



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

January 05, 2026

### SENT BY EMAIL

Joseph C. Wolfe  
joseph.wolfe@nufarm.com  
NUFARM, INC.

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - To add the alternate brand name to the subject product.  
Product Name: NUL-3447 Insecticide  
Admin Number: 71368-148  
EPA Receipt Date: 12/17/2025  
Action Case Number: 00679044

Dear Joseph Wolfe:

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

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

The alternate brand name: "**Naxypro**" has been added to the registration. Our records have been updated accordingly.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Ralph Narain via email at [narain.ralph@epa.gov](mailto:narain.ralph@epa.gov).

Sincerely,

*Ralph Narain*

Ralph Narain, Entomologist/Risk Manager  
IVB3, RD  
Office of Pesticide Programs

[NOTE TO REVIEWER: [text] in brackets denotes optional text]

## NUL-3447 INSECTICIDE

[ABN: Naxypro Insecticide] [ABN: Naxypro]

Not registered for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens counties of New York state.

### ACTIVE INGREDIENT

### BY WEIGHT

Chlorantraniliprole:

3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide ..... 18.40%

OTHER INGREDIENTS ..... 81.60%

**TOTAL ..... 100.00%**

This product is a suspension concentrate containing 1.69 lb ai per gallon.

Chlorantraniliprole belongs to the anthranilic diamide chemical class.

### KEEP OUT OF REACH OF CHILDREN

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 BELOW [INSIDE BOOKLET] [BACK PANEL] FOR [FIRST AID] [AND] [ADDITIONAL]  
[PRECAUTIONARY STATEMENTS] [AND] [DIRECTIONS FOR USE]

For Medical Emergencies, Call (877) 325-1840

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

EPA REG. NO. 71368-148

EPA EST. NO. \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALS (\_\_\_\_\_ LITERS)

[Equivalent Net Weight: \_\_\_\_\_ LBS (\_\_\_\_\_ KG)]

[Batch Code: \_\_\_\_\_]

### NOTIFICATION

71368-148

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

01/05/2026

[Nufarm: Grow a better tomorrow]

[Grow a better tomorrow]

Manufactured By [For]:  
Nufarm Americas Inc.  
11901 S. Austin Ave.  
Alsip, IL 60803



071368-00148.20251216

**PRECAUTIONARY STATEMENTS**  
**KEEP OUT OF REACH OF CHILDREN**  
**Hazards to Humans and Domestic Animals**

Harmful if swallowed. Harmful if absorbed through skin. 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.

**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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

**User Safety Recommendations**

Users should:

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

**Environmental Hazards**

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

**Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having 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 chlorantraniliprole from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**Ground Water Advisory**

This product has properties and characteristics associated with chemicals detected in ground water. This product may leach into ground water 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.

SHAKE WELL BEFORE USING.

NUL3447 INSECTICIDE must be used only in accordance with the directions on this label, in separate EPA-approved labeling (Supplemental Labels, Special Local Need Registrations, FIFRA Section 18 exemptions), or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability. NUL3447 INSECTICIDE may be used on crops on this label that are grown for seed production.

### Use Restrictions:

- **DO NOT** apply NUL3447 INSECTICIDE through any type of irrigation system unless specified in this label or in EPA-approved supplemental labeling.
- **DO NOT** treat plants grown for transplanting. Not for use in nurseries, plant propagation houses, or greenhouses by commercial transplant producers on plants being grown for transplanting.
- This product is only for commercial agricultural use.
- Not for use on ornamental plants or plants being grown for ornamental purposes.
- Not for residential use.

### New York State Restrictions:

- NUL3447 INSECTICIDE may not be applied within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- Aerial application of this product is prohibited.
- Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens counties of New York State.

### 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. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulations.

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

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

- Long-sleeved shirt and long pants
- Shoes plus socks

## **PRODUCT INFORMATION**

NUL3447 INSECTICIDE is a suspension concentrate that is to be applied as an in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, soil shank injection at planting, drip chemigation, or foliar spray (including overhead sprinkler chemigation on certain crops as specified on this label), using ground or aerial application equipment to control listed insects. Not all application methods are allowed on all crops, so see the specific crop section of this label for which application methods may be used for a particular crop. NUL3447 INSECTICIDE is mixed with water for application. NUL3447 INSECTICIDE is a member of the anthranilic diamide class of insecticides with a novel mode of action acting on insect ryanodine receptors. Although NUL3447 INSECTICIDE has contact activity, it is most effective through ingestion of treated plant material. After exposure to NUL3447 INSECTICIDE, affected insects will rapidly stop feeding, become paralyzed, and typically die within 1 - 3 days. Time applications to the most susceptible insect pest stage, typically at egg lay to egg hatch and/or newly hatched larvae before populations reach damaging levels. If possible, make applications at or before egg deposition to be most effective in minimizing damage levels caused by insect pests.

### **Integrated Pest Management**

Nufarm supports the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an IPM program, which can include biological, cultural, and genetic practices, aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, rotation of insecticides with different modes-of-action, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

### **Scouting**

Monitor insect populations to determine whether or not there is a need for application of this product based on locally determined economic thresholds and pest management guidelines. More than one treatment of this product may be required to control a population of pests.

### **Resistance Management Recommendations**

For resistance management, NUL3447 INSECTICIDE is a Group 28 insecticide. Repeated and exclusive use of NUL3447 INSECTICIDE (active ingredient chlorantraniliprole, belonging to the anthranilic diamide class of chemistry), or other Group 28 insecticide may lead to the buildup of resistant strains of insects in some crops. Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, this product may be used as part of resistance-management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternative of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details. Unless directed otherwise in the specific crop/pest sections of this label, the best practices are to follow these instructions to delay the development of insecticide resistance:

- Avoid using the same mode of action (same IRAC group number) on consecutive generations of insect pests.
- Apply NUL3447 INSECTICIDE or other Group 28 insecticides using a “treatment window” approach to avoid exposure of successive insect pest generations to the same mode of action.
- A “treatment window” is defined as the period of residual activity provided by single or sequential applications of products with the same mode of action. This “treatment window” should not exceed approximately the length of one generation of the target pest.
- Within the “Group 28 treatment window”, make no more than 3 applications of NUL3447 INSECTICIDE or other Group 28 insecticides, within a single generation of the target pest on a crop unless otherwise directed in the specific crop/pest sections of this label.
- Following a “Group 28 treatment window”, rotate to a treatment window of effective products with a different mode of action. This “non-Group 28 window” should approximate the duration of one generation of the target pest, or about 30 days.

- Avoid using less than the labeled rates of NUL3447 INSECTICIDE when applied alone or in tank mixtures.
- Target the most susceptible insect life stages, whenever possible.
- Monitor insect populations for product effectiveness.
- If resistance to NUL3447 INSECTICIDE control develops in your area, NUL3447 INSECTICIDE control or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local Nufarm representative or agricultural advisor for the best alternate method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.iraac-online.org>.

## **APPLICATION INSTRUCTIONS**

Apply at the specified rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants, or other qualified individual to determine appropriate threshold levels for treatment in your area.

Apply follow-up treatment of NUL3447 INSECTICIDE, as specified, to keep pest populations within threshold limits. Refer to the Resistance Management Recommendations section of this label for further guidance on follow-up treatments. See individual crop sections of this label for specific minimum spray intervals.

Use sufficient water to obtain thorough, uniform coverage.

NUL3447 INSECTICIDE can be applied by: ground (including an in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, soil shank injection at planting, drip chemigation, or foliar), or aerial application equipment. Not all application methods are allowed on all crops; see specific crop sections of this label for which application methods may be used. NUL3447 INSECTICIDE can be applied via overhead sprinkler chemigation systems on some crops; see specific crop sections of this label for crops where overhead sprinkler chemigation can be used. For aerial application use the following directions unless otherwise specified in specific crop/pest sections of this label or EPA-approved supplemental labeling, use a minimum of 5 gallons per acre (gpa) of water. The highest labeled rate for a specified pest may be necessary when aerial applications are made. For all other application methods use the following directions, unless otherwise specified in specific crop/pest sections of this label or EPA-approved supplemental labeling, use a minimum of 10 gal per acre (GPA) of water for all crops.

## **USE OF ADJUVANTS**

In some situations where coverage is difficult to achieve such as closed canopy, dense foliage, plants with waxy leaf surfaces, or less than optimum application equipment, an adjuvant may improve performance. Use only adjuvant products that are labeled for agricultural use and follow the directions on the manufacturer's label. Always conduct a premix test for compatibility. Use an adjuvant that does not affect foliage and/or fruit finish. Refer to specific crop sections of this label for additional adjuvant guidance.

## **APPLICATION BY CHEMIGATION**

The following types of irrigation equipment may be used for chemigation applications: drip (trickle), or strip tubing irrigation systems. NUL3447 INSECTICIDE may be applied through overhead sprinkler irrigation systems (see **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS – CEREAL GRAINS, CORN (FIELD, POP, SWEET, GROWN FOR SEED), COTTON, GRASS FORAGE, FODDER, AND HAY, LEGUMES, MINT (PEPPERMINT AND SPEARMINT), NON-GRASS ANIMAL FEEDS, OILSEED GROUP, PEANUT, POTATO, SOYBEAN AND SUGARCANE** section of this label).

Apply NUL3447 INSECTICIDE in sufficient water and of adequate duration to ensure the recommended rate is applied evenly to the entire treated area. **DO NOT** allow irrigation water to collect or runoff during chemigation; **DO NOT** allow pooling of irrigation water. Inject NUL3447 INSECTICIDE downstream from any water filtration system.

NUL3447 INSECTICIDE must not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact state extension service specialists, equipment manufacturers, or other experts. 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.

Wear personal protective equipment as defined in the PPE section of this label for applicators and other handlers when making adjustments or repairs on the chemigation system when NUL3447 INSECTICIDE is in the irrigation water. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. A pesticide supply tank is recommended for the application of NUL3447 INSECTICIDE in chemigation systems.

**DO NOT** connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. See “Required System Safety Devices for All Chemigation Systems” at the end of the Chemigation section. 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 at least 60 days out of the year.

## **DIRECTIONS FOR CHEMIGATION**

### **Drip (Trickle) Chemigation**

NUL3447 INSECTICIDE must be applied in a manner that ensures the product is in the root zone. NUL3447 INSECTICIDE must be in the root zone to provide effective control of target pests. NUL3447 INSECTICIDE is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of NUL3447 INSECTICIDE remain in the root zone where it is most effective. Unless directed otherwise in the specific crop sections of this label, a total of two applications can be made per crop season. Any subsequent NUL3447 INSECTICIDE treatments must be foliar applications.

