



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

May 8, 2024

Nicole S. Higgs  
Regulatory Manager  
Valent BioSciences LLC  
1910 Innovation Way, Suite 100  
Libertyville, Illinois 60048

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – Add Alternate  
Brand Name: VBC-90063 to the Product.  
Product Name: OutReach SC Nematicide  
EPA Registration Number: 73049-531  
EPA Receipt Date: 03/14/2024  
Action Case Number: 00558183

Dear Nicole S. Higgs:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped “Notification” and will be placed in our records. The alternate brand name “VBC-90063” has been added to the product’s records. You must submit one (1) copy of the final printed labeling with the modifications.

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 the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the 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.

If you have any questions, please contact please contact Andrew Queen by phone at 202-566-1539 or via email at [queen.andrew@epa.gov](mailto:queen.andrew@epa.gov).

Sincerely,

*Alexandra Boukedes*

Digitally signed by  
Alexandra Boukedes  
Date: 2024.05.08  
10:15:47 -04'00'

Alexandra Boukedes, Product Manager 92  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511M)  
Office of Pesticide Programs

Enclosure: Stamped Label

## NOTIFICATION

73049-531

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/08/2024

[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.]

## OutReach™ SC Nematicide

[Alternative brand name: VBC-90063]

OutReach SC Nematicide is a biological product that provides protection against listed plant parasitic nematodes.

ACTIVE INGREDIENT:	By Wt
<i>Bacillus amyloliquefaciens</i> strain PTA-4838* .....	2.20%
Other ingredients: Solvent carrier, Surfactant, Rheological agent, and <i>Rhizophagus irregularis</i> , <i>Claroideoglossum etunicatum</i> , <i>Funneliformis mosseae</i> and <i>Claroideoglossum claroideum</i> .....	97.80%
Total .....	100.00%

\*Contains a minimum of  $7.6 \times 10^9$  CFU/g of the product.

KEEP OUT OF REACH OF CHILDREN  
CAUTION

Net Contents:

Lot No.:

Manufactured for:  
Valent BioSciences LLC  
1910 Innovation Way, Suite 100  
Libertyville, IL 60048 USA  
1-800-323-9597

EPA Reg. No.: 73049-531  
EPA Est. No.: 33762-IA-01

See side/back panel for First Aid



OutReach Label V. ~~3/12/248/30/23~~

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<b>FIRST AID</b>	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other non-emergency information, call 1-800-323-9597. For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, <a href="mailto:npic@ace.orst.edu">npic@ace.orst.edu</a> 8:00AM to 12:00PM Pacific Time, Monday-Friday.</p>	

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, 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 the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d) and (e)], 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.
- 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: 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.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. The labeling must be in the possession of the user at the time of the pesticide application.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on

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

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

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: coveralls, protective eyewear, shoes and socks, and waterproof gloves.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) 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 treated areas until sprays have dried.

#### PRODUCT INFORMATION

OutReach SC Nematicide (hereafter referred to as OutReach) contains the active ingredient *Bacillus amyloliquefaciens* strain PTA-4838 that provides protection against listed plant parasitic nematodes when applied according to label directions. OutReach can be mixed directly with liquid starter, pop-up fertilizers or with water. Follow liquid fertilizer recommendations regarding seed safety and use guidelines.

#### APPLICATION DIRECTIONS

For row crop applications, OutReach is applied at planting as close to the seed or transplant as possible. Apply OutReach with adequate carrier volume to distribute product uniformly at planting.

For application to turfgrass, OutReach may be applied either at planting as close to the seed or transplant as possible, or as a soil treatment to existing stands of turf. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective nematode control.

**IMPORTANT: When applying OutReach, DO NOT use filters or screens finer than #50 mesh.**

## **COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS**

OutReach can be mixed directly with some additives, adjuvants, biocontrol products, fungicides, herbicides, insecticides, liquid fertilizers, and with water. Do not tank-mix OutReach with other products unless compatibility has been verified. If considering tank-mixing OutReach with other products, use the following compatibility jar test before mixing an entire tank: Add water from the same water source to a clear glass or plastic jar. Add the products in correct proportions. Mix thoroughly and let stand for a minimum of 15 minutes. Separation, gelling, or generation of heat are all signs of incompatibility.

Always read and follow all label directions and precautions for each product. When using combinations of products, the most restrictive label limitations and precautions must be followed. Do not mix OutReach with any product that has a prohibition against tank-mixing. For further information, consult your Valent Agricultural Specialist.

