



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

July 2, 2018

Jacob J. Vukich
Sr. US Product Registration Manager
FMC Corporation
FMC Stine Research Center
P.O. Box 30
Newark, DE 19714-0030

Subject: Notification per PRN 98-10 – Revising label to reflect transfer from DuPont
Product Name: Altacor Insect Control
EPA Registration Number: 279-9607
Application Date: 06/13/2018
Decision Number: 542063

Dear Mr. Vukich:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

If you have any questions, you may contact Paul Di Salvo at 703-347-0322 or via email at disalvo.paul@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gene Benbow".

Gene Benbow, Product Manager 7
Invertebrate & Vertebrate Branch 3
Registration Division (7505P)
Office of Pesticide Programs



NOTIFICATION

279-9607

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

07/02/2018

WITH THE ACTIVE INGREDIENT RYNAXYPYR®

GROUP	28	INSECTICIDE
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ALTACOR® is a water dispersible granule.

<i>Active Ingredient</i>	<i>By Weight</i>
Chlorantraniliprole	
3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide	35.0%
<i>Other Ingredients</i>	65.0%
TOTAL	100.0%

EPA Reg. No. 279-9607

EPA Est. No. _____

Nonrefillable Container

Refillable Container

Net: _____

OR

Net: _____

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

PRECAUTIONARY STATEMENTS

KEEP OUT OF REACH OF CHILDREN

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

FIRST AID

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

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

When used as directed this product does not present a hazard to humans or domestic animals.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

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.

Sold By



FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

ENVIRONMENTAL HAZARDS

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

Surface Water Advisory-

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

Ground Water Advisory-

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

DIRECTIONS FOR USE

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

ALTACOR® insect control, also referred to below as ALTACOR® Insect Control or ALTACOR®, must be used only in accordance with the directions on this label, in separate EPA-approved labeling or exemptions under FIFRA (Supplemental Labels, Special Local Need Registrations, FIFRA Section 18 exemptions, FIFRA 2(ee) Bulletins), or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability.

RESTRICTIONS

- This product is only for commercial use.
- Not for residential use.
- Not for use on ornamental plants or plants being grown for ornamental purposes.
- May be used on crops on this label grown for seed production.
- Do not use in greenhouses.
- Do not apply ALTACOR® through any irrigation system unless specified in the crop section of this label or in EPA approved supplemental labeling.

New York State Only:

The following restrictions are required to permit use of ALTACOR® Insect Control in the State of New York:

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

AGRICULTURAL USE REQUIREMENTS

ALTACOR® 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 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.

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

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

ALTACOR® insect control is a water dispersible granule that can be applied as a foliar spray, using ground or aerial application to control listed insects. ALTACOR® is mixed with water for application.

ALTACOR® is a member of the anthranilic diamide class of insecticides with a novel mode of action acting on insect ryanodine receptors. Although ALTACOR® has contact activity, it is most effective through ingestion of treated plant material. After exposure to ALTACOR®, affected insects will rapidly stop feeding, become paralyzed, and typically die

within 1 - 3 days. Time applications to the most susceptible insect pest stage, typically at egg lay to egg hatch and/or newly hatched larvae, before populations reach damaging levels. If possible, make applications at or before egg deposition to be most effective in minimizing damage levels caused by insect pests.

INTEGRATED PEST MANAGEMENT

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 pest detection methods, correct target pest identification, population monitoring, rotation of insecticides with different modes-of-action, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants, product manufacturer 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 an application of ALTACOR® based on label use directions and locally determined pest management guidelines. More than one treatment of ALTACOR® may be required to control a pest population.

INSECT RESISTANCE MANAGEMENT

ALTACOR® contains the active ingredient chlorantraniliprole 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, follow these guidelines to delay the development of insecticide resistance:

- Apply ALTACOR® and other Group 28 insecticides within a single “treatment widow” 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 ALTACOR® 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.
- Follow labeled rates of ALTACOR® 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 strain of insect may be present.

