacted by food. **Do not** apply when food-handling establishments are in operation or foods are exposed. Food must be removed from area being treated. **Do not** apply directly to food or allow applications to contaminate food.

Application within Food-Serving Areas (facilities where foods are served, such as dining rooms)

Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply as a crack-and-crevice, spot, or void treatment to selected surfaces such as under elements of construction and into cracks and crevices. **Do not** treat surfaces likely to be contacted by food. **Do not** apply when facility is in operation or foods are exposed. Food must be covered or removed from area being treated. **Do not** apply directly to food or allow applications to contaminate food.

Application of this product in the food areas and/or food-serving areas of food-handling establishments, other than as a spot, crack-and-crevice, or void treatment, is not permitted.

OUTDOOR PESTS

To control ants, carpenter bees, centipedes, cockroaches, crickets, fleas, flies, millipedes, mosquitoes, pillbugs, scorpions, sowbugs, spiders, stink bugs, ticks, wasps, and other similar perimeter arthropod pests, apply Demand Duo as a residual treatment around buildings and to surfaces of buildings, porches, screens, window frames, eaves, patios, garages, refuse dumps, and other similar areas where these insect pests are

active. Apply 12.8 fl oz to 1 gallon of the diluted Demand Duo solution per 100 sq ft unless specified otherwise.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

- Applications to building foundations, up to a maximum height of 3 feet above grade;
- Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
- Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;

Restriction: **Do not** allow this product to contact plants in bloom if bees are foraging in or adjacent to the treatment area.

Ants

Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply as a spot, crack-and-crevice, pin-stream, or perimeter-banded treatment to ant trails and potential entry points such as around doors or windows. As a banded application, apply according to instructions on perimeter treatments below.

Demand Duo contains thiamethoxam, a plant-systemic insecticide that can reduce populations of plant-feeding insects, such as aphids, mealybugs, and whiteflies. Control of these insects can reduce the amount of honeydew, a food source for ants foraging in and around structures. To reduce populations of honeydew-producing insects, apply 1.1 fl oz of Demand duo in 1 gallon of water (0.13% dilution) as a foliar spray or directed treatment to soil at the base of the landscape plants.

Fleas and Ticks

To control nuisance fleas and ticks (e.g., dog ticks), apply to kennels, yards, runs, and other areas where pets may frequent. For best coverage to control ticks, apply using a coarse fan spray to vegetation brush, branches, rock walls, and other areas near habitation where ticks may harbor or frequent. Apply a dilution of 1.1 fl oz of Demand duo in 1 gallon of water (0.13%) to control ticks or fleas. Apply 25.6 fl oz to 1 gallon of the diluted Demand Duo solution per 100 sq ft to thoroughly wet the treated surface; use a higher volume when treating landscaping materials, such as mulch or stone, or under dense vegetation in order to obtain the coverage needed for best control.

Do not apply to pasture or cropland, and **do not** allow animals and people access to treated areas until the spray deposit has dried. Applications can be made on a monthly basis, beginning in the spring, and can continue until frost to control both larvae and adult ticks. **Do not** apply directly to pets.

House Flies and Cluster Flies

Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply as a spray or low-volume mist to outdoor surfaces of structures, patios, fences, or other areas

where flies are likely to collect or rest, or to areas of structures that serve as entry points (doors, windows, under eaves). Applications under eaves may be made as a surface spray.

For cluster flies, use spot treatments around entry points or fly resting areas of structural surfaces, paying particular attention to south-facing surfaces. In winter and spring, when flies become active and are emerging, interior crack-and-crevice, spot, and void treatments can help reduce the infestation in areas such as attics, crawl spaces, or indoor non-living spaces.

Mosquitoes

For adult mosquito control, apply a 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) as a structural perimeter spray or spot treatment to landscape plantings and turf, around buildings and foundations, under decks, or to other areas that are likely to serve as adult mosquito resting areas. Yards or other frequented areas enclosed by landscaping can benefit from a banded treatment to reduce invading adult mosquitoes by the treatment of perimeter vegetation. Apply 25.6 fl oz to 0.5 gallons of the diluted Demand Duo solution per 100 sq ft. Low-volume mist blowers may be used as well. Application to vegetation away from structures may require additional state certifications, e.g., in turf or ornamental categories. Consult your state regulatory agency for requirements.

Occasional Invaders and Aggregating Pests (Beetles, Boxelder bugs, Centipedes, Clover mites, Crickets, Earwigs, Grasshoppers, Scorpions, Silverfish, Spiders, Springtails, Sowbugs, and Stink bugs)

Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply 12.8 fl oz to 1 gallon of the diluted Demand Duo solution per 100 sq ft to outdoor structural surfaces where insects are found and around likely entry points such as doors, windows, and utility penetrations. Banded applications as described in the **Outdoor Pests -- Perimeter Treatments around Structures** section can provide additional protection against these pests entering the structure.

CONTROL OF YELLOW JACKETS, HORNETS, AND WASPS (LOCALIZED TREATMENT)

Use caution when treating nests of stinging insects as Demand Duo does not provide instant knockdown. Protective equipment for the applicator may be required to reduce the risk of insect stings during application. The use of an extension wand is recommended when applying the liquid or foam to nests to reduce the risk of being stung. For best results, treat nests in the evening when most insects will be present.

For control of ground-nesting yellow jacket wasps, make an application of 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) liquid or finished foam into the below-ground nest. Apply a sufficient amount of liquid or foam to fill the nest and coat the opening to the nest.