## **MIXING ORDER FOR TANK-MIX PARTNERS BY FORMULATION TYPE**

- 1) Carrier (water or liquid fertilizer)
- 2) Wettable granules (dry flowables)
- 3) Wettable powders
- 4) Aqueous solutions
- 5) Emulsifiable concentrates
- 6) Adjuvants

## **APPLICATION PREPARATION**

### **In-Furrow**

Application equipment must be clean and free of previous pesticide deposits before applying. Fill spray tank ½ full of the carrier (liquid fertilizer or water). Add products in mix order referenced in MIXING ORDER FOR TANK-MIX PARTNERS BY FORMULATION TYPE section to the spray tank. Then add the rest of the carrier (liquid fertilizer or water). Make sure that each product is mixed thoroughly and suspended before adding the next product. Maintaining agitation through the mixing and application process is required. Do not store mixed solutions for periods greater than 24 hours. Re-suspension of the solution is critical.

### **Chemigation Instructions OutReach**

Apply this product only through drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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

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.

#### **Instructions for Chemigation Systems Connected to Public Water Systems**

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

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

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

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

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

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) 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.



### **Drip (Including Sub-surface)**

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 back flow.

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.

Fill the supply tank  $\frac{1}{4}$  to  $\frac{1}{2}$  full of water. Add OutReach directly to the supply tank. Mix thoroughly to fully disperse the product. Once dispersed and suspended, fill the tank with the remaining amount of water necessary for the injection. Maintaining agitation through the mixing and application process is required. Inject OutReach downstream of sand and/or screen filters finer than #50 mesh. Apply during the middle third of the irrigation run, concluding the injection before the end of the irrigation run, and allowing clean water to flush the lines and move product into the root zone.

**IMPORTANT:** After mixing with water, shake or stir vigorously. Maintain continuous agitation in the mix tank during mixing and application to ensure a uniform suspension. When spraying, OutReach use filters or screens no finer than #50 mesh.

## APPLICATION INSTRUCTIONS FOR CROP CATEGORIES

Refer to COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS section when mixing with other products.

<b>Crop Group 1: Root and Tuber Vegetables</b> <b>(not including Potato and Sugarbeet)</b> <b>[Not for Use in California]</b> Arracacha; arrowroot; artichoke (Chinese, Jerusalem); beet (garden); burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac; chayote (root); chervil, turniprooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; radish; radish, oriental (daikon); rutabaga; salsify (black, Spanish); skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true	
<b>Pests</b>	<b>Application Rate</b>
False Root Knot Nematode Root Knot Nematode Sting Nematode Stubby Root Nematode Potato Cyst Nematode Root Lesion Nematode	6 - 10 fl. oz. of product/acre

<b>Sugarbeet</b> <b>[Not for Use in California]</b>	
<b>Pests</b>	<b>Application Rate</b>
Clover Cyst Nematode False Root Knot Nematode Root Knot Nematode Sugarbeet Nematode Stem and Bulb Nematode	6 - 10 fl. oz. of product/acre

<b>Potato</b> <b>[Not for Use in California]</b>	
<b>Pests</b>	<b>Application Rate</b>
Clover Cyst Nematode False Root Knot Nematode Reniform Nematode Root Knot Nematode Sugarbeet Nematode Stem and Bulb Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Group 3: Bulb Vegetables</b> <b>[Not for Use in California]</b> Chive (fresh leaves, Chinese, fresh leaves); daylily, bulb; elegans hosta; fritillaria (bulb, leaves); garlic	
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(bulb, great-headed bulb and serpent bulb); kurrat; lady's leek; leek; wild leek; lily, bulb; onion (Beltsville bunching, bulb, Chinese, bulb, fresh, green, macrostem, pearl, potato bulb, tree, tops and Welsh tops); shallot (bulb and fresh leaves); cultivars, varieties, and/or hybrids of these	
Pests	Application Rate
Root Knot Nematode Lesion Nematode Needle Nematode Stubby Root Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre

Crop Groups 4 and 4-16: Leafy Vegetables (Except <i>Brassica</i> Vegetables) [Not for Use in California]	
Amaranth (Chinese and leafy); arugula; aster, Indian; blackjack; broccoli (Chinese and raab) cabbage (abyssinian, Chinese bok choy and seakale); cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; collards; corn salad; cosmos; cress (garden and upland); dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; farnflower; feather cockscomb; good king henry; hanover salad; huauzontle; jute, leaves; kale; lettuce (bitter, head and leaf); maca, leaves; mizuna; mustard greens; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane (garden and winter); radicchio; radish, leaves; rape greens; rocket, wild; shepherd's purse; spinach (Malabar, New Zealand and tanier); Swiss chard; turnip greens; violet, Chinese, leaves; watercress*; cultivars, varieties, and hybrids of these commodities	
Pest	Application Rate
Root Knot Nematode Lesion Nematode Needle Nematode Stubby Root Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre
*Note: Do not apply to flooded fields.	

