## SPECIMEN LABEL

CHLORANTRANILIPROLE GROUP 28 INSECTICIDE

# EXCELIPBOLE 400SC

#### **ACTIVE INGREDIENT:**

OTHER INGREDIENTS: 65.95%

Contains 3.34 pound of active ingredient per gallon Chlorantraniliprole belongs to the anthranilic diamide chemical class.

**KEEP OUT OF REACH OF CHILDREN** MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS **CAUTION/PRECAUCIÓN** 

Si usted no entiende la etiqueta, busque a alquien para que se la explique a usted en detalle.

(If you **DO NOT** understand this label, find someone to explain it to you

See inside booklet for complete First Aid, Precautionary Statements, Directions For Use, and Storage and Disposal.

For 24-hour chemical spill, leak, fire, exposure or accident response information, call CHEMTREC toll free at 1-800-424-9300.

Para obtener información sobre derrames, fugas, incendios, exposiciones o accidentes químicos las 24 horas, llame a CHEMTREC sin cargo al 1-800-424-9300.

Not registered for use by the state of New York in Nassau, Suffolk, Kings, and Queens counties.

Manufactured by: ALBAUGH, LLC 1525 NE 36th Street, Ankeny, IA 50021





	FIRST AID						
IF SWALLOWED/	<ul> <li>Immediately call a poison control center or doctor.</li> <li>DO NOT induce vomiting unless told by a poison control center or doctor.</li> <li>DO NOT give any liquid to the person.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>						
SI SE INGIERE:	<ul> <li>Llame de inmediato a un centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> <li>NO induzca el vómito a menos que así se lo indique un centro de control de envenenamientos o un médico.</li> <li>NO le dé ningún líquido a la persona.</li> <li>NO administre nada por boca a una persona que haya perdido el conocimiento.</li> </ul>						
IF ON SKIN OR CLOTHING/	<ul> <li>Takeoff contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>						
SI CAE EN LA PIEL:	<ul> <li>Quítese la ropa contaminada.</li> <li>Enjuague la piel inmediatamente con bastante agua por 15-20 minutos.</li> <li>Llame al centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> </ul>						
IF IN EYES/ SI ENTRA EN	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>						
CONTACTO CON LOS OJOS:	<ul> <li>Mantenga los ojos abiertos y enjuáguelos lenta y cuidadosamente con agua, durante 15 a 20 minutos.</li> <li>Si utiliza lentes de contacto, retírelos después de los primeros 5 minutos, luego continúe enjuagando los ojos.</li> <li>Llame al centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> </ul>						
IF INHALED/	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>						
SI ES INHALADO:	<ul> <li>Traslade a la persona al aire fresco.</li> <li>Si la persona no está respirando llame al 911 o a una ambulancia, luego dé respiración artificial, preferiblemente de boca a boca, si es possible.</li> <li>Llame al centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> </ul>						
Have the product c	ontainer or label with you when calling a poison control center or doctor or going for treatment. For non-emergency						

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For non-emergency exposure information on this product, call 1-888-347-6732 (7 days/week, 24-hr). For medical emergencies, dial 911.

Cuando llame a un centro de control de envenenamiento, o a un médico, o intente obtener tratamiento, tenga a la mano el envase o la etiqueta del producto. Para información sobre la exposición a este producto que nos sea emergencia, llame al 1-888-347-6732 (7 dias/semana, 24-hr). Para emergencias medicas, llame al 911.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin 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.

## DECLARACIONES PREVENTIVAS RIESGOS PARA LOS SERES HUMANOS Y ANIMALES DOMÉSTICOS

**PRECAUCION:** Dañino si se ingiere. Dañino si se absorbe por la piel o se inhala. Causa irritación moderada en los ojos. Evite el contacto con la piel, los ojos o ropa. Lávese minuciosamente con agua y jabón después de manipularlo y antes de comer, beber, mascar chicle, consumir tabaco o ir al baño. Quitar y lavar la ropa contaminada antes de usarla nuevamente.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- 1. Long-sleeved shirt and long pants
- 2. Chemical resistant gloves, made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$  14 mils
- 3. Shoes plus socks
- 4. Protective eyewear

#### **EQUIPO DE PROTECCIÓN PERSONAL (PPE)**

Los aplicadores y otros manipuladores de pesticidas (plaguicidas) deben usar:

- 1. Camisa de manga larga, pantalones largos
- Guantes resistentes a productos químicos laminado de barrera, caucho de butilo ≥14 mils, caucho de nitrilo ≥14 mils, caucho de neopreno ≥14 mils, cloruro de polivinilo (PVC) ≥14 mils, o vitón ≥14 mils
- 3. Calcetines y zapatos
- 4. Gafas de seguridad

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- 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.

#### RECOMENDACIONES DE SEGURIDAD PARA EL USUARIO

Los usuarios deben usar:

- 1. Lávese las manos antes de comer, beber, masticar chicle, consumir tabaco o ir al baño.
- 2. Quítese la ropa inmediatamente si el pesticida entra. Luego lávese bien y póngase ropa limpia. Si el pesticida entra en contacto con la piel, lávese inmediatamente con agua y jabón.
- 3. Quítese el EPP inmediatamente después de manipular este producto. Lave el exterior de los guantes antes de quitárselos. Tan pronto como sea posible, lávese bien y cámbiese a ropa limpia.

#### **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 rain water. 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 chemical has properties and characteristics associated with chemicals detected in ground water. This chemical 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.

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

#### **INSTRUCCIONES DE USO**

El uso de este producto de forma contraria a lo indicado en su etiqueta constituye una infracción de la ley federal.

**NO** aplique este producto de manera que entre en contacto con trabajadores u otras personas, ya sea directamente o por deriva. Solo los manipuladores protegidos pueden estar en el área durante la aplicación. Para cualquier requisito específico de su estado o tribu, consulte a la agencia estatal o tribal responsable de la regulación de pesticidas.

#### RESTRICTIONS

- **DO NOT** treat plants grown for transplanting. Not for use in nurseries, plant propagation houses, or greenhouses by commercial grower or any other transplant producers on plants being grown for transplanting unless otherwise specified.
- This product is for commercial production only.
- Not for use on ornamental plants or plants being grown for ornamental purposes.
- Not for residential use.
- **DO NOT** use in greenhouses unless otherwise specified.
- **DO NOT** apply this product through any irrigation system unless specified in this label or in EPA-accepted supplemental labeling.
- Exceliprole<sup>™</sup> 400SC is not registered for use by the state of New York within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- NOT registered for aerial application use by the state of New York.
- NOT registered for use by the state of New York in Nassau, Suffolk, Kings, and Queens counties.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

- 1. Long-sleeved shirt and long pants
- 2. Shoes plus socks

#### **REQUIS ITOS DE USO AGRICOLA**

Utilice este producto solo de acuerdo con su etiqueta y el Estándar para la Protección del Trabajador Agrícola (WPS, por sus siglas en inglés), 40 CFR Parte 170. Esta ley contiene los requisitos para la protección de los trabajadores agrícolas en granjas, bosques, viveros e invernaderos, y para las personas que manipulan pesticidas agrícolas. Contiene requisitos para la capacitación, descontaminación, notificación y asistencia de emergencia. También contiene instrucciones específicas y excepciones relacionadas con las indicaciones en esta etiqueta acerca del equipo de protección personal (PPE, por sus siglas en inglés), y el intervalo de ingreso restringido. Los requisitos en esta sección de la etiqueta (requisitos para uso agrícola) aplican únicamente a los usos de este producto que están cubiertos por el Estándar para la Protección del Trabajador Agrícola.

**NO** ingrese o permita el ingreso de trabajadores a las áreas tratadas durante el **intervalo de acceso restringido** (REI, por sus siglas en inglés) **de 4 horas**.