1. **DO NOT** begin applications until after crop emergence in direct seeded crops.
2. **DO NOT** make applications if soil moisture is below the level required for active plant growth.
3. This product must be applied uniformly in the root zone or poor performance will result. Drip tape or emitters must be located within or directly adjacent to the root zone.
4. The drip system must be properly designed, free of leaks, and operated in a manner that provides uniform application of water throughout the field.
5. In most situations, this product should be applied during the first 1/3 of the irrigation cycle, starting just after the system has come up to pressure.
6. The minimum injection period is the time that it takes water to move from the injection point to the furthest emitter in the irrigation zone (propagation time). If this time is not known, it can be calculated by measuring the time for a soluble dye to move from the injection point to the farthest emitter. A longer injection improves uniformity throughout the zone, but needs to allow for at least an equal period of water to flush the system and move the product through the soil.



**CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS – CEREAL GRAINS, CORN (FIELD, POP, SWEET, GROWN FOR SEED), COTTON, GRASS FORAGE, FODDER, AND HAY, LEGUMES, MINT (PEPPERMINT AND SPEARMINT), NON-GRASS ANIMAL FEEDS, OILSEED GROUP, PEANUT, POTATO, SOYBEAN AND SUGARCANE**

Types of Chemigation Systems: NUL3447 INSECTICIDE can be applied to CEREAL GRAINS, CORN (FIELD, POP, SWEET, GROWN FOR SEED), COTTON, CRANBERRY, GRASS FORAGE, FODDER, AND HAY, LEGUMES, MINT (PEPPERMINT AND SPEARMINT), NON-GRASS ANIMAL FEEDS, OILSEED GROUP, PEANUT, POTATO, SOYBEAN AND SUGARCANE through overhead sprinkler irrigation systems, including the following; center pivot, end tow, hand move, lateral move, side roll, solid set and wheel line. The irrigation system used must provide uniform water distribution.

**Directions for Chemigation**

**Preparation**

A pesticide tank is recommended for the application of NUL3447 INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. With the mix tank 1/4 to 1/2 full with water and the agitator running, measure the required amount of NUL3447 INSECTICIDE and add it to the tank. Then add additional water to bring your total pesticide mixture up to the desired volume for your application. Note: Always add the NUL3447 INSECTICIDE to water, never put NUL3447 INSECTICIDE into a dry tank or other mixing equipment without first adding water. See **Tank Mixing Sequence** section of the container label for tank mixing sequence. Continue to agitate the mixture throughout the application process. Use mechanical or hydraulic agitation, do not use air agitation.

**Injection Into Chemigation Systems**

Inject the specified amount of NUL3447 INSECTICIDE into the irrigation water flow using a positive displacement injection pump or a Venturi injector. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing NUL3447 INSECTICIDE into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing NUL3447 INSECTICIDE to the irrigation water line and apply no more than 0.2 inches of water per acre.

**Uniform Water Distribution**

The irrigation system used for application of NUL3447 INSECTICIDE must provide for uniform distribution of NUL3447 INSECTICIDE treated water. Non-uniform distribution can result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

**Equipment Calibration**

Calibrate the irrigation system and injector before applying NUL3447 INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

**Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for applicators and other handlers when making adjustments or repairs on the chemigation system when NUL3447 INSECTICIDE is in the irrigation water.



## Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

- End guns must be turned off during the application if they irrigate nontarget areas or if they do not provide uniform application and coverage.
- It is recommended that nozzles in the immediate area of wells, control panels, chemical supply tanks and system safety devices be plugged to prevent contamination of these areas.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- **DO NOT** apply when system connections or fittings leak or when nozzles do not provide uniform distribution.
- **DO NOT** allow irrigation water to collect or run-off during chemigation.

## Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

## Required System Safety Devices

**DO NOT** connect any irrigation system used for pesticide applications to a public water system unless the pesticide label prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

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 backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump).
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the 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.

## SOIL APPLICATIONS

NUL3447 INSECTICIDE must be applied in a manner that ensures the product is in the root zone. NUL3447 INSECTICIDE must be in the root zone to provide effective control of target pests. NUL3447 INSECTICIDE is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of NUL3447 INSECTICIDE remain in the root zone where it is most effective. Maintaining soil moisture to field capacity or to meet crop needs and environmental conditions aids in product availability to the roots and can improve efficacy. Applications of NUL3447 INSECTICIDE to the root zone allow the active ingredient

to be transported from the roots through the xylem providing upward systemicity. NUL3447 INSECTICIDE is translocated to the canopy beginning immediately after the application, reaching an effective concentration in 1 to 3 days for seedlings and up to 7 days for larger plants. As the plant grows, the roots continue to absorb the available NUL3447 INSECTICIDE from the reservoir in the soil providing extended protection of the plant canopy including new growth.

The length of control provided following soil applications will depend on the rate used, the pest being controlled and the environmental conditions; such as soil type, soil moisture, soil pH, etc. Use the higher specified rate within the rate range when pests are expected to occur later in the crop growth cycle or when pests are expected to be present continuously. NUL3447 INSECTICIDE will primarily have activity in the foliage of treated plants and will not provide protection within the blooms and fruit. Foliar applications of other products may be needed to protect these parts of the plant. Unless directed otherwise in the specific crop sections of this label, only one soil application of NUL3447 INSECTICIDE can be made per crop season, except for drip chemigation where a total of two applications can be made per season. If two drip applications are made then the application rate must not exceed 5 fl oz product (0.066 lb ai/acre) per application. If NUL3447 INSECTICIDE is applied as an at plant soil application, only one subsequent drip chemigation application can be made.

#### **In-Furrow Spray at Planting**

Apply as a narrow band spray into the furrow at the seeding depth.

#### **Transplant water treatment or Hill Drench**

Transplants should be adequately watered before transplanting in the field. Apply NUL3447 INSECTICIDE in the field at transplanting in a minimum of 2 fluid ounces of treatment solution per transplant. Ensure water volume is sufficient to thoroughly wet the root zone.

#### **Surface Band at Planting**

Apply as a narrow (2 inches or less) surface band spray above the seed line at planting. Incorporate surface band application within 24 hours of application using sufficient irrigation (usually 0.5 – 1.0 inches of water) to reach the seeding depth.

#### **Soil Shank Injection**

Use soil shank injection at planting. Applications must be incorporated using sufficient irrigation (usually 0.5 – 1.0 inches of water) to reach the root zone. Shank injection should be placed in the seed row or just below the seed line, within 1 - 2 inches of the seed line. For insecticide resistance management, it is important to avoid consecutive applications of insecticides with the same mode of action on successive generations of the same pest. See crops on label for recommended treatment rates and additional use information.

## NUL3447 CONVERSION CHART FOR DRIP CHEMIGATION AND AT-PLANT SOIL APPLICATION

Rate in Fluid Ounces Product / 1000 Row-Foot Based on Planted Row Spacing (in inches):

Target Rate in FL OZ / ACRE	15 in.	20 in.	25 in.	30 in.	34 in.	36 in.	38 in.	40 in.	44 in.	48 in.	60 in.	66 in.	72 in.	78 in.	80 in.	84 in.
2.0											0.23	0.25	0.28	0.30	0.30	0.32
3.5				0.20	0.23	0.24	0.25	0.27	0.30	0.32	0.40	0.44	0.48	0.52	0.53	0.56
5.0		0.19	0.24	0.29	0.33	0.34	0.36	0.38	0.42	0.46	0.57	0.63	0.69	0.75	0.76	0.80
6.0		0.23	0.29	0.34	0.39	0.41	0.44	0.46	0.50	0.55	0.69	0.76	0.83	0.90	0.91	0.96
7.0	0.20	0.27	0.33	0.40	0.46	0.48	0.51	0.53	0.59	0.64	0.80	0.88	0.96	1.04	1.07	1.13
7.5	0.22	0.29	0.36	0.43	0.49	0.52	0.55	0.57	0.63	0.69	0.86	0.95	1.03	1.12	1.15	1.21

Level and length of control is affected by rate applied.

Higher labeled rates may be required in heavy texture and/or high organic soils if application is made later in the crop development, or when pest pressure is high.

### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying NUL3447 INSECTICIDE. Fill spray tank 1/4 to 1/2 full of water. Use a well calibrated measuring device that is appropriate for the low doses that may be required with this high concentration product to avoid under or overdosing. Add NUL3447 INSECTICIDE directly to spray tank. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Use mechanical or hydraulic means; **DO NOT** use air agitation. **DO NOT** store spray mix solutions overnight in spray tank. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

### TANK MIXTURES

This product can be mixed with pesticide products that are labeled for use on the same crops as NUL3447 INSECTICIDE. **DO NOT** exceed labeled dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

NUL3447 INSECTICIDE may be mixed with certain liquid fertilizers for at-plant soil applications. **DO NOT** mix this product directly with pure liquid fertilizers.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and 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.

Before using a tank mix for the first time, always determine the compatibility of NUL3447 INSECTICIDE with the tank mixtures by using a jar test.

### Compatibility

Since formulations may be changed and new ones introduced, premix a small quantity of a desired tank mix, and observe for possible adverse changes (settling out, flocculation, etc.).

Steps to conduct a jar test to determine physical tank mix compatibility of NUL3447 INSECTICIDE with other products:

- Use the most restrictive PPE of the products to be tested.
- Add clean water to jar proportional to the planned water volume that will be used in the spray tank (a jar size of 8 - 16 oz is acceptable).
- Mix proper proportions of NUL3447 INSECTICIDE and desired tank mix partner(s) as will be present in the spray tank, add one product at a time following the sequence of addition according to formulation type provided in this label.
- Seal and shake mixture after each product is added.
- Allow to stand for 1 hour.
- View jar to determine if settling, flocculation, crystallization or any other undesirable changes have happened.
- If none of the above is observed or the solution can be easily remixed after shaking, the mixture is compatible with NUL3447 INSECTICIDE.
- If the tank mix is not compatible, a higher water volume, reduced rate of the tank mix partner(s), reduced number of tank mix partners or a compatibility agent may be needed.

### **Tank Mixtures and Crop Safety**

Crop varieties can differ in their responsiveness to tank mixtures, and environmental conditions can have an influence on product performance and crop response. It is not possible to test NUL3447 INSECTICIDE alone or with all possible tank mix combinations on all varieties under all environmental conditions. When considering the use of a tank mixture on a labeled crop without prior experience, or which is not specifically described on NUL3447 INSECTICIDE product labeling or in other Nufarm product use instruction, it is important to check crop safety first. To test for crop safety prepare a small volume of the intended tank mixture, apply it to an area of the target crop as directed by both this and the tank mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur. Use of NUL3447 INSECTICIDE in any tank mixture applications that is not specifically described on NUL3447 INSECTICIDE product labeling or in other Nufarm product use instructions, could potentially result in crop injury. Follow the precautions on this label and on the label for any other product to be used in tank mixtures before making such applications to your crops. Follow the most restrictive labeling. Nufarm will not be responsible for any crop injury arising from the use of a tank mixture that is not specifically described on NUL3447 INSECTICIDE product labeling or in other Nufarm product use instruction.

