STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
BOARD OF PESTICIDES CONTROL
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AUGUSTA, MAINE 04333

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Memorandum

To: Board of Pesticides Control
From: Julia Vacchiano and Doug Van Hoewyk
Subject: Recent EPA-approved active ingredients

December 19, 2025

Background

The EPA has recently approved eight new active ingredients that are expected to help maintain food security, which is a national priority. These new active ingredients are not anticipated to present a risk to human health and the environment. This conclusion was made by the EPA's Risk Assessment Review Committee after evaluating data from the (*i*) Health Effects Division and the (*ii*) Environmental Fate and Effects Division. The eight new active ingredients are briefly discussed below, and are categorized by their chemical/biological composition.

Eight Active Ingredients Recently Approved

A. Synthetic Chemistries

Cyclobutrifluram is a nematicide (IRAC Group N-3) and a fungicide (FRAC Group 7) that inhibits an enzyme vital to metabolism and energy production. It is approved for crops, ornamentals, and trees. The molecule possesses a CF3 group and is therefore defined as a PFAS in Maine. Toxicological profiling reveals that it is "practically nontoxic" to bees, birds, and mammals *via* oral exposure.
Maine has one proposed registration, Trefinti (EPA Reg. # 100-1722), that incorporates cyclobutrifluram as a nematicide and fungicide for use on golf courses, sod farms, lawns, ornamental plants, and non-bearing fruit trees, vines, and berries.

Epyrifenacil is an herbicide (HRAC Group E) that disrupts photosynthesis. It is approved for crops. The molecule possesses a CF3 group and is therefore defined as a PFAS in Maine. In rats, toxicity assays demonstrate that it is moderately toxic *via* oral consumption and practically non-toxic *via* dermal exposure. It is practically non-toxic to bees.

Isocycloseram is an insecticide with a novel mode of action, and therefore the first active ingredient binned to IRAC Group 30. Its lethality in a broad range of insects is due to its inactivation of a receptor to which a neurotransmitter binds. The molecule possesses a CF3 group and is therefore defined as a PFAS in Maine. In rats, toxicity assays demonstrate that it is moderately toxic via oral consumption and practically non-toxic *via* dermal exposure. However, isocycloseram- and its major metabolite- are highly toxic to bees *via* both oral and contact exposure.

B. Double-stranded RNA molecules

Vadescana is an active ingredient composed of a double-stranded RNA molecule that will specifically target a vital protein in Varroa mites, which can parasitize bees. This specificity to the target organism is achieved *via* specific binding between the exogenous RNA molecule and the RNA in the host species. Like all RNA molecules, the active ingredient is rapidly degraded in the digestive track of animals and will not bioaccumulate in the environment. It is practically non-toxic to all tested animals. Vadescana is applied as a pouch into the brood cells (*i.e.* honeycomb) of bees.

Maine currently has one proposed registration, Norroa (EPA Reg. # 94614-4), that incorporates vadescana for control of varroa mites in honeybee colonies.

C. Plant-incorporated Products

The active ingredient BG25 is a type of RNA molecule that will be incorporated into the genome of potatoes that will serve to protect this crop against the fungal pathogen *Phytophthora infestans*, which causes potato blight. This novel technology will allow potatoes to produce a protein that confers resistance to the fungus. The active ingredient is practically non-toxic to animals and will not pose a risk to consumer who consume the transgenic potatoes. The transgenic potatoes will be distributed as seed.

The active ingredient MON95275 is a double-stranded RNA molecule that is genetically engineered into corn. The RNA is derived from the bacteria *Bacillus thuringiensis* and *Brevibacillus laterosporous*. The incorporated RNA contains the genetic information that encodes a protective protein against western corn rootworm. This insecticide is practically non-toxic to off-target organisms and does not present a dietary risk to consumers and livestock. It will not bioaccumulate and does not present an environmental risk.

Maine currently has three proposed plant incorporated protectant registrations that incorporate these novel active ingredients. BG25 (EPA Reg. # 8917-5) is a coat protein for potato leaves and tubers. MON 95275 (EPA Reg. # 524-666) and MON 95375 X MON 88017 (EPA Reg. # 524-667) are both PIP insecticidal corn varieties.

D. Biocides

The new active ingredients *Bacillus paralicheniformis* (strain CH0273) and *Bacillus subsilis* (strain CH4000) are bacterial spores that can be applied to various crops and soil to control for a broad range of nematodes in several genus. Similar to other biocides, these new active ingredients are not anticipated to pose a health risk or an environmental risk.

Maine currently has one proposed registration, Nimaxxa XRC (EPA Reg. # 2375-5-70506) that incorporates both *Bacillus paralicheniformis* (strain CH0273) and *Bacillus subsilis* (strain CH4000) for use as a soil-applied nematicide for a variety of food and ornamental crops.

Conclusion:

BPC staff are seeking Board input regarding the approval of these active ingredients.

EPA Registers New Pesticide Active Ingredient Cyclobutrifluram

Today, the U.S. Environmental Protection Agency (EPA) released its final registration decision for products containing the new nematicide/fungicide active ingredient cyclobutrifluram for use on turf, ornamentals, and romaine lettuce, as well as cotton and soybean seed. No human health risks of concern were identified when this pesticide is used according to the label. Additionally, with the mitigation measures EPA has put in place, the use of this pesticide will not impact endangered species. Cyclobutrifluram is also registered for use in Australia, Argentina, and Brazil, and proposed for use in Canada.

Cyclobutrifluram is expected to be a useful addition to Integrated Pest Management (IPM) programs. It can be used in rotation with other nematicides to reduce potential resistance in crops and turf. IPM provides an effective and environmentally sensitive approach to pest control that focuses on pest prevention and using pesticides only as needed. This approach can be applied in response to pest monitoring where alternative nematicide pesticides are applied prior to planting. By incorporating cyclobutrifluram, farmers gain an additional tool to manage crops and increase food production for our country.

EPA has not identified risks to human health in the risk assessment conducted in support of cyclobutrifluram registrations. EPA also conducted an ecological risk assessment and biological evaluation under the Endangered Species Act and has already completed an informal consultation with the U.S. Fish and Wildlife Service (FWS). FWS concurred with EPA's determination that the uses of cyclobutrifluram being registered are not likely to adversely affect endangered species or critical habitats, and EPA finalized the biological evaluation.

The following label language is found on the products' label to address on-field effects to non-target species:

- Applications to turf using coarse droplets and restriction to prevent exposure to flowering plants.

- Instructions to cover or collect spilled seeds.

Cyclobutrifluram is a pesticide that contains a fluorinated carbon. Visit our webpage to learn more about how EPA ensures the safety of pesticides with fluorinated carbons.

All the supporting documents related to cyclobutrifluram are available EPA-HQ-OPP-2022-0003 at www.regulations.gov.

CYCLOBUTRIFLURAM	GROUP	N-3	NEMATICIDE
	GROUP	7	FUNGICIDE

Trefinti®

Escanee QR para Español

syngenta®

NEMATICIDE **FUNGICIDE**

TYMIRIUM® technology*

Active Ingredients:

Cyclobutrifluram**:	38.5%
Other Ingredients:	61.5%
Total:	100.0%

**TYMIRIUM® technology denotes the Syngenta trademark for the active ingredient cyclobutrifluram*

**CAS No.1460292-16-3

Trefinti® is formulated as a suspension concentrate (SC) and contains 3.76 lb of cyclobutrifluram per gallon.

33 fl oz
Net Contents

PULL HERE TO OPEN

For systemic control of listed nematode pests and diseases in turfgrass (including golf courses; institutional, commercial, and residential lawns; sod farms; athletic fields; parks; and municipal grounds).

For control of listed plant pathogenic nematodes and diseases of ornamental plants and non-bearing (juvenile) fruit and nut trees, vines, and berries produced and grown in greenhouses and nurseries (including shade houses, lath houses and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries and forest nurseries, Christmas tree farms, residential and commercial landscapes, parks, and interior plantscapes.

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

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

See additional precautionary statements, first aid, and directions for use inside booklet.

EPA Reg. No. 100-1722
EPA Est. No. 072344-MO-004

SCP 1722A-L1 1125
4240169

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1.0 FIRST AID

FIRST AID	
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
SYNGENTA HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-888-8372**	

PRECAUTIONARY STATEMENTS

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards to Humans and Domestic Animals

CAUTION/PRECAUCIÓN

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

2.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils or Viton™ ≥ 14 mils

2.3 User Safety Requirements

User Safety Requirements

Follow 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.

2.4 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 170.240 (d)(4-6)), 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 breakdown.

Users must rinse extraction probes within the pesticide container prior to removal of the probes.

2.5 User Safety Recommendations

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.

2.6 Environmental Hazards

This pesticide is toxic to oysters. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites.
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 Residential Turf:

This product is not acutely toxic to pollinators; however, chronic exposure to the product through pollen and nectar may cause risk to pollinators. Protect pollinators by following label directions intended to limit exposure.

2.6.1 SURFACE WATER ADVISORY

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of cyclobutrifluram from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

2.6.2 GROUNDWATER ADVISORY

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

DIRECTIONS FOR USE

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

Read all label directions before use. All applications must be made according to the use directions that follow or exemptions under FIFRA (Supplemental Labels, Special Local Need Registration, FIFRA Section 18 exemptions).

For any requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

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.

