

INSECT CONTROL

## WITH CYAZYPYR® active

For foliar applications to brassica (leafy, and head and stem), bulb, cucurbit, fruiting, leafy green, leaf petiole, legume, root and tuberous and corm vegetables; commercially grown greenhouse cucumber, eggplant, pepper and tomato; cotton, oil seed crops; strawberries; bushberries; caneberries; coffee; low growing berries; peanuts; soybeans; citrus, pome, and stone fruits; tree nuts; and tobacco for pest management of sucking and chewing insects that can vector certain plant diseases, aiding in optimization of the crop's potential.

Active Ingredient				By Weight
Cyantraniliprole				
	nyl)-N-[4-cyano	-2-methyl-6-[(met	thylamino) carbonyl]phenyl]-1H-	
carboxamide				10.20%
Other Ingredients				89.80%
TOTAL				100.00%
EXIREL <sup>®</sup> insect control is a s	uspoemulsion (o	oil in water emulsi	on). SHAKE WELL BEFORE U	SING.
Contains 0.83 lb. active ingre-	dient per gallon.			
EPA Reg. No. 279-9615			I	EPA Est. No.
Nonrefillable Container		Refillable	e Container	
Net:	OR	Net:		

Not for sale, sale into, distribution and/or use in Nassau and Suffolk counties of New York State.

# **KEEP OUT OF REACH OF CHILDREN**

## CAUTION

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

## **FIRST AID**

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

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

For questions regarding emergency medical treatment, you may contact 1-800-331-3148 for information.

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical resistant gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all

> 14 mils.

Shoes plus socks.



After the product has been diluted in accordance with label directions for use, shirt, pants, socks, and shoes are sufficient Personal Protective Equipment. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

## PHYSICAL OR CHEMICAL HAZARDS

Do not place product near or allow product to come into contact with strong oxidizing substances (such as potassium permanganate) since a hazardous chemical reaction may occur.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates and oysters. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging the treatment area.

#### 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 weeks 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 cyantraniliprole 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.

## PROTECTION OF POLLINATORS



**APPLICATION RESTRICTIONS** EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.



Look for the bee hazard icon

in the Directions for Use for each application site for specific use

restrictions and instructions to protect bees and other insect pollinators.

## This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- · Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen resulting from foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants in and around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

## **DIRECTIONS FOR USE**

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

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

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

**ENDANGERED AND THREATENED SPECIES PROTECTION REQUIREMENTS**: Before using this product, you must obtain any applicable Endangered Species Protection Bulletins ('Bulletins') within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at <u>https://www.epa.gov/pesticides/bulletins</u>. When using this product, you must follow all directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of Federal law to use this product in a manner inconsistent with its labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email <u>ESPP@epa.gov</u>.

#### 1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES



Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.

• If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

#### 2. FOR FOOD CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS



Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

#### RESTRICTIONS

- Do not make ground applications within 25' or aerial applications within 50' of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, wetlands or natural ponds, estuaries, and commercial fish farm ponds). Do not cultivate within 30' of these aquatic areas to allow growth of a vegetative filter strip.
- For foliar uses, do not apply during rain.
- When making air blast applications to orchard crops, including citrus, with sparse canopies a 25 foot buffer is required between the application site and all adjacent areas except for roads (and other paved or gravel surfaces), agricultural areas (fields that have been planted into or prepared for planting), and structural areas (buildings or other man-made structures with walls and/or a roof). A sparse canopy occurs during the period of dormancy starting from first leaf drop at the end of the season until vegetation is fully leafed out in the spring, and on young orchard crops, including citrus, that are not yet bearing.
- Do not treat plants grown for transplanting. Not for use in nurseries, plant propagation houses, or greenhouses by commercial transplant producers on plants being grown for transplanting.
- Do not use on crops grown to harvest in greenhouses unless specified in the crop section of this label.
- Do not apply EXIREL insect control to the soil or through drip irrigation systems.
- May be used on crops on this label grown for seed production.

- Do not use in residential areas.
- Do not apply EXIREL insect control through any irrigation system unless specified in the crop section of this label.
- Unless otherwise stated for a specific crop, do not apply a total of more than 0.4 lb ai/A of CYAZYPYR active or cyantraniliprole containing products per calendar year. This is the total from all application methods (eg. seed, soil, foliar).

## AGRICULTURAL USE REQUIREMENTS

EXIREL insect control must be used only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment, restricted-entry interval, and notification to workers (as applicable).

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

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

- Coveralls
- · Shoes plus socks
- Chemical resistant gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all
- > 14 mils

EXIREL insect control must be used in accordance with the directions for use on this label, or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability.

EXIREL insect control is a suspoemulsion (oil in water emulsion) that can be applied as a foliar spray on labeled crops or by overhead chemigation in cranberries, potatoes and bulb vegetables to control listed insects. EXIREL insect control is specially formulated for maximum performance by foliar applications in brassica, bulb, cucurbit, fruiting, leafy, legume, root and tuberous and corm vegetables; commercially grown greenhouse cucumber, eggplant, pepper and tomato; cotton, oil seed crops; strawberries; bushberries; caneberries; coffee; low growing berries; peanuts; soybeans; citrus, pome, and stone fruits; tree nuts; and tobacco. Do not apply directly to the soil or through drip irrigation as doing so may damage the plant root system. EXIREL insect control is mixed with water for application.

EXIREL insect control is a member of the anthranilic diamide class of insecticides with a novel mode of action acting on insect ryanodine receptors. Although EXIREL insect control has contact activity, it is most effective through ingestion of treated plant material. After exposure to EXIREL insect control, affected insects will rapidly stop feeding, become paralyzed, and typically die within 1 - 3 days, reducing both direct damage and the transmission of some insect transmitted diseases. Early season applications of EXIREL insect control improve crop establishment and growth vigor by controlling a range of pests that attack seedlings. Time applications to the most susceptible insect pest stage, typically at egg hatch and/or newly hatched larvae or nymphs, before populations reach damaging levels. When pest populations are high, use the highest listed application rate for that pest. For best results when targeting control of sucking pests, begin applications when insect populations first appear. EXIREL insect control has preventative activity but low curative activity for sucking pests.

#### INTEGRATED PEST MANAGEMENT

FMC supports the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an IPM program, which can include biological, cultural, and genetic practices, aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, rotation of insecticides with different modes-of-action, and treating when target pest populations reach locally determined action thresholds. For best results on sucking pests, begin applications when populations first appear. 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 if there is a need for application of EXIREL insect control based on label recommendations and locally determined pest management guidelines. More than one treatment of EXIREL insect control may be required to control a pest population.

## INSECT RESISTANCE MANAGEMENT

EXIREL insect control contains the active ingredient cyantraniliprole and is a Group 28 insecticide based on the mode of action classification system of the International Insecticide Resistance Action Committee (IRAC). Insecticides with the same Group Number affect the same biological site of action on the target pest and when used repeatedly in the same treatment area, naturally-occurring resistant individuals may survive correctly applied insecticide treatments, reproduce, and become dominant.

To avoid or delay the development of insecticide resistance, a resistance management strategy should be established for the use area. This strategy may include incorporation of cultural and biological control practices, alternation to different mode of action insecticides on succeeding generations, and targeting the most susceptible life stage. Consult your local or state agricultural authorities and product manufacturer for more information about developing a resistance management strategy.

Unless directed otherwise in the specific crop/pest sections of this label, the best practices are to follow these guidelines to delay the development of insecticide resistance:

- Apply EXIREL insect control and other Group 28 insecticides within a single "treatment window" to minimize exposing multiple successive generations of a pest species to the same mode of action insecticides.
- A "treatment window" is defined as the period of insecticidal activity provided by one or more applications of products with the same mode of action.
- A "treatment window", including residual control, should not exceed 30 days (the length of a typical pest generation).
- Within the Group 28 "treatment window", make no more than 2 applications of EXIREL insect control or other Group 28 insecticides.
- Following a Group 28 "treatment window", rotate to a "treatment window" of effective insecticides with a different mode of action (Group Number).
- The period between Group 28 "treatment windows" should be at least 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 at 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 farm location.
- Avoid using less than labeled rates of EXIREL insect control when applied alone or in tank mixtures.
- Target the most susceptible insect life stages whenever possible.
- Monitor insect populations for product effectiveness. If poor performance occurs and it cannot be attributed to improper application or extreme weather conditions, a resistant pest population may be present.