If resistance to ALTACOR® develops in your area, ALTACOR® 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 economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

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

Use sufficient water to obtain thorough, uniform coverage. Because ALTACOR® is most effective through ingestion of treated plant material, thorough spray coverage is essential for optimum control of targeted pest insects. Using increased water volumes will typically result in better spray coverage, especially under adverse conditions such as dry, hot weather or dense plant foliage. Apply ALTACOR® using ground or aerial application equipment. For ground application use the following directions unless otherwise specified in separate crop sections of this label or EPA-approved supplemental labeling: use a minimum of 30 gallons per acre (gpa) of water. ALTACOR® may be applied by overhead chemigation on certain crops; for overhead chemigation applications see, "APPLICATION BY CHEMIGATION" section of this label for guidance. For aerial application use the following directions unless otherwise specified in this label or in EPA-approved supplemental labeling: use a minimum of 10 gallons per acre (gpa) of water.

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

APPLICATION BY OVERHEAD CHEMIGATION – CRANBERRY

Instructions for the Use of ALTACOR® in Overhead Sprinkler Chemigation Systems.

Types of Chemigation Systems: ALTACOR® may be applied only through overhead sprinkler irrigation systems. Overhead irrigation systems include 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 ALTACOR® 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 ¼ to 1/2 full with water and the agitator running, measure the required amount of ALTACOR® and add it to the tank. Then add additional water to bring your total pesticide mixture up to the desired volume for your application.

Note: Always add the ALTACOR® to water, never put ALTACOR® into a dry tank or other mixing equipment without first adding water.

See "Tank Mixing Sequence" section of the container label for tank mixing sequence. Continue to agitate the mixture throughout the application process. Use mechanical or hydraulic agitation, do not use air agitation.

Injection Into Chemigation Systems

Inject the specified amount of ALTACOR® into the irrigation water flow using a positive displacement injection pump.

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 ALTACOR® into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ALTACOR® to the irrigation water line and apply no more than 0.2 inches of water per acre.

Uniform Water Distribution

The irrigation system used for application of ALTACOR® must provide for uniform distribution of ALTACOR® 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 ALTACOR®. 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 ALTACOR® is in the irrigation water.

Required System Safety Devices

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

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump)

SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ALTACOR®. Fill spray tank 1/4 to 1/2 full of water. Add ALTACOR® directly to spray tank. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Use mechanical or hydraulic means; do not use air agitation. Do not store spray mix solutions overnight in spray tank. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

TANK MIXTURES

This product can be mixed with pesticide products that are labeled for use on the same crops as ALTACOR®. Do not exceed labeled dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

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

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

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

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

- Use the most restrictive PPE of the products to be tested.
- Add clean water to jar proportional to the planned water volume that will be used in the spray tank (a jar size of 8 - 16 oz is acceptable).
- Mix proper proportions of ALTACOR® 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 ALTACOR®.
- If the tank mix is not compatible, a higher water volume, reduced rate of the tank mix partner(s), reduced number of tank mix partners or a compatibility agent may be needed.

Tank Mixtures and Crop Safety - Crop varieties can differ in their responsiveness to tank mixtures, and environmental conditions can have an influence on product performance and crop response. It is not possible to test ALTACOR® alone or with all possible tank mix combinations on all varieties under all environmental conditions. When considering the use of a tank mixture on a labeled crop without prior experience, or which is not specifically described on ALTACOR® product labeling or in other FMC product use instruction, it is important to check crop safety first. To test for crop safety prepare a small volume of the intended tank mixture, apply it to an area of the target crop as directed by both this and the tank mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur.

Use of ALTACOR® in any tank mixture applications that is not specifically described on ALTACOR® 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 before making such applications to your crops. Follow the most restrictive labeling. FMC will not be responsible for any crop injury arising from the use of a tank mixture that is not specifically described on ALTACOR® product labeling or in other FMC product use instruction.

Tank Mixing Sequence - Fill spray tank 1/4 to 1/2 full of water. While agitating, add the different formulation types in the sequence indicated below*. Allow time for complete mixing and dispersion after addition of each product before adding the next product.

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

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

SPRAY TANK CLEANOUT

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

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

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

Controlling Droplet Size - Ground Application

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

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

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

Controlling Droplet Size - Aircraft

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

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

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

Do not apply as a ULV application.

BOOM LENGTH AND HEIGHT

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

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

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

WIND

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

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

TEMPERATURE AND HUMIDITY

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

SURFACE TEMPERATURE INVERSIONS

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

SHIELDED SPRAYERS

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

TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream.