El equipo de protección personal requerido para el acceso anticipado a áreas tratadas de acuerdo con el Estándar para la Protección del Trabajador Agrícola, y que involucra el contacto con material tratado, como plantas, tierra o aqua, es:

- 1. Camisa de manga larga, pantalones largos
- 2. Calcetines y zapatos

#### PRODUCT INFORMATION

This product is a suspension concentrate that can 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) to control listed insects. Not all application methods are allowed on all crops; see specific crop sections of this label for which application methods may be used. This product is mixed with water for application. This product may be used on crops on this label grown for seed production.

This product is a member of the anthranilic diamide class of insecticides with a mode of action acting on insect ryanodine receptors. Although this product has contact activity, it is most effective through ingestion of treated plant material. After exposure to this product, 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, 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. When pest populations are high, use the highest listed application rate for that pest.

#### INTEGRATED PEST MANAGEMENT

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.

#### **INSECT RESISTANCE MANAGEMENT**

For resistance management, this product is a Group 28 Insecticide. Repeated and exclusive use of this product (active ingredient chlorantraniliprole, belonging to the anthranilic diamide class of chemistry), or other Group 28 insecticides 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, alternation 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 this product 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, or about 30 days.
- Within the "Group 28 treatment window", make no more than 2 successive applications of this product or other Group 28 insecticides, 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.
- The total exposure of all Group 28 products applied throughout the crop cycle (from seedling to harvest) should not exceed approximately 50% of the crop cycle or 50% of the total number of insecticide applications targeted for the same pest species.
- For short cycle crops (< 50 days), the duration of the crop cycle may be considered as the Group 28 "treatment window" as long as no Group 28 insecticides are used during the next crop cycle at the same growing location.
- Avoid using less than the labeled rates of this product 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 this product develops in your area, this product 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 company 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.irac-online.org.

#### APPLICATION

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

Apply follow-up treatments of this product, as specified, to keep pest populations within threshold limits. Refer to the Resistance Management 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. Because this product is most effective through ingestion of treated plant material, thorough spray coverage is essential for optimum control of targeted pest insects. Using increased water volumes will typically result in better spray coverage, especially under adverse conditions such as dry, hot weather or dense plant foliage.

This product 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. Refer to **CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS** section of this label for which application methods may be used. This product 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-accepted supplemental labeling.

Crop/Crop Group	AERIAL APPLICATION: Minimum Gallons per Acre (GPA) of Water
Cereals, Corn, Cotton, Grasses, Non-Grass Animal Feeds, Peanuts, Oilseeds, Rice, Soybeans, Sugarcane, Teff, Tobacco, Quinoa	2 GPA
Asparagus, Onions, Brassicas, Cucurbits, Fruiting Vegetables, Herbs, Leafy Vegetables, Legume Vegetables, Root and Tuber Vegetables, Potatoes, Spices, Cranberry	5 GPA
Artichoke, Hops, Strawberries, Bananas, Bushberries, Berries and Small Fruits, Caneberry, Small Fruits of Climbing Vines, Cacao, Citrus, Coffee, Grapes, Olives, Persimmons, Pome Fruit, Azarole, Tejocote, Pomegranates, Prickly Pear Cactus, Stone Fruits, Tea, Tropical Fruits	10 GPA
Tree nuts	30 GPA

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-accepted 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.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying this product. Fill spray tank 1/4 to 1/2 full of water. Make sure to 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 this product 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 this product. Do not exceed labeled dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

This product may be mixed with certain liquid fertilizers for at-plant soil applications. Do not mix this proudct 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 this product 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.). Low spray volumes (i.e., 2-5 gallons of water), and tank mixtures of more than two products, can increase the chances of incompatible spray mixtures.

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

- Add clean water to jar proportional to the planned water volume that will be used in the spray tank (a jar size of 16 oz is acceptable).
- Using the most restrictive PPE of the products to be tested, mix proper proportions of this product and desired tank mix partner(s) that 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 this product.
- 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 this product 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 this product labeling, 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 this product in any tank mixture application that is not specifically described on on this product labeling, 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. Albaugh, LLC will not be responsible for any crop injury arising from the use of a tank mixture that is not specifically described on this product labeling.

**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.

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

<sup>\*</sup>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. Wastes resulting from the use of this product must be disposed of on site 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 airstream 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 into 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.

#### 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.

#### 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.

#### CHEMIGATION

The following types of irrigation equipment may be used for chemigation applications: drip (trickle), or strip tubing irrigation systems. This product can also be applied through overhead sprinkler irrigation systems, including the following; center pivot, end tow, hand move, lateral move, side roll, solid set and wheel line overhead sprinkler irrigation systems (see CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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 section of this label).

Apply this product in sufficient water and of sufficient 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 this product downstream from any water filtration system.

This product 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 the label for applicators and other handlers when making adjustments or repairs on the chemigation system when this product 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 this product 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.

#### **APPLICATION METHODS FOR CHEMIGATION**

#### **DRIP (TRICKLE) CHEMIGATION**

This product must be applied in a manner that ensures the product is in the root zone. This product must be in the root zone to provide effective control of target pests. This product 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 this product remain in the root zone. Unless directed otherwise in the specific crop sections of this label, a total of two applications can be made per crop season. Any subsequent treatments made using this produt 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 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.

#### Rate Conversion Chart for this product for Drip (Trickle) Chemigation and At-Plant Soil Application

Target	Rate in Fluid Ounces Product / 1000 Row-Feet Based on Planted Row Spacing (in inches) of:															
Rate (fl oz/A)*	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.
1.03											0.120	0.132	0.144	0.156	0.161	0.168
1.8				0.104	0.117	0.125	0.131	0.138	0.152	0.165	0.207	0.228	0.248	0.269	0.276	0.290
2.55	0.098	0.095	0.122	0.147	0.167	0.176	0.186	0.195	0.215	0.234	0.293	0.323	0.351	0.381	0.390	0.410
3.0	0.115	0.115	0.144	0.173	0.195	0.207	0.218	0.230	0.252	0.276	0.345	0.380	0.413	0.447	0.459	0.482
3.37	0.098	0.129	0.162	0.194	0.219	0.233	0.246	0.258	0.284	0.311	0.387	0.426	0.465	0.504	0.516	0.543
3.75	0.108	0.144	0.180	0.215	0.245	0.258	0.273	0.287	0.315	0.345	0.431	0.474	0.516	0.560	0.575	0.603

<sup>\*</sup> 1.03 fl oz product = 0.027 lb a.i.; 1.8 fl oz product = 0.047 lb a.i.; 2.55 fl oz product = 0.066 lb a.i.; 3.0 fl oz product = 0.078 lb a.i.; 3.75 fl oz product = 0.098 lb a.i.

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

CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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

Types of Chemigation Systems: This product 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.

#### INSTRUCTIONS FOR CHEMIGATION

#### **Preparation**

A pesticide tank is recommended for the application of this product 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 this product 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 this product to water, never put this product 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 proper amount of this product 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 this product 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 this product 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 this product must provide for uniform distribution of chemigation 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 this product. 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 this product 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 uniforn 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 FOR ALL CHEMIGATION SYSTEMS

- 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 device, such as a positive displacement pump or a Venturi injector, that provides uniform injection of the product, is effectively designed and constructed of materials compatible with the product, and is capable of being fitted with a system interlock.
- 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**

This product must be applied in a manner that ensures the product is in the root zone; the product must be in the root zone to provide effective control of target pests. This product 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 this product remain in the root zone. 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 this product to the root zone allow the active ingredient to be transported from the roots through the xylem, providing upward systemicity. This product 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 this product 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.

This product 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 this product 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 2.5 fl oz product (0.066 lb a.i.) per acre per application. If this product 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 where this product will be applied. Apply this product 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.