If resistance to EXIREL insect control develops in your area, EXIREL insect control or other products with a similar mode of action (Group 28) may not provide adequate control. 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 action thresholds. For best results on sucking pests, begin applications when pests first appear. Consult the cooperative extension service, professional consultants or other qualified authorities for local pest management guidelines in your area.

Apply follow-up treatments of EXIREL insect control, as specified, to keep pest populations under 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.

EXIREL insect control may be applied by foliar ground or aerial application equipment. Not all application methods are allowed on all crops; see specific crop sections of this label or other supplemental labeling for application methods which may be used. For aerial application use the following directions unless otherwise specified in specific crop/pest sections of this label or other supplemental labeling: use a minimum of 5 gallons per acre (gpa) of water for vegetable crops and 10 gallons per acre (gpa) for all fruit and nut crops. The highest labeled rate for a specified pest may be necessary when aerial applications are made. For ground foliar applications use the following directions, unless otherwise specified in specific crop/pest sections of this label or other supplemental labeling: use a minimum of 10 gal per acre (gpa) of water for all vegetable crops and 30 gallons per acre (gpa) for all fruit and nut 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 a proven and recommended adjuvant that does not affect foliage and/or fruit finish. Tank mixes of EXIREL insect control with spreading and penetrating adjuvants can result in adverse crop response. See specific crop instructions in the following crop tables.

## SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying EXIREL insect control. Fill spray tank 1/4 to 1/2 full of water. Add EXIREL insect control 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. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

*Acidification of Spray Tank:* If the pH of the spray tank after all products have been added and mixed is above pH 8, adjust to pH 8 or less using a registered acidifying agent. If the spray tank pH is 8 or less no adjustment of the spray tank pH is necessary. Spray tanks of pH 8 or less can be held for up to 8 hours before spraying. Do not store the spray mixture overnight in the spray tank.

**Compatibility** -Since formulations may be changed and new ones introduced, premix a small quantity of a desired tank mix and observe for physical incompatibility (settling out, flocculation, etc.). Spray volumes of less than 3 gallons of water and tank mixtures of more than two products can increase the chances of incompatible spray mixtures. A jar test (as described below) should be conducted when label guidance is not given or prior experience with a specific tank mixture is unknown. The jar test should follow the proper sequence of addition at the spray water volume planned to assure that the tank mix is compatible. Constant agitation may be needed during mixing and spraying of mixtures.

This product can be mixed with pesticide products labeled for use on crops on this label in accordance with the most restrictive of label limitations and precautions. 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.

Steps to conduct a jar test to determine physical tank mix compatibility of EXIREL insect control 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 EXIREL insect control and desired tank mix partner(s) as will be present in the spray tank, add one product at a time following the sequence of addition according to formulation type provided in this label.
- Seal and shake mixture after each product is added.
- Allow to stand for 1 hour.
- View jar to determine if settling, flocculation, crystallization or any other undesirable changes have happened.
- If none of the above is observed or the solution can be easily remixed after shaking, the mixture is compatible with EXIREL insect control.
- 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* - EXIREL insect control is an oil in water emulsion. The crop safety of EXIREL insect control alone or in tank mix with many common insecticides, fungicides, nutritionals and adjuvants has been found to be acceptable. See crop tables in this label for specific information on when using EXIREL insect control in tank mixes on those crops. Some materials including oils, surfactants, adjuvants, nutritionals and pesticide formulations when applied individually, sequentially, or in tank mixtures may solubilize the plant cuticle, facilitate penetration into plant tissue, and increase the potential for crop injury.

Applying EXIREL insect control with any product that produces adverse crop response in a tank mixture, specifically including, but not limited to, those listed in the individual crop tables, may also cause adverse crop response when applied in a short time sequence (i.e., seven days apart or less between applications) before or after EXIREL insect control. Such uses should be tested as described below before broad application is made.

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 EXIREL insect control alone or with all possible tank mix combinations and sequences on all crops and 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 EXIREL insect control product labeling or in other FMC product use instruction, or when applying any product known to have caused adverse crop response when used in tank mix with EXIREL insect control in close sequence with EXIREL insect control, it is important to check crop safety first. To test for crop safety, prepare a small volume of the intended tank mixture or sequence, 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 EXIREL insect control in any tank mixture or sequence of applications that is not specifically described on EXIREL insect control product labeling or in other FMC product use instructions, could potentially result in crop injury. Follow the precautions on this label and on the label for any other product to be used in tank mixtures or in sequential applications before making such applications to your crops. Follow the most restrictive label. FMC will not be responsible for any crop injury arising from the use of a tank mixture or sequence of applications that is not specifically described on EXIREL insect control product labeling or in other FMC product use instruction.

*Tank Mixing Sequence* -Add different formulation types in the sequence indicated below\*. Allow time for complete mixing and dispersion after addition of each product.

- 1. Water soluble bag (WSB)
- 2. Water soluble granules (SG)
- 3. Water dispersible granules (WG, XP, DF)
- 4. Wettable powders (WP)
- 5. Water based suspension concentrates (SC)
- 6. Water soluble concentrates (SL)
- 7. EXIREL insect control and other suspoemulsions (SE)
- 8. Oil based suspension concentrates (OD)
- 9. Emulsifiable concentrates (EC)
- 10. Surfactants, oils adjuvants
- 11. Soluble fertilizers
- 12. Drift retardants
- \* Unless otherwise specified by manufacturer directions for use or by local experience.

## **CHEMIGATION - Overhead Sprinkler – Cranberries, Potatoes and Bulb Vegetables**

The following types of irrigation equipment may be used for chemigation applications to cranberries, potatoes and bulb vegetables: overhead sprinkler irrigation systems.

Apply EXIREL insect control in sufficient water and of sufficient duration to ensure the specified rate is applied evenly to the entire treated area. Inject EXIREL insect control downstream from any water filtration system.

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide labelprescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such 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.

#### See "Required System Safety Devices For All Chemigation Systems" at the end of the Chemigation section.

#### APPLICATION INSTRUCTIONS FOR CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS – CRANBERRIES, POTATOES AND BULB VEGETABLES

Types of Chemigation Systems: EXIREL insect control may be applied to cranberries, potatoes and bulb vegetables through overhead sprinkler irrigation systems, including the following; center pivot, end tow, hand move, lateral move, side roll, solid set and wheel line. The irrigation system used must provide uniform water distribution.

#### **Directions for Chemigation:**

#### Preparation

A pesticide tank is recommended for the application of EXIREL insect control 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 EXIREL insect control and add it to the tank. The highest labeled rate for the specified pest may be necessary when making overhead chemigation applications. Then add additional water to bring your total pesticide mixture up to the desired volume for your application. Note: Always add EXIREL insect control to water, never put EXIREL insect control into a dry tank or other mixing equipment without first adding water. See "Tank Mixing Sequence" section 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 EXIREL insect control 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 EXIREL insect control into the irrigation water line continually and uniformly throughout the irrigation cycle. The recommended maximum water volume for the overhead chemigation application is 0.2 acre inches of water. For overhead sprinkler systems that are stationary, add the solution containing EXIREL insect control to the irrigation water line and apply in a maximum water volume of 0.25 acre inches of water.

#### **Uniform Water Distribution**

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

have questions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying EXIREL insect control. 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 EXIREL insect control is in the irrigation water.

#### Operation

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

- End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.
- The nozzles in the immediate area of wells, control panels, chemical supply tanks and system safety devices are to 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.

