OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

September 01, 2026

Funmilayo Adebesin
funmilayo.adebesin@valentbiosciences.com
SUMITOMO BIORATIONAL COMPANY LLC

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Add sod to the label, update the company name, and other minor label updates.
Product Name: DIPEL DF BIOLOGICAL INSECTICIDE DRY FLOWABLE
Admin Number: 73049-39
EPA Receipt Date: 05/21/2026
Action Case Number: 00699621

Dear Funmilayo Adebesin:

The amended labeling 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 terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or 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 (1) copy of the final printed labeling before you release this 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 your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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 EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA’s Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have questions, please contact Andrew Queen via email at queen.andrew@epa.gov.

Sincerely,



Andrew Queen, Risk Manager
MPB, BPPD
Office of Pesticide Programs

[Text in brackets [ ] indicates optional language or language intended for explanatory purposes to facilitate label review. Thus, this language will often not appear on final printed labeling.]

[Alternate Brand Names: Bactospeine DF Biological Insecticide Dry Flowable and DIPEL PRO DF BIOLOGICAL INSECTICIDE DRY FLOWABLE and Magic Gardener Caterpillar Killer DF and TOPBUXUS Anti-Caterpillar, Magic Gardener Caterpillar Control]

DIPEL® DF
BIOLOGICAL INSECTICIDE
DRY FLOWABLE

MASTER LABEL

SUB-LABEL I: DIPEL® DF BIOLOGICAL INSECTICIDE DRY FLOWABLE – For Agricultural Use
SUB-LABEL II: DIPEL® DF BIOLOGICAL INSECTICIDE DRY FLOWABLE – For Home and Garden Use
SUB-LABEL III: DIPEL® DF BIOLOGICAL INSECTICIDE DRY FLOWABLE – For Boxwood Moth Use for Home and Garden Use

DIPEL DF BIOLOGICAL INSECTICIDE DRY FLOWABLE is an effective product for control against Lepidoptera pests in agricultural production systems.

Active Ingredient:

Bacillus thuringiensis subsp. *kurstaki* strain ABTS-351 fermentation solids, spores, and insecticidal toxins*	54.0%
Other Ingredients	46.0%
Total	100.0%

*Potency: 32,000 Cabbage Looper Units **(CLU)** per mg of product (14.5 billion CLU per pound of product)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN
CAUTION

See [succeeding] [booklet] [panel] for First Aid, additional Precautionary Statements, Directions for Use and Storage/Disposal Statements.

Produced For :
Sumitomo Biorational Company LLC
1910 Innovation Way, Suite 100
Libertyville, IL 60048

EPA Registration No. 73049-39
EPA Est. No. 33762-IA-1

Batch Code:_____

Net Weight:_____

ACCEPTED
Sep 01, 2026
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 73049-39

[Alternate Brand Names: Bactospeine DF Biological Insecticide Dry Flowable and DIPEL PRO DF BIOLOGICAL INSECTICIDE DRY FLOWABLE]

DIPEL® DF
BIOLOGICAL INSECTICIDE
DRY FLOWABLE

[SUB-LABEL I: For Agricultural Use]

For Organic Production

DIPEL DF BIOLOGICAL INSECTICIDE DRY FLOWABLE is an effective product for control against Lepidoptera pests in agricultural production systems.

Active Ingredient:
Bacillus thuringiensis subsp. *kurstaki* strain ABTS-351 fermentation solids,
spores, and insecticidal toxins*.....54.0%
Other Ingredients.....46.0%
Total.....100.0%

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See [succeeding] [booklet] [panel] for First Aid, additional Precautionary Statements, Directions for Use and Storage/Disposal Statements.

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Net Weight:_____

FIRST AID	
If on skin or clothing	• 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	• 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 treatment advice
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye • Call a poison control center or doctor for treatment advice
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-682-5368.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

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

Personal Protective Equipment (PPE):
Applicators and other handlers must wear:
· Long-sleeved shirt and long pants.
· Waterproof gloves.
· Shoes plus socks.

Mixers/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any R or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls:
When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.607(d-f)), the handler PPE requirements may be reduced

or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

User Safety Recommendations

- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses, except when applying aerially over the forest canopy: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product must not be applied aerially within ¼ mile of any habitats of endangered or threatened lepidoptera. No manual application can be made within 300 feet of any threatened or endangered lepidoptera.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not 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.

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

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water) is:

Coveralls.
Waterproof gloves.
Shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses 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.

Keep unprotected persons out of the treated areas until sprays have dried.

See Chemigation section for chemigation use directions.

Days to Harvest: There are no restrictions on applying DiPel® DF BIOLOGICAL INSECTICIDE DRY FLOWABLE (hereafter referred to as DiPel DF) up to the time of harvest. Individual state regulations may vary and should be consulted for allowable pre-harvest application intervals.

Sites: DiPel DF may be used for any labeled pest on crops grown in fields, greenhouses, shadehouses, nurseries, and forests; on plants in self-contained, closed-system ponds; and on agricultural commodities in storage.

