01/26/201



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

> OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Richard A. Carver DuPont Crop Protection P.O. Box 30 Newark, DE 19714-0030

JAN 26 2010

Dear Dr. Carver:

Subject: Labeling Amendment; Addition of Multiple Commodities Dupont Altacor Insect Control EPA Registration No. 352-730 Submission Date: December 4, 2008 Decision: 404618

The labeling referred to above, submitted in connection with registration under the Federal

Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for

your records. Please submit one (1) final printed copy for the above mentioned label before releasing the

product for shipment. If you have any questions regarding this label, please contact me at (703) 306-

0415 or davis.kable@epa.gov.

Sincerely yours,

Kable Bo Davis

Acting Product Manager (07) Insecticide-Rodenticide Branch Registration Division (7505P)



# DuPont<sup>™</sup> Altacor®

# insect control

with the active ingredient RYNAXYPYR<sup>®</sup>

GROUP	28	INSECTICIDE
The second se		

ALTACOR® is a water dispersible granule.

Active Ingredient		By Weight
Chlorantraniliprole		
3-Bromo-N-[4-chloro-2-methyl	-6-	
[(methylamino)carbonyl]pheny	l]-1-	
(3-chloro-2-pyridinyl)-1H-pyra	zole-	
5-carboxamide		35.0%
Other Ingredients		65.0%
TOTAL		100.0%
EPA Reg. No. 352-730	EPA Est. No	
Nonrefillable Container		
Net:		
OR		
Refillable Container		
Net:		
E. I. du Pont de Nemours and C	ompany	
1007 Market Street		
Wilmington, DE 19898		

Phone: 1-800-441-7515 (Toll Free)



JAN 26 2010

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as emended, for the pesticide registored under EPA Reg. No. 352-730.

# PRECAUTIONARY STATEMENTS

# KEEP OUT OF REACH OF CHILDREN

Si usted no entiende la etiquete, 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 1-800-441-3637 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.

# **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.

#### RESTRICTIONS

- Use this product only in commercial and farm plantings.
- Not for use in home plantings.
- · 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 DuPont<sup>™</sup> ALTACOR<sup>®</sup> through any irrigation system unless specified in the crop section of this label or in 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 -7-
- 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 must be used only in accordance with directions on this label or in separate DuPont supplemental labeling that may be made temporarily available through local distributors, as a result of new EPA approvals. DuPont will not be responsible for losses or damages

resulting from use of this product in any manner not specifically stated on this label or other labels or bulletins published by DuPont. User assumes all risks associated with such nonspecified use.

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 hatch and/or newly hatched larvae, before populations reach damaging levels. For best results, applications must be made at or before egg deposition.

#### INTEGRATED PEST MANAGEMENT

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

#### SCOUTING

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

#### RESISTANCE MANAGEMENT

For resistance management, ALTACOR® is a Group 28 Insecticide. Repeated and exclusive use of ALTACOR® (chlorantraniliprole, belonging to the anthranilic diamide class of chemistry), or other Group 28 Insecticide may lead to the buildup of resistant strains of insects in some crops.

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, this product may be used as part of resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

Unless directed otherwise in the specific crop/pest sections of this label, the best practices are to follow these instructions to delay the development of insecticide resistance: Make no more than 3 successive applications of ALTACOR® (chlorantraniliprole) or other Group 28 products per generation to the same insect species on a crop. The following application(s) to the target pest in the next generation must be with an effective product with a different mode of action (non-Group 28 insecticide). If resistance to DuPont<sup>™</sup> ALTACOR® develops in your area, ALTACOR® or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternate method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### APPLICATION

Apply at the specified rates when insect populations reach locally determined economic 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: use a minimum of 30 gallons per acre (gpa) of water. For aerial application use the following directions unless otherwise specified in this label: use a minimum of 10 gallons per acre (gpa) of water. For potato and cotton: for aerial application use a minimum of 5 gallons per acre (gpa) of water; for ground application use a minimum of 10 gallons per acre of water.