## 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 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.

## 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**

- For broadcast applications made at planting or prior to the emergence of crops, applicators are required to use a coarse or coarser droplet size (ASABE S572.1). For all other broadcast applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- 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**

- For fixed wing and helicopter aerial applications made at planting or prior to the emergence of crops, applicators are required to use a coarse or coarser droplet size (ASABE S572.1). For all other fixed wing and helicopter aerial applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- · Nozzle Type Solid stream, or other low drift nozzles produce the coarsest droplet spectra.
- 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.
- Pressure Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed reduces spray drift potential. For some nozzle types such as solid streams, lower pressures can produce finer droplet spectra and increase drift potential

#### **BOOM LENGTH (AIRCRAFT), AND APPLICATION HEIGHT**

- Boom Length (aircraft) Using shorter booms decreases drift potential. Boom lengths are expressed as a percentage of an aircraft's wingspan or a helicopter's rotor blade diameter. Shorter boom length and proper positioning can minimize drift caused by wingtip or rotor vortices.
- Application Height (aircraft) Applications made at the lowest height that are consistent with pest control objectives and the safe operation of the aircraft will reduce the potential for spray drift. Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Application 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 is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a constant direction. Many factors, including droplet size and equipment type also determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

For aerial application, if the windspeed is 10 miles per hour or less, applicators must use <sup>3</sup>/<sub>4</sub> swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use a full swath displacement upwind at the downwind edge of the field.

For aerial application, do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.

#### TEMPERATURE AND HUMIDITY

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

#### SURFACE TEMPERATURE INVERSIONS

For aerial application, do not apply during temperature inversions.

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause 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. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground, or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. 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 minimizing drift potential, and not interfering with uniform deposition of the product.

#### AIR ASSISTED (AIR BLAST) 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, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions for additional information.

#### SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of spray drift.

#### DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Council of Producers & Distributors of Agrotechnology.

## **CROP ROTATION**

Crops on this label and the following crops or crop groups may be planted immediately following the last application of EXIREL insect control: Brassica Leafy Greens (Crop Subgroup 4-16B) and Brassica Head and Stem Vegetables (Crop Group 5-16); Bulb Vegetables (Crop Group 3-07); Cotton; Cucurbit Vegetables (Crop Group 9); Fruiting Vegetables (Crop Group 8-10); Leafy Greens (Crop Subgroup 4-16A) and Leaf Petiole Vegetables (Crop Subgroup 22B); Celtuce; Florence Fennel; Leaves of Root and Tuber Vegetables (Crop Group 2); Legume Vegetables (Crop Groups 6 and 7); Low Growing Berries (Berry and Fruit Crop Subgroup 13-07H); Oilseeds (Crop Group 20); Peanuts; Soybeans; Root and Tuber Vegetables (Crop Subgroups 1B and 1C); Tobacco.

The following crops or crop groups may be planted 30 days following the last application of EXIREL insect control: Cereal Grains (Crop Group 15); Forage, Fodder and Straw of Cereal Grains (Crop Group 16); Grass Forage, Fodder and Hay (Crop Group 17); Nongrass Animal Feeds (forage, fodder, straw and hay) (Crop Group 18); Sugar beets.

There is no plant back restriction for conversion of a treated field to, or for making a new or replacement planting into established orchards or fields of Bushberries (Crop Subgroup 13-07B); Caneberry Subgroup (Crop Subgroup 13-07A); Coffee; Citrus (Crop Group 10-10); Pome Fruits (Crop Group 11-10); Stone Fruits (Crop Group 12); Low Growing Berries (Crop Subgroup 13-07G); or Tree Nuts (Crop Group 14-12).

All other crops cannot be planted until 12 months after the last application of EXIREL insect control.

## Directions for Use for Vegetable and Row Crops

			EXIREL insect	control RATE		REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Brassica Leafy Greens (Crop Subgroup 4- 16B) and Brassica Head and Stem	Foliar*	Beet armyworm Corn earworm Diamondback moth† Fall armyworm Imported cabbageworm Western yellowstriped armyworm	0.045 - 0.088	7 - 13.5	1	12
Vegetables (Crop Group 5-16) including Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale;		Cabbage looper Cabbage aphid False cabbage aphid Flea beetle Green peach aphid Leafminer ( <i>Liriomyza</i> spp.) Thrips (foliage feeding only)§ Turnip aphids Whitefly Swede midge Cabbage Seedpod Weevil Grasshoppers	0.065 - 0.11	10 - 17 13.5 - 20.5		
collards; cress, garden; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress; Broccoli (Brassica oleracea L. var. italica Plenck); Brussels sprouts (Brassica oleracea L. var. gemmifera (DC.) Zenker); Cabbage (Brassica oleracea L. var. capitata L.); Cabbage, Chinese, napa (Brassica oleracea L. var. capitata L.); Cabbage, Chinese, napa (Brassica oleracea L. var. capitata L.); Cabbage, Chinese, napa (Brassica oleracea L. var. capitata L.); Cauliflower (Brassica oleracea L. var. capitata L); and cultivars, varieties, and hybrids of these commodities. Kohlrabi	Do not apply a total of mo products per calendar year *- For best performance u: § - Suppression only. Usa with products with differe low. If populations are abo EXIREL insect control. † - Diamondback moth r Group 28 insecticides) mo the next "treatment windo (different IRAC Group Nt applications of EXIREL in of EXIREL insect control than 6 total applications of control of diamondback m For applications made to v to application.	rval between treatments is 5 days re than 0.4 lb ai/A of CYAZYPY whether applications are made to se an effective adjuvant. See "Usa e as part of an effective thrips con nt modes of action. Begin making ove threshold, use an effective thr <b>esistance management:</b> Do not a ore than twice within any 30 day " w" must be with an effective prod mber) for at least a 30 day "treat issect control (or other Group 28 in per application per acre for diamo f EXIREL insect control or any G ooth at the same farm location. vatercress, production fields must nust not be reapplied to the field f	R active or cyantranil o the soil or foliarly. e of Adjuvants" sectio trol program. Rotate gapplications to thrips ips knockdown produ apply EXIREL insect treatment window". A fluct(s) with a differen ment window" before meseticides). Do not a ondback moth control roup 28 insecticides p	n. s when populations are ct before applying control (or other Application(s) during t mode of action making any additional pply less than 7 fl oz . Do not make more ber calendar year for at least 24 hours prior		

			EXIREL inse	ect control RATE	PHI (pre-harvest	REI (re-entry
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	interval) (days)	interval) (hours)
Bulb Vegetables, (Crop	Foliar	Leafminer ( <i>Liriomyza</i> spp.)* Thrips (foliage feeding only)* §	0.088 -0.133	13.5 - 20.5	1	12
Group 3-07) Chive, fresh leaves; Chive, Chinese, fresh leaves; Daylilly, bulb (edible); Elegans hosta (edible); Fritillaria, leaves (edible); Garlic, bulb; Garlic, great headed, bulb; Garlic, great headed, bulb; Garlic, serpent, bulb; Garlic, serpent, bulb; Garlic, serpent, bulb; Garlic, serpent, bulb; Garlic, serpent, bulb; Onion, Beltsville bunching; Onion, fresh; Onion, fresh; Onion, pearl; Onion, potato, bulb; Onion, tresh; Onion, potato, bulb; Onion, tresh; Onion, potato, bulb; Shallot, fresh leaves	Do not apply a total of mor products per calendar year § - Suppression only. For control program. Rotate w thrips when populations ar knockdown product before * - For best performance, u EXIREL insect control ma	val between treatments is 5 days. re than 0.4 lb ai/A of CYAZYPY whether applications are made to best results, use the highest rate l ith products with different modes e low (1-3 thrips per plant). If po : applying EXIREL insect control ise with an effective adjuvant. Se y be applied by overhead chemig	R active or cyantranil the soil or foliarly. isted. Use as part of a of action. Begin mak pulations are higher, e "Use of Adjuvants"	an effective thrips sing applications to use an effective thrips		