DiPel DF is an insecticide for use against listed caterpillars (larvae) of lepidopterous insects. Close scouting and early attention to infestations is highly recommended. Larvae must eat deposits of DiPel DF to be affected. Always follow these directions:

- Treat when larvae are young (early instars) before the crop is damaged.
- Larvae must be actively feeding on treated, exposed plant surfaces.
- Thorough spray coverage is needed to provide a uniform deposit of DiPel DF at the site of larval feeding. Use overhead and drop nozzles to obtain good spray coverage on both sides of foliage. Use sufficient spray volume to ensure uniform deposition on all plant surfaces.
- Under heavy pest population pressure, use the higher label rates, shorten the spray interval, and/or raise spray volume to improve spray coverage.
- Repeat applications at an interval sufficient to maintain control, usually 3 to 14 days depending on plant growth rate, moth activity, rainfall after treating, and other factors. If attempting to control a pest with a single spray, make the treatment when egg hatch is essentially complete, but before crop damage occurs.
- A spreader-sticker which has been approved for use on growing and harvested crops should be added for hard-to-wet crops such as cabbage, or to improve weather-fastness of the spray deposits.
- DiPel DF is a non-restricted use pesticide and does not require a restricted use permit for purchase and use.
- DiPel DF may be tank mixed with other labeled insecticides to enhance control. Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Before tank mixing DiPel DF with other labeled products, including spreader-stickers, check for tank mix compatibility.

After ingesting a lethal dose of DiPel DF, larvae stop feeding within the hour, and will die within several hours to 3 days. Mortality varies with larval size (instar), lepidopteran species, and dose consumed. Following ingestion, larvae become sluggish, discolor, then shrivel, blacken and die. Smaller larvae die more quickly.

DiPel DF may be applied in conventional ground or aerial equipment with quantities of water sufficient to provide uniform coverage of infested plant parts. The volume of water needed per acre will depend on crop development, relative humidity, spray equipment, and local experience. Usually, selection of moderate to high spray volume will provide the best results in most equipment. For optimal results, use at least 20 gallons of water per acre for ground application. For aerial application, use at least 3 gallons of water per acre, except for arid areas where 5 to 10 gallons of water per acre must be used.. Add water to the mix tank and provide moderate agitation. While agitating, add the required amount of DiPel DF. Continue agitation, and add other spray materials, if any. Add remaining water, if any, and agitate until fully mixed. Maintain the suspension with moderate agitation while loading and spraying. Do not mix more DiPel DF than can be used within 12 hours.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all of these factors when making decisions.

For Smaller Spray Volumes:

If Rate is	**Use This Amount Per Gallon (wt)**	
1/4 lb./acre or 100 gals.	½ tsp.	(0.04 oz)
½ lb./acre or 100 gals.	1 tsp.	(0.08 oz)
1 lb./acre or 100 gals.	2 tsps.	(0.16 oz)
2 lb./acre or 100 gals.	4 tsps.	(0.32 oz)

CHEMIGATION USE DIRECTIONS
Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

Spray Preparation
First prepare a suspension of DiPel DF in a mix tank. Fill tank with ½ to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of DiPel DF, and then the remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of DiPel DF into the irrigation water line so as to deliver the desired rate per acre. The suspension of DiPel DF must be injected with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Any questions on calibration should be directed to your State Extension Service Specialists, to equipment manufacturers or to other experts.

NOTE: When treatment with DiPel DF has been completed, further field irrigation over the treated area must be avoided for 24 to 48 hours to prevent washing the material off the crop.

PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS
Maintain continuous agitation in the mix tank during mixing and application to ensure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume for a more dilute solution per unit time.

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

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

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

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

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

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment, system connections or fittings leak, nozzles do not provide uniform distribution or lines containing the product must be dismantled and drained.

Pests controlled by DiPel DF

Common name	**Scientific name**
Achema Sphinx Moth (Hornworm)	*Eumorpha achemon*
Alfalfa Caterpillar	*Colias eurytheme*
Almond Moth	*Cadra cautella*
Amorbia Moth	*Amorbia humerosana*
Armyworm	*Spodoptera spp., e.g. exigua, frugiperda, littoralis, Pseudaletia unipuncta*
Artichoke Plume Moth	*Platyptilia carduidactyla*
Azalea Caterpillar	*Datana major*
Bagworm	*Thyridopteryx ephemeraeformis*
Banana Moth	*Hypercompe scribonia*
Banana Skipper	*Erionota thrax*
Blackheaded Budworm	*Acleris gloverana*
Box Tree Moth	*Cydalima perspectalis*
California Oakworm	*Phryganidia californica*
Cankerworm	*Paleacrita merriccata*
Cherry Fruitworm	*Grapholita packardi*
China Mark Moth	*Nymphula stagnata*
Citrus Cutworm	*Xylomyges curialis*
Codling Moth	*Cydia pomonella*
Cranberry Fruitworm	*Acrobasis vaccinii*
Cross-striped Cabbageworm	*Evergestis rimosalis*
Cutworm	*Various Noctuid species, e.g. Agrotis ipsilon*