#### **CROP ROTATION**

Crops on this label and the following crops or crop groups may be planted immediately following harvest: Artichoke, globe; Asparagus; Banana/Plantain; Brassica (Cole) Leafy Vegetables (Crop Group 5); Bulb Vegetables (Crop Group 3-07); Bushberry subgroup (Crop subgroup 13-07B); Cacao; Caneberry subgroup (Berry and Small Fruit Crop Group subgroup 13-07A); 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 9); Figs; Fruiting Vegetables (Crop Group 8-10); Grass Forage, Fodder, and Hay Group (Crop Group 19A); Grape; Hops; Large Shrub/Tree Berry subgroup (Crop subgroup 13-07C); Leafy Vegetables (nonbrassica, Crop Group 4); Legume Vegetables (Crop Group 6); Foliage of Legume Vegetables (Crop Group 7); Low Growing Berry subgroup (Crop subgroup 13-07G); 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); Small Fruit Vine Climbing subgroup, except fuzzy kiwifruit (Berry and Small Fruit Crop Group subgroup 13-07F); Soybean; Spice subgroup (Crop Group 14); Tobacco; and 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, soursop, Spanish lime, star apple, starfruit, sugar apple, wax jambu, and White sapote (Casimiroa), and and/or hybrids of these).

**DO NOT** plant any other crop until 12 months after the last application of this product.

#### **CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS**

ARTICHOKE, GLOBE							
TARCET RECTO	RAT	DIII (Dava)	DEL (House)				
TARGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)			
Artichoke plum moth	0.047 - 0.098	1.8 – 3.75	3	4			
APPLICATION METHOD							

#### FOLIAR, DRIP CHEMIGATION

- Make applications between bud formation and harvest of an individual fruit.
- 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 gallons water per acre by air and 50-200 gallons of water per acre by ground (use sufficient water to obtain thorough coverage without excessive runoff).

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 14 days.
- DO NOT apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

ASPARAGUS								
TARCET DECTC	RATE		DUI (Daya)	DEI (Houro)				
TARGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)				
Armyworm (Beet & Western yellowstriped)	0.047 - 0.098	1.8 – 3.75	1	4				
	APPLICATION METHOD							

#### **FOLIAR**

 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.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

CACAO*					
TARGET PESTS	RATE		DUI (Dovo)	DEL (Hours)	
IANUEL PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)	
Cacao pod borer	0.066- 0.099	2.55 – 3.8	1	4	
	APPLICATION METHOD				

#### **FOLIAR**

- 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. Make applications of less than 200 gal water per acre. Apply 30 gal or more water per acre by ground. For best results
  apply 100 150 gal water per acre.

- **DO NOT** make more than 3 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year. \*Not for use in California

**CEREAL GRAINS (EPA CROP GROUP 15) EXCEPT CORN AND RICE (***Oryza sativa***).** 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 (*Zizania palustris*)

**FORAGE, FODDER, AND STRAW OF CEREAL GRAINS, (EPA CROP GROUP 16) EXCEPT CORN AND RICE (***Oryza sativa***).** Including: Forage, fodder, and straw of all commodities included in the cereal grains group, except corn and rice (*Oryza sativa*). Includes Sorghum spp. sorghum, forage; sorghum, stover; sudangrass; and hybrids of these grown for forage and/or stover.

TARGET PESTS	RA	ΤE	DUI (Dava)	REI (Hours)	
IANGEL PESIS	lb a.i./A	fl oz/A	PHI (Days)	nei (nouis)	
Armyworm (Beet, Fall, True, Wheathead) Corn earworm Corn borer (European, Southwestern) Sorghum webworm Sugarcane borer	0.047 – 0.098	1.8 – 3.75	1	4	
Grasshoppers	0.027 - 0.066	1.03 – 2.55			

#### **APPLICATION METHOD**

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz. of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

CORN (FIELD, POP)				
TARGET PESTS	RAT	E*	DUI (Daya)	REI (Hours)
TARGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	
Armyworm (Fall, Southern, True)				
Common stalkborer				
Corn earworm**	0.066 - 0.098	2.55 – 3.75	14	4
Corn borer (European)				

#### SOIL AT PLANTING (IN-FURROW)

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

Cutworm (Army, Black, Clay-backed, Dingy, Sandhills)

• This product must be applied in a manner that ensures the product is in the root zone. This product 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 this product remain in the root zone where it is most effective.

<sup>\*\*</sup>Not for use in California

TARGET PESTS	RA	ΓE	PHI (Days)	REI (Hours)
TANGET FESTS	lb a.i./A	fl oz/A	FIII (Days)	nei (nouis)
Armyworm (Beet, Fall, Southern, True) Corn earworm Corn borer (European, Southwestern) Cutworm (Army, Black, Clay-backed, Dingy, Sandhills, Western bean)	0.047 - 0.098	1.8 – 3.75	14	4
Grasshoppers	0.027 - 0.066	1.03 – 2.55		

#### **APPLICATION METHOD**

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

- **DO NOT** make more than 4 applications per acre per calendar year. **DO NOT** make more than 1 soil application per crop.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz. of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

<sup>\*</sup>See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet.

CORN (SWEET), CORN (GROWN FOR SEED)				
TARGET PESTS	RAT	E*	DUI (Dava)	DEI (Haura)
IANGEL PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Fall, Southern, True)				
Common stalkborer				
Corn earworm**	0.066 - 0.098	2.55 - 3.75	1	4
Corn borer (European)				
Cutworm (Army, Black, Clay-backed, Dingy, Sandhills)				

#### SOIL AT PLANTING (IN-FURROW)

- Apply as a narrow band spray into the furrow at the seeding depth.
- This product must be applied in a manner that ensures the product is in the root zone. This product 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 this product remain in the root zone where it is most effective.
- \*See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet.

<sup>\*\*</sup>Not for use in California

TARGET PESTS	RA	ΓE	PHI (Days)	REI (Hours)
TARGET PESTS	lb a.i./A	fl oz/A	PRI (Days)	NEI (HUUIS)
Armyworm (Beet, Fall, Southern, True) Corn earworm Corn borer (European, Southwestern) Cutworm (Army, Black, Clay-backed, Dingy, Sandhills, Western bean)	0.047 – 0.098	1.8 – 3.75	1	4
Grasshoppers	0.027 - 0.066	1.03 – 2.55		

#### **APPLICATION METHOD**

#### FOLIAR. OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

- DO NOT make more than 4 applications per acre per calendar year. DO NOT make more than 1 soil application per crop.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

COTTON				
TARGET PESTS	RA	TE	DHI (Daya)	DEL (Havers)
TANGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Beet, Fall, Southern, Western yellowstriped) Cotton bollworm* Saltmarsh caterpillar Tobacco budworm* Cutworms	0.047 - 0.098	1.8 – 3.75	21	4
Cabbage looper Soybean looper**	0.066 - 0.098	2.55 – 3.75		
Grasshoppers	0.027 - 0.066	1.03 – 2.55		

#### FOLIAR. OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" section for instructions on overhead sprinkler chemigation.
- \*For Heliothine control (cotton bollworm and/or tobacco budworm in conventional non-transgenic/non-Bt cotton) make the first application at rates of 2.55 3.4 fl oz product (0.066 0.09 lb a.i.) per acre. Subsequent applications can be at rates of 1.8 3.4 fl oz product (0.047 0.09 lb a.i.) per acre depending on pest pressure. For control of cotton bollworm (*Helicoverpa zea*) in Bt transgenic cotton varieties, the initial application and subsequent applications of this product can be applied at 1.8 2.55 fl oz product (0.047 0.066 lb a.i.) per acre as a foliar spray. Apply when cotton bollworm populations reach local established treatment thresholds to prevent crop damage.
- \*\*Suppression only.
  - **Grasshopper** Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 5 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- DO NOT make more than 2 sequential applications of this product before rotating to another registered insecticide having a
  different mode-of-action.

CRANBERRY				
TARCET RECTO	RA	TE	DUI (Days)	DEL (Haves)
TARGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Blackheaded fireworm*				
Cherry fruitworm				
Cranberry fruitworm				
Green spanworm	0.066 - 0.098	2.5 – 3.75	1	4
Omnivorous leafroller				
Raspberry crown borer				
Sparganothis fruitworm				

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" section for instructions on overhead sprinkler chemigation.
- Use 20 gal or more water per acre for ground application. Use 5 gal or more water per acre for aerial application. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of plants and density of foliage.