			EXIREL insect	control RATE		REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Carrot, radish; Root Vegetables,	Foliar	Armyworms Loopers Cutworms	0.065- 0.133	10 - 20.5	1	12
except Sugar Beet (Crop Group 1B); Beet, garden; burdock, edible; carrot; celeriac; chervil, turnip- rooted; chicory; ginseng; horseradish; parsley, turnip- rooted; parsnip radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, skirret; turnip	*- For best performance, u §-Suppression only. For be program. Rotate with prod Do not apply a total of mc products per calendar year The crop safety of EXIRE group. When using EXIRE	Cotton aphid* Green peach aphid* Flea beetle Beet armyworms Whiteflies Thrips (foliage feeding only)§* Carrot weevil Cabbage seedpod weevil val between treatments is 5 days. se with an effective adjuvant. See est results, use the highest rate list ucts with different modes of actic ore than 0.4 lb ai/A of CYAZYPY whether applications are made to L insect control in tank mixtures. y before using in large areas. See	"Use of Adjuvants" s ed. Use as part of an e n. R active or cyantranil the soil or foliarly. as not been evaluated it is recommended th	effective thrips control iprole containing on this crop or crop at a small area be		

			EXIREL insect	t control RATE		REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Cucurbit Vegetables (Crop Group 9) including	Foliar	Beet armyworm Melonworm Pickleworm Western yellowstriped armyworm	0.045 - 0.088	7 - 13.5	1	12
Chayote (fruit)	,	Cabbage looper	0.065 - 0.11	10 - 17	1	
Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin,		Cotton/melon aphid* Flea beetle§ Green peach aphid* Leafminer ( <i>Liriomyza</i> spp.)* Thrips (foliage feeding only)§ Whitefly*	0.088 - 0.133	13.5 - 20.5		
Edible gourd (includes		Striped cucumber beetle	0.133	20.5	1	
cucuzza, hechima, Chinese okra), <i>Morordica</i> spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (Includes true cantaloupe, definition, settion, honey balls, mango melon, Persian melon, Santa Claus melon and snake melon, Santa Claus melon and snake squash, scallopa squash, squash squash squash, squash squa	*- For best performance, u § - Suppression only. Use products with different me low. For thrips, if populati before applying EXIREL Cucurbit Yellow Stuntin whiteflies which may vect oz/A applied foliarly soon expression of cucurbit yel Precautions when using E EXIREL insect control wi fungicides (for example C Luna® Sensation fungicid may result in adverse crop information.	whether applications are made to use with an effective adjuvant. Se e as part of an effective control pr odes of action. Begin making app ions are above threshold, use an e insect control. <b>g Disorder Virus Suppression</b> : for the cucurbit yellow stunting di after emergence or transplanting low stunting disorder virus in cuc XIREL insect control in tank mix th some products formulated as e abrio® fungicide and Quadris® f le (trifloxystrobin + fluopyram) a o response. See "Tank Mixtures and the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of th	e "Use of Adjuvants" ogram. Rotate with lications when popula ffective thrips knocko Use of EXIREL insec isorder virus at a rate will help suppress an urbits. es in cucurbit vegetal mulsifiable concentra ungicide), copper bas nd Venom® insecticio	ations are down product et control to control of 13.5 - 20.5 fl id slow the bles: tank mixes of ttes (EC), strobilurin ied fungicides, de (dinotefuran)		

			EXIREL insect	control RATE	рні	REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Commercial greenhouse	Foliar	Cabbage looper Armyworms	0.065 - 0.133	10.0- 20.5	0	12
grown cucumbers		Cotton aphid* Green peach aphid* Thrips (foliage feeding only)§* Whiteflies*	0.088 - 0.133	13.5 - 20.5		
	Do not apply a total of mor products per calendar year For use only on cucumber facilities. Do not treat plan or greenhouses by commer *- For best performance, us "§ - Suppression only. Us modes of action. For thrips are above threshold, use an Thorough coverage is essen plants and density of foliage. Use the Precautions when using E2 insect control with some pi (for example Cabrio fungic fungicide (trifloxystrobin +	val between treatments is 5 days. re than 0.4 lb ai/A of CYAZYPY whether applications are made to plants being grown to harvest in d ts grown for transplanting. Not fo cial transplant producers on plan se an effective adjuvant. See "Uss e as part of an effective control p , begin making applications to th effective thrips knockdown proc ntial to achieve best results. Selecc higher rate on large plants or den GIREL insect control in tank mixe roducts formulated as emulsifiabl cide and Quadris fungicide), copp - fluopyram) and Venom insectic res and Crop Safety" section for	R active or cyantranili o the soil or foliarly. commercial greenhous or use in nurseries, pla ts being grown for trat e of Adjuvants" sectio program. Rotate with p rrips when populations duct before applying E et a spray volume appr- ase foliage. es in cucumbers: tank le concentrates (EC), s per based fungicides, I ide (dinotefuran) may	se crop production nt propagation houses, nsplanting. n." roducts with different are low. If populations XIREL insect control. opriate for the size of mixes of EXIREL trobilurin fungicides una Sensation		
Fruiting Vegetable (Crop Group 8- 10) African eggplant Bush tomato; Bell pepper; Cocona; Currant tomato; Eggplant; Garden huckleberry; Goji berry; Groundcherry; Martynia; Naranjilla; Okra;	Foliar	Beet Armyworm Colorado potato beetle European corn borer Fall armyworm Southern armyworm Tomato fruitworm Tomato hornworm Western yellowstriped armyworm Loopers Green peach aphid* Leafminer ( <i>Liriomyza</i> spp.)* Pepper weevil§ Potato aphid* Thrips (foliage feeding only)§	0.045 - 0.088 0.065 - 0.11 0.088 - 0.133	7 - 13.5 10 - 17 13.5 - 20.5	1	12
Pea eggplant; Pepper, bell; Pepper, nonbell; Roselle; Scarlet eggplant; Sunberry; Tomatillo; Tomato; Tree tomato	Do not apply a total of mor products per calendar year * - For best performance, u § - Suppression only. Use with different modes of act are low. If populations are before applying EXIREL in Tomato Spotted Wilt Virus control to manage thrips w vector the tomato yellow le emergence or transplanting w yellow leaf curl virus in frui Precautions when using EX control in tank mix with ad used in tank mix with EXII EXIREL insect control wit fungicide), chlorothalonil b and DuPont <sup>TM</sup> Tanos® fun response. Precautions when using EX control with strobilurin fun adverse crop response. The crop safety of EXIREI this crop group. When usin area be tested to demonstra	and Tomato Yellow Leaf Curl Vir hich may vector the tomato spotte eaf curl virus at a rate of 13.5 to 2 vill help suppress and slow the expre	R active or cyantranili o the soil or foliarly. e "Use of Adjuvants" ogram. Rotate with pro- plications when popula thrips knockdown pro- <b>us Suppression</b> : Use of ed wilt virus and white 20.5 fl oz/A applied fo sssion of tomato spotted es in peppers: applicat r increase the potentia liverse crop response. The nple Cabrio fungicide example, Bravo Weat es) may also result in ar es in tomatoes: tank m gicide and Quadris fun as not been evaluated c mixtures, it is recomme eas.	section. oducts ations oduct EXIREL insect effies which may liarly soon after wilt virus and tomato ions of EXIREL insect I for other products Fank mixes of and Quadris ther Stik® fungicide), a dverse crop ixes of EXIREL insect gicide) may result in on all other crops in		

			EXIREL insect	control RATE	РНІ	REI
Сгор	Application Method	Target Pest	Lb ai per acre	fluid ounces product per acre	(pre-harvest interval) (days)	(re-entry interval) (hours)
Commercial Greenhouse Grown (Crops	Foliar	Thrips (foliage feeding only)§ Whitefly*	0.088 - 0.133	13.5 - 20.5	1	12
Grown to Harvest in Greenhouses) Eggplant, Pepper (including bell and non-bell pepper) Tomato	Do not apply a total of mor products per calendar year <b>For use only on eggplant,</b> <b>greenhouse crop product</b> <b>nurseries, plant propagat</b> <b>plants being grown for tr</b> * - For best performance, u § - <b>Suppression only</b> . Use modes of action. For thrips populations are above threat insect control. Thorough coverage is essee plants and density of foliag Precautions when using EX control in tank mix with act used in tank mix with EXII EXIREL insect control wit fungicide), chlorothalonil H and DuPont Tanos fungicide Precautions when using EX control with strobilurin fur adverse crop response. The crop safety of EXIREJ using EXIREL insect control demonstrate safety before	ase an effective adjuvant. See "Us as part of an effective control pro- , begin making applications to the shold, use an effective thrips known initial to achieve best results. Select e. Use the higher rate on large pl (IREL insect control in tank mixed juvants can cause leaf spotting on REL insect control to cause an ad h strobilurin fungicides (for exampased fungicide formulations (for de (cymoxanil + famoxadone) ma (IREL insect control in tank mixed gicides (for example Cabrio fung insect control in tank mixture have to in tank mixtures, it is recommon	R active or cyantranili the soil or foliarly. g grown to harvest in s grown for transplat commercial transplat commercial transplat to of Adjuvants" section ogram. Rotate with pro- rips when populations ckdown product before at a spray volume apprants or dense foliage. es in peppers: application r increase the potential verse crop response. To apple Cabrio fungicide a example, Bravo Weat y also result in an adve es in tomatoes: tank m gicide and Quadris fun as not been evaluated ended that a small area	a commercial nting. Not for use in nt producers on on." oducts with different are low. If e applying EXIREL opriate for the size of ions of EXIREL insect for other products and mixes of and Quadris her Stik fungicide), erse crop response. ixes of EXIREL insect gicide) may result in on eggplant. When		