Crop Group 5: <i>Brassica</i> (Cole) Leafy Vegetables [Not for Use in California]	
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	
Pest	Application Rate
Root Knot Nematode Lesion Nematode Needle Nematode Stubby Root Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Group 6: Legume Vegetables (Succulent or Dried)</b> <b>(Except Soybean)</b> <b>[Not for Use in California]</b>	
Bean ( <i>Lupinus</i> spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean ( <i>Phaseolus</i> spp.) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean ( <i>Vigna</i> spp.) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean (hyacinth bean); lentil; pea ( <i>Pisum</i> spp.) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; sword bean	
Pests	Application Rate
Pea Cyst Nematode Root Knot Nematode Root Lesion Nematode Needle Nematode Stubby Root Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre

<b>Soybean</b> <b>[Not for Use in California]</b>	
Pests	Application Rate
Reniform Nematode Root Knot Nematode Soybean Cyst Nematode	6 - 10 fl. oz. of product/acre

<b>Peanut</b> <b>[Not for Use in California]</b>	
Pests	Application Rate
Root Knot Nematode Lesion Nematode Sting Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Groups 8 and 8-10: Fruiting Vegetables</b> <b>[Not for Use in California]</b>	
African eggplant; bush tomato; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these	

Pest	Application Rate
Root Knot Nematode Lesion Nematode Needle Nematode Stubby Root Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Group 9: Cucurbit Vegetables</b> <b>[Not for Use in California]</b> Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); <i>Momordica</i> spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash (summer and winter (includes butternut squash, calabaza, hubbard, acorn, spaghetti)); watermelon	
Pests	Application Rate
Root Knot Nematode Lesion Nematode Needle Nematode Stubby Root Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Groups 10 and 10-10: Citrus Fruits</b> <b>[Not for Use in California]</b> Calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime (Australian desert, Australian finger, Australian round, Brown River finger, mount white, New Guinea wild, Russell River, sweet, and Tahiti lime); Mediterranean mandarin; orange, (sour and sweet); pummelo; satsuma mandarin; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uni fruit; cultivars, varieties, and/or hybrids of these	
Pests	Application Rate
Root Knot Nematode Dagger Nematode Lesion Nematode Ring Nematode Citrus Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Groups 11 and 11-10: Pome Fruit</b> <b>[Not for Use in California]</b> Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these	
Pests	Application Rate

Root Knot Nematode Dagger Nematode Lesion Nematode Ring Nematode Citrus Nematode	6 - 10 fl. oz. of product/acre
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<b>Crop Groups 12 and 12-12: Stone Fruit</b> <b>[Not for Use in California]</b> Apricot; apricot, Japanese; capulin; cherry (black, Nanking, sweet and tart); Jujube, Chinese; nectarine; peach; plum (American, beach, Canada, cherry, Chickasaw, Damson, Japanese, Klamath and prune); plumcot; sloe; cultivars, varieties, and/or hybrids of these	
Pests	Application Rate
Root Knot Nematode Dagger Nematode Lesion Nematode Ring Nematode Citrus Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Groups 13 and 13-7: Berries and Small Fruit</b> <b>[Not for Use in California]</b> 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, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Orgeon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); blueberry (highbush and lowbush); buffalo currant; buffaloberry; che; Chilean guava; chokecherry; cloudberry; cranberry* (including highbush); currant (black and red); elderberry; European barberry; gooseberry; grape; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit (fuzzy and 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	
Pests	Application Rate
Root Knot Nematode Dagger Nematode Lesion Nematode Ring Nematode Citrus Nematode	6 - 10 fl. oz. of product/acre
*Note: Do not apply to flooded fields.	

**Crop Groups 14 and 14-12: Tree Nuts**  
**[Not for Use in California]**

African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; 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

Pests	Application Rate
Root Knot Nematode Dagger Nematode Lesion Nematode Ring Nematode Citrus Nematode	6 - 10 fl. oz. of product/acre

**Crop Group 15: Cereal Grains**  
**(Except Corn and Sorghum)**  
**[Not for Use in California]**

Barley; buckwheat; millet (pearl and proso); oats; rice\*; rye; teosinte; triticale; wheat; wild rice\*

Pests	Application Rate
Cereal Cyst Nematode Root Lesion Nematode	6 - 10 fl. oz. of product/acre
*Note: Do not apply to flooded fields.	