For application to paper-covered wasp nests (e.g., bald-faced hornets), apply 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) of Demand Duo as a finished foam or as a spray into the opening of the nest. Apply a sufficient amount of foam to fill the nest without allowing runoff. As a spray, apply product to the entire outside surface of the nest as well as the nest opening.

For visible wasp nests, mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and spray the outside of the nest. Apply spray to the entire surface of the nest. For wasp nests within voids such as under soffits and behind rain gutters, make an application of 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) liquid or foam into the nesting area. Apply a sufficient amount of foam to fill the nesting void.

Restriction: Do not allow this product to contact plants in bloom if bees are foraging in or adjacent to the treatment area.

OUTDOOR PESTS – PERIMETER TREATMENTS AROUND STRUCTURES

Applying a continuous band of insecticide around a building foundation and around windows, doors, service line entrances, eaves, vents, and other areas can greatly reduce the potential for entry by crawling pests. For best results, before application, remove debris and leaf litter from next to the foundation; cut back vegetation and branches that touch the foundation, walls, or roof; and move or rake back rocks, deep mulch, or other potential pest harborage next to the foundation.

Apply 12.8 fl oz to 1 gallon of the diluted Demand Duo solution per 100 sq ft around the structure (according to state regulations governing commercial pest control and the previously stated restrictions on outdoor applications) and upwards along the foundation to 3 feet and spot treatments around windows, doors, and roof overhangs. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area so that the insecticide will reach the soil or thatch level where pests may be active.

Agitate occasionally during application.

TABLE 2: Dilution for Structural Perimeter Applications

Amount of Demand Duo per gallon of water	Comments
1.1 fl oz (32 ml)	Apply the finished spray solution with a volume of 12.8 fl oz–1 gallon per 100 sq ft.

Restriction: Do not allow this product to contact plants in bloom if bees are foraging in or adjacent to the treatment area.

CONTROL OF WOOD-DESTROYING INSECTS

Use Demand Duo to control the following wood-destroying insects. For specific application instructions, refer to label text.

TABLE 3: Wood-destroying Pests

Pests	Application Method	Concentration of Combined Active Ingredients in Final Dilution	Comments
Carpenter Ants Carpenter Bees Wood-Destroying Beetles and Borers	<i>Remedial Control:</i> Liquid or foam – Gallery treatment <i>Preventive treatment:</i> Wood Surface Spray	0.13% Mix 1.1 fl oz (32 ml) of Demand Duo per gallon of water.	Re-treat as directed.

Control of Carpenter Ants

Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply to ant trails around doors and windows and other places where ants may be found. Indoors, apply as a residual surface treatment to active areas such as baseboards; corners; around pipes; in and behind cabinets; behind and under refrigerators, sinks, furnaces, and stoves; and in cracks and crevices. For best results, locate and treat nests. Outdoors, apply as a crack-and-crevice, spot, or banded treatment; also see **Outdoor Pests**.

Inside voids where ants or nests occur, drill (or use existing opening) and inject spray or foam into the cavity. Inside decking materials or other structural materials, poles, or trees infested with carpenter ants, drill and inject spray or foam into cavities. Apply up to 50 ml (1.7 fl oz) at each injection hole. If using Demand Duo as a foam preparation, inject a sufficient amount to cover the area without allowing runoff.

Control of Carpenter Bees (localized treatment)

Gallery Treatment

Mix 1.1 fl oz of Demand Duo in 1 gallon of water (0.13% dilution) and apply as a spray, mist, or foam into carpenter bee galleries at each injection hole. As a liquid, apply up to 50 ml (1.7 fl oz) of finished solution of Demand Duo at each injection hole. If using Demand Duo as a foam preparation, inject a sufficient amount to fill galleries without allowing runoff.

Wood Surface Treatment

Apply coarse spray as a spot treatment to thoroughly wet wood surfaces where bees have been previously active or to provide protection against further damage. Apply early in the spring to prevent bees from invading wood. When bees have infested wood, surface applications can help control embedded larvae and bees that emerge

from the wood. Applications can be made on a monthly basis to maintain protection of treated areas.

Control of Wood-Destroying Beetles and Borers

For control of wood-destroying beetles or borers, including old house borers, powderpost beetles, false powderpost beetles, death-watch beetles, and ambrosia or bark beetles. Apply 1.1 fl oz of Demand Duo in 1 gallon of water (0.13%) as a spray, mist, or foam to galleries in structural voids, and/or as wood surface treatments.

- For old house borers, or other beetles that form large galleries, treat the gallery system by drilling and injecting product with sufficient volume to cover the galleries.
- For beetles or borers that do not form galleries which can be readily injected (e.g., powderpost beetles), apply product as a liquid, mist, or foam to exposed wooden surfaces in non-living space areas in crawlspaces, basements, and attics; to structural voids; to spaces between wood elements of a structure; or at joints between wood and foundations.

Apply as a coarse liquid spray with low pressure (<25 psi), as a foam or mist application, or by brushing diluted product onto the surface. Applications should be made in sufficient volumes to coat the target surface, but less than the volume that creates runoff. Re-treat as needed to maintain protection. Allow treated surfaces to dry before contacting them.

STORAGE AND DISPOSAL

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

Pesticide Storage

Keep container closed when not in use. Do not store near food or feed. Shake well before use. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste storage area until proper disposal can be made.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

[Note to reviewer: Container handling language appearing on the final printed labeling will be selected based on the actual net contents.]

[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. Drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ 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]

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 $\frac{1}{4}$ 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]

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.]

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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

Manufactured for:
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