Notify state and/or federal authorities and Syngenta immediately if you observe any adverse effects due to use of this product.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY, POOR NEMATODE OR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

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 (sod farms included), 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, restricted-entry interval, and notification to workers (as applicable).

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Exception: If product is drenched 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. No REI is required following a soil-incorporated or a soil-drench application.

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
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils or Viton ≥ 14 mils
- Shoes plus socks

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, sod farms, forests, nurseries, or greenhouses.

Applications to golf courses, residential, industrial, and commercial lawns and athletic fields are not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter the treated area until sprays have dried.

3.0 PRODUCT INFORMATION

Trefinti is formulated as a suspension concentrate having both nematicidal and fungicidal activity. Trefinti controls nematodes by either contact or ingestion. Trefinti is absorbed by both plant foliage and roots. It is a systemic product that is translocated upward into the plant from the roots when applied to the soil to control listed nematodes and diseases. To be effective, apply Trefinti where the root system of the target plant can readily absorb the active ingredient.

3.1 Use Sites

Trefinti may be applied to control the listed nematode pests and diseases that infest turfgrass, ornamental plants, and non-bearing (juvenile) fruit and nut trees, vines, and berries listed on the label. Trefinti may be applied to the following:

- Ornamental plants produced in greenhouses and nurseries (including shade houses, lath houses and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries and forest nurseries and Christmas tree farms.
- Outdoor landscape ornamentals in or around residential, commercial, recreational, and institutional properties and interior plantscapes.
- Turfgrass grown for sod.
- Turfgrasses grown for aesthetic or recreational purposes or climatic modification around residential dwellings, business and office complexes, shopping complexes, multi-family residential complexes, institutional buildings, airports, cemeteries, wildlife plantings, parks, playgrounds, schools, day-care facilities, golf courses, athletic fields, and other landscaped areas.

3.2 Plant Safety

Certain plant species or cultivars may be sensitive to the final application solution. If local experience is not available, treat a small number of plants and observe for phytotoxicity for at least one week before treating the entire planting to ensure plant safety.

3.3 Integrated Pest Management (IPM)

Trefinti should be integrated into an overall disease and pest management strategy whenever the use of a nematicide or fungicide is required. Cultural practices known to reduce pest development should be followed. For nematodes this includes, but is not limited to cultural practices such as, solarization and use of nematode resistant or tolerant plant varieties. For diseases this should include selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, and proper timing and placement of irrigation. Consult your local agricultural authorities for additional IPM strategies established for your area. Trefinti may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

3.4 Resistance Management Recommendations

For resistance management, Trefinti contains a Group N-3 nematicide. Any nematode population may contain individuals naturally resistant to Trefinti and other Group N-3 nematicides. The resistant individuals may dominate the nematode population if this group of nematicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay nematicide resistance, take the following steps:

- Rotate the use of Trefinti or other Group N-3 nematicides with different groups that control the same species.
- Use tank mixtures with nematicides from a different group that is effective on the target species when such use is permitted.
- Nematicide use should be based on an integrated pest management program that includes scouting, historical information related to pesticide use, and considers host plant resistance, impact of environmental conditions on nematode populations, nematode thresholds, as well as cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or Syngenta representative for any additional pesticide resistance management and/or IPM recommendations for the specific site and nematode problems in your area.

For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

For plant pathogen resistance management, Trefinti contains a Group 7 fungicide. Any fungal population may contain individuals naturally resistant to Trefinti and other Group 7 fungicides. A gradual or total loss of disease control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay fungicide resistance, take the following steps:

- Rotate the use of Trefinti or other Group 7 fungicides within a growing season with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pathogen when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological, and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or Syngenta representative for any additional pesticide resistance management and/or IPM recommendations for the specific site and pathogen problems in your area.

For further information or to report suspected resistance contact Syngenta Crop Protection at 1-866-796-4368. You can also contact your university extension specialist to report resistance.

Syngenta encourages responsible product stewardship to ensure effective long-term control of the nematode species and diseases on this label.

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

Apply Trefinti at rates specified in the use tables (**Sections 6.0 and 7.0**) by ground [or irrigation] equipment only. Where permitted, applications can be made via chemigation as specified. Refer to **Section 4.5** for details of application by chemigation.

Applications to soil can be made by container drenches and broadcast, banded, and directed sprays using application equipment typically used for ground applications, such as, but not limited to:

- Hydraulic boom sprayers
- Mechanically pressurized hand-guns
- Hand-pressurized hand-wand sprayers
- Backpack sprayers
- Irrigation for soil applications (Ornamentals only)

4.2 Application Equipment

4.2.1 CLEANING OF APPLICATION EQUIPMENT

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all application equipment to reduce the risk of forming hardened deposits that can become difficult to remove. Drain application equipment. Thoroughly rinse application equipment and flush hoses, boom, and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean equipment near wells, water sources, or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

4.2.2 CALIBRATION OF APPLICATION EQUIPMENT

Proper maintenance and calibration of spraying equipment are essential for optimal nematode and disease control. If you have questions about calibration, contact a State Extension Service specialist, the equipment manufacturer, or other experts.

4.2.3 NOZZLES

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line.
- Check nozzle manufacturer's recommendations.

4.3 Application Volume and Spray Coverage

Trefinti must be diluted with water before application. Apply in a volume of water that provides good coverage of the foliage or soil, but does not result in run-off or leaching, as specified in the Directions for Use in **Sections 6.0 and 7.0.**

4.4 Mixing Directions

4.4.1 TREFINTI ALONE

1. Fill sprayer tank 1/4 to 1/2 full of water.
2. Always shake container well before use.
3. Add the required amount of Trefinti directly to the sprayer tank.
4. Mix thoroughly to fully disperse and continue agitation to keep the product in suspension. Use mechanical or hydraulic agitation. Do not use air agitation.
5. It is recommended that the mixture is not stored in the spray or mix tank overnight.

4.4.2 TANK-MIX PRECAUTIONS

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

Confirm the safety of all Trefinti tank mixes to the target plants to ensure against plant injury.

4.4.3 TANK-MIX COMPATIBILITY

The physical compatibility of Trefinti will vary with different sources of pesticide products and local cultural practices. To ensure the physical compatibility of the mixture, prepare a mix on a small scale (such as a pint or quart jar) using the proper proportions of pesticides and water.

4.4.4 TREFINTI IN TANK MIXTURES

Always shake each product container well before use. Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after the addition of each product.

1. Water-soluble bags
2. Water-dispersible granules
3. Wettable powders

4. Trefinti and other water-based suspension concentrates
5. Water-soluble concentrates
6. Emulsifiable concentrates
7. Adjuvants, surfactants, oils
8. Soluble fertilizers
9. Drift retardants

4.4.5 SPRAY ADDITIVES

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Council of Producers and Distributors of Agrotechnology (CPDA) adjuvant certification is recommended.

When making applications to turf, a soil-wetting agent may be used.

4.5 Application through Irrigation Systems (Chemigation)

4.5.1 Application Directions for Irrigation Systems

- Use only on plants for which chemigation is specified on this label.
- Apply this product through [overhead], [hand-held], [micro-irrigation systems], [motorized calibrated irrigation systems], or other methods which apply the product directly to the soil or growing media surface either alone or with other pesticides that are registered for application through irrigation systems. Dilution ratios are typically 1:100 to 1:200.
- **DO NOT** apply this product through any other type of irrigation system.
- Plant injury and/or poor disease control, or illegal pesticide residues 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.
- Use only with drive systems which provide uniform water distribution.
- Chemical tank and injector system should be thoroughly cleaned and flushed with clean water prior to use.
- **DO NOT** apply when winds are greater than 10 mph to avoid drift or wind skips.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- Thorough coverage of foliage is required for good control.
- Good agitation should be maintained in the tank during the entire application period.
- Trefinti has not been sufficiently tested via irrigation systems to determine product efficacy.

4.5.2 OPERATING INSTRUCTIONS FOR CHEMIGATION

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 towards 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.

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4.5.2 OPERATING INSTRUCTIONS FOR CHEMIGATION *(continued)*

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.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

4.5.3 SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. 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.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back-flow preventer, 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
4. 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.
5. 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.
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.

5.0 USE RESTRICTIONS

See **Sections 6.0** and **7.0** for use-specific restrictions.

5.1.1 FOR ALL USES:

Applications must use a coarse or larger droplet size.

- **DO NOT** use for commercial grass seed production.
- **DO NOT** apply this product aerially.
- **DO NOT** apply by chemigation to turf.
- **DO NOT** apply to fruit trees, nut trees, or vines that will bear harvestable fruit within 12 months.
- **DO NOT** apply Trefinti when lawn weeds are flowering.
- **DO NOT** allow Trefinti to drift to plants that are flowering.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

5.1.2 FOR RESIDENTIAL TURF:

- **DO NOT** apply Trefinti when lawn weeds are flowering.
- **DO NOT** allow Trefinti to drift to plants that are flowering.

6.0 GOLF COURSES, SOD FARMS AND LAWNS

Apply Trefinti to control listed pests of turf grown on golf courses, sod farms, lawns and turf areas around residential, institutional, public, commercial, and industrial buildings, parks, recreational areas, and athletic fields.

See **Section 10.1** for Tank-Mix Partner Table and Other Referenced Products.