\*Blackheaded fireworm - use high application rate for moderate to heavy infestations.

#### **RESTRICTIONS**

- **DO NOT** make more than 3 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**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

TARGET PESTS	RATE*		PHI (Days)	REI (Hours)
	lb a.i./A	fl oz/A	Fili (Days)	nei (nouis)
Armyworm (Beet) Cabbage looper	0.047- 0.098	1.8 – 3.75	1	4
Leafminers (larvae)** Silverleaf whiteflies (nymphs)***	0.066 - 0.098	2.55 – 3.75	1	4

#### **APPLICATION METHOD**

SOIL AT PLANTING (In-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)

• This product 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.

<sup>\*</sup>See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet.

<sup>\*\*</sup>Control of Liriomyza species except suppression only for L. huidobrensis and L. langei.

<sup>\*\*\*</sup>Suppression only. Use in conjunction with an effective adult whitefly control program.

CUCURBIT VEGETABLES, (EPA CROP GROUP 9) (cont.)					
TARGET PESTS	RA	TE	PHI (Days)	REI (Hours)	
TANUET PESTS	lb a.i./A	fl oz/A			
Melon-worm	0.027 - 0.047	1.03 – 1.8			
Armyworm (Beet) Cabbage looper Pickle worm	0.047 - 0.098	1.8 – 3.75	1	4	
Leafminers (larvae)* Silverleaf whiteflies (nymphs)**	0.066 - 0.098	2.55 – 3.75			

#### **DRIP CHEMIGATION**

- Make application(s) within the first half of the crop growing cycle, typically up to peak bloom crop stage.
- Drip tape must be placed directly underneath a single row to ensure this product is applied in the root zone.

<sup>\*\*</sup>Suppression only. Use in conjunction with an effective adult whitefly control program.

TARGET PESTS	RATE		DUI (Daya)	DEL (Hours)
IANUEI PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Melon-worm	0.027 - 0.047	1.03 – 1.8		
Armyworm (Beet, Western yellowstriped) Cabbage looper Hawaiian beet webworm Pickle worm	0.047 – 0.098	1.8 – 3.75	1	4
Leafminers (larvae)* Silverleaf whiteflies (nymphs)**	0.066 - 0.098	2.55 – 3.75		

#### APPLICATION METHOD

#### **FOLIAR**

 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. huidobrensis* and *L. langei*.

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

- **DO NOT** make more than 4 applications per acre per crop or more than 12 applications per acre per calendar year.
- Reapplication Interval: 5 days for foliar applications and 10 days for drop chemigation applications.
- **DO NOT** apply more than 3.75 fl oz of this product or 0.098 lb a.i. per acre to the soil at planting.
- **DO NOT** apply more than 5.05 fl oz of this product or 0.132 lb a.i. per crop by any combination of at-plant soil application and drip chemigation.
- **DO NOT** make more than 2 drip chemigation applications of this product per crop.
- **DO NOT** make more than 1 drip chemigation application per crop if an at plant application of this product was made. Refer to the SOIL APPLICATIONS section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop cycle.
- **DO NOT** apply more than 23 fl oz of this product or 0.6 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- DO NOT make more than 2 sequential applications of this product before rotating to another registered insecticide having a
  different mode-of-action.

<sup>\*</sup>Control of Liriomyza species except suppression only for L. huidobrensis and L. langei.

DRY/SUCCULENT BEANS AND PEAS (CO, ID, NE, OR, WA, and WY ONLY)						
TARGET PESTS	RA <sup>*</sup>	TE	PHI (Days)	DEI (Houre)		
TARGET PESTS	lb a.i./A	fl oz/A	Pni (Days)	REI (Hours)		
Colorado potato beetle on Volunteer potatoes, or other weeds	0.047 - 0.098	1.8 – 3.75	1	4		
			•	·		

#### **FOLIAR**

- 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 this product at the 3.75 fl oz application rate.
- **DO NOT** apply this product 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 made with an effective product with a different mode of action. With resistant populations of Colorado potato beetle, back-to-back applications on a 5 to 7-day interval may be required to achieve maximum control.

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per crop or 12 applications per acre per calendar year.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** apply more than 23 fl oz of this product or 0.6 lb ai of 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

TARGET PESTS	RATE*		DUI (Dava)	REI (Hours)
TANGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	nei (nouis)
Armyworm (Beet, Fall, Southern, Western yellowstriped) Loopers Tomato fruitworm Tomato pinworm	0.047- 0.098	1.8 – 3.75	1	4
Leafminers (larvae)** Silverleaf whiteflies (nymphs)***	0.066 - 0.098	2.55 – 3.75		

#### **APPLICATION METHOD**

SOIL AT PLANTING (In-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)

- This product 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.
- \*See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet.
- \*\*Control of *Liriomyza* species except suppression only for *L. huidobrensis* and *L. langei*.
- \*\*\*Suppression only. Use in conjunction with an effective adult whitefly control program.

FRUITING VEGETABLES (cont.)				
TARGET PESTS	RATE		PHI (Days)	REI (Hours)
TANUET PESTS	lb a.i./A	fl oz/A	PHI (Days)	NEI (HOUIS)
Armyworm (Beet, Fall, Southern, Western yellowstriped) Colorado potato beetle European corn borer Garden webworm Hornworms Loopers Tomato fruitworm Tomato pinworm	0.047 - 0.098	1.8 – 3.75	1	4
Leafminers (larvae)* Silverleaf whiteflies (nymphs)**	0.066 - 0.098	2.55 – 3.75		

#### DRIP CHEMIGATION

- Make application(s) within the first half of the crop growing cycle, typically up to peak bloom crop stage.
- Drip tape must be placed directly underneath a single row to ensure this product is applied in the root zone.
- \*Control of Liriomyza species except suppression only for L. huidobrensis and L. langei.
- \*\*Suppression only. Use in conjunction with an effective adult whitefly control program.

TARGET PESTS	RATE		PHI (Days)	REI (Hours)
TANUET PESTS	lb a.i./A	fl oz/A	PHI (Days)	NEI (HUUIS)
Hornworms	0.027 - 0.066	1.03 – 2.55		
Armyworm (Beet, Fall, Southern, Western yellowstriped) Colorado potato beetle European corn borer Garden webworm Loopers Tomato fruitworm Tomato pinworm	0.047 – 0.098	1.8 – 3.75	1	4
Leafminers (larvae)* Silverleaf whiteflies (nymphs)**	0.066 - 0.098	2.55 – 3.75		

#### APPLICATION METHOD

#### **FOLIAR**

- 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. huidobrensis* and *L. langei*.
- \*\*Suppression only. Use in conjunction with an effective adult whitefly control program.

- **DO NOT** make more than 4 applications per acre per crop or more than 12 applications per acre per calendar year.
- Reapplication Interval: 5 days for foliar applications and 10 days for drop chemigation applications.
- **DO NOT** apply more than 3.75 fl oz of this product or 0.098 lb a.i. per acre to the soil at planting.
- **DO NOT** apply more than 5.05 fl oz of this product or 0.132 lb a.i. per crop by any combination of at-plant soil application and drip chemigation.
- DO NOT make more than 2 drip chemication applications of this product per crop.
- DO NOT make more than 1 drip chemigation application per crop if an at-plant application of this product was made. Refer to the SOIL
  APPLICATIONS section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.
- DO NOT apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop cycle.
- **DO NOT** apply more than 23 fl oz of this product of 0.6 lb a.i. or chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**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

TARGET PESTS	RATE		PHI (Days)	REI (Hours)
IANGEL PESIS	lb a.i./A	fl oz/A	PHI (Days)	nEi (nouis)
Armyworm (Beet, Fall, Southern, True) Corn earmworm Sod webworm	0.047 - 0.098	1.8 – 3.75		
Grasshoppers	0.027 - 0.066	1.03 – 2.55	0	4
Billbug (grubs)* Cutworms European crane fly (larvae)*	0.066 - 0.098	2.55 – 3.75		

#### **APPLICATION METHOD**

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" section for instructions on overhead sprinkler chemigation.
- For control of Armyworms, Cutworms, and Sod Webworms, apply at first sign of economic crop damage. Apply this product 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 in to 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.
- \*Suppression only on grass grown for seed only.
- 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 chlorantranilliprole active ingredient 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.
- For suppression of European Crane Fly larvae apply between September and early November.
- **Grasshopper** Make FOLIAR application 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- DO NOT make more than 2 sequential applications of this product before rotating to another registered insecticide having a
  different mode-of-action.