Common name	Scientific name
Diamondback Moth	*Plutella xylostella*
Douglas Fir Tussock Moth	*Orgyia pseudotsugata*
Ello Moth (Hornworm)	*Erinnyis ello*
Elm Spanworm	*Ennomos subsignaria*
European Corn Borer	*Ostrinia nubilalis*
European Grapevine Moth	*Lobesia botrana*
European Skipper (Essex Skipper)	*Thymelicus lineola*
Fall Webworm	*Melissopus latiferreanus*
Filbert Leafroller	*Archips rosanus*
Fruit-tree Leafroller	*Archips argyrospilia*
Fruit-tree Tortix	*Pandemis spp.*
Grape Berry Moth	*Paralobesia viteana*
Grape Leafroller	*Platynota stultana*
Grapeleaf Skeletonizer (ground only)	*Harrisina americana*
Green Cloverworm	*Plathypena scabra*
Greenstriped Mapleworm	*Dryocampa rubicunda*
Gum Moth	*Batrachedra comosae*
Gypsy Moth	*Lymantria dispar*
Headworm	*Helicoverpa zea*
Head Moth	*Homoeosoma ellectellum*
Hemlock Looper	*Lambdina fiscellaria*
Hornworm	*Manduca spp.*
Imported Cabbageworm	*Pieris rapae*
Indian Meal Moth	*Plodia interpunctella*
Io Moth	*Automeris io*
Jack Pine Budworm	*Choristoneura pinus*
Light Brown Apple Moth	*Epiphyas postvittana*
Looper	*Various Noctuidae, e.g. Trichoplusia ni*
Melonworm	*Diaphania hyalinata*
Mimosa Webworm	*Homadaula anisocentra*
Obliquebanded Leafroller	*Choristoneura rosaceana*
Oleander Moth	*Syntomeida epilais*
Omnivorous Leafroller	*Playnota stultana*
Omnivorous Looper	*Sabulodes aegrotata*
Orangedog	*Papilio cresphontes*
Orange Tortrix	*Argyrotaenia citrana*
Oriental Fruit Moth	*Grapholita molesta*
Peach Twig Borer	*Anarsia lineatella*
Pine Butterfly	*Neophasia menapia*
Podworm	*Heliocoverpa zea*
Raisin Moth	*Cadra figulilella*
Redbanded Leafroller	*Argyrotaenia velutinana*
Redhumped Caterpillar	*Schizura concinna*
Rindworm Complex	*Various lepidopterans*
Saddleback Caterpillar	*Sibine stimulea*
Saddle Prominent Caterpillar	*Heterocampa guttivitta*
Saltmarsh Caterpillar	*Estigmene acrea*

Common name	Scientific name
Sod Webworm	*Crambus spp.*
Soybean Looper	*Pseudoplusia includens*
Spanworm	*Ennomos subsignaria*
Spring and Fall Cankerworm	*Paleacrita vernata and Alsophila pometaria*
Spruce Budworm	*Choristoneura fumiferana*
Tent Caterpillar	*Various Lasiocampidae*
Thecla-Thecla Basilides (Geyr)	*Thecla basilides*
Tobacco Budworm	*Heliothis virescens*
Tobacco Hornworm	*Manduca sexta*
Tobacco Moth	*Ephestia elutella*
Tufted Apple Budmoth	*Platynota idaeusalis*
Twig Borer	*Anarsia lineatella*
Variegated Cutworm	*Peridroma saucia*
Variegated Leafroller	*Platynota flavedana*
Velvetbean Caterpillar	*Anticarsia gemmatalis*
Walnut Caterpillar	*Datana integerrima*
Webworm	*Hyphantria cunea*
Western Tussock Moth	*Orgyia vetusta*
Southern Cornstalk Borer	*Diatraea crambidoides*
Sugarcane Borer	*Diatraea saccharalis*
Corn Earworm, Cotton Bollworm, Tomato Fruitworm	*Helicoverpa zea*

APPLICATION RATE

Field Crops	Application rate (pounds/acre)
Vegetable, root and tuber (Crop Group 1) Including: Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac(celery root); chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; potato; radish; radish, oriental(daikon); rutabaga; salsify(oyster plant); salsify, black; salsify, Spanish; skirret; sweet potato; tanier(cocoyam or malanga); turmeric; turnip; yam bean; yam, true.	0.5-2.0

Field Crops	Application rate (pounds/acre)
Vegetable, bulb (Crop Group 3-07) Including: Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these.	0.5-2.0 Use 1-2 lb./Acre for control of *Helicoverpa* spp.
Vegetable, leafy, except brassica (Crop Group 4) Including: Amaranth (Chinese spinach); arugula (roquette); cardoon; celery; celery, Chinese; celtuce; chervil; chrysanthemum, edible-leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock (sorrel); endive (escarole); fennel, Florence; lettuce, head and leaf; orach; parsley; purslane, garden; purslane, winter; radicchio (red chicory); rhubarb; spinach; spinach, New Zealand; spinach, vine; Sweiss chard.	0.5-2.0 Use higher rates for control of *Heliothis* spp.
Vegetable, brassica leafy (Crop Group 5) Including: Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard (gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens.	0.5-2.0 Use 0.5-1.5 lb/Acre for looper control and 1-2 lb/Acre for *Heliothis* spp. control depending on larval stage and infestation levels. Use surfactants for hard to wet crops.

Field Crops	Application rate (pounds/acre)
Vegetable, legume (succulent or dried) (Crop Group 6) Including: Bean (*Lupinus)* (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (*Vigna*) (includes adzuki bean, asparagus bean, blackeyed bean, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlog bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean(hyacinth bean); lentil; pea (*Pisum*) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sword bean.	0.5-2.0 Monitor insects and apply at more frequent intervals (3-5 days) for heavy populations to maintain control.
Vegetable, fruiting (Crop Group 8-10) Including: African eggplant; bush tomato; bell pepper; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; nonbell pepper; roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these.	0.5-2.0 Use 1-2 lb/Acre for control of heavy populations or overlapping generations of *Spodoptera* spp. Scout tomato fields and apply when insects are hatching or are small.
Vegetable, cucurbit (Crop Group 9) Including: Chayote(fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon); pumpkin; squash, summer(includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon.	0.5-2.0 Use 1-2 lb/Acre for control of *Spodoptera* spp.

