

NemaGard™ 10% WP

BIONEMATICIDE

Active Ingredient: <i>Purpureocillium lilacinum</i> strain PL11*	10.0%
Other Ingredients:	90.0%
Total:	100.0%

* Contains a minimum of 7.5×10^9 viable spores/g of product

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 – 20 minutes.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible.• Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• 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.
HOT LINE 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 the poison control center at 1-800-222-1222 for emergency medical treatment information.	

Manufactured by:
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Ver. 20220404**

EPA Reg. No.: 82074-16
EPA Est. No.: 70051-MT-1
Lot No:
Net Weight: 1 Pound

This is a Specimen Label. It may not reflect the most-recent approved label for use in your state. Always refer to the label on the product packaging for approved use instructions. Please contact your Certis sales representative for more information.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing 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. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof or chemical-resistant gloves
- Protective eye wear

Mixer/loaders and applicators must wear:

- A NIOSH-approved particulate respirator with any R or P filter with NIOSH approval number prefix TC-84A; or
- NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.
- 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, 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:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.

This product may be toxic and/or pathogenic to bees and other pollinating insects exposed to direct treatment. Do not apply this product while bees or other pollinating insects are actively

visiting the treatment area. This product may be toxic and/or pathogenic to certain nontarget aquatic invertebrates. Minimize spray drift away from target area to reduce effects to bees, other pollinating insects, and aquatic invertebrates.

DIRECTIONS FOR USE

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

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

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 12 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
- Protective eyewear

EXCEPTION: If the product is soil incorporated or soil injected, 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 this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

Read the entire label before using.

PRODUCT INFORMATION

NemaGard™ 10% WP is a biological nematicide containing spores of the soil fungus, *Purpureocillium lilacinum* strain PL11, that acts by parasitizing plant-parasitic nematodes. When used as part of an Integrated Pest Management (IPM) system, NemaGard™ 10% WP reduces crop damage caused by plant-parasitic nematodes as listed below.

In order to work effectively, NemaGard™ 10% WP must come into direct contact with nematodes in the soil profile or root zone as quickly as possible after application. Measures that can help maximize contact of the spores with the target pests include (1) light pre-irrigation to moisten dry soil, (2) inclusion of a soil-penetrating adjuvant in the application, and (3) post-application irrigation to “water in” the product.

NemaGard™ 10% WP has a 0-day pre-harvest interval (PHI) and may be applied up to and on the day of harvest.

FOR CONTROL OF CROP DAMAGE CAUSED BY THE FOLLOWING PESTS:

- Awl nematodes (*Dolichodorus* species)
- Burrowing nematode (*Radopholus similis*)
- Citrus nematode (*Tylenchulus semipenetrans*)
- False root knot nematodes (*Nacobus* species)
- Lance nematodes (*Hoplolaimus* species)
- Lesion nematodes (*Pratylenchus* species)
- Reniform nematode (*Rotylenchulus reniformis*)
- Ring nematodes (*Criconemoides*, *Criconemella* and *Mesocriconema* species)
- Root-knot nematodes (*Meloidogyne* species)
- Spiral nematodes (*Helicotylenchus* and *Rotylenchus* species)
- Stem nematode (*Ditylenchus dipsaci*)
- Sting nematode (*Belonolaimus longicaudatus*)
- Stubby root nematodes (*Trichodorus* and *Paratrichodorus* species)
- Stunt nematodes (*Tylenchorhynchus* species)

MIXING DIRECTIONS:

- Determine the total volume of water needed for application.
- Fill the spray tank to approximately ¼ (one-fourth) of the desired volume with clean water and begin agitation.
- Add the specified amount of NemaGard™ 10% WP to the tank. Do not allow spray mixture to stand overnight or for prolonged periods. Finish filling the tank to the desired volume that provides maximum coverage.
- Maintain agitation throughout the mixing and application process.
- For best results, prepare the mixture immediately before use.

