

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs

Biopesticides and Pollution Prevention Division (7511P) 1200 Pennsylvania Ave., N.W.

Washington, D.C. 20460

#### NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

EPA Reg.	Number:
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92629-3

Date of Issuance:

6/27/2017

T	erm	of	Issuance:

Unconditional

Name of Pesticide Product:

NemaSTAR

Name and Address of Registrant (include ZIP Code):

Cann-Care Company 417 Mace Blvd. J236 Davis, CA 95618

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
- 2. You must provide the EPA with the following information prior to labeling or repackaging the product in your EPA establishment:
  - The registration number and establishment number of the parent EPA-registered product from which your product is derived.
  - The name and address of each entity from which you purchased the parent EPA-registered product.
  - For each entity that you purchase the parent EPA-registered product from, a copy of the bill of sale between you and that entity.
- 3. With regard to term #2 (above), you must provide this information to the EPA every 6 months for two years beginning on the date of registration.

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- 4. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 92629-3."
  - Add an appropriate EPA Establishment Number.
- 5. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Signature of Approving Official:	Date:
andrew C. Ruycelon	6/27/2017
Andrew Bryceland, Team Leader	
Biochemical Pesticides Branch	
Biopesticides and Pollution Prevention Division (7511P)	
Office of Pesticide Programs	

EPA Form 8570-6

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 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 false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance 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. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

• Basic CSF dated 05/30/2017

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If you have any questions, please contact Alex Horansky of my team by phone at (703) 347-0128 or via email at horansky.alex@epa.gov.

Sincerely,

Anchew L. kupcelon

Andrew Bryceland, Team Leader Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs

Enclosure

# **Master Label**

Sublabel A: Agricultural Use

Sublabel B: Home Garden and Lawn Use

**Optional Label Claims** 

# **NEMASTAR**<sup>TM</sup>

# ACCEPTED

06/27/2017

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 92629-3

**Active Ingredient:** 

\*Saponins of Quillaja saponaria...... 8.60% **Other Ingredients:** ..... 91.40% **Total:** ...... 100.00%

\*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

#### Manufactured for:

Cann-Care Company 417 Mace Blvd J236 Davis, CA 95618

EPA Reg. No.: 92629-

EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons Batch Code: XXX

# Sublabel A: Agricultural Use

# **NEMASTAR**<sup>TM</sup>

# A Bio-Pesticide

For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals

# **Active Ingredient:**

\*Saponins of Quillaja saponaria......... 8.60% **Other Ingredients:** ...... 91.40% **Total:** ...... 100.00%

# KEEP OUT OF REACH OF CHILDREN **WARNING - ADVISO**

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

FIRST AID		
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>	
	<ul> <li>Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.</li> </ul>	
	Call a poison control center of doctor for treatment advice.	
If on skin	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If swallowed	Call a poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	<ul> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> </ul>	
	Do not give anything by mouth to unconscious person.	
	HOTLINE NUMBER	

Have the product container of label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

(See back side for additional precautionary statements.)

<sup>\*</sup>bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

# Manufactured for:

Cann-Care Company 417 Mace Blvd J236 Davis, CA 95618

EPA Reg. No.: 92629-

EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons Batch Code: XXX

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggle, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handing 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
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

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.

# **User Safety Recommendations**

Users should:

- Remove clothing/PPE immediately if product 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.

(For 260 gallon containers: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior of discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.)

#### **DIRECTIONS FOR USE**

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

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

#### 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 the label about personal protective equipment and the 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 without protective clothing during the restricted-entry interval (REI) of 24 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:

- Chemical-resistant gloves made of any waterproof material
- Protective eyewear
- Shoes and socks

EXCEPTION: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural and ornamental plants on farms, forests, nurseries, or greenhouses.

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

Mixing:

Fill tank with water to at least half full, then add recommended dosage of NEMASTAR™ directly to the tank and continue filling. Minimize agitation in the tank (shut off paddle agitation if possible) to prevent foaming. To reduce foaming, an agricultural defoamer may be added to the tank mix. However, NEMASTAR™ foam is very water soluble, will form a true solution, and should not be a concern for settling in the tank. Apply solution within three hours of mixing.

# Compatibility:

NEMASTAR™ is a water soluble botanical extract. It is physically compatible with most water based pesticides and liquid fertilizers providing the pH of the final solution is in a pH range of 3 to 8. Do not apply NEMASTAR™ with any other product before testing for physical and chemical compatibility. To determine compatibility, pour the recommended proportions of the products into a suitable container, mix and wait for 30 minutes. If product remains mixed, it is considered physically compatible.