In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

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

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

CROP ROTATION

Crops on this label and the following crops or crop groups may be planted immediately following harvest: Artichoke, globe; Asparagus; Banana/Plantain; Brassica (Cole) Leafy Vegetables (Crop Group 5); Bulb Vegetables (Crop Group 3-07); Bushberry subgroup (Crop subgroup 13-07B); Cacao; Caneberry subgroup (Berry and Small Fruit Crop Group subgroup 13-07A); Cereal Grains (Crop Group 15); Forage, Fodder, and Straw of Cereal Grains (Crop Group 16); Citrus (Crop Group 10-10); Coffee; Corn (field, pop, seed, and sweet); Cotton; Cucurbit Vegetables (Crop Group 9); Figs; Fruiting Vegetables (Crop Group 8-10); Grass Forage, Fodder, and Hay Group (Crop Group 17); Herbs subgroup (Crop Group subgroup 19A); Grape; Hops; Large Shrub/Tree Berry subgroup (Crop subgroup 13-07C); Leafy Vegetables (nonbrassica, Crop Group 4); Legume Vegetables (Crop Group 6); Foliage of Legume Vegetables (Crop Group 7); Low Growing Berry subgroup (Crop subgroup 13-07G); Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay Crop Group 18); Okra; Oilseed Group (Crop Group 20); Olives; Peanut; Persimmons; Pome Fruits (Crop Group 11-10); Pineapple; Pomegranates; Prickly Pear Cactus; Rice; Root and Tuber Vegetables (Crop Group 1); Leaves of Root and Tuber Vegetables (Crop Group 2); Small Fruit Vine Climbing

subgroup, except fuzzy kiwifruit (Berry and Small Fruit Crop Group subgroup 13-07F); Soybean; Spice subgroup (Crop Group subgroup 19B); Spearmint and Peppermint; Stone Fruits (Crop Group 12-12); Sugarcane: Tea; Tree Nuts and Pistachio (Crop Group 14); Tobacco; and Tropical Fruits (acerola, atemoya, avocado, biriba, black sapote, canistel, cherimoya, custard apple, ilama, feijoa, guava, jaboticaba, longan, lychee, mamey sapote, mango, papaya, passionfruit, pulasan, rambutan, sapodilla, soursop, Spanish lime, star apple, starfruit, sugar apple, wax jambu, and White sapote (Casimiroa), and and/or hybrids of these).

All other crops cannot be planted until 12 months after the last application of ALTACOR®.

Crops	Insects	ALTACOR® Rate Per Acre		Last Application Days to Harvest	REI (Hours)
		Lb A.I.	Ounces Product		
Banana/Plantain	Leafrollers	0.066 - 0.099	3.0 - 4.5	1	4
Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 10 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.					
Bushberry subgroup (Berry and small fruit crop group), (EPA Crop Subgroup 13-07B), Including: Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these	Cherry fruitworm Cranberry fruitworm Japanese beetle (adult)* Omnivorous leafroller Raspberry crown borer	0.066 - 0.099	3.0 - 4.5	1	
Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. * Japanese beetle (adult) - use the high application rate for moderate to heavy infestations.					
Large shrub/tree subgroup (Berry and small fruit crop group), (EPA Crop Subgroup 13-07C), Including: Bayberry; buffaloberry; che; chokecherry; elderberry; Juneberry (Saskatoon berry); mountain pepper berries; mulberry; phalsa; pincherry; riberry; salal; serviceberry; cultivars, varieties, and/or hybrids of these	Omnivorous leafroller Raspberry crown borer	0.066 - 0.099	3.0 - 4.5	1	
Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage.					
Low growing berry subgroup except cranberry and strawberry (Berry and small fruit crop group), (EPA Crop Subgroup 13-07G), Including: Bearberry; bilberry; blueberry, lowbush; cloudberry; lingonberry; muntries; partridgeberry; cultivars, varieties, and/or hybrids of these	Cherry fruitworm Cranberry fruitworm Japanese beetle (adult)* Omnivorous leafroller Raspberry crown borer	0.066 - 0.099	3.0 - 4.5	1	
Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. * Japanese beetle (adult) - use the high application rate for moderate to heavy infestations.					
Cranberry	Blackheaded fireworm* Cherry fruitworm Cranberry fruitworm Green spanworm Omnivorous leafroller Raspberry crown borer Sparganothis fruitworm	0.066 - 0.099	3.0 - 4.5	1	
Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Do not apply less than 20 gal water per acre by ground application. Do not apply less than 5 gal water per acre by aerial application. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. * Blackheaded fireworm - use high application rate for moderate to heavy infestations. ALTACOR® may be applied to cranberry by overhead chemigation. For specific guidance see label section titled APPLICATION BY CHEMIGATION – CRANBERRY					