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

#### **CROP ROTATION**

Crops on this label and the following crops or crop groups may be planted immediately following harvest: Artichoke; Asparagus; Brassica (Cole) Leafy Vegetables (Crop Group 5); Corn (field, pop, seed, and sweet); Cucurbit Vegetables (Crop Group 9); Forage, Fodder, and Straw of Cereal Grains (Crop Group 16); Fruiting Vegetables (Crop Group 8); Grass Forage, Fodder and Hay (Crop Group 17); Herbs subgroup (Crop Group subgroup 19A); Hops; Leafy Vegetables (nonbrassica, Crop Group 4); Legume Vegetables (Crop Group 6); Foliage of Legume Vegetables (Crop Group 7); Spearmint, tops and Peppermint, tops; Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay Crop Group 18); Okra; Peanuts; Protected Seed Oilseeds (hare's-ear mustard, jojoba, lesquerella, unaria, mustard seed, oil radish, poppy seed, rapeseed/canola, rose hip, sesame, tallowwood, tea oil plant); Rice; Root and Tuber Vegetables (Crop Group 1): Spice subgroup (Crop Group subgroup 19B); Strawberries: Sugarcane; Tobacco: and Tops of Root and Tuber Vegetables (Crop Group 2).

The following crops or crop groups may be planted 30 days following the last application of ALTACOR®: garlic, great-headed garlic, dry bulb onion, leek, green onion, Welsh onion, shallot, Cereal Grains (Crop Group 15).

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

#### 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.

**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.). Avoid mixtures of several materials and very concentrated spray 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. Do not exceed labeled dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

**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.
- 2. ALTACOR® and other water dispersible granules.
- 3. Wettable powders.
- 4. Water based suspension concentrates
- 5. Water-soluble concentrates.
- 6. Oil based suspension concentrates.
- 7. Emulsifiable concentrates.
- 8. Adjuvants, surfactants, and oils
- 9. Soluble fertilizers.
- 10. Drift retardants.
- \* Unless otherwise specified by manufacturer directions for use or by local experience.

		DuPont <sup>TM</sup> ALTACOR® Bate Per A cre		Last Application
Crops	Insects	Lbs. A.I.	Ounces Product	Days to Harvest
anana/Plantain	Leafrollers	0.066 - 0.099	3.0 - 4.5	1
	Make no more than 3 applicatio chlorantraniliprole containing p The minimum interval between gal water per acre. Do not apply per acre. Spray Volume: Thorough cove for the size of trees or plants am	ns per season. Do not roducts per acre per cr treatments is 10 days. less than 30 gal water rage is essential to ach d density of foliage.	apply more than 9 oz A op per season. Do not apply dilute ap per acre, For best resu ieve best results. Selec	LTACOR® or 0.2 lbs a.i. of plications of more than 200 lts apply 100 - 150 gal water t a spray volume appropriate
neberry subgroup erry and small	Omnivorous leafroller Raspberry crown borer	0.066 - 0.099	3.0 - 4.5	3
crop group]: kberry; nberry: nd błack berry vars or hybrids ese	Make no more than 3 applicatio chlorantraniliprole containing p The minimum interval between gal water per acre. Do not apply water per acre. Spray Volume: Thorough cove for the size of trees or plants and	ns per season. Do not a roducts per acre per cr treatments is 14 days, less than 30 gal water rage is essential to ach d density of foliage.	apply more than 9 oz A op per season. Do not apply dilute ap per acre. For best resu ieve best results. Selec	LTACOR® or 0.2 lbs a.i. of plications of more than 200 lts apply 100 - 150 gal t a spray volume appropriate
Il fruit vine bing subgroup	Omnivorous leafroller Raspberry crown borer	0.066 - 0.099	3.0 - 4.5	1
ot fuzzy uit): river grape; berry; uit, hardy; op; ndra berry; ars, es, and/or is of these	Make no more than 3 applicatio chlorantraniliprole containing p The minimum interval between water per acre. Do not apply les per acre. Spray Volume: Thorough cove: Select a spray volume appropria	ns per season. Do not a roducts per acre per cri treatments is 7 days. 1 s than 30 gal water per rage is essential to ach ate for the size of trees	apply more than 9 oz A op per season. Do not apply dilute apply acre. For best results a ieve best results. or plants and density of	LTACOR® or 0.2 lbs a.i. of lications of more than 200 gal apply 100 - 150 gal water foliage.
	Cacao pod borer	0.066 - 0.099	3.0 - 4.5	1
	Make no more than 3 applicatio chlorantraniliprole containing p. The minimum interval between gal water per acre. Do not apply per acre. Spray Volume: Thorough cove for the size of trees or plants am	ns per season. Do not a roducts per acre per cr treatments is 7 days. 1 v less than 30 gal water rage is essential to ach d density of foliage.	apply more than 9 oz A op per season. Do not apply dilute appl per acre. For best resu ieve best results. Select	LTACOR® or 0.2 lbs a.i. of lications of more than 200 lts apply 100 - 150 gal water a spray volume appropriate
us: amondin;	Citrus leafminer Citrus peelminer	0.066 - 0.099	3.0 - 4.5	1
s citron; s hybrids udes chironja, elo, tangor): efruit; kumquat; m; lime; darin gerine); ge, sour; ge, sweet; melo; uma mandarin	Make no more than 3 applications per season. Do not apply more than 9 oz ALTACOR® or 0.2 lbs a.i. of chlorantraniliprole containing products per acre per crop per season. 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. For best results apply 100 - 150 gal water per acre. 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.			
fee	Coffee leafminer	0.066 - 0.099	3.0 - 4.5	7
	Make no more than 3 applicatio chlorantraniliprole containing p The minimum interval between water per acre. Do not apply les per acre. Spray Volume: Thorough cove for the size of trees or plants am	ons per season. Do not a roducts per acre per cr treatments is 14 days. is than 30 gal water per rage is essential to ach d density of foliage.	apply more than 9 oz A op per season. Do not apply dilute apj r acre. For best results a ieve best results. Select	LTACOR® or 0.2 lbs a.i. of plications of more than 200 gal apply 100 - 150 gal water a spray volume appropriate
s	Navel orangeworm	0.066 - 0.099	3.0 - 4.5	1
	Make no more than 3 applicatio chlorantraniliprole containing p The minimum interval between water per acre. Do not apply les per acre. Spray Volume: Thorough cove for the size of trees or plants and	ons per season. Do not a roducts per acre per cr- treatments is 7 days. I is than 30 gal water per rage is essential to ach d density of foliage	apply more than 9 oz A op per season. Do not apply dilute appl r acre. For best results a ieve best results. Select	LTACOR <sup>®</sup> or 0.2 lbs a.i. of lications of more than 200 gal upply 100 - 150 gal water t a spray volume appropriate