			EXIREL inse	ect control RATE		DEL
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	REI (re-entry interval) (hours)
Leafy Greens (Crop Subgroup 4- 16A) and Leaf Petiole Vegetables (Crop Subgroup 22B) including Amaranth, Chinese; amaranth, leafy; aster, Indian; blackjack; cat's whiskers; cham-chwi;	Foliar*	Beet armyworm Corn earworm Diamondback moth† Fall armyworm Western yellowstriped armyworm	0.045 - 0.088	7 - 13.5	1	12
cham-na-mul;		Cabbage looper	0.065 - 0.11	10 - 17		
chervil, fresh leaves; chipilin; chrysanthe- mum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion,		Cabbage aphid False cabbage aphid Flea beetle Green peach aphid Leafminer ( <i>Liriomyza</i> spp.) Thrips (foliage feeding only)§ Turnip aphids Whitefly Grasshumars	0.088 - 0.133	13.5 - 20.5		
leaves; dang-gwi,		Grasshoppers erval between treatments is 5 days				
leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; huauzontle; jute, leaves; lettuce, leater; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, garden; purslane, spinach; spinach; spinach; spinach; spinach; spinach; spinach; spinach, New Zealand; spinach, tanier; Swiss chard; violet, Chinese, leaves; fuki; rhubarb; udo; zuiki;	products per calendar yea † - Diamondback moth of Group 28 insecticides) me the next "treatment windor (different IRAC Group N applications of EXIREL i EXIREL insect control pe 6 total applications of EX of diamondback moth at t *- For best performance, . § - Suppression only. Us different modes of action. are above threshold, use a Precautions when using E mix with EXIREL insect formulated as emulsifiabl Quadris fungicide) or chlof fungicide) may result in ad mixes in lettuce: Tank mi adjuvant may result in ad The crop safety of EXIRE this crop group. When using area be tested to demonstra	use with an effective adjuvant. Se e as part of an effective thrips com Begin making applications to thr in effective thrips knockdown pro- XIREL insect control in tank mix control in spinach. Tank mixes of e concentrates (EC), strobilurin fu prothalonil based fungicide formu dverse crop response. Precautions xes of EXIREL insect control wit	the soil or foliarly apply EXIREL inse treatment window" duct(s) with a differ ment window" before nsecticides). Do nor dback moth control. 8 insecticides per c e "Use of Adjuvants trol program. Rotat ips when population duct before applying es in spinach: Do n EXIREL insect con ngicides (for example when using EXIRI h Aliette® fungicid as not been evaluat mixtures, it is reco	c. cct control (or other cct control (or other)) (other cct control (or other)) (other cct control (or other)) (other cct control (other)) (other cct control (other)) (othe		
varieties, and hybrids of these commodities. Celtuce; and Florence Fennel						

			EXIREL ins	ect control RATE		
Сгор	Application Method	Target Pest	Lb ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	REI (re-entry interval) (hours)
Leaves of root and tuber vegetables (Crop Group 2) Beet, garden; beet, sugar; burdock,	Foliar	Beet armyworm Flea beetles Cotton aphid* Green peach aphid* Whiteflies Thrips (foliage feeding only)§* Carrot weevil Cabbage seedpod weevil	0.088 - 0.133	13.5 - 20.5	1	12
edible; carrot; cassava, bitter and sweet;		Armyworms Loopers Cutworms	0.065-0.133	10 - 20.5		
celeriac; chervil, turnip-rooted; chicory; dasheen (taro); parsnip; radish; radish; radish, oriental (daikon); rutabaga; salsify, black; sweet potato; tanier; turnip; yam, true	Minimum application inter Do not apply a total of mor products per calendar year § - Suppression only. For th populations are above threse insect control. Thorough cc The crop safety of EXIREI group. When using EXIREL insect	se with an effective adjuvant. See val between treatments is 5 days. re than 0.4 lb ai/A of CYAZYPYI whether applications are made to hrips, begin making applications is shold, use an effective thrips knoc overage is essential to achieve bes insect control in tank mixture has at control in tank mixtures, it is re using in large areas. See "Tank M	R active or cyantran the soil or foliarly. to thrips when popu- kdown product beist st results. as not been evaluate commended that a	niliprole containing alations are low. If fore applying EXIREL ed on this crop or crop small area be tested to		

			EXIREL inse	ct control RATE		REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Legume vegetables, succulent or	Foliar	Corn earworm European corn borer Leafminers	0.065 - 0.133	10 - 20.5	1(succulent) 7 (dried)	12
dried (Crop Subgroups		Potato leafhopper§* Thrips (foliage feeding only)§* Whiteflies*	0.088 - 0.133	13.5 - 20.5		
6A, 6B, 6C) Bean (Lupinus) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (Phaseolus) (includes field bean, kidney bean, lima bean, navy bean, navy bean, navy bean, navy bean, navy bean, navy bean, tepary bean, tepary bean, tepary bean, tepary bean, tepary 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, snowpea, sword bean	section. Minimum applicat Do not apply a total of mo products per calendar year Applications of EXIREL result in adverse crop resp crop response to EXIREL The crop safety of EXIRE When using EXIREL insee recommended that a small Mixtures and Crop Safety'	or best performance, use with an tion interval between treatments i re than 0.4 lb ai/A of CYAZYPY whether applications are made to nsect control to certain species of onse. Affected plants outgrow the insect control i cannot be accepted L insect control alone or in tank mixture h t control alone or in tank mixture area be tested to demonstrate safe ' section for more information.	s 5 days. R active or cyantrar the soil or foliarly. legume vegetables effects in most cas do not apply it to l as not been evaluat es in legume vegeta	niliprole containing in this crop group may es. If the risk of adverse legume vegetables. ed on this crop group. bles, it is		