Not all tank mix combinations have been tested with this product. If compatibility of this product with. another product is unknown, test the mixture on a small scale.

Read carefully and observe the most restrictive of the labeling limitations and precautions of all product labels used in the tank mix. This product has properties similar to wetting agents and may enhance activity of some products as a wetting agent.

**Application Methods:** Consider the high solubility of this product when choosing a method of application and timing.

**Foliar spray application (for powdery mildew):** Apply by ground equipment to ensure complete and thorough coverage of foliage and/or crop. Contact of the disease organisms is essential for curative control.

Ground spray application (for nematodes and root rot): After area to be treated has been irrigated to field capacity, apply with a band or broadcast type sprayer, such as flat- fan or hollow cone nozzle tip system, to the soil surface. After application has been made it will be necessary to water with either drip above ground sprinklers or reduce amount of furrow irrigation. Do not over irrigate following application of this product. Do not use flood irrigation to apply this product into the ground. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

For ground sprayer application in orchards or around trees, begin application next to the tree trunk arid spray at least 50% of soil area or the area under the canopy of the tree, whichever is greatest.

**Shank injection application (for nematodes):** After area to be treated has been irrigated to field capacity, apply by shank injection to areas where roots are present. Use a sufficient number of injectors to cover area to be treated. If shank application is applied at the root zone, minimal irrigation is required to assure that product covers root zone.

**Chemigation application (for nematodes and root rot):** Apply NEMASTAR™ through the following types of systems. Do not apply this product through any other type of irrigation system.

- Low volume (ground or underground) drip, drip tape, strip tubing, microjet sprinklers, mini-sprinklers;
- Sprinkler including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move;
- Furrow.

Check irrigation system and emitters to ensure all systems are operating normally before injecting NEMASTAR™. Lack of effectiveness or crop injury can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, chemigation experts or the Distributor of this product.

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. In addition, check local and state regulations regarding pesticide injection into public water systems.

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.

Maintain the system's operating pressure low enough to prevent fogging and/or misting during applications. Inject NEMASTAR™ into ·the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.

Systems using a gravity flow pesticide dispensing system must meter the product into the water at the head of the field and downstream of the hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- 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 material that are compatible with pesticide and capable of being fitted with a system interlock.

For best results irrigate the soil to field capacity (down to two feet of soil) before pesticide application. For best results, inject NEMASTAR™ into the irrigation line in the last quarter of the irrigation time. Continue irrigation until all lines are flushed. Maintain irrigation for enough time to assure this product has penetrated down into the targeted root zone. Do not over irrigate after applying this product. If excessive watering occurs immediately following application, this product may move down past the desired root zone due to its high water solubility. Do not irrigate for at least 24 hours following application of this product. Pest injury to the crop may result from uneven distribution of this product during application.

Do not allow air in the line prior to injecting NEMASTAR™. The product's density will cause swelling of the line due to foam formation and prevent uptake of material. If a pesticide supply tank is used, follow directions listed under "Mixing" above. There generally will be some level of foam at the base of the wetted area until it dissolves (usually within 30 minutes after application, depending on temperature and amount of water following application).

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone. Do not apply when wind speed favors drift beyond the areas intended for treatment

# **Application Rates for Control of Nematodes**

NEMASTAR™ lessens the damage caused by nematodes and increases crop yields. To control/suppress plant parasitic nematodes, apply NEMASTAR™ to the full irrigated zone. For row crops, the irrigated zone in 30-50% of the row area. For orchards or around trees, apply from trees, apply from the tree trunk to drip-line to cover at least 50% of the soil area or the area under the canopy of the tree, whichever is greatest. Make single applications in the spring just prior to or during root flush, and again in the fall after harvest. For best results, make multiple applications in the spring, followed by a single application in the fall after harvest. Use NEMASTAR™ in combination with other nematode control products in an IPM program to achieve season-long control of target pests.