## GRASS FORAGE, FODDER AND HAY: (EPA CROP GROUP 17)\* USDA – APHIS Rangeland Grasshopper and Mormon Cricket Suppression Program

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

TARGET PESTS -	RATE		PHI (Days)	REI (Hours)
	lb a.i./A	fl oz/A	PHI (Days)	nei (nouis)
Grasshoppers Mormon crickets	0.027	1.03	0	4

#### APPLICATION METHOD

#### FOLIAR – ULV APPLICATION (Ground or Air)

- Use of oil-based adjuvants (methylated seed oils, petroleum oils, crop oil concentrates, etc.) at 1 gallon per 100 gallons of spray volume (1% v/v) improves performance.
- Apply when pest populations reach local established thresholds to prevent crop damage. Applications should target the most susceptible life stages when possible. Correct timing of spray applications is to nymphal stages and thorough coverage is critical to achieve optimum control. Applications should be made when eggs have hatched and the majority of the pest population is at least 2<sup>nd</sup> 3<sup>rd</sup> instar nymphs. Once pests contact and/or ingest this product, there will be rapid feesing cessation; insect mortality may not occur for a week or more.

#### RESTRICTIONS

- **DO NOT** make more than 1 application per acre per calendar year.
- Apply a minimum of 32 fluid ounces of spray solution (i.e. this product plus carrier(s), adjuvant(s), diluent(s), etc.) per acre whether applied by air or ground application equipment.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year. \*Not for use in California

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

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; Caval Broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard Spinach; Rape greens

RAT	RATE*		DEL (Heure)
lb a.i./A	fl oz/A	Fili (Days)	REI (Hours)
0.047- 0.098	1.8 - 3.75	3	4
	lb a.i./A	lb a.i./A fl oz/A	lb a.i./A fl oz/A PHI (Days)

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

#### **APPLICATION METHOD**

SOIL AT PLANTING (In-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection) DRIP CHEMIGATION

- This product 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. Drip tape must be placed directly underneath a single row to ensure this product is applied in the root zone.
- For drip chemigation applications made in the second half of the crop growing cycle: translocation of this product into aerial portions of the plant may take up to 7 10 days.
- **Grasshopper** Apply foliarly when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more. Do not make more than two sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.
- \*See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet
- \*\*Diamondback moth resistance management: Do not apply this product more than twice to any generation of diamondback moth or within any 30 day period. After the second application of this product for diamondback moth, rotate to another effective insecticide with a different mode of action (i.e. 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. Do not apply less than 1.8 fl oz product (0.047 lb a.i.) per application per acre for diamondback moth control. Do not make more than 6 total applications per calendar year for control of diamondback moth at the same farm location.

\*\*\*Suppression only. Transplant water treatment only.

TARGET PESTS	RATE		DUI (Dava)	DEL (Hours)
IANUEI PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Silverleaf whiteflies (nymphs)*	0.066 - 0.098	2.55 – 3.75		
Armyworm (Beet, Western yellowstriped) Diamondback moth** Cabbage looper Cabbageworm (Imported, Cross-striped) Corn earworm Hawaiian beet webworm	0.047 – 0.098	1.8 – 3.75	3	4
Grasshoppers	0.027 - 0.066	1.03 – 2.55		

#### **APPLICATION METHOD**

#### **FOLIAR**

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- For best performance, use an effective adjuvant. See the "Use of Adjuvants" section of the label.
- \*Suppression only. Use in conjunction with an effective adult whitefly control program.
- \*\*Diamondback moth resistance management: Do not apply this product more than twice to any generation of diamondback moth or within any 30 day period. After the second application of this product for diamondback moth, rotate to another effective insecticide with a different mode of action (i.e. 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. Do not apply less than 1.8 fl oz product (0.047 lb a.i.) per application per acre for diamondback moth control. Do not make more than 6 total applications per calendar year for control of diamondback moth at the same farm location.

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

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per crop or more than 16 applications per acre per calendar year.
- **Reapplication Interval:** 3 days for foliar applications and 10 days for drip chemigation applications.
- **DO NOT** apply more than 3.75 fl oz of this product or 0.098 lb a.i. per acre to the soil at planting.
- **DO NOT** apply more than 5.05 fl oz of this product or 0.132 lb a.i. per crop by any combination of at-plant soil application and drip chemiqation.
- **DO NOT** make more than 2 drip chemigation applications of this product
- DO NOT make more than 1 drip chemigation application per crop if an at-plant application of this product was made. Refer to
  the SOIL APPLICATIONS section of this label for additional guidance; also see the rate conversion chart for application rate per
  1000 linear feet.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop cycle.
- **DO NOT** apply more than 30.6 fl oz of this product or 0.8 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**HERB SUBGROUP (EPA CROP SUBGROUP 19A)** Including: Angelica; Balm; Basil; Borage; Burnet; Camomile; 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

TARGET PESTS	RATE		DUI (Dava)	REI (Hours)
	lb a.i./A	fl oz/A	PHI (Days)	nEi (nouis)
Armyworm (Beet, Fall, Southern)				
Cabbage looper	0.047 - 0.065	1.8 – 2.5	1	4
Corn earworm				

#### **APPLICATION METHOD**

#### **FOLIAR**

- This product has been tested on numerous crops and cultivars with no observable phytotoxicity at label rates. However, neither the manufacturer nor the seller has determined whether or not this product 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.
- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.

- **DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** apply more than 30.6 fl oz of this product or 0.8 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

HOPS (EXCEPT CALIFORNIA)				
TARGET PESTS	RATE		DUI (Dave)	DEI (Houre)
	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Western yellowstriped)	0.047 - 0.098	1.8 – 3.75	0	4
ADDITOATION METHOD				

#### **FOLIAR**

 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.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of 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); Radiccho (red chicory); Rhubarb; Spinach (vine); Spinach (New Zeland); Swiss chard; Tampala

TARGET PESTS	RATE*		DUI (Dava)	DEL (Hours)
TANGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Beet) Corn earworm Cabbage looper Tobacco budworm	0.047- 0.098	1.8 – 3.75	1	4
Leafminers (larvae)** Silverleaf whiteflies (nymphs)***	0.066 - 0.098	2.55 – 3.75		

#### **APPLICATION METHOD**

SOIL AT PLANTING (In-furrow spray, transplant water treatment, hill drench, surface band, soil shank injection)

- This product 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.
- \*See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet
- \*\*Control of Liriomyza species except suppression only for L. huidobrensis and L. langei.
- \*\*\*Suppression only. Use in conjunction with an effective adult whitefly control program.

TARGET PESTS	RAT	ΓE	PHI (Days)	REI (Hours)
TANGET PESTS	lb a.i./A	fl oz/A	rni (Days)	nei (nouis)
Armyworm (Beet) Cabbage looper Corn earworm Diamondback moth* Hawaiian beet webworm Tobacco budworm	0.047 – 0.098	1.8 – 3.75	1	4
Leafminers (larvae)** Silverleaf whiteflies (nymphs)***	0.066 - 0.098	2.55 – 3.75		

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

#### **APPLICATION METHOD**

#### **DRIP CHEMIGATION**

- Make application(s) within the first half of the crop growing cycle, typically up to peak bloom crop stage.
- Drip tape must be placed directly underneath a single row to ensure this product is applied in the root zone.
- \*Diamondback moth resistance management: **DO NOT** apply this product more than twice to any generation of diamondback moth or within any 30 day period. After the second application of this product for diamondback moth, rotate to another effective insecticide with a different mode of action (i.e. 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. **DO NOT** apply less than 1.8 fl oz product (0.047 lb a.i.) 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* species except suppression only for *L. huidobrensis* and *L. langei*.
- \*\*\*Suppression only. Use in conjunction with an effective adult whitefly control program.