6.1 Broadcast Applications for Nematode Control

Turfgrass (including all cultivars, varieties and/or hybrids)			
Turfgrass grown on golf courses, sod farms, athletic fields, lawns on residential or commercial properties, and other recreational areas			
Target Pests	**Use Rate**	**Application Interval**	**Use Directions**
Turf-Parasitic Nematodes (including sting, lance, root-knot, ring, spiral, dagger, and sheath)	3.8 – 7.6 fl oz per acre* 0.087 – 0.174 fl oz per 1,000 sq ft	Apply on a 14 – 28-day schedule.	Apply in 1-5 gallons of water per 1,000 square feet of turf. Irrigate with 0.1 to 0.5 inches of water within 24 hours of application. Irrigate to the depth of the turf root zone to be protected. Tank-mixing Trefinti with a soil wetting agent at prescribed use rates may improve infiltration of Trefinti into the root zone and improve performance. Consider applying Trefinti with a soil wetting agent if a soil wetting agent has not recently been applied. Combination treatments of Trefinti and a fungicide, such as Briskway®, Heritage® Action™, Heritage, or Heritage TL, are recommended to reduce fungal infections following nematode feeding. Briskway, Heritage Action, Heritage, or Heritage TL should be watered in with Trefinti.
Anguina stem gall nematode	3.8 – 7.6 fl oz per acre* 0.87 – 0.174 fl oz per 1,000 sq ft	Apply on a 14 – 28-day schedule.	Apply in 1-5 gallons of water per 1,000 square feet of turf. Irrigate within 24 hours of application. Irrigate with 0.125 inches of water. Irrigate to the depth of the turf root zone to be protected. Combination treatments of Trefinti and a fungicide, such as Briskway, Heritage Action, Heritage, or Heritage TL, are recommended to reduce fungal infections following nematode feeding. Briskway, Heritage Action, Heritage, or Heritage TL should be watered in with Trefinti.
*3.8 fl oz product is equivalent to 0.11 lb ai cyclobutrifluram. 7.6 fl oz product is equivalent to 0.22 lb ai cyclobutrifluram.			

continued…

6.1 Broadcast Applications for Nematode Control *(continued)*

USE RESTRICTIONS
1) Refer to **Section 5.0** for additional product use restrictions. 2) **Maximum Single Application Rate:** • **DO NOT** apply more than 7.6 fl oz of Trefinti per acre (equivalent to 0.22 lb ai cyclobutrifluram/A). 3) **Minimum Application Interval:** 14 days 4) **Maximum Annual Application Rate:** • **DO NOT** apply more than 15.2 fl oz of Trefinti per acre per calendar year (0.45 lb ai per acre per calendar year of cyclobutrifluram-containing products).

6.2 Curative Spot Treatments for Nematode Control on Golf Course Greens, Tees, and Fairways

Curative spot treatments are prescribed for controlling nematodes over smaller areas where outbreaks are severe or expected to become severe. To make a curative spot treatment, apply 3.8 fl oz of Trefinti per 10,000 sq ft and repeat up to 4 times a year at the prescribed intervals or apply 7.6 fl oz per 10,000 sq ft and repeat up to 2 times a year at the prescribed intervals. For curative spot treatments, treat no more than 10,000 sq ft per acre per year.

6.3 Broadcast Applications for Disease Control

Turfgrass grown on golf courses, sod farms, athletic fields, lawns on residential or commercial properties, and other recreational areas			
Target Pests	**Product Use Rate**	**Application Interval**	**Use Directions**
Spring Dead Spot (*Ophiosphaerella korrae*) or (*Ophiosphaerella narmari*) or (*Ophiosphaerella herpotricha*)	3.8 – 7.6 fl oz per acre* 0.087 – 0.174 fl oz per 1,000 sq ft	Apply on a 14 – 28-day schedule.	Apply preventatively when conditions are favorable for disease development. Watering in with 0.125 to 0.250 inches of irrigation directly after application is recommended.
Mini-Ring or Leaf & Sheath Spot** (*Waitea zeae*)			
Take-all Root Rot** (*Gaeumannomyces* spp.)			

Target Pests	Product Use Rate	Application Interval	Use Directions
Fairy Ring (*Lycoperdon* spp., *Arachnion* spp., *Bovista* spp., *Vascellum* spp., and *Agrocybe pediades*)	7.6 fl oz per acre* 0.174 fl oz per 1,000 sq ft	Apply on a 14 – 28-day schedule.	For preventative control of fairy ring, apply early in the spring prior to the development of symptoms. Apply in 2-5 gallons water per 1,000 sq ft. Irrigate into the thatch prior to the spray drying. Repeat the application within 14 to 28 days after first application. For curative control, apply as soon as possible after fairy ring symptoms develop. Apply in 2 – 5 gallons water per 1,000 sq. ft. Irrigate lightly after application. Add the recommended rate of a wetting agent to the final spray. Fairy ring symptoms may take 2 to 3 weeks to disappear following application. If the area is hydrophobic, use wetting agents and irrigate prior to application(s) of Trefinti. Repeat application on a 14 to 28-day interval.

*3.8 fl oz product is equivalent to 0.11 lb ai cyclobutrifluram.
7.6 fl oz product is equivalent to 0.22 lb ai cyclobutrifluram.
**Not registered for use by California

USE RESTRICTIONS

1) Refer to **Section 5.0** for additional product use restrictions.
2) **Maximum Single Application Rate:**
   - **DO NOT** apply more than 7.6 fl oz of Trefinti per acre (equivalent to 0.22 lb ai cyclobutrifluram/A).
3) **Minimum Application Interval:** 14 days
4) **Maximum Annual Application Rate:**
   - **DO NOT** apply more than 15.2 fl oz of Trefinti per acre per calendar year (0.45 lb ai per acre per calendar year of cyclobutrifluram-containing products).

7.0 ORNAMENTAL PLANTS AND NON-BEARING (JUVENILE) FRUIT AND NUT TREES, VINES, AND BERRIES

- Apply Trefinti as a container drench, broadcast, or banded treatment to soil/growing substrate. See **Section 4.0** for methods of application and **Tables 7.1.1 to 7.1.2** for specific Directions for Use.
- For maximum residual control, apply at highest listed application rate.
- For broadcast or banded applications, apply in a volume of water sufficient to reach the root zone where soil pests are feeding and for systemic uptake.
- Apply Trefinti to moist soil to achieve even distribution throughout the soil profile or water in the product after application.
- Use properly calibrated application equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift.

7.1.1 CONTAINER AND SOIL DRENCH APPLICATIONS

For application to field and container grown plants produced in greenhouses and nurseries (including shade houses, lath houses, and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries and forest nurseries, Christmas tree farms, residential and commercial landscapes, parks, and interior plantscapes.

Breeding crops	Foliage plants	Perennial plants
Bulb, corm, and tuber crops (such as tulips, calla lilies)	Ground covers	Pot and bedding plants
Evergreens, including conifers	Fruit and Nut Trees - Non-bearing (juvenile)*	Shrubs
Flowering plants	Ornamental grasses	Succulents
Flowers grown for seed production	Ornamental trees	Vines and Berries - Non-bearing (juvenile)*
	Palms	

Target Pests	Product Dilution	Application Timing	Use Directions
Root Knot Nematode	3.8 – 6.4 fl oz** per 100 gallons	Apply preventatively or immediately after plant damage is observed.	Apply via chemigation or ground equipment. Mix Trefinti with the required amount of water and apply as a container drench at 1 – 2 pints of solution per square foot of growing substrate surface.
Foliar Nematode (suppression)	3.8 – 6.4 fl oz** per 100 gallons	Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	

Target Pests	Product Dilution	Application Timing	Use Directions
Fusarium spp.*** *Alternaria* spp.*** *Sclerotinia sclerotiorum**** *Cercospora* spp.*** Powdery Mildew (*Golovinomyces, Erysiphe, Podosphaera*)*** *Corynespora* spp.*** Rose Black Spot (*Diplocardon rosae*)*** Botrytis (Foliar supression only)*** *Septoria* spp.***	3.8 – 6.4 fl oz** per 100 gallons	Apply preventatively prior to disease symptoms	Apply via chemigation or ground equipment. Mix Trefinti with the required amount of water and apply as a container drench at 1 – 2 pints of solution per square foot of growing substrate surface.

*Trefinti may be applied to juvenile (or non-bearing) fruit and nut trees, vines, and berry plants in commercial greenhouse and nursery production grown for retail sale. **DO NOT** make applications to plants that will bear harvestable fruit within 12 months.

**3.8 fl oz product is equivalent to 0.11 lb ai cyclobutrifluram.

6.4 fl oz product is equivalent to 0.187 lb ai cyclobutrifluram.