Crops	Insects	ALTACOR® Rate Per Acre		Last Application Days to Harvest	REI (Hours)
		Lb A.I.	Ounces Product		
Caneberry subgroup (Berry and small fruit crop group), (EPA Crop Subgroup 13-07A), Including: Blackberry; loganberry; red and black raspberry cultivars and/or hybrids of these	Omnivorous leafroller Light brown apple moth Raspberry crown borer*	0.066 - 0.099	3.0 - 4.5	3	4
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 14 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre. *Raspberry crown borer - For control of Raspberry Crown Borer, apply ALTACOR® as a directed foliar application, using a spray volume of 50 to 100 gallons/acre, directed to base of canes. Apply in early fall right after egg hatch or in early spring when larvae first become active and start to feed on the crown of the plant. Time the application when rainfall (minimum of 1/2 inch) is forecast or when overhead irrigation (minimum of 1/2 inch water per acre) can be used to move ALTACOR® into the plant root zone in order to control raspberry crown borer.				
Small fruit vine climbing subgroup except fuzzy kiwifruit and grape, (Berry and small fruit crop group), (EPA Crop Subgroup 13-07F), Including: Amur river grape; gooseberry; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these	Omnivorous leafroller Raspberry crown borer	0.066 - 0.099	3.0 - 4.5	1	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Cacao	Cacao pod borer	0.066 - 0.099	3.0 - 4.5	1	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Citrus, (EPA Crop Group 10-10), Including: Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin Australian desert lime; Australian finger- lime; Australian round lime; Brown River finger lime; Japanese summer Mediterranean mandarin; Mount white lime; New Guinea wild lime; Russell River lime; Sweet lime; Tachibana orange; Tahiti lime; Trifoliolate orange; Uniq fruit; cultivars, varieties, and/or hybrids of these	Citrus leafminer Citrus peelminer Katydid (nymphs)* Light brown apple moth Omnivorous leafroller	0.066 - 0.099	3.0 - 4.5	1	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply less than 30 gal water per acre by ground. For best results apply 100 -150 gal water per acre. Where higher spray volumes are used, apply a higher ALTACOR® rate in the specified rate range. *Suppression of Katydid (nymphs) - Correct timing of spray application is to nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity. Forktailed bush katydid (<i>Scudderia furcata</i>), Angularwinged katydid (<i>Microcentrum retinerve</i>).				
Coffee	Coffee leafminer	0.066 - 0.099	3.0 - 4.5	7	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 14 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				