			EXIREL insec	t control RATE		REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Tuberous and	Foliar	Colorado potato beetle†	0.033 - 0.088	5 - 13.5	7	12
Corm Vegetables (Crop Subgroup 1C)		Beet armyworm European corn borer Potato tuberworm*†† Yellowstriped armyworm	7 - 13.5			
including Arracacha;		Cabbage looper	0.065 - 0.11	10 - 17		
Arrowroot; Artichoke, Chinese; Artichoke,		Potato flea beetle* § Green peach aphid* Potato aphid* § Potato psyllid	0.088 - 0.133	13.5 - 20.5		
Chinese;	Do not apply a total of mo products per calendar year treatment. *- For best performance us § - Suppression only. Use different modes of action. †- Colorado potato beetl Group 28 insecticides) mo "treatment window". Appl effective product(s) with a day "treatment window" b Group 28 insecticides). If application, do not apply E beetle control for at least 6 during the first 30-60 days product with a different IR any applications of EXIRE †† - Potato Tuberworm: control potato tuberworm. tuberworm adults and/or la applications of EXIREL in successive generations wit to harvest when foliage sta tuberworm pressure is higl senescence or vine kill inc may not provide adequate apply via overhead chemig program. For best results v per 100 gallons of spray vo inches of water and add M Cranberries, Potatoes and 1 chemigation. Suppression of Zebra Ch may vector zebra chip dise populations are low will he Precautions when using E2 insect control with strobilu may result in adverse crop	Potato aphid* § Potato psyllid val between treatments is 5 days re than 0.4 lb ai/A of CYAZYPY ; this is the total of seed piece treat as with an effective adjuvant. See the as part of an effective control pr e resistance management - Do n re than twice to a generation of C ication(s) to the next generation of different mode of action (different efore making any additional appl a Group 28 insecticide was used a EXIREL insect control (or other C 0 days after emergence. Applicat must be with an effective produc AC Group Number) for at least a EL insect control (or other Group EXIREL insect control may be aglegin application when field sco urvae. Potato tuberworm often har uset control may be needed based the same mode of action. It is in rts to senesce. Use the higher rato n. Failure to adequately control pr reases the risk of tuber damage. F control of larvae in the mid to low gation or integrate chemigation application SO at 12 to 16 fl oz/acre. See "CI Bulb Vegetables" section for inst <b>ip Disease</b> : Use of EXIREL inse- case at a rate of 13.5 to 20.5 fl. oz elp suppress the expression of the KIREL insect control in tank mix trin fungicides (for example Quaa response. The crop safety of EXI ther crops in this crop group. Wh	R active or cyantrani atment (potato), soil t "Use of Adjuvants" ogram. Rotate with p not apply EXIREL in olorado potato beetle of Colorado potato beetle of Colorado potato beetle of Colorado potato beetle at-plant either as a so froup 28 insecticides ion(s) for Colorado p et with a different mo a 30 day "treatment w 28 insecticides). opplied at rates of 7 to uting indicates the pr ve overlapping gener d on scouting. Avoid mportant to protect th e of EXIREL insect co toto tuberworm larv. Foliar sprays alone, b wer crop canopy. For pplications into the fo l seed oil (MSO) adju applications, apply in hemigation - Overhear ructions on overhead ct control to control p ./A applied starting w zebra chip disease. es in potatoes: tank n fris fungicide and Ca IREL insect control in	treatment, and foliar section. roducts with sect control (or other e or within any 30 day eetle must be with an oer) for at least a 30 insect control (or other il or seed piece ) for Colorado potato botato beetle control de of action (i.e. a vindow" before making 0 13.5 fl oz/A to resence of ations so repeat treating he crop just prior control when ae prior to crop y air or ground, best results, bliar spray uvant at 1 gallon n 0.1 to 0.2 acre ad Sprinkler – sprinkler potato psyllid which when psyllid nixes of EXIREL brio Plus fungicide) n tank mixture has		
	areas.	ed that a small area be tested to de rop Safety" section for more info				

			EXIREL insec	ct control RATE		REI	
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)	
Cotton	Foliar	Beet armyworm Cotton bollworm† Fall armyworm Saltmarsh caterpillar Southern armyworm Tobacco budworm† Western yellowstriped armyworm	0.045 - 0.11	7 - 17	interval) (days) 7 g h h h is l. ss d ol o	7	12
		Cabbage looper Soybean looper	0.065 - 0.11	10 - 17			
		Whitefly* Thrips (foliage feeding only)§	0.088 - 0.133	13.5 - 20.5			
	<ul> <li>products per calendar year</li> <li>For best performance, populations of whiteflies, i</li> <li>Suppression only. Use different modes of action.</li> <li>are above threshold, use ar</li> <li>For Heliothine control of 0.065 - 0.11 lb ai per actor</li> <li>0.045 - 0.088 lb ai per actor</li> <li>Applications of EXIREL plants outgrow the effect cannot be accepted, do m The crop safety of EXIREL using EXIREL insect cont</li> </ul>	nore than 0.4 lb ai/A of CYAZ' whether applications are made to , use with an effective adjuvant. use the highest listed rate. e as part of an effective thrips of Begin making applications to thr n effective thrips knockdown proo (cotton bollworm and/or cotton 1 re (10-17 fl oz product/A). Subse e (7 -13.5 fl oz product/A) depend insect control to seedling cotto ts in most cases. If the risk of ot apply it to seedling cotton. EL insect control in tank mixture rol in tank mixtures in cotton, it is using in large areas. See "Tank"	to the soil or foliarly. See "Use of Adjustication of the soil of Adjustication of the source of the	vants" section. For high tate with products with s are low. If populations EXIREL insect control. first application at rates an be at rates of <b>rop response. Affected</b> <b>EXIREL insect control</b> ated on this crop. When a small area be tested to			

			EXIREL insect control RATE			
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	REI (re-entry interval) (hours)
Oil Seed Crops (Crop Group 20) including Borage; Calendula; Castor oil; Chinese tallowtree; Crambe; Cuphea; Echium; Euphorbia; Evening primrose; Flax seed; Gold of pleasure; Hare's ear mustard; Jojoba; Lesquerella; Lunaria; Meadowfoam; Milkweed; Mustard seed; Niger seed; Oil radish; Poppy seed; Rapeseed (including canola varieties); Rose hip; Safflower; Sesame; Stokes aster; Sunflower; Sweet rocket; Tallowwood; Tea oil plant; Vernonia	Minimum application inte Do not apply a total of n products per calendar yea application). * - For best performance, t § - Suppression only. Uso modes of action. The crop safety of EXIRE When using EXIREL inse	Bertha armyworm Diamondback moth Sunflower head moth Crucifer flea beetle Cabbage looper Sunflower seed weevil§ rval between treatments is 7 days. hore than 0.4 lb ai/A of CYAZY r. This is the total from all appl use with an effective adjuvant. Se e as part of an effective control pu EL insect control in tank mixtures ct control in tank mixtures, it is n using in large areas. See "Tank M	PYR active or cysication methods (s e "Use of Adjuvan rogram. Rotate with has not been evalute recommended that	eed treatment and foliar ts" section. h products with different hated on this crop group. a small area be tested to	7	12

		Target Pest	EXIREL insect control RATE		j j	REI
Crop	Application Method		Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Peanuts	Foliar	Corn earworm Fall armyworm Tobacco budworm	0.065 - 0.133	10 - 20.5	14	12
		Cutworms Soybean looper Lesser cornstalk borer Thrips (foliage feeding only)§**	0.088 - 0.133	13.5 - 20.5		
	§ - Suppression only. ** management program. M Do not apply a total of m products per calendar yea Tomato Spotted Wilt Vi may vector the tomato sp cracking) will help suppr as part of a TSWV manag The crop safety of EXIRI using EXIREL insect con demonstrate safety before information.					
Soybeans	Foliar	Green cloverworm	0.065 - 0.133	10 - 20.5	7	12
		Soybean looper Velvetbean caterpillar				
		Lesser cornstalk borer Bean leaf beetle§ Japanese beetle Stink bug species§ Soybean aphid* Thrips (foliage feeding only) §	0.088 - 0.133 *	13.5 - 20.5		
	§ - Suppression only. *- F section. Minimum applica Do not apply a total of m products per calendar yea					
	The crop safety of EXIRI group. When using EXIR tested to demonstrate safe See "Tank Mixtures and C					
Tobacco	Foliar	Tobacco budworm	0.065 - 0.133	10 - 20.5	7	12
		Tomato hornworm Tobacco hornworm Flea beetle	0.088 - 0.133	13.5 - 20.5		
	Minimum application interval between treatments is 5 days. Do not apply a total of more than 0.4 lb ai/A of CYAZYPYR active or cyantraniliprole containing products per calendar year whether applications are made to the soil or foliarly. The crop safety of EXIREL insect control in tank mixture has not been evaluated on tobacco. When using EXIREL insect control in tank mixtures, it is recommended that a small area be tested to demonstrate safety before using in large areas. See "Tank Mixtures and Crop Safety" section for more information.					