USE RESTRICTIONS

1) Refer to **Section 5.0** for additional product use restrictions.
2) **Maximum Single Application Rate:**
   - **DO NOT** apply more than 6.4 fl oz of Trefinti per acre (0.73 fl oz of Trefinti per 5000 sq ft) or 0.187 lb ai per acre per crop from any cyclobutrifluram-containing products.
3) **Maximum Annual Application Rate:**
   - For ornamental production in structures such as greenhouses, shade houses, and lath houses and outdoor containerized production, **DO NOT** apply more than 12.8 fl oz of Trefinti per acre (1.47 fl oz of Trefinti per 5000 sq ft) per crop or 0.375 lb ai per acre per crop from any cyclobutrifluram-containing products.
   - For outdoor, field-grown production, **DO NOT** apply more than 12.8 fl oz of Trefinti per acre (or 0.375 lb ai per acre from any cyclobutrifluram-containing products) per calendar year. **DO NOT** apply more than 2 applications of Trefinti at the highest labeled rate (6.4 fl oz per acre) per calendar year.
4) **DO NOT** apply more than once every 14 days.
5) **DO NOT** apply to fruit and nut trees, vines, or berry plants that will bear harvestable fruit within 12 months.
6) *** Not registered for use by California

7.1.2 SOIL APPLICATIONS (BROADCAST OR CHEMIGATION)

For broadcast soil surface application to field and container grown plants produced in greenhouses and nurseries (including shade houses, lath houses, and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries and forest nurseries, Christmas tree farms, residential and commercial landscapes, parks, and interior plantscapes.

Breeding crops	Foliage plants	Perennial plants
Bulb, corm, and tuber crops (such as tulips, calla lilies)	Ground covers	Pot and bedding plants
Evergreens, including conifers	Fruit and Nut Trees - Non-bearing (juvenile)*	Shrubs
Flowering plants	Ornamental grasses	Succulents
Flowers grown for seed production	Ornamental trees	Vines and Berries - Non-bearing (juvenile)*
	Palms	

Target Pests	Product Rate	Application Timing	Use Directions
Root Knot Nematode Foliar Nematode (suppression)	3.8 – 6.4 fl oz per acre**	Apply preventatively or immediately after plant damage is observed. Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Apply via chemigation or ground equipment. Mix Trefinti with the required amount of water and apply as a broadcast or banded application.

*Trefinti may be applied to juvenile (or non-bearing) fruit and nut trees, vines, and berry plants in commercial greenhouse and nursery production grown for retail sale. **DO NOT** make applications to plants that will bear harvestable fruit within 12 months.
**3.8 fl oz product is equivalent to 0.11 lb ai cyclobutrifluram.
6.4 fl oz product is equivalent to 0.187 lb ai cyclobutrifluram.

USE RESTRICTIONS

1) Refer to **Section 5.0** for additional product use restrictions.
2) **Maximum Single Application Rate:**
   - **DO NOT** apply more than 6.4 fl oz of Trefinti per acre (0.73 fl oz of Trefinti per 5000 sq ft).
3) **Maximum Annual Application Rate:**
   - For ornamental production in structures such as greenhouses, shade houses, and lath houses and outdoor containerized production, **DO NOT** apply more than 12.8 fl oz of Trefinti per acre (1.47 fl oz of Trefinti per 5000 sq ft) per crop or 0.375 lb ai per acre per crop from any cyclobutrifluram-containing products.
   - For outdoor, field-grown production, **DO NOT** apply more than 12.8 fl oz of Trefinti per acre (or 0.375 lb ai per acre from any cyclobutrifluram-containing products) per calendar year. **DO NOT** apply more than 2 applications of Trefinti at the highest labeled rate (6.4 fl oz per acre) per calendar year.
4) **DO NOT** apply more than once every 14 days.

8.0 STORAGE AND DISPOSAL

STORAGE AND DISPOSAL

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

Pesticide Storage

Keep this product in its tightly closed original container, when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

Pesticide Disposal

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

Container Handling (less than or equal to 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling (greater than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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, or by other procedures approved by state and local authorities.

Container Handling (greater than 5 gallons)

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

9.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

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

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

10.0 APPENDIX

10.1 Tank-Mix Partner Table and Other Referenced Products

Product Name	EPA Registration Number	Active Ingredient(s)
Briskway	100-1433	azoxystrobin/difenoconazole
Heritage	100-1093	azoxystrobin
Heritage Action	100-1550	azoxystrobin/acibenzolar-S-methyl
Heritage TL	100-1191	azoxystrobin

For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-866-796-4368.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1722A-L1 1125
4240169

CYCLOBUTRIFLURAM	GROUP	N-3	NEMATICIDE
	GROUP	7	FUNGICIDE

Trefinti®

syngenta®

NEMATICIDE FUNGICIDE

TYMIRIUM® technology*

Active Ingredients:

Cyclobutrifluram**:	38.5%
Other Ingredients:	61.5%
Total:	100.0%

**TYMIRIUM® technology denotes the Syngenta trademark for the active ingredient cyclobutrifluram*

**CAS No.1460292-16-3

Trefinti® is formulated as a suspension concentrate (SC) and contains 3.76 lb of cyclobutrifluram per gallon.

33 fl oz
Net Contents

(01) 0 07 02941 01310 0

Trefinti®

KEEP OUT OF REACH OF CHILDREN
CAUTION / PRECAUCIÓN

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

See additional precautionary statements, first aid, and directions for use inside booklet.

EPA Reg. No. 100-1722
EPA Est. No. 072344-MO-004

For non-emergency
(e.g., current product information), call
Syngenta Crop Protection at 1-866-796-4368.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1722A-L1 1125 4240169

AGRICULTURAL USE REQUIREMENTS
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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). Refer to supplemental labeling under "Non-Agricultural Use Requirements" in the Directions for Use section for information about this standard.

FIRST AID

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SYNGENTA HOTLINE NUMBER: For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call **1-800-888-8372**.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION/PRECAUCIÓN

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

Environmental Hazards

This pesticide is toxic to oysters. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites.

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 Residential Turf:
This product is not acutely toxic to pollinators; however, chronic exposure to the product through pollen and nectar may cause risk to pollinators. Protect pollinators by following label directions intended to limit exposure.

Surface Water Advisory
This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of cyclobutrifluram from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Groundwater Advisory
This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

STORAGE AND DISPOSAL

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

Pesticide Storage
Keep this product in its tightly closed original container, when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

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

Container Handling
Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank 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 and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

syngenta®

EPA Announces Proposed Registration of Herbicide Epyrifenacil

Today, the U.S. Environmental Protection Agency (EPA) released for public comment its proposed registration decision for two products containing new active ingredient epyrifenacil for use as a pre-plant burndown herbicide for agricultural use in canola, field corn, soybean, wheat, and fallow land (corn, soybean, and wheat), and for non-agricultural use on non-crop areas such as areas around industrial or farm buildings.

The epyrifenacil registrations are supported by human health and ecological risk assessments as well as a biological evaluation under the Endangered Species Act (ESA). No human health risks of concern were identified when epyrifenacil is used according to the label. EPA preliminarily concluded that the proposed use of epyrifenacil products may affect and are likely to adversely affect multiple listed species and designated critical habitats but predicted that there was no jeopardy and adverse modification for any species or critical habitats.

EPA is proposing the following mitigation measures to address on- and off-field effects to non-target species, including listed species:

- Implementing spray drift buffers for agricultural uses.
- Requiring runoff/erosion mitigation points to reduce aquatic exposure risks.
- Restricting application during rain and when soils are saturated or above capacity.
- Instructing users to access and follow any applicable endangered species bulletin from the "Bulletins Live Two" web-based system for all additional directions and restrictions.

The proposed final labeling, which has been revised to include additional mitigation measures to address ecological risks, contains all the necessary requirements and restrictions and complies with the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Epyrifenacil is a pesticide that contains a fluorinated carbon. Visit our webpage to learn more about how EPA ensures the safety of pesticides with single fluorinated carbons.

Next Steps

After considering public comments on the proposed registration decision, the draft risk assessments and the draft effects determinations, EPA will decide whether the registration action meets the standard for registration under FIFRA. If EPA determines that the registration action can be granted, EPA will finalize the biological evaluation. If a final biological evaluation finds that epyrifenacil may affect any listed species or critical habitats, then EPA will initiate ESA consultation and share its findings with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service (collectively referred to as the Services), as appropriate.

During formal consultation, the Services use the information in EPA's final biological evaluation to inform their biological opinions. While EPA has made predictions about the likelihood of jeopardy and adverse modification as part of its biological evaluation, the Services are responsible for making the final jeopardy/adverse modification findings and have the sole authority to do so. If the Services determine in their final biological opinions that additional mitigations are necessary to address any jeopardy or adverse modification determination or to address any incidental take, then EPA will work with the registrant to ensure that any necessary registration or labeling changes are made.

To read more about the proposed registration of epyrifenacil and to comment, see docket ID EPA-HQ-OPP-2022-0354 at www.regulations.gov. The public comment period will be open for 30 days, closing on Dec. 3, 2025.

EPA Announces Final Registration of New Pesticide Isocycloseram

Today, the U.S. Environmental Protection Agency (EPA) registered ten products containing the new active ingredient isocycloseram, a broad-spectrum contact insecticide proposed for use on agricultural crops, turf and ornamentals, as well as indoor and outdoor uses for commercial, industrial and domestic sites. This new active ingredient will give farmers an additional tool to help manage crops and grow more food for our country. Some of the target pests for these products can cause significant crop damage and financial loss to growers, such as the tarnished plant bug in cotton, Colorado potato beetle in potatoes and diamondback moth in *Brassica* vegetables. Isocycloseram will also give citrus farmers an important new product to help control the pest Asian citrus psyllid, the primary vector of devastating citrus greening disease. Additionally, this pesticide has important benefits for managing indoor pests, including cockroaches, termites and bed bugs. No human health risks of concern were identified when isocycloseram is used according to the registered labels.