TARGET PESTS	RA1	E	DUI (Dovo)	REI (Hours)
IANUEI PESIS	lb a.i./A	fl oz/A	PHI (Days)	
Armyworm (Beet, Western yellowstriped) Corn earworm Diamondback moth* Hawaiian beet webworm Tobacco budworm	0.047- 0.098	1.8 – 3.75	1	4
Leafminers (larvae)** Silverleaf whiteflies (nymphs)***	0.066 - 0.098	2.55 – 3.75		
Grasshoppers	0.047 - 0.066	1.8 – 2.5		

#### APPLICATION METHOD

#### **FOLIAR**

- 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 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 this product, there will be rapid feeding cessation; insect mortality may not occur for a week or more.
- \*Diamondback moth resistance management: **DO NOT** apply this product more than twice to any generation of diamondback moth or within any 30 day period. After the second application of this product for diamondback moth, rotate to another effective insecticide with a different mode of action (i.e. 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. **DO NOT** apply less than 1.8 fl oz product (0.047 lb a.i.) 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* species except suppression only for *L. huidobrensis* and *L. langei*.
- \*\*\*Suppression only. Use in conjunction with an effective adult whitefly control program.

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

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per crop cycle or more than 16 applications per acre per calendar year.
- Reapplication Interval: 3 days for foliar applications and 10 days for drop chemigation applications.
- DO NOT apply more than 3.75 fl oz of this product or 0.098 lb a.i. per acre to the soil at planting.
- **DO NOT** apply more than 5.05 fl oz of this product or 0.132 lb a.i. per crop by any combination of at-plant soil application and drip chemigation.
- **DO NOT** make more than 2 drip chemigation applications of this product
- **DO NOT** make more than 1 drip chemigation application per crop if an at-plant application of this product was made. Refer to the SOIL APPLICATIONS section of this label for additional guidance; also see the rate conversion chart for application rate per 1000 linear feet.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop cycle.
- **DO NOT** apply more than 30.6 fl oz of this product or 0.8 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

## 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

**SECTION BELUW.)** (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; Sword bean

## **FOLIAGE OF LEGUME VEGETABLES (EPA CROP GROUP 7) EXCEPT SOYBEAN** including: any legume vegetable included in the legume vegetables that will be used as animal feed.

TARGET PESTS	RAT	E*	DUI (Days)	) REI (Hours)
TANGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	
Armyworm (Beet, Fall) Corn earworm European corn borer	0.066 - 0.098	2.55 – 3.75	1	4

#### **APPLICATION METHOD**

#### SOIL AT PLANTING (IN-FURROW)

\*See Conversion Chart in the Chemigation section of this label for rate per 1000 linear feet

- Apply as a narrow band spray into the furrow at the seeding depth.
- This product must be applied in a manner that ensures the product is in the root zone. This product 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 this product remain in the root zone where it is most effective.

TARGET PESTS	RA1	ΓΕ	DUI (Daya)	DEI (Houro)
IANUEI PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Beet, Fall) Corn earmworm European corn borer Looper (Cabbage, Soybean) Cutworm (Western bean)	0.047 – 0.098	1.8 – 3.75	1	4
Leafminers (larvae)* Silverleaf whiteflies (nymphs)**	0.098	3.75		
Grasshoppers	0.027 - 0.066	1.03 – 2.55		

#### **LEGUME VEGETABLES (cont.)**

#### **APPLICATION METHOD**

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per crop or 12 applications acre per calendar year.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per crop.
- **DO NOT** apply more than 23 fl. oz. of this product or 0.6 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

MINT (PEPPERMINT AND SPEARMINT)				
TARGET PESTS	RATE		DUI (Dave)	DEL (Heure)
	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworms				
Cutworms	0.047 - 0.098	1.8 – 3.75	3	4
Loopers	0.047 0.030	1.0 0.70		- <del>T</del>
Mint root borer				

<sup>\*</sup>Control of *Liriomyza* species except suppression only for *L. huidobrensis* and *L. langei*.

<sup>\*\*</sup>Suppression only. Use in conjunction with an effective adult whitefly control program.

#### MINT (PEPPERMINT AND SPEARMINT) (cont.)

#### APPLICATION METHOD

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" 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 this product at 2.55 fl oz product (0.066 lb a.i.) 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 this product soon after the last cutting of mint, but before the mint root borers form an overwintering hibernaculum. If this product is applied as a broadcast spray, follow application with at least 2 inches water per acre of overhead irrigation. For furrow-irrigated mint, apply this product as a broadcast spray soon after harvest. Follow application with two furrow irrigations in order to move this product into the mint root zone before the mint root borer forms a hibernaculum. If this product is applied via overhead chemication, use a minimum of 2 acre inches of water to move this product into the mint root zone.

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 14 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of 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

TARGET PESTS	RATE		DUI (Daya)	DEL (Heure)
	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Alfalfa caterpillar Alfalfa looper Armyworm (Beet, Fall, Western yellowstriped) Green cloverworm	0.047 - 0.098	1.8 – 3.75	0	4
Grasshoppers	0.027 - 0.066	1.03 – 2.5		

#### APPLICATION METHOD

#### FOLIAR. OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

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

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: DO NOT make more than 1 application per cutting.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than 2 sequential applications of this product before rotating to another registered insecticide having a different mode-of-action.

**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

TARGET PESTS	RAT	E	PHI (Days)	REI (Hours)
	lb a.i./A	fl oz/A	rni (Days)	
Diamondback moth Banded sunflower moth Sunflower moth	0.047 - 0.098	1.8 – 3.75	1	4
Grasshoppers	0.027 - 0.066	1.03 – 2.55		·
Sesame leaf roller (in Sesame ONLY)*	0.047 - 0.066	1.8 – 2.55		

#### APPLICATION METHOD

#### FOLIAR. OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS 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" 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 day intervals when moth pressure is heavy.
- **Grasshopper** Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.
- Sesame leaf roller (in Sesame ONLY) For best results, make applications to small larvae and before populations exceed treatment thresholds. Follow local university recommendations for treatment thresholds and best timing. Thorough spray coverage is essential for best performance. Use a minimum of 10 gallons by ground or 2 gallons by air. Higher spray volume of 15 gallons by ground and 3 gallons by air will improve control. This product may be mixed with approved agricultural adjuvants in situations where spray coverage is difficult to achieve such as closed canopy or dense foliage. An oil-based adjuvant may improve deposition in hot dry weather. Follow directions on adjuvant manufacturer's label.

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 5 days.
- DO NOT apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- DO NOT make more than two sequential applications of this product before rotating to another registered insecticide having a
  different mode of action.

\*Sesame leaf roller control ONLY for use in KS, NM, OK, TX

**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

TARGET PESTS	RATE		DUI (Dovo)	REI (Hours)
	lb a.i./A	fl oz/A	PHI (Days)	NEI (NOUIS)
Armyworm (Beet, Western yellowstriped)	0.047 - 0.098	1.8 – 3.75	1	4

#### **APPLICATION METHOD**

#### **FOLIAR**

• 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 more than 12 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- DO NOT apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** apply more than 23 fl oz of this product or 0.6 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

PEANUT				
TARGET PESTS	RAT	Έ	DUI (Daya)	DEI (Houro)
IANUEI PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Beet, Fall, Southern) Corn earworm Green cloverworm Lesser cornstalk borer Tobacco budworm Velvetbean caterpillar	0.047 - 0.098	1.8 – 3.75	1	4
Looper (Cabbage, Soybean) Cutworm (Granulate)	0.066 - 0.098	2.55 – 3.75		
Grasshoppers	0.027 - 0.066	1.03 – 2.55		

#### **APPLICATION METHOD**

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 2<sup>nd</sup> 3<sup>rd</sup> instar nymphs. Once grasshoppers contact and/or ingest this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

#### PEANUT (cont.)

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 5 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- DO NOT make more than 2 sequential applications of this product before rotating to another registered insecticide having a
  different mode-of-action.