### **Tank Mixing Sequence**

Fill spray tank 1/4 to 1/2 full of water. While agitating, add the different formulation types in the sequence indicated below\*.

Allow time for complete mixing and dispersion after addition of each product before adding the next product.

Allow time for complete mixing and dispersion after addition of each product.

1. Water soluble bag (WSB)
2. Water soluble granules (SG)
3. Water dispersible granules (WG, XP, DF)
4. Wettable powders (WP)
5. NUL3447 INSECTICIDE and other water-based suspension concentrates (SC)
6. Water soluble concentrates (SL)
7. Suspoemulsion (SE)
8. Oil based suspension concentrates (OD)
9. Emulsifiable concentrates (EC)
10. Adjuvants, surfactants, oils
11. Soluble fertilizers
12. Drift retardants

\* Unless otherwise specified by manufacturer directions for use or by local experience.

### **SPRAY TANK CLEANOUT**

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer 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 near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations or at an approved waste disposal facility.

### **SPRAY DRIFT MANAGEMENT**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. **AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.**

### **IMPORTANCE OF DROPLET SIZE**

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.).

Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

### **CONTROLLING DROPLET SIZE – GROUND APPLICATION**

**Nozzle Type** - Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.

**Pressure** - The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.

**Flow Rate/Orifice Size** - Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

### **CONTROLLING DROPLET SIZE - AIRCRAFT**

**Number of Nozzles** - Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum.

**Nozzle Orientation** - Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back parallel to the air-stream will produce a coarser droplet spectrum than other orientations.

**Nozzle Type** - Solid stream, or other low drift nozzles produce the coarsest droplet spectra.

**DO NOT** apply as a ULV application.

### **BOOM LENGTH AND HEIGHT**

**Boom Length (aircraft)** - The boom length must not exceed 3/4 of the wing length; using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.

**Boom Height (aircraft)** - Application more than 10 ft above the canopy increases the potential for spray drift. Applications made at the lowest height consistent with pest control objectives, and the safe operation of the aircraft will reduce the potential for spray drift.

**Boom Height (ground)** - Applications made at the lowest height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind and reduce spray drift potential.

## **WIND**

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS. DO NOT** make applications when wind speeds are greater than 15 mph.

**Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

## **SURFACE TEMPERATURE INVERSIONS**

**DO NOT** make applications during temperature inversions. Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small-suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## **AIR ASSISTED (AIRBLAST) FIELD CROP SPRAYERS**

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## **TREE AND VINE SPRAYERS**

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Movement of spray that goes beyond the edge of the cultivated area may be minimized by practices such as spraying the outside row only from outside the planting.

Drain spray equipment. Thoroughly rinse sprayer 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 near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

### CROP ROTATION RESTRICTIONS

May be planted immediately following harvest:	<p> All crops on this label  Artichoke, globe  Asparagus  Banana/Plantain  Brassica (Cole) Leafy Vegetables (Crop Group 5)  Bulb Vegetables (Crop Group 3-07)  Bushberry subgroup (Crop subgroup 13-07B)  Caneberry subgroup (Berry and Small Fruit Crop Group subgroup 13-07A)  Large Shrub/Tree Berry subgroup (Crop subgroup 13-07C)  Low Growing Berry subgroup (Crop subgroup 13-07G)  Small Fruit Vine Climbing subgroup, except fuzzy kiwifruit (Berry and Small Fruit Crop Group subgroup 13-07F)  Cacao  Cereal Grains (Crop Group 15)  Forage, Fodder, and Straw of Cereal Grains (Crop Group 16)  Citrus (Crop Group 10-10)  Coffee  Corn (field, pop, seed, and sweet)  Cotton  Cucurbit Vegetables (Crop Group 9)  Figs  Fruiting Vegetables (Crop Group 8-10)  Grass Forage, Fodder, and Hay Group (Crop Group 17)  Herbs subgroup (Crop Group subgroup 19A)  Grape  Hops  Leafy Vegetables (nonbrassica, Crop Group 4)  Legume Vegetables (Crop Group 6)  Foliage of Legume Vegetables (Crop Group 7)  Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay Crop Group 18)  Okra  Oilseed Group (Crop Group 20)  Olives  Peanut  Persimmons  Pome Fruits (Crop Group 11-10)  Pineapple  Pomegranates  Prickly Pear Cactus  Rice  Root and Tuber Vegetables (Crop Group 1)  Leaves of Root and Tuber Vegetables (Crop Group 2)  Soybean  Spice subgroup (Crop Group subgroup 19B)  Spearmint and Peppermint  Stone Fruits (Crop Group 12-12)  Sugarcane  Tea  Tree Nuts and Pistachio (Crop Group 14) </p>
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	Tobacco Tropical Fruits (acerola, atemoya, avocado, biriba, black sapote, canistel, cherimoya, custard apple, ilama, feijoa, guava, jaboticaba, longan, lychee, mamey sapote, mango, papaya, passionfruit, pulasan, rambutan, sapodilla, soursoy, Spanish lime, star apple, starfruit, sugar apple, wax jambu, and White sapote (Casimiroa), and/or hybrids of these).
Must be planted no sooner than 12 months after last application of NUL3447 INSECTICIDE	All other crops

## CROP USE DIRECTIONS

### ARTICHOKE, GLOBE

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Artichoke plume moth	3.5 – 7.5 (0.046 - 0.099)	14	3	4
Drip Chemigation* *CA only	Beet armyworm; Cabbage looper				

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

Apply in a minimum of 10 gals water per acre by air and 50 - 200 gals of water per acre by ground (use sufficient water to obtain thorough coverage without excessive runoff).

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Make applications between bud formation and harvest of an individual fruit.

## ASPARAGUS

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)	3	1	4
<b>APPLICATION INSTRUCTIONS:</b> Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. <b>RESTRICTIONS:</b> <b>DO NOT</b> make more than 4 applications per acre per calendar year. <b>DO NOT</b> apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.					

## AZAROLE; MEDLAR; TEJOCOTE; CULTIVARS, VARIETIES, AND/OR HYBRIDS OF THESE

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Green fruitworm, Spotted tentiform leafminer, Western tentiform leafminer	4.2 – 6.7 (0.055 - 0.088)	10	5	4
	Apple maggot*, European apple sawfly, European corn borer, Light brown apple moth, Obliquebanded leafroller**, Oriental fruit moth, Pandemis leafroller, Plum curculio*, Redbanded leafroller, Tufted apple bud moth, Variegated leafroller, White apple leafhopper*	4.2 – 7.5 (0.055 - 0.099)  Western U.S. states†  5.0 – 7.5 (0.066 - 0.099)			

**APPLICATION INSTRUCTIONS:**  
**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees and density of foliage. **DO NOT** apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. **DO NOT** apply less than 30 gals water per acre by ground.  
**Effect on Beneficial Insects:** Beneficial insects such as predators or parasitoids are an important component in pome fruit IPM. NUL3447 INSECTICIDE has demonstrated low to no impact on the predator *Deraeocoris brevis* and key parasitoids, *Aphelinus mali*, *Aphytis* spp., and *Encarsia* spp. This low impact is very important in

preservation of biological control of pear psylla, San Jose scale and wooly apple aphid when NUL3447 INSECTICIDE is applied early season for control of first-generation codling moth.

\* Suppression only.

**\*\* Obliquebanded Leafroller:** For overwintering larvae, apply in the spring (pink to petal fall stage) at first sign of active feeding. For summer generation apply just prior to or at the beginning of egg hatch. Leafroller feeding stops after ingestion of treated foliage, however, during periods of cold weather when leafrollers are inactive, it may take several days to achieve complete control. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees.

**Obliquebanded Leafroller Resistance Management:** Only apply NUL3447 INSECTICIDE (or other Group 28 insecticides) to one generation of obliquebanded leafroller per year. Application(s) to other generations of obliquebanded leafroller must be with an effective product with a different mode of action (i.e. a product with a different IRAC group number). †Includes states of AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## BANANA/PLANTAIN

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Leafrollers	5.0 – 7.5 (0.066 – 0.099)	10	1	4

**APPLICATION INSTRUCTIONS:**

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gallons of water per acre. **DO NOT** apply less than 30 gallons of water per acre by ground. For best results apply 100 to 150 gallons of water per acre.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

### BUSHBERRY SUBGROUP (BERRY AND SMALL FRUIT CROP GROUP)

EPA Crop Subgroup 13-07B, Including: Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Cherry fruitworm, Cranberry fruitworm, Japanese beetle (adult)*, Omnivorous leafroller, Raspberry crown borer	5.0 – 7.5 (0.066 – 0.099)	7	1	4

#### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. **DO NOT** dilute applications of more than 200 gallons of water per acre. **DO NOT** apply less than 30 gallons of water per acre by ground. For best results apply 100 to 150 gallons of water per acre. Select a spray volume appropriate for the size of trees or plants and density of foliage. \*Japanese beetle (adult) – use the high application rate for moderate to heavy infestations.

#### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

### CACAO

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Cacao pod borer	5.0 – 7.5 (0.066 - 0.099)	7	1	4

#### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. **DO NOT** apply less than 30 gals water per acre by ground.

#### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### CANEBERRY SUBGROUP (BERRY AND SMALL FRUIT CROP GROUP)

EPA Crop Subgroup 13-07A, including: Blackberry; Loganberry; Red and Black Raspberry cultivars and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Omnivorous leafroller, Light brown apple moth, Raspberry crown borer*	5.0 – 7.5 (0.066 - 0.099)	14	3	4

#### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

\*Raspberry crown borer – For control of Raspberry Crown Borer, apply this product as a directed foliar application, using a spray volume of 50 to 100 gallons per acre, directed to base of canes. Apply in early fall right after egg hatch or in early spring when larvae first become active and start to feed on the crown of the plant. Time the application when a minimum of ½ inch rainfall is forecasted or when overhead irrigation (minimum of ½ inch water per acre) can be used to move this product into the plant root zone in order to control raspberry crown borer.

#### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

### CEREAL GRAINS (EPA CROP GROUP 15) EXCEPT CORN AND RICE

Including: Barley, Buckwheat, Pearl Millet, Proso Millet, Oats, Rye, Sorghum (milo), Sorghum spp. [grain sorghum, sudangrass (seed crop), and hybrids of these grown for its seed], Teosinte, Triticale, Wheat, Wild Rice

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Sorghum webworm, Southwestern corn borer, Sugarcane borer, True armyworm	3.5 – 7.5 (0.046 - 0.099)	7	1	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**FORAGE, FODDER, AND STRAW OF CEREAL GRAINS (EPA CROP GROUP 16) EXCEPT CORN AND RICE**

Including: Forage, fodder, and straw of all commodities included in the cereal grains group, except corn and rice. Includes Sorghum spp. [sorghum, forage sorghum, stover; sudangrass, and hybrids of these grown for forage and/or stover].