### Crop

Berries: (Not for Use in California)
Blackberry (including boysenberry,
dewberry, marionberry, olallieberry,
youngberry), Blueberry, Cranberry,
Currant, Elderberry, Gooseberry,
Huckleberry, Loganberry, Raspberry
(black and red)

#### Citrus:

Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo

**Grapes** (raisin, table, wine)

#### **Nut Crop:**

Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

#### Pome Fruit:

Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

#### Stone Fruit:

Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

#### Remarks

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, make multiple applications at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

#### Crop

## Cole Crops:

Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

## **Cucurbit Vegetables:**

Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

# Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

## **Leafy Vegetables:**

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

#### Strawberry

**Subtropical Fruits:** (Not for Use in California) Banana, Date, Mango, Papaya, Pineapple, Plantain

#### Remarks

Apply 1-7 days pre-plant to the planting zone. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

### Crop

# **Bulb Vegetable:**

Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot

# **Root and Tuber Vegetables:**

Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

#### **Ornamentals:**

Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

# **Turfgrass**

Ornamental lawns, Golf courses, Sod farms For control of *Anguina pacifica* nematode only

#### Remarks

Apply prior to planting to row area to be planted. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, make multiple applications at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000- 10,000 ppm) every 7-14 days for up to 10 weeks.

Apply 9 fl.oz. in 3-7 gallons water per 1,000 sq.ft. (equivalent to 3 gallons in 130-300 gallons water per acre) using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where *Anguina pacifica* nematode galls are formed. Do not exceed a concentration of 1.5% solution of NEMASTAR™ in any application. Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.

Do not water turfgrass for at least 12 hours following application of NEMASTAR™. NEMASTAR™ is water soluble and does not require additional water application through sprinkler following application.

For control/suppression of **POWDERY MILDEW** in the following field and greenhouse-grown crops, apply 1-4 pints NEMASTAR™ per acre as a foliar spray in 50-100 gallons water per acre (equivalent to 0.5-1.5 fl.oz. in 1-2 gallons water per 1,000 sq.ft.) every 7- 10 days depending on severity of infection. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. NEMASTAR™ may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant; Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

**Bulb Vegetable:** Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot

**Cereal Grains:** Barley, Buckwheat, Corn, Millet, (pearl and proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

**Cole Crops:** Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including' cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

**Fruiting Vegetables:** Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

**Legume Vegetables (succulent or dried):** Bean (Lupinus, Phaseolus and Vigna spp.), Broad bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea (Pisum spp.), Pigeon pea, Soybean, Sword bean

**Nut Crop:** Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

**Pome Fruit:** Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

**Stone Fruit:** Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

**Subtropical Fruits:** Banana, Date, Mango, Papaya, Pineapple, Plantain

Additional crops: Hops, Mint (peppermint, spearmint), Tobacco

Herbs and Spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Chamomile, Caper buds, Caraway, Cardamom, Cassia, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Coriander, Costmary, Cilantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace,

Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

**Ornamentals:** Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Turf: Ornamental lawns, golf courses and sod farms

For control/suppression of **PHYTOPHTHORA and PYTHIUM ROOT** ROT in the following field and greenhouse-grown crops, apply 2-4 quarts NEMASTAR™ in 200 gallons water per acre (equivalent to 1.5-3 fl.oz. in 5 gallons water per 1,000 sq.ft.) to achieve a concentration of 2,500-5,000 ppm. Apply in early spring and fall, prior to root flush when soil temperatures are optimum for root infection. Apply to the entire root zone following, or at the end of, an irrigation cycle. For best results, repeat application every 7 days, for up to 6 weeks. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. NEMASTAR™ may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, kiwifruit, Loganberry, Raspberry (black and red), Strawberry

**Citrus:** Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo,

**Cole Crops:** Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese wax gourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

**Fruiting Vegetables:** Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery Chinese Celtuce, (including celery), Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

**Nut Crop:** Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

**Pome Fruit:** Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

**Stone Fruit:** Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Additional crops: Avocado, Kiwifruit

**Ornamentals:** Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and

flowering trees, woody ornamentals

# Application Rates to Enhance Plant Growth and Yield

Under good growing conditions, absent of plant parasitic nematodes or plant parasitic fungi, NEMASTAR™ is beneficial to plant growth and yield as described

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Crop	Benefit	Rate per Acre	Comment
Grapes	Increased Fruit yield and root development	1 – 2 quarts	Apply at root flush followed by 2 – 4 applications at 7 – 14 day intervals.
Citrus	Increased root development	1 – 2 gallons	Apply at root flush followed by 2 quarts/acre every 14 days for 4 – 6 weeks.
Strawberry	Increased root development	2 – 4 pts	Apply every 14 days for 8 – 10 weeks.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in cool, dry area.

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

#### **Container Disposal:**

### (For containers ≤ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (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. Do not burn, unless allowed by state and local ordinances.

### (For containers ≥ 30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (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 or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Cann-Care Company warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also

subject to the conditions and limitations stated herein.