#### POTATO

TOTALO					
TARGET PESTS	RAT	Έ	PHI (Days)	REI (Hours)	
	lb a.i./A	fl oz/A	Fill (Days)		
Armyworm (Beet, Yellowstriped) Colorado potato beetle Corn borer (European) Looper (Cabbage) Potato tuberworm	0.047 - 0.098	1.8 – 3.75	14	4	
Grasshoppers	0.027 - 0.066	1.03 – 2.55			

#### **APPLICATION METHOD**

#### FOLIAR. OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS – 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" 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 this product at 1.03 1.8 fl oz (0.027 0.047 lb a.i.) per acre to control early stage instars (1<sup>st</sup> 3<sup>rd</sup> instar).
- Colorado potato beetle: West of the Rocky Mountains (NM, CO, WY, MT, UT, NV, AZ, ID, WA, OR, CA, AK and HI) apply this product at 1.03 1.8 fl oz (0.027 0.047 lb a.i.) per 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 this product at the 2.5 fl oz (0.066 lb a.i.) 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.
- **Potato tuberworm:** Apply this product at rates of 1.8 2.55 fl oz (0.047 0.066 lb a.i.) 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 this product may be needed based on field scouting. Avoid treating successive generations with insecticides having 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.
- Grasshopper Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 2<sup>nd</sup> 3<sup>rd</sup> instar nymphs. Once grasshoppers contact and/or ingest this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

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#### POTATO (cont.)

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 5 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- Colorado potato beetle resistance management: DO NOT apply this product 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.
- DO NOT apply this product more than once to Colorado potato beetle via overhead chemigation.

PRICKLY PEAR CACTUS*					
TADCET DECTC	RATE		DUI (Daya)	DEL (Hours)	
TARGET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)	
Prickly pear moth	0.066- 0.098	2.55 – 3.75	1	4	
APPLICATION METHOD					

#### **FOLIAR**

- 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. Make applications of less than 200 gal water per acre. Apply 30 gal or more water per acre by ground. For best results apply 100 150 gal water per acre.

#### **RESTRICTIONS**

- **DO NOT** make more than 3 applications per acre per calendar year.
- Reapplication Interval: 10 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year. \*Not for use in California

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QUITOA						
TARGET PESTS	RAT	E	DUI (Dava)	REI (Hours)		
	lb a.i./A	fl oz/A	PHI (Days)			
Armyworm (Beet, Fall, True) Corn borer (European, Southwestern) Corn earworm Grasshoppers Sorghum webworm Sugarcane borer	0.047 – 0.066	1.8 – 2.55	14	4		

#### **APPLICATION METHOD**

#### **FOLIAR**

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

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

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.

#### 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

TARGET PESTS	RATE		PHI (Days)	DEI (Houre)
IANUEI PESIS	lb a.i./A	fl oz/A	PIII (Days)	REI (Hours)
Armyworm (Beet, Western yellowstriped)	0.047 - 0.098	1.8 – 3.75	<del>- </del> 1	4
Grasshopper (Not for use in CA)	0.027 - 0.066	1.03 – 2.55		4

#### **APPLICATION METHOD**

#### **FOLIAR**

- 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 Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 2<sup>nd</sup> 3<sup>rd</sup> instar nymphs. Once grasshoppers contact and/or ingest this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** apply more than 30.6 fl oz of this product or 0.8 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** make more than two applications of this product before rotating to another registered insecticide with a different mode of action.

RICE (CALIFORNIA ONLY)					
TARGET PESTS	RATE		DUI (Dava)	DEL (Hours)	
	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)	
Rice water weevil larvae	0.08 - 0.098	3 – 3.75	N/A	4	

#### **APPLICATION METHOD**

#### SOIL APPLICATION

- Only for application as a broadcast spray to soil.
- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- For water-seeded rice, apply to soil surface prior to seeding and flooding. Apply in a sufficient volume of water to ensure thorough coverage. For improved performance, soil incorporation in the upper 1-2 inches of soil is recommended.
- Broadcast application may be made using aerial or ground application equipment.

#### RICE (CALIFORNIA ONLY) (cont.)

#### RESTRICTIONS

- **DO NOT** apply more than 5 days prior to flood.
- **DO NOT** release water until 14 days after flood.
- D0 N0T make more than 4 applications per acre per crop or 16 applications per acre per calendar year.
- Reapplication Interval: N/A.
- **DO NOT** apply more than 3.75 fl oz of this product or 0.098 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** use rice fields treated with this product for the production of edible fish or crustacea (including crawfish) during the rice production cycle (planting through havest).

RICE (AR, TX, LA, MS, MO ONLY)				
TARGET PESTS	RAT	E	DUI (Daya)	REI (Hours)
	lb a.i./A	fl oz/A	PHI (Days)	
Rice water weevil larvae	0.078 - 0.098	3 – 3.75	N/A	4
APPLICATION METHOD				

#### SOIL APPLICATION

- Only for application as a broadcast spray to soil.
- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- For water-seeded rice, apply to soil surface prior to seeding and flooding. Apply in a sufficient volume of water to ensure thorough coverage. For improved performance, soil incorporation in the upper 1-2 inches of soil is recommended.
- For dry-seeded rice, this product may be applied to the surface of the soil before, during or after planting, but application must be made before rice emergence. After application, flush the field up to runoff and allow the field to dry. Higher rates within the listed range should be used in dry-seeded rice when the permanent flood will be established at tillering.
- Broadcast application may be made using aerial or ground application equipment.

- **DO NOT** apply more than 5 days prior to flooding in water seeded rice. Once flood is established, hold the water for a minimum of 14 days before discharging the water.
- Application MUST be made to dry-seeded rice before rice emergence. Then, if excessive rainfall occurs, or a flood is established, the water must be held for a minimum of 14 days after application before discharging the water.
- DO NOT release water until 14 days after flood.
- **DO NOT** make more than 4 applications per acre per crop or 16 applications per acre per calendar year.
- Reapplication Interval: N/A.
- **DO NOT** apply more than 3.75 fl oz of this product or 0.098 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** use rice fields treated with this product for the production of edible fish or crustacea (including crawfish) during the rice production cycle (planting through havest).

SOYBEAN Including: edamame (immature soybean)					
TARGET PESTS	RAT	RATE		DEL (Harris)	
TANUET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)	
Armyworm (Beet, Fall, Southern)					
Corn earworm					
Cutworms					
Garden webworm					
Green cloverworm					
Lesser cornstalk borer	0.047 - 0.098	1.8 – 3.75			
Looper (Cabbage, Soybean)			1	4	
Thistle caterpillar					
Tobacco budworm					
Velvetbean caterpillar					
Woolybear caterpillar					
Grasshoppers	0.027 - 0.066	1.03 – 2.55			
Dectes stem borer	0.066 - 0.098	2.55 – 3.75			

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS 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" section for instructions on overhead sprinkler chemigation.
- Grasshopper Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 2<sup>nd</sup> 3<sup>rd</sup> instar nymphs. Once grasshoppers contact and/or ingest this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.
- 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.