Crops	Insects	ALTACOR® Rate Per Acre		Last Application Days to Harvest	REI (Hours)
		Lb A.I.	Ounces Product		
Figs	Navel orangeworm	0.066 - 0.099	3.0 - 4.5	1	4
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Grape	Grape berry moth Grape leafroller	0.044 - 0.099	2.0 - 4.5	14	
	Climbing cutworm European grapevine moth Japanese beetle (adult)* Katydid (nymphs)** Light brown apple moth Raisin moth Western grapeleaf skeletonizer	0.066 - 0.099	3.0 - 4.5		
	Omnivorous leafroller	0.055 - 0.099	2.5 - 4.5		
	* Japanese beetle (adult) - use the high application rate for moderate to heavy infestations. Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. Make no more than 4 applications per calendar year. ** Suppression of Katydid (nymphs) - Correct timing of spray application is to nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity. Forktailed bush katydid (<i>Scudderia furcata</i>) , Angularwinged katydid (<i>Microcentrum retinerve</i>) Omnivorous leafroller - Make the first application at initiation of egg hatch, small larvae or first signs of infestations for each generation. Use higher rates of ALTACOR(R) for moderate to heavy insect pressure. Raisin moth - Make the first application at initiation of egg generation. Use the higher application rate for moderate to heavy insect pressure. The minimum interval between treatments is 7 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre. Where higher spray volumes are used, apply a higher ALTACOR® rate in the specified rate range.				
Olives	American plum borer European grapevine moth	0.066 - 0.099	3.0 - 4.5	1	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. 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. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Persimmons	Leafrollers	0.066 - 0.099	3.0 - 4.5	1	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. 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. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Pome Fruits, (EPA Crop Group 11-10), Including: Apple; Crabapple; Loquat; Mayhaw; Pear; Pear, oriental; Quince	Green fruitworm Spotted tentiform leafminer Western tentiform leafminer	0.055 - 0.088	2.5 - 4.0	5	
	Apple maggot* Codling moth** European apple sawfly European corn borer Light brown apple moth Obliquebanded leafroller*** Oriental fruit moth Pandemis leafroller Plum curculio* Redbanded leafroller Tufted apple bud moth Variegated leafroller White apple leafhopper*	0.055 - 0.099	2.5 - 4.5		
Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 10 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. For best results apply 100 - 150 gal water per acre. Do not apply less than 30 gal water per acre by ground. Effect on beneficial insects - Beneficial insects such as predators or parasitoids are an important component in pome fruit IPM. ALTACOR® has demonstrated low to no impact on the predator <i>Deraeocoris brevis</i> and key parasitoids, <i>Aphelinus mali</i> , <i>Aphytis</i> spp., and <i>Encarsia</i> spp. This low impact is very important in preservation of biological control of pear psylla, San Jose scale and wooly apple aphid when ALTACOR® is applied early season for control of first generation codling moth. * Suppression only. ** Codling Moth: Make first application prior to egg hatch. Each application provides 10 to 17 days of protection depending on intensity of codling moth pressure and rate of fruit growth. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Use pheromone trap catches and local degree day based spray timing advisories to determine the					
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Crops	Insects	ALTACOR® Rate Per Acre		Last Application Days to Harvest	REI (Hours)
		Lb A.I.	Ounces Product		
Pome Fruits cont'd	development of each generation. Higher rates in the labeled rate range may be needed for high infestation levels and/or large, dense foliage trees. Codling Moth Resistance Management: Do not apply ALTACOR® (or other Group 28 insecticides) more than three times to a generation of codling moth (codling moth typically has a single generation "treatment window" of 30 to 45 days). Application(s) to the next generation of codling moth must be with an effective product(s) with a different mode of action (different IRAC group number) for at least a 30 day "treatment window" before making any additional applications of ALTACOR® (or other Group 28 insecticides). Apples - Western U.S. States†: Use the 3.0 oz/acre rate for low pressure infestations and make repeat applications on a 14 day schedule. For high pressure infestations or for orchards with a history of significant codling moth damage, apply ALTACOR® at 4.0 to 4.5 ounces per acre. Make repeat applications on a 10 to 17 day schedule. For best results in high pressure orchards, use a comprehensive management program involving ovicide treatments followed by properly timed larvacide applications at high labeled rates and shortened retreatment intervals. When using ALTACOR® in an integrated program with other codling moth insecticides, make sure the retreatment schedule is consistent with the period of effectiveness for each product used. Pears - Western U.S. States†: Apply ALTACOR® on a 14 to 17 day schedule. For low pressure infestations use the 3.0 oz rate. For high pressure infestations or for orchards with a history of significant codling moth damage, apply ALTACOR® at 4.0 to 4.5 oz/acre. ***Obliquebanded Leafroller: For overwintering larvae, apply in the spring (pink to petal fall stage) at first sign of active feeding. For summer generation apply just prior to or at the beginning of egg hatch. Leafroller feeding stops after ingestion of treated foliage, however, during periods of cold weather when leafrollers are inactive, it may take several days to achieve complete control. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees. Obliquebanded Leafroller Resistance Management: Only apply ALTACOR® (or other Group 28 insecticides) to one generation of obliquebanded leafroller per year. Application(s) to other generations of obliquebanded leafroller must be with an effective product with a different mode of action (i.e. a product with a different IRAC group number). † Includes states of AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY.				4
Azarole; Medlar; Tejocote; cultivars, varieties, and/or hybrids of these	Green fruitworm Spotted tentiform leafminer Western tentiform leafminer	0.055 - 0.088	2.5 - 4.0	5	
	Apple maggot* European apple sawfly European corn borer Light brown apple moth Obliquebanded leafroller** Oriental fruit moth Pandemis leafroller Plum curculio* Redbanded leafroller Tufted apple bud moth Variegated leafroller White apple leafhopper*	0.055 - 0.099 Western U.S. States†: 0.066 - 0.099	2.5 - 4.5 Western U.S. States†: 3.0 - 4.5		
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 10 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. For best results apply 100 – 150 gal water per acre. Do not apply less than 30 gal water per acre by ground. Effect on beneficial insects - Beneficial insects such as predators or parasitoids are an important component in pome fruit IPM. ALTACOR® has demonstrated low to no impact on the predator <i>Deraeocoris brevis</i> and key parasitoids, <i>Aphelinus mali</i> , <i>Aphytis</i> spp., and <i>Encarsia</i> spp. This low impact is very important in preservation of biological control of pear psylla, San Jose scale and wooly apple aphid when ALTACOR® is applied early season for control of first generation codling moth. * Suppression only. **Obliquebanded Leafroller: For overwintering larvae, apply in the spring (pink to petal fall stage) at first sign of active feeding. For summer generation apply just prior to or at the beginning of egg hatch. Leafroller feeding stops after ingestion of treated foliage, however, during periods of cold weather when leafrollers are inactive, it may take several days to achieve complete control. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees. Obliquebanded Leafroller Resistance Management: Only apply ALTACOR® (or other Group 28 insecticides) to one generation of obliquebanded leafroller per year. Application(s) to other generations of obliquebanded leafroller must be with an effective product with a different mode of action (i.e. a product with a different IRAC group number). † Includes states of AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY.				