# Sublabel B: Home, Garden, and Lawn Use

# **NEMASTAR**<sup>TM</sup>

# A Bio-Pesticide

For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home, Gardens, and Lawns

## **Active Ingredient:**

\*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

# WARNING - ADVISO

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

FIRST AID		
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes.	
	<ul> <li>Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.</li> </ul>	
	Call a poison control center of doctor for treatment advice.	
lf on skin	Take off contaminated clothing.	
	Rinse skin immediately with plenty of water for 15-20 minutes.	
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>	
	Have person sip a glass of water if able to swallow.	
	<ul> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> </ul>	
	Do not give anything by mouth to unconscious person.	
HOTLINE NUMBER		
Have the product c	ontainer of label with you when calling a poison control center or doctor, or going	

for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information. (See back side for additional precautionary statements.)

# Manufactured for:

Cann-Care Company 417 Mace Blvd J236 Davis, CA 95618

EPA Reg. No.: 92629-

EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons Batch Code: XXX

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggle, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handing and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### **ENVIRONMENTAL HAZARDS**

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

#### **DIRECTIONS FOR USE**

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

For residential use in home gardens and lawns.

# MIXING AND APPLICATION INSTRUCTIONS

NEMASTAR™ is a concentrate that is easily mixed with water and applied with band or broadcast type sprayers. After mixing with water, apply solution within three hours of mixing. Irrigate area to be treated before application. After application has been made it may be necessary to water with either drip or above ground sprinklers. Do not over irrigate following application of this product. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone.

#### **Application Rates for Control of Nematodes**

NEMASTAR™ lessens the damage caused by nematodes and increases yields. To control/suppress plant parasitic nematodes, apply NEMASTAR™ to the full irrigated area using the application rate listed.

For around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Make single applications in the spring just prior to or during root flush, and again in the fall after harvest.

For best results, make multiple applications in the spring every 7 to 14 days for up to 10 weeks, followed by a single application in the fall after harvest.

Use Site Rate Berries (Not for use in California): Apply 8 fl. oz. of NEMASTAR™ Extract Blackberry (including boysenberry, in 6 gallons of water per 1,000 sq. ft. dewberry, marionberry, olallieberry, Apply every 7-14 days for up to 10 youngberry), Blueberry, Cranberry, weeks. Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red) Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo Grapes **Nut Trees:** Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English) Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune Cole Vegetables: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizune, Mustard greens, Mustard spinach, Rape greens

#### **Use Site**

#### **Cucurbit Vegetables:**

Chaoyote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake}, Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

# Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cookino, pimento and sweet), Tomatillo, Tomato

# **Leafy Vegetables:**

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

#### Strawberry

**Subtropical Fruits:** Banana, Date, Mango, Papaya, Pineapple, Plantain

### **Bulb Vegetables:**

Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot

#### Rate

Apply 8 fl. oz. of NEMASTAR™ Extract in 6 gallons of water per 1,000 sq. ft. Apply every 7-14 days for up to 10 weeks.

# Use Site Rate Root and Tuber Vegetables: Apply 8 fl. oz. of NEMASTAR™ Arrachacha, Arrowroot, Artichoke, Beet Extract in 6 gallons of water per 1,000 (garden and sugar), Burdock, Canna, sq. ft. Apply every 7-14 days for up to Carrot, Cassava (bitter and sweet), 10 weeks. Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true) **Ornamentals:** Bare root, container, bedding and flowering plants, landscape, potted flowering, shade and flowering trees, woody ornamentals Lawns: Apply 9 fl. oz. of NEMASTAR™ in 3-7 gallons of water per 1,000 sq. ft. using a For control of Anguina pacifica nematode only. sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where Anguina pacifica nematode galls are formed. Do not exceed a concentration of 1.5% NEMASTAR™ in any application. Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season. Do not water lawn for at least 12 hours following application of NEMASTAR™. NEMASTAR™ is water soluble and does not require additional water application through sprinkler following application.

# Storage and Disposal

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

Pesticide Storage: To be stored in original container in a cool, well-ventilated areas inaccessible to children and pets. Store above 40°F.

**Pesticide/Container Disposal:** Nonrefillable container. Do not refill or reuse this container. **If empty:** place in trash or offer for recycling if available. **If partially filled:** call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Cann-Care Company warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

# **Optional Label Claims:**

- A Biopesticide
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals (Sublabel A only),
- Controls and/or Suppresses certain foliar diseases such as Powdery Mildew(s).
- Suppresses [Nematodes], [Powdery Mildew]
- For use also on Vegetable Crops Such as: Carrots, Peppers, Tomatoes, Broccoli, Squash, and Beets (Sublabel A only).
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home Gardens and Lawns (Sublabel B only).