TANK MIXING:

- NemaGard™ 10% WP can be tank-mixed with adjuvants and other pesticides. Such mixtures are generally not deleterious to performance subject to the precautions and restrictions listed below.
- Test the physical compatibility of unfamiliar mixtures by combining small amounts of the products in the intended proportions and mix order before actual use ("jar test"). Observe the most restrictive labeling limitations and precautions of all products used in mixtures.
- Mix only with products for which such mixing is permitted by the label for that product.
- For information on which adjuvants and pesticides can be mixed with NemaGard™ 10% WP without harming the beneficial fungus it contains, contact your Technical Sales Representative or the Manufacturer.
- For preparation of a tank mix, add the other products first. However, if the other products are likely to cause foaming, add them after filling up the tank to the desired volume of water. Then add NemaGard™ 10% WP.

PRECAUTIONS/RESTRICTIONS:

- **DO NOT MIX** NemaGard™ 10% WP with chlorothalonil, mancozeb, triazole, or strobilurin fungicides.
- **DO NOT MIX** with strong acids, bases or other caustic materials. Maintain a neutral or slightly acidic pH (6-7) in the spray tank.

CROPS

MISCELLANEOUS CROPS

Coffee; hemp; turf

APPLICATION RATES AND TIMING

Miscellaneous Crops: Coffee; hemp	
Application Type/Timing	Application Rates/Instructions
Multiple Trees, Bushes	<p>Apply 1 to 2 pounds of NemaGard™ 10% WP per acre by one of the following methods:</p> <ul style="list-style-type: none">• <i>Drip (trickle) or overhead sprinkler application:</i> Emitters may be buried, on the soil surface, or elevated.• <i>Soil-directed micro-irrigation application:</i> DO NOT use mist sprayers, which produce small droplets likely to drift.• <i>Injection:</i> Apply in 30 – 40 gallons of water per acre directly into the root zone using a shank or other injection equipment.• <i>Soil-directed spray:</i> Apply in 30 – 100 gallons per acre from stem to drip line (outer reaches of the branches). <p>Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots.</p> <p>A soil wetting agent can be used to enhance penetration of spores into the root zone.</p> <p>Make 2 applications, 4 to 10 days apart, every 2 - 4 months, or during root flush, as needed.</p>

Individual Trees, Bushes	<p>Mix 4 ounces of NemaGard™ 10% WP in 5 gallons of water and apply as a drench or spray to the soil from stem to drip line (outer reaches of the branches).</p> <p>Five gallons of mix will treat up to 500 square feet of soil, or the area under approximately 5 mature trees.</p> <p>Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots.</p> <p>A soil wetting agent can be used to enhance penetration of spores into the root zone.</p> <p>Make 2 applications, 4 to 10 days apart, every 2 - 4 months, or during root flush, as needed.</p>
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Miscellaneous Crop: Turf	
Application Type/Timing	Application Rates/Instructions
Established Turf	<p>Apply 2 ounces of NemaGard™ 10% WP in a minimum of 5 gallons of water per 1,000 square feet of turf using conventional ground application equipment; follow immediately (while leaves are still wet from application) by overhead irrigation, drenching the product into the root zone with at least 0.5 inches of water. If irrigation is not available, apply the product suspension prior to or during rainfall.</p> <p>Alternatively, apply the product through overhead sprinkler irrigation at 0.25 to 2 pounds per acre.</p> <p>A soil wetting agent can be used to enhance penetration of spores into the root zone.</p> <p>Apply every 2 months.</p>

INSTRUCTIONS FOR BANDED APPLICATIONS

NemaGard™ 10% WP application may be concentrated into planting rows for both pre-planting and at-planting applications in the field. Use the table below to convert the desired application rate per acre into a banded rate per 1,000 row feet.

Find the desired application rate per acre in the left column. Read across that line to the correct row spacing indicated at the top to find the amount in dry ounces per 1,000 row feet that will provide the desired application rate per acre.