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		DuPont™ ALTACOR® Rate Per Acre		Last Application	REI	
Crops	Insects	Lbs. A.I.	Ounces Product	Days to Harvest	(Hours)	
Grape	Grape berry moth Grape leaffolder	0.044 - 0.099	2.0 - 4.5	14	. 4	
	Climbing cutworm Omnivorous leafroller Western grapeleaf skeletonizer	0.066 - 0.099	3.0 - 4.5			
	Do not apply more than 9 oz A per crop per season. Make no more than 4 application The minimum interval between Thorough spray coverage is ess Do not apply dilute application Do not apply dilute application	LTACOR® or 0.2 lbs ons per season. a treatments is 7 days. sential for best perfor s of more than 200 ge	nance. I water per acre.	e containing products per acre		
Olives	American plum borer	0.066 - 0.099	3.0 - 4.5	1	4	
	Make no more than 3 application chlorantraniliprole containing p The minimum interval betweer water per acre. Do not apply le water per acre. Spray Volume: Thorough cover for the size of these or opents or	Make no more than 3 applications per season. Do not apply more than 9 oz ALTACOR® or 0.2 lbs a.i. of chlorantraniliprole containing products per acre per crop per season. 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. For best results apply 100 - 150 gal water per acre. Spray Volume: Thorough coverage is essential to achieve best results. Select a spray volume appropriate				
Persimmons	Leafrollers	0.066 - 0.099	30-45	1	-	
	Make no more than 3 application chlorantraniliprole containing p The minimum interval between water per acre. Do not apply le per acre. Spray Volume: Thorough cove for the size of trees or plants ar	Make no more than 3 applications per season. Do not apply more than 9 oz ALTACOR® or 0.2 lbs a.i. of chlorantraniliprole containing products per acre per crop per season. 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. For best results apply 100 - 150 gal water per acre. Spray Volume: Thorough coverage is essential to achieve best results. Select a spray volume appropriate				
Pome Fruits Including Apple;	East of the Rocky Mountains Green fruitworm Spotted tentiform leafminer	0.055 - 0.088	2.5 - 4.0	5 (except Mayhaw		
Crabapple; Loquat; Mayhaw; Pear: Pear, oriental; Quince	Apple maggot* Codling moth** Eastern apple sawfly European com borer Obliquebanded leafroller*** Oriental fruit moth Plum curculio* Redbanded leafroller Tufted apple bud moth Variegated leafroller White apple leafhopper*	0.055 - 0.099	2.5 - 4.5	which is 14)		
	West of the Rocky Mountains Green fruitworm Spotted tentiform leafminer	0.055 - 0.088	2.5 - 4.0			
	Apple maggot* Codling moth** Eastern apple sawfly European corn borer Obliquebanded leafroller*** Oriental fruit moth Plum curculio* Redbanded leafroller Tufted apple bud moth Variegated leafroller White apple leafhopper*	0.066 - 0.099	3.0 - 4.5			
	Make no more than 4 application chlorantraniliprole containing p Do not apply dilute application water per acre. The minimum i Do not apply less than 30 gal w Spray Volume: Thorough cow for the size of trees and density * Suppression only. ** Codling Moth Larvac Application Timing: For e provides 10 to 17 days of p growth. Use pheromone trai development of each genera Apples - West of the Rock make repeat applications on history of significant codlin repeat applications on a 10 comprehensive managemen applications at high labeled	ons per season. Do no roducts per acre per r s of more than 200 ga nterval between treati vater per acre by grou erage is essential to ac of foliage. ach generation, make otection depending o p catches, and local d ation. y Mountains: Use th a 14 day schedule. Fi g moth damage, appl to 17 day schedule. Fi tt program involving of rates and shortened r	t apply more than 9 oz A rrop per season. Il water per acre. For bes ments is 10 days. nd. chieve best results. Select first application prior to 6 n intensity of codling mo egree day based spray tin e 3.0 oz/acre rate for low or high pressure infestat y ALTACOR® at 4.0 to 4 or best results in high pre povicide treatments follow the and the results.	LTACOR® or 0.2 lbs a.i. of t results apply 100 – 150 gal a spray volume appropriate egg hatch. Each application th pressure and rate of fruit ning advisories to determine the pressure infestations and ions or for orchards with a 4.5 ounces per acre. Make ssure orchards, use a ed by properly timed larvacide		
cont'd next page	retreatment schedule is con-	sistent with the period	I of effectiveness for each	i product used.		