Field Crops	Application rate (pounds/acre)
Fruit, citrus (Crop Group 10-10) Including: Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; Satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these.	0.5-2.0 Use sufficient volume of water to ensure good canopy coverage and penetration.
Fruit, pome (Crop Group 11-10) Including: Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these.	0.5-2.0 Scout orchards and apply when insects are hatching or small. For insect borers (e.g. codling moth), it is important to apply before the insect bores into the fruit. For leaf rollers, it is important to apply before leaves are rolled and insects are protected. DiPel DF can be used during bloom.
Fruit, stone (Crop Group 12-12) Including: Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these.	0.5—2.0 Scout orchards and apply when insects are hatching or are small, are actively feeding on leaf surfaces, and before they enter fruit or roll leaves. DiPel DF can be used during bloom.

Field Crops	Application rate (pounds/acre)
Berry and small fruit group (Crop Group 13-07) Including: Amur river grape; aronia berry; bayberry; bearberry; bilberry; blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacabery, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectaberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); blueberry, highbush; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokeberry; cloudberry; cranberry; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; grape; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; strawberry; wild raspberry; cultivars, varieties, and/or hybrids of these.	0.5-2.0 For armyworm (*Spodoptera* spp.) and cutworm (e.g. *Agrotis ipsilon*), use the higher label rate. Ensure good coverage for optimal control. For kiwifruit, apply at hatch or when small insects are actively feeding. Monitor population and apply at 5-7 day intervals.
Nut, tree (Crop Group 14-12) Including: African nut-tree; almond; beech nut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; gingko; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; pachira nut; peach palm nut; pecan; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these.	0.5-2.0

Field Crops	Application rate (pounds/acre)
Grain, cereal Crop Group 15) Including: Barley; buckwheat; corn; millet, pearl; millet, proso; oats; popcorn; rice; rye; sorgum (milo); teosinte; triticale; wheat; wild rice.	0.5-2.0
Grass Forage, fodder, and hay (Crop group 17) Including: Forage, fodder, stover, and hay of any grass, Gramineae/Poaceae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage.	0.5-2.0 If crop is in rapid growth phase, and/or there is ongoing egg laying and overlapping pest generations, apply DiPel DF with increased frequency @ 3-7 days to maintain control. For armyworm (*Spodoptera* spp.), use the higher label rates.
Nongrass animal feeds (forage, fodder, straw and hay) (Crop Group 18) Including: Alfalfa; bean, velvet; clover (*Trifolium* spp., *Melilotus* spp.); kudzu; lespedeza; lupin; sainfoin; trefoil; vetch; vetch, crown; vetch, milk.	0.5-2.0 If crop is in rapid growth phase, and/or there is ongoing egg laying and overlapping pest generations, apply DiPel DF with increased frequency @ 3-7 days to maintain control. For armyworm (*Spodoptera* spp.), use the higher label rates.

Field Crops	Application rate (pounds/acre)
Herbs and spices (Crop Group 19) Including: Allspice; angelica; anise; anise, star; annatto (seed); balm(lemon balm); basil; borage; burnet; chamomile; caper buds; caraway; caraway, black; cardamom; cassia bark; cassia buds; catnip; celery seed; chervil (dried); chive; chive, Chinese; cinnamon; clary; clove buds; coriander leaf (cilantro or Chinese parsley); coriander seed (cilantro); costmary; culantro (leaf); culantro (seed); cumin; curry (leaf); dill (dillweed); dill (seed); fennel (common); fennel, Florence (seed); fenugreek; grains of paradise; horehound; hyssop; juniper berry; lavender; lemongrass; lovage (leaf); lovage (seed); mace; marigold; marjoram(includes sweet or annual marjoram, wild marjoram or oregano, and pot marjoram); mustard (seed); nasturtium; nutmeg; parsley (dried); pennyroyal; pepper, black; pepper, white; poppy (seed); rosemary; rue; saffron; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; vanilla; wintergreen; woodruff; wormwood.	0.5-2.0 Use 1-2 lb/Acre for control of *Spodoptera* spp.
Hemp (field and greenhouse)	0.5 – 2.0 Use 1-2 lbs./Acre for control of *Spodoptera* spp. and *Helicoverpa* spp.
Artichoke	0.5 – 2.0
Vegetable, stalk, stem and leaf petiole (Crop Group 22) Including: Agave; aloe vera; asparagus; bamboo, shoots; cardoon; celery; celery, Chinese; celtuce; fennel, Florence, fresh leaves and stalk; fern, edible, fiddlehead; fuki; kale, sea; kohlrabi; palm hearts; prickly pear, pads; prickly pear, Texas, pads; rhubarb; udo; zuiki; cultivars, varieties and hybrids of these commodities.	0.5-2.0 Use 0.5-1.5 lb/Acre for looper control and 1-2 lb/Acre for Heliothis spp. control depending on larval stage and infestation levels. Use surfactants for hard to wet crops.
Coffee	1.0-2.0 For best results, drench bark and new shoots with 1-2 lbs of DiPel DF per acre, mixing with a sufficient volume of water to ensure uniform coverage.