**Corn (Including Field, Sweet and Pop)**  
**[Not for Use in California]**

Pests	Application Rate
Dagger Nematode Lance Nematode Needle Nematode Pin Nematode Ring Nematode Root Knot Nematode Root Lesion Nematode Spiral Nematode Sting Nematode Stubby Root Nematode Stunt Nematode	6 - 10 fl. oz. of product/acre

**Sorghum**  
**[Not for Use in California]**

Pests	Application Rate
Ring Nematode Root Knot Nematode Root Lesion Nematode Sting Nematode Stubby Root Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Group 17: Grass Forage, Fodder and Hay</b> <b>[Not for Use in California]</b> Forage, fodder, stover and hay of any grass, <i>Gramineae/Poaceae</i> 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	
Pests	Application Rate
Lance Nematode Needle Nematode Pin Nematode Ring Nematode Root Knot Nematode Root Lesion Nematode Spiral Nematode Sting Nematode Stubby Root Nematode Stunt Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Group 18: Non-Grass Animal Feed</b> <b>[Not for Use in California]</b> Alfalfa; bean, velvet; clover ( <i>Trifolium</i> spp., <i>Melilotus</i> spp.); kudzu; lespedeza; lupin; sainfoin; trefoil; vetch; vetch, crown; vetch, milk	
Pests	Application Rate
Root Knot Nematode Root Lesion Nematode	6 - 10 fl. oz. of product/acre

<b>Crop Groups 19, 25 and 26: Herbs and Spices</b> <b>[Not for Use in California]</b> Allspice; angelica; anise (seed); anise, star; annatto (seed); balm (lemon balm); basil; borage; burnet; camomile; caper buds; caraway; caraway, black; cardamom; cassia (bark and 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	
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(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

Pests	Application Rate
Root Knot Nematode Dagger Nematode Lesion Nematode Ring Nematode Citrus Nematode	6 - 10 fl. oz. of product/acre

**Crop Group 20: Oilseed**  
**(Except Cotton, Rapeseed and Sunflower)**  
**[Not for Use in California]**

Borage; calendula; castor oil plant; Chinese tallowtree; 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; rose hip; safflower; sesame; stokes aster; sweet rocket; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these

Pests	Application Rate
Cereal Cyst Nematode Root Lesion Nematode	6 - 10 fl. oz. of product/acre

**Cotton (De-linted Only)**  
**[Not for Use in California]**

Pests	Application Rate
Lance Nematode Reniform Nematode Root Knot Nematode Sting Nematode	6 - 10 fl. oz. of product/acre

**Rapeseed (Including Canola)**  
**[Not for Use in California]**

Pests	Application Rate
Cereal Cyst Nematode Root Lesion Nematode	6 - 10 fl. oz. of product/acre

**Sunflower**  
**[Not for Use in California]**

Pests	Application Rate
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Cereal Cyst Nematode Root Lesion Nematode	6 - 10 fl. oz. of product/acre
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<b>Tobacco</b> <b>[Not for Use in California]</b>	
<b>Pests</b>	<b>Application Rate</b>
Root Knot Nematode Lesion Nematode Tobacco Cyst Nematode Reniform Nematode	6 - 10 fl. oz. of product/acre

## **Turf**

### **APPLICATION INFORMATION**

May be applied either at planting, as close to seed or transplant as possible, or post-plant as a soil treatment to existing stands of turf. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective nematode control.

Using ground application equipment, apply:

- 0.18 to 0.36 fluid ounces of product per 1000 sq. ft. at 2 to 5 gallons of solution per 1000 sq. ft. for protection against nematodes
- 8 to 16 fluid ounces of product per acre at 50 to 100 gallons of solution per acre for protection against nematodes.

### **IRRIGATION AND WATERING**

When using OutReach SC Nematicide for optimum control, irrigate within 24 hours of application to depth of the root zone to be protected, generally around 0.5 inches of irrigation.

Begin applications preventively when conditions are favorable for nematode activity.

Reapply as needed.

<b>Turf</b> <b>[Not for Use in California]</b>  Golf courses; sod farms; sport fields; residential, institutional, municipal, commercial, and other turfgrass areas	
<b>Pests</b>	<b>Application Rate</b>
Sting Nematode Ring Nematode Spiral Nematode Lance Nematode Root Knot Nematode Stubby Root Nematode	12 – 16 fl. oz. of product/acre 0.24 - 0.36 oz. of product/1000 sq. ft.

### Storage and Disposal

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

**Pesticide Storage:** This product consists of living microbes. Store at room temperature, but do not exceed 95°F (35°C). Do not freeze. Tightly close opened container.

**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:** *For plastic containers less than or equal to 5 gallons:* Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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. If burned, stay out of smoke.

*For plastic containers greater than 5 gallons:* Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank.

Fill the container ¼ full with water. 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. If burned stay out of smoke.

### NOTICE TO USER

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.