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		DuPont <sup>™</sup> Rate P	ALTACOR® er Acre	Last Application	REI
Crops	Insects	Lbs. A.I.	Ounces Product	Days to Harvest	(Hours)
Pome fruits cont'd	Pears - West of the rocky infestations use the 3.0 oz ra For high pressure infestation ALTACOR® at 4.0 to 4.5 o ***Obliquebanded Leafroller For overwintering larvae, ap For summer generation app ingestion of treated foliage, take several days to achieve	4			
Pomegranates	Navel orangeworm Omnivorous leafroller	0.066 - 0.099	3.0 - 4.5	1	
	Make no more than 3 application chlorantraniliprole containing p The minimum interval between water per acre. Do not apply les per acre. Spray Volume: Thorough cover for the size of trees or plants an	ons per season. Do not products per acre per cr treatments is 7 days. ss than 30 gal water pe prage is essential to ach d density of foliage.	apply more than 9 oz A op per season. Do not apply dilute app r acre. For best results a nieve best results. Selec	LTACOR® or 0.2 lbs a.i. of lications of more than 200 gal apply 100 - 150 gal water t a spray volume appropriate	
Prickly Pear Cactus	Prickly pear moth	0.066 - 0.099	3.0 - 4.5	l	
	Make no more than 3 application chlorantraniliprole containing p Do not use an adjuvant with app	ons per season. Do not products per acre per cr plications of ALTACC	apply more than 9 oz A op. DR®.	LTACOR® or 0.2 lbs a.i. of	
Stone Fruits Including Apricot; Cherry, sweet; Cherry, tart; Nectarine; Peach; Plum;	Cherry fruit fly* Codling moth Katydid (nymphs) Obliquebanded leafroller Omivorous leaf roller Oriental fruit moth Peach twig borer** Tufted apple bud moth	0.066 - 0.099	3.0 - 4.5	10	
Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plumcot; Prune (fresh)	Make no more than 3 applicatii chlorantraniliprole containing p Do not apply dilute application water per acre. The minimum in A lower application rate of 2.0- program. Do not apply less that * Suppression only. ** Peach twig borer - For dor application and lower rates dormant oil; for specific dir apply using ground equipme For "May spray" applications to before peak egg lay). Higher ra and large, dense foliage trees.	· ·			
Tree Nuts Including	Hickory shuckworm Pecan nut casebearer	0.044 - 0.099	2.0 - 4.5	10	
Almond; Beech nut; Brazil nut; Butternut; Cashew;	Codling moth Navel orange worm Oblique banded leafroller Oriental fruit moth Peach twig borer	0.066 – 0.099	3.0 - 4.5		
Chestnut; Chinquapin; Filbert (hazelnut); Hickory nut; Macadamia (bush) nut; Pecan; Pistachio; Walnut, black and English (Persian)	Make no more than 4 applications per season. Do not apply more than 9 oz ALTACOR® or 0.2 lbs a.i. of chlorantraniliprole containing products per acre per crop per season. 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. The minimum interval between treatments is 7 days. <b>Codling moth</b> – (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 <b>Navel orange worm</b> (Hullsplit application timing) – Make an application at 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 recommended rate range and multiple applications may be needed. <b>Peach twig borer</b> – For dormant applications 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 <b>Peach twig borer</b> – 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 and peak moth flight (timed at or before peak egg lay). Higher rates in the recommended rate range may be needed for high infestations levels and large, dense foliage trees.				