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Sorghum webworm, Southwestern corn borer, Sugarcane borer, True armyworm	3.5 – 7.5 (0.046 - 0.099)	7	1	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			
APPLICATION INSTRUCTIONS:					

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**CITRUS (EPA CROP GROUP 10-10)**

Including: Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin Australian desert lime; Australian finger- lime; Australian round lime; Brown River finger lime; Japanese summer Mediterranean mandarin; Mount white lime; New Guinea wild lime; Russell River lime; Sweet lime; Tachibana orange; Tahiti lime; Trifoliate orange; Uni fruit; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Citrus leafminer, Citrus peelminer, Katydid (nymphs)*, Light brown apple moth, Omnivorous leafroller	5.0 – 7.5 (0.066 - 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre. Where higher spray volumes are used, apply a higher rate of NUL3447 INSECTICIDE in the specified rate range.

\*Suppression of Katydid (nymphs) - Forktailed bush Katydid (*Scudderella furcata*), Angularwinged Katydid (*Microcentrum retinerve*). Correct timing of spray application is to nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

**DO NOT** make more than 3 applications per acre per calendar year.



## COFFEE

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Coffee leafminer	5.0 – 7.5 (0.066 - 0.099)	14	7	4

### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

## CORN (FIELD, POP)

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
<sup>1</sup> Soil at Planting (In-furrow spray)	European corn borer, Fall armyworm, Southern armyworm	5.0 – 7.5 (0.066 - 0.099)  See Rate Conversion Chart for rate per 1000 linear ft.	7	14	4
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Southern armyworm, Southwestern corn borer, True armyworm, Western bean cutworm	3.5 – 7.5 (0.046 - 0.099)			
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**<sup>1</sup>SOIL APPLICATIONS:** In-Furrow Spray at Planting Apply as a narrow band spray into the furrow at the seeding depth. NUL3447 INSECTICIDE must be applied in a manner that ensures the product is in the root zone.

NUL3447 INSECTICIDE is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of NUL3447 INSECTICIDE remain in the root zone where it is

most effective. Unless directed otherwise in the specific crop sections of this label, only one soil application of NUL3447 INSECTICIDE can be made per crop.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**CORN (SWEET, GROWN FOR SEED)**

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
<sup>1</sup> Soil at Planting (In-furrow spray)	European corn borer, Fall armyworm, Southern armyworm	5.0 – 7.5 (0.066 - 0.099)  See Rate Conversion Chart for rate per 1000 linear ft.	1	1	4
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Southern armyworm, Southwestern corn borer, True armyworm, Western bean cutworm	3.5 – 7.5 (0.046 - 0.099)			
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**<sup>1</sup>SOIL APPLICATIONS:** In-Furrow Spray at Planting Apply as a narrow band spray into the furrow at the seeding depth. NUL3447 INSECTICIDE must be applied in a manner that ensures the product is in the root zone. NUL3447 INSECTICIDE is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of NUL3447 INSECTICIDE remain in the root zone where it is most effective. Unless directed otherwise in the specific crop sections of this label, only one soil application of NUL3447 INSECTICIDE can be made per crop.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**COTTON**

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Beet armyworm, Cotton bollworm**, Fall armyworm, Saltmarsh caterpillar, Southern armyworm, Tobacco budworm**, Western Yellowstriped Armyworm, Cutworms	3.5 – 7.5 (0.046 - 0.099)	5	21	4
	Cabbage looper, Soybean looper*	5.0 – 7.5 (0.066 - 0.099)			
	Grasshoppers	2.0 - 5.0 (0.026 - 0.066)			

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

\* Suppression only.

\*\* For **Heliothine control** (cotton bollworm and/or tobacco budworm in conventional non-transgenic/non-Bt cotton) make the first application at rates of 0.065 - 0.091 lb ai per acre (5.0 – 7.0 fl oz product). Subsequent applications can be at rates of 0.046 - 0.091 lb ai acre (3.5 - 7.0 fl oz product) depending on pest pressure. For control of cotton bollworm (*Helicoverpa zea*) in Bt transgenic cotton varieties, the initial application, and subsequent applications, of NUL3447 INSECTICIDE can be applied at 3.5 – 5.0 fluid ounces per acre as a foliar spray. Apply when cotton bollworm populations reach local established treatment thresholds to prevent crop damage.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per

100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 Insecticide before rotating to another registered insecticide having a different mode-of-action.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**CRANBERRY**

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Blackheaded fireworm*, Cherry fruitworm, Cranberry fruitworm, Green spanworm, Omnivorous leafroller, Raspberry crown borer, Sparganothis fruitworm	5.0 – 7.5 (0.066 - 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply less than 20 gals water per acre by ground. **DO NOT** apply less than 5 gals water per acre by aerial application.

\* Blackheaded Fireworm: Use high application rate for moderate to heavy infestations.

NUL3447 INSECTICIDE may be applied to cranberry by overhead chemigation. For specific guidance see label section titled **APPLICATION BY CHEMIGATION**.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### CUCURBIT VEGETABLES (EPA CROP GROUP 9)

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

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re- Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
<sup>1</sup> Soil at Planting (an in-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)	Beet armyworm, Cabbage looper	3.5 – 7.5 (0.046 – 0.099) See Rate Conversion Chart for rate per 1000 linear ft.	5 days for foliar; 10 days for drip irrigation	1	4
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	5.0 – 7.5 (0.066 - 0.099)			
Drip Chemigation: Make applications within the first half of the crop growing cycle, typically up to peak bloom crop stage	Melon worm	2.0 – 3.5 (0.026 – 0.046)			
	Beet armyworm, Cabbage looper, Pickle worm	3.5 – 7.5 (0.046 – 0.099)			
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	5.0 – 7.5 (0.066 - 0.099)			
Foliar	Melon worm	2.0 – 3.5 (0.026 - 0.046)			
	Beet armyworm, Cabbage looper, Hawaiian beet webworm, Pickleworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)			
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	5.0 – 7.5 (0.066 - 0.099)			
<b>APPLICATION INSTRUCTIONS:</b> Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. * Control of <i>Liriomyza</i> species except suppression only for <i>L. huidabrensis</i> and <i>L. langei</i> .					

\*\* Suppression only. Use in conjunction with an effective adult whitefly control program.

**<sup>1</sup>SOIL APPLICATIONS** (an in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, soil shank injection at planting, or drip chemigation): NUL3447 INSECTICIDE must be applied uniformly in the root zone or poor performance will result. Surface band application requires sufficient overhead watering following application in to ensure the treatment is moved into the root zone. **DO NOT** apply more than 7.5 fl oz (0.098 lb ai per acre) of NUL3447 INSECTICIDE to the soil at planting. **DO NOT** apply more than 10 fl oz (0.132 lb ai per acre) of NUL3447 INSECTICIDE per crop by any combination of at plant soil application and drip chemigation. **DO NOT** make more than 2 drip chemigation applications of NUL3447 INSECTICIDE per crop. **DO NOT** make more than one drip chemigation application per crop if an at plant application of NUL3447 INSECTICIDE was made. Refer to the SOIL APPLICATION section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per crop or 12 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 46.2 fl oz of NUL3447 INSECTICIDE or 0.6 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**FIGS**

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Navel orangeworm	5.0 – 7.5 (0.066 - 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

**GRAPE**

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Grape berry moth, Grape leafroller	3.5 – 7.5 (0.046 – 0.099)	7	14	4
	Climbing cutworm, European grapevine moth, Japanese beetle (adult)*, Katydid (nymphs)**, Light brown apple moth,	5.0 – 7.5 (0.066 - 0.099)			

	Raisin moth, Western grapeleaf skeletonizer				
	Omnivorous leafroller	4.2 – 7.5 (0.055 – 0.099)			

**APPLICATION INSTRUCTIONS:**  
Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre. Where higher spray volumes are used, apply a higher rate of NUL3447 INSECTICIDE in the specified rate range.  
\* Japanese beetle (adult) - use the high application rate for moderate to heavy infestations. \*\*Suppression of Katydid (nymphs) - Forktailed bush Katydid (*Scudderia furcata*), Angularwinged Katydid (*Microcentrum retinerve*): Correct timing of spray application is to nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity.  
Omnivorous leafroller - Make the first application at initiation of egg hatch, small larvae or first signs of infestations for each generation. Use higher rates of NUL3447 INSECTICIDE for moderate to heavy insect pressure. Raisin moth - Make the first application at initiation of egg generation. Use the higher application rate for moderate to heavy insect pressure.

**RESTRICTIONS:**  
**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.  
**DO NOT** make more than 4 applications per acre per calendar year.

#### LARGE SHRUB/TREE SUBGROUP (BERRY AND SMALL FRUIT CROP GROUP)

EPA Crop Subgroup 13-07C, Including: Bayberry; buffaloberry; che; chokeberry; elderberry; Juneberry (Saskatoon berry); mountain pepper berries; mulberry; phalsa; pincherry; riberry; salal; serviceberry; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Omnivorous leafroller, Raspberry crown borer	5.0 – 7.5 (0.066 - 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**  
Spray Volume: Thorough coverage is essential. **DO NOT** apply dilute applications of more than 200 gallons of water per acre. **DO NOT** apply less than 30 gallons of water per acre by ground. For best results apply 100 to 150 gallons of water per acre. Select a spray volume appropriate for the size of trees or plants and density of foliage.

**RESTRICTIONS:**  
**DO NOT** apply more than 15.4 of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.



### FORAGE, FODDER, AND STRAW OF TEFF

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Corn earworm, Beet armyworm, European corn Borer, Fall armyworm, Grasshoppers, Sorghum webworm, Southwestern corn borer, Sugarcane borer, True armyworm	3.5 – 5.0 (0.046 - 0.066)	7	14	4

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### FOLIAGE OF LEGUME VEGETABLES (EPA CROP GROUP 7)

Except soybean including: of any legume vegetable included in the legume vegetables that will be used as animal feed

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
<sup>1</sup> SOIL AT PLANTING In-furrow spray	Corn earworm, Beet armyworm, European corn borer, Fall armyworm	5.0 – 7.5 (0.065 – 0.098) See Rate Conversion Chart for rate per 1000 linear ft.	3	1	4
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Cabbage looper, Soybean looper, Western bean cutworm	3.5 – 7.5 (0.046 - 0.099)			
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	7.5 (0.099)			
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

\* Control of *Liriomyza* species except suppression only for *L. huidabrensis* and *L. langei*.