## Directions for Use for Fruit Crops

	Application Method	Target Pest	EXIREL insect	t control RATE	PHI (pre-harvest interval) (days)	REI (re-entry interval) (hours)
Сгор			Lb. ai per acre	fluid ounces product per acre		
Bushberries, (Crop	Foliar	Cherry fruitworm Cranberry fruitworm	0.065 - 0.088	10 - 13.5	3	12
Subgroup 13- 07B) Aronia berry; Blueberry, highbush;		Blueberry aphid Blueberry gall midge§ Blueberry maggot Spotted wing drosophila* Plum curculio* Citrus thrips*	0.088 - 0.133	13.5 - 20.5		
Blueberry, lowbush; Buffalo currant; Chalberry, highbush; Currant, plack; Currant, red; Elderberry; European barberry; Gooseberry; Honeysuckle, edible; Huckleberry; Jostaberry; Juneberry (Saskatoonbery); Lingonberry; Native currant; Salal; Sea buckthorn	Minimum application inte Do not apply a total of mc cyantraniliprole containin <b>Spray Volume:</b> Thorougl volume appropriate for th Do not apply less than 30 water per acre. <b>§ - Suppression only.</b> Us Rotate with products with applications when populat * - For best performance, instructions in this crop ta Precautions when using E insect control with Induce other products used in tan mixes of EXIREL insect of adverse crop response on DO NOT tank mix EXIRI safety has been tested. The crop safety of EXIRE this crop group. When usi area be tested to demonstri See "Tank Mixtures and O	50 gallons of ram. Il midge ' section and other k mixes of EXIREL rease the potential for crop response. Tank ted have not caused an op group unless crop d on all other crops in mended that a small	-	12		
Caneberry subgroup (Crop Sub- group 13-07A)	Foliar	Spotted wing drosophila Adult root weevils	0.088 - 0.133	13.5 - 20.5	1	12
gloup 13-07A) blackberry; loganberry; red and black raspberry; wild raspberry; cultivars and/or hybrids of these	Minimum application int Do not apply a total of m products per calendar yee <b>Spray Volume:</b> Thorougl volume appropriate for the The crop safety of EXIRE group. When using EXIRI tested to demonstrate safe See "Tank Mixtures and C					
Coffee	Foliar	Coffee berry borer	0.133	20.5	5	12
	Minimum application interval between treatments is 14 days. Do not apply a total of more than 0.27 lb ai/A of CYAZYPYR active or cyantraniliprole containing products per calendar year. Time applications early in the pest infestation when no more than 2% of the coffee berries are infested with coffee berry borer in position A or B (prior to borer reaching the endosperm/seed). Calibrate equipment to achieve thorough spray coverage of the berry without runoff. The crop safety of EXIREL insect control in tank mixture has not been evaluated on this crop or crop group. When using EXIREL insect control in tank mixtures, it is recommended that a small area be tested to demonstrate safety before using in large areas. See "Tank Mixtures and Crop Safety" section for more information.					

Сгор	Application Method	Target Pest	EXIREL insect co	ontrol RATE	PHI (pre-harvest interval) (days)	REI
			Lb. ai per acre	fluid ounces product per acre		(re-entry interval) (hours)
Crop Group 13-07H*, specifically Bearberry; bilberry; cloudberry; cranberry; muntries; partridge- berry; cultivars, varieties, and/or cultivars of these. (*Excluding strawberry, lowbush blueberry, and lignonberry)	Foliar	Cherry fruitworm Cranberry fruitworm Black headed fireworm Sparganothis fruitworm	0.065 - 0.133	10-20.5	14	12
	Minimum application inte Do not apply a total of me products per calendar yea EXIREL insect control m For applications made to to application and water r application. The crop safety of EXIRE group. When using EXIRE tested to demonstrate safet See "Tank Mixtures and C					
Citrus Fruit, (Crop Group 10-10) Australian desert lime; Australia finger-lime; Australia	Foliar*	Asian citrus psyllid Citrus thrips** Citrus leafminer Cotton aphid Diaprepes root weevil adults Orange dog caterpillar Citrus cutworm	0.088 - 0.133	13.5 - 20.5	1	12
round lime; Brown River finger lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese summer grapefruit; Kumquat; Lemon; Lime; Mediterranean mandarin; Mount white lime; New Guinea wild lime; Orange, sour; Orange, sour; Orange, sour; Orange, sour; Russel River lime; Satsuma mandarin; Sweet lime; Tachibana orange; Tahiti lime; Tangelo; Tangerine (mandarin); Tangor; Trifoliate orange; Uniq fruit	Forktailed bush katydid nymph         0.104 - 0.133         16.0 - 20.5           Minimum application interval between treatments is 7 days.         Do not apply a total of more than 0.4 lb ai/A of CYAZYPYR active or cyantraniliprole containing products per calendar year.         Spray Volume: Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees or plants and density of foliage.           Where higher spray volumes are used, apply a higher EXIREL insect control rate in the specified rate range. For best results, apply 100-150 gallons of water per acre when using commercial airblast equipment. Do not apply less than 30 gallons of finished spray solution per acre, use equipment that generates a particle size greater than 90 microns, apply when wind is less than 10 miles per hour.           * - For furit protection, apply EXIREL insect control at petal fall, best results are obtained with 20.5 oz/A. Initial application should be made at petal fall when insect populations first appear. Under moderate to high pest pressure, an additional application of EXIREL insect control at petal fall, best results. Monitor or scout treated fields 5-7 days after application for thrips feeding on fruit or an increase in thrips populations to the most susceptible insect pest stage, typically at egg hatch and/or newly hatched larvae, before populations reach damaging levels. Applications outside the described window may not achieve the desired result of protecting fruit from thrips damage.					

			EXIREL insect control RATE			DEI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	REI (re-entry interval) (hours)
Strawberry	Foliar	Beet armyworm Corn earworm Soybean looper Whiteflies Spotted wing drosophila Thrips (foliage feeding only)§ * **	0.088 - 0.133	13.5 - 20.5	1	12
	Do not apply a total of mo products per calendar year § - Suppression only. * For best performance, us **- Use in conjunction wi Not all varieties of strawb	rval between treatments is 7 days re than 0.4 lb ai/A of CYAZYPY whether applications are made to se with an effective adjuvant. See th an effective thrips managemen erries have been tested for crop sa ee "Tank Mixtures and Crop Safe	R active or cyantranili o the soil or foliarly. "Use of Adjuvants" se t program. ifety with EXIREL ins	ction. ect control		
Pome Fruit,	Foliar	Codling moth† European apple sawfly	East of the Rockies: 0.055 - 0.11	East of the Rockies: 8.5 - 17	3	12
(Crop Group 11-10) Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear;		Green fruitworm Obliquebanded leafroller†† Redbanded leafroller Spotted teniform leafminer Western tentiform leafminer Tufted apple budmoth Variegated leafroller White apple leafhopper	West of the Rockies: 0.065 - 0.11	West of the Rockies: 10 - 17		
Pear, Asian; Ouince;		Oriental fruit moth	0.065 - 0.11	10 - 17		
Quince, Chinese Quince, Japanese; Tejocote		Apple maggot* § Pear psylla* § Plum curculio* Rosy apple aphid*††† Thrips* §	0.088 - 0.133	13.5 - 20.5		
	within a single generation Spray Volume: Thorough for the size of trees or plar Do not apply less than 30 acre. * - For best performance, , § - Suppression only. For program. Rotate with prod populations are at or below product before applying E † - Codling moth larvae Application timing: For ea provides 10-14 days of pre growth. Use pheromone tr the development of each g repeat applications on a 14 program involving ovicide rates and shortened retreat with other codling moth ir effectiveness for each proc Codling Moth Resistance insecticides) more than the generation "treatment win must be with an effective at least a 30 - 45 day "trea control (or other Group 28 ††- Obliquebanded leaff the first sign of active feed For summer generation, af after ingestion of treated fi it may take several days to Obliquebanded Leafrolle Group 28 insecticides) to generations of obliquebana action (i.e. a product with †††Rosy apple aphid: Fo Precautions when using E insect control with adjuvar response in pome fruits, si EXIREL insect control with adjuvar	gallons of water per acre. For bes use with an effective adjuvant. Se best results, use the highest rate is lucts with a different mode of active v threshold. If populations are about XIREL insect control. The generation, make the first app potection depending on intensity of ap catches and local degree day be generation. Use the 8.5-10 fluid ou 4 day schedule. For high pressure e treatments followed by properly ment intervals. When using EXIF insecticides, make sure the retreatment duct used. <b>Management:</b> Do not apply EX ree times to a generation of codling product(s) with a different mode of tment window" before making an B insecticides). <b>oller:</b> For overwintering larvae, a	best results. Select a sp t results apply 100-150 e "Use of Adjuvants" s listed. Use as part of ar on. Begin applications ove threshold, use an er lication prior to egg ha f codling moth pressur ased spray timing advi unce rate for low pressu orchards, use a compre- timed larvacide applic REL insect control in an nent schedule is control (on g moth (codling moth on(s) to the next gener of action (different IRA y additional application pply in the spring (pint ng of egg hatch. Leafrof f cold weather when le y apply EXIREL insect leafroller per year. Application green tip to early pink es in pome fruit: tank r known not to cause an n found to be acceptablics so cop safety has been	ray volume appropriate a gallons of water per section. a effective control when pest ffective knockdown tch. Each application e and rate of fruit sories to determine re infestations and make chensive management ations at high labeled in integrated program tent with the period of r other Group 28 typically has a single ation of codling moth AC group number) for ns of EXIREL insect k to petal fall stage) at oller feeding stops afrollers are inactive, t control (or other plication(s) to other ifferent mode of timing. nixes of EXIREL adverse crop le. DO NOT tank mix		