Field Crops	Application rate (pounds/acre)
Oilseed (Crop Group 20) Including: Borage; calendula; castor oil plant; Chinese tallowtree; cottonseed; crambe; cuphea; echium; euphorbia; evening primrose; flax seed; gold of pleasure; hare's ear mustard; jojoba; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; niger seed; oil radish; poppy seed; rapeseed; rose hip; safflower; sesame; stokes aster; sunflower; sweet rocket; tallowwood; tea oil plant; vernonia; cultivars, varieties and/or hybrids of these.	0.5-2.0 Lower rate ranges (0.5-1 lb/Acre) can be used early season if the insects are small and pest pressure is not high. If *Helicoverpa* spp. is the dominant species or pest pressure is high with variable larval stages, use 1.5-2 lb/Acre. Later in the season when insect development is rapid, use the higher rate of 1.5-2 lb/Acre to control *Helicoverpa* spp. As the canopy becomes denser, use higher water carrier volumes to penetrate foliage and ensure complete coverage. If additional activity or spectrum is required, DiPel DF can be mixed with a pyrethroid or other approved insecticide. Follow the most restrictive label directions when tank mixing. For sunflower, apply at 0.5-1 lb/Acre. Thorough coverage of larval feeding sites within flowers is necessary for adequate control.
Flowers, bedding plants and ornamentals	0.5-2.0 For best results, use a ground applicator, a minimum of 50 gallons total mix per acre, 50-100 psi and 3-7 nozzles per bed.

Field Crops	Application rate (pounds/acre)
Fruit, tropical and subtropical (edible peel) (Crop Group 23) Including: Acai; acerola; achachairu; African plum; agritos; almondette; ambarella; apak palm; appleberry; araza; arbutus berry; babaco; bacaba palm; bacaba-de-leque; bayberry, red; bignay; bilimbi; borojo; breadnut; cabeluda; cajou, fruit; cambuca; carandas-plum; carob; cashew apple; Ceylon iron wood; Ceylon olive; cherry-of-the-Rio-Grande; Chinese olive, black; Chinese olive, white; chirauli-nut; ciruela verde; cocoplum; date; Davidson's plum; desert-date; doum palm coconut; false sandalwood; feijoa; fig; fragrant manjack; gooseberry, Abyssinian; gooseberry, Ceylon; gooseberry, Indian; gooseberry, otaheite; governor's plum; grumichama; guabiroba; guava; guava berry; guava, Brazilian; guava, cattley; guava, Costa Rican; guava, para; guava, purple strawberry; guava, strawberry; guava, yellow strawberry; guayabillo; illawarra plum; imbe; imbu; Indian-plum; jaboticaba; Jamaica-cherry; jambolan; jelly palm; jujube, Indian; kaffir-plum; kakadu plum; kapundung; karanda; kwai muk; lemon aspen; mangaba; Marian plum; mombin, Malayan; mombin, purple; mombin, yellow; monkeyfruit; monos plum; mountain cherry; nance; natal plum; noni; olive; papaya, mountain; pataua; peach palm, fruit; persimmon, black; persimmon, Japanese; pitomba; plum-of-Martinique; pomerac; rambai; rose apple; rukam; rumberry; sea grape; sentul; sete-capotes; silver aspen; starfruit; Surinam cherry; tamarind; uvalha; water apple; water pear; water berry; wax jambu; cultivars, varieties, and hybrids of these commodities**.**	0.5-2.0 Monitor populations and apply when insects are small and before they roll and web leaves in leaf rolling species.

Field Crops	Application rate (pounds/acre)
Fruit, tropical and subtropical (inedible peel) (Crop Group 24) Including: Abiu; aisen; akee apple; atemoya; avocado; avocado, Guatemalan; avocado, Mexican; avocado, West Indian; bacury; bael fruit; banana; banana, dwarf; binjai; biriba; breadfruit; Burmese grape; canistel; cat's-eyes; champedak; cherimoya; cupuacu; custard apple; dragon fruit; durian; elephant-apple; etambe; granadilla; granadilla, giant; ilama; inga; jackfruit; jatoba; karuka; kei apple; langsat; lanjut; longan; lucuma; lychee; mabolo; madras-thorn; mammy-apple; manduro; mango; mango, horse; mango, Saipan; mangosteen; marang; marmaladebox; matisia; mesquite; mongongo, fruit; monkey-bread-tree; monstera; nicobar-breadfruit; paho; pandanus; papaya; passionflower, winged-stem; passionfruit; passionfruit, banana; passionfruit, purple; passionfruit, yellow; pawpaw, common; pawpaw, small-flower; pelipisan; pequi; pequia; persimmon, American; pineapple; pitahaya; pitaya; pitaya, amarilla; pitaya, roja; pitaya, yellow; plantain; pomegranate; poshte; prickly pear, fruit; prickly pear, Texas, fruit; pulasan; quandong; rambutan; saguaro; sapodilla; sapote, black; sapote, green; sapote, mamey; sapote, white; sataw; satinleaf; screw-pine; Sierra Leone-tamarind; soncoya; soursop; Spanish lime; star apple; sugar apple; sun sapote; tamarind-of-the-Indies; velvet tamarind; wampi; white star apple; wild loquat; cultivars, varieties and hybrids of these commodities.	0.5-2.0 Monitor populations and apply when insects are small and before they roll and web leaves in leaf rolling species. For banana, use 0.5-1 lb/Acre and ensure good coverage to all foliage.
Hop	0.5-2.0 Use 1.5-2 lb/Acre when insect populations are high or when *Spodoptera* is the dominant pest.
Mint and peppermint	0.5-2.0 Use 1-2 lb/Acre for control of *Spodoptera* spp.