Crops	Insects	ALTACOR® Rate Per Acre		Last Application Days to Harvest	REI (Hours)
		Lb A.I.	Ounces Product		
Pomegranates	Navel orangeworm Omnivorous leafroller	0.066 - 0.099	3.0 - 4.5	1	4
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Prickly Pear Cactus	Prickly pear moth	0.066 - 0.099	3.0 - 4.5	1	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year.				
Stone Fruits, (EPA Crop Group 12-12), Including: Apricot; Cherry, sweet; Cherry, tart; Nectarine; Peach; Plum; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plumcot; Prune (fresh) Apricot, Japanese; Capulin; Cherry, black; Cherry Nanking; Jujube, Chinese; Plum, American; Plum, beach; Plum, Canada; Plum, cherry; Plum, Klamath; Sloe	Cherry fruit fly* Codling moth Katydid (nymphs) ** Light brown apple moth Obliquebanded leafroller Omnivorous leaf roller Oriental fruit moth Peach twig borer *** Tufted apple bud moth	0.066 - 0.099	3.0 - 4.5	10	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 7 days. A lower application rate of 2.0-3.0 oz product per acre can be used in short interval (7-10 days) spray program. Do not apply dilute applications of more than 200 gal water per acre. For best results apply 100-150 gal water per acre. Do not apply less than 30 gal water per acre by ground. * Suppression only. ** Suppression of Katydid (nymphs) - Correct timing of spray application is to the nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity. Forktailed bush katydid (<i>Scudderia furcata</i>), Angularwinged katydid (<i>Microcentrum retinerve</i>). *** Peach twig borer - For early dormant through mid-dormant applications, use higher rates of ALTACOR®; for late dormant applications, use lower rates. Applications may be made with an EPA registered dormant oil; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils. For best performance, apply using ground equipment to achieve thorough uniform coverage of all scaffolds and limbs. For "May spray" applications to the summer generation, make applications at peak moth flight (timed at or before peak egg lay). Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees.				
Tea (HI & SC only)	Leafrollers	0.066 - 0.099	3.0 - 4.5	3	
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. The minimum interval between treatments is 14 days. 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. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground. For best results apply 100 - 150 gal water per acre.				
Tree Nuts, (EPA Crop Group 14-12), Including: African nut-tree; Almond; Beechnut; Brazil nut; Brazilian pine; Bunya; Bur oak; Butternut; Cajou nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito nut; Dika nut; Ginkgo; Guiana chestnut; Hazelnut (Filbert); Heartnut; Hickory nut Japanese horse-chestnut; Macadamia nut; Mongongo nut; Monkey-pot; Monkey puzzle nut; Okari nut; Pachira nut; Peach palm nut; Pecan; Pequi; Pili nut; Pine nut; Pistachio; Sapucala nut; Tropical almond; Walnut, black; Walnut, English; Yellowhorn; and Cultivars, varieties, and/or hybrids of these	Hickory shuckworm Pecan nut casebearer	0.044 - 0.099	2.0 - 4.5	10	
	Filbertworm	0.055 - 0.099	2.5 - 4.5		
	Codling moth Navel orange worm Light brown apple moth Oblique banded leafroller Oriental fruit moth Peach twig borer	0.066 - 0.099	3.0 - 4.5		
	Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply less than 30 gal water per acre. For best results apply 100 -150 gal water per acre by ground. Where higher spray volumes are used, apply a higher ALTACOR® rate in the specified rate range. The minimum interval between treatments is 7 days. Grazing on Tree Nut orchard or grove floor - There are no grazing restrictions for (1) Grass forage, fodder and hay. Any grass Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage, and (2) Non-grass animal feeds Filbertworm: Make initial application just before or at filbertworm egg hatch. Depending on the length of the filbertworm moth flight, multiple applications may be required to protect the crop. Under heavy filbertworm pressure, apply ALTACOR® on a 14 day retreatment schedule. With moderate to low filbertworm pressure, apply ALTACOR® at retreatment intervals no longer than every 21 days. Codling moth - (Walnut) Make initial application at or before peak egg lay for targeted generation. Depending on level of infestation reapply 14-21 days later as needed. Use higher rates and ground application equipment to achieve thorough coverage Navel orange worm (Hullsplit application timing) - Make an application at 1-5% hull-split timing; make a second application approximately 10 - 14 days later. Depending on level of pest infestation, use of higher rates in the labeled rate range and multiple applications may be needed. Peach twig borer - ALTACOR® may be used throughout the growing season, however for dormant applications: ALTACOR® may be tank mixed with an EPA registered dormant oil; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in tree nut crops. For best performance apply with ground equipment to achieve thorough uniform coverage of all scaffolds and limbs. The high rate is recommended for applications made at early to mid-dormant timing. Peach twig borer - For spring application to overwintering generation: Make application at late dormant (just prior to bud break) to early bloom. For "May spray" applications to the summer generation: Make applications at peak moth flight (timed at or before peak egg lay). Higher rates in the labeled rate range may be needed for high infestations levels and large, dense foliage trees.				