			EXIREL insect control RATE			REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Stone Fruit (Crop Group 12) including,	Foliar	Cherry fruit fly* Codling moth Omnivorous leafroller Tufted apple budmoth	0.065 - 0.11	10 - 17	3	12
Apricot; Cherry, sweet; Cherry, sour;		Obliquebanded leafroller Oriental fruit moth Peach twig borer†	0.065 - 0.133	10 - 20.5		
Nectarine; Peach; Plum; Plum, Chickasaw; Plum, Damson; Plum.		Spotted wing drosophila* Black cherry aphid Japanese beetle Plum curculio Thrips§	0.088 - 0.133	13.5 - 20.5		
Japanese; Plumcot; Prune (fresh)	Do not apply a total of mo containing products per ca Make no more than 3 appl within a single generation * - For best performance, other instructions on this t <b>Spray Volume:</b> Thorough volume appropriate for the Do not apply less than 30 of water per acre. § - Suppression only. For program. Rotate with proc populations are at or below product before applying E † - Peach Twig Borer: Fot EXIREL insect control; fot an EPA registered dormant specific oil labels for prec using ground equipment to May spray" applications to before peak egg lay). High and/or large, dense foliage Precautions when using E insect control with some n of EXIREL insect control crop response on cherry le	ications of EXIREL insect contr of the target pest on a crop. use with an effective adjuvant. S able for more information. a coverage is essential to achieve e size of trees or plants and densi gallons of water per acre by grou best results, use the highest rate fucts with a different mode of ac w threshold. If populations are at XIREL insect control. or early dormant through mid-do or late dormant applications, use it oil; for specific recommendation autions and restrictions regarding o achieve thorough uniform cove o the summer generation, make a per rates in the labeled rate range	YR active or cyantran ol or other Group 28 ee "Use of Adjuvants best results. Select a ity of foliage. and. For best results a listed. Use as part of tion. Begin applications ove threshold, use ar rmant applications, u lower rates. Applications on use of oils. For 1 rrage of all scaffolds a upplications at peak m e may be needed for h exes in stone fruit: tanfi nay cause adverse cru- t rates of 0.03 % v/v of EXIREL insect cont	insecticides s" section and spray upply 100-150 gallons an effective control ons when pest a effective knockdown se higher rates of ions may be made with sult manufacturers best performance, apply and limbs. For "April - noth flight (timed at or igh infestations levels k mixes of EXIREL op response. Tank mixes or lower do not result in rol with any other type		

	EXIREL insect control RATE					REI
Сгор	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	PHI (pre-harvest interval) (days)	(re-entry interval) (hours)
Tree Nuts (Crop	Foliar*	Hickory shuckworm Pecan nut casebearer	0.055 - 0.11	8.5 - 17	5	12
Group 14-12) including African nut-tree;		Codling moth† Obliquebanded leafroller Oriental fruit moth Peach twig borer††	0.065 - 0.133	10 - 20.5		
almond; beechnut;		Navel orangeworm††† Walnut aphid	0.088 - 0.133	13.5 - 20.5		
Brazil nut; Brazilian pine; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chestnut; chestnut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; monkey-pot; monkey-pot; monkey-pot; monkey-pot; monkey-pot; monkey-pot; monkey-pot; monkey-pet; pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, Englisl yellowhorn; cultivars, varieties, and/or hybrids of these	Do not apply a total of more containing products per cal Make no more than 3 appli within a single generation <b>Spray Volume:</b> Thorough volume appropriate for the Where higher spray volum than 30 gallons of water pet * - For best performance u † - <b>Codling moth</b> (Walnut generation. Depending on ground application equipm †† - <b>Peach Twig Borer:</b> E For dormant applications, i For specific directions on to restrictions regarding the u equipment to achieve thoro overwintering generation: For "April - May" applicat at or before peak egg lay). levels and large, dense foli ††† - <b>Navel orangeworm:</b> timing. For applications m make a second applications of higher rates in the labele Precautions when using E2 control with oil adjuvants of products used in tank mix of EXIREL insect control response. DO NOT tank m has been tested. See "Tank	val between treatments is 7 days. re than 0.4 lb ai/A of CYAZYPY lendar year. cations of EXIREL insect contro of the target pest on a crop. coverage is essential to achieve l size of trees or plants and densit es are used, apply a higher rate ir re acre by ground. For best results se with an effective adjuvant. See ): Make initial application at or b level of infestation reapply 14 day ent to achieve thorough coverage XIREL insect control may be use an EPA registered dormant oil may use of oil, consult manufacturer's se of oils in tree nut crops. For bo ough uniform coverage of all scaf Make applications at late dorman ions to the summer generation: M Higher rates in the labeled rate ra	R active or cyantranil l or other Group 28 ir pest results. Select a sy of foliage. a the specified rate ran a apply 100-150 gallo "Use of Adjuvants" efore peak egg lay fo ys later as needed. Us be added to the spr specific oil labels for est performance, appl folds and limbs. For s t (just prior to bud br fake applications at p inge may be needed f g the "May spray" or an application at 1- 2 Depending on level o tions may be needed. es in tree nuts: tank m use or increase the poi use an adverse crop r t been observed to can ny other type of adjuv	nsecticides pray nge. Do not apply less ns of water per acre. section. r targeted e higher rates and wing season. ray tank. precautions and y using ground spring application to eak) to early bloom. eak moth flight (timed for higher infestation "Hull split" application % hull-split timing; f pest infestation, use hixes of EXIREL insect tential for other esponse. Tank mixes use an adverse crop yant unless crop safety		

## STORAGE AND DISPOSAL

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

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

use of this product must be disposed of on site or at an approved waste disposal facility.

# **CONTAINER HANDLING: Refer to the Net Contents section of this product's labeling for the applicable** "Refillable Container" or "Nonrefillable Container" designation.

Nonrefillable Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Rigid Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Rigid Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

All Refillable Containers: Refillable container. Refilling Container: Refill this container with EXIREL insect control containing cyantraniliprole only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use container, contact FMC at the number below for instructions.

Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact FMC at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact CHEMTREC (Transportation and Spills) at 1-800-424-9300, day or night.

NOTICE TO BUYER—Purchase of this material does not confer any rights under patents of countries outside of the United States.

FMC, EXIREL and CYAZYPYR are trademarks or registered trademarks of FMC Corporation or an affiliate.

Tanos is a registered trademark of DuPont or an affiliate.

Cabrio is a registered trademark of BASF.

Quadris is a registered trademark of a Syngenta Group Company.

Venom is a registered trademark of Valent U.S.A. LLC.

Luna Sensation and Aliette are registered trademarks of Bayer.

Bravo Weather Stik is a registered trademark of Makhteshim Agan of North America, Inc.

Induce is a registered trademark of Helena Holding Company.

#### SL-4791 080423 09-27-23

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or FMC, and, to the extent permitted by applicable law, Buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Condition of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.