Field Crops	Application rate (pounds/acre)
Peanut	0.5-1.0 Apply at intervals necessary to maintain control. DiPel DF can be tank mixed with a pyrethroid for additional spectrum and control. Follow label directions from the most restrictive material when tank mixing products.
Sod	0.5-1.0 Not registered for use by California
Sugarcane	0.5-2.0 For sugarcane borer control, best used with parasitic wasps. Apply when insects are actively feeding on foliage and before they bore into the plant.
Tobacco	0.5-1.0
Turf	0.5-2.0
Watercress	0.5-2.0 Apply when there is no standing water in the bed.

Crops	Application rate (pounds/acre)
GREENHOUSE/SHADEHOUSE AND OUTDOOR NURSERY	
Crops in the following groups: **Vegetable, leafy, except brassica (Crop group 4),** **Vegetable, brassica leafy, (Crop group 5),** **Vegetable, fruiting, (Crop group 8-10),** **Herbs and spices (Crop group 19)**	0.5-2.0 Use higher rates for *Heliothis* spp.
AQUATIC ORNAMENTALS	
Water lilies, water hyacinths and bog plants	¼ - ½ teaspoon/100 sq.ft (0.6 – 1.2 g/100 sq.ft)
FOREST TREES AND OTHER TREES	
Forest, shade, sugar maple and other trees (e.g., ornamental trees)	For hydraulic sprayers, mix 0.5-1 lb in 100 gallons of water. For mist blowers, mix 0.5-1 lb in 10 gallons of water. Inclusion of a suitable spreader-sticker approved for forest insect control is recommended to improve coverage, improve rain fastness and/or resist wash-off.

FOR USE ON AQUATIC PLANTS IN SELF-CONTAINED, CLOSED-SYSTEM PONDS ONLY.
For a 10' x 10' pond (100 sq. ft.) based on the number of floating plants contained within it, mix ¼ - ½ teaspoon of DiPel DF in 1 quart of water and apply to the plants on the surface. Adjust quantities accordingly based on specific number of plants. Do not apply directly to water. 60-70% of the water surface must be covered with the leaves of water lilies, water hyacinths, or bog plants with floating leaves to make an application

TANK MIXES

Always read and follow all label directions, restrictions and precautions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.

Crops	Pests	Products	Application Rate (lb/A)	Special Instructions
Cotton	Armyworm Cotton Bollworm Looper Saltmarsh Caterpillar Tobacco Budworm	*DiPel* DF plus Pyrethroid	½ - 1 plus Labeled Use Rate	Treat when larvae are young (early instars) before the crop is damaged. Larvae must be actively feeding on treated, exposed surfaces. Use sufficient spray volume to ensure uniform coverage and deposition on all plant surfaces. Use the higher rate for high infestations. Can be applied by air or ground. Will control pyrethroid resistant species of the pests listed in this table. *For corn earworm, use the 1 lb/A rate. Refer to pyrethroid label for additional insects controlled.
Peanut	Armyworm Green Cloverworm Looper Podworm Velvetbean Caterpillar	*DiPel* DF plus Pyrethroid	½ - 1 plus Labeled Use Rate	
Soybean	Armyworm Corn Earworm* Green Cloverworm Looper Podworm Saltmarsh Caterpillar Soybean Looper Velvetbean Caterpillar	*DiPel* DF plus Pyrethroid	½ - 1* plus Labeled Use Rate	

DiPel DF FOR STORED AGRICULTURAL COMMODITIES

(For all states except California)

GRAINS, SOYBEANS, SUNFLOWER SEED, CROP SEED, CONDIMENTAL SEEDS, SPICES, HERBS, BIRDSEED AND POPCORN.

Pest	**Rate**
Indian Meal Moth[1]	3/8 lb./100 bu (undiluted
Almond Moth[1]	and diluted)*

*As a surface treatment, apply ½ lb. DiPel DF in 5-10 gal. of water per 500 sq. ft. of grain surface area, and mix into top 4 inches. For commodities coarser than shelled corn, increase depth of treatment according to the habit of the pest.

[1]For the control and prevention of these pests, apply DiPel DF in a constantly agitated water suspension to the top 4 inch surface layer of grain in the bin. Use a sprinkler can or sprayer to apply the suspension into the grain stream as the last (top) 4 inch layer is augured into the bin. Mix 1/20 lb. DiPel DF per gallon of water. Apply 0.6 pint of this mixture per bushel as grain is augured into storage. Or, sprinkle the suspension onto the surface of the grain in the bin and mix thoroughly with a scoop or rake to the depth of 4 inches. More thorough coverage may be achieved by dividing the specified concentration into three applications and mixing the grain between applications.

For the protection of bagged grain, including popcorn, apply the suspension to the entire grain mass and mix thoroughly prior to bagging.

Treatments can be applied to stored grain at any time, but, for best results, make application immediately after harvest before moth activity occurs. In areas where late fall harvested grain is not subject to infestation because of low temperatures, application can be delayed until late winter or early spring before moth activity begins. Control for a full storage season should normally be expected; however, repeat application if infestation recurs.

This treatment controls the moth larvae. If an infestation is present when the grain is treated, moth emergence may continue for several days. If immediate control of severe infestations is desired, grain should be fumigated prior to application of this treatment. **DiPel DF will not control weevils or other beetles.**

PEANUT

Pest	**Rate**
Indian Meal Moth	1/4 lb./ton*
Almond Moth	

*Apply this rate to the top 4 - 8 feet of nuts when filling the warehouse.