Space between rows (inches)	Rate (lb/A)							
	0.25	0.5	0.75	1.0	1.25	1.5	1.75	2.0
12	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.7
14	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.9
16	0.1	0.2	0.4	0.5	0.6	0.7	0.9	1.0
18	0.1	0.3	0.4	0.6	0.7	0.8	1.0	1.1
20	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2
22	0.2	0.3	0.5	0.7	0.8	1.0	1.2	1.3
24	0.2	0.4	0.6	0.7	0.9	1.1	1.3	1.5
26	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6
28	0.2	0.4	0.6	0.9	1.1	1.3	1.5	1.7
30	0.2	0.5	0.7	0.9	1.1	1.4	1.6	1.8
32	0.2	0.5	0.7	1.0	1.2	1.5	1.7	2.0
34	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1
36	0.3	0.6	0.8	1.1	1.4	1.7	1.9	2.2
38	0.3	0.6	0.9	1.2	1.5	1.7	2.0	2.3

40	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
42	0.3	0.6	1.0	1.3	1.6	1.9	2.2	2.6
44	0.3	0.7	1.0	1.3	1.7	2.0	2.4	2.7
46	0.4	0.7	1.1	1.4	1.8	2.1	2.5	2.8
48	0.4	0.7	1.1	1.5	1.8	2.2	2.6	2.9

CHEMIGATION INSTRUCTIONS

Precautions:

Apply this product only through pressurized irrigation systems such as drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (impact or micro-sprinklers, overhead boom, solid set, center pivot, lateral move, end tow, side (wheel)-roll, center pivot, traveler, big gun, or hand move); or through gravity flow systems such as flood, furrow, or border irrigation either before planting or to the planted crop/use site at the appropriate rates indicated above. If applied in this manner, irrigate with enough water to saturate the soil to the depth of the root zone. Addition of an approved soil wetting agent at the manufacturer's specified mix rate may enhance penetration of spores to the rooting zone. For information on which adjuvants and pesticides can be mixed with NemaGard™ 10% WP without harming the beneficial fungus it contains, contact your Technical Sales Representative or the Manufacturer. 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, 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.

Pesticide Application Using 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.

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.

4. 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.
5. 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.
6. Do not apply when wind speed favors drift beyond the area intended for treatment.
7. Apply the entire treatment during the first $\frac{1}{3}$ of the total irrigation.
8. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals.
9. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply product within 24 hours after mixing with water.

Pesticide Application Using Drip (Trickle) and Micro-Irrigation:

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Apply the entire treatment during the first $\frac{1}{3}$ of the total irrigation.
8. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals.
9. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply product within 24 hours after mixing with water.

Pesticide Application Using Sprinkler Irrigation:

1. 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.

2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Apply the entire treatment during the first $\frac{1}{3}$ of the total irrigation.
9. Mix product in the supply tank according to the application rates and timing provided in the crop tables at a concentration appropriate to cover the area to be treated. For tank mixes, please refer to "Tank Mixing" instructions.
10. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply product within 24 hours after mixing with water.

Flood or Furrow Chemigation:

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential of water source contamination from the backflow if water flow stops.
2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
 - a. 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.
 - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
 - c. 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.
 - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
 - e. 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.
 - f. 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.

3. Premix product with water in a nurse tank under agitation following the label mixing directions. For tank mixes, please refer to "Tank Mixing" instructions. Continue agitation and meter the product into the irrigation water during the entire irrigation period.
4. Apply product within 24 hours after mixing with water.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container in a cool, dry place. Avoid overheating.

Pesticide Disposal: To avoid waste, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

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

WARRANTY

Certis USA LLC warrants that to the extent consistent with applicable law, this product conforms to the description on this label and is reasonably fit for the purposes set forth on this label, when used according to directions under normal use conditions. To the extent consistent with applicable law, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to the label instructions. To the extent consistent with applicable law, the buyer assumes the risk of any such uses.