Crops	Insects	ALTACOR® Rate Per Acre		Last Application Days to Harvest	REI (Hours)
		Lb A.I.	Ounces Product		
Tropical fruits: acerola; atemoya; avocado; biriba; black sapote; canistel; cherimoya; custard apple; ilama; feijoa; guava; jaboticaba; longan; lychee; mamey sapote; mango; papaya; passionfruit; pineapple; pulasan; rambutan; sapodilla; soursop; Spanish lime; star apple; starfruit; sugar apple; wax jambu; White sapote (Casimiroa), and other cultivars and/or hybrids of these.	Leafrollers Leafminers	0.066 - 0.099	3.0 - 4.5	1*	4
<p>Do not apply more than 9 oz ALTACOR® or 0.2 lb a.i. of chlorantraniliprole containing products per acre per calendar year. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. The minimum interval between treatments is 10 days. Do not apply dilute applications of more than 200 gal water per acre. Do not apply less than 30 gal water per acre by ground.. For best results apply 100 - 150 gal water per acre. *Except acerola, jaboticaba and lychee. Last application days to harvest for acerola, jaboticaba and lychee is 10 days.</p>					

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: 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.

For Small (Capacity Equal to or Less Than 50 Pounds) Nonrefillable Plastic Containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For Large (Capacity Greater Than 50 Pounds) Nonrefillable Plastic Containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). *Refilling Fiber Drum:* Refill this fiber drum with ALTACOR® Insect Control containing Chlorantraniliprole only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment.

Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

For All Refillable Containers: Refillable container. Refill this container with chlorantraniliprole only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. 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.

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