\*\* Suppression only. Use in conjunction with an effective adult whitefly control program.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**<sup>1</sup>SOIL APPLICATIONS:** In-Furrow Spray at Planting Apply as a narrow band spray into the furrow at the seeding depth. NUL3447 INSECTICIDE must be applied in a manner that ensures the product is in the root zone. NUL3447 INSECTICIDE must be in the root zone to provide effective control of target pests. NUL3447 INSECTICIDE is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of NUL3447 INSECTICIDE remain in the root zone where it is most effective. Unless directed otherwise in the specific crop sections of this label, only one soil application of NUL3447 INSECTICIDE can be made per crop.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per crop or 12 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop. **DO NOT** apply more than 46.2 fl oz of NUL3447 INSECTICIDE or 0.6 lb ai chlorantraniliprole containing products per acre per calendar year. In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**FORAGE, FODDER, AND STRAW OF CEREAL GRAINS (EPA CROP GROUP 16)**

Except Corn and Rice. Including Forage, fodder, and straw of all commodities included in the cereal grains group, except corn and rice. Includes Sorghum spp. [sorghum, forage; sorghum, stover; sudangrass, and hybrids of these grown for forage and/or stover]

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Sorghum webworm, Southwestern corn borer, Sugarcane borer, True armyworm	3.5 – 7.5 (0.046 - 0.099)	7	1	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			
APPLICATION INSTRUCTIONS:					

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**RESTRICTIONS:**

**DO NOT** make than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**FRUITING VEGETABLES**

Including: Eggplant, Groundcherry (*Physalis* spp.), okra, Pepino, Pepper, (including bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
<sup>1</sup> Soil at Planting (an in-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)	Beet armyworm, Fall armyworm, Loopers, Southern armyworm, Tomato fruitworm, Tomato pinworm, Western yellow striped armyworm	3.5 – 7.5 (0.046 – 0.099) See Rate Conversion Chart for rate per 1000 linear ft.	5	1	4
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	5.0 – 7.5 (0.066 – 0.099)			
Drip Chemigation:	Beet armyworm, Colorado potato beetle, European corn borer, Fall armyworm, Garden webworm, Hornworms, Loopers, Southern armyworm, Tomato fruitworm, Tomato pinworm, Western yellow striped armyworm	3.5 – 7.5 (0.046 – 0.099)			
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	5.0 – 7.5 (0.066 – 0.099)			
Foliar	Hornworms	2.0 – 5.0 (0.026 - 0.066)			
	Beet armyworm, Colorado potato beetle, European corn	3.5 – 7.5			

	borer, Fall armyworm, Garden webworm, Loopers, Southern armyworm, Tomato fruitworm, Tomato pinworm, Western yellow striped armyworm	(0.046 - 0.099)			
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	5.0 – 7.5 (0.066 - 0.099)			

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

\* Control of *Liriomyza* species except suppression only for *L. huidabrensis* and *L. langei*.

\*\* Suppression only. Use in conjunction with an effective adult whitefly control program.

**<sup>1</sup>SOIL APPLICATIONS** (an in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, soil shank injection at planting, or drip chemigation): NUL3447 INSECTICIDE must be applied uniformly in the root zone or poor performance will result. Surface band application requires sufficient overhead watering following application to ensure the treatment is moved into the root zone. **DO NOT** apply more than 7.5 fl oz (0.098 lb ai per acre) of NUL3447 INSECTICIDE to the soil at planting. **DO NOT** apply more than 10 fl oz (0.132 lb ai per acre) of NUL3447 INSECTICIDE per crop by any combination of at plant soil application and drip chemigation. For drip chemigation applications made in the second half of the crop growing cycle: translocation of NUL3447 INSECTICIDE into aerial portions of the plant may take up to 7 - 10 days. **DO NOT** make more than 2 drip chemigation applications of NUL3447 INSECTICIDE per crop. **DO NOT** make more than one drip chemigation application per crop if an at plant application of NUL3447 INSECTICIDE was made. Refer to the SOIL APPLICATION section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per crop or 12 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 46.2 fl oz of NUL3447 INSECTICIDE or 0.6 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**SMALL FRUIT VINE CLIMBING SUBGROUP**

Except fuzzy kiwifruit and group, (Berry and small fruit crop group) (EPA Crop Subgroup 13-07F), Including: Amur river grape; gooseberry; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Omnivorous leafroller, Raspberry crown borer	5.0 – 7.5 (0.066 – 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**

Spray Volume: Thorough coverage is essential. **DO NOT** apply dilute applications of more than 200 gallons of water per acre. **DO NOT** apply less than 30 gallons of water per acre by ground. For best results apply 100 to 150 gallons of water per acre. Select a spray volume appropriate for the size of trees or plants and density of foliage.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

### GRASS FORAGE, FODDER AND HAY (EPA CROP GROUP 17)

Any grass, Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Beet armyworm, Corn earworm, Fall armyworm, Sod webworm, Southern armyworm, True armyworm	3.5 – 7.5 (0.046 - 0.099)	7	0	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			
	Billbug (grubs)*, Cutworms, European crane fly (larvae)*	5.0 – 7.5 (0.066 - 0.099)			

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

\* Suppression only. Grass grown for seed only.

For control of Armyworms, Cutworms, and Sod Webworms, apply at first sign of economic crop damage. Apply NUL3447 INSECTICIDE as a thorough coverage foliar spray using properly calibrated ground equipment in a minimum of 10 gallons per acre, or via overhead chemigation in 0.10 to 0.20 acre inch of water. For foliar sprays, increase the spray volume to compensate for the amount of foliage present. For maximum spray penetration into the root crown area, the use of a silicone surfactant may be useful. For best results with foliar spray applications, delay the next irrigation for at least 24 hours. For suppression of European Crane Fly larvae apply between September and early November. For suppression of Billbug grubs, apply when overwintered adult Billbugs are first observed. This will usually occur in late April or early May. It is important to move the NUL3447 INSECTICIDE into the grass root zone. This is best achieved by applying via overhead chemigation in 0.25 to 0.50 acre inch of water, or by immediately following a foliar spray application with 0.25 to 0.50 acre inch of water.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

#### RESTRICTIONS:

**DO NOT** make than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### HEAD AND STEM BRASSICA AND LEAFY BRASSICA GREENS (EPA CROP SUBGROUPS 5A AND 5B)

Including: Broccoli, Broccoli Chinese (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Cabbage, Chinese mustard (gai choy), Cauliflower, Cavalo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Soil at Planting <sup>1</sup> (an in-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)	Beet armyworm, Diamondback moth*, Cabbage looper, Cabbage maggot**, Corn earworm, Cross-striped cabbageworm, Hawaiian beet webworm, Imported cabbageworm, Western Yellowstriped Armyworm	3.5 – 7.5 (0.046 -0.099)  See Rate Conversion Chart for rate per 1000 linear ft.	3 days for foliar applications; 10 days for drip chemigation applications	3	4
Drip Chemigation <sup>2</sup>	Beet armyworm, Diamondback moth*, Cabbage looper, Corn earworm, Cross-striped cabbageworm, Hawaiian beet webworm, Imported cabbageworm, Western Yellowstriped Armyworm	3.5 – 7.5 (0.046 – 0.099)			
Foliar <sup>3</sup>	Silverleaf whiteflies (nymphs)***	5.0 – 7.5 (0.066 - 0.099)			
	Beet armyworm, Cabbage looper, Corn earworm, Cross-striped cabbageworm, Diamondback moth*, Hawaiian beet webworm, Imported cabbageworm, Western Yellowstriped Armyworm	3.5 – 7.5 (0.046 - 0.099)			
	Grasshoppers	3.5 – 5.0			

		(0.046 - 0.066)			
<p><b>APPLICATION INSTRUCTIONS:</b></p> <p>Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.</p> <p><sup>1</sup><b>SOIL APPLICATIONS</b> (an in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, soil shank injection at planting, or drip chemigation): NUL3447 INSECTICIDE must be applied uniformly in the root zone or poor performance will result. Surface band application requires sufficient overhead watering following application to ensure the treatment is moved into the root zone. <b>DO NOT</b> apply more than 7.5 fl oz (0.098 lb ai per acre) of NUL3447 INSECTICIDE to the soil at planting. <b>DO NOT</b> apply more than 10 fl oz (0.132 lb ai per acre) of NUL3447 INSECTICIDE per crop by any combination of at plant soil application and drip chemigation.</p> <p><sup>2</sup>Application in <b>DRIP CHEMIGATION:</b> Drip tape must be placed directly underneath a single row to ensure NUL3447 is applied in the root zone. Drip chemigation applications made in the second half of the crop growing cycle: translocation of NUL3447 INSECTICIDE into aerial portions of the plant may take up to 7 - 10 days. <b>DO NOT</b> make more than 2 drip chemigation applications of NUL3447 INSECTICIDE per crop. <b>DO NOT</b> make more than one drip chemigation application per crop if an at plant application of NUL3447 INSECTICIDE was made. Refer to the SOIL APPLICATION section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.</p> <p><sup>3</sup><b>FOLIAR APPLICATIONS:</b> For best performance use an effective adjuvant. See the "Use of Adjuvants" section of the label.</p> <p><b>Grasshopper:</b> Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. <b>DO NOT</b> make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.</p> <p><b>*Diamondback Moth Resistance Management:</b></p> <p><b>DO NOT</b> apply NUL3447 INSECTICIDE more than twice to any generation of diamondback moth or within any 30 day period. After the second application of NUL3447 INSECTICIDE for diamondback moth, rotate to another effective insecticide with a different mode of action (a product with a different IRAC group number). Application(s) to the next generation of diamondback moth must be with an effective product with a different mode of action.</p> <p><b>DO NOT</b> apply less than 3.5 fl oz per application per acre for diamondback moth control.</p> <p><b>DO NOT</b> make more than 6 total applications per calendar year for control of diamondback moth at the same farm location.</p> <p><b>**Suppression only. Transplant water treatment only.</b></p> <p><b>*** Suppression only. Use in conjunction with an effective adult whitefly control program.</b></p> <p><b>RESTRICTIONS:</b></p> <p><b>DO NOT</b> make more than 4 applications per acre per crop or 16 applications per acre per calendar year.</p> <p><b>DO NOT</b> apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.</p> <p><b>DO NOT</b> apply more than 61.6 fl oz of NUL3447 INSECTICIDE or 0.8 lb ai chlorantraniliprole containing products per acre per calendar year.</p> <p>In NY <b>DO NOT</b> apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.</p>					



### HERB SUBGROUP (EPA CROP SUBGROUP 19A)

Including Angelica; balm; basil; borage; burnet; chamomile; catnip; chervil (dried); chive, Chinese; clary; coriander (leaf); costmary; culantro (leaf); curry (leaf); dillweed; horehound; hyssop; lavender; lemongrass; lovage (leaf); marigold; marjoram; nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; wintergreen; woodruff; and wormwood

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Cabbage looper, Corn earworm, Fall armyworm, Southern armyworm	3.5 – 5.0 (0.046 - 0.066)	3	1	4

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**PLANT TOLERANCE PHYTOTOXICITY:** However, neither the manufacturer nor the seller has determined whether or not NUL3447 INSECTICIDE can be used safely on all herbs and spices for which it is registered for use. Since all herbs and spices and their varieties and cultivars have not been tested for phytotoxicity it is recommended that a small number of plants be sprayed initially to determine if there is any phytotoxicity prior to large scale applications to herbs and spices. The user assumes all risks arising from application of NUL3447 INSECTICIDE in a manner that is inconsistent with its labeling.