The isocycloseram registrations are supported by human health and ecological risk assessments as well as a biological evaluation under the Endangered Species Act (ESA). EPA did not identify risks of concern for aquatic and terrestrial plants. EPA preliminarily concluded that the proposed use of isocycloseram may affect insect pollinators from spray application and aquatic invertebrates from spray, seed and soil treatments. It can also cause chronic risks to birds and mammals ingesting treated rapeseed.

The following mitigation measures are found on the products' labeling to address on- and off-field effects to non-target species, including listed species:

- A link to the Bulletins Live! Two web system, with instructions to follow any applicable endangered species bulletins and Pesticide Use Limitation Areas (PULAs) on the site;
- A link to EPA's mitigation menu where users can choose mitigation options to meet use-dependent point thresholds;
- Restrictions for application during rain or when soils are saturated;
- Prohibition of aerial application on all uses except corn, cotton, potato and soybean, with additional geographical restrictions included in the label for aerial application on corn and soybean;
- Spray drift buffer requirement for aerial, ground and airblast applications;
- Prohibition on applications three days before and during bloom for orchard crops;

- Prohibition on applications during hours of the day when bees are most active for indeterminate blooming crops;
- List of best management practices to help reduce the risk to pollinators and to promote the health and habitat of ground-nesting bees;
- Advisory requirement to protect pollinators from isocycloseram-treated seed coating dust; and
- Instructions for managing spilled or exposed treated seeds.

With these mitigation measures and Bulletins with associated PULAs for seven listed species in place, EPA's final biological evaluation predicts that the use of isocycloseram will not result in a likelihood of future jeopardy for the survival of any listed species, or a likelihood of adverse modification for any designated critical habitat.

EPA has initiated ESA consultation and shared its findings with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (collectively referred to as the Services). During formal consultation, the Services use the information in EPA's final biological evaluation to inform their biological opinions. While EPA has made predictions about the potential likelihood of future jeopardy/adverse modification as part of its biological evaluation, the Services are responsible for making the actual final jeopardy/adverse modification findings and have the sole authority to do so. If the Services determine in their final biological opinions that additional mitigations are necessary to address any jeopardy/adverse modification determination or to address any unintentional harm known as incidental take, then EPA will work with the registrant to ensure that any necessary registration or labeling changes are made.

Isocycloseram is a pesticide that contains a fluorinated carbon. Visit our webpage to learn more about how EPA ensures the safety of pesticides with a fluorinated carbon.

All the supporting documents related to isocycloseram are available in docket EPA-HQ-OPP-2021-0641 at www.regulations.gov.

Plant-Incorporated Protectant (PIP)

BG25 Potato virus Y (PVY) protection

OECD Unique Identifier: SPS-ØBG25-7

Active Ingredient:	**% by weight***
PVY coat protein-derived siRNA in leaf	4.2×10^{-6}
PVY coat protein-derived siRNA in tuber	4.2×10^{-6}

*Percent is on a fresh weight basis.

Inert Ingredient:	**% by weight***
Modified Potato Acetolactate Synthase (StmALS) in leaf	7.8×10^{-5} - 6.01×10^{-4}
Modified Potato Acetolactate Synthase (StmALS) in tuber	2.0×10^{-5} - 5.7×10^{-5}

*Percent is on a fresh weight basis.

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA REGISTRATION NUMBER: 8917-5

EPA ESTABLISHMENT NUMBER: 008917-ID-035

J.R. Simplot Company
5369 West Irving St.
Boise, ID 83706

DIRECTIONS FOR USE

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

Brigade potatoes were transformed to express small interfering RNA, which block PVY infection.

Under this registration, Brigade potatoes may be used for conventional breeding with non-PIP potatoes—not registered by EPA—to develop new potato varieties with disease protection traits.

This PIP may be combined through conventional breeding with other registered PIPs, also approved for use in combination, to produce new potato varieties with combined disease protection traits.

INTEGRATED PEST MANAGEMENT

Management practices recommended for Brigade include:

- use of certified seed;
- crop rotation;
- sanitization of seed-cutting equipment;
- monitoring disease alerts;
- scouting for disease;
- vine killing prior to harvest if the crop will be stored; and
- destruction of cull piles.

See “PVY Management Guide for Brigade Potatoes” for instructions on reporting unexpected damage.

Brigade was derived from Russet Burbank and is a protected potato variety developed by the J.R. Simplot Company.

Plant-Incorporated Protectant Label

MON 95275

(OECD Unique Identifier: MON-95275-7)

Active Ingredients:

Brevibacillus laterosporus Mpp75Aa1.1 protein and the genetic material (vector PV-ZMIR525664) necessary for its production in MON 95275 (OECD Unique Identifier MON-95275-7).....≤0.0025%*

Bacillus thuringiensis Vpb4Da2 protein and the genetic material (vector PV-ZMIR525664) necessary for its production in MON 95275 (OECD Unique Identifier MON-95275-7).....≤0.00048%*

dsRNA transcript comprising a DvSnf7.1 inverted repeat sequence derived from *Diabrotica virgifera*, and the genetic material (vector PV-ZMIR525664) necessary for its production in corn event MON 95275 (OECD Unique Identifier MON-95275-7) .....≤0.0000042%*

*Percentage (wt/wt) on a dry weight basis for whole plant (forage) of MON 95275 plants

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Registration No. 524-666

EPA Establishment No. 524-MO-002

Bayer CropScience LP
800 North Lindbergh Blvd.
St. Louis, MO 63167

NET CONTENTS_____

M-841873-01-1

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product must be used as specified in the terms and conditions of the registration.

This plant-incorporated protectant (PIP) may be combined through conventional breeding with other registered plant-incorporated protectants that are similarly approved for use in combination, through conventional breeding, with other registered plant-incorporated protectants.

Commercial plantings of this product for the purposes of grain production and controlling insect pests are prohibited. This product may be used for breeding operations, for example agronomic testing, increasing inbred seed stocks, and producing hybrid seed, and be planted on 20,000 acres per county and a total of 250,000 acres or less in total per year in the U.S. per plant incorporated protectant (PIP) active ingredient per registrant per year.

Harvested seed are not allowed for sale as commercial seed in the U.S. under the current conditions of this registration but any harvested material containing this product may be handled in accordance with legal and regulatory requirements (*e.g.*, non-treated seed can be sold as grain).

There are no refuge requirements for planting of this product.

Plant-Incorporated Protectant Label

MON 95275 × MON 88017

(OECD Unique Identifier: MON-95275-7 × MON-88Ø17-3)

Active Ingredients:

Brevibacillus laterosporus Mpp75Aa1.1 protein and the genetic material (vector PV-ZMIR525664) necessary for its production in MON 95275 × MON 88017 (OECD Unique Identifier MON-95275-7 × MON-88Ø17-3) .....:S0.0025%*

Bacillus thuringiensis Vpb4Da2 protein and the genetic material (vector PV-ZMIR525664) necessary for its production in MON 95275 × MON 88017 (OECD Unique Identifier MON-95275-7 × MON-88Ø17-3) .....:S0.00048%*

dsRNA transcript comprising a DvSnf7 inverted repeat sequence derived from *Diabrotica virgifera*, and the genetic material (vector PV-ZMIR525664) necessary for its production in MON 95275 × MON 88017 (OECD Unique Identifier MON-95275-7 × MON-88Ø17-3) .....:S0.0000042%*

Bacillus thuringiensis Cry3Bb1 protein and the genetic material necessary (Vector PV-ZMIR39) for its production in MON 95275 × MON 88017 (OECD Unique Identifier MON-95275-7 × MON-88Ø17-3) .....:S0.013%*

Other Ingredients:

CP4 EPSPS protein (5-enolpyruvylshikimate-3-phosphate synthase) and the genetic material (Vector PV-ZMIR39) necessary for its production in MON 95275 × MON 88017 (OECD Unique Identifier MON-95275-7 × MON-88Ø17-3) .....:S0.0069%*

*Percentage (wt/wt) on a dry weight basis for whole plant (forage).

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Registration No. 524-667

EPA Establishment No. 524-MO-002

Bayer CropScience LP
800 North Lindbergh Blvd.
St. Louis, MO 63167

NET CONTENTS_____

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product must be used as specified in the terms and conditions of the registration.

This plant-incorporated protectant (PIP) may be combined through conventional breeding with other registered plant-incorporated protectants that are similarly approved for use in combination, through conventional breeding, with other registered plant-incorporated protectants.

Commercial plantings of this product for the purposes of grain production and controlling insect pests are prohibited. This product may be used for breeding operations, for example agronomic testing, increasing inbred seed stocks, and producing hybrid seed, and be planted on 20,000 acres per county and a total of 250,000 acres or less in total per year in the U.S. per plant incorporated protectant (PIP) active ingredient per registrant per year.

Harvested seed are not allowed for sale as commercial seed in the U.S. under the current conditions of this registration but any harvested material containing this product may be handled in accordance with legal and regulatory requirements (*e.g.*, non-treated seed can be sold as grain).

There are no refuge requirements for planting of this product.

NIMAXXA™ XRC

Suspension Concentrate Soil Applied Use

A suspension concentrate biological nematicide for soil-applied use for protection against labeled soil nematodes.