To prevent and control these pests, spray an even coating of DiPel DF on the farmer stock peanuts while filing the warehouse. To make the spray solution, mix 3-3/4 lbs. DiPel DF per 5 gallons of water. Apply to 15 tons of commodity. Do not pre-mix more spray solution than will be used within 12 hours. Keep the spray suspension agitated during application, and use pressures and nozzles sufficient to handle this suspension.

Before filling the warehouse, clean thoroughly, then spray interior of the facility with a DiPel DF suspension at the rate of ½ lb. DiPel DF per 100 gallons water. Spray enough suspension to wet all cracks and crevices.

For bagged peanuts, treat the entire quantity at the rate indicated above.

FLUE-CURED TOBACCO

Pest	Rate
Tobacco Moth	0.2 oz./100 lbs*

*Apply 0.2 ounce (approximately 2 ½ tsps.) of DiPel DF in one quart of water per 100 pounds of tobacco as a fine mist spray. Avoid over wetting. Tobacco should have just enough moisture to be handled without shattering at the time of application.

Tobacco to be Stored up to Twelve Months.
Spray loose leaves as the tobacco is being bundled from the curing barn. For tobacco on sticks, treat both sides of leaves.

Stored tobacco.
For tobacco which is to be carried over, rebundle or restack sticks, fluff up tobacco and spray loose leaves.

For tobacco that has been stored over three weeks, apply at first sign of infestation; promptly open bundles, spray loose leaves, then bundle.

Treatment of Storage Barns.
Treatment of storage barn floors and walls with DiPel DF may aid in control of the Tobacco Moth. Sweep out the area, especially cracks and corners, and all of the loose tobacco pieces in which the moth might breed. Make a spray mixture containing ½ oz. (6 tsps.) DiPel DF per 2 ½ gallons of water. Apply this at a rate of ½ gallon per 1000 sq. ft. of surface area. Be sure to spray into cracks and between floorboards.

STORAGE AND DISPOSAL

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

Pesticide Storage: Reclose containers of unused product. Store in a dry place inaccessible to children and out of sunlight.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

NOTICE TO USER
To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

DiPel® is a registered trademark of Sumitomo Biorational Company LLC
2026

Additional Optional Claims:



[Alternate Brand Names: Bactospeine DF Biological Insecticide Dry Flowable and DIPEL PRO DF BIOLOGICAL INSECTICIDE DRY FLOWABLE and Magic Gardener Caterpillar Killer DF Magic Gardener Caterpillar Control]

[

]

DIPEL® DF BIOLOGICAL INSECTICIDE DRY FLOWABLE

For Organic Gardening

[SUB-LABEL II: For Home and Garden Use]

DIPEL DF BIOLOGICAL INSECTICIDE DRY FLOWABLE is an effective product for control against Lepidoptera pests.

Active Ingredient:

Bacillus thuringiensis subsp. *kurstaki* strain ABTS-351 fermentation solids, spores, and insecticidal toxins*.	54.0%
Other Ingredients	46.0%
Total	100.0%

*Potency: 32,000 Cabbage Looper Units **(CLU)** per mg of product (14.5 billion CLU per pound of product)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN
CAUTION

See [succeeding] [booklet] [panel] for First Aid, additional Precautionary Statements, Directions for Use and Storage/Disposal Statements.

Manufactured For :
Sumitomo Biorational Company LLC
1910 Innovation Way, Suite 100
Libertyville, IL 60048

EPA Registration No. 73049-39 Batch Code:__
EPA Est. No. 33762-IA-1

Net Weight:___

FIRST AID	
If on skin or clothing	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	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 treatment advice
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye Call a poison control center or doctor for treatment advice
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-682-5368.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. 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.

ENVIRONMENTAL HAZARDS

For terrestrial uses, except when applying aerially over the forest canopy: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product must not be applied aerially within ¼ mile of any habitats of endangered or threatened lepidoptera. No manual application can be made within 300 feet of any threatened or endangered lepidoptera.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.
This product is intended for residential home and garden use only.

[PRODUCT INFORMATION
Magic Gardener™ Caterpillar Killer DF contains the active ingredient bacterium *Bacillus thuringiensis* subsp. *kurstaki* strain ABTS-351 fermentation solids. When applied according to the label directions, Magic Gardener™ Caterpillar Killer DF controls a broad range of caterpillars to provide protection for your plants.]

PRODUCT INFORMATION

Days to Harvest: There are no restrictions on applying Magic Gardener™ Caterpillar Killer DF up to the time of harvest.

How to Apply:
Rate: 1 to 4 teaspoons of Magic Gardener™ Caterpillar Killer DF per gallon of water.

Mixing: Mix Magic Gardener™ Caterpillar Killer DF until fully dissolved in water. Do not mix more Magic Gardener™ Caterpillar Killer DF than can be used in a 12-hour period.

Application: Spray mixture thoroughly onto both the top and bottoms of leaves. Apply at first sign of infestation and repeat every 3 to 14 days depending on rain, pest activity and plant growth rate. Magic Gardener™ Caterpillar Killer DF is a highly selective insecticide for use against listed caterpillars (larvae). Larvae must eat leaves of the plants that have been sprayed with Magic Gardener™ Caterpillar Killer DF to be affected. After eating a lethal dose of Magic Gardener™ Caterpillar Killer DF larvae stop feeding immediately and will die within several days.