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 61.6 fl oz of NUL3447 INSECTICIDE or 0.8 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### HOPS (EXCEPT CALIFORNIA)

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)	7	0	4

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### LEAFY VEGETABLES EXCEPT BRASSICA (EPA CROP GROUP 4)

Including: Amaranth leafy, Arugula (roquette), Cardoon, Celery, Celery (Chinese), Celtuce, Chervil, Chinese spinach, Chrysanthemum (edible leaved), Chrysanthemum, garland, Corn salad, Cress (garden), Cress (upland), Dandelion, leaves, Dock (sorrel), Endive (escarole), Florence fennel, Lettuce (head & leaf), Orach, Parsley, Purslane (garden), (winter), Radicchio (red chicory), Rhubarb, Spinach, Spinach (vine), Spinach (New Zealand), Swiss chard, Tampala

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Soil at Planting <sup>1</sup> (an in-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)	Beet armyworm , Corn earworm, Cabbage looper, Tobacco budworm	3.5 – 7.5 (0.046 – 0.099) See Rate Conversion Chart for rate per 1000 linear ft.	3 days for foliar applications; 10 days for drip irrigation applications	1	4
	Leafminers (larvae)**, Silverleaf whiteflies (nymphs)***	5.0 – 7.5 (0.066 – 0.099)			
Drip Chemigation	Diamondback moth*, Beet armyworm, Corn earworm, Cabbage looper, Hawaiian beet webworm, Tobacco budworm	3.5 – 7.5 (0.046 – 0.099)			
	Leafminers (larvae)**, Silverleaf whiteflies (nymphs)***	5.0 – 7.5 (0.066 – 0.099)			
Foliar	Corn earworm, Diamondback moth*, Beet armyworm, Cabbage looper, Hawaiian beet webworm, Tobacco budworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)			
	Leafminers (larvae)**, Silverleaf whiteflies (nymphs)***	5.0 – 7.5 (0.066 - 0.099)			
	Grasshoppers	3.5 – 5.0 (0.046 - 0.066)			

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

#### \*Diamondback Moth Resistance Management:

**DO NOT** apply NUL3447 INSECTICIDE more than twice to any generation of diamondback moth or within any 30 day period. After the second application of NUL3447 INSECTICIDE for diamondback moth, rotate to another effective insecticide with a different mode of action. Application(s) to the next generation of diamondback moth must be with an effective product with a different mode of action.

**DO NOT** apply less than 3.5 fl oz of NUL3447 INSECTICIDE per application per acre for diamondback moth control.

**DO NOT** make more than 6 total applications per acre per calendar year for control of diamondback moth at the same farm location.

\*\* Control of *Liriomyza* spp. except suppression only for *L. huidabrensis* and *L. langei*.

\*\*\* Suppression only. Use in conjunction with an effective adult whitefly control program.

<sup>1</sup>**SOIL APPLICATIONS** (an in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, soil shank injection at planting, or drip chemigation): NUL3447 INSECTICIDE must be applied uniformly in the root zone or poor performance will result. Surface band application requires sufficient watering in to ensure the treatment is moved into the root zone. **DO NOT** apply more than 7.5 fl oz (0.098 lb ai per acre) of NUL3447 INSECTICIDE to the soil at planting. **DO NOT** apply more than 10 fl oz (0.132 lb ai per acre) of NUL3447 INSECTICIDE per crop by any combination of at plant soil application and drip chemigation. **DO NOT** make more than 2 drip chemigation applications of NUL3447 INSECTICIDE per crop. For drip chemigation applications made in the second half of the crop growing cycle: translocation of NUL3447 INSECTICIDE into aerial portions of the plant may take up to 7 - 10 days. **DO NOT** make more than one drip chemigation application per crop if an at plant application of NUL3447 INSECTICIDE was made. Refer to the SOIL APPLICATION section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.

**Grasshopper:** Apply foliarly when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**DO NOT** apply more than 61.6 fl oz of NUL3447 INSECTICIDE or 0.8 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## LEAVES OF ROOT AND TUBER VEGETABLES (EPA CROP GROUP 2) (HUMAN FOOD OR ANIMAL FEED)

Including: Beet, garden; beet, sugar; burdock, edible; carrot; cassava, bitter and sweet; celeriac; chervil, turnip-rooted; chicory; dasheen (taro); parsnip; radish; radish, oriental (daikon); rutabaga; salsify, black; sweet potato; tanier; turnip; yam, true

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)	3	1	4
	Grasshoppers	3.5 – 5.0 (0.0465 - 0.066)			

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 61.6 fl oz of NUL3447 INSECTICIDE or 0.8 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**LEGUME VEGETABLES (EPA CROP GROUP 6)**  
**(FOR SOYBEAN SEE SEPARATE SOYBEAN CROP SECTION BELOW)**

(Succulent or Dried, Including Bean (*Lupinus*) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (*Vigna*) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (*Pisum*) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; swordbean

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
<sup>1</sup> SOIL AT PLANTING In-furrow spray	Corn earworm, Beet armyworm, European corn borer, Fall armyworm	5.0 – 7.5 (0.066 – 0.099) See Rate Conversion Chart for rate per 1000 linear ft.	3	1	4
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Cabbage looper, Soybean looper, Western bean cutworm	3.5 – 7.5 (0.046 - 0.099)			
	Leafminers (larvae)*, Silverleaf whiteflies (nymphs)**	7.5 (0.099)			
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

\* Control of *Liriomyza* spp. except suppression only for *L. huidabrensis* and *L. langei*.

\*\* Suppression only. Use in conjunction with an effective adult whitefly control program.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

**<sup>1</sup>SOIL APPLICATIONS:** In-Furrow Spray at Planting Apply as a narrow band spray into the furrow at the seeding depth. NUL3447 INSECTICIDE must be applied in a manner that ensures the product is in the root zone. NUL3447 INSECTICIDE must be in the root zone to provide effective control of target pests. NUL3447 INSECTICIDE is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of NUL3447 INSECTICIDE remain in the root zone where it is most

effective. Unless directed otherwise in the specific crop sections of this label, only one soil application of NUL3447 INSECTICIDE can be made per crop.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per crop or 12 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 46.2 fl oz of NUL3447 INSECTICIDE or 0.6 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

**LOW GROWING BERRY SUGROUP EXCEPT CRANBERRY AND STRAWBERRY (BERRY AND SMALL FRUIT CROP GROUP)**

EPA Crop Subgroup 13-07G, Including: Bearberry; bilberry; blueberry, lowbush; cloudberry; lingonberry; muntries; partridgeberry; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Cherry fruitworm, Cranberry fruitworm, Japanese beetle (adult)*, Omnivorous leafroller, Raspberry crown borer	5.0 – 7.5 (0.066 – 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**

Spray Volume: Thorough coverage is essential. **DO NOT** dilute applications of more than 200 gallons of water per acre. **DO NOT** apply less than 30 gallons of water per acre by ground. For best results apply 100 to 150 gallons of water per acre. Select a spray volume appropriate for the size of trees or plants and density of foliage.

\*Japanese beetle (adult) – use the high application rate for moderate to heavy infestations.

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

## MINT: PEPPERMINT AND SPEARMINT

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Armyworms, Cutworms, Loopers, Mint root borer	3.5 – 7.5 (0.046 - 0.099)	14	3	4

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation. In mint growing areas where the mint root borer degree day model is being used and mint is being grown under sprinkler irrigation: apply NUL3447 INSECTICIDE at 5.0 fl oz/acre (0.065 lb ai per acre) as a foliar spray or via overhead sprinkler chemigation. Time the application between 900 and 1250 growing degree days. Foliar sprays must be followed by sprinkler irrigation before swathing. When making a foliar spray, be sure to include an adjuvant to help obtain thorough coverage. Use only adjuvant products that are labeled for agricultural use and follow the directions on the manufacturer's label. Always conduct a premix test for compatibility. Use an adjuvant that does not affect foliage.

**Mint Root Borer:** For applications after the last cutting of mint, apply NUL3447 INSECTICIDE soon after the last cutting of mint, but before the Mint Root Borer forms an overwintering hibernaculum. If NUL3447 INSECTICIDE is applied as a broadcast spray, follow application with at least 2 inches water per acre of overhead irrigation. For furrow irrigated mint, apply NUL3447 INSECTICIDE as a broadcast spray soon after harvest. Follow application with two furrow irrigations in order to move NUL3447 INSECTICIDE into the mint root zone before the mint root borer forms a hibernaculum. If NUL3447 INSECTICIDE is applied via overhead chemigation, use a minimum of 2 inches of water to move the NUL3447 INSECTICIDE into the mint root zone.

### RESTRICTIONS:

- **DO NOT** make more than 4 applications per acre per calendar year.
- **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### NON-GRASS ANIMAL FEEDS (EPA CROP GROUP 18)

Including: Alfalfa; bean, velvet; clover (Trifolium, Melilotus); kudzu; lespedeza; lupin; sainfoin; trefoil; vetch; vetch, crown; vetch, milk

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Alfalfa caterpillar, Alfalfa looper, Beet armyworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)	n/a	0	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Grasshopper:** Apply foliarly when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Make one application per cutting.



### OILSEED GROUP (EPA CROP GROUP 20)

Except milkweed including: Borage; calendula; canola; castor oil plant; Chinese tallowtree; cottonseed; crambe; cuphea; euphorbia; evening primrose; flax seed; gold of pleasure; hare's ear mustard; jojoba; lesquerella; lunaria; meadowfoam; mustard seed; niger seed; oil radish; poppy seed; rapeseed; rose hip; safflower; sesame; stokes aster; sunflower; sweet rocket; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Diamondback moth, Banded sunflower moth, Sunflower moth	3.5 – 7.5 (0.046 - 0.099)	5	1	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures. NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Banded Sunflower Moth and Sunflower Moth:** Apply when moth populations reach local established treatment thresholds and as blooms begin to open (sunflower growth stage R-5.0 to R-5.1) to prevent crop damage. Make applications at 5-7 days intervals when moth pressure is heavy.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest this product there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### OLIVES

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	American plum borer, European grapevine moth	5.0 – 7.5 (0.066 – 0.099)	7	1	4

#### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

#### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

**ONION BULBS, AND ONION GREEN SUBGROUPS (EPA CROP GROUP 3-07A AND 3-07B)**

Including Chive, fresh leaves; chive, Chinese, fresh leaves; Daylily, bulb; elegans hosta; Fritillaria, bulb; fritillaria, leaves; Garlic, bulb; Garlic, great-headed, bulb; Garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; Lily, bulb; onion, Beltsville bunching; Onion, bulb; Onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; Onion, pearl; Onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; Shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)	7	1	4

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per crop or 12 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 46.2 fl oz of NUL3447 INSECTICIDE or 0.6 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## PEANUT

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Irrigation	Corn earworm, Beet armyworm, Fall armyworm, Green cloverworm, Southern armyworm, Tobacco budworm, Velvetbean caterpillar	3.5 – 7.5 (0.046 - 0.099)	5	1	4
	Cabbage looper, Granulate cutworm, Soybean looper	5.0 – 7.5 (0.066 - 0.099)			
	Grasshopper	2.0 – 5.0 (0.026 - 0.066)			

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of NUL3447 INSECTICIDE before rotating to another registered insecticide having a different mode-of-action.

### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## PERSIMMONS

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Leafrollers	5.0 – 7.5 (0.066 – 0.099)	7	1	4

### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

## POME FRUITS (EPA CROP GROUP 11-10)

Including: Apple; Crabapple; Loquat; Mayhaw; Pear; Pear, oriental; Quince

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Green fruitworm, Spotted tentiform Leafminer, Western tentiform leafminer	4.2 – 6.7 (0.055 – 0.088)	10	5	4
	Apple maggot*, Codling moth**, European apple sawfly, European corn borer, Light brown apple moth, Obliquebanded leafroller***, Oriental fruit moth, Pandemis leafroller, Plum curculio*, Redbanded leafroller, Tufted apple bud moth, Variegated leafroller, White apple leafhopper*	4.2 – 7.5 (0.055 – 0.099)  Western U.S. States† 5.0 – 7.5 (0.066 – 0.099)  † Includes states of AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY			

### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

Effect on beneficial insects – Beneficial insects such as predators or parasitoids are an important component in pome fruits IPM. NUL3447 INSECTICIDE has demonstrated low to no impact on predator *Deraeocoris brevis* and key parasitoids, *Aphelinus mali*, *Aphytis* spp., and *Encarsia* spp. This low impact is very important in preservation of biological control of pear psylla, San Jose scale, and wooly apple aphid when NUL3447 INSECTICIDE is applied early season for control of first generation codling moth.

\* Suppression only.

**\*\* Codling Moth:** Make first application prior to egg hatch. Each application provides 10 to 17 days of protection depending on intensity of codling moth pressure and rate of fruit growth. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Use pheromone trap catches and local degree day based spray timing advisories to determine the development of each generation. Higher rates in the labeled rate range may be needed for high infestation levels and/or large, dense foliage trees.

**Codling Moth Resistance Management:** **DO NOT** apply NUL3447 INSECTICIDE (or other Group 28 insecticides) more than three times to a generation of codling moth (codling moth typically has a single generation “treatment window” of 30 to 45 days). Application(s) to the next generation of codling moth must be with an effective product(s) with a different mode of action (different IRAC group number) for at least a 30 day “treatment window” before making any additional applications of NUL3447 INSECTICIDE (or other Group 28 insecticides).

**Apples - Western U.S. States†:** Use the 5.0 fl oz per acre rate for low pressure infestations and make repeat applications on a 14 day schedule. For high pressure infestations or for orchards with a history of significant codling moth damage, apply NUL3447 INSECTICIDE at 6.7 to 7.5 fl oz per acre. Make repeat applications on a 10 to 17 day schedule. For best results in high pressure orchards, use a comprehensive management program involving ovicide treatments followed by properly timed larvicide applications at high labeled rates and shortened retreatment intervals. When using NUL3447 INSECTICIDE in an integrated program with other codling moth insecticides, make sure the retreatment schedule is consistent with the period of effectiveness for each product used.

**Pears - Western U.S. States†:** Apply NUL3447 INSECTICIDE on a 14 to 17 day schedule. For low pressure infestations use the 5.0 fl oz rate. For high pressure infestations or for orchards with a history of significant codling moth damage, apply NUL3447 INSECTICIDE at 6.7 to 7.5 fl oz per acre.

**\*\*\*Obliquebanded Leafroller:** For overwintering larvae, apply in the spring (pink to petal fall stage) at first sign of active feeding. For summer generation apply just prior to or at the beginning of egg hatch. Leafroller feeding stops after ingestion of treated foliage, however, during periods of cold weather when leafrollers are inactive, it may take several days to achieve complete control. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees.

**Obliquebanded Leafroller Resistance Management:** Only apply NUL3447 INSECTICIDE (or other Group 28 insecticides) to one generation of obliquebanded leafroller per year. Application(s) to other generations of obliquebanded leafroller must be with an effective product with a different mode of action (i.e. a product with a different IRAC group number).

Effect on beneficial insects - Beneficial insects such as predators or parasitoids are an important component in pome fruit IPM. NUL3447 INSECTICIDE has demonstrated low to no impact on the predator *Deraeocoris brevis* and key parasitoids, *Aphelinus mali*, *Aphytis* spp., and *Encarsia* spp. This low impact is very important in preservation of biological control of pear psylla, San Jose scale and wooly apple aphid when NUL3447 INSECTICIDE is applied early season for control of first generation codling moth.

#### **RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

## POMEGRANATES

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Navel orangeworm, Omnivorous leafroller	5.0 – 7.5 (0.066 – 0.099)	7	1	4

### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

## POTATO

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Beet and Yellowstriped Armyworms, Cabbage looper, Colorado potato beetle, European corn borer, Potato tuberworm	3.5 – 7.5 (0.046 - 0.099)	5	14	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**Colorado Potato Beetle Resistance Management:** **DO NOT** apply NUL3447 INSECTICIDE more than twice to a generation of Colorado potato beetle or within any 30 day period. Application(s) to the next generation of Colorado potato beetle must be with an effective product with a different mode of action.

**Potato Tuberworm:** Apply NUL3447 INSECTICIDE at rates of 3.2 – 5.0 fl oz per acre to control potato tuberworm. Begin application when field scouting indicates the presence of tuberworm adults and/or larvae. Potato tuberworm often have overlapping generations so repeat applications of NUL3447 INSECTICIDE may be needed based on field scouting. Avoid treating successive generations with the same mode of action. It is important to protect the crop just prior to harvest when foliage starts to senesce. Use the high rate of this product where potato tuberworm pressure is high. Failure to adequately control potato tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage. Foliar sprays alone, by air or ground, may not

provide adequate control of larvae in the mid to lower crop canopy. Performance is improved by applying via overhead chemigation. Alternatively, integrate chemigation applications into the foliar spray program. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v). For chemigation applications, apply in 0.1 to 0.2 acre inches of water and add MSO at 12 to 16 fl oz/acre. NUL3447 INSECTICIDE can be applied via overhead sprinkler chemigation systems.

**DO NOT** apply this product more than once to Colorado potato beetle via overhead chemigation.

NUL3447 INSECTICIDE may only be applied to potatoes as a direct foliar spray or via chemigation through overhead sprinkler irrigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Cabbage Looper: West of the Rocky Mountains:** (NM, CO, WY, MT, UT, NV, AZ, ID, WA, OR, CA, AK and HI) apply NUL3447 INSECTICIDE at 2.0 – 3.4 fl oz per acre (0.026 - 0.044 lb ai/acre) to control early stage instars (1st - 3rd instar).

**Colorado Potato Beetle: West of the Rocky Mountains:** (NM, CO, WY, MT, UT, NV, AZ, ID, WA, OR, CA, AK and HI) apply NUL3447 INSECTICIDE at 2.0 – 3.4 fl oz per acre (0.026 - 0.044 lb ai/acre) to control local populations of Colorado Potato Beetle believed to be sensitive to most commonly used insecticides. Apply just prior to or just after egg hatch while larvae are small. In some areas, where local populations of Colorado Potato Beetle have elevated levels of resistance to insecticides, use NUL3447 INSECTICIDE at the 5.0 fl oz per acre application rate. With resistant populations of Colorado Potato Beetle, back-to-back applications on 5 to 7 day intervals may be required to achieve maximum control.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## PRICKLY PEAR CACTUS

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Prickly pear moth	5.0 – 7.5 (0.066 - 0.099)	1	4

**RESTRICTIONS:**

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## QUINOA

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Grasshoppers, Sorghum webworm, Southwestern corn borer, Sugarcane borer, True armyworm	3.5 – 5.0 (0.046 - 0.066)	7	14	4

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## RICE (except California)

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Soil Application <sup>1</sup> Broadcast spray	Rice water weevil larvae	6.1 – 7.6 (0.08 – 0.1)	N/A	N/A	4

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**RESTRICTIONS:**

<sup>1</sup>Only for application as a broadcast spray to soil: For water-seeded rice, apply NUL3447 INSECTICIDE to soil surface prior to seeding and flooding. For dry-seed rice, NUL3447 INSECTICIDE may be applied to the surface of the soil before, during or after planting, but application must be made before rice emergence.

**DO NOT** apply more than 5 days prior to flooding.



Once flood is established, hold the water for a minimum of 14 days before discharging the water. Broadcast application may be made using aerial or ground application equipment.

**DO NOT** apply more than 7.6 fl oz of NUL3447 INSECTICIDE or 0.1 lb ai chlorantraniliprole containing products per acre per calendar year.

**DO NOT** use NUL3447 INSECTICIDE treated rice fields for the aquaculture of edible fish or crustacea (including crawfish) during the rice production cycle (planting through harvest).

#### ROOT AND TUBER VEGETABLES (EPA CROP GROUP 1) EXCEPT POTATO

Including Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac; chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Western yellowstriped armyworm	3.5 – 7.5 (0.046 - 0.099)	3	1	4

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 61.6 fl oz of NUL3447 INSECTICIDE or 0.8 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## SOYBEAN

Including edamame (immature soybean)

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Corn earworm, Beet armyworm, Fall armyworm, Cabbage looper, Green cloverworm, Southern armyworm, Soybean looper, Tobacco budworm, Velvetbean caterpillar	3.5 – 7.5 (0.046 - 0.099)	3	1	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			
	Dectes stem borer	5.0 – 7.5 (0.066 - 0.099)			

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**Dectes Stem Borer:** To minimize crop damage by the pest, apply at the onset of adult beetle flight. Ensure thorough spray coverage and make application to soybeans prior to egg laying. For best results, regular scouting using a sweep net is necessary to identify the emergence and infestation of adult beetles. If regular scouting is not used, apply at 1500 Growing Degree Days (GDD) in Nebraska and northern Kansas or consult with your local agricultural advisor for advice on application timing. Continued scouting should be used to track the duration of the emergence period. A second application may be necessary at 3 to 4 weeks after the initial application if adults continue to emerge over an extended period.

### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### SPICE (EPA Crop Subgroup 19B)

Including: Allspice; anise (seed); anise, star; annatto (seed); caper (buds); caraway; caraway, black; cardamom; cassia (bark); cassia (buds); celery (seed); cinnamon; clove (buds); coriander (seed); culantro (seed); cumin; dill (seed); fennel, common; fennel, Florence (seed); fenugreek; grains of paradise; juniper (berry); lovage (seed); mace; mustard (seed); nutmeg; pepper, black; pepper, white; poppy (seed); saffron; and vanilla

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Cabbage looper, Corn earworm, Fall armyworm, Southern armyworm	3.5 – 5.0 (0.046 - 0.066)	3	1	4

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**PLANT TOLERANCE PHYTOTOXICITY:** However, neither the manufacturer nor the seller has determined whether or not NUL3447 INSECTICIDE can be used safely on all herbs and spices for which it is registered for use. Since all herbs and spices and their varieties and cultivars have not been tested for phytotoxicity it is recommended that a small number of plants be sprayed initially to determine if there is any phytotoxicity prior to large scale applications to herbs and spices. The user assumes all risks arising from application of this product in a manner that is inconsistent with its labeling.

#### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 61.6 fl oz of NUL3447 INSECTICIDE or 0.8 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### STONE FRUITS (EPA CROP GROUP 12-12)

Including: Apricot; Cherry, sweet; Cherry, tart; Nectarine; Peach; Plum; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plumcot; Prune (fresh) Apricot, Japanese; Capulin; Cherry, black; Cherry Nanking; Jujube, Chinese; Plum, American; Plum, beach; Plum, Canada; Plum, cherry; Plum, Klamath; Sloe

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Cherry fruit fly*, Codling moth, Katydid (nymphs) **, Light brown apple moth, Obliquebanded leafroller, Omnivorous leaf roller, Oriental fruit moth, Peach twig borer ***, Tufted apple bud moth	5.0 – 7.5 (0.066 – 0.099)	7	10	4

#### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

\* Suppression only.

\*\* Suppression of Katydid (nymphs) - Forktailed bush Katydid (*Scudderia furcata*), Angularwinged Katydid (*Microcentrum retinerve*). Correct timing of spray application is to the nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity.

\*\*\* Peach twig borer - For early dormant through mid-dormant applications, use higher rates of NUL3447 INSECTICIDE; for late dormant applications, use lower rates. Applications may be made with an EPA registered dormant oil; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils. For best performance, apply using ground equipment to achieve thorough uniform coverage of all scaffolds and limbs. For "May spray" applications to the summer generation, make applications at peak moth flight (timed at or before peak egg lay). Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees.

#### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year. A lower application rate of 3.5 – 5.0 fl oz of this product per acre can be used in short interval (7-10 days) spray program.

## STRAWBERRY

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Beet armyworm, Cabbage looper, Corn earworm, Japanese beetle (adult), Light brown apple moth	3.5 – 7.5 (0.046 - 0.099)	7	1	4

### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**Light Brown Apple Moth:** Make the first application at initiation of egg hatch, small larvae or at first signs of infestation for each generation. Use the higher application rate for moderate to heavy insect pressure. Make application before pests reach damaging levels. Monitor fields and make an additional application if populations rebuild to potentially damaging levels.

Apply in sufficient water to obtain thorough and uniform cover of foliage and fruit. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action threshold levels for this pest in strawberry.

### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per crop or 8 application per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per crop.

**DO NOT** apply more than 30.8 fl oz of NUL3447 INSECTICIDE or 0.4 lb ai chlorantraniliprole containing products per acre per calendar year.

In NY **DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## SUGARCANE

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar; Overhead Chemigation	Sugarcane borer, Mexican rice borer	3.5 – 7.5 (0.046 - 0.099)	7	14	4
	Grasshoppers	2.0 – 5.0 (0.026 - 0.066)			

Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.

### APPLICATION INSTRUCTIONS:

NUL3447 INSECTICIDE can be applied by overhead sprinkler chemigation systems. See **CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS** section for instructions on overhead sprinkler chemigation.

**Mexican Rice Borer:** Make the application at initiation of egg hatch, small larvae or at first signs of infestation. The lower recommended rate range can be used when shorter residual control is needed. Use the higher recommended rate range for heavy insect pressure or when longer residual control is desired. Make the application before pests reach damaging levels. Apply in sufficient water to obtain thorough and uniform cover of foliage. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate action threshold levels for these pests in sugarcane.

**Grasshopper:** Apply foliar when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications to nymphal stages and thorough coverage is critical to achieve control. Performance is improved with the addition of a Methylated Seed Oil (MSO) adjuvant at 1 gallon per 100 gallons of spray volume (1% v/v) when eggs have hatched, and the majority of the grasshopper population is 2nd - 3rd instar nymphs. Once grasshoppers contact and/or ingest NUL3447 INSECTICIDE there will be rapid feeding cessation; insect mortality may not occur until a week later or longer. **DO NOT** make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

### RESTRICTIONS:

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

## TEA (HI & SC ONLY)

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Leafrollers	5.0 – 7.5 (0.066 – 0.099)	14	3	4

### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre.

### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.

### TEFF

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Corn earworm, Beet armyworm, European corn borer, Fall armyworm, Grasshoppers, Sorghum webworm, Southwestern corn borer, Sugarcane borer, True armyworm	3.5 – 5.0 (0.046 - 0.066)	7	14	4

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### TOBACCO (except California)

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
SOIL AT PLANTING <sup>1</sup> (transplant water treatment only)	Tobacco budworm, Tomato hornworm, Tobacco hornworm	5.0 – 7.5 (0.066 – 0.099)	3	1	4
Foliar	Split worm (potato tuberworm), Tobacco budworm, Tomato hornworm, Tobacco hornworm	3.5 – 7.5 (0.046 – 0.099)			

**APPLICATION INSTRUCTIONS:**

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

<sup>1</sup>SOIL APPLICATIONS (transplant water treatment at planting): This product must be applied uniformly in the root zone or poor performance will result. **DO NOT** apply more than 7.5 fl oz (0.098 lb ai per acre) of NUL3447 INSECTICIDE to the soil at planting. Refer to the SOIL APPLICATION section of this label for additional guidance.

**RESTRICTIONS:**

**DO NOT** make more than 4 applications per acre per calendar year.

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

### TREE NUTS (EPA CROP GROUP 14-12)

Including: African nut-tree; Almond; Beechnut; Brazil nut; Brazilian pine; Bunya; Bur oak; Bitternut; Cajou nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito nut; Dika nut; Ginkgo; Guiana chestnut; Hazelnut (Filbert); Heartnut; Hickory nut Japanese horsechestnut; Macadamia nut; Mongongo nut; Monkey-pot; Monkey puzzle nut; Okari nut; Pachira nut; Peach palm nut; Pecan; Pequi; Pili nut; Pine nut; Pistachio; Sapucala nut; Tropical almond; Walnut, black; Walnut, English; Yellowhorn; and Cultivars, varieties, and/or hybrids of these

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Hickory shuckworm, Pecan nut casebearer	3.5 – 7.5 (0.046 – 0.099)	7	10	4
	Filbertworm	4.2 – 7.5 (0.055 – 0.099)			
	Codling moth, Light brown apple Moth, Navel orange worm, Oblique banded Leafroller, Oriental fruit moth, Peach twig borer	5.0 – 7.5 (0.066 – 0.099)			

#### APPLICATION INSTRUCTIONS:

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre. Where higher spray volumes are used, apply a higher rate of NUL3447 INSECTICIDE in the specified rate range.

**Grazing on Tree Nut orchard or grove floor** – There are no grazing restrictions for (1) Grass forage, fodder and hay. Any grass Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage, and (2) Non-grass animal feeds.

**Filbertworm:** Make initial application just before or at filbertworm egg hatch. Depending on the length of the filbertworm moth flight, multiple applications may be required to protect the crop. Under heavy filbertworm pressure, apply NUL3447 INSECTICIDE on a 14 day retreatment schedule. With moderate to low filbertworm pressure, apply NUL3447 INSECTICIDE at retreatment intervals no longer than every 21 days.

**Codling moth** – (Walnut) Make initial application at or before peak egg lay for targeted generation. Depending on level of infestation reapply 14-21 days later as needed. Use higher rates and ground application equipment to achieve thorough coverage.

**Naval orange worm** (Hullsplit application timing) – Make an application at 1-5% hull-split timing; make a second application approximately 10-14 days later. Depending on level of pest infestation, use of higher rates in the labeled rate range and multiple applications may be needed.

**Peach twig borer** - NUL3447 INSECTICIDE may be used throughout the growing season, however for dormant applications: NUL3447 INSECTICIDE may be tank mixed with an EPA registered dormant oil; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in tree nut crops. For best performance apply with ground equipment to achieve thorough uniform coverage of all scaffolds and limbs. The high rate is recommended for applications made at early to mid-dormant timing.

**Peach twig borer** – For spring application to overwintering generation: Make application at late dormant (just prior to bud break) to early bloom. For “May spray” applications to the summer generation: Make applications at peak moth flight (timed at or before peak egg lay). Higher rates in the labeled rate range may be needed for high infestations levels and large, dense foliage trees.

#### RESTRICTIONS:

**DO NOT** apply more than 15.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb chlorantraniliprole containing products per acre per calendar year.



### TROPICAL FRUITS

Including: acerola; atemoya; avocado; biriba; black sapote; canistel; cherimoya; custard apple; ilama; feijoa; guava; jaboticaba; longan; lychee; mamey sapote; mango; papaya; passionfruit; pineapple; pulasan; rambutan; sapodilla; soursop; Spanish lime; star apple; starfruit; sugar apple; wax jambu; White sapote (Casimiroa), and other cultivars and/or hybrids of these.

Application Method	Insect(s)	NUL3447 INSECTICIDE Rate Per Acre FL OZ (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Foliar	Leafminers, Leafrollers	5.0 – 7.5 (0.066 – 0.099)	10	1*	4

#### APPLICATION INSTRUCTIONS:

Apply higher rates within the listed range for heavier infestations, larger/denser crops, or extreme environmental conditions such as rainy weather and high temperatures.

Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. **DO NOT** apply dilute applications of more than 200 gal water per acre. **DO NOT** apply less than 30 gal water per acre by ground. For best results apply 100 to 150 gal water per acre. Where higher spray volumes are used, apply a higher rate of NUL3447 INSECTICIDE in the specified rate range.

#### RESTRICTIONS:

**DO NOT** apply more than 5.4 fl oz of NUL3447 INSECTICIDE or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

\*Except acerola, jaboticaba and lychee. Last application days to harvest for acerola, jaboticaba and lychee is 10 days.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

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

### **CONTAINER HANDLING:**

**For Small (Capacity Equal to or Less Than 5 Gallons) Nonrefillable HDPE Plastic Containers:** 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 for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

OR

### **For Large (Capacity Greater Than 5 Gallons) Nonrefillable HDPE Plastic Containers:**

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 for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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