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		DuPont™ Rate Pe	DuPont <sup>™</sup> ALTACOR® Rate Per Acre		REI
Crops	Insects	Lbs. A.I.	Ounces Product	Days to Harvest	(Hours)
Tropical fruits:	Leafrollers Leafminers	0.066 - 0.099	3.0 - 4.5	*	4
atemoya; atemoya; avocado; biriba; black sapote; canistel; cherimoya; custard apple ilama; feijoa; guava; jaboticaba; longan; lychee; mamey sapote; mamey sapote; sapodilla; soursop; Spanish lime; star apple; starfruit; sugar apple; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit; starfruit;	Make no more than 3 applicatic chlorantraniliprole containing p The minimum interval between water per acre. Do not apply les per acre. Spray Volume: Thorough cove for the size of trees or plants an *Except acerola, jaboticaba, lyc jaboticaba, lychee, papaya and	ons per season. Do not a products per acre per cr treatments is 10 days. ss than 30 gal water per page is essential to ach d density of foliage. chee, papaya and passic passionTruit is 10 days.	apply more than 9 oz A op per season. Do not apply dilute ap acre. For best results. ieve best results. Selec onfruit; Last applicatior	LTACOR® or 0.2 lbs a.i. of plications of more than 200 gal apply 100 - 150 gal water t a spray volume appropriate a days to harvest for acerola,	
Cotton	Beet armyworm Cotton bollworm**	0.044 - 0.088	2.0 4.0	21	
	Fall armyworm Saltmarsh caterpillar Southern armyworm Tobacco budworm**	0.027 0.000		•	
	Cabbage looper Soybean looper*	0.066 - 0.099	3.0 - 4.5		
	<ul> <li>Make no more than 4 application</li> <li>Do not apply more than 9 oz Alper crop.</li> <li>The minimum interval between</li> <li>Do not use an adjuvant with appression only.</li> <li>** For Heliothine control (cott 0.066 - 0.088 lb. ai per acre 0.088 lb ai per acre (2.0 - 4.</li> </ul>				
Potato	Cabbage looper Colorado potato beetle	0.044 – 0.066	2.0 3.0	14	
cont'd next page	The minimum interval between treatments is 5 days. ALTACOR® may be applied to potatoes via overhead sprinkler chemigation systems. 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. General Directions for Chemigation: <b>Preparation</b> 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 1/4 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 proper 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.				