Active Ingredients:	**By Wt.**
Bacillus subtilis strain CH4000*	3.33%
Bacillus paralicheniformis strain CH0273*	3.33%
Bacillus paralicheniformis strain CH2970*	3.33%
Other Ingredients:	90.01%
Total:	100.00%

*Contains a minimum of 1.67 X 10^{10} colony forming units (CFU) of each active ingredient per mL of product.

EPA Reg. No. 2375-5-70506 **EPA Est. No. 2375-BRA-1**

KEEP OUT OF REACH OF CHILDREN

See other panels for additional precautionary information.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment.
FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY: 1-866-673-6671.
FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) CALL CHEMTREC: 1-800-424-9300 or +1-703-527-3887.

Net Contents: 2.5 Gallons

Not for sale or use after:

Batch/Lot code:

Sold By: **UPL NA Inc.**
PO Box 12219, Research Triangle Park
NC 27709 U.S.A. • 1-800-438-6071

BR LBL-063 10/24

UPL

PRECAUTIONARY STATEMENTS

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- protective eyewear
- long-sleeved shirt
- long pants
- shoes plus socks
- waterproof gloves

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 exposures to high concentrations of microbial proteins can cause allergic sensitization.

User Safety Requirements

Follow 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 clothing/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 container sizes <5 gallons

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 container sizes ≥5 gallons

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. 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 to 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.

Read entire label before using this product.

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.

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.

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:

- Protective eyewear
- Coveralls
- Waterproof gloves
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses that are NOT within the scope of the Worker Protection Standard (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 treatment area until applied product is covered or dried in soil.

PRODUCT INFORMATION

NIMAXXA™ XRC Bionematicide is a bionematicide soil applied suspension concentrate formulation for the suppression and control of labeled nematodes in a variety of horticultural and broadacre crops.

SOIL APPLICATION

NIMAXXA XRC Bionematicide can be used on labeled crops through direct soil application by drench, side-dress, in-furrow, or by chemigation through irrigation. The rate of application is variable according to pest pressure. Use lower labeled rates under light to moderate pest infestations, and higher labeled rates under heavier pest pressure. Use the highest labeled rate under arid conditions.

DRENCH, SIDE-DRESS, OR IN_FURROW APPLICATION INSTRUCTIONS

After conducting initial tank mixing procedures (see **COMPATIBILITY AND TANK MIXING** section), apply NIMAXXA XRC Bionematicide directly to soil by drench, side-dress or in-furrow (either T-band or directly over seed in the open furror). This product may be applied as a soil treatment in greenhouses. After such applications, ensure the product is covered with soil.

CHEMIGATION THROUGH IRRIGATION INSTRUCTIONS

After conducting initial tank mixing procedures (see **COMPATIBILITY AND TANK MIXING** section) apply NIMAXXA XRC Bionematicide only through center pivot, motorized-lateral move, traveling gun, solid set or portable (wheel move, side roll, end tow, or hand move) and drip irrigation systems, **as outlined in Sections A and B below**. Chemigation systems 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. Determine which type of irrigation system is in place, then refer to the appropriate directions provided below for each type (Sections **A** and **B** below). See crops section on the label for required treatment rates and additional use information. DO NOT apply NIMAXXA XRC Bionematicide 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-based tank mixes. If you have questions about calibration of irrigation equipment, contact State Extension Service specialists, equipment manufacturers or other experts. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, must shut the system down and make necessary adjustments should the need arise. NIMAXXA XRC Bionematicide has not been sufficiently tested when applied through irrigation systems to assure consistent product performance for all labeled uses. The following application techniques are provided for user reference but DO NOT constitute a warranty of fitness for application through irrigation equipment.

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. '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 (RPZ), back flow preventer, or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an alternative to the RPZ, the water from the public water system must be discharged into a reservoir tank prior to pesticide introduction. There must 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. 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 systems 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. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

NIMAXXA XRC Bionematicide can be applied to labeled crops as a liquid tank-mix to the soil by drench, side dress, in-furrow (as a T-band or over the open furrow), or by chemigation through irrigation systems. The rate of application is variable according to pest pressure. Use lower labeled rates under light to moderate pest infestations, and higher labeled rates under heavier pest pressure. Use the highest labeled rate under arid conditions.

SECTION A. INSTRUCTIONS FOR CENTER PIVOT, MOTORIZED-LATERAL MOVE AND TRAVELING GUN IRRIGATION EQUIPMENT

After tank-mixing procedures, NIMAXXA XRC Bionematicide can be applied through center pivot, motorized-lateral move, or traveling gun systems. These continuously moving systems must use a positive displacement injection pump of either diaphragm or piston type and be constructed of materials that are compatible with pesticides. They must also be capable of being fitted with a system interlock and capable of injection at pressures approximately 2 - 3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems. Thoroughly mix required amount of NIMAXXA XRC Bionematicide for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until NIMAXXA XRC Bionematicide has been cleared from the last sprinkler head.

SECTION B. INSTRUCTIONS FOR SOLID-SET, PORTABLE (WHEEL MOVE, SIDE ROLL, END TOW, OR HAND MOVE) AND DRIP IRRIGATION SYSTEMS

For Solid-Set, Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Systems

After tank-mixing procedures, NIMAXXA XRC Bionematicide can be applied through stationary irrigation systems, including Solid-Set, Portable (Wheel Move, Side Roll, End Tow, or Hand Move). With these systems, an effectively designed in-line Venturi applicator unit is preferred to support even and quick distribution of the product. However, a positive-displacement pump can also be used. For solid set systems, determine acreage covered by sprinklers. Fill the tank of injection equipment with water and adjust flow to use contents over 30 to 45 minutes. Mix desired amount of this product for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration. Provide chemical supply tank agitation sufficient for mixing until chemigation is completed. Operate entire system at normal pressures as advised by the manufacturer of injection equipment used, for amount of time established during calibration. This product can be injected during the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until the product(s) has been cleared from the lines and last sprinkler head.

For Drip Irrigation Systems

After tank-mixing procedures, NIMAXXA XRC Bionematicide can be applied through stationary drip irrigation systems. Provide chemical supply tank agitation sufficient for mixing until chemigation is completed. With these systems, an effectively designed in-line Venturi applicator unit is preferred to support even and quick distribution of the product. Fill the tank of injection equipment with water and adjust the flow out of the supply/mix tank after 25% of irrigation water allocation has been applied in order to ensure the irrigation lines are primed and a wetting front in the roots has been created. Then, apply the NIMAXXA XRC Bionematicide mixture into 50% of the irrigation water allocation volume to ensure optimal distribution of the product uniformly in the crop. Then, follow up with 25% of the total irrigation water allocation volume to ensure the product(s) have been cleared from irrigation lines. Operate entire system at normal pressures as advised by the manufacturer of injection equipment used for the amount of time established during calibration.

COMPATIBILITY AND TANK MIXING INSTRUCTIONS

COMPATIBILITY

NIMAXXA XRC Bionematicide is physically compatible with many commonly used fungicides, herbicides, insecticides, and(or) nutrient products. However, the compatibility of NIMAXXA XRC Bionematicide with all potential tank-mix partners has not been fully investigated. If tank mixing with other products is desirable, conduct a jar test with the volumes and rates typically used in labeled applications. Using a small container of water, add the proportionate amounts of the products in the following order: wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 15 minutes. Look for signs of separation, globules, sludge, flakes, or other precipitates. Physical compatibility is indicated if the combination remains mixed or can be remixed readily.

TANK MIXING INSTRUCTIONS

When tank-mixing NIMAXXA XRC Bionematicide with other registered pesticides and(or) other products, always read and follow all use directions, restrictions, and precautions of both NIMAXXA XRC Bionematicide and the tank-mix partner(s). It is the pesticide user's responsibility to ensure that all tank-mix products are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. DO NOT exceed label dosage rates.

All applications of NIMAXXA XRC Bionematicide involve the following general tank mixing procedures. Begin with clean supply, mixing and application equipment. Add one-half of the required amount of non-chlorinated water to the supply/mixing tank and start agitation. Dissolve the needed amount of NIMAXXA XRC Bionematicide into a small volume of water to make a pre-mix slurry. Add needed amounts of products to the mix tank in the following order: water conditioners, water soluble packages (wait for them to completely dissolve), wettable powders and water-dispersible granular products, followed by liquids, including, liquid slurries (add NIMAXXA XRC Bionematicide pre-mix slurry here), flowables, suspension concentrates, emulsifiable concentrates, with surfactants and(or) adjuvants added last. After adding the required quantity of NIMAXXA XRC Bionematicide and other products to the mix tank, complete filling with water to the required final volume and maintain agitation throughout

application. DO NOT allow tank mixture to remain in the tank overnight. DO NOT allow tank mixture to sit for long periods during the day without agitation. If non-chlorinated water is not available, DO NOT let NIMAXXA XRC Bionematicide remain in chlorinated water for long periods of time as it may have detrimental effect on the bacterial endospores. DO NOT combine NIMAXXA XRC Bionematicide with pesticides, surfactants, or fertilizers with which there has been no previous experience or use demonstrating that they are physically compatible, effective, and non-injurious under your use conditions. Follow the advice of your State Cooperative Extension Service for tank mixing procedures with other products.

COMPATIBILITY TESTING AND TANK MIX PARTNERS

Tank-Mixtures

NIMAXXA XRC Bionematicide may be applied in tank mixtures with other products approved for use on the crops listed on this label. Observe all application instructions, restrictions, and precautions which appear on the labels of any tank mixed products. To ensure successful applications, product compatibility tests should be conducted.