Apply to the following types of home and garden plants:
Fruits and Vegetables
Fruit, Nut, Ornamental, and Shade Trees
Hemp
Ornamentals-including annuals and perennials
Turf

For Control of:
[Achema Sphinx Moth (Hornworm),] [Alfalfa Caterpillar,] [Almond Moth,] [Amorbia Moth,] [Armyworm, Artichoke Plume Moth,] [Azalea Caterpillar,] [Bagworm,] [Banana Moth,] [Banana Skipper,] [Blackheaded Budworm,] [Box Tree Moth,] [California Oakworm,] [Cankerworm,] [Cherry Fruitworm,] [China Mark Moth,] [Citrus Cutworm,] [Codling Moth,] [Corn Earworm,] [Cotton Bollworm,] [Cranberry Fruitworm,] [Cross-striped Cabbageworm,] [Cutworm,] [Diamondback Moth,] [Douglas Fir Tussock Moth,] [Ello Moth (Hornworm),] [Elm Spanworm,] [European Corn Borer,] [European Grapevine Moth,] [European Skipper (Essex Skipper),] [Fall Webworm,] [Filbert Leafroller,] [Fruit-tree Leafroller,] [Fruit-tree Tortix,] [Grape Berry Moth,] [Grape Leafroller,] [Grapeleaf Skeletonizer (ground only),] [Green Cloverworm,] [Greenstriped Mapleworm,] [Gum Moth,] [Gypsy Moth,] [Headworm,] [Head Moth,] [Hemlock Looper,] [Hornworm,] [Imported Cabbageworm,] [Indian Meal Moth,] [Io Moth,] [Jack Pine Budworm,] [Light Brown Apple Moth,] [Looper,] [Melonworm,] [Mimosa Webworm,] [Obliquebanded Leafroller,] [Oleander Moth,] [Omnivorous Leafroller,] [Omnivorous Looper,] [Orangedog,] [Orange Tortrix,] [Oriental Fruit Moth,] [Peach Twig Borer,] [Pine Butterfly,] [Podworm,] [Raisin Moth,] [Redbanded Leafroller,] [Redhumped Caterpillar,] [Rindworm Complex,] [Saddleback Caterpillar,] [Saddle Prominent Caterpillar,] [Saltmarsh Caterpillar,] [Sod Webworm,] [Southern Cornstalk Borer,] [Soybean Looper,] [Spanworm,] [Spring and Fall Cankerworm,] [Spruce Budworm,] [Sugarcane Borer,] [Tent Caterpillar,] [Thecla-Thecla Basilides (Geyr),] [Tobacco Budworm,] [Tobacco Hornworm,] [Tobacco Moth,] [Tomato Fruitworm,] [Tufted Apple Budmoth,] [Twig Borer,] [Variegated Cutworm,] [Variegated Leafroller,] [Velvetbean Caterpillar,] [Walnut Caterpillar,] [Webworm,] [Western Tussock Moth]

STORAGE AND DISPOSAL

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

Pesticide Storage: Reclose containers of unused product. Store in a dry place inaccessible to children and out of sunlight.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: ***If empty*** – Nonrefillable container. Do not reuse or refill this container. Place in trash. ***If partly filled*** – call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

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2026

[Alternate Brand Names: TOPBUXUS Anti-Caterpillar]

DIPEL® DF BIOLOGICAL INSECTICIDE DRY FLOWABLE

For Organic Gardening

[SUB-LABEL III: For Boxwood Moth Use for Home and Garden Use]

DIPEL DF BIOLOGICAL INSECTICIDE DRY FLOWABLE is an effective product for control against Lepidoptera pests.

Active Ingredient:

Bacillus thuringiensis subsp. *kurstaki* strain ABTS-351 fermentation solids, spores, and insecticidal toxins*	54%
Other Ingredients	46%
Total.	100%

*Potency: 32,000 Cabbage Looper Units **(CLU)** per mg (14.5 billion CLU per pound)

The percent active ingredient does not indicate product performance and potency measurements are notfederally standardized.

KEEP OUT OF REACH OF CHILDREN
CAUTION

See [succeeding] [booklet] [panel] for First Aid, additional Precautionary Statements, Directions for Use and Storage/Disposal Statements.

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Batch Code:__ __ __ __ __

Net Content:

FIRST AID	
If on skin or clothing	• 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	• 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 treatment advice
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye • Call a poison control center or doctor for treatment advice
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-682-5368.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

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

ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This product must not be applied aerially within ¼ mile of any habitats of endangered or threatened lepidoptera. No manual application can be made within 300 feet of any threatened orendangered lepidoptera.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For anyrequirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

PRODUCT INFORMATION

Open and empty 1 sachet (3 grams) of DiPel DF in 1 gallon of water. Mix thoroughly until product is fully dissolved in water. Do not mix more than can be used within 12 hours. The resulting solution is sufficient for the treatment of up to 430 sq ft of boxwood. Spray all foliage of plants to ensure coverage.

Immediately spray plants with the solution when caterpillars of the Box Tree Moth are observed. Repeat the treatment after 5-10 days depending on rainfall and pest levels. For best results, only spray when outside temperatures are above 59 degrees Fahrenheit. Caterpillars of the Box Tree Moth must eat treated leaves to die. A few hours after treatment the caterpillars will stop feeding. After 3-5 days they will die.

Crop or Crop Group	Pests	Application Rate
Boxwood (*Buxus* spp.), Euonymus (*Euonymus* spp.), holly (Ilex spp.)	Box Tree Moth (Cydalima perspectalis)	1 sachet (3 grams) per gallon of water

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

STORAGE AND DISPOSAL

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

Pesticide Storage: Reclose containers of unused DiPel DF product. Store in a dry place inaccessible to children and out of sunlight.

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

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances.

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