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		DuPont™ ALTACOR® Rate Per Acre		DuPont <sup>™</sup> ALTACOR® Rate Per Acre	Last Application	REI
Crops	Insects	Lbs. A.I.	Ounces Product	Days to Harvest	(Hours)	
Crops Potato Cont'd	Insects Apply in no more than 0.2 inch add the solution containing AL of water per acre. Uniform Water Distribution The irrigation system used for r ALTACOR® treated water. No or illegal pesticide residues in c uniformly distribute the chemig local University Extension agen distribution of the application. Equipment Calibration Calibrate the irrigation system while the system is running usi you should contact your state e Monitoring of Chemigation Ap A person knowledgeable of the supervision of a responsible pet the need arise. Wear the person applicators and other handlersy Do not connect any irrigation s pesticide label-prescribed safet provision to the public of piped connections or regularly serves 1. The system must contain a fu appropriately located on the irr 2. The pesticide injection pipel prevent the flow of fluid back t 3. The pesticide injection pipel valve located on the intake side fluid from being withdrawn from manually shut down. 4. The system must contain fun injection pump when the water 5. The irrigation line or water pr water pump motor when the water water sy affected. 6. Systems must use a metering pump) effectively designed and	DuPont <sup>TM</sup> A Rate Per Lbs. A.I. es of water per acre. For TACOR® to the irrigat application of ALTACC on-uniform distribution or on the crop being trea gation application to the nt or other experts if yo and injector before appling the expected irrigation to rother experts if yo and injector before appling the expected irrigation splications - chemigation system an rson, shall shut the syst all protective equipmen when making adjustmer n water. ces ystem used for pesticid y devices are in place. If water for human const an average of at least 2 unctional check valve, V ingation pipeline to prev- ine must contain a func oward the injection purp im the supply tank when totional interlocking con pump motor stops. Dump must include a fun ater pressure decreases is pump such as a positivi	ALTACOR® er Acre Ounces Product or overhead sprinkler sy ion water line and apply DR® must provide for u can result in crop injury ted. Ensure the irrigative crop. Contact the equip u have questions about lying ALTACOR®. Ca on rate. If you have que lists, equipment manufa id responsible for its op ern down and make nece t as defined in the PPE is tas or repairs on the che e applications to a public vacuum relief valve and tional, automatic, quick np. functional, normally cle and connected to the sys- n the irrigation system is introls to automatically s inctional pressure switch to the point where pesti- ve displacement injection is that are compatible water source contant is that are compatible water source is the system is introls to automatically s	Last Application Days to Harvest stems that are stationary, y no more than 0.2 inches inform distribution of y, lack of effectiveness on system is calibrated to pment manufacturer, the achieving uniform librate the injection pump stions about calibration, cturer or other experts. eration, or under the essary adjustments should section of the label for migation system when c water system unless the ans a system for the m has at least 15 service ) days out of the year. low pressure drain initation from backflow. -closing check valve to osed, solenoid-operated stem interlock to prevent s either automatically or hut off the pesticide which will stop the cide distribution is a in pump (e.g. diaphragm vith pesticides and	REI (Hours) 4	
	capable of being fitted with a s 7. Chemigation systems connect zone, backflow preventer (RPZ point of pesticide introduction. be discharged into a reservoir t break (air gap) between the out of at least twice the inside diam	ystem interlock. ted to public water sys: () or the functional equi As an option to the RP ank prior to pesticide in let end of the fill pipe a heter of the fill pipe.	tems must contain a fun valent in the water supp Z, the water from the pi troduction. There shall nd the top or overflow n	ctional, reduced-pressure ly line upstream from the blic water system should be a complete physical rim of the reservoir tank		
	Start the water pump and sprint starting the injector. Start the ir above. This procedure is necess application is finished, allow th before stopping the system. • End guns must be turned off of provide uniform application an • It is recommended that nozzle and system safety devices be pl	<ul> <li>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 acce 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.</li> <li>End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.</li> <li>It is recommended that nozzles in the immediate area of wells, control panels, chemical supply tanks and system safety devices be plugged to prevent contamination of these areas.</li> </ul>				
	<ul> <li>Do not apply when wind spee</li> <li>Do not apply when system co distribution.</li> <li>Do not allow irrigation water Cleaning the System Thoroughly clean the injection clean-out procedure. Dispose o owner's manual or your local e</li> </ul>	to collect or run-off du system and tank of any f any residues in accord quipment dealer for cle	k or when nozzles do n ring chemigation. fertilizer or chemical r lance with State and Fer anout procedures for you	esidues using a standard deral laws. Consult your pur injection system.		

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## 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 way to reduce drift potential is to apply large droplets (>150 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. 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 CONDI-TIONS!

See Wind, Temperature and Humidity, and Surface Temperature Inversions sections of this label.

#### **Controlling Droplet Size - General Techniques**

**Volume** -Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** -Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHERCAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.

**Nozzle Type** -Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

#### **Controlling Droplet Size - Aircraft**

**Number of Nozzles** -Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.

**Nozzle Orientation** -Orienting nozzles so that the spray is emitted backwards, parallel to the air stream will produce larger droplets than other orientations.

**Nozzle Type** -Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

#### 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.

**Boom Height (ground)** - Setting the boom at the lowest height, which provides uniform coverage, reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

#### 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.

# 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. Donot clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### STORAGE AND DISPOSAL

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

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**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.

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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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 this 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 DuPont at 1-800-441-3637, day or night. **NOTICE TO BUYER**— Purchase of this material does not confer any rights under patents of countries outside of the United States.

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DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

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