Compatibility

NIMAXXA XRC Bionematicide is physically and biologically compatible with many commonly used pesticides, fertilizers, adjuvants, and surfactants but has not been fully evaluated with all of these. To ensure compatibility of tank-mix combinations, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables, and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a crop response does not occur as a result of application.

Do not combine NIMAXXA XRC Bionematicide with pesticides, surfactants, or fertilizers with which there has been no previous experience or use demonstrating that they are physically compatible, effective, and non-injurious under your use conditions.

Application Rates, Crops, and Pests

Specific Crop Directions

Crop Rotation Restrictions

There are no crop rotation restrictions. Any crop can be rotated at any time after application of NIMAXXA XRC Bionematicide.

Application Rates

NIMAXXA XRC Bionematicide may be applied as a soil applied nematicide treatment at rates between 1.37 - 12.0 fl oz/A in 3 - 22 gal total solution for the following crops and nematode pests. Use the lower application rate for light infestations and the higher labeled rate for heavy infestations

Crop Group 18 -	Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay) Group: Alfalfa, Clover, and Forages
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera** *Globodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 11 -	Pome Fruits Group: Apple, Crabapple, Pear, Quince, Mayhaw, and other pome fruit
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera** *Xiphinema**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 12 -	Stone Fruit Group: Apricot, Cherry, Nectarine, Peach, Plum, and other stone fruit crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 1 -	Root and Tuber Vegetables Group: Artichoke
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 22 -	Stalk, Stem and Leaf Petiole Vegetable Group: Asparagus
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 24 -	Tropical and Subtropical Fruit, Inedible Peel Group: Avocado and Mango
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 5 -	*Brassica* (Cole) Leafy Vegetables Group: Broccoli, Cabbage, Cauliflower, Brussels Sprouts, Collards, Kale, Mustard Greens, Kohlrabi, and other *brassica* crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 24 -	Tropical and Subtropical Fruit, Inedible Peel Group: Banana, Plantain, and Pineapple
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 15 -	Cereal Grains Group: (Exclude Corn) Barley, Buckwheat, Millet, Oat, Pearl Millet, Proso Millet, Rice**, Rye, Sorghum, Teosinte, Triticale, Wheat, and other cereal grain crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.
**Do not apply to flooded fields.

Crop Group 15 -	Cereal Grains Group: Corn (Field corn, Popcorn, Sweet corn, and Corn Grown for Seed)
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 20 -	Oilseed Group: Cottonseed
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Rotylenchulus reniformis**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 10 -	Citrus Fruit Group: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Sour and Sweet Orange, Pummelo, Satsuma mandarin, and other citrus fruit crop
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Coffee
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 9 -	Cucurbit Vegetables Group: Chayote (fruit), Chinese wax gourd (Chinese preserving melon), Citron melon, Cucumber, Cantaloupe, Edible Gourd (such as Chinese Okra, Cucuzza, Hechima, and Hyotan), Gherkin, Melon, *Momordica* spp. (such as Balsam apple, Balsam pear, Bitter melon, and Cucumber), Muskmelon, Pumpkin, Summer and Winter Squash (such as Acorn, Butternut, Calabaza, Crookneck, Hubbard, Scallop, Spaghetti, and Zucchini), Squash, Watermelon, Chinese Watermelon, and other cucurbit crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 8 -	Fruiting Vegetables Group: African eggplant, Bell pepper, Bush tomato, Cocona, Currant tomato, Eggplant, Garden huckleberry, Goji berry, Groundberry, Martynia, Naranjilla, Nonbell pepper, Okra, Pea eggplant, Pepino, Roselle, Scarlet eggplant, Sunberry, Tomatillo, and Tomato
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera** *Globodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 13-07 -	Berry and Small Fruit Crop Group: Grapes
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera** *Tylenchulus semipenetrans**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Hemp
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 19 -	Herbs and Spices Group: Fresh and Dried Basil, Black Pepper, Chive, Celery seed, Dill seed, and other herbs and spices
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Hops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 13-07 -	Berry and Small Fruit Crop Group: Kiwi
Target Nematode	**Application Rate**
*Meloidogyne**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 4 -	Leafy Vegetables (Except *Brassica* Vegetables) Group: Lettuce, Celery, Spinach, Parsley, Radicchio, and other leafy vegetables crops including those grown for seed production
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 6 -	Legume Vegetables (Succulent or Dried): (Exclude Lentils and Soybeans) Beans, Snap beans, Garbanzo beans, Lima beans, Peas, Chick peas, Dried bean and pea *(Lupinus* spp., *Phaseolus* spp., *Vigna* spp., and *Pisum* spp.*)*, and other legume vegetable crops including those grown for seed production
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 6 -	Legume Vegetables (Succulent or Dried): Lentils
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 25 -	Mint
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 20 -	Oilseed Group: (Excludes Cottonseed, Peanut, and Soybeans) Canola, Castor, Flax, Palm, Olive, Rapeseed, Safflower, Sesame, Sunflower, and other oil seed crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 3 -	Bulb Vegetables *(Allium* spp.*)* Group: Onion, Garlic, Shallots, and other bulb vegetables including those grown for seed production
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Ornamental Flowers
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Peanut
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Belonolaimus**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 23 -	Tropical and Subtropical Fruit, Edible Peel Group: Olive and Palm Tree
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera** *Hemicriconemoides** *Rotylenchulus** *Tylenchulus**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 24 -	Tropical and Subtropical Fruit, Inedible Peel Group: Papaya
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 1 -	Root and Tuber Vegetables Group: Potato
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 1 -	Root and Tuber Vegetables Group: (Exclude Potato, Sugar Beet, and Artichoke) Arracacha, Arrowroot, Bean and True Yam, Beets, Bitter and Sweet Cassava, Black and Spanish Salsify, Carrot, Celeriac (Celery Root), Chayote (Root), Chicory, Chufa, Dasheen (Taro), Edible Burdock, Edible Cana, Ginger, Ginseng, Green Beet, Horseradish, Leren, Oriental Radish, Parsnip, Radish, Rutabaga, Salsify (Oyster plant), Skirret, Sweet Potato, Tanier (Cocoyam), Turmeric, Turnip, Turnip-rooted Chervil, and Turnip-rooted Parsley, and other root and tuber vegetable crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 6 -	Legume Vegetables (Succulent or Dried): Soybeans
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 13-07 -	Berry and Small Fruit Crop Group: Strawberry
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 13-07 -	Berry and Small Fruit Crop Group: Blueberry
Target Nematode	**Application Rate**
*Hemicycliophor** *Helicotylenchus** *Meloidogyne** *Pratylenchus** *Heterodera** *Mesocriconema** *Xiphinema**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 1 -	Root and Tuber Vegetables Group: Sugarbeet
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Sugarcane
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop -	Tobacco
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera** *Globodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

Crop Group 14 -	Tree Nuts Group: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia nut, Pecan, Walnut, and other tree nuts crops
Target Nematode	**Application Rate**
*Meloidogyne** *Pratylenchus** *Heterodera**	1.37 - 12.0 fl oz/A

*Not registered for use in California.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a cool, dry place under low humidity. Avoid direct sunlight and avoid excess heat. Keep out of reach of children and animals. Store in original container only. Carefully open container. After partial use, replace lid of container and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. In case of spill, avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and Spills) at 1-800-424-9300. To confine spill, dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. If a leaky container must be contained within another, mark the outer container to identify the contents.

Pesticide Disposal

To avoid wastes, 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 Plastic Containers (Containers equal to or less 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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer container for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill or by incineration. If burned, stay out of smoke.

Nonrefillable Plastic Containers (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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer container for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill or by incineration. If burned, stay out of smoke.

IMPORTANT INFORMATION READ BEFORE USING PRODUCT

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded. The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UPL NA INC. AND SELLER MAKE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ON THIS LABEL.

To the extent consistent with applicable law, UPL NA Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UPL NA INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UPL NA INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT**. UPL NA Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of UPL NA Inc.

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A (0725)

ESL092724-13190-072925

NIMAXXA™ XRC

Suspension Concentrate Soil Applied Use

A suspension concentrate biological nematicide for soil-applied use for protection against labeled soil nematodes.

Active Ingredients:	**By Wt.**
Bacillus subtilis strain CH4000*	3.33%
Bacillus paralicheniformis strain CH0273*	3.33%
Bacillus paralicheniformis strain CH2970*	3.33%
Other Ingredients:	90.01%
Total:	100.00%

*Contains a minimum of 1.67 X 10^{10} colony forming units (CFU) of each active ingredient per mL of product.

EPA Reg. No. 2375-5-70506 **EPA Est. No. 2375-BRA-1**

KEEP OUT OF REACH OF CHILDREN

See other panels for additional precautionary information.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY: 1-866-673-6671.

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) CALL CHEMTREC: 1-800-424-9300 or +1-703-527-3887.

PRECAUTIONARY STATEMENTS

Environmental Hazards

For container sizes <5 gallons

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.

Read entire label before using this product.

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.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a cool, dry place under low humidity. Avoid direct sunlight and avoid excess heat. Keep out of reach of children and animals. Store in original container only. Carefully open container. After partial use, replace lid of container and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. In case of spill, avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and Spills) at 1-800-424-9300. To confine spill, dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. If a leaky container must be contained within another, mark the outer container to identify the contents.