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of 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; Vanilla

TARGET PESTS	RATE		DUI (Daya)	REI (Hours)
	lb a.i./A	fl oz/A	PHI (Days)	NEI (HOUIS)
Armyworm (Beet, Fall, Southern)				
Cabbage looper	0.047 - 0.065	1.8 – 2.5	1	4
Corn earworm				

#### APPLICATION METHOD

#### **FOLIAR**

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product has been tested on numerous crops and cultivars with no observable phytotoxicity at label rates. However, neither the manufacturer nor the seller has determined whether or not this product 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.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz. of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** apply more than 30.6 fl oz of this product or 0.8 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz. of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

STRAWBERRY				
TARGET PESTS	RATE		DIII (Dava)	DEL (Heure)
IANGEL PESIS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Beet) Cabbage looper Corn earworm Japanese beetle (adult) Light brown apple moth	0.047 - 0.098	1.8 – 3.75	1	4

#### APPLICATION METHOD

#### **FOLIAR**

- 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.

#### **STRAWBERRY** (cont.)

#### **RESTRICTIONS**

- **DO NOT** make more than 4 applications per acre per crop or 8 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per crop.
- **DO NOT** apply more than 15.3 fl oz of this product or 0.4 lb a.i. of chlorantraniliprole-containing products per acre per calendar year; in NY do not apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

SUGARCANE				
TARGET PESTS	RATE		PHI (Days)	REI (Hours)
	lb a.i./A	fl oz/A	Fill (Days)	nei (nouis)
Sugarcane borer Mexican rice borer	0.047 - 0.098	1.8 – 3.75		
Grasshoppers	0.027 - 0.066	1.03 – 2.55	14	4
SUPPRESSION ONLY: Lesser cornstalk borer*	0.047 - 0.066	1.8 – 2.55		

#### **APPLICATION METHOD**

#### FOLIAR, OVERHEAD CHEMIGATION

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- This product can be applied by overhead sprinkler chemigation systems. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - 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" 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** Make FOLIAR application when grasshopper populations reach local established thresholds to prevent crop damage. Correct timing of spray applications is 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 this product there will be rapid feeding cessation; insect mortality may not occur for a week or more.
- Lesser cornstalk borer FOLIAR applications should be made in sufficient water volume to achieve thorough coverage of foliage and the soil area around the sugarcane shoots. Apply higher rates within the listed range for heavier infestations, larger/denser crop canopy or extreme environmental conditions such as rainy weather and high temperatures. For best results, applications by conventional FOLIAR application methods should be followed with an overhead irrigation or rainfall event of 0.5-1.0 inches of water within 24-48 hours after application to enhance contact with lesser cornstalk borer larvae. Sugarcane fields with a history of lesser cornstalk borer populations should be scouted weekly and applications made early when adult moths are active and laying eggs and when larvae are just beginning to hatch. Make applications when populations reach local established treatment thresholds to prevent crop damage.

## SUGARCANE (cont.)

#### **RESTRICTIONS**

#### \*For use in FL ONLY

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

TEFF (FORAGE, FODDER, AND STRAW)				
TARGET PESTS	RAT	RATE		DEL (House)
IANUET PESTS	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Armyworm (Beet, Fall, True) Corn borer (European, Southwestern) Corn earworm Grasshoppers Sorghum webworm Sugarcane borer	0.047 - 0.098	1.8 – 3.75	14	4

#### **APPLICATION METHOD**

#### **FOLIAR**

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

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.

TOBACCO*						
TARGET PESTS	RATE		PHI (Days)	REI (Hours)		
	lb a.i./A	fl oz/A	FIII (Days)	nEi (Hours)		
Split worm (potato tuberworm)**						
Hornworm (Tomato, Tobacco)	0.047 - 0.098	1.8 – 3.75	1	4		
Tobacco budworm			!	4		
Grasshoppers**	0.027 - 0.066	1.03 – 2.5				

#### FOLIAR AND SOIL AT PLANTING

- Apply higher rates within the listed range for heavier infestations, larger/denser crops or extreme environmental conditions such as rainy weather and high temperatures.
- For soil application at planting, use 2.55 3.75 fl oz per acre.

#### RESTRICTIONS

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 3 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year. \*Not for use in California
- \*\*Foliar Application ONLY

TREE NUTS, (EPA CROP CROUP 14-12) PECANS				
TARGET PESTS	RATE		DUI (Daya)	DEL (Hours)
	lb a.i./A	fl oz/A	PHI (Days)	REI (Hours)
Hickory shuckworm Pecan nut casebearer	0.047 - 0.099	1.8 – 3.8	10	4

#### FOLIAR

• Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage.

APPLICATION METHOD

- For best results apply 100 150 gal water per acre by ground.
- Where higher spray volumes are used, apply a higher rate in the specific 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

- **DO NOT** make more than 4 applications per acre per calendar year.
- Reapplication Interval: 7 days.
- **DO NOT** apply more than 7.66 fl oz of this product or 0.2 lb a.i. of chlorantraniliprole-containing products per acre per calendar year.
- **DO NOT** apply less than 30 gal water per acre.

## **STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE: DO NOT** freeze. **DO NOT** store below 40°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 around the home.

**PESTICIDE DISPOSAL: DO NOT** contaminate water, food or feed by storage or disposal. Dispose of excess waste or pesticide by use according to label directions or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING [less than or equal to 5 gallons]:**

Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use 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 by other procedures approved by state and local authorities.

#### **CONTAINER HANDLING [greater than 5 gallons]:**

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

## ALMACENAMIENTO Y DESECHO

**NO** contamine agua, comida ni forrajes mediante el almacenamiento y desecho.

**ALMACENAMIENTO DE PESTICIDAS: NO** congelar. **NO** lo almacene por debajo de 40°F. Guarde el producto en su envase original únicamente en un lugar inaccesible a niños y mascotas. **NO** contamine el agua, otros pesticidas, fertilizantes, alimentos o piensos mientras esté almacenado. No para uso ni almacenamiento en el hogar.

**DESECHO DE PESTICIDAS: NO** contamine agua, comida ni forrajes mediante el almacenamiento y desecho. Deseche el exceso o los desechos de pesticidas utilizándolos de acuerdo con las instrucciones de la etiqueta, o comuníquese con la agencia estatal de control ambiental o de pesticidas, o con el representante de desechos peligrosos de la oficina regional de la EPA más cercana para obtener orientación.

#### MANIPULACIÓN DE RECIPIENTES [≤ 5 galones]:

Recipientes no recargables. **NO** reutilice ni rellene este recipiente. Enjuague tres veces el recipiente (o equivalente) inmediatamente después de vaciarlo. Enjuague tres veces de la siguiente manera: Vacíe el contenido restante en el equipo de aplicación o en un tanque de mezcla y drene durante 10 segundos después de que el flujo comience a gotear. Llene 1/4 del recipiente con agua y vuelva a tapar. Agitar durante 10 segundos. Vierta el enjuague en el equipo de aplicación o en un tanque de mezcla o almacene el enjuague para su uso o eliminación posterior. Drene durante 10 segundos después de que el flujo comience a gotear. Repita este procedimiento dos veces más. Luego ofrézcalo para reciclarlo, si está disponible, o perfórelo y deséchelo en un vertedero sanitario, o mediante incineración, o mediante otros procedimientos aprobados por las autoridades estatales y locales.

#### MANIPULACIÓN DE RECIPIENTES [>5 galones]:

Recipientes no recargables. NO reutilice ni rellene este recipiente. Enjuague tres veces el recipiente (o equivalente) inmediatamente después de vaciarlo. Enjuague tres veces de la siguiente manera: Vacíe el contenido restante en el equipo de aplicación o en un tanque de mezcla. Llene el recipiente hasta 1/4 de su capacidad con agua. Vuelva a tapar y apretar los cierres. Incline el recipiente de lado y gírelo hacia adelante y hacia atrás, asegurando al menos una revolución completa, durante 30 segundos. Coloque el recipiente sobre su extremo e inclínelo hacia adelante y hacia atrás varias veces. Vacíe el enjuague en el equipo de aplicación o en un tanque de mezcla o almacene el enjuague para su uso o eliminación posterior. Repita este procedimiento dos veces más. Luego ofrézcalo para reciclarlo, si está disponible, o perfórelo y deséchelo en un vertedero sanitario, o mediante incineración, o mediante otros procedimientos aprobados por las autoridades estatales y locales.

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