Pesticide Disposal

To avoid wastes, 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 Plastic Containers (Containers equal to or less 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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinse into application equipment or a mix tank, or store rinse for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer container for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill or by incineration. If burned, stay out of smoke.

Net Contents: 2.5 Gallons

Sold By: **UPL NA Inc.** • PO Box 12219, Research Triangle Park NC 27709 U.S.A. • 1-800-438-6071

UPL

PEEL DOWN FOR DIRECTIONS >

A (0725) ESL092724-13190-072925
BR LBL-063 10/24

norroa™

Miticide

Net Contents: 2 pouches of 500mL (1.06 pints)

VADESCANA	GROUP	35	INSECTICIDE

For control of varroa mites (*Varroa destructor*) in honey bee colonies

Active Ingredient:	
Vadescana (CAS# 2643947-26-4)*	0.31%
Other Ingredients	99.69%
TOTAL	100.0%

** Norroa™ contains 2 grams of vadescana per 500mL pouch (1.06 pints per pouch)*

EPA REG. NO.
94614-4

EPA EST. NO.
081184-FL-003

FPL20250828

KEEP OUT OF REACH OF CHILDREN

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For medical emergencies, call the poison control center at 1-800-222-1222.

For **Hazardous Materials Incident Spill, Leak, Fire, Exposure, or Accident**
Call CHEMTREC Day or Night:
+1-703-527-3887 /
+1-800-424-9300
Account: CCN1018598

Refer to inside of label booklet for Precautionary Statements, Directions for Use, Environmental Hazards and Storage and Disposal.

Notice: Read the entire label before using. Use only according to label directions.

Before buying or using this product, read Conditions, Disclaimer of Warranty, and Limitation of Liability statements at the end of the label booklet. If terms are unacceptable, return unopened at once.

MANUFACTURED BY:

GreenLight Biosciences, Inc.

9 Laboratory Dr.,
Suite 300 • Durham, NC
27709, U.S.A.

GreenLight™ Biosciences

PRECAUTIONARY STATEMENTS

Environmental Hazards

Do not contaminate water when disposing of used packaging.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks
- Shoes

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

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

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. For any requirement specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Product Information

Norroa™ is intended for use in honey bee colonies for the control of the varroa mite (*Varroa destructor*). It is supplied in a single-use pouch, which has a protective sticker covering small holes that allow the bees to access the product. The single-use pouch is placed directly in a brood box for the selective control of the mite, *Varroa destructor*. Control of varroa mite with Norroa™ requires bees to move the product from the pouch directly into brood cells, where mites are exposed. Norroa™ targets reproductive mites as they are exposed to the product in the brood food. Because Norroa™ works by preventing the production of offspring, for best results, Norroa™ should be used when open brood is present, mite numbers are low, and food resources are available for the colony. However, to ensure best efficacy, Norroa™ must not be used during heavy nectar flows, when the product could become overly diluted with incoming nectar, or in large colonies (10 or more frames of bees) during a nectar dearth when all of the Norroa™ may be consumed by adult bees rather than incorporated into brood food. Optimal timing for use is during spring build-up or after splitting colonies. Norroa™ may be used at other times during the year provided that varroa mite numbers are below treatment threshold or if they are above threshold,

Norroa™ is used in combination with another miticide to help bring mite numbers down.

Integrated Pest Management (IPM) Programs

Norroa™ is recommended for IPM programs for varroa mite management which may include the use of other mite control products, biological, cultural, mechanical or other practices aimed at reducing varroa mite populations in the colony. Apply Norroa™ when mite counts indicate varroa mite densities are approaching the pest management threshold, **but before the threshold is reached** (i.e., the point at which the mite population must be reduced to avoid economic losses beyond the cost of control).

Scouting: Monitor varroa mite populations to determine if there is a need to treat with Norroa™ based on locally determined economic thresholds and pest management guidelines. Given its mode of action, Norroa™ should be applied early – before economic thresholds are reached. Consult with your local cooperative extension specialist or your state apiary inspector for guidance on economic thresholds. Also, given that Norroa™ is effective on reproductive mites, time applications to target colonies when open brood is present.

Insect Resistance Management (IRM)

Norroa™ delivers a novel mode of action and can be an effective resistance management tool. For resistance management, Norroa™ contains a Group 35 miticide. Any mite population may contain individuals naturally resistant to Norroa™ and/or other miticides. The resistant individuals may dominate the mite population if the same group of miticide is used repeatedly in the same location. Other resistance mechanisms that are not linked to the site of action, but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

To delay miticide resistance, take the following steps:

- Where possible, rotate the use of Norroa™ with other miticides that have different modes of action.
- Miticide use should be based on an integrated pest management program that includes scouting, record keeping, and considers cultural, biological, mechanical and other chemical control practices.
- Correctly identify the pest and ensure varroa mite numbers are approaching the pest management threshold.
- Monitor treated pest populations for resistance development.
- DO NOT apply more than four pouches per brood box per calendar year with a maximum single application of two pouches of Norroa™ per application in any given colony/brood box.
- Contact your local extension specialist or state apiarist or apiary inspector for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact your local extension specialist.

APPLICATION INFORMATION

APPLICATION SITE
Honey bee colony/brood box

PEST
Varroa mite (*Varroa destructor*)

RATE PER APPLICATION
Option 1 or Option 2 below

Option 1

2 pouches (500mL each) per brood box applied inside brood box at the same time (typically early season).

Reapplication:
2 pouches (500mL each) per brood box applied inside brood box at the same time (typically late season).

Option 2

1 pouch (500mL) per brood box applied inside brood box, followed by the application of a second pouch anytime within 1–3 weeks after initial application (typically early season).

Reapplication:
1 pouch (500mL) per brood box applied inside brood box, followed by the application of a second pouch 1–3 weeks after initial application (typically late season).

- Remove burr comb from the top bars and lid/inner cover of the hive.
- Application options:
  - Use either Option 1 or Option 2 as preferred for your operation.
  - An application consists of 2 pouches (500mL each) per brood box applied at the same time or separately inside brood box.
  - If only applying 1 pouch, leave it there for approximately 1–3 weeks or until contents are completely emptied. Remove the empty pouch and place a second pouch in the brood box and leave it there until contents are completely emptied.
  - If applying 2 pouches, remove the empty pouches when completely empty.
  - Either application option can be applied early in the season and again late in the season.
- A space of at least ½ inch is required between the frames and inner cover if placing the pouch(es) under the lid on top of the frames – the use of spacers is recommended. Alternatively, the pouch(es) may be placed on the bottom board if space allows.
- Once placed in the brood box, remove the protective sticker on the pouch(es) to expose the holes bees use to take up the Norroa™.
- For best results, squeeze the pouch to begin the flow of Norroa™ upon initial placement.
- Treatment will result in reproductive mites being exposed to the product over multiple weeks, ultimately exposing most of the mites within the colony.

- Norroa™ can be used up to twice per calendar year but should be rotated with other miticides with a different mode of action to reduce the likelihood of developing resistance to this product.

Remarks

- To ensure best efficacy, Norroa™ must not be used during heavy nectar flow, when the product could become overly diluted with incoming nectar, or in large colonies (10 or more frames of bees) during a nectar dearth when all of Norroa™ may be consumed by adult bees rather than incorporated into brood food. Optimal timing is during spring build-up or after splitting colonies although it may be used late in the season prior to mite populations rebuilding.
- Open brood MUST be present for the product to be effective.
- For best results, use when mite numbers are low.
- Use Norroa™ as part of an Integrated Pest Management System which should include the use of other mite control products, biological, cultural, mechanical or other practices aimed at reducing varroa mite populations in the colony.

Use Restrictions

- For in-hive use only.
- **DO NOT** apply more than two pouches of Norroa™ per brood box per application (2 pouches per treatment) and four pouches per brood box per calendar year.
- **DO NOT** remove Norroa™ from the pouch and apply it through other means.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container only. Keep pouch closed until ready to use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

Pesticide Disposal: To avoid waste, use all pouches to treat hives. Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling

Non-refillable Container. DO NOT reuse or refill this container. Empty or full pouches should be disposed of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

LIMITATIONS OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimers of Warranty and Limitation of Liability before using this product. If the terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimers of Warranty and Limitation of Liability.

CONDITIONS

The user or buyer is responsible for properly using, handling, storing and maintaining the product in accordance with the label, specifications and other handling directions, as applicable. The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, or other unintended consequences may result because of such factors as (without limitation) weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of GreenLight Biosciences, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMERS OF WARRANTY

To the extent consistent with applicable law, GreenLight Biosciences, Inc. makes no warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise regarding the company or this product. No agent of GreenLight Biosciences, Inc. is authorized to make any representations or warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, GreenLight Biosciences, Inc. disclaims any liability whatsoever for special, incidental, indirect, exemplary, punitive, lost profits or revenues, or consequential damages arising out of, relating to, in connection with, or resulting from the use or handling of this product.

LIMITATION OF LIABILITY

To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall be at GreenLight Biosciences, Inc.'s election, the replacement of product or refund of the purchase price paid. Subject to applicable law, in no event shall GreenLight Biosciences, Inc.'s aggregate liability arising out of, in connection with, or otherwise related to this product exceed the